



Aaron Meyers, Site Acquisition
c/o New Cingular Wireless, PCS LLC (AT&T)
Centerline Communications, LLC
750 W. Center St., Floor 3
West Bridgewater, MA 02379
Mobile: (774) 420-4202
ameyers@clinellc.com

DATE June 3, 2019

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

**RE: Notice of Exempt Modification // Site Number: CT5416
10 Teresa Road, Beacon Falls, CT 06403(Site Name: Beacon Falls)
N 41.4556919 // W -73.0397989**

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC (“AT&T”) currently maintains six (6) antennas at the 173-foot level of the existing 160-foot Monopole tower at 10 Teresa Road, Beacon Falls, CT 06403. The tower is owned by SBA Communications Corp. The property is owned by John T. Blesse & Annette Tolboe. AT&T now intends to replace three (3) Antennas, three (3) TMAs, six (6) RRUS, adding three (3) Antennas, three (3) TMAs, and one (1) DC/Fiber Junction Box for its LTE upgrade. This equipment would be installed at the 133-foot level of the tower.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 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 Christopher J. Bielik, First Selectman, as well as the tower owner, SBA Communications Corp., and the ground owner, John T. Blesse & Annette Tolboe.

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

Attached to accommodate this filing are construction drawings dated January 12, 2016 by Com Ex Consultants, a structural analysis dated March 26, 2019 by Tower Engineering Solutions, a mount analysis dated January 24, 2018 by Hudson Design Group, LLC, and an Emissions Analysis Report dated March 4, 2019 by Centerline Communications, LLC.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading as shown in the attached structural analysis by Tower Engineering Solutions, dated March 26, 2019.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Meyers', with a long horizontal line extending to the right.

Aaron Meyers, Site Acquisition
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750 W. Center St., Floor 3
West Bridgewater, MA 02379
Mobile: (774) 420-4202
ameyers@centerlincommunications.com

Attachments

cc: Christopher J. Bielik, First Selectman - as elected official
SBA Communications Corp. – as tower owner
John T. Blesse & Annette Tolboe – as property owner
Kevin McDuffie, Chairman – as Planning & Zoning Official

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

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Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

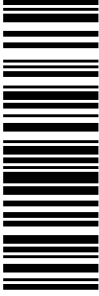


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BROCKTON, MA 02301

UPS Access Point™
BOOST MOBILE 649
649 WARREN AVE
BROCKTON, MA 02301

FOLD HERE

<p>DAVID HORD CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 02379</p> <p>1 LBS</p> <p>1 OF 1</p> <p>SHIP TO: MELANIE BACHMAN, EXECUTIVE DIRECTOR CONNECTICUT SITING COUNCIL 10 FRANKLIN SQUARE NEW BRITAIN CT 06051-2655</p>	<p>CT 067 9-06</p> 	<p>UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 0384 2036</p> 	<p>BILLING: P/P</p>  <p>CS 21.0.21. WINTNVS0 09.04.01./2019</p>
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PROJECT INFORMATION

SCOPE OF WORK: ITEMS TO BE MOUNTED ON THE EXISTING MONOPOLE:

- NEW AT&T ANTENNAS: (800-10965) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: B2/B66A 8843 (AWS/PCS) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: B5/B12 4449 (850/700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T DC ONLY SURGE ARRESTOR: DC6-48-60-18-8C-EV (TOTAL OF 1) WITH (2) DC POWER.
- PROPOSED MOUNT MODS (SEE S-1 SHEET).

ITEMS TO BE MOUNTED AT EQUIPMENT LOCATION:

- SWAP BB WITH 5216.
- ADD 2ND XMU.
- ADD RBS 6630 FOR 5G.

ITEMS TO REMAIN:

- (6) ANTENNAS, (3) RRU'S, (6) TMA'S (2) SURGE ARRESTOR, (6) COAX CABLES, (4) DC POWER & (2) FIBER.

SITE ADDRESS: 10 TERESA ROAD
BEACON FALLS, CT 06403

LATITUDE: 41.4557019 N, 41° 27' 20.49" N

LONGITUDE: 73.0398089 W, 73° 2' 23.27" W

TYPE OF SITE: MONOPOLE/ OUTDOOR EQUIPMENT

STRUCTURE HEIGHT: 160'±

RAD CENTER: 133'±

CURRENT USE: TELECOMMUNICATIONS FACILITY

PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: CT5416

SITE NAME: BEACON FALLS NE

FA CODE: 10070922

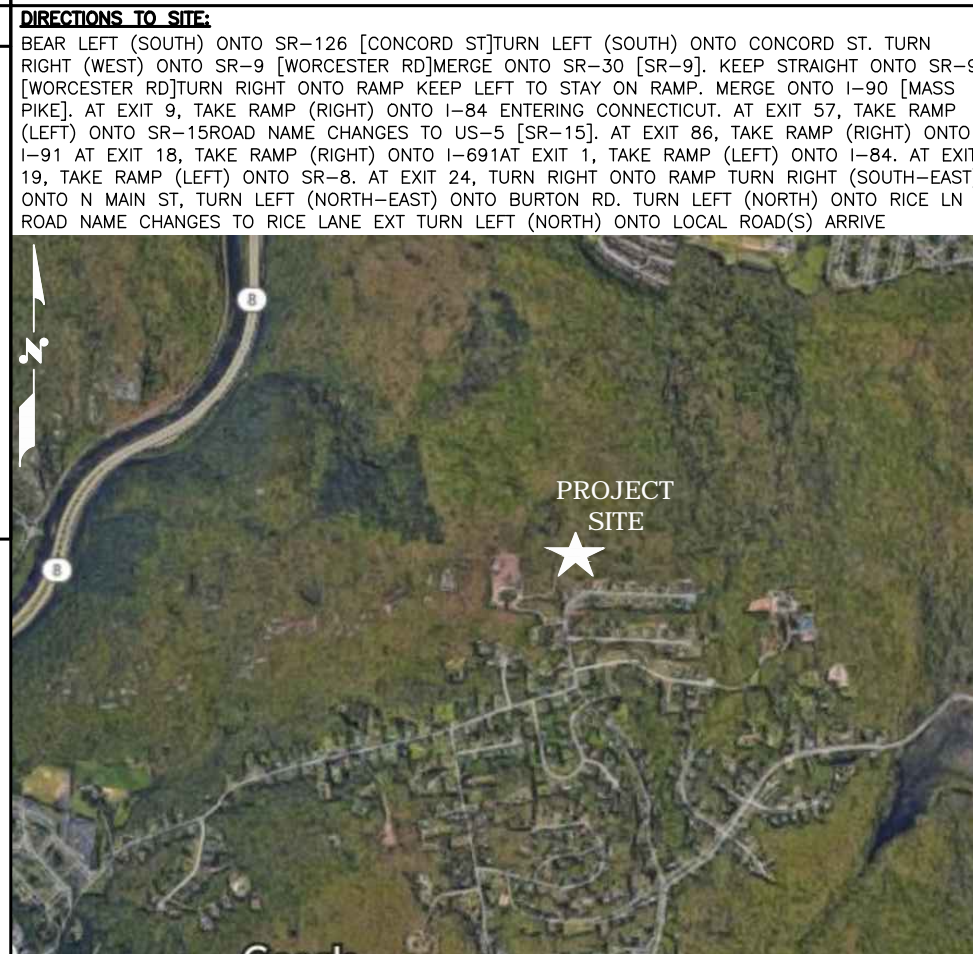
PACE ID: MRCTB033778, MRCTB033788, MRCTB033636, MRCTB033730

PROJECT: LTE 4C_5C 2019 UPGRADE

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLANS	1
A-2	ANTENNA LAYOUTS & ELEVATION	1
A-3	DETAILS	1
SN-1	STRUCTURAL NOTES	1
S-1	MOUNT MODIFICATION DESIGN	1
RF-1	RF PLUMBING DIAGRAM	1
G-1	GROUNDING DETAILS	1

VICINITY MAP



GENERAL NOTES

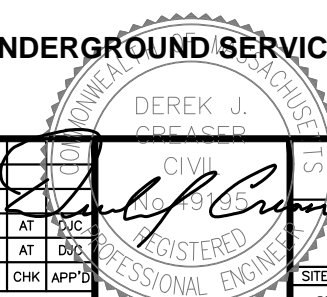
1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

72 HOURS

CALL BEFORE YOU DIG

CALL TOLL FREE 1-800-922-4455
OR CALL 811

UNDERGROUND SERVICE ALERT



<p>45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586</p>	<p>750 WEST CENTER STREET., SUITE #301 WEST BRIDGEWATER, MA 02379</p>	<p>SITE NUMBER: CT5416 SITE NAME: BEACON FALLS NE</p> <p>10 TERESA ROAD BEACON FALLS, CT 06403 NEW HAVEN COUNTY</p>	<p>500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067</p>	<table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>REVISIONS</th> <th>BY</th> <th>CHK</th> <th>APP'D</th> </tr> <tr> <td>1</td> <td>04/19/19</td> <td>ISSUED FOR CONSTRUCTION</td> <td>ET</td> <td>AT</td> <td>DJC</td> </tr> <tr> <td>A</td> <td>01/28/19</td> <td>ISSUED FOR REVIEW</td> <td>GA</td> <td>AT</td> <td>DSB</td> </tr> </table>	NO.	DATE	REVISIONS	BY	CHK	APP'D	1	04/19/19	ISSUED FOR CONSTRUCTION	ET	AT	DJC	A	01/28/19	ISSUED FOR REVIEW	GA	AT	DSB	<p>AT&T</p> <p>TITLE SHEET (LTE 4C-5C)</p>
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<p>SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: GA</p>		<p>SITE NUMBER: CT5416</p>	<p>DRAWING NUMBER: T-1</p>	<p>REV: 1</p>																			

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – CENTERLINE
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – AT&T MOBILITY
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. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
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 SPACE 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 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. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."
17. 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.
18. 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.
19. 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 ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE: IBC 2015 WITH 2018 CT STATE BUILDING CODE AMENDMENTS
 ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (NFPA 70-2017)

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

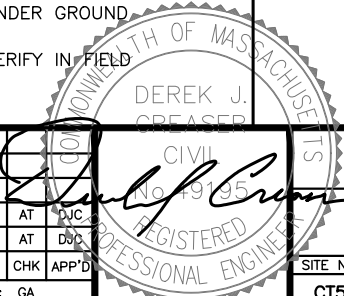
AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G, STRUCTURAL STANDARDS FOR STEEL

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS					
AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



HGD HUDSON Design Group LLC
 45 BEECHWOOD DRIVE
 NORTH ANDOVER, MA 01845
 TEL: (978) 557-5553
 FAX: (978) 336-5586

CENTERLINE COMMUNICATIONS
 750 WEST CENTER STREET., SUITE #301
 WEST BRIDGEWATER, MA 02379

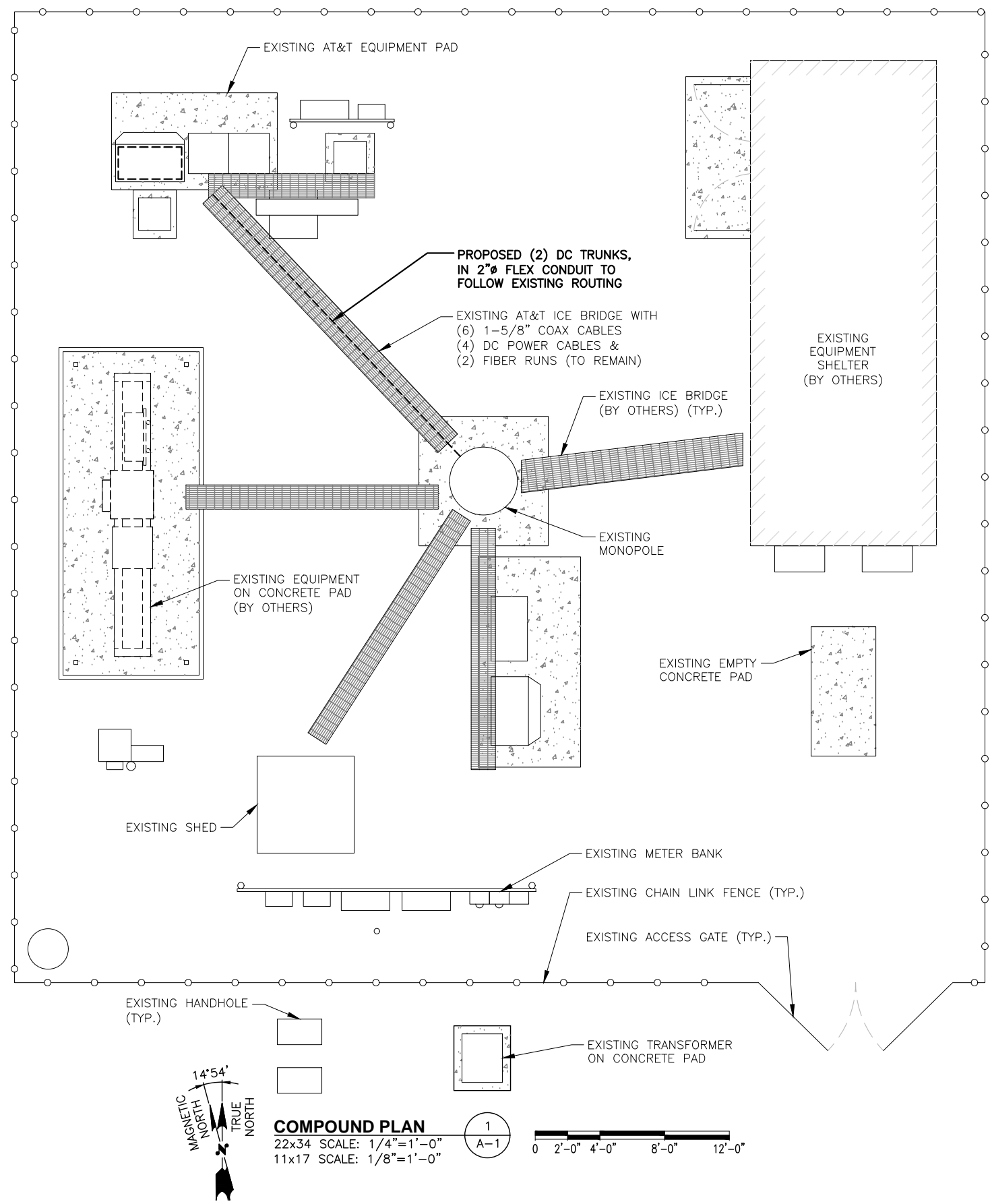
SITE NUMBER: CT5416
 SITE NAME: BEACON FALLS NE
 10 TERESA ROAD
 BEACON FALLS, CT 06403
 NEW HAVEN COUNTY

at&t
 500 ENTERPRISE DRIVE, SUITE 3A
 ROCKY HILL, CT 06067

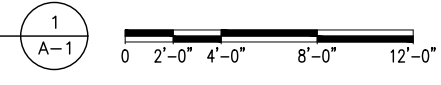
1	04/19/19	ISSUED FOR CONSTRUCTION	ET	AT	DJC
A	01/28/19	ISSUED FOR REVIEW	GA	AT	DSB
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: GA		

AT&T
 GENERAL NOTES
 (LTE 4C-5C)

SITE NUMBER	DRAWING NUMBER	REV
CT5416	GN-1	1



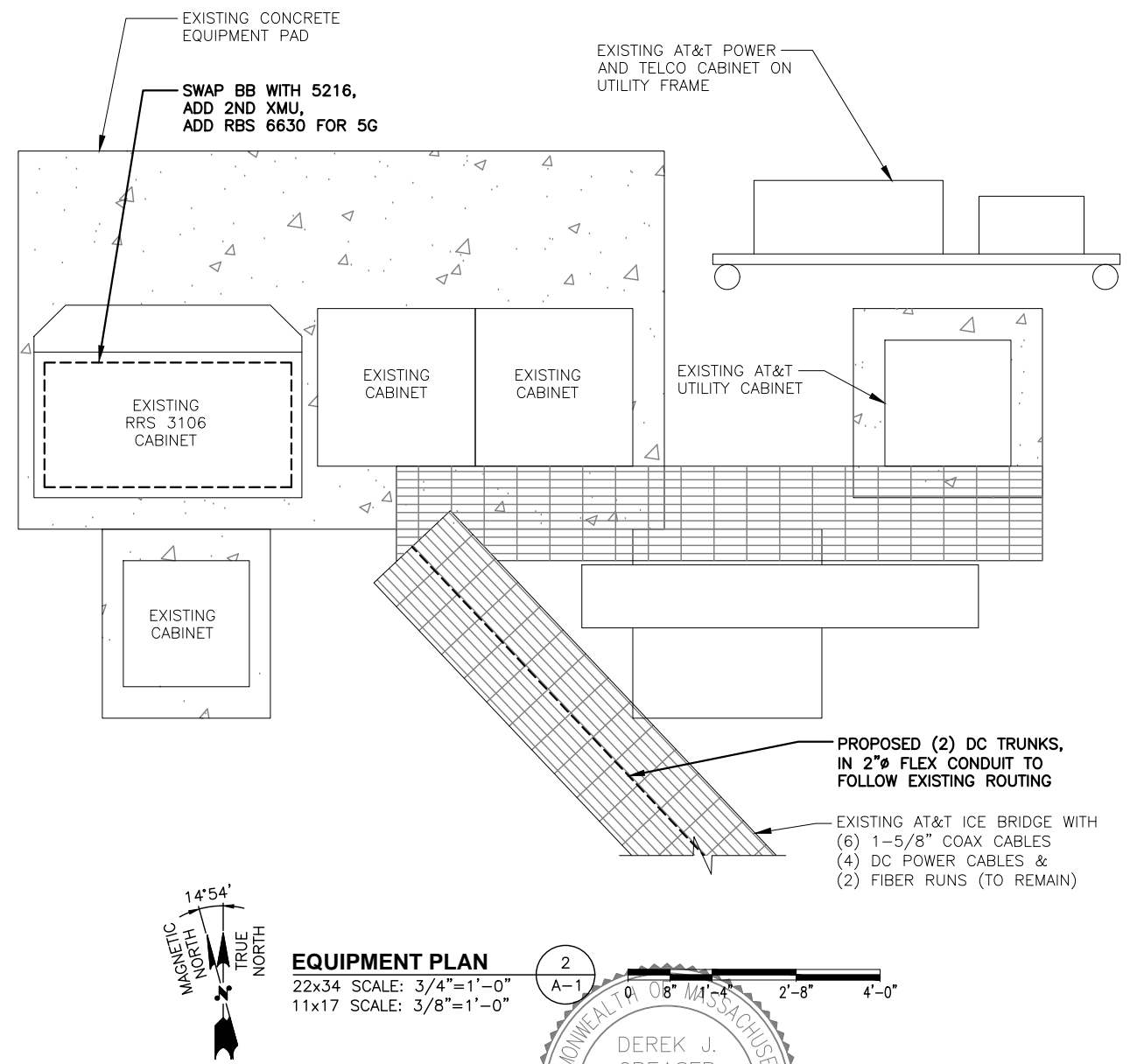
COMPOUND PLAN
 22x34 SCALE: 1/4"=1'-0"
 11x17 SCALE: 1/8"=1'-0"



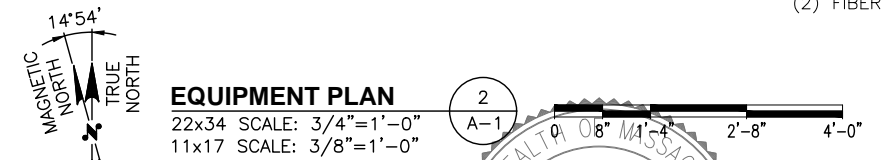
NOTE:
 REFER TO STRUCTURAL ANALYSIS BY: TES, DATED: MARCH 26, 2019, AND MONOPOLE MODIFICATION DESIGN BY: TES, DATED: APRIL, 8, 2019, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

NOTE:
 AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: JANUARY 24, 2019

NOTE:
 REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



EQUIPMENT PLAN
 22x34 SCALE: 3/4"=1'-0"
 11x17 SCALE: 3/8"=1'-0"



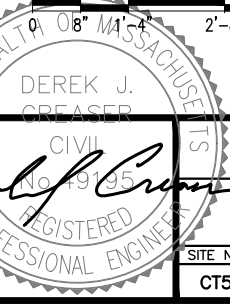
HGD HUDSON Design Group LLC
 45 BEECHWOOD DRIVE
 NORTH ANDOVER, MA 01845
 TEL: (978) 557-5553
 FAX: (978) 336-5586

CENTERLINE COMMUNICATIONS
 750 WEST CENTER STREET., SUITE #301
 WEST BRIDGEWATER, MA 02379

SITE NUMBER: CT5416
 SITE NAME: BEACON FALLS NE
 10 TERESA ROAD
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at&t
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NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: GA		



AT&T
 COMPOUND & EQUIPMENT PLANS
 (LTE 4C-5C)
 SITE NUMBER: CT5416
 DRAWING NUMBER: A-1
 REV: 1

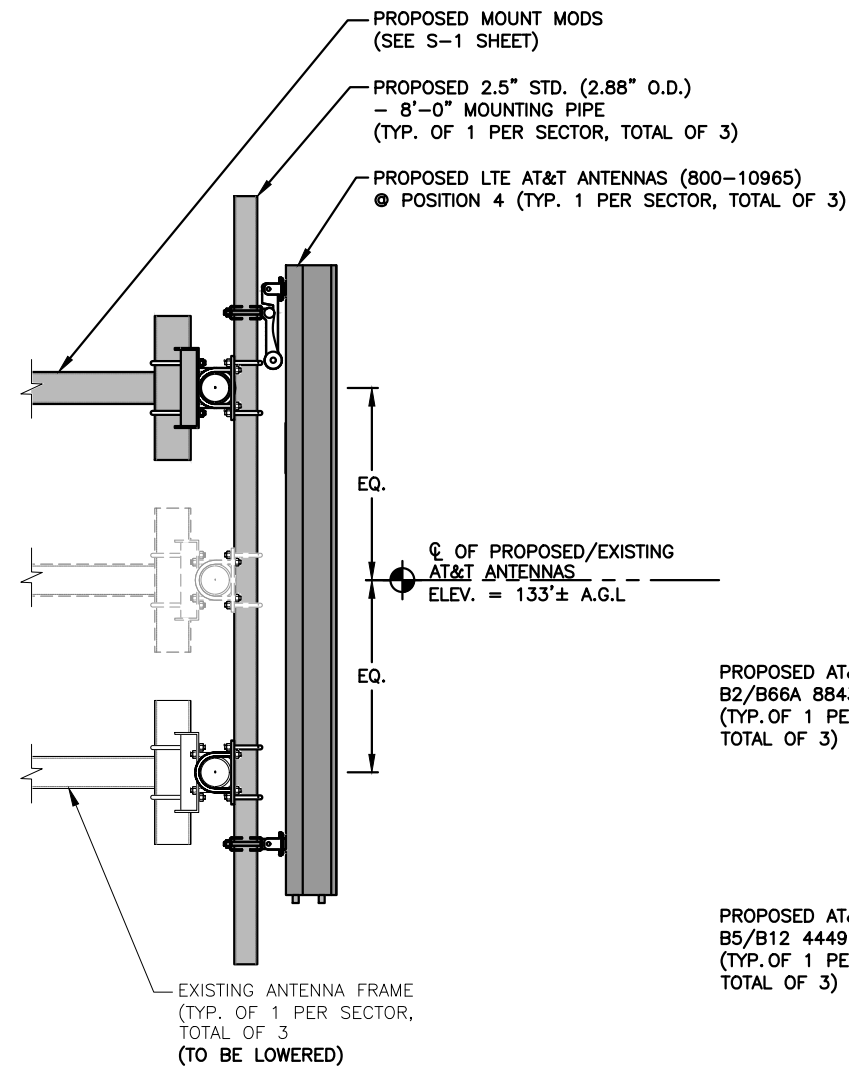
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HUDSON DESIGN GROUP, LLC.
DATED: JANUARY 24, 2019

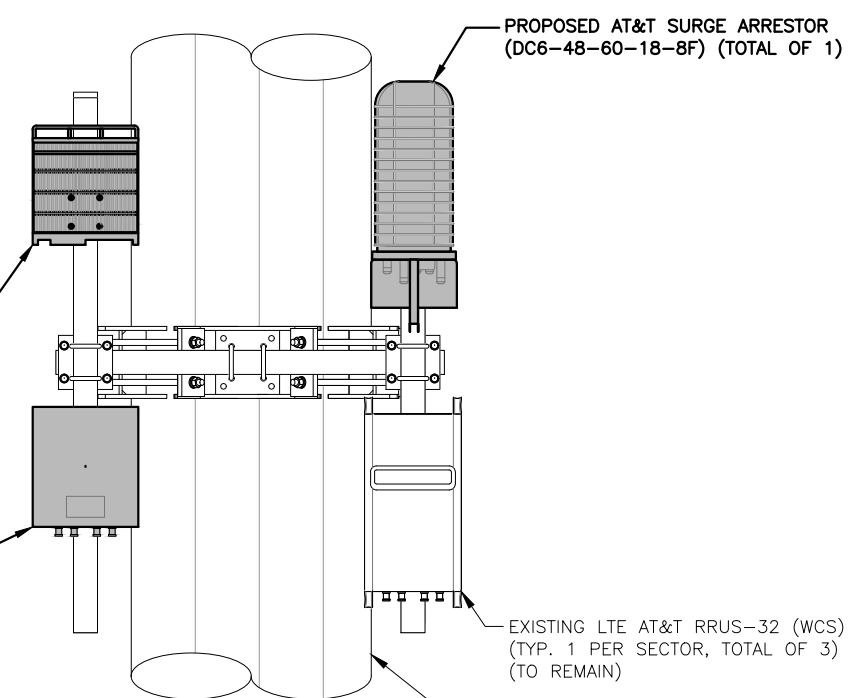
NOTE:
REFER TO STRUCTURAL ANALYSIS BY: TES, DATED: MARCH 26, 2019, AND MONOPOLE MODIFICATION DESIGN BY: TES, DATED: APRIL, 8, 2019, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

ANTENNA SCHEDULE											
SECTOR	EXISTING/PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ϕ HEIGHT	AZIMUTH	TMA/DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	EXISTING	UMTS 850	80010121	54.5x10.3x5.9	$\pm 133'$	50°	(2)(E) LGP21401	-	-	(2)1-5/8 COAX	(E) (1) RAYCAP DC6-48-60-18-8F
A2	EXISTING	LTE WCS/PCS	QS66512-2	72x12x9.6	$\pm 133'$	50°	-	(P)(1) B2/B66A 8843 (PCS/AWS) (E)(1) RRUS-32 (WCS)	14.9x13.2x10.9	-	
A3	-	-	-	-	-	-	-	-	-	-	
A4	PROPOSED	LTE 700 BC/850/AWS	800-10965	78.7x20x6.9	$\pm 133'$	50°	-	(P)(1) B5/B12 4449 (850/700)	14.9x13.2x10.4	-	
B1	EXISTING	UMTS 850	80010121	54.5x10.3x5.9	$\pm 133'$	160°	(2)(E) LGP21401	-	-	(2)1-5/8 COAX	(E) (1) RAYCAP DC6-48-60-18-8F
B2	EXISTING	LTE WCS/PCS	QS66512-2	72x12x9.6	$\pm 133'$	160°	-	(P)(1) B2/B66A 8843 (PCS/AWS) (E)(1) RRUS-32 (WCS)	14.9x13.2x10.9	-	
B3	-	-	-	-	-	-	-	-	-	-	
B4	PROPOSED	LTE 700 BC/850/AWS	800-10965	78.7x20x6.9	$\pm 133'$	160°	-	(P)(1) B5/B12 4449 (850/700)	14.9x13.2x10.4	-	
C1	EXISTING	UMTS 850	80010121	54.5x10.3x5.9	$\pm 133'$	290°	(2)(E) LGP21401	-	-	(2)1-5/8 COAX	(P) (1) RAYCAP DC6-48-60-18-8C-EV
C2	EXISTING	LTE WCS/PCS	OPA-65R-LCUUUU-H8	92.7x14.4x7	$\pm 133'$	290°	-	(P)(1) B2/B66A 8843 (PCS/AWS) (E)(1) RRUS-32 (WCS)	14.9x13.2x10.9	-	
C3	-	-	-	-	-	-	-	-	-	-	
C4	PROPOSED	LTE 700 BC/850/AWS	800-10965	78.7x20x6.9	$\pm 133'$	290°	-	(P)(1) B5/B12 4449 (850/700)	14.9x13.2x10.4	-	

FINAL ANTENNA SCHEDULE 1 A-3
SCALE: N.T.S.



PROPOSED LTE ANTENNA MOUNTING DETAIL 2 A-3
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"



PROPOSED RRH & SURGE ARRESTOR MOUNTING DETAIL 3 A-3
SCALE: N.T.S.

RRU CHART				
QUANTITY	MODEL	L	W	D
3(E)	RRUS-32	27.2"	12.1"	7.0"
3(P)	B2/B66A 8843	14.9"	13.2"	10.9"
3(P)	B5/B12 4449	14.9"	13.2"	10.4"

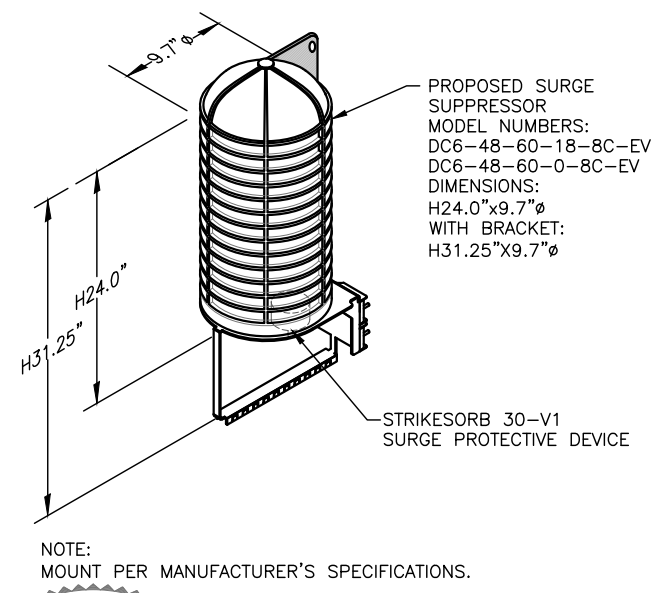
NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

NOTE:
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

PROPOSED RRUS DETAIL 4 A-3
SCALE: N.T.S.



NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

DC SURGE SUPPRESSOR DETAIL 5 A-3
SCALE: N.T.S.

STRUCTURAL NOTES:

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
- STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
- INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
- UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-70 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
- EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
- WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
- ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

SPECIAL INSPECTION CHECKLIST	
BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
N/A	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
N/A	PACKING SLIPS ³
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS ⁴
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION ⁵
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS ⁶
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTES:

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4.
- AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

NOTES:

- ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"Ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
- VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
- CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
- EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

750 WEST CENTER STREET., SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CT5416
SITE NAME: BEACON FALLS NE

10 TERESA ROAD
BEACON FALLS, CT 06403
NEW HAVEN COUNTY

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

1	04/19/19	ISSUED FOR CONSTRUCTION	ET	AT	DJC
A	01/28/19	ISSUED FOR REVIEW	GA	AT	DB
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: GA		

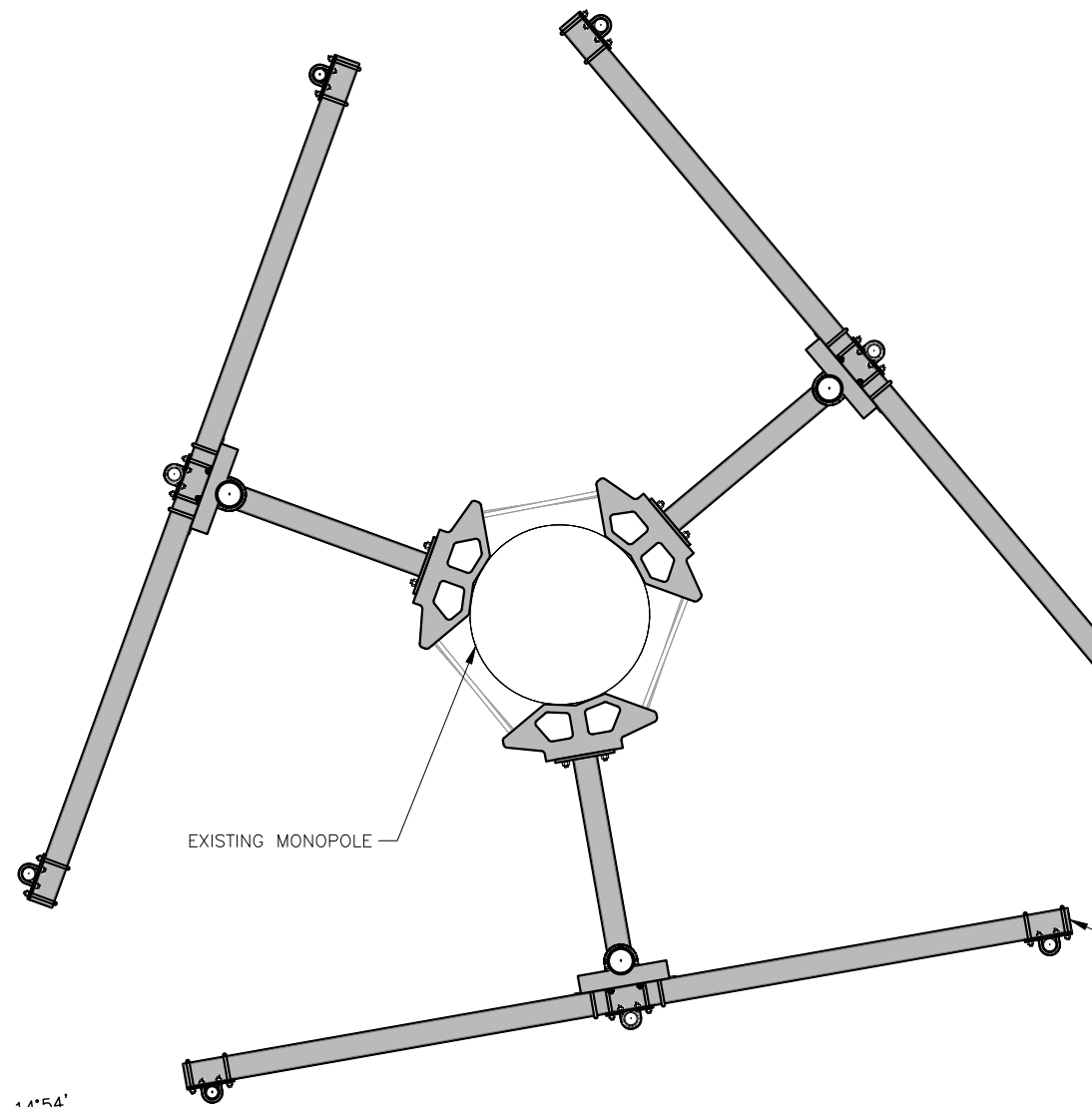
AT&T
STRUCTURAL NOTES
(LTE 4C-5C)

SITE NUMBER	DRAWING NUMBER	REV
CT5416	SN-1	1

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

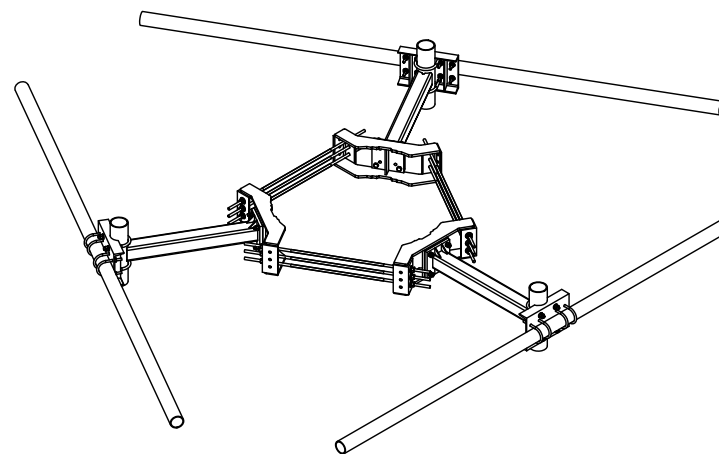
NOTE:
REFER TO STRUCTURAL ANALYSIS BY: TES, DATED: MARCH 26, 2019, AND MONOPOLE MODIFICATION DESIGN BY: TES, DATED: APRIL, 8, 2019, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: JANUARY 24, 2019



PROPOSED MOUNT MODIFICATIONS PLAN
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0"

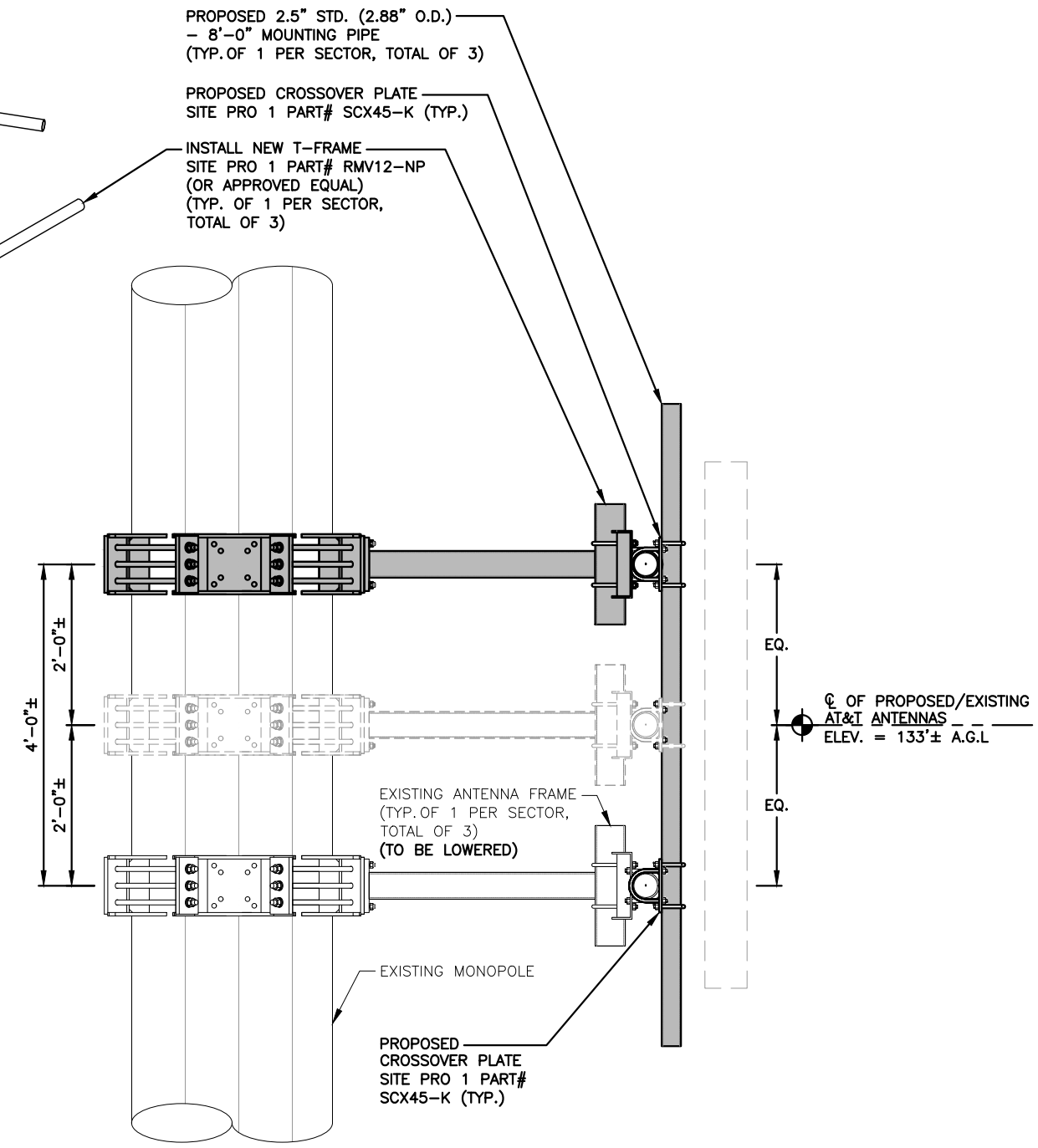
1
S-1



T-FRAME DETAIL
SCALE: N.T.S

2
S-1

- PROPOSED 2.5" STD. (2.88" O.D.) - 8'-0" MOUNTING PIPE (TYP. OF 1 PER SECTOR, TOTAL OF 3)
- PROPOSED CROSSOVER PLATE SITE PRO 1 PART# SCX45-K (TYP.)
- INSTALL NEW T-FRAME SITE PRO 1 PART# RMV12-NP (OR APPROVED EQUAL) (TYP. OF 1 PER SECTOR, TOTAL OF 3)
- EXISTING ANTENNA FRAME (TYP. OF 1 PER SECTOR, (TYQ. TOTAL OF 3 (BELOW) (TO REMAIN))



PROPOSED MOUNT MODIFICATIONS DETAIL
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"

3
S-1



45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
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SITE NUMBER: CT5416
SITE NAME: BEACON FALLS NE

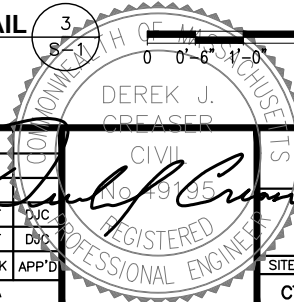
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BEACON FALLS, CT 06403
NEW HAVEN COUNTY



500 ENTERPRISE DRIVE, SUITE 3A
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NO.	DATE	REVISIONS	BY	CHK	APP'D
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A	01/28/19	ISSUED FOR REVIEW	GA	AT	OSB

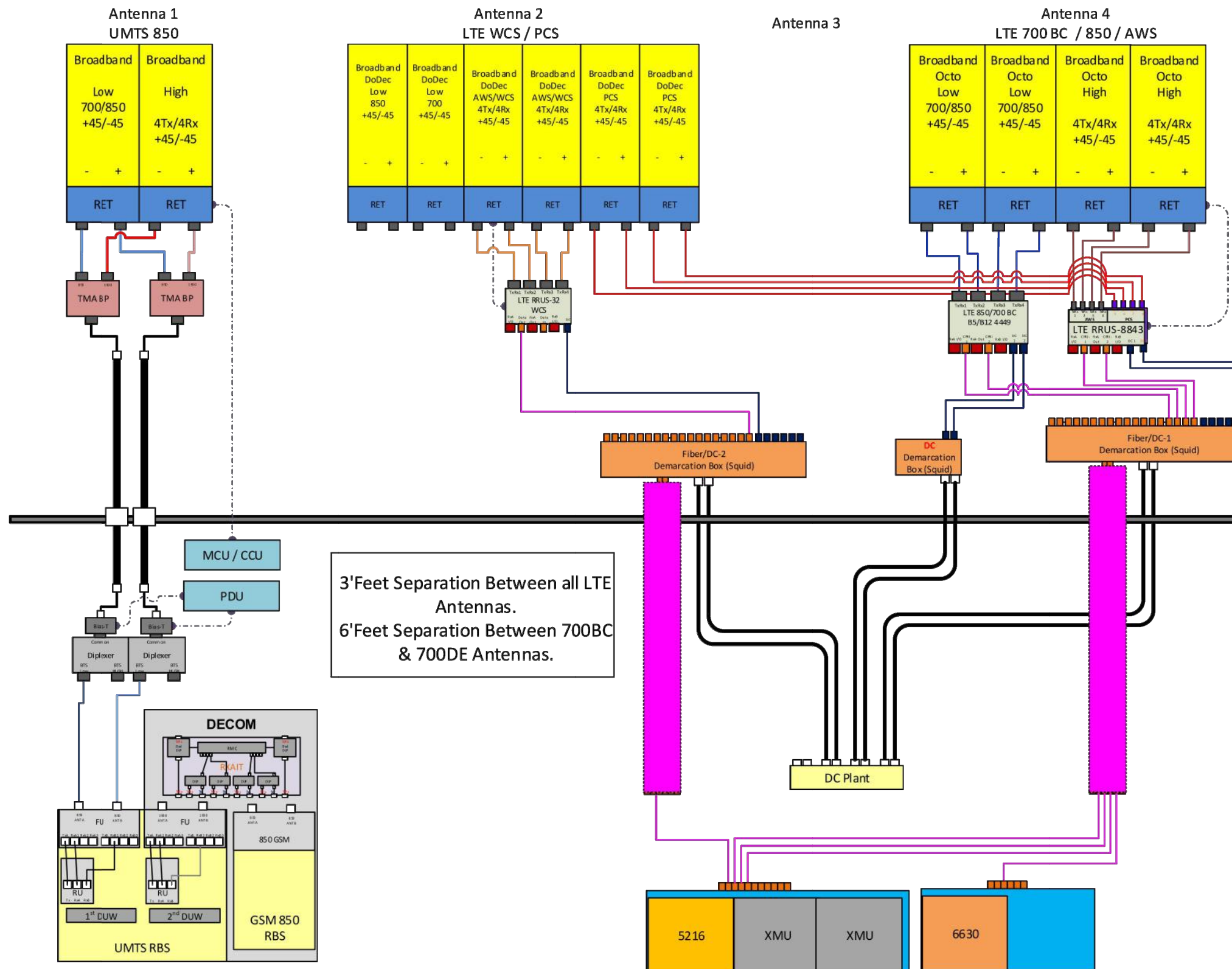
SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: GA



AT&T

MOUNT MODIFICATION DESIGN
(LTE 4C-5C)

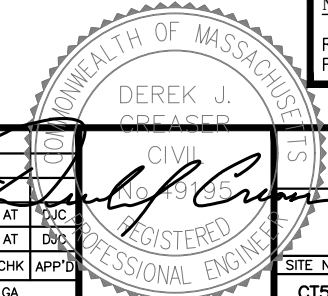
SITE NUMBER	DRAWING NUMBER	REV
CT5416	S-1	1



RF PLUMBING DIAGRAM 1
SCALE: N.T.S. RF-1

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



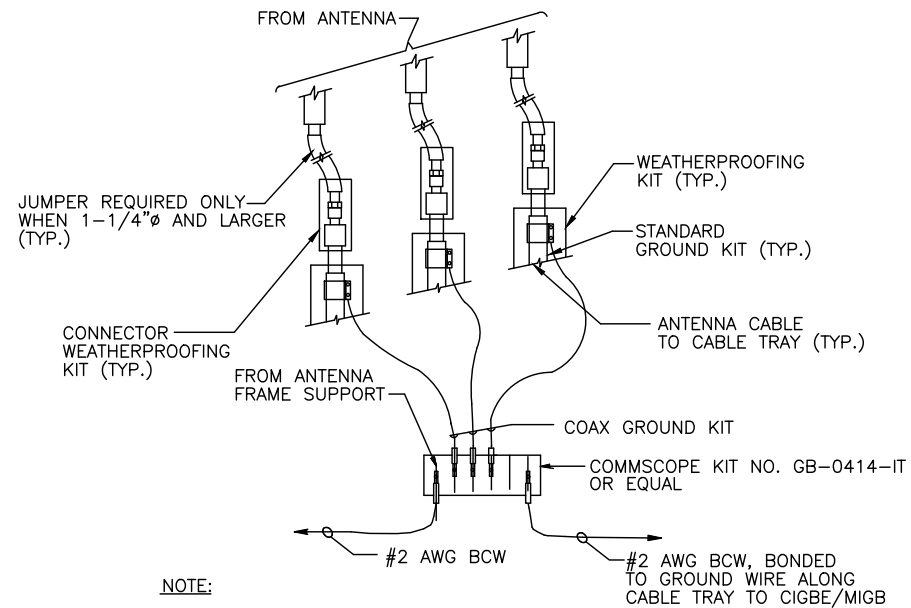
NO.	DATE	REVISIONS	BY	CHK	APP'D
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A	01/28/19	ISSUED FOR REVIEW	GA	AT	OSB

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: GA

AT&T

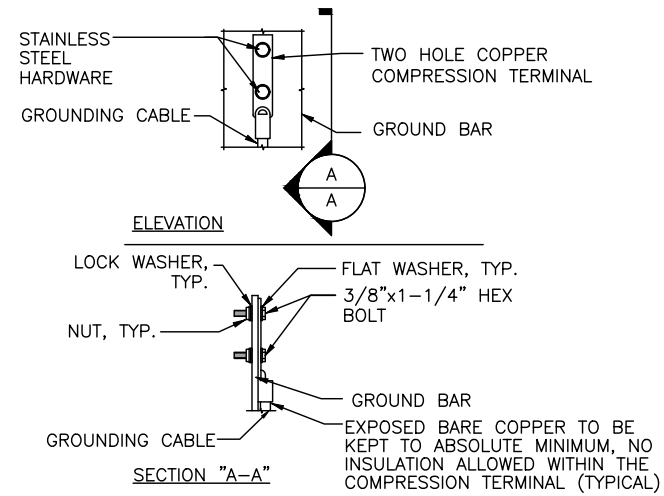
RF PLUMBING DIAGRAM
(LTE 4C-5C)

SITE NUMBER	DRAWING NUMBER	REV
CT5416	RF-1	1



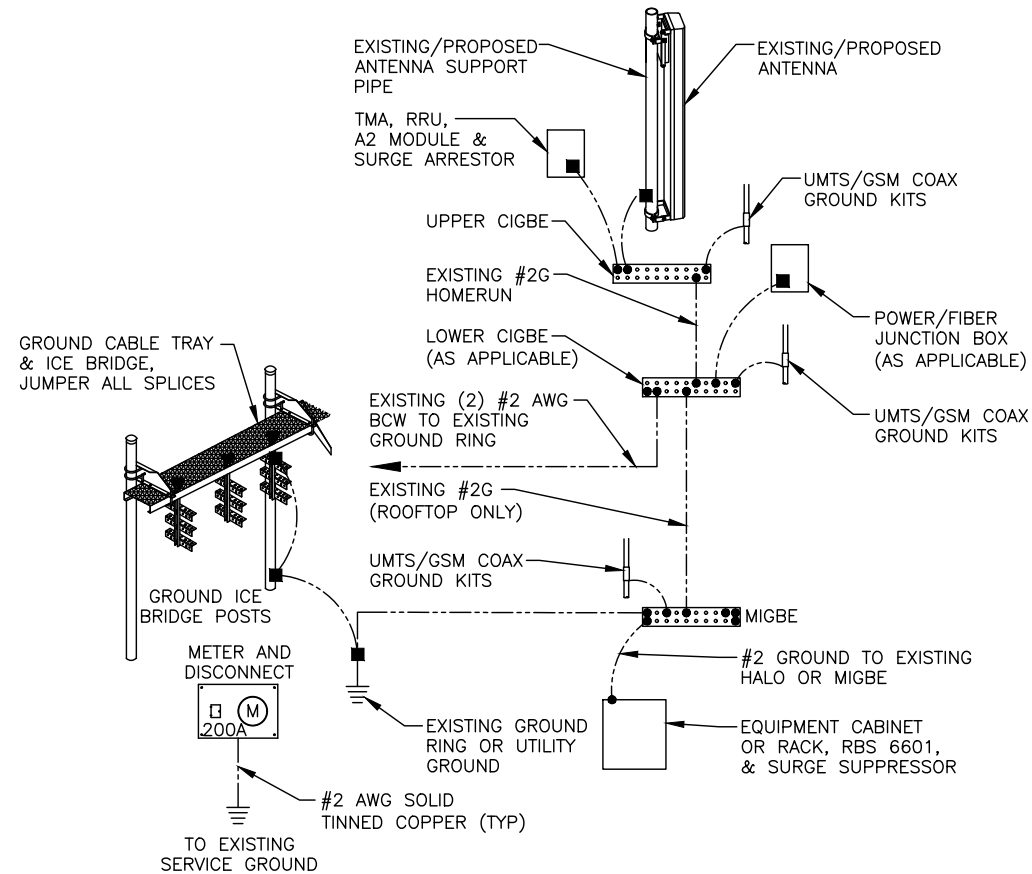
NOTE:
 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

GROUND WIRE TO GROUND BAR CONNECTION DETAIL 1
 SCALE: N.T.S. G-1



NOTE:
 1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATION.
 3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB

TYPICAL GROUND BAR CONNECTION DETAIL 3
 SCALE: N.T.S. G-1



GROUNDING RISER DIAGRAM 2
 SCALE: N.T.S. G-1

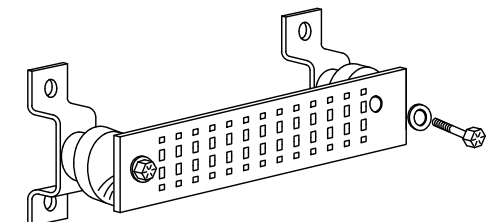
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

- CABLE ENTRY PORTS (HATCH PLATES) (#2)
- GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
- TELCO GROUND BAR
- COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)
- +24V POWER SUPPLY RETURN BAR (#2)
- 48V POWER SUPPLY RETURN BAR (#2)
- RECTIFIER FRAMES.

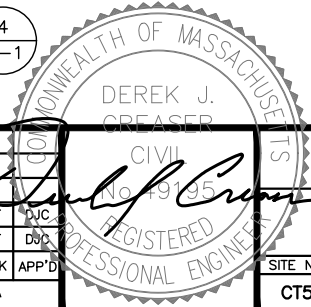
SECTION "A" - SURGE ABSORBERS

- INTERIOR GROUND RING (#2)
- EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)
- METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)
- BUILDING STEEL (IF AVAILABLE) (#2)



GROUND BAR - DETAIL 4
 SCALE: N.T.S. G-1

1	04/19/19	ISSUED FOR CONSTRUCTION	ET	AT	DJC
A	01/28/19	ISSUED FOR REVIEW	GA	AT	DSB
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: GA		



AT&T		
GROUNDING DETAILS (LTE 4C-5C)		
SITE NUMBER	DRAWING NUMBER	REV
CT5416	G-1	1



Tower Engineering Solutions

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

Post-Mod Structural Analysis Report

Existing 160 ft Nudd Corporation Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT02049-S

Customer Site Name: Beacon Falls

Carrier Name: AT&T (App#: 108216, V1)

Carrier Site ID / Name: CT5416 / Beacon Falls NE

Site Location: 60 Rice Lane

Beacon Falls, Connecticut

New Haven County

Latitude: 41.455689

Longitude: -73.039866

Analysis Result:

Max Structural Usage: 98.4% [Pass]

Max Foundation Usage: 72.0% [Pass]

Report Prepared By : Linfeng Chen





Tower Engineering Solutions

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Analysis Result:

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Report Prepared By : Linfeng Chen

Introduction

The purpose of this report is to summarize the analysis results on the 160 ft Nudd Corporation Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any existing modification listed under Sources of Information was assumed completed and was included in this analysis.

The proposed modification by **TES** listed under Sources of Information was considered completed and was included in this analysis.

Sources of Information

Tower Drawings	Tower Drawing prepared by Fred A. Nudd, Project #7342 dated 1/14/00
Foundation Drawing	Foundation Drawing prepared by Fred A. Nudd, Project #7342 dated 1/14/00
Geotechnical Report	Geotechnical Report prepared by SEA Consultants, Ref #99339.02-A dated 8/2/99
Existing Modification	Modification Drawing prepared by O2Wireless Solutions, Job #2230-022 dated 5/23/02 Modification Drawing prepared by FDH, Project #09-04232E S2 dated 1/03/09 Modification Drawing prepared by FDH, Project #12-04772E S3 dated 10/15/13 Modification Drawing prepared by TES, Job #20939 Rev3 dated 9/28/16
Proposed Modification	TES Job # 71100

Analysis Criteria

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

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 125.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 97.0$ mph (3-Sec. Gust)
Basic Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	ANSI/TIA/EIA 222-G / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$SS = 0.192$, $S1 = 0.064$

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft.)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	165.0	1	Andrew - DB222 - Whip	Low Profile Platform	(1) 7/8"	BFFD
2	162.0	6	Decibel - DB846F65ZAXY - Panel		(18) 1 5/8" (1) 1 5/8" Fiber	Verizon
3		9	Andrew - SBNHH-1D65B - Panel			
4		3	Alcatel Lucent - RRH2x90-AWS - RRU			
5		1	Celwave - DB-T1-6Z-8AB-OZ - Dist. Box			
6	152.0	3	RFS - APXVSP18-C-A20 - Panel	Low Profile Platform	(3) 1-1/4" (1) 1-1/4"	Sprint
7		3	ALU - 1900MHz - RRU			
8		3	ALU - 800MHz - Filter			
9		3	ALU - 800 MHz - RRU			
10		4	RFS - ACU-A20-N - RET			
11	150.0	3	RFS - APXVTM14-C-120 - Panel	Platform w Handrail (Commscope MT-195-12) and V-Brace (VSR-MS-8)	(11) 1 5/8" (1) 1 5/8" Fiber (2) 1-1/4" Fiber	T-Mobile
12		3	Alcatel Lucent - TD-RRH8x20-25 - RRU			
13	142.9	3	Ericsson KRY 112 144/1 TMA			
14		3	Ericsson RUS01 B12 - RRU			
15		1	Ericsson RRUS11B12 - RRU			
16		3	Commscope LNX-6515DS-A1M - Panel			
17		1	Ericsson AIR 32 B4A/B2P - Panel			
18		1	Ericsson AIR 21 B4A B12P - Panel			
19		3	Ericsson AIR 3246 B66 - Panel			
20		3	Ericsson AIR 21 B2A/B4P - Panel			
-	133.0	3	Kathrein - 800 10121 - Panel	Low Profile Platform	(6) 1 1/4" (6) 1 5/8" (2) 3/8" Fiber (4) 3/4" DC inside 3" Conduit	AT&T
-		3	Kathrein - 800 10798 - Panel			
-		3	CCI - DTMABP7819VG12A - TMA/TTA			
-		3	Ericsson - RRUS 12 - RRU			
-		3	Ericsson - RRUS 11 - RRU			
-		3	Ericsson - RRU A2 - RRU			
-		3	Ericsson - RRUS 32 - RRU			
-		2	Raycap - DC6-48-60-18-8F - SP			
30	115.0	1	DB222 - Whip	(1) 3 ft. Standoff	(1) 7/8"	BFFD
31	40.0	1	GPS	Standoff	(1) 1/2"	Sprint

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
21	133.0	3	Raycap DC6-48-60-18-8F Junction Box	T-Frames* (3) SitePro 1 P/N RMV12-NP W/ (3) 2-1/2" (2.88" O.D.) Pipe Masts	(6) 1 1/4" (6) 1 5/8" (6) 3/4" DC Power** (2) 3/8" Fiber	AT&T
22		3	Kathrein 800 10121 - Panel			
23		3	Kathrein 800-10965 - Panel			
24		1	Cci TPA-65R-LCUUUU-H8 - Panel			
25		2	Quintel QS66512-2 - Panel			
26		6	Powerwave LGP21401 TMA			
27		3	Ericsson RRUS-32 RRU			
28		3	Ericsson B2/B66A 8843 RRU			
29		3	Ericsson B5/B12 4449 RRU			

*Modified by HUDSON Design, Site No. CT5416 (LTE 4C/5C), Dated 01/24/19.

** (4) 3/4" DC inside 3" Conduit

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

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate	Flange Plate	Reinforce Plate
Max. Usage:	82.0%	61.8%	62.5%	98.4%	98.1%
Pass/Fail	Pass	Pass	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	4351.6	37.7	52.2

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

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.5350 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the structure and its foundation will be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the design ANSI/TIA/EIA 222-G standards under a basic wind speed of 97 mph no ice and 50 mph with 3/4" radial ice after the following proposed modification is successfully completed.

- Proposed modification design drawing by **TES** Job # 71100

Pre-Mod Installation Determination

We have also checked this tower to determine if the proposed AT&T equipment loading can be installed prior to the completion of the required modifications. We ran a reduced wind loading case as required by TIA-322 considering a construction period of no more than 6 months.

The tower and foundations passed, so the Carrier can proceed and install their proposed loading prior to the mods completion. Please be aware that this approval is being provided and is based on the method outlined in TIA-322. This approval is not a blanket approval and there is still a risk that the tower will experience a wind event that cannot be predicted by TIA-322 or our Engineers. In the event of an unforeseen wind event, Tower Engineering Solutions will not be liable nor responsible for damage to the tower or the Carriers equipment. Additionally, the tower cannot go beyond the 6 month construction period without the modifications being completed. If the modifications cannot be completed within 6 months from the completed installation of the Carrier's proposed equipment, TES must be notified immediately for further review.

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 EIA/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 81.97% at 96.0ft

Structure: CT02049-S-SBA
Site Name: Beacon Falls
Height: 160.00 (ft)
Base Elev: 0.000 (ft)

Code: EIA/TIA-222-G
Exposure: B
Gh: 1.1

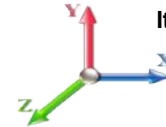
3/26/2019



Page: 1

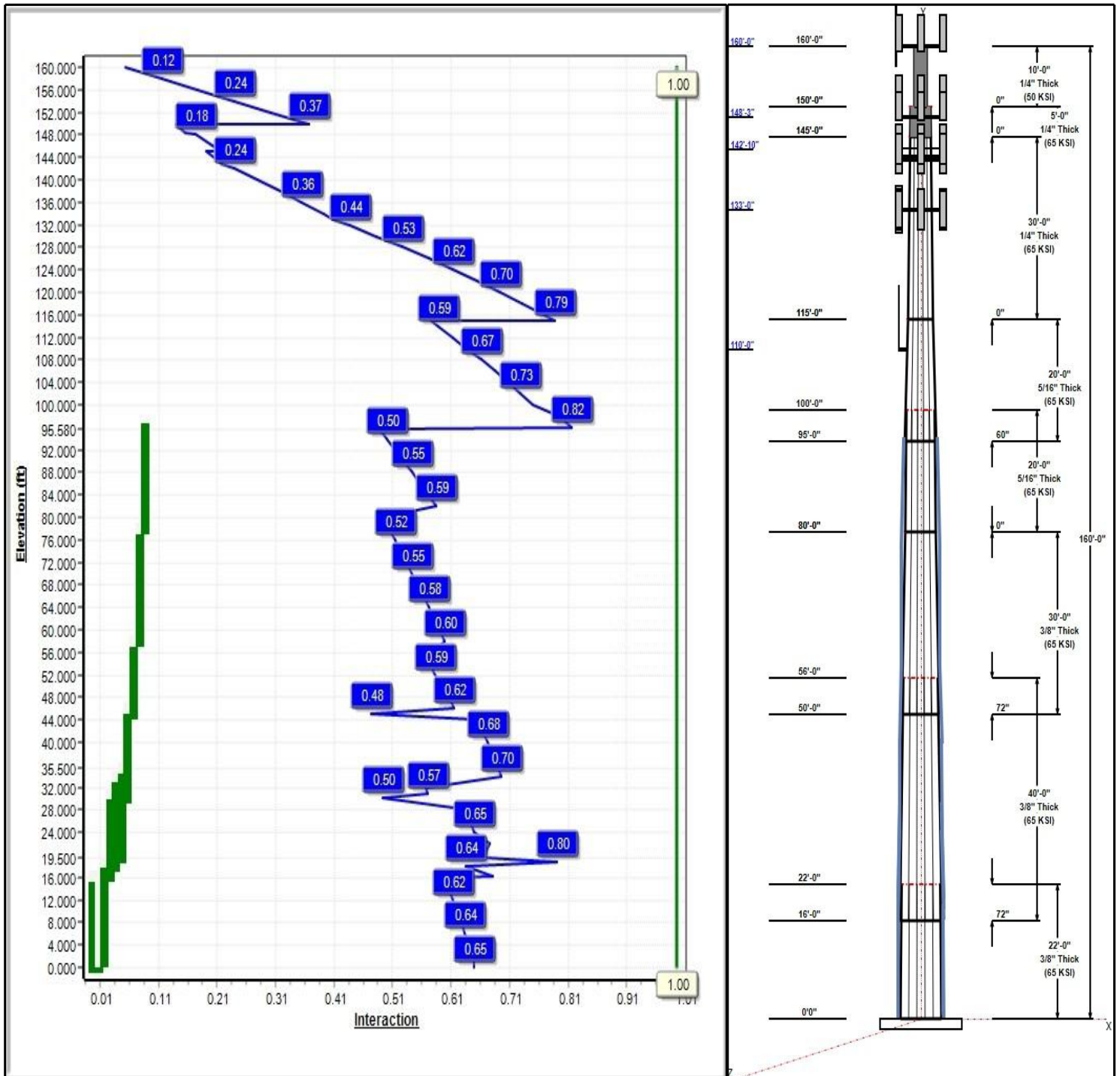
Dead Load Factor: 1.20
 Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 97 mph Wind



Iterations: 28

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Structure: CT02049-S-SBA

Type: Custom
Site Name: Beacon Falls
Height: 160.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 12 Sided
Taper: 0.00000

3/26/2019

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Shaft Properties

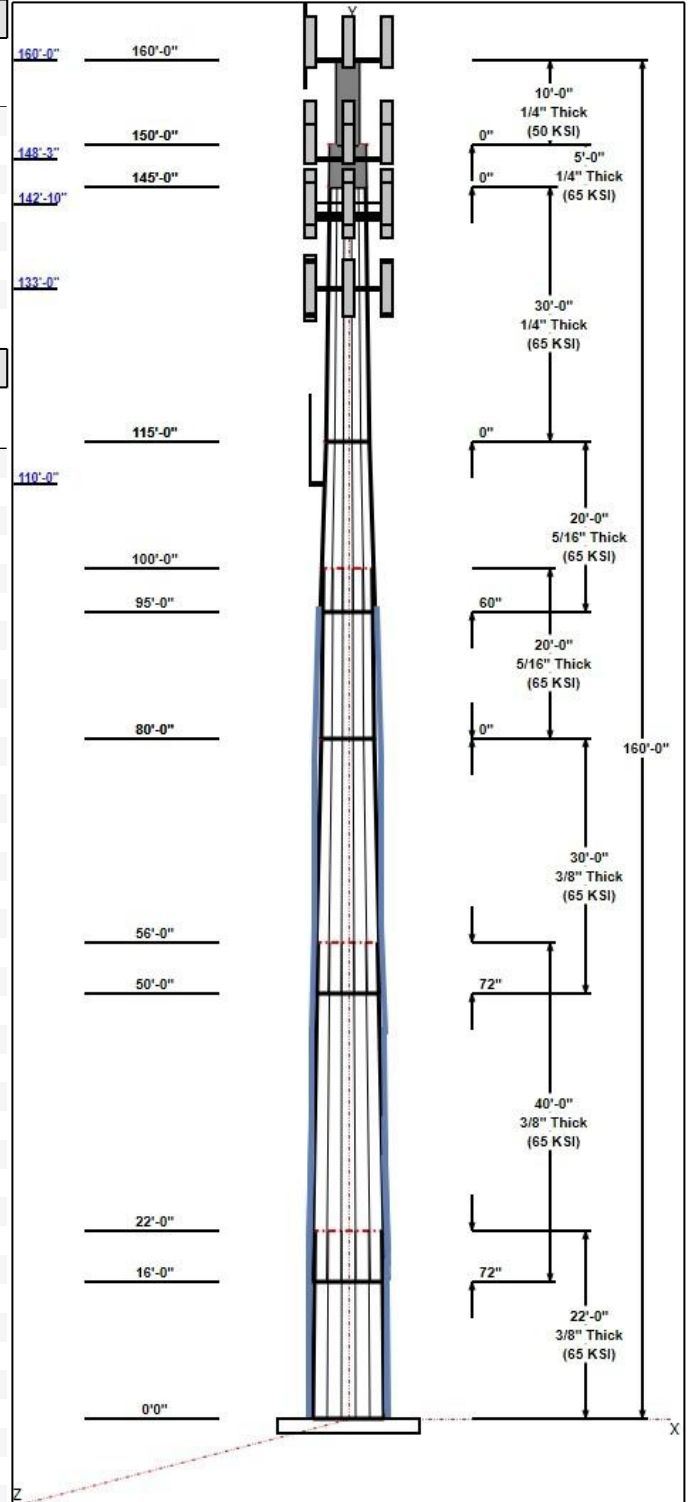
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	22.00	46.11	50.38	0.375		0.19400	65
2	40.00	40.26	48.02	0.375	Slip	0.19400	65
3	30.00	36.35	42.17	0.375	Slip	0.19400	65
4	20.00	32.48	36.35	0.313	Butt	0.19400	65
5	20.00	30.19	34.07	0.313	Slip	0.19400	65
6	30.00	24.38	30.19	0.250	Butt	0.19400	65
7	5.00	24.38	24.38	0.250	Butt	0.19400	65
8	10.00	16.00	16.00	0.250	Butt	0.00000	50

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
160.00	162.00	1	DB222	BFFD
160.00	162.00	6	DB846F65ZAXY	Verizon
160.00	162.00	1	Low Profile Platform	Verizon
160.00	162.00	1	6' Lightning rod	--
160.00	162.00	9	SBNHH-1D65B	Verizon
160.00	162.00	1	DB-T1-6Z-8AB-OZ	Verizon
160.00	162.00	3	RRH2x90-AWS	Verizon
148.30	152.00	3	APXVSPP18-C-A20	Sprint
148.30	150.00	3	APXVTM14-C-120	Sprint
148.30	152.00	3	1900MHz RRH	Sprint
148.30	152.00	3	800 MHz RRH	Sprint
148.30	152.00	3	ALU 800MHz External	Sprint
148.30	150.00	3	TD-RRH8x20-25	Sprint
148.30	152.00	4	ACU-A20-N	Sprint
148.30	148.30	1	Low Profile Platform	Sprint
142.90	143.60	3	Ericsson KRY 112 144/1	T-Mobile
142.90	142.90	3	Ericsson RUS01 B12 -	T-Mobile
142.90	142.90	1	Ericsson RRUS11B12 -	T-Mobile
142.90	142.90	1	Ericsson AIR 32 B4A/B2P	T-Mobile
142.90	142.90	1	Ericsson AIR 21 B4A B12P	T-Mobile
142.90	142.90	3	Ericsson AIR 3246 B66	T-Mobile
142.90	142.90	3	Ericsson AIR 21 B2A/B4P	T-Mobile
142.90	142.90	1	Platform w/ HR & Bracing	T-Mobile
142.90	142.90	3	Commscope	T-Mobile
133.00	133.00	3	Kathrein 800 10121	AT&T
133.00	133.00	3	Kathrein 800-10965	AT&T
133.00	133.00	1	Cci TPA-65R-LCUUUU-H8	AT&T
133.00	133.00	2	Quintel QS66512-2	AT&T
133.00	133.00	2	(3) SitePro 1 P/N	AT&T
133.00	133.00	6	Powerwave LGP21401	AT&T
133.00	133.00	3	Ericsson RRUS-32 RRU	AT&T
133.00	133.00	3	Ericsson B2/B66A 8843	AT&T
133.00	133.00	3	Ericsson B5/B12 4449	AT&T
133.00	133.00	3	Raycap DC6-48-60-18-8F	AT&T
110.00	115.29	1	DB222	BFFD
110.00	110.00	1	3 ft Standoff	BFFD
40.00	40.00	1	GPS	Sprint

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	160.00	Inside	1 5/8" Coax	Verizon



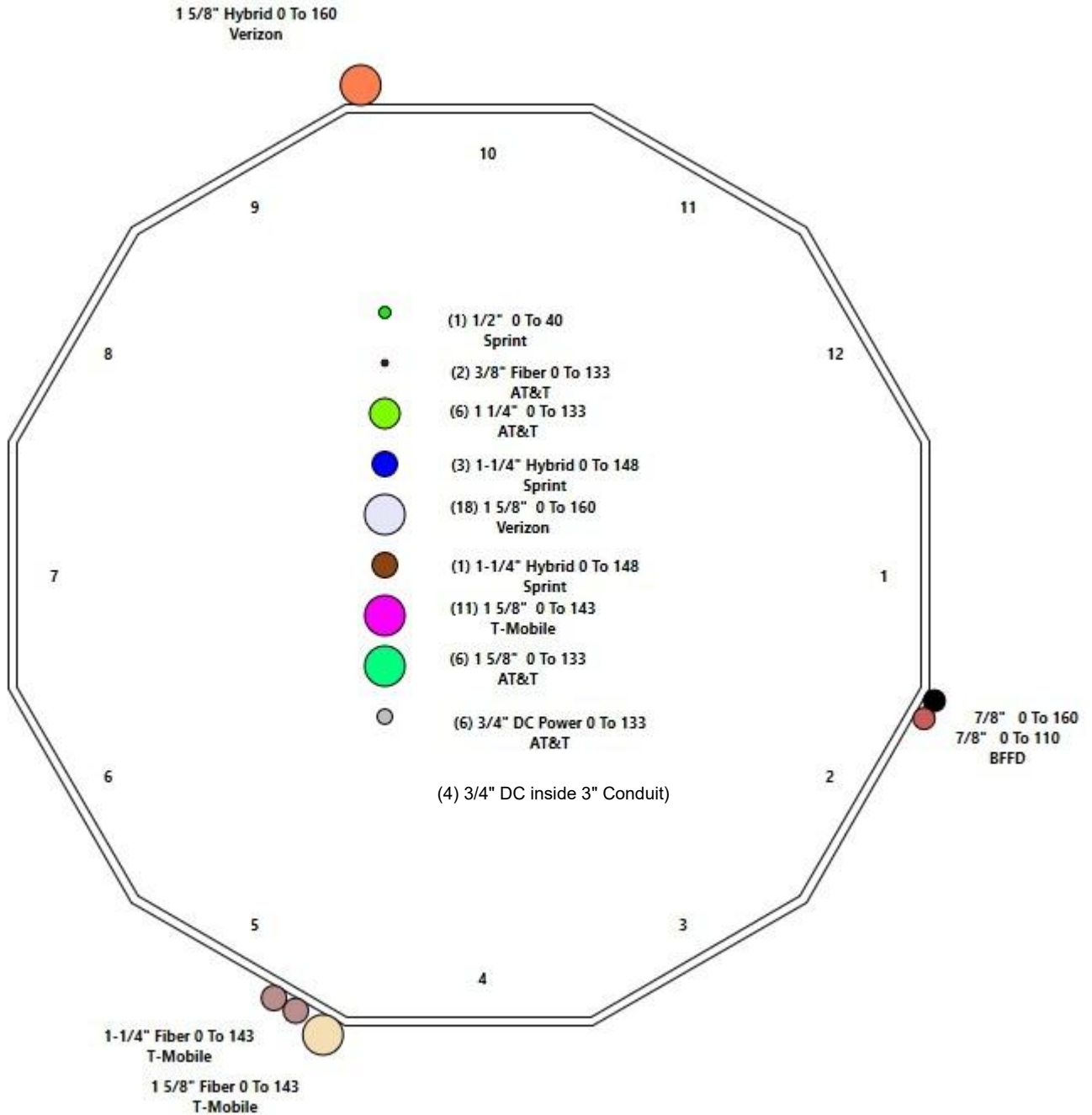
Structure: CT02049-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Beacon Falls
Height: 160.00 (ft)

3/26/2019



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Shaft Properties

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	12	22.000	0.3750	65		0.00	4,327
2	12	40.000	0.3750	65	Slip	72.00	7,193
3	12	30.000	0.3750	65	Slip	72.00	4,794
4	12	20.000	0.3125	65	Flange	0.00	2,335
5	12	20.000	0.3125	65	Slip	60.00	2,179
6	12	30.000	0.2500	65	Flange	0.00	2,221
7	R	5.000	0.2500	65	Flange	0.00	316
8	R	10.000	0.2500	50	Flange	0.00	421
Total Shaft Weight:							23,786

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	50.38	0.00	60.38	19265.63	33.85	134.33	46.11	22.00	55.22	14741.2	30.80	122.9	0.194000
2	48.02	16.00	57.53	16670.65	32.17	128.06	40.26	56.00	48.16	9779.90	26.62	107.3	0.194000
3	42.17	50.00	50.47	11256.46	27.99	112.47	36.35	80.00	43.45	7178.88	23.83	96.95	0.194000
4	36.35	80.00	36.27	6013.63	29.03	116.34	32.48	100.00	32.36	4273.08	25.70	103.9	0.194000
5	34.07	95.00	33.97	4940.86	27.07	109.02	30.19	115.00	30.06	3425.51	23.74	96.61	0.194000
6	30.19	115.0	24.10	2757.64	30.21	120.76	24.38	145.00	19.42	1441.83	23.98	97.50	0.194000
7	24.38	145.0	18.95	1379.54	0.00	97.50	24.38	150.00	18.19	1219.74	0.00	97.50	0.194000
8	16.00	150.0	12.37	383.86	0.00	64.00	16.00	160.00	12.37	383.86	0.00	64.00	0.000000

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Intermediate Connectors		Termination Connectors			
							Spacing (in)	Description	Spacing (in)	Lower Qty	Upper Qty	
0.00	16.25	3	PLT C10x30(1.5" Hole)	65	80	0.00	AJM20&sleeve	20.00	AJM20&sleeve	3.00		
0.00	1.00	3	SOL 2 1/4" William R71	128	150	5.62	5/8" Hollo Bolt	12.00	5/8" Hollo Bolt	3.00	8	
1.00	18.75	3	LNP LP6X100-B-20T	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00		9
16.25	31.00	3	PLT C10x15.3(1.5" Hole)	65	80	0.00	AJM20&sleeve	20.00	AJM20&sleeve	3.00		
18.00	34.00	2	LNP LP6X100-G-20TT	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00	10	10
19.50	35.50	1	LNP LP6X100-G-20TT	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00	10	10
30.00	46.00	3	PLT 6"X1-1/4"(1.25" Hole)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00	8	8
45.16	58.00	3	PLT 7" x 1.25"(1.25"Hole)	65	80	0.00	AJM20&sleeve	12.00	AJM20&sleeve	3.00	13	
58.00	78.00	3	PLT 5.5"x1 1/4"(1.25"hol)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		
78.00	95.58	3	PLT 5.5"x1 1/4"(1.25"hol)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		10

Load Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	160.00	DB222	1	16.00	2.25	1.00	85.75	8.351	1.00	0.00	2.00
2	160.00	DB846F65ZAXY	6	21.00	7.05	0.93	219.92	8.290	0.93	0.00	2.00
3	160.00	Low Profile Platform	1	1200.00	22.00	1.00	2253.91	39.776	1.00	0.00	2.00
4	160.00	6' Lightning rod	1	6.50	0.38	1.00	43.04	1.475	1.00	0.00	2.00
5	160.00	SBNHH-1D65B	9	40.00	8.16	0.81	244.70	9.469	0.81	0.00	2.00
6	160.00	DB-T1-6Z-8AB-0Z	1	44.00	4.80	1.00	188.83	5.680	1.00	0.00	2.00
7	160.00	RRH2x90-AWS	3	44.00	2.66	0.67	105.12	3.959	0.67	0.00	2.00
8	148.30	APXVSPP18-C-A20	3	57.00	8.02	0.83	229.65	10.810	0.83	0.00	3.70
9	148.30	APXVTM14-C-120	3	56.00	6.34	0.76	216.19	7.452	0.77	0.00	1.70
10	148.30	1900MHz RRH	3	44.00	3.80	0.67	153.04	5.188	0.67	0.00	3.70
11	148.30	800 MHz RRH	3	53.00	2.49	0.67	126.88	3.632	0.67	0.00	3.70
12	148.30	ALU 800MHz External Notch Filt	3	8.80	0.78	0.67	26.42	1.426	0.67	0.00	3.70
13	148.30	TD-RRH8x20-25	3	70.00	4.05	0.67	180.31	4.862	0.67	0.00	1.70
14	148.30	ACU-A20-N	4	1.00	0.14	0.67	5.29	0.436	0.67	0.00	3.70
15	148.30	Low Profile Platform	1	1200.00	17.50	1.00	2245.94	31.533	1.00	0.00	0.00
16	142.90	Ericsson KRY 112 144/1 TMA	3	11.00	0.41	0.70	21.73	0.883	0.70	0.00	0.70
17	142.90	Ericsson RUS01 B12 - RRU	3	51.00	2.52	0.67	136.99	3.517	0.67	0.00	0.00
18	142.90	Ericsson RRUS11B12 - RRU	1	51.00	2.57	0.67	116.90	3.213	0.67	0.00	0.00
19	142.90	Ericsson AIR 32 B4A/B2P	1	105.80	6.51	0.87	289.12	7.684	0.87	0.00	0.00
20	142.90	Ericsson AIR 21 B4A B12P	1	126.00	11.54	0.89	409.66	13.190	0.89	0.00	0.00
21	142.90	Ericsson AIR 3246 B66	3	180.00	7.94	0.83	380.58	9.115	0.83	0.00	0.00
22	142.90	Ericsson AIR 21 B2A/B4P	3	91.50	6.09	0.86	259.41	7.182	0.86	0.00	0.00
23	142.90	Platform w/ HR & Bracing	1	2246.00	51.70	1.00	5366.63	89.772	1.00	0.00	0.00
24	142.90	Commscope LNX-6515DS-A1M	3	50.30	11.47	0.80	281.03	14.721	0.80	0.00	0.00
25	133.00	Kathrein 800 10121	3	46.30	5.15	0.79	159.80	7.232	0.79	0.00	0.00
26	133.00	Kathrein 800-10965	3	108.60	13.81	0.71	402.66	15.371	0.71	0.00	0.00
27	133.00	Cci TPA-65R-LCUUUU-H8	1	105.00	12.75	0.79	383.29	14.336	0.79	0.00	0.00
28	133.00	Quintel QS66512-2	2	111.00	8.13	0.92	335.10	9.413	0.92	0.00	0.00
29	133.00	(3) SitePro 1 P/N RMV12-NP W/3	2	1357.77	21.34	1.00	2668.88	47.834	1.00	0.00	0.00
30	133.00	Powerwave LGP21401 TMA	6	14.10	1.29	0.67	38.80	2.116	0.67	0.00	0.00
31	133.00	Ericsson RRUS-32 RRU	3	77.00	3.87	0.67	188.95	4.096	0.67	0.00	0.00
32	133.00	Ericsson B2/B66A 8843 RRU	3	72.00	1.64	0.67	118.28	2.131	0.67	0.00	0.00
33	133.00	Ericsson B5/B12 4449 RRU	3	71.00	1.97	0.67	123.74	2.511	0.67	0.00	0.00
34	133.00	Raycap DC6-48-60-18-8F Junction	3	31.80	0.92	1.00	92.89	1.353	1.00	0.00	0.00
35	110.00	DB222	1	16.00	2.65	1.00	83.19	9.571	1.00	0.00	5.29
36	110.00	3 ft Standoff	1	40.00	2.63	1.00	117.83	8.416	1.00	0.00	0.00
37	40.00	GPS	1	10.00	1.00	1.00	35.69	1.624	1.00	0.00	0.00
Totals:			96	12,048.34			31,014.60				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	160.00	(18) 1 5/8" Coax	0.00	Inside
0.00	160.00	(1) 1 5/8" Hybrid	2.00	Outside
0.00	160.00	(1) 7/8" Coax	0.00	Outside
0.00	148.30	(1) 1-1/4" Hybrid	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
0.00	148.30	(3) 1-1/4" Hybrid		0.00		Inside					
0.00	142.90	(11) 1 5/8" Coax		0.00		Inside					
0.00	142.90	(1) 1 5/8" Fiber		2.00		Outside					
0.00	142.90	(2) 1-1/4" Fiber		0.00		Outside					
0.00	133.00	(6) 1 1/4" Coax		0.00		Inside					
0.00	133.00	(6) 1 5/8" Coax		0.00		Inside					
0.00	133.00	(6) 3/4" DC Power		0.00		Inside					
0.00	133.00	(2) 3/8" Fiber		0.00		Inside					
0.00	110.00	(1) 7/8" Coax		0.00		Outside					
0.00	98.00	(3) 1.25" Reinforcing plate		1.25		Outside					
0.00	40.00	(1) 1/2" Coax		0.00		Inside					
0.00	32.00	(3) 1.25" Reinforcing plate		2.50		Outside					

Shaft Section Properties

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 8

Increment Length: 2 (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	RB1 RB2	0.3750	50.375	60.375	19265.6	33.85	134.33	65	68	0.0	38.70	15403.1	15403.1	
1.00	RT2 RB3	0.3750	50.181	60.141	19042.2	33.71	133.82	65	68	205.0	44.46	15013.1	15013.1	151.2
2.00		0.3750	49.987	59.906	18820.6	33.57	133.30	65	68	204.2	44.46	14901.4	14901.4	151.2
4.00		0.3750	49.599	59.438	18382.5	33.30	132.26	65	68	406.1	44.46	14679.4	14679.4	302.5
6.00		0.3750	49.211	58.969	17951.2	33.02	131.23	65	69	402.9	44.46	14458.9	14458.9	302.5
8.00		0.3750	48.823	58.501	17526.7	32.74	130.19	65	69	399.7	44.46	14240.2	14240.2	302.5
10.00		0.3750	48.435	58.032	17109.0	32.46	129.16	65	69	396.5	44.46	14023.1	14023.1	302.5
12.00		0.3750	48.047	57.564	16698.0	32.19	128.13	65	70	393.3	44.46	13807.7	13807.7	302.5
14.00		0.3750	47.659	57.095	16293.5	31.91	127.09	65	70	390.2	44.46	13594.0	13594.0	302.5
16.00	Bot - Section 2	0.3750	47.271	56.627	15895.7	31.63	126.06	65	70	387.0	44.46	13381.9	13381.9	302.5
16.25	RT1 RB4	0.3750	47.222	56.568	15846.5	31.60	125.93	65	70	97.1	31.47	9886.3	9886.3	26.8
18.00	RB5	0.3750	46.883	56.158	15504.4	31.36	125.02	65	71	676.7	43.47	15091.1	11213.6	259.0
18.75	RT3	0.3750	46.737	55.983	15359.4	31.25	124.63	65	71	288.5	25.47	9684.9	5724.4	65.0
19.50	RB6	0.3750	46.592	55.807	15215.2	31.15	124.25	65	71	287.6	31.47	9639.7	9639.7	80.4
20.00		0.3750	46.495	55.690	15119.6	31.08	123.99	65	71	191.2	31.47	9602.0	9602.0	53.6
22.00	Top - Section 1	0.3750	46.857	56.127	15478.5	31.34	124.95	65	71	761.0	31.47	9452.1	9452.1	214.3
24.00		0.3750	46.469	55.659	15094.1	31.06	123.92	65	71	380.4	31.47	9303.4	9303.4	214.3
26.00		0.3750	46.081	55.190	14716.1	30.78	122.88	65	71	377.2	31.47	9155.8	9155.8	214.3
28.00		0.3750	45.693	54.721	14344.5	30.51	121.85	65	71	374.0	31.47	9009.5	9009.5	214.3
30.00	RB7	0.3750	45.305	54.253	13979.2	30.23	120.81	65	72	370.8	53.97	14995.2	14995.2	367.4
31.00	RT4	0.3750	45.111	54.019	13798.9	30.09	120.30	65	72	184.2	40.50	10892.0	10892.0	137.8
32.00		0.3750	44.917	53.784	13620.2	29.95	119.78	65	72	183.4	40.50	10801.3	10801.3	137.8
34.00	RT5	0.3750	44.529	53.316	13267.3	29.67	118.74	65	72	364.4	28.50	8669.2	5940.9	194.0
35.50	RT6	0.3750	44.238	52.965	13006.7	29.47	117.97	65	73	271.2	22.50	5854.7	5854.7	114.8
36.00		0.3750	44.141	52.847	12920.6	29.40	117.71	65	73	90.0	22.50	5829.9	5829.9	38.3
38.00		0.3750	43.753	52.379	12580.0	29.12	116.67	65	73	358.1	22.50	5731.3	5731.3	153.1
40.00		0.3750	43.365	51.910	12245.5	28.84	115.64	65	73	354.9	22.50	5633.5	5633.5	153.1
42.00		0.3750	42.977	51.442	11916.9	28.56	114.61	65	74	351.7	22.50	5536.5	5536.5	153.1
44.00		0.3750	42.589	50.973	11594.2	28.29	113.57	65	74	348.5	22.50	5440.4	5440.4	153.1
45.16	RB8	0.3750	42.364	50.702	11409.8	28.13	112.97	65	74	200.7	48.75	11681.9	11681.9	192.4
46.00	RT7	0.3750	42.201	50.505	11277.5	28.01	112.54	65	74	144.6	26.25	6250.3	6250.3	75.0
48.00		0.3750	41.813	50.036	10966.5	27.73	111.50	65	74	342.1	26.25	6140.1	6140.1	178.6
50.00	Bot - Section 3	0.3750	41.425	49.568	10661.4	27.46	110.47	65	75	338.9	26.25	6031.0	6031.0	178.6
52.00		0.3750	41.037	49.099	10361.9	27.18	109.43	65	75	677.6	26.25	6132.8	6132.8	178.6
54.00		0.3750	40.649	48.631	10068.1	26.90	108.40	65	75	671.3	26.25	6023.7	6023.7	178.6
56.00	Top - Section 2	0.3750	41.011	49.068	10342.0	27.16	109.36	65	75	664.9	26.25	5915.6	5915.6	178.6
58.00	RT8 RB9	0.3750	40.623	48.599	10048.6	26.88	108.33	65	75	332.3	20.63	4547.7	4547.7	140.4
60.00		0.3750	40.235	48.131	9760.8	26.61	107.29	65	76	329.2	20.63	4464.3	4464.3	140.4
62.00		0.3750	39.847	47.662	9478.5	26.33	106.26	65	76	326.0	20.63	4381.7	4381.7	140.4
64.00		0.3750	39.459	47.194	9201.7	26.05	105.22	65	76	322.8	20.63	4299.9	4299.9	140.4
66.00		0.3750	39.071	46.725	8930.4	25.77	104.19	65	77	319.6	20.63	4218.8	4218.8	140.4
68.00		0.3750	38.683	46.257	8664.5	25.50	103.15	65	77	316.4	20.63	4138.5	4138.5	140.4
70.00		0.3750	38.295	45.788	8403.8	25.22	102.12	65	77	313.2	20.63	4059.0	4059.0	140.4
72.00		0.3750	37.907	45.320	8148.5	24.94	101.09	65	78	310.0	20.63	3980.3	3980.3	140.4
74.00		0.3750	37.519	44.851	7898.4	24.66	100.05	65	78	306.8	20.63	3902.4	3902.4	140.4
76.00		0.3750	37.131	44.383	7653.5	24.39	99.02	65	78	303.6	20.63	3825.2	3825.2	140.4
78.00	RT9 RB10	0.3750	36.743	43.914	7413.6	24.11	97.98	65	78	300.5	20.63	3748.8	3748.8	140.4
80.00	Top - Section 3	0.3750	36.355	43.446	7178.9	23.83	96.95	65	79	297.3	20.63	3673.2	3673.2	140.4
80.00	Bot - Section 4	0.3125	36.355	36.268	6013.6	28.60	116.34	65	73					
82.00		0.3125	35.967	35.877	5821.5	28.70	115.09	65	73	245.5	20.63	3598.3	3598.3	140.4

Increment Length: 2 (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)
84.00		0.3125	35.579	35.487	5633.5	28.36	113.85	65	74	242.8	20.63	3524.2	3524.2	140.4
86.00		0.3125	35.191	35.096	5449.6	28.03	112.61	65	74	240.2	20.63	3451.0	3451.0	140.4
88.00		0.3125	34.803	34.706	5269.8	27.70	111.37	65	75	237.5	20.63	3378.4	3378.4	140.4
90.00		0.3125	34.415	34.316	5093.9	27.37	110.13	65	75	234.9	20.63	3306.7	3306.7	140.4
92.00		0.3125	34.027	33.925	4922.0	27.03	108.89	65	75	232.2	20.63	3235.7	3235.7	140.4
94.00		0.3125	33.639	33.535	4754.0	26.70	107.64	65	76	229.6	20.63	3165.5	3165.5	140.4
95.00	Bot - Section 5	0.3125	33.445	33.340	4671.5	26.53	107.02	65	76	113.8	20.63	3130.7	3130.7	70.2
95.58	RT10	0.3125	33.332	33.226	4624.0	26.44	106.66	65	76	132.6	20.63	3223.1	3223.1	40.7
96.00		0.3125	33.251	33.144	4589.9	26.37	106.40	65	76	95.8				
98.00		0.3125	32.863	32.754	4429.6	26.03	105.16	65	76	452.8				
100.00	Top - Section 4	0.3125	33.100	32.992	4527.1	26.24	105.92	65	76	447.4				
102.00		0.3125	32.712	32.602	4368.2	25.90	104.68	65	76	223.2				
104.00		0.3125	32.324	32.212	4213.2	25.57	103.44	65	77	220.5				
106.00		0.3125	31.936	31.821	4061.8	25.24	102.20	65	77	217.9				
108.00		0.3125	31.548	31.431	3914.1	24.91	100.95	65	78	215.2				
110.00		0.3125	31.160	31.040	3770.1	24.57	99.71	65	78	212.6				
112.00		0.3125	30.772	30.650	3629.6	24.24	98.47	65	78	209.9				
114.00		0.3125	30.384	30.259	3492.7	23.91	97.23	65	79	207.3				
115.00	Top - Section 5	0.3125	30.190	30.064	3425.5	23.74	96.61	65	79	102.6				
115.00	Bot - Section 6	0.2500	30.190	24.102	2757.6	29.68	120.76	65	72					
116.00		0.2500	29.996	23.946	2704.4	30.01	119.98	65	72	81.7				
118.00		0.2500	29.608	23.633	2599.9	29.59	118.43	65	72	161.9				
120.00		0.2500	29.220	23.321	2498.2	29.17	116.88	65	73	159.8				
122.00		0.2500	28.832	23.009	2399.2	28.76	115.33	65	73	157.6				
124.00		0.2500	28.444	22.696	2302.8	28.34	113.78	65	74	155.5				
126.00		0.2500	28.056	22.384	2209.0	27.93	112.22	65	74	153.4				
128.00		0.2500	27.668	22.071	2117.8	27.51	110.67	65	75	151.3				
130.00		0.2500	27.280	21.759	2029.2	27.10	109.12	65	75	149.1				
132.00		0.2500	26.892	21.447	1943.0	26.68	107.57	65	76	147.0				
133.00		0.2500	26.698	21.291	1900.9	26.47	106.79	65	76	72.7				
134.00		0.2500	26.504	21.134	1859.4	26.26	106.02	65	76	72.2				
136.00		0.2500	26.116	20.822	1778.2	25.85	104.46	65	77	142.8				
138.00		0.2500	25.728	20.510	1699.3	25.43	102.91	65	77	140.6				
140.00		0.2500	25.340	20.197	1622.9	25.02	101.36	65	77	138.5				
142.00		0.2500	24.952	19.885	1548.7	24.60	99.81	65	78	136.4				
142.90		0.2500	24.777	19.745	1516.1	24.41	99.11	65	78	60.7				
144.00		0.2500	24.564	19.573	1476.9	24.18	98.26	65	78	73.6				
145.00	Top - Section 6	0.2500	24.370	19.417	1441.8	23.98	97.48	65	79	66.3				
145.00	Bot - Section 7	0.2500	24.375	18.948	1379.5	23.98	97.48	65	55					
146.00		0.2500	24.181	18.795	1346.5	0.00	96.72	65	55	64.2				
148.00		0.2500	23.793	18.491	1282.1	0.00	95.17	65	55	126.9				
148.30		0.2500	23.735	18.445	1272.6	0.00	94.94	65	55	18.9				
150.00	Top - Section 7	0.2500	23.405	18.186	1219.7	0.00	93.62	65	55	105.9				
150.00	Bot - Section 8	0.2500	16.000	12.370	383.9	0.00	93.62	50	50					
152.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
154.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
156.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
158.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
160.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
Total Weight										23786.1	9302.9			

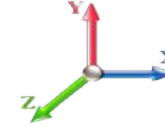
Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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	RB1 RB2	1.00	0.70	16.018	17.62	352.70	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT2 RB3	1.00	0.70	16.018	17.62	351.35	1.147 *	0.000	1.00	4.338	4.97	140.2	0.0	246.1
2.00		1.00	0.70	16.018	17.62	349.99	1.148 *	0.000	1.00	4.321	4.96	139.9	0.0	245.1
4.00		1.00	0.70	16.018	17.62	347.27	1.151 *	0.000	2.00	8.592	9.89	278.8	0.0	487.3
6.00		1.00	0.70	16.018	17.62	344.55	1.155 *	0.000	2.00	8.525	9.84	277.5	0.0	483.5
8.00		1.00	0.70	16.018	17.62	341.84	1.158 *	0.000	2.00	8.458	9.80	276.1	0.0	479.7
10.00		1.00	0.70	16.018	17.62	339.12	1.162 *	0.000	2.00	8.391	9.75	274.8	0.0	475.8
12.00		1.00	0.70	16.018	17.62	336.40	1.166 *	0.000	2.00	8.324	9.70	273.5	0.0	472.0
14.00		1.00	0.70	16.018	17.62	333.69	1.169 *	0.000	2.00	8.257	9.65	272.2	0.0	468.2
16.00	Bot - Section 2	1.00	0.70	16.018	17.62	330.97	1.173 *	0.000	2.00	8.190	9.61	270.9	0.0	464.4
16.25	RT1 RB4	1.00	0.70	16.018	17.62	330.63	1.175 *	0.000	0.25	1.035	1.22	34.3	0.0	116.5
18.00	RB5	1.00	0.70	16.018	17.62	328.25	1.177 *	0.000	1.75	7.217	8.50	239.5	0.0	812.0
18.75	RT3	1.00	0.70	16.018	17.62	327.24	1.180 *	0.000	0.75	3.077	3.63	102.4	0.0	346.2
19.50	RB6	1.00	0.70	16.018	17.62	326.22	1.181 *	0.000	0.75	3.068	3.62	102.2	0.0	345.1
20.00		1.00	0.70	16.018	17.62	325.54	1.183 *	0.000	0.50	2.040	2.41	68.0	0.0	229.5
22.00	Top - Section 1	1.00	0.70	16.018	17.62	322.82	1.185 *	0.000	2.00	8.118	9.62	271.2	0.0	913.2
24.00		1.00	0.70	16.018	17.62	325.36	1.181 *	0.000	2.00	8.052	9.51	268.1	0.0	456.5
26.00		1.00	0.70	16.018	17.62	322.64	1.185 *	0.000	2.00	7.985	9.46	266.8	0.0	452.6
28.00		1.00	0.70	16.018	17.62	319.92	1.189 *	0.000	2.00	7.918	9.42	265.5	0.0	448.8
30.00	RB7	1.00	0.70	16.031	17.63	317.34	1.194 *	0.000	2.00	7.851	9.37	264.4	0.0	445.0
31.00	RT4	1.00	0.71	16.182	17.80	317.46	1.197 *	0.000	1.00	3.900	4.67	132.9	0.0	221.1
32.00		1.00	0.71	16.330	17.96	317.54	1.199 *	0.000	1.00	3.883	4.66	133.8	0.0	220.1
34.00	RT5	1.00	0.73	16.615	18.28	317.53	1.040 *	0.000	2.00	7.717	8.03	234.7	0.0	437.3
35.50	RT6	1.00	0.74	16.821	18.50	317.41	1.043 *	0.000	1.50	5.744	5.99	177.3	0.0	325.5
36.00		1.00	0.74	16.889	18.58	317.35	1.044 *	0.000	0.50	1.906	1.99	59.2	0.0	108.0
38.00		1.00	0.75	17.152	18.87	317.00	1.046 *	0.000	2.00	7.583	7.93	239.5	0.0	429.7
40.00	Appurtenance(s)	1.00	0.76	17.405	19.15	316.49	1.049 *	0.000	2.00	7.516	7.89	241.6	0.0	425.8
42.00		1.00	0.77	17.649	19.41	315.86	1.052 *	0.000	2.00	7.449	7.84	243.5	0.0	422.0
44.00		1.00	0.78	17.885	19.67	315.09	1.056 *	0.000	2.00	7.382	7.79	245.3	0.0	418.2
45.16	RB8	1.00	0.79	18.019	19.82	314.59	1.058 *	0.000	1.16	4.251	4.50	142.6	0.0	240.8
46.00	RT7	1.00	0.79	18.114	19.93	314.21	1.060 *	0.000	0.84	3.064	3.25	103.5	0.0	173.6
48.00		1.00	0.80	18.335	20.17	313.22	1.062 *	0.000	2.00	7.248	7.70	248.4	0.0	410.5
50.00	Bot - Section 3	1.00	0.81	18.551	20.41	312.13	1.066 *	0.000	2.00	7.181	7.65	249.8	0.0	406.7
52.00		1.00	0.82	18.760	20.64	310.94	1.069 *	0.000	2.00	7.244	7.74	255.7	0.0	813.2
54.00		1.00	0.83	18.963	20.86	309.67	1.072 *	0.000	2.00	7.177	7.70	256.9	0.0	805.5
56.00	Top - Section 2	1.00	0.84	19.161	21.08	308.31	1.076 *	0.000	2.00	7.110	7.65	258.0	0.0	797.9
58.00	RT8 RB9	1.00	0.85	19.354	21.29	312.65	1.073 *	0.000	2.00	7.043	7.55	257.3	0.0	398.8
60.00		1.00	0.85	19.543	21.50	311.16	1.076 *	0.000	2.00	6.976	7.51	258.2	0.0	395.0
62.00		1.00	0.86	19.726	21.70	309.61	1.080 *	0.000	2.00	6.909	7.46	259.0	0.0	391.2
64.00		1.00	0.87	19.906	21.90	307.99	1.084 *	0.000	2.00	6.842	7.41	259.8	0.0	387.3
66.00		1.00	0.88	20.082	22.09	306.30	1.087 *	0.000	2.00	6.775	7.37	260.4	0.0	383.5
68.00		1.00	0.89	20.254	22.28	304.56	1.091 *	0.000	2.00	6.708	7.32	261.0	0.0	379.7
70.00		1.00	0.89	20.422	22.46	302.75	1.095 *	0.000	2.00	6.641	7.27	261.4	0.0	375.9
72.00		1.00	0.90	20.587	22.65	300.89	1.099 *	0.000	2.00	6.574	7.23	261.9	0.0	372.0
74.00		1.00	0.91	20.749	22.82	298.98	1.103 *	0.000	2.00	6.507	7.18	262.2	0.0	368.2
76.00		1.00	0.91	20.908	23.00	297.02	1.108 *	0.000	2.00	6.440	7.13	262.5	0.0	364.4
78.00	RT9 RB10	1.00	0.92	21.064	23.17	295.01	1.112 *	0.000	2.00	6.373	7.09	262.7	0.0	360.5

Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



80.00 Top - Section 3	1.00	0.93	21.217	23.34	292.95	1.116 *	0.000	2.00	6.306	7.04	262.9	0.0	356.7
82.00	1.00	0.93	21.367	23.50	290.85	1.121 *	0.000	2.00	6.239	6.99	263.0	0.0	294.6
84.00	1.00	0.94	21.514	23.67	288.70	1.125 *	0.000	2.00	6.172	6.95	263.0	0.0	291.4
86.00	1.00	0.95	21.660	23.83	286.52	1.130 *	0.000	2.00	6.106	6.90	263.0	0.0	288.2
88.00	1.00	0.95	21.802	23.98	284.29	1.135 *	0.000	2.00	6.039	6.85	262.9	0.0	285.0
90.00	1.00	0.96	21.943	24.14	282.02	1.140 *	0.000	2.00	5.972	6.81	262.8	0.0	281.8
92.00	1.00	0.96	22.081	24.29	279.72	1.145 *	0.000	2.00	5.905	6.76	262.6	0.0	278.7
94.00	1.00	0.97	22.217	24.44	277.38	1.150 *	0.000	2.00	5.838	6.71	262.4	0.0	275.5
95.00 Bot - Section 5	1.00	0.97	22.284	24.51	276.20	1.154 *	0.000	1.00	2.894	3.34	130.9	0.0	136.5
95.58 RT10	1.00	0.98	22.323	24.56	275.51	1.156 *	0.000	0.58	1.702	1.97	77.3	0.0	159.1
96.00	1.00	0.98	22.351	24.59	275.01	1.157 *	0.000	0.42	1.229	1.42	55.9	0.0	114.9
98.00	1.00	0.98	22.483	24.73	272.60	1.160 *	0.000	2.00	5.812	6.74	266.8	0.0	543.3
100.00 Top - Section 4	1.00	0.99	22.613	24.87	270.16	1.055 *	0.000	2.00	5.745	6.06	241.2	0.0	536.9
102.00	1.00	0.99	22.742	25.02	272.91	1.052 *	0.000	2.00	5.678	5.97	239.1	0.0	267.8
104.00	1.00	1.00	22.868	25.16	270.42	1.056 *	0.000	2.00	5.611	5.93	238.6	0.0	264.7
106.00	1.00	1.00	22.993	25.29	267.90	1.061 *	0.000	2.00	5.544	5.88	238.0	0.0	261.5
108.00	1.00	1.01	23.116	25.43	265.35	1.065 *	0.000	2.00	5.477	5.83	237.3	0.0	258.3
110.00 Appurtenance(s)	1.00	1.02	23.238	25.56	262.78	1.070 *	0.000	2.00	5.410	5.79	236.7	0.0	255.1
112.00	1.00	1.02	23.358	25.69	260.17	1.074 *	0.000	2.00	5.343	5.74	236.0	0.0	251.9
114.00	1.00	1.03	23.476	25.82	257.54	1.079 *	0.000	2.00	5.276	5.69	235.2	0.0	248.7
115.00 Top - Section 5	1.00	1.03	23.535	25.89	256.22	1.083 *	0.000	1.00	2.613	2.83	117.2	0.0	123.2
116.00	1.00	1.03	23.593	25.95	254.89	1.085 *	0.000	1.00	2.596	2.82	117.0	0.0	98.1
118.00	1.00	1.04	23.708	26.08	252.21	1.089 *	0.000	2.00	5.142	5.60	233.7	0.0	194.3
120.00	1.00	1.04	23.823	26.20	249.50	1.094 *	0.000	2.00	5.075	5.55	232.8	0.0	191.7
122.00	1.00	1.05	23.935	26.33	246.77	1.099 *	0.000	2.00	5.008	5.51	231.9	0.0	189.2
124.00	1.00	1.05	24.047	26.45	244.01	1.105 *	0.000	2.00	4.941	5.46	231.0	0.0	186.6
126.00	1.00	1.06	24.157	26.57	241.24	1.110 *	0.000	2.00	4.874	5.41	230.1	0.0	184.1
128.00	1.00	1.06	24.266	26.69	238.43	1.116 *	0.000	2.00	4.807	5.37	229.1	0.0	181.5
130.00	1.00	1.07	24.374	26.81	235.61	1.122 *	0.000	2.00	4.741	5.32	228.1	0.0	179.0
132.00	1.00	1.07	24.480	26.93	232.77	1.128 *	0.000	2.00	4.674	5.27	227.1	0.0	176.4
133.00 Appurtenance(s)	1.00	1.07	24.533	26.99	231.34	1.133 *	0.000	1.00	2.312	2.62	113.0	0.0	87.3
134.00	1.00	1.07	24.586	27.04	229.90	1.136 *	0.000	1.00	2.295	2.61	112.8	0.0	86.6
136.00	1.00	1.08	24.690	27.16	227.02	1.141 *	0.000	2.00	4.540	5.18	225.0	0.0	171.3
138.00	1.00	1.08	24.793	27.27	224.11	1.147 *	0.000	2.00	4.473	5.13	223.9	0.0	168.8
140.00	1.00	1.09	24.895	27.38	221.19	1.154 *	0.000	2.00	4.406	5.08	222.8	0.0	166.2
142.00	1.00	1.09	24.996	27.50	218.24	1.161 *	0.000	2.00	4.339	5.04	221.6	0.0	163.7
142.90 Appurtenance(s)	1.00	1.09	25.042	27.55	216.91	1.166 *	0.000	0.90	1.931	2.25	99.2	0.0	72.8
144.00	1.00	1.10	25.096	27.61	215.28	1.000	0.000	1.10	2.341	2.34	103.4	0.0	88.3
145.00 Top - Section 6	1.00	1.10	25.146	27.66	213.79	1.000	0.000	1.00	2.111	2.11	93.4	0.0	79.6
146.00	1.00	1.10	25.196	27.72	205.10	0.600	0.000	1.00	2.023	1.21	53.8	0.0	77.1
148.00	1.00	1.11	25.294	27.82	202.21	0.600	0.000	2.00	3.998	2.40	106.8	0.0	152.3
148.30 Appurtenance(s)	1.00	1.11	25.308	27.84	201.77	0.600	0.000	0.30	0.594	0.36	15.9	0.0	22.6
150.00 Top - Section 7	1.00	1.11	25.391	27.93	199.29	0.600	0.000	1.70	3.339	2.00	89.5	0.0	127.1
152.00	1.00	1.11	25.487	28.04	136.50	0.645 *	0.000	2.00	2.667	1.72	77.2	0.0	101.0
154.00	1.00	1.12	25.582	28.14	136.75	0.645 *	0.000	2.00	2.667	1.72	77.4	0.0	101.0
156.00	1.00	1.12	25.677	28.24	137.00	0.645 *	0.000	2.00	2.667	1.72	77.7	0.0	101.0
158.00	1.00	1.13	25.771	28.35	137.25	0.645 *	0.000	2.00	2.667	1.72	78.0	0.0	101.0
160.00 Appurtenance(s)	1.00	1.13	25.863	28.45	137.50	0.645 *	0.000	2.00	2.667	1.72	78.3	0.0	101.0

* Cf Adjusted by Linear Load Ra Effect

Totals:	160.00	18,859.1	28,543.3
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Discrete Appurtenance Forces

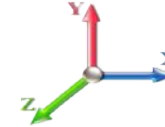
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	DB-T1-6Z-8AB-OZ	1	25.955	28.551	1.00	1.00	4.80	52.80	0.000	2.000	219.27	0.00	438.54
2	160.00	SBNHH-1D65B	9	25.955	28.551	0.81	1.00	59.49	432.00	0.000	2.000	2717.42	0.00	5434.85
3	160.00	6' Lightning rod	1	25.955	28.551	1.00	1.00	0.38	7.80	0.000	2.000	17.36	0.00	34.72
4	160.00	Low Profile Platform	1	25.955	28.551	1.00	1.00	22.00	1440.00	0.000	2.000	1004.99	0.00	2009.98
5	160.00	DB846F65ZAXY	6	25.955	28.551	0.93	1.00	39.34	151.20	0.000	2.000	1797.06	0.00	3594.12
6	160.00	DB222	1	25.955	28.551	1.00	1.00	2.25	19.20	0.000	2.000	102.78	0.00	205.57
7	160.00	RRH2x90-AWS	3	25.955	28.551	0.67	1.00	5.35	158.40	0.000	2.000	244.24	0.00	488.48
8	148.30	APXVTM14-C-120	3	25.391	27.930	0.61	0.80	11.59	201.60	0.000	1.700	518.14	0.00	880.83
9	148.30	1900MHz RRH	3	25.487	28.036	0.54	0.80	6.11	158.40	0.000	3.700	274.10	0.00	1014.16
10	148.30	800 MHz RRH	3	25.487	28.036	0.54	0.80	4.00	190.80	0.000	3.700	179.61	0.00	664.54
11	148.30	APXVSPP18-C-A20	3	25.487	28.036	0.66	0.80	15.98	205.20	0.000	3.700	716.63	0.00	2651.55
12	148.30	ACU-A20-N	4	25.487	28.036	0.54	0.80	0.30	4.80	0.000	3.700	13.46	0.00	49.82
13	148.30	ALU 800MHz External	3	25.487	28.036	0.54	0.80	1.25	31.68	0.000	3.700	56.26	0.00	208.17
14	148.30	TD-RRH8x20-25	3	25.391	27.930	0.54	0.80	6.51	252.00	0.000	1.700	291.03	0.00	494.74
15	148.30	Low Profile Platform	1	25.308	27.839	1.00	1.00	17.50	1440.00	0.000	0.000	779.50	0.00	0.00
16	142.90	Commscope	3	25.042	27.546	0.60	0.75	20.65	181.08	0.000	0.000	909.93	0.00	0.00
17	142.90	Platform w/ HR & Bracing	1	25.042	27.546	1.00	1.00	51.70	2695.20	0.000	0.000	2278.58	0.00	0.00
18	142.90	Ericsson AIR 21 B2A/B4P	3	25.042	27.546	0.65	0.75	11.78	329.40	0.000	0.000	519.36	0.00	0.00
19	142.90	Ericsson AIR 3246 B66	3	25.042	27.546	0.62	0.75	14.83	648.00	0.000	0.000	653.51	0.00	0.00
20	142.90	Ericsson AIR 32 B4A/B2P	1	25.042	27.546	0.65	0.75	4.25	126.96	0.000	0.000	187.21	0.00	0.00
21	142.90	Ericsson RRUS11B12 -	1	25.042	27.546	0.50	0.75	1.29	61.20	0.000	0.000	56.92	0.00	0.00
22	142.90	Ericsson RUS01 B12 -	3	25.042	27.546	0.50	0.75	3.80	183.60	0.000	0.000	167.43	0.00	0.00
23	142.90	Ericsson KRY 112 144/1	3	25.076	27.584	0.52	0.75	0.65	39.60	0.000	0.700	28.50	0.00	19.95
24	142.90	Ericsson AIR 21 B4A	1	25.042	27.546	0.67	0.75	7.70	151.20	0.000	0.000	339.49	0.00	0.00
25	133.00	(3) SitePro 1 P/N	2	24.533	26.986	0.75	0.75	32.01	3258.65	0.000	0.000	1382.13	0.00	0.00
26	133.00	Kathrein 800 10121	3	24.533	26.986	0.63	0.80	9.76	166.68	0.000	0.000	421.61	0.00	0.00
27	133.00	Kathrein 800-10965	3	24.533	26.986	0.57	0.80	23.53	390.96	0.000	0.000	1016.08	0.00	0.00
28	133.00	Cci TPA-65R-LCUUUU-H8	1	24.533	26.986	0.63	0.80	8.06	126.00	0.000	0.000	347.93	0.00	0.00
29	133.00	Quintel QS66512-2	2	24.533	26.986	0.74	0.80	11.97	266.40	0.000	0.000	516.73	0.00	0.00
30	133.00	Ericsson RRUS-32 RRU	3	24.533	26.986	0.54	0.80	6.22	277.20	0.000	0.000	268.70	0.00	0.00
31	133.00	Powerwave LGP21401	6	24.533	26.986	0.54	0.80	4.15	101.52	0.000	0.000	179.13	0.00	0.00
32	133.00	Ericsson B2/B66A 8843	3	24.533	26.986	0.54	0.80	2.64	259.20	0.000	0.000	113.87	0.00	0.00
33	133.00	Ericsson B5/B12 4449	3	24.533	26.986	0.54	0.80	3.17	255.60	0.000	0.000	136.78	0.00	0.00
34	133.00	Raycap DC6-48-60-18-8F	3	24.533	26.986	0.80	0.80	2.21	114.48	0.000	0.000	95.34	0.00	0.00
35	110.00	3 ft Standoff	1	23.238	25.561	1.00	1.00	2.63	48.00	0.000	0.000	107.56	0.00	0.00
36	110.00	DB222	1	23.552	25.907	1.00	1.00	2.65	19.20	0.000	5.292	109.85	0.00	581.27
37	40.00	GPS	1	17.405	19.145	1.00	1.00	1.00	12.00	0.000	0.000	30.63	0.00	0.00

Totals: 14,458.01

18,799.12

Total Applied Force Summary

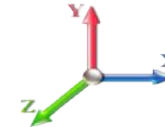
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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		140.22	308.46	0.00	0.00
2.00		139.89	307.50	0.00	0.00
4.00		278.79	612.13	0.00	0.00
6.00		277.47	608.31	0.00	0.00
8.00		276.15	604.48	0.00	0.00
10.00		274.83	600.65	0.00	0.00
12.00		273.50	596.83	0.00	0.00
14.00		272.18	593.00	0.00	0.00
16.00		270.86	589.18	0.00	0.00
16.25		34.30	132.08	0.00	0.00
18.00		239.53	921.21	0.00	0.00
18.75		102.35	393.01	0.00	0.00
19.50		102.17	391.93	0.00	0.00
20.00		68.01	260.69	0.00	0.00
22.00		271.22	1037.98	0.00	0.00
24.00		268.13	581.27	0.00	0.00
26.00		266.81	577.44	0.00	0.00
28.00		265.49	573.61	0.00	0.00
30.00		264.39	569.79	0.00	0.00
31.00		132.94	283.46	0.00	0.00
32.00		133.81	282.50	0.00	0.00
34.00		234.72	562.14	0.00	0.00
35.50		177.32	419.09	0.00	0.00
36.00		59.17	139.22	0.00	0.00
38.00		239.47	554.48	0.00	0.00
40.00	(1) attachments	272.20	562.66	0.00	0.00
42.00		243.51	546.45	0.00	0.00
44.00		245.29	542.62	0.00	0.00
45.16		142.65	312.97	0.00	0.00
46.00		103.53	225.83	0.00	0.00
48.00		248.44	534.97	0.00	0.00
50.00		249.82	531.14	0.00	0.00
52.00		255.66	937.60	0.00	0.00
54.00		256.88	929.95	0.00	0.00
56.00		258.00	922.30	0.00	0.00
58.00		257.35	523.23	0.00	0.00
60.00		258.24	519.41	0.00	0.00
62.00		259.04	515.58	0.00	0.00
64.00		259.76	511.76	0.00	0.00
66.00		260.40	507.93	0.00	0.00
68.00		260.96	504.10	0.00	0.00
70.00		261.45	500.28	0.00	0.00
72.00		261.86	496.45	0.00	0.00
74.00		262.21	492.62	0.00	0.00
76.00		262.49	488.80	0.00	0.00
78.00		262.71	484.97	0.00	0.00

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00		262.86	481.15	0.00	0.00
82.00		262.96	419.02	0.00	0.00
84.00		263.00	415.83	0.00	0.00
86.00		262.99	412.64	0.00	0.00
88.00		262.93	409.45	0.00	0.00
90.00		262.81	406.26	0.00	0.00
92.00		262.64	403.08	0.00	0.00
94.00		262.43	399.89	0.00	0.00
95.00		130.92	198.75	0.00	0.00
95.58		77.28	195.22	0.00	0.00
96.00		55.93	141.03	0.00	0.00
98.00		266.82	667.73	0.00	0.00
100.00		241.17	661.35	0.00	0.00
102.00		239.13	392.27	0.00	0.00
104.00		238.57	389.08	0.00	0.00
106.00		237.98	385.89	0.00	0.00
108.00		237.35	382.70	0.00	0.00
110.00	(2) attachments	454.09	446.72	0.00	581.27
112.00		235.97	375.08	0.00	0.00
114.00		235.23	371.89	0.00	0.00
115.00		117.18	184.75	0.00	0.00
116.00		116.99	159.69	0.00	0.00
118.00		233.65	317.46	0.00	0.00
120.00		232.81	314.91	0.00	0.00
122.00		231.94	312.36	0.00	0.00
124.00		231.04	309.81	0.00	0.00
126.00		230.10	307.25	0.00	0.00
128.00		229.14	304.70	0.00	0.00
130.00		228.15	302.15	0.00	0.00
132.00		227.12	299.60	0.00	0.00
133.00	(29) attachments	4591.34	5365.53	0.00	0.00
134.00		112.78	132.94	0.00	0.00
136.00		225.00	263.97	0.00	0.00
138.00		223.89	261.42	0.00	0.00
140.00		222.76	258.87	0.00	0.00
142.00		221.60	256.32	0.00	0.00
142.90	(19) attachments	5240.17	4530.75	0.00	19.95
144.00		103.41	120.19	0.00	0.00
145.00		93.42	108.59	0.00	0.00
146.00		53.83	106.05	0.00	0.00
148.00		106.78	210.23	0.00	0.00
148.30	(23) attachments	2844.60	2515.80	0.00	5963.81
150.00		89.53	168.63	0.00	0.00
152.00		77.15	149.84	0.00	0.00
154.00		77.44	149.84	0.00	0.00
156.00		77.73	149.84	0.00	0.00
158.00		78.01	149.84	0.00	0.00
160.00	(22) attachments	6181.42	2411.24	0.00	12206.26
Totals:		37,658.24	52,169.66	0.00	18,771.28

Linear Appurtenance Segment Forces (Factored)

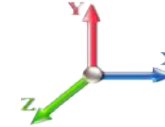
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	16.018	0.00	1.32
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	16.018	0.00	0.62
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	16.018	0.00	1.32
1.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	16.018	0.00	2.29
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	16.018	0.00	0.62
1.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	16.018	0.00	0.00
1.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.147	16.018	0.00	0.00
2.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.148	16.018	0.00	1.32
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	0.62
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.148	16.018	0.00	1.32
2.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	2.29
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	0.62
2.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.148	16.018	0.00	0.00
2.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.148	16.018	0.00	0.00
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	16.018	0.00	2.64
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	1.25
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	16.018	0.00	2.64
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	4.58
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	1.25
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	16.018	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	16.018	0.00	0.00
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	16.018	0.00	2.64
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	1.25
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	16.018	0.00	2.64
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	4.58
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	1.25
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	16.018	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	16.018	0.00	0.00
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	16.018	0.00	2.64
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	1.25
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	16.018	0.00	2.64
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	4.58
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	1.25
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	16.018	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	16.018	0.00	0.00
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	16.018	0.00	2.64
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	1.25
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	16.018	0.00	2.64
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	4.58
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	1.25
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	16.018	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	16.018	0.00	0.00
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	16.018	0.00	2.64
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	1.25
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	16.018	0.00	2.64
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	4.58
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

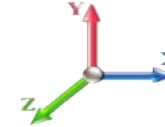
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
12.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.155	1.166	16.018	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	16.018	0.00	0.00
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	16.018	0.00	2.64
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	1.25
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	16.018	0.00	2.64
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	4.58
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	1.25
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	16.018	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	16.018	0.00	0.00
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	16.018	0.00	2.64
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	1.25
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	16.018	0.00	2.64
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	4.58
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	1.25
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	16.018	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	16.018	0.00	0.00
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	16.018	0.00	0.33
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.16
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	16.018	0.00	0.33
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.57
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.16
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	16.018	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	16.018	0.00	0.00
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	16.018	0.00	2.31
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	1.09
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	16.018	0.00	2.31
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	4.01
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	1.09
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	16.018	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	16.018	0.00	0.00
18.75	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.180	16.018	0.00	0.99
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	16.018	0.00	0.47
18.75	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.180	16.018	0.00	0.99
18.75	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	16.018	0.00	1.72
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	16.018	0.00	0.47
18.75	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.180	16.018	0.00	0.00
18.75	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.180	16.018	0.00	0.00
19.50	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.181	16.018	0.00	0.99
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.47
19.50	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.181	16.018	0.00	0.99
19.50	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	1.72
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.47
19.50	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.181	16.018	0.00	0.00
19.50	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.181	16.018	0.00	0.00
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	16.018	0.00	0.66
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.31
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	16.018	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

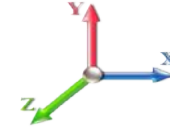
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
20.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	1.14
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.31
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	16.018	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	16.018	0.00	0.00
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	2.64
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	1.25
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	2.64
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	4.58
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	1.25
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	16.018	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	16.018	0.00	0.00
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	16.018	0.00	2.64
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	1.25
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	16.018	0.00	2.64
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	4.58
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	1.25
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	16.018	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	16.018	0.00	0.00
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	2.64
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	1.25
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	2.64
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	4.58
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	1.25
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	16.018	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	16.018	0.00	0.00
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	16.018	0.00	2.64
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	1.25
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	16.018	0.00	2.64
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	4.58
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	1.25
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	16.018	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	16.018	0.00	0.00
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	16.031	0.00	2.64
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	1.25
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	16.031	0.00	2.64
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	4.58
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	1.25
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	16.031	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	16.031	0.00	0.00
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	16.182	0.00	1.32
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	0.62
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	16.182	0.00	1.32
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	2.29
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	0.62
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	16.182	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	16.182	0.00	0.00
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	16.330	0.00	1.32

Linear Appurtenance Segment Forces (Factored)

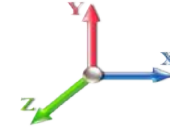
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	0.62
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	16.330	0.00	1.32
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	2.29
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	0.62
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	16.330	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	16.330	0.00	0.00
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	16.615	0.00	2.64
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	1.25
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	16.615	0.00	2.64
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	4.58
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	1.25
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	16.615	0.00	0.00
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	16.821	0.00	1.98
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	0.94
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	16.821	0.00	1.98
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	3.43
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	0.94
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	16.821	0.00	0.00
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	16.889	0.00	0.66
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.31
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	16.889	0.00	0.66
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	1.14
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.31
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	16.889	0.00	0.00
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	17.152	0.00	2.64
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	1.25
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	17.152	0.00	2.64
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	4.58
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	1.25
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	17.152	0.00	0.00
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	17.405	0.00	2.64
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	1.25
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	17.405	0.00	2.64
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	4.58
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	1.25
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	17.405	0.00	0.00
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	17.649	0.00	2.64
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	1.25
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	17.649	0.00	2.64
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	4.58
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	1.25
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	17.649	0.00	0.00
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	17.885	0.00	2.64
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	1.25
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	17.885	0.00	2.64
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	4.58
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

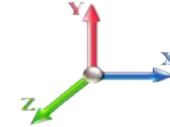
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
44.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.119	1.056	17.885	0.00	0.00
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	18.019	0.00	1.53
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	0.72
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	18.019	0.00	1.53
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	2.66
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	0.72
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	18.019	0.00	0.00
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	18.114	0.00	1.11
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	0.52
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	18.114	0.00	1.11
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	1.92
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	0.52
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	18.114	0.00	0.00
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	18.335	0.00	2.64
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	1.25
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	18.335	0.00	2.64
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	4.58
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	1.25
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	18.335	0.00	0.00
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	18.551	0.00	2.64
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	1.25
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	18.551	0.00	2.64
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	4.58
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	1.25
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	18.551	0.00	0.00
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	18.760	0.00	2.64
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	1.25
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	18.760	0.00	2.64
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	4.58
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	1.25
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	18.760	0.00	0.00
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	18.963	0.00	2.64
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	1.25
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	18.963	0.00	2.64
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	4.58
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	1.25
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	18.963	0.00	0.00
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.161	0.00	2.64
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	1.25
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.161	0.00	2.64
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	4.58
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	1.25
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	19.161	0.00	0.00
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	19.354	0.00	2.64
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	1.25
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	19.354	0.00	2.64
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	4.58

Linear Appurtenance Segment Forces (Factored)

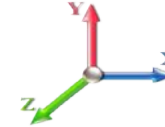
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	1.25
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	19.354	0.00	0.00
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.543	0.00	2.64
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	1.25
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.543	0.00	2.64
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	4.58
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	1.25
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	19.543	0.00	0.00
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	19.726	0.00	2.64
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	1.25
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	19.726	0.00	2.64
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	4.58
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	1.25
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	19.726	0.00	0.00
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	19.906	0.00	2.64
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	1.25
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	19.906	0.00	2.64
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	4.58
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	1.25
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	19.906	0.00	0.00
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	20.082	0.00	2.64
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	1.25
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	20.082	0.00	2.64
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	4.58
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	1.25
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	20.082	0.00	0.00
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	20.254	0.00	2.64
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	1.25
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	20.254	0.00	2.64
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	4.58
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	1.25
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	20.254	0.00	0.00
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	20.422	0.00	2.64
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	1.25
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	20.422	0.00	2.64
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	4.58
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	1.25
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	20.422	0.00	0.00
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	20.587	0.00	2.64
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	1.25
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	20.587	0.00	2.64
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	4.58
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	1.25
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	20.587	0.00	0.00
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	20.749	0.00	2.64
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	1.25
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	20.749	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

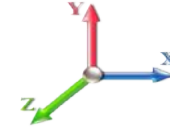
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
74.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	4.58
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	1.25
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	20.749	0.00	0.00
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	20.908	0.00	2.64
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	1.25
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	20.908	0.00	2.64
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	4.58
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	1.25
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	20.908	0.00	0.00
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	21.064	0.00	2.64
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	1.25
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	21.064	0.00	2.64
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	4.58
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	1.25
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	21.064	0.00	0.00
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	21.217	0.00	2.64
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	1.25
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	21.217	0.00	2.64
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	4.58
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	1.25
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	21.217	0.00	0.00
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	21.367	0.00	2.64
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	1.25
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	21.367	0.00	2.64
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	4.58
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	1.25
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	21.367	0.00	0.00
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	21.514	0.00	2.64
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	1.25
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	21.514	0.00	2.64
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	4.58
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	1.25
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	21.514	0.00	0.00
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	21.660	0.00	2.64
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	1.25
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	21.660	0.00	2.64
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	4.58
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	1.25
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	21.660	0.00	0.00
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	21.802	0.00	2.64
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	1.25
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	21.802	0.00	2.64
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	4.58
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	1.25
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	21.802	0.00	0.00
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	21.943	0.00	2.64
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

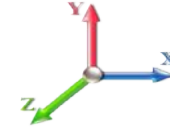
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
90.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	21.943	0.00	2.64
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	4.58
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	1.25
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	21.943	0.00	0.00
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	22.081	0.00	2.64
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	1.25
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	22.081	0.00	2.64
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	4.58
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	1.25
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	22.081	0.00	0.00
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	22.217	0.00	2.64
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	1.25
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	22.217	0.00	2.64
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	4.58
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	1.25
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	22.217	0.00	0.00
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	22.284	0.00	1.32
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	0.62
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	22.284	0.00	1.32
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	2.29
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	0.62
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	22.284	0.00	0.00
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	22.323	0.00	0.77
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	0.36
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	22.323	0.00	0.77
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	1.33
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	0.36
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	22.323	0.00	0.00
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	22.351	0.00	0.55
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.26
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	22.351	0.00	0.55
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.96
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.26
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	22.351	0.00	0.00
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	22.483	0.00	2.64
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	1.25
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	22.483	0.00	2.64
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	4.58
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	1.25
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	22.483	0.00	0.00
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	22.613	0.00	2.64
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	1.25
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	22.613	0.00	2.64
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	4.58
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	1.25
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	22.742	0.00	2.64
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

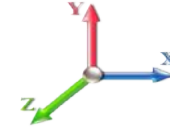
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
102.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	22.742	0.00	2.64
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	4.58
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	1.25
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	22.868	0.00	2.64
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	1.25
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	22.868	0.00	2.64
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	4.58
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	1.25
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	22.993	0.00	2.64
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	1.25
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	22.993	0.00	2.64
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	4.58
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	1.25
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	23.116	0.00	2.64
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	1.25
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	23.116	0.00	2.64
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	4.58
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	1.25
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	23.238	0.00	2.64
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	1.25
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	23.238	0.00	2.64
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	4.58
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	1.25
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	23.358	0.00	2.64
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	23.358	0.00	1.25
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	23.358	0.00	2.64
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	23.358	0.00	4.58
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	23.476	0.00	2.64
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	23.476	0.00	1.25
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	23.476	0.00	2.64
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	23.476	0.00	4.58
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	23.535	0.00	1.32
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	23.535	0.00	0.62
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	23.535	0.00	1.32
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	23.535	0.00	2.29
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	23.593	0.00	1.32
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	23.593	0.00	0.62
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	23.593	0.00	1.32
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	23.593	0.00	2.29
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	23.708	0.00	2.64
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	23.708	0.00	1.25
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	23.708	0.00	2.64
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	23.708	0.00	4.58
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	23.823	0.00	2.64
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	23.823	0.00	1.25
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	23.823	0.00	2.64
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	23.823	0.00	4.58

Linear Appurtenance Segment Forces (Factored)

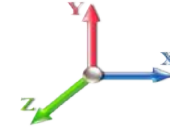
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
122.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	23.935	0.00	2.64
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	23.935	0.00	1.25
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	23.935	0.00	2.64
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	23.935	0.00	4.58
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	24.047	0.00	2.64
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	24.047	0.00	1.25
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	24.047	0.00	2.64
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	24.047	0.00	4.58
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	24.157	0.00	2.64
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	24.157	0.00	1.25
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	24.157	0.00	2.64
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	24.157	0.00	4.58
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	24.266	0.00	2.64
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	24.266	0.00	1.25
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	24.266	0.00	2.64
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	24.266	0.00	4.58
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	24.374	0.00	2.64
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	24.374	0.00	1.25
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	24.374	0.00	2.64
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	24.374	0.00	4.58
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	24.480	0.00	2.64
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	24.480	0.00	1.25
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	24.480	0.00	2.64
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	24.480	0.00	4.58
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	24.533	0.00	1.32
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	24.533	0.00	0.62
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	24.533	0.00	1.32
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	24.533	0.00	2.29
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	24.586	0.00	1.32
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	24.586	0.00	0.62
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	24.586	0.00	1.32
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	24.586	0.00	2.29
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	24.690	0.00	2.64
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	24.690	0.00	1.25
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	24.690	0.00	2.64
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	24.690	0.00	4.58
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	24.793	0.00	2.64
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	24.793	0.00	1.25
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	24.793	0.00	2.64
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	24.793	0.00	4.58
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	24.895	0.00	2.64
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	24.895	0.00	1.25
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	24.895	0.00	2.64
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	24.895	0.00	4.58
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	24.996	0.00	2.64
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	24.996	0.00	1.25
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	24.996	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

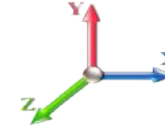
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
142.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	24.996	0.00	4.58
142.90	1 5/8" Hybrid	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	25.042	0.00	1.19
142.90	7/8" Coax	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	25.042	0.00	0.56
142.90	1 5/8" Fiber	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	25.042	0.00	1.19
142.90	1-1/4" Fiber	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	25.042	0.00	2.06
144.00	1 5/8" Hybrid	Yes	1.10	0.000	2.00	0.18	0.00	0.078	0.000	25.096	0.00	1.45
144.00	7/8" Coax	Yes	1.10	0.000	0.00	0.00	0.00	0.078	0.000	25.096	0.00	0.69
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	25.146	0.00	1.32
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	25.146	0.00	0.62
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	25.196	0.00	1.32
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	25.196	0.00	0.62
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	25.294	0.00	2.64
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	25.294	0.00	1.25
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.05	0.00	0.084	0.000	25.308	0.00	0.40
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	25.308	0.00	0.19
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.28	0.00	0.085	0.000	25.391	0.00	2.24
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	25.391	0.00	1.06
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.487	0.00	2.64
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.487	0.00	1.25
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.582	0.00	2.64
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.582	0.00	1.25
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.677	0.00	2.64
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.677	0.00	1.25
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.771	0.00	2.64
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.771	0.00	1.25
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.863	0.00	2.64
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.863	0.00	1.25
Totals:											0.0	895.5

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



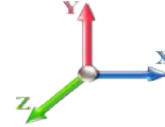
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Load Case: 1.2D + 1.6W 97 mph Wind

Iterations 28

Dead Load Factor 1.20

Wind Load Factor 1.60



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	-52.16	-37.67	0.00	-4351.5	0.00	4351.58	3683.82	1841.91	7606.69	3756.66	0.00	0.000	0.000	0.653
1.00	-51.83	-37.57	0.00	-4313.9	0.00	4313.90	3677.71	1838.86	7564.39	3735.77	0.00	-0.036	0.000	0.654
2.00	-51.48	-37.47	0.00	-4276.3	0.00	4276.34	3671.54	1835.77	7522.06	3714.86	0.02	-0.071	0.000	0.651
4.00	-50.82	-37.26	0.00	-4201.3	0.00	4201.39	3659.00	1829.50	7437.30	3673.00	0.06	-0.143	0.000	0.644
6.00	-50.17	-37.04	0.00	-4126.8	0.00	4126.87	3646.20	1823.10	7352.44	3631.09	0.14	-0.215	0.000	0.638
8.00	-49.52	-36.83	0.00	-4052.7	0.00	4052.79	3633.16	1816.58	7267.48	3589.13	0.24	-0.286	0.000	0.631
10.00	-48.88	-36.61	0.00	-3979.1	0.00	3979.14	3619.85	1809.93	7182.43	3547.13	0.38	-0.358	0.000	0.625
12.00	-48.24	-36.39	0.00	-3905.9	0.00	3905.93	3606.29	1803.15	7097.31	3505.10	0.54	-0.430	0.000	0.618
14.00	-47.60	-36.17	0.00	-3833.1	0.00	3833.14	3592.48	1796.24	7012.13	3463.03	0.74	-0.503	0.000	0.611
16.00	-46.99	-35.93	0.00	-3760.8	0.00	3760.80	3578.41	1789.21	6926.91	3420.94	0.97	-0.575	0.000	0.605
16.25	-46.83	-35.93	0.00	-3751.8	0.00	3751.81	3576.63	1788.32	6916.25	3415.68	1.00	-0.584	0.000	0.685
18.00	-45.88	-35.72	0.00	-3688.9	0.00	3688.94	3564.09	1782.04	6841.65	3378.83	1.22	-0.656	0.000	0.638
18.75	-45.47	-35.64	0.00	-3662.1	0.00	3662.15	3558.65	1779.32	6809.67	3363.04	1.33	-0.685	0.000	0.796
19.50	-45.06	-35.56	0.00	-3635.4	0.00	3635.42	3553.18	1776.59	6777.69	3347.24	1.44	-0.722	0.000	0.673
20.00	-44.77	-35.52	0.00	-3617.6	0.00	3617.64	3549.51	1774.75	6756.36	3336.71	1.52	-0.743	0.000	0.672
22.00	-43.68	-35.30	0.00	-3546.6	0.00	3546.60	3563.12	1781.56	6835.93	3376.01	1.85	-0.825	0.000	0.680
24.00	-43.06	-35.09	0.00	-3475.9	0.00	3475.99	3548.52	1774.26	6750.65	3333.89	2.21	-0.908	0.000	0.653
26.00	-42.43	-34.87	0.00	-3405.8	0.00	3405.82	3533.67	1766.84	6665.35	3291.77	2.61	-0.988	0.000	0.646
28.00	-41.82	-34.65	0.00	-3336.0	0.00	3336.09	3518.56	1759.28	6580.06	3249.64	3.04	-1.068	0.000	0.638
30.00	-41.22	-34.42	0.00	-3266.7	0.00	3266.78	3503.20	1751.60	6494.78	3207.53	3.50	-1.149	0.000	0.498
31.00	-40.92	-34.30	0.00	-3232.3	0.00	3232.37	3495.43	1747.71	6452.15	3186.48	3.75	-1.181	0.000	0.574
32.00	-40.60	-34.20	0.00	-3198.0	0.00	3198.06	3487.59	1743.79	6409.53	3165.43	4.00	-1.218	0.000	0.570
34.00	-40.00	-34.01	0.00	-3129.6	0.00	3129.66	3471.72	1735.86	6324.32	3123.35	4.53	-1.291	0.000	0.700
35.50	-39.56	-33.85	0.00	-3078.6	0.00	3078.65	3459.65	1729.82	6260.45	3091.80	4.94	-1.360	0.000	0.695
36.00	-39.39	-33.83	0.00	-3061.7	0.00	3061.73	3455.59	1727.80	6239.16	3081.29	5.09	-1.383	0.000	0.693
38.00	-38.79	-33.64	0.00	-2994.0	0.00	2994.07	3439.21	1719.61	6154.07	3039.26	5.69	-1.475	0.000	0.685
40.00	-38.18	-33.41	0.00	-2926.8	0.00	2926.80	3422.57	1711.29	6069.05	2997.28	6.32	-1.567	0.000	0.677
42.00	-37.59	-33.21	0.00	-2859.9	0.00	2859.98	3405.68	1702.84	5984.13	2955.34	7.00	-1.659	0.000	0.669
44.00	-37.01	-33.00	0.00	-2793.5	0.00	2793.56	3388.54	1694.27	5899.30	2913.44	7.72	-1.752	0.000	0.661
45.16	-36.68	-32.87	0.00	-2755.2	0.00	2755.28	3378.48	1689.24	5850.15	2889.17	8.15	-1.805	0.000	0.477
46.00	-36.42	-32.80	0.00	-2727.6	0.00	2727.67	3371.14	1685.57	5814.59	2871.61	8.47	-1.834	0.000	0.619
48.00	-35.85	-32.59	0.00	-2662.0	0.00	2662.07	3353.48	1676.74	5730.00	2829.83	9.26	-1.921	0.000	0.610
50.00	-35.27	-32.37	0.00	-2596.9	0.00	2596.90	3335.57	1667.79	5645.55	2788.13	10.08	-2.009	0.000	0.602
52.00	-34.30	-32.14	0.00	-2532.1	0.00	2532.15	3317.41	1658.70	5561.26	2746.50	10.94	-2.096	0.000	0.586
54.00	-33.33	-31.90	0.00	-2467.8	0.00	2467.88	3298.98	1649.49	5477.12	2704.94	11.84	-2.182	0.000	0.578
56.00	-32.37	-31.65	0.00	-2404.0	0.00	2404.09	3316.18	1658.09	5555.61	2743.71	12.77	-2.268	0.000	0.584
58.00	-31.81	-31.42	0.00	-2340.7	0.00	2340.79	3297.74	1648.87	5471.49	2702.16	13.74	-2.354	0.000	0.604
60.00	-31.25	-31.19	0.00	-2277.9	0.00	2277.95	3279.05	1639.52	5387.54	2660.71	14.74	-2.444	0.000	0.594
62.00	-30.70	-30.96	0.00	-2215.5	0.00	2215.57	3260.10	1630.05	5303.79	2619.34	15.79	-2.534	0.000	0.585
64.00	-30.15	-30.72	0.00	-2153.6	0.00	2153.66	3240.90	1620.45	5220.23	2578.08	16.87	-2.624	0.000	0.576
66.00	-29.61	-30.48	0.00	-2092.2	0.00	2092.22	3221.44	1610.72	5136.89	2536.92	17.99	-2.713	0.000	0.567
68.00	-29.07	-30.24	0.00	-2031.2	0.00	2031.25	3201.73	1600.86	5053.77	2495.87	19.14	-2.803	0.000	0.557
70.00	-28.54	-30.00	0.00	-1970.7	0.00	1970.76	3181.76	1590.88	4970.89	2454.94	20.33	-2.892	0.000	0.548
72.00	-28.01	-29.76	0.00	-1910.7	0.00	1910.76	3161.54	1580.77	4888.26	2414.13	21.56	-2.980	0.000	0.538
74.00	-27.49	-29.51	0.00	-1851.2	0.00	1851.24	3141.06	1570.53	4805.90	2373.45	22.83	-3.068	0.000	0.528
76.00	-26.97	-29.27	0.00	-1792.2	0.00	1792.22	3120.33	1560.16	4723.81	2332.91	24.14	-3.156	0.000	0.518
78.00	-26.46	-29.02	0.00	-1733.6	0.00	1733.69	3099.34	1549.67	4642.00	2292.51	25.48	-3.244	0.000	0.508
80.00	-25.95	-28.77	0.00	-1675.6	0.00	1675.65	3078.09	1539.05	4560.50	2252.26	26.85	-3.331	0.000	0.498

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (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



80.00	-25.95	-28.77	0.00	-1675.6	0.00	1675.65	2384.58	1192.29	3545.27	1750.88	26.85	-3.331	0.000	0.537
82.00	-25.50	-28.52	0.00	-1618.1	0.00	1618.12	2370.62	1185.31	3486.26	1721.73	28.27	-3.417	0.000	0.588
84.00	-25.05	-28.27	0.00	-1561.0	0.00	1561.08	2356.42	1178.21	3427.33	1692.63	29.72	-3.513	0.000	0.575
86.00	-24.61	-28.03	0.00	-1504.5	0.00	1504.54	2341.95	1170.98	3368.48	1663.57	31.21	-3.608	0.000	0.561
88.00	-24.17	-27.78	0.00	-1448.4	0.00	1448.48	2327.23	1163.62	3309.75	1634.56	32.74	-3.703	0.000	0.547
90.00	-23.74	-27.53	0.00	-1392.9	0.00	1392.93	2312.26	1156.13	3251.12	1605.61	34.31	-3.796	0.000	0.533
92.00	-23.31	-27.28	0.00	-1337.8	0.00	1337.87	2297.03	1148.52	3192.63	1576.72	35.92	-3.889	0.000	0.519
94.00	-22.90	-27.01	0.00	-1283.3	0.00	1283.32	2281.55	1140.77	3134.28	1547.90	37.57	-3.980	0.000	0.504
95.00	-22.69	-26.88	0.00	-1256.3	0.00	1256.31	2273.71	1136.85	3105.16	1533.52	38.41	-4.026	0.000	0.497
95.58	-22.49	-26.80	0.00	-1240.7	0.00	1240.72	2269.13	1134.57	3088.29	1525.19	38.90	-4.052	0.000	0.486
95.58	-22.49	-26.80	0.00	-1240.7	0.00	1240.72	2269.13	1134.57	3088.29	1525.19	38.90	-4.052	0.000	0.486
96.00	-22.32	-26.77	0.00	-1229.4	0.00	1229.46	2265.81	1132.90	3076.09	1519.16	39.25	-4.071	0.000	0.820
98.00	-21.60	-26.51	0.00	-1175.9	0.00	1175.92	2249.81	1124.91	3018.05	1490.50	40.99	-4.220	0.000	0.799
100.00	-20.89	-26.27	0.00	-1122.9	0.00	1122.90	2259.61	1129.81	3053.48	1508.00	42.79	-4.368	0.000	0.754
102.00	-20.46	-26.06	0.00	-1070.3	0.00	1070.36	2243.52	1121.76	2995.52	1479.37	44.65	-4.514	0.000	0.733
104.00	-20.03	-25.83	0.00	-1018.2	0.00	1018.24	2227.17	1113.59	2937.74	1450.84	46.57	-4.650	0.000	0.711
106.00	-19.60	-25.61	0.00	-966.58	0.00	966.58	2210.57	1105.28	2880.15	1422.40	48.54	-4.784	0.000	0.689
108.00	-19.18	-25.39	0.00	-915.36	0.00	915.36	2193.71	1096.86	2822.78	1394.06	50.57	-4.915	0.000	0.666
110.00	-18.72	-24.94	0.00	-864.00	0.00	864.00	2176.60	1088.30	2765.62	1365.84	52.66	-5.045	0.000	0.642
112.00	-18.32	-24.71	0.00	-814.13	0.00	814.13	2159.23	1079.61	2708.70	1337.73	54.79	-5.171	0.000	0.618
114.00	-17.93	-24.47	0.00	-764.71	0.00	764.71	2141.61	1070.80	2652.02	1309.73	56.99	-5.295	0.000	0.593
115.00	-17.73	-24.35	0.00	-740.25	0.00	740.25	2132.70	1066.35	2623.78	1295.79	58.10	-5.357	0.000	0.580
115.00	-17.73	-24.35	0.00	-740.25	0.00	740.25	1556.62	778.31	1923.08	949.74	58.10	-5.357	0.000	0.792
116.00	-17.54	-24.25	0.00	-715.89	0.00	715.89	1551.43	775.71	1904.13	940.38	59.23	-5.417	0.000	0.774
118.00	-17.18	-24.03	0.00	-667.38	0.00	667.38	1540.84	770.42	1866.26	921.68	61.53	-5.563	0.000	0.736
120.00	-16.83	-23.81	0.00	-619.31	0.00	619.31	1529.99	765.00	1828.43	902.99	63.88	-5.703	0.000	0.698
122.00	-16.49	-23.59	0.00	-571.69	0.00	571.69	1518.89	759.45	1790.65	884.33	66.30	-5.839	0.000	0.658
124.00	-16.16	-23.36	0.00	-524.51	0.00	524.51	1507.54	753.77	1752.93	865.70	68.77	-5.969	0.000	0.618
126.00	-15.83	-23.14	0.00	-477.79	0.00	477.79	1495.93	747.96	1715.28	847.11	71.29	-6.093	0.000	0.576
128.00	-15.50	-22.91	0.00	-431.52	0.00	431.52	1484.06	742.03	1677.72	828.56	73.87	-6.210	0.000	0.532
130.00	-15.19	-22.67	0.00	-385.71	0.00	385.71	1471.95	735.97	1640.26	810.06	76.49	-6.320	0.000	0.487
132.00	-14.88	-22.43	0.00	-340.36	0.00	340.36	1459.57	729.79	1602.91	791.62	79.15	-6.421	0.000	0.441
133.00	-10.05	-17.28	0.00	-317.93	0.00	317.93	1453.29	726.64	1584.28	782.42	80.50	-6.470	0.000	0.414
134.00	-9.91	-17.16	0.00	-300.65	0.00	300.65	1446.94	723.47	1565.68	773.23	81.86	-6.516	0.000	0.396
136.00	-9.65	-16.92	0.00	-266.33	0.00	266.33	1434.06	717.03	1528.59	754.91	84.60	-6.603	0.000	0.360
138.00	-9.40	-16.68	0.00	-232.48	0.00	232.48	1420.92	710.46	1491.65	736.67	87.38	-6.683	0.000	0.323
140.00	-9.15	-16.44	0.00	-199.12	0.00	199.12	1407.52	703.76	1454.87	718.50	90.19	-6.755	0.000	0.284
142.00	-8.91	-16.20	0.00	-166.24	0.00	166.24	1393.87	696.94	1418.26	700.42	93.03	-6.819	0.000	0.244
142.90	-5.03	-10.46	0.00	-151.64	0.00	151.64	1387.65	693.82	1401.84	692.32	94.31	-6.845	0.000	0.223
144.00	-4.91	-10.34	0.00	-140.13	0.00	140.13	1379.97	689.99	1381.83	682.44	95.89	-6.875	0.000	0.209
145.00	-4.81	-10.24	0.00	-129.79	0.00	129.79	1372.92	686.46	1363.70	673.48	97.33	-6.901	0.000	0.196
145.00	-4.81	-10.24	0.00	-129.79	0.00	129.79	931.20	465.60	925.89	604.09	97.33	-6.901	0.000	0.221
146.00	-4.71	-10.18	0.00	-119.55	0.00	119.55	925.24	462.62	912.49	594.77	98.77	-6.926	0.000	0.207
148.00	-4.51	-10.05	0.00	-99.19	0.00	99.19	913.32	456.66	885.99	576.36	101.68	-6.972	0.000	0.178
148.30	-2.35	-6.92	0.00	-90.22	0.00	90.22	911.53	455.77	882.04	573.63	102.12	-6.979	0.000	0.160
150.00	-2.19	-6.81	0.00	-78.45	0.00	78.45	901.40	450.70	859.86	558.24	104.60	-7.011	0.000	0.143
150.00	-2.19	-6.81	0.00	-78.45	0.00	78.45	556.65	278.33	359.38	213.69	104.60	-7.011	0.000	0.372
152.00	-2.05	-6.72	0.00	-64.83	0.00	64.83	556.65	278.33	359.38	213.69	107.54	-7.044	0.000	0.308
154.00	-1.90	-6.63	0.00	-51.39	0.00	51.39	556.65	278.33	359.38	213.69	110.50	-7.130	0.000	0.244
156.00	-1.75	-6.53	0.00	-38.14	0.00	38.14	556.65	278.33	359.38	213.69	113.49	-7.197	0.000	0.182
158.00	-1.61	-6.44	0.00	-25.08	0.00	25.08	556.65	278.33	359.38	213.69	116.51	-7.243	0.000	0.121
160.00	0.00	-6.18	0.00	-12.21	0.00	12.21	556.65	278.33	359.38	213.69	119.55	-7.271	0.000	0.058

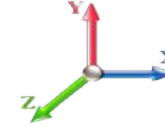
Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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	RB1 RB2	1.00	0.70	16.018	17.62	352.70	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT2 RB3	1.00	0.70	16.018	17.62	351.35	1.147 *	0.000	1.00	4.338	4.97	140.2	0.0	184.5
2.00		1.00	0.70	16.018	17.62	349.99	1.148 *	0.000	1.00	4.321	4.96	139.9	0.0	183.8
4.00		1.00	0.70	16.018	17.62	347.27	1.151 *	0.000	2.00	8.592	9.89	278.8	0.0	365.5
6.00		1.00	0.70	16.018	17.62	344.55	1.155 *	0.000	2.00	8.525	9.84	277.5	0.0	362.6
8.00		1.00	0.70	16.018	17.62	341.84	1.158 *	0.000	2.00	8.458	9.80	276.1	0.0	359.8
10.00		1.00	0.70	16.018	17.62	339.12	1.162 *	0.000	2.00	8.391	9.75	274.8	0.0	356.9
12.00		1.00	0.70	16.018	17.62	336.40	1.166 *	0.000	2.00	8.324	9.70	273.5	0.0	354.0
14.00		1.00	0.70	16.018	17.62	333.69	1.169 *	0.000	2.00	8.257	9.65	272.2	0.0	351.1
16.00	Bot - Section 2	1.00	0.70	16.018	17.62	330.97	1.173 *	0.000	2.00	8.190	9.61	270.9	0.0	348.3
16.25	RT1 RB4	1.00	0.70	16.018	17.62	330.63	1.175 *	0.000	0.25	1.035	1.22	34.3	0.0	87.4
18.00	RB5	1.00	0.70	16.018	17.62	328.25	1.177 *	0.000	1.75	7.217	8.50	239.5	0.0	609.0
18.75	RT3	1.00	0.70	16.018	17.62	327.24	1.180 *	0.000	0.75	3.077	3.63	102.4	0.0	259.7
19.50	RB6	1.00	0.70	16.018	17.62	326.22	1.181 *	0.000	0.75	3.068	3.62	102.2	0.0	258.8
20.00		1.00	0.70	16.018	17.62	325.54	1.183 *	0.000	0.50	2.040	2.41	68.0	0.0	172.1
22.00	Top - Section 1	1.00	0.70	16.018	17.62	322.82	1.185 *	0.000	2.00	8.118	9.62	271.2	0.0	684.9
24.00		1.00	0.70	16.018	17.62	325.36	1.181 *	0.000	2.00	8.052	9.51	268.1	0.0	342.3
26.00		1.00	0.70	16.018	17.62	322.64	1.185 *	0.000	2.00	7.985	9.46	266.8	0.0	339.5
28.00		1.00	0.70	16.018	17.62	319.92	1.189 *	0.000	2.00	7.918	9.42	265.5	0.0	336.6
30.00	RB7	1.00	0.70	16.031	17.63	317.34	1.194 *	0.000	2.00	7.851	9.37	264.4	0.0	333.7
31.00	RT4	1.00	0.71	16.182	17.80	317.46	1.197 *	0.000	1.00	3.900	4.67	132.9	0.0	165.8
32.00		1.00	0.71	16.330	17.96	317.54	1.199 *	0.000	1.00	3.883	4.66	133.8	0.0	165.1
34.00	RT5	1.00	0.73	16.615	18.28	317.53	1.040 *	0.000	2.00	7.717	8.03	234.7	0.0	328.0
35.50	RT6	1.00	0.74	16.821	18.50	317.41	1.043 *	0.000	1.50	5.744	5.99	177.3	0.0	244.1
36.00		1.00	0.74	16.889	18.58	317.35	1.044 *	0.000	0.50	1.906	1.99	59.2	0.0	81.0
38.00		1.00	0.75	17.152	18.87	317.00	1.046 *	0.000	2.00	7.583	7.93	239.5	0.0	322.3
40.00	Appurtenance(s)	1.00	0.76	17.405	19.15	316.49	1.049 *	0.000	2.00	7.516	7.89	241.6	0.0	319.4
42.00		1.00	0.77	17.649	19.41	315.86	1.052 *	0.000	2.00	7.449	7.84	243.5	0.0	316.5
44.00		1.00	0.78	17.885	19.67	315.09	1.056 *	0.000	2.00	7.382	7.79	245.3	0.0	313.6
45.16	RB8	1.00	0.79	18.019	19.82	314.59	1.058 *	0.000	1.16	4.251	4.50	142.6	0.0	180.6
46.00	RT7	1.00	0.79	18.114	19.93	314.21	1.060 *	0.000	0.84	3.064	3.25	103.5	0.0	130.2
48.00		1.00	0.80	18.335	20.17	313.22	1.062 *	0.000	2.00	7.248	7.70	248.4	0.0	307.9
50.00	Bot - Section 3	1.00	0.81	18.551	20.41	312.13	1.066 *	0.000	2.00	7.181	7.65	249.8	0.0	305.0
52.00		1.00	0.82	18.760	20.64	310.94	1.069 *	0.000	2.00	7.244	7.74	255.7	0.0	609.9
54.00		1.00	0.83	18.963	20.86	309.67	1.072 *	0.000	2.00	7.177	7.70	256.9	0.0	604.1
56.00	Top - Section 2	1.00	0.84	19.161	21.08	308.31	1.076 *	0.000	2.00	7.110	7.65	258.0	0.0	598.4
58.00	RT8 RB9	1.00	0.85	19.354	21.29	312.65	1.073 *	0.000	2.00	7.043	7.55	257.3	0.0	299.1
60.00		1.00	0.85	19.543	21.50	311.16	1.076 *	0.000	2.00	6.976	7.51	258.2	0.0	296.2
62.00		1.00	0.86	19.726	21.70	309.61	1.080 *	0.000	2.00	6.909	7.46	259.0	0.0	293.4
64.00		1.00	0.87	19.906	21.90	307.99	1.084 *	0.000	2.00	6.842	7.41	259.8	0.0	290.5
66.00		1.00	0.88	20.082	22.09	306.30	1.087 *	0.000	2.00	6.775	7.37	260.4	0.0	287.6
68.00		1.00	0.89	20.254	22.28	304.56	1.091 *	0.000	2.00	6.708	7.32	261.0	0.0	284.8
70.00		1.00	0.89	20.422	22.46	302.75	1.095 *	0.000	2.00	6.641	7.27	261.4	0.0	281.9
72.00		1.00	0.90	20.587	22.65	300.89	1.099 *	0.000	2.00	6.574	7.23	261.9	0.0	279.0
74.00		1.00	0.91	20.749	22.82	298.98	1.103 *	0.000	2.00	6.507	7.18	262.2	0.0	276.1
76.00		1.00	0.91	20.908	23.00	297.02	1.108 *	0.000	2.00	6.440	7.13	262.5	0.0	273.3
78.00	RT9 RB10	1.00	0.92	21.064	23.17	295.01	1.112 *	0.000	2.00	6.373	7.09	262.7	0.0	270.4

Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00 Top - Section 3	1.00	0.93	21.217	23.34	292.95	1.116 *	0.000	2.00	6.306	7.04	262.9	0.0	267.5
82.00	1.00	0.93	21.367	23.50	290.85	1.121 *	0.000	2.00	6.239	6.99	263.0	0.0	220.9
84.00	1.00	0.94	21.514	23.67	288.70	1.125 *	0.000	2.00	6.172	6.95	263.0	0.0	218.6
86.00	1.00	0.95	21.660	23.83	286.52	1.130 *	0.000	2.00	6.106	6.90	263.0	0.0	216.2
88.00	1.00	0.95	21.802	23.98	284.29	1.135 *	0.000	2.00	6.039	6.85	262.9	0.0	213.8
90.00	1.00	0.96	21.943	24.14	282.02	1.140 *	0.000	2.00	5.972	6.81	262.8	0.0	211.4
92.00	1.00	0.96	22.081	24.29	279.72	1.145 *	0.000	2.00	5.905	6.76	262.6	0.0	209.0
94.00	1.00	0.97	22.217	24.44	277.38	1.150 *	0.000	2.00	5.838	6.71	262.4	0.0	206.6
95.00 Bot - Section 5	1.00	0.97	22.284	24.51	276.20	1.154 *	0.000	1.00	2.894	3.34	130.9	0.0	102.4
95.58 RT10	1.00	0.98	22.323	24.56	275.51	1.156 *	0.000	0.58	1.702	1.97	77.3	0.0	119.4
96.00	1.00	0.98	22.351	24.59	275.01	1.157 *	0.000	0.42	1.229	1.42	55.9	0.0	86.2
98.00	1.00	0.98	22.483	24.73	272.60	1.160 *	0.000	2.00	5.812	6.74	266.8	0.0	407.5
100.00 Top - Section 4	1.00	0.99	22.613	24.87	270.16	1.055 *	0.000	2.00	5.745	6.06	241.2	0.0	402.7
102.00	1.00	0.99	22.742	25.02	272.91	1.052 *	0.000	2.00	5.678	5.97	239.1	0.0	200.9
104.00	1.00	1.00	22.868	25.16	270.42	1.056 *	0.000	2.00	5.611	5.93	238.6	0.0	198.5
106.00	1.00	1.00	22.993	25.29	267.90	1.061 *	0.000	2.00	5.544	5.88	238.0	0.0	196.1
108.00	1.00	1.01	23.116	25.43	265.35	1.065 *	0.000	2.00	5.477	5.83	237.3	0.0	193.7
110.00 Appurtenance(s)	1.00	1.02	23.238	25.56	262.78	1.070 *	0.000	2.00	5.410	5.79	236.7	0.0	191.3
112.00	1.00	1.02	23.358	25.69	260.17	1.074 *	0.000	2.00	5.343	5.74	236.0	0.0	188.9
114.00	1.00	1.03	23.476	25.82	257.54	1.079 *	0.000	2.00	5.276	5.69	235.2	0.0	186.5
115.00 Top - Section 5	1.00	1.03	23.535	25.89	256.22	1.083 *	0.000	1.00	2.613	2.83	117.2	0.0	92.4
116.00	1.00	1.03	23.593	25.95	254.89	1.085 *	0.000	1.00	2.596	2.82	117.0	0.0	73.6
118.00	1.00	1.04	23.708	26.08	252.21	1.089 *	0.000	2.00	5.142	5.60	233.7	0.0	145.7
120.00	1.00	1.04	23.823	26.20	249.50	1.094 *	0.000	2.00	5.075	5.55	232.8	0.0	143.8
122.00	1.00	1.05	23.935	26.33	246.77	1.099 *	0.000	2.00	5.008	5.51	231.9	0.0	141.9
124.00	1.00	1.05	24.047	26.45	244.01	1.105 *	0.000	2.00	4.941	5.46	231.0	0.0	140.0
126.00	1.00	1.06	24.157	26.57	241.24	1.110 *	0.000	2.00	4.874	5.41	230.1	0.0	138.1
128.00	1.00	1.06	24.266	26.69	238.43	1.116 *	0.000	2.00	4.807	5.37	229.1	0.0	136.1
130.00	1.00	1.07	24.374	26.81	235.61	1.122 *	0.000	2.00	4.741	5.32	228.1	0.0	134.2
132.00	1.00	1.07	24.480	26.93	232.77	1.128 *	0.000	2.00	4.674	5.27	227.1	0.0	132.3
133.00 Appurtenance(s)	1.00	1.07	24.533	26.99	231.34	1.133 *	0.000	1.00	2.312	2.62	113.0	0.0	65.4
134.00	1.00	1.07	24.586	27.04	229.90	1.136 *	0.000	1.00	2.295	2.61	112.8	0.0	65.0
136.00	1.00	1.08	24.690	27.16	227.02	1.141 *	0.000	2.00	4.540	5.18	225.0	0.0	128.5
138.00	1.00	1.08	24.793	27.27	224.11	1.147 *	0.000	2.00	4.473	5.13	223.9	0.0	126.6
140.00	1.00	1.09	24.895	27.38	221.19	1.154 *	0.000	2.00	4.406	5.08	222.8	0.0	124.7
142.00	1.00	1.09	24.996	27.50	218.24	1.161 *	0.000	2.00	4.339	5.04	221.6	0.0	122.8
142.90 Appurtenance(s)	1.00	1.09	25.042	27.55	216.91	1.166 *	0.000	0.90	1.931	2.25	99.2	0.0	54.6
144.00	1.00	1.10	25.096	27.61	215.28	1.000	0.000	1.10	2.341	2.34	103.4	0.0	66.2
145.00 Top - Section 6	1.00	1.10	25.146	27.66	213.79	1.000	0.000	1.00	2.111	2.11	93.4	0.0	59.7
146.00	1.00	1.10	25.196	27.72	205.10	0.600	0.000	1.00	2.023	1.21	53.8	0.0	57.8
148.00	1.00	1.11	25.294	27.82	202.21	0.600	0.000	2.00	3.998	2.40	106.8	0.0	114.2
148.30 Appurtenance(s)	1.00	1.11	25.308	27.84	201.77	0.600	0.000	0.30	0.594	0.36	15.9	0.0	17.0
150.00 Top - Section 7	1.00	1.11	25.391	27.93	199.29	0.600	0.000	1.70	3.339	2.00	89.5	0.0	95.4
152.00	1.00	1.11	25.487	28.04	136.50	0.645 *	0.000	2.00	2.667	1.72	77.2	0.0	75.8
154.00	1.00	1.12	25.582	28.14	136.75	0.645 *	0.000	2.00	2.667	1.72	77.4	0.0	75.8
156.00	1.00	1.12	25.677	28.24	137.00	0.645 *	0.000	2.00	2.667	1.72	77.7	0.0	75.8
158.00	1.00	1.13	25.771	28.35	137.25	0.645 *	0.000	2.00	2.667	1.72	78.0	0.0	75.8
160.00 Appurtenance(s)	1.00	1.13	25.863	28.45	137.50	0.645 *	0.000	2.00	2.667	1.72	78.3	0.0	75.8

* Cf Adjusted by Linear Load Ra Effect

Totals:	160.00	18,859.1	21,407.5
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Discrete Appurtenance Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

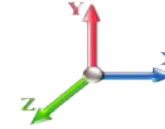


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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 27

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	DB-T1-6Z-8AB-OZ	1	25.955	28.551	1.00	1.00	4.80	39.60	0.000	2.000	219.27	0.00	438.54
2	160.00	SBNHH-1D65B	9	25.955	28.551	0.81	1.00	59.49	324.00	0.000	2.000	2717.42	0.00	5434.85
3	160.00	6' Lightning rod	1	25.955	28.551	1.00	1.00	0.38	5.85	0.000	2.000	17.36	0.00	34.72
4	160.00	Low Profile Platform	1	25.955	28.551	1.00	1.00	22.00	1080.00	0.000	2.000	1004.99	0.00	2009.98
5	160.00	DB846F65ZAXY	6	25.955	28.551	0.93	1.00	39.34	113.40	0.000	2.000	1797.06	0.00	3594.12
6	160.00	DB222	1	25.955	28.551	1.00	1.00	2.25	14.40	0.000	2.000	102.78	0.00	205.57
7	160.00	RRH2x90-AWS	3	25.955	28.551	0.67	1.00	5.35	118.80	0.000	2.000	244.24	0.00	488.48
8	148.30	APXVTM14-C-120	3	25.391	27.930	0.61	0.80	11.59	151.20	0.000	1.700	518.14	0.00	880.83
9	148.30	1900MHz RRH	3	25.487	28.036	0.54	0.80	6.11	118.80	0.000	3.700	274.10	0.00	1014.16
10	148.30	800 MHz RRH	3	25.487	28.036	0.54	0.80	4.00	143.10	0.000	3.700	179.61	0.00	664.54
11	148.30	APXVSPP18-C-A20	3	25.487	28.036	0.66	0.80	15.98	153.90	0.000	3.700	716.63	0.00	2651.55
12	148.30	ACU-A20-N	4	25.487	28.036	0.54	0.80	0.30	3.60	0.000	3.700	13.46	0.00	49.82
13	148.30	ALU 800MHz External	3	25.487	28.036	0.54	0.80	1.25	23.76	0.000	3.700	56.26	0.00	208.17
14	148.30	TD-RRH8x20-25	3	25.391	27.930	0.54	0.80	6.51	189.00	0.000	1.700	291.03	0.00	494.74
15	148.30	Low Profile Platform	1	25.308	27.839	1.00	1.00	17.50	1080.00	0.000	0.000	779.50	0.00	0.00
16	142.90	Commscope	3	25.042	27.546	0.60	0.75	20.65	135.81	0.000	0.000	909.93	0.00	0.00
17	142.90	Platform w/ HR & Bracing	1	25.042	27.546	1.00	1.00	51.70	2021.40	0.000	0.000	2278.58	0.00	0.00
18	142.90	Ericsson AIR 21 B2A/B4P	3	25.042	27.546	0.65	0.75	11.78	247.05	0.000	0.000	519.36	0.00	0.00
19	142.90	Ericsson AIR 3246 B66	3	25.042	27.546	0.62	0.75	14.83	486.00	0.000	0.000	653.51	0.00	0.00
20	142.90	Ericsson AIR 32 B4A/B2P	1	25.042	27.546	0.65	0.75	4.25	95.22	0.000	0.000	187.21	0.00	0.00
21	142.90	Ericsson RRUS11B12 -	1	25.042	27.546	0.50	0.75	1.29	45.90	0.000	0.000	56.92	0.00	0.00
22	142.90	Ericsson RUS01 B12 -	3	25.042	27.546	0.50	0.75	3.80	137.70	0.000	0.000	167.43	0.00	0.00
23	142.90	Ericsson KRY 112 144/1	3	25.076	27.584	0.52	0.75	0.65	29.70	0.000	0.700	28.50	0.00	19.95
24	142.90	Ericsson AIR 21 B4A	1	25.042	27.546	0.67	0.75	7.70	113.40	0.000	0.000	339.49	0.00	0.00
25	133.00	(3) SitePro 1 P/N	2	24.533	26.986	0.75	0.75	32.01	2443.99	0.000	0.000	1382.13	0.00	0.00
26	133.00	Kathrein 800 10121	3	24.533	26.986	0.63	0.80	9.76	125.01	0.000	0.000	421.61	0.00	0.00
27	133.00	Kathrein 800-10965	3	24.533	26.986	0.57	0.80	23.53	293.22	0.000	0.000	1016.08	0.00	0.00
28	133.00	Cci TPA-65R-LCUUUU-H8	1	24.533	26.986	0.63	0.80	8.06	94.50	0.000	0.000	347.93	0.00	0.00
29	133.00	Quintel QS66512-2	2	24.533	26.986	0.74	0.80	11.97	199.80	0.000	0.000	516.73	0.00	0.00
30	133.00	Ericsson RRUS-32 RRU	3	24.533	26.986	0.54	0.80	6.22	207.90	0.000	0.000	268.70	0.00	0.00
31	133.00	Powerwave LGP21401	6	24.533	26.986	0.54	0.80	4.15	76.14	0.000	0.000	179.13	0.00	0.00
32	133.00	Ericsson B2/B66A 8843	3	24.533	26.986	0.54	0.80	2.64	194.40	0.000	0.000	113.87	0.00	0.00
33	133.00	Ericsson B5/B12 4449	3	24.533	26.986	0.54	0.80	3.17	191.70	0.000	0.000	136.78	0.00	0.00
34	133.00	Raycap DC6-48-60-18-8F	3	24.533	26.986	0.80	0.80	2.21	85.86	0.000	0.000	95.34	0.00	0.00
35	110.00	3 ft Standoff	1	23.238	25.561	1.00	1.00	2.63	36.00	0.000	0.000	107.56	0.00	0.00
36	110.00	DB222	1	23.552	25.907	1.00	1.00	2.65	14.40	0.000	5.292	109.85	0.00	581.27
37	40.00	GPS	1	17.405	19.145	1.00	1.00	1.00	9.00	0.000	0.000	30.63	0.00	0.00

Totals: 10,843.51

18,799.12

Total Applied Force Summary

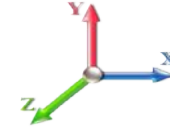
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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		140.22	231.34	0.00	0.00
2.00		139.89	230.63	0.00	0.00
4.00		278.79	459.10	0.00	0.00
6.00		277.47	456.23	0.00	0.00
8.00		276.15	453.36	0.00	0.00
10.00		274.83	450.49	0.00	0.00
12.00		273.50	447.62	0.00	0.00
14.00		272.18	444.75	0.00	0.00
16.00		270.86	441.88	0.00	0.00
16.25		34.30	99.06	0.00	0.00
18.00		239.53	690.90	0.00	0.00
18.75		102.35	294.76	0.00	0.00
19.50		102.17	293.95	0.00	0.00
20.00		68.01	195.52	0.00	0.00
22.00		271.22	778.49	0.00	0.00
24.00		268.13	435.95	0.00	0.00
26.00		266.81	433.08	0.00	0.00
28.00		265.49	430.21	0.00	0.00
30.00		264.39	427.34	0.00	0.00
31.00		132.94	212.59	0.00	0.00
32.00		133.81	211.88	0.00	0.00
34.00		234.72	421.60	0.00	0.00
35.50		177.32	314.32	0.00	0.00
36.00		59.17	104.41	0.00	0.00
38.00		239.47	415.86	0.00	0.00
40.00	(1) attachments	272.20	421.99	0.00	0.00
42.00		243.51	409.84	0.00	0.00
44.00		245.29	406.97	0.00	0.00
45.16		142.65	234.73	0.00	0.00
46.00		103.53	169.37	0.00	0.00
48.00		248.44	401.23	0.00	0.00
50.00		249.82	398.36	0.00	0.00
52.00		255.66	703.20	0.00	0.00
54.00		256.88	697.46	0.00	0.00
56.00		258.00	691.72	0.00	0.00
58.00		257.35	392.43	0.00	0.00
60.00		258.24	389.56	0.00	0.00
62.00		259.04	386.69	0.00	0.00
64.00		259.76	383.82	0.00	0.00
66.00		260.40	380.95	0.00	0.00
68.00		260.96	378.08	0.00	0.00
70.00		261.45	375.21	0.00	0.00
72.00		261.86	372.34	0.00	0.00
74.00		262.21	369.47	0.00	0.00
76.00		262.49	366.60	0.00	0.00
78.00		262.71	363.73	0.00	0.00

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00		262.86	360.86	0.00	0.00
82.00		262.96	314.26	0.00	0.00
84.00		263.00	311.87	0.00	0.00
86.00		262.99	309.48	0.00	0.00
88.00		262.93	307.09	0.00	0.00
90.00		262.81	304.70	0.00	0.00
92.00		262.64	302.31	0.00	0.00
94.00		262.43	299.92	0.00	0.00
95.00		130.92	149.06	0.00	0.00
95.58		77.28	146.42	0.00	0.00
96.00		55.93	105.78	0.00	0.00
98.00		266.82	500.80	0.00	0.00
100.00		241.17	496.02	0.00	0.00
102.00		239.13	294.20	0.00	0.00
104.00		238.57	291.81	0.00	0.00
106.00		237.98	289.42	0.00	0.00
108.00		237.35	287.03	0.00	0.00
110.00	(2) attachments	454.09	335.04	0.00	581.27
112.00		235.97	281.31	0.00	0.00
114.00		235.23	278.92	0.00	0.00
115.00		117.18	138.56	0.00	0.00
116.00		116.99	119.76	0.00	0.00
118.00		233.65	238.09	0.00	0.00
120.00		232.81	236.18	0.00	0.00
122.00		231.94	234.27	0.00	0.00
124.00		231.04	232.35	0.00	0.00
126.00		230.10	230.44	0.00	0.00
128.00		229.14	228.53	0.00	0.00
130.00		228.15	226.61	0.00	0.00
132.00		227.12	224.70	0.00	0.00
133.00	(29) attachments	4591.34	4024.15	0.00	0.00
134.00		112.78	99.71	0.00	0.00
136.00		225.00	197.98	0.00	0.00
138.00		223.89	196.07	0.00	0.00
140.00		222.76	194.15	0.00	0.00
142.00		221.60	192.24	0.00	0.00
142.90	(19) attachments	5240.17	3398.06	0.00	19.95
144.00		103.41	90.14	0.00	0.00
145.00		93.42	81.44	0.00	0.00
146.00		53.83	79.53	0.00	0.00
148.00		106.78	157.67	0.00	0.00
148.30	(23) attachments	2844.60	1886.85	0.00	5963.81
150.00		89.53	126.47	0.00	0.00
152.00		77.15	112.38	0.00	0.00
154.00		77.44	112.38	0.00	0.00
156.00		77.73	112.38	0.00	0.00
158.00		78.01	112.38	0.00	0.00
160.00	(22) attachments	6181.42	1808.43	0.00	12206.26
Totals:		37,658.24	39,127.25	0.00	18,771.28

Linear Appurtenance Segment Forces (Factored)

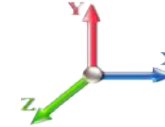
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	16.018	0.00	0.99
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	16.018	0.00	0.47
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	16.018	0.00	0.99
1.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	16.018	0.00	1.72
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	16.018	0.00	0.47
1.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	16.018	0.00	0.00
1.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.147	16.018	0.00	0.00
2.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.148	16.018	0.00	0.99
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	0.47
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.148	16.018	0.00	0.99
2.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	1.72
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	0.47
2.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.148	16.018	0.00	0.00
2.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.148	16.018	0.00	0.00
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	16.018	0.00	1.98
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	0.94
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	16.018	0.00	1.98
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	3.43
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	0.94
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	16.018	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	16.018	0.00	0.00
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	16.018	0.00	1.98
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	0.94
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	16.018	0.00	1.98
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	3.43
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	0.94
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	16.018	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	16.018	0.00	0.00
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	16.018	0.00	1.98
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	0.94
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	16.018	0.00	1.98
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	3.43
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	0.94
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	16.018	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	16.018	0.00	0.00
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	16.018	0.00	1.98
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	0.94
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	16.018	0.00	1.98
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	3.43
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	0.94
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	16.018	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	16.018	0.00	0.00
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	16.018	0.00	1.98
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	0.94
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	16.018	0.00	1.98
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	3.43
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

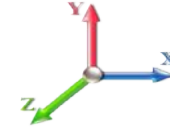
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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)
12.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.155	1.166	16.018	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	16.018	0.00	0.00
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	16.018	0.00	1.98
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	0.94
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	16.018	0.00	1.98
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	3.43
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	0.94
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	16.018	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	16.018	0.00	0.00
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	16.018	0.00	1.98
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	0.94
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	16.018	0.00	1.98
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	3.43
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	0.94
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	16.018	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	16.018	0.00	0.00
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	16.018	0.00	0.25
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.12
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	16.018	0.00	0.25
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.43
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.12
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	16.018	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	16.018	0.00	0.00
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	16.018	0.00	1.73
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	0.82
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	16.018	0.00	1.73
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	3.01
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	0.82
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	16.018	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	16.018	0.00	0.00
18.75	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.180	16.018	0.00	0.74
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	16.018	0.00	0.35
18.75	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.180	16.018	0.00	0.74
18.75	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	16.018	0.00	1.29
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	16.018	0.00	0.35
18.75	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.180	16.018	0.00	0.00
18.75	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.180	16.018	0.00	0.00
19.50	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.181	16.018	0.00	0.74
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.35
19.50	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.181	16.018	0.00	0.74
19.50	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	1.29
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.35
19.50	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.181	16.018	0.00	0.00
19.50	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.181	16.018	0.00	0.00
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	16.018	0.00	0.50
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.23
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	16.018	0.00	0.50

Linear Appurtenance Segment Forces (Factored)

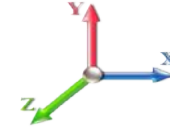
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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)
20.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.86
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.23
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	16.018	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	16.018	0.00	0.00
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	1.98
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	0.94
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	1.98
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	3.43
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	0.94
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	16.018	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	16.018	0.00	0.00
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	16.018	0.00	1.98
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.94
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	16.018	0.00	1.98
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	3.43
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.94
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	16.018	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	16.018	0.00	0.00
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	1.98
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	0.94
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	1.98
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	3.43
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	0.94
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	16.018	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	16.018	0.00	0.00
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	16.018	0.00	1.98
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	0.94
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	16.018	0.00	1.98
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	3.43
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	0.94
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	16.018	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	16.018	0.00	0.00
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	16.031	0.00	1.98
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	0.94
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	16.031	0.00	1.98
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	3.43
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	0.94
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	16.031	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	16.031	0.00	0.00
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	16.182	0.00	0.99
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	0.47
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	16.182	0.00	0.99
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	1.72
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	0.47
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	16.182	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	16.182	0.00	0.00
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	16.330	0.00	0.99

Linear Appurtenance Segment Forces (Factored)

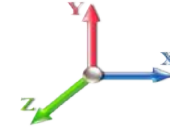
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	0.47
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	16.330	0.00	0.99
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	1.72
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	0.47
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	16.330	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	16.330	0.00	0.00
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	16.615	0.00	1.98
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	0.94
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	16.615	0.00	1.98
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	3.43
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	0.94
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	16.615	0.00	0.00
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	16.821	0.00	1.49
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	0.70
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	16.821	0.00	1.49
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	2.58
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	0.70
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	16.821	0.00	0.00
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	16.889	0.00	0.50
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.23
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	16.889	0.00	0.50
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.86
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.23
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	16.889	0.00	0.00
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	17.152	0.00	1.98
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	0.94
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	17.152	0.00	1.98
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	3.43
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	0.94
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	17.152	0.00	0.00
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	17.405	0.00	1.98
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	0.94
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	17.405	0.00	1.98
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	3.43
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	0.94
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	17.405	0.00	0.00
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	17.649	0.00	1.98
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	0.94
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	17.649	0.00	1.98
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	3.43
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	0.94
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	17.649	0.00	0.00
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	17.885	0.00	1.98
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	0.94
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	17.885	0.00	1.98
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	3.43
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

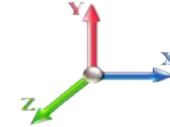
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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)
44.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.119	1.056	17.885	0.00	0.00
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	18.019	0.00	1.15
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	0.54
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	18.019	0.00	1.15
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	1.99
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	0.54
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	18.019	0.00	0.00
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	18.114	0.00	0.83
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	0.39
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	18.114	0.00	0.83
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	1.44
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	0.39
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	18.114	0.00	0.00
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	18.335	0.00	1.98
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	0.94
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	18.335	0.00	1.98
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	3.43
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	0.94
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	18.335	0.00	0.00
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	18.551	0.00	1.98
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	0.94
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	18.551	0.00	1.98
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	3.43
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	0.94
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	18.551	0.00	0.00
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	18.760	0.00	1.98
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	0.94
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	18.760	0.00	1.98
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	3.43
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	0.94
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	18.760	0.00	0.00
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	18.963	0.00	1.98
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	0.94
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	18.963	0.00	1.98
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	3.43
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	0.94
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	18.963	0.00	0.00
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.161	0.00	1.98
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	0.94
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.161	0.00	1.98
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	3.43
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	0.94
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	19.161	0.00	0.00
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	19.354	0.00	1.98
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	0.94
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	19.354	0.00	1.98
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	3.43

Linear Appurtenance Segment Forces (Factored)

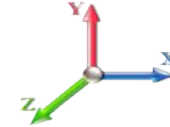
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	0.94
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	19.354	0.00	0.00
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.543	0.00	1.98
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	0.94
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.543	0.00	1.98
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	3.43
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	0.94
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	19.543	0.00	0.00
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	19.726	0.00	1.98
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	0.94
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	19.726	0.00	1.98
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	3.43
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	0.94
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	19.726	0.00	0.00
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	19.906	0.00	1.98
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	0.94
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	19.906	0.00	1.98
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	3.43
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	0.94
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	19.906	0.00	0.00
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	20.082	0.00	1.98
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	0.94
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	20.082	0.00	1.98
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	3.43
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	0.94
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	20.082	0.00	0.00
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	20.254	0.00	1.98
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	0.94
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	20.254	0.00	1.98
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	3.43
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	0.94
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	20.254	0.00	0.00
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	20.422	0.00	1.98
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	0.94
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	20.422	0.00	1.98
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	3.43
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	0.94
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	20.422	0.00	0.00
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	20.587	0.00	1.98
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	0.94
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	20.587	0.00	1.98
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	3.43
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	0.94
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	20.587	0.00	0.00
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	20.749	0.00	1.98
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	0.94
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	20.749	0.00	1.98

Linear Appurtenance Segment Forces (Factored)

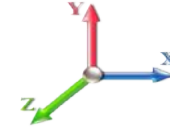
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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)
74.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	3.43
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	0.94
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	20.749	0.00	0.00
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	20.908	0.00	1.98
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	0.94
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	20.908	0.00	1.98
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	3.43
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	0.94
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	20.908	0.00	0.00
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	21.064	0.00	1.98
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	0.94
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	21.064	0.00	1.98
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	3.43
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	0.94
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	21.064	0.00	0.00
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	21.217	0.00	1.98
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	0.94
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	21.217	0.00	1.98
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	3.43
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	0.94
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	21.217	0.00	0.00
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	21.367	0.00	1.98
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	0.94
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	21.367	0.00	1.98
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	3.43
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	0.94
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	21.367	0.00	0.00
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	21.514	0.00	1.98
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	0.94
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	21.514	0.00	1.98
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	3.43
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	0.94
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	21.514	0.00	0.00
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	21.660	0.00	1.98
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	0.94
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	21.660	0.00	1.98
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	3.43
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	0.94
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	21.660	0.00	0.00
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	21.802	0.00	1.98
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	0.94
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	21.802	0.00	1.98
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	3.43
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	0.94
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	21.802	0.00	0.00
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	21.943	0.00	1.98
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

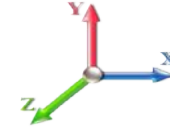
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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)
90.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	21.943	0.00	1.98
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	3.43
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	0.94
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	21.943	0.00	0.00
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	22.081	0.00	1.98
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	0.94
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	22.081	0.00	1.98
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	3.43
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	0.94
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	22.081	0.00	0.00
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	22.217	0.00	1.98
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	0.94
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	22.217	0.00	1.98
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	3.43
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	0.94
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	22.217	0.00	0.00
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	22.284	0.00	0.99
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	0.47
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	22.284	0.00	0.99
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	1.72
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	0.47
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	22.284	0.00	0.00
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	22.323	0.00	0.57
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	0.27
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	22.323	0.00	0.57
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	1.00
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	0.27
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	22.323	0.00	0.00
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	22.351	0.00	0.42
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.20
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	22.351	0.00	0.42
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.72
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.20
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	22.351	0.00	0.00
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	22.483	0.00	1.98
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	0.94
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	22.483	0.00	1.98
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	3.43
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	0.94
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	22.483	0.00	0.00
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	22.613	0.00	1.98
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	0.94
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	22.613	0.00	1.98
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	3.43
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	0.94
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	22.742	0.00	1.98
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	0.94

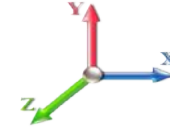
Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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)
102.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	22.742	0.00	1.98
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	3.43
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	0.94
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	22.868	0.00	1.98
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	0.94
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	22.868	0.00	1.98
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	3.43
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	0.94
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	22.993	0.00	1.98
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	0.94
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	22.993	0.00	1.98
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	3.43
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	0.94
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	23.116	0.00	1.98
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	0.94
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	23.116	0.00	1.98
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	3.43
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	0.94
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	23.238	0.00	1.98
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	0.94
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	23.238	0.00	1.98
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	3.43
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	0.94
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	23.358	0.00	1.98
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	23.358	0.00	0.94
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	23.358	0.00	1.98
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	23.358	0.00	3.43
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	23.476	0.00	1.98
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	23.476	0.00	0.94
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	23.476	0.00	1.98
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	23.476	0.00	3.43
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	23.535	0.00	0.99
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	23.535	0.00	0.47
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	23.535	0.00	0.99
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	23.535	0.00	1.72
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	23.593	0.00	0.99
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	23.593	0.00	0.47
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	23.593	0.00	0.99
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	23.593	0.00	1.72
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	23.708	0.00	1.98
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	23.708	0.00	0.94
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	23.708	0.00	1.98
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	23.708	0.00	3.43
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	23.823	0.00	1.98
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	23.823	0.00	0.94
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	23.823	0.00	1.98
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	23.823	0.00	3.43

Linear Appurtenance Segment Forces (Factored)

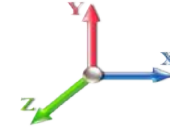
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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)
122.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	23.935	0.00	1.98
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	23.935	0.00	0.94
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	23.935	0.00	1.98
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	23.935	0.00	3.43
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	24.047	0.00	1.98
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	24.047	0.00	0.94
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	24.047	0.00	1.98
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	24.047	0.00	3.43
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	24.157	0.00	1.98
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	24.157	0.00	0.94
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	24.157	0.00	1.98
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	24.157	0.00	3.43
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	24.266	0.00	1.98
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	24.266	0.00	0.94
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	24.266	0.00	1.98
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	24.266	0.00	3.43
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	24.374	0.00	1.98
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	24.374	0.00	0.94
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	24.374	0.00	1.98
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	24.374	0.00	3.43
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	24.480	0.00	1.98
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	24.480	0.00	0.94
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	24.480	0.00	1.98
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	24.480	0.00	3.43
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	24.533	0.00	0.99
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	24.533	0.00	0.47
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	24.533	0.00	0.99
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	24.533	0.00	1.72
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	24.586	0.00	0.99
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	24.586	0.00	0.47
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	24.586	0.00	0.99
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	24.586	0.00	1.72
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	24.690	0.00	1.98
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	24.690	0.00	0.94
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	24.690	0.00	1.98
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	24.690	0.00	3.43
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	24.793	0.00	1.98
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	24.793	0.00	0.94
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	24.793	0.00	1.98
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	24.793	0.00	3.43
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	24.895	0.00	1.98
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	24.895	0.00	0.94
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	24.895	0.00	1.98
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	24.895	0.00	3.43
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	24.996	0.00	1.98
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	24.996	0.00	0.94
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	24.996	0.00	1.98

Linear Appurtenance Segment Forces (Factored)

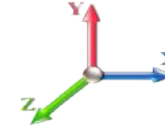
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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)
142.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	24.996	0.00	3.43
142.90	1 5/8" Hybrid	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	25.042	0.00	0.89
142.90	7/8" Coax	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	25.042	0.00	0.42
142.90	1 5/8" Fiber	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	25.042	0.00	0.89
142.90	1-1/4" Fiber	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	25.042	0.00	1.55
144.00	1 5/8" Hybrid	Yes	1.10	0.000	2.00	0.18	0.00	0.078	0.000	25.096	0.00	1.09
144.00	7/8" Coax	Yes	1.10	0.000	0.00	0.00	0.00	0.078	0.000	25.096	0.00	0.51
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	25.146	0.00	0.99
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	25.146	0.00	0.47
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	25.196	0.00	0.99
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	25.196	0.00	0.47
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	25.294	0.00	1.98
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	25.294	0.00	0.94
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.05	0.00	0.084	0.000	25.308	0.00	0.30
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	25.308	0.00	0.14
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.28	0.00	0.085	0.000	25.391	0.00	1.68
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	25.391	0.00	0.80
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.487	0.00	1.98
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.487	0.00	0.94
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.582	0.00	1.98
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.582	0.00	0.94
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.677	0.00	1.98
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.677	0.00	0.94
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.771	0.00	1.98
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.771	0.00	0.94
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.863	0.00	1.98
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.863	0.00	0.94
Totals:											0.0	671.6

Calculated Forces

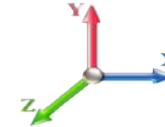
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 27

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	-39.11	-37.67	0.00	-4300.3	0.00	4300.34	3683.82	1841.91	7606.69	3756.66	0.00	0.000	0.000	0.643
1.00	-38.86	-37.55	0.00	-4262.6	0.00	4262.68	3677.71	1838.86	7564.39	3735.77	0.00	-0.035	0.000	0.645
2.00	-38.59	-37.45	0.00	-4225.1	0.00	4225.12	3671.54	1835.77	7522.06	3714.86	0.02	-0.071	0.000	0.641
4.00	-38.09	-37.22	0.00	-4150.2	0.00	4150.23	3659.00	1829.50	7437.30	3673.00	0.06	-0.141	0.000	0.635
6.00	-37.59	-36.98	0.00	-4075.8	0.00	4075.80	3646.20	1823.10	7352.44	3631.09	0.14	-0.212	0.000	0.628
8.00	-37.09	-36.75	0.00	-4001.8	0.00	4001.84	3633.16	1816.58	7267.48	3589.13	0.24	-0.283	0.000	0.621
10.00	-36.60	-36.52	0.00	-3928.3	0.00	3928.34	3619.85	1809.93	7182.43	3547.13	0.37	-0.354	0.000	0.615
12.00	-36.11	-36.29	0.00	-3855.3	0.00	3855.30	3606.29	1803.15	7097.31	3505.10	0.54	-0.425	0.000	0.608
14.00	-35.62	-36.06	0.00	-3782.7	0.00	3782.73	3592.48	1796.24	7012.13	3463.03	0.73	-0.496	0.000	0.601
16.00	-35.16	-35.81	0.00	-3710.6	0.00	3710.62	3578.41	1789.21	6926.91	3420.94	0.95	-0.568	0.000	0.595
16.25	-35.03	-35.79	0.00	-3701.6	0.00	3701.67	3576.63	1788.32	6916.25	3415.68	0.98	-0.577	0.000	0.674
18.00	-34.31	-35.58	0.00	-3639.0	0.00	3639.03	3564.09	1782.04	6841.65	3378.83	1.21	-0.648	0.000	0.628
18.75	-34.00	-35.49	0.00	-3612.3	0.00	3612.34	3558.65	1779.32	6809.67	3363.04	1.31	-0.677	0.000	0.783
19.50	-33.69	-35.40	0.00	-3585.7	0.00	3585.72	3553.18	1776.59	6777.69	3347.24	1.42	-0.713	0.000	0.662
20.00	-33.46	-35.36	0.00	-3568.0	0.00	3568.02	3549.51	1774.75	6756.36	3336.71	1.50	-0.733	0.000	0.660
22.00	-32.64	-35.13	0.00	-3497.3	0.00	3497.30	3563.12	1781.56	6835.93	3376.01	1.82	-0.814	0.000	0.669
24.00	-32.16	-34.90	0.00	-3427.0	0.00	3427.05	3548.52	1774.26	6750.65	3333.89	2.18	-0.896	0.000	0.642
26.00	-31.68	-34.67	0.00	-3357.2	0.00	3357.26	3533.67	1766.84	6665.35	3291.77	2.57	-0.975	0.000	0.635
28.00	-31.21	-34.44	0.00	-3287.9	0.00	3287.93	3518.56	1759.28	6580.06	3249.64	3.00	-1.054	0.000	0.627
30.00	-30.75	-34.19	0.00	-3219.0	0.00	3219.06	3503.20	1751.60	6494.78	3207.53	3.46	-1.133	0.000	0.489
31.00	-30.52	-34.07	0.00	-3184.8	0.00	3184.86	3495.43	1747.71	6452.15	3186.48	3.70	-1.165	0.000	0.564
32.00	-30.28	-33.97	0.00	-3150.7	0.00	3150.79	3487.59	1743.79	6409.53	3165.43	3.95	-1.201	0.000	0.560
34.00	-29.82	-33.76	0.00	-3082.8	0.00	3082.86	3471.72	1735.86	6324.32	3123.35	4.47	-1.274	0.000	0.688
35.50	-29.49	-33.60	0.00	-3032.2	0.00	3032.22	3459.65	1729.82	6260.45	3091.80	4.88	-1.342	0.000	0.683
36.00	-29.35	-33.56	0.00	-3015.4	0.00	3015.42	3455.59	1727.80	6239.16	3081.29	5.02	-1.365	0.000	0.681
38.00	-28.89	-33.36	0.00	-2948.3	0.00	2948.30	3439.21	1719.61	6154.07	3039.26	5.61	-1.455	0.000	0.673
40.00	-28.42	-33.12	0.00	-2881.5	0.00	2881.58	3422.57	1711.29	6069.05	2997.28	6.24	-1.546	0.000	0.665
42.00	-27.97	-32.91	0.00	-2815.3	0.00	2815.33	3405.68	1702.84	5984.13	2955.34	6.91	-1.636	0.000	0.657
44.00	-27.52	-32.69	0.00	-2749.5	0.00	2749.51	3388.54	1694.27	5899.30	2913.44	7.61	-1.727	0.000	0.648
45.16	-27.27	-32.56	0.00	-2711.5	0.00	2711.59	3378.48	1689.24	5850.15	2889.17	8.04	-1.780	0.000	0.468
46.00	-27.07	-32.48	0.00	-2684.2	0.00	2684.24	3371.14	1685.57	5814.59	2871.61	8.36	-1.808	0.000	0.607
48.00	-26.63	-32.26	0.00	-2619.2	0.00	2619.29	3353.48	1676.74	5730.00	2829.83	9.13	-1.894	0.000	0.599
50.00	-26.19	-32.03	0.00	-2554.7	0.00	2554.78	3335.57	1667.79	5645.55	2788.13	9.94	-1.980	0.000	0.591
52.00	-25.45	-31.79	0.00	-2490.7	0.00	2490.71	3317.41	1658.70	5561.26	2746.50	10.79	-2.066	0.000	0.575
54.00	-24.72	-31.54	0.00	-2427.1	0.00	2427.14	3298.98	1649.49	5477.12	2704.94	11.68	-2.151	0.000	0.567
56.00	-23.99	-31.29	0.00	-2364.0	0.00	2364.05	3316.18	1658.09	5555.61	2743.71	12.59	-2.236	0.000	0.573
58.00	-23.56	-31.06	0.00	-2301.4	0.00	2301.46	3297.74	1648.87	5471.49	2702.16	13.55	-2.320	0.000	0.592
60.00	-23.14	-30.82	0.00	-2239.3	0.00	2239.34	3279.05	1639.52	5387.54	2660.71	14.54	-2.409	0.000	0.583
62.00	-22.71	-30.58	0.00	-2177.7	0.00	2177.71	3260.10	1630.05	5303.79	2619.34	15.57	-2.497	0.000	0.574
64.00	-22.30	-30.34	0.00	-2116.5	0.00	2116.55	3240.90	1620.45	5220.23	2578.08	16.63	-2.585	0.000	0.565
66.00	-21.88	-30.09	0.00	-2055.8	0.00	2055.88	3221.44	1610.72	5136.89	2536.92	17.74	-2.673	0.000	0.555
68.00	-21.47	-29.85	0.00	-1995.6	0.00	1995.69	3201.73	1600.86	5053.77	2495.87	18.87	-2.761	0.000	0.546
70.00	-21.06	-29.60	0.00	-1936.0	0.00	1936.00	3181.76	1590.88	4970.89	2454.94	20.05	-2.848	0.000	0.537
72.00	-20.66	-29.35	0.00	-1876.8	0.00	1876.80	3161.54	1580.77	4888.26	2414.13	21.26	-2.935	0.000	0.527
74.00	-20.26	-29.10	0.00	-1818.1	0.00	1818.10	3141.06	1570.53	4805.90	2373.45	22.51	-3.022	0.000	0.517
76.00	-19.87	-28.85	0.00	-1759.9	0.00	1759.90	3120.33	1560.16	4723.81	2332.91	23.79	-3.108	0.000	0.508
78.00	-19.47	-28.60	0.00	-1702.2	0.00	1702.20	3099.34	1549.67	4642.00	2292.51	25.11	-3.194	0.000	0.498
80.00	-19.09	-28.34	0.00	-1645.0	0.00	1645.01	3078.09	1539.05	4560.50	2252.26	26.47	-3.279	0.000	0.488

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00	-19.09	-28.34	0.00	-1645.0	0.00	1645.01	2384.58	1192.29	3545.27	1750.88	26.47	-3.279	0.000	0.526
82.00	-18.74	-28.09	0.00	-1588.3	0.00	1588.33	2370.62	1185.31	3486.26	1721.73	27.86	-3.364	0.000	0.576
84.00	-18.40	-27.84	0.00	-1532.1	0.00	1532.15	2356.42	1178.21	3427.33	1692.63	29.29	-3.458	0.000	0.562
86.00	-18.07	-27.59	0.00	-1476.4	0.00	1476.47	2341.95	1170.98	3368.48	1663.57	30.76	-3.552	0.000	0.549
88.00	-17.73	-27.33	0.00	-1421.3	0.00	1421.30	2327.23	1163.62	3309.75	1634.56	32.26	-3.644	0.000	0.535
90.00	-17.40	-27.08	0.00	-1366.6	0.00	1366.63	2312.26	1156.13	3251.12	1605.61	33.81	-3.736	0.000	0.521
92.00	-17.07	-26.82	0.00	-1312.4	0.00	1312.48	2297.03	1148.52	3192.63	1576.72	35.39	-3.827	0.000	0.507
94.00	-16.76	-26.56	0.00	-1258.8	0.00	1258.83	2281.55	1140.77	3134.28	1547.90	37.01	-3.916	0.000	0.493
95.00	-16.61	-26.43	0.00	-1232.2	0.00	1232.27	2273.71	1136.85	3105.16	1533.52	37.84	-3.961	0.000	0.486
95.58	-16.45	-26.35	0.00	-1216.9	0.00	1216.94	2269.13	1134.57	3088.29	1525.19	38.32	-3.987	0.000	0.475
95.58	-16.45	-26.35	0.00	-1216.9	0.00	1216.94	2269.13	1134.57	3088.29	1525.19	38.32	-3.987	0.000	0.475
96.00	-16.31	-26.31	0.00	-1205.8	0.00	1205.87	2265.81	1132.90	3076.09	1519.16	38.67	-4.006	0.000	0.802
98.00	-15.77	-26.05	0.00	-1153.2	0.00	1153.25	2249.81	1124.91	3018.05	1490.50	40.38	-4.152	0.000	0.781
100.00	-15.23	-25.81	0.00	-1101.1	0.00	1101.15	2259.61	1129.81	3053.48	1508.00	42.15	-4.297	0.000	0.737
102.00	-14.89	-25.59	0.00	-1049.5	0.00	1049.53	2243.52	1121.76	2995.52	1479.37	43.98	-4.440	0.000	0.717
104.00	-14.56	-25.36	0.00	-998.36	0.00	998.36	2227.17	1113.59	2937.74	1450.84	45.87	-4.573	0.000	0.695
106.00	-14.23	-25.13	0.00	-947.64	0.00	947.64	2210.57	1105.28	2880.15	1422.40	47.81	-4.705	0.000	0.673
108.00	-13.91	-24.90	0.00	-897.38	0.00	897.38	2193.71	1096.86	2822.78	1394.06	49.81	-4.834	0.000	0.651
110.00	-13.56	-24.45	0.00	-847.00	0.00	847.00	2176.60	1088.30	2765.62	1365.84	51.86	-4.961	0.000	0.627
112.00	-13.25	-24.22	0.00	-798.09	0.00	798.09	2159.23	1079.61	2708.70	1337.73	53.96	-5.085	0.000	0.603
114.00	-12.96	-23.98	0.00	-749.66	0.00	749.66	2141.61	1070.80	2652.02	1309.73	56.11	-5.206	0.000	0.579
115.00	-12.80	-23.86	0.00	-725.68	0.00	725.68	2132.70	1066.35	2623.78	1295.79	57.21	-5.266	0.000	0.567
115.00	-12.80	-23.86	0.00	-725.68	0.00	725.68	1556.62	778.31	1923.08	949.74	57.21	-5.266	0.000	0.773
116.00	-12.65	-23.76	0.00	-701.81	0.00	701.81	1551.43	775.71	1904.13	940.38	58.32	-5.325	0.000	0.755
118.00	-12.38	-23.54	0.00	-654.29	0.00	654.29	1540.84	770.42	1866.26	921.68	60.58	-5.468	0.000	0.719
120.00	-12.11	-23.31	0.00	-607.23	0.00	607.23	1529.99	765.00	1828.43	902.99	62.90	-5.606	0.000	0.681
122.00	-11.85	-23.08	0.00	-560.61	0.00	560.61	1518.89	759.45	1790.65	884.33	65.27	-5.739	0.000	0.643
124.00	-11.59	-22.85	0.00	-514.44	0.00	514.44	1507.54	753.77	1752.93	865.70	67.70	-5.867	0.000	0.603
126.00	-11.34	-22.63	0.00	-468.74	0.00	468.74	1495.93	747.96	1715.28	847.11	70.18	-5.988	0.000	0.562
128.00	-11.09	-22.39	0.00	-423.49	0.00	423.49	1484.06	742.03	1677.72	828.56	72.71	-6.103	0.000	0.519
130.00	-10.85	-22.16	0.00	-378.70	0.00	378.70	1471.95	735.97	1640.26	810.06	75.28	-6.211	0.000	0.476
132.00	-10.63	-21.93	0.00	-334.37	0.00	334.37	1459.57	729.79	1602.91	791.62	77.90	-6.311	0.000	0.431
133.00	-7.12	-16.92	0.00	-312.45	0.00	312.45	1453.29	726.64	1584.28	782.42	79.23	-6.358	0.000	0.405
134.00	-7.01	-16.81	0.00	-295.52	0.00	295.52	1446.94	723.47	1565.68	773.23	80.56	-6.404	0.000	0.388
136.00	-6.82	-16.57	0.00	-261.90	0.00	261.90	1434.06	717.03	1528.59	754.91	83.26	-6.489	0.000	0.352
138.00	-6.63	-16.34	0.00	-228.75	0.00	228.75	1420.92	710.46	1491.65	736.67	85.99	-6.567	0.000	0.316
140.00	-6.44	-16.10	0.00	-196.08	0.00	196.08	1407.52	703.76	1454.87	718.50	88.75	-6.639	0.000	0.278
142.00	-6.27	-15.86	0.00	-163.87	0.00	163.87	1393.87	696.94	1418.26	700.42	91.54	-6.702	0.000	0.239
142.90	-3.50	-10.26	0.00	-149.58	0.00	149.58	1387.65	693.82	1401.84	692.32	92.80	-6.728	0.000	0.219
144.00	-3.42	-10.15	0.00	-138.29	0.00	138.29	1379.97	689.99	1381.83	682.44	94.35	-6.757	0.000	0.205
145.00	-3.34	-10.05	0.00	-128.13	0.00	128.13	1372.92	686.46	1363.70	673.48	95.77	-6.783	0.000	0.193
145.00	-3.34	-10.05	0.00	-128.13	0.00	128.13	931.20	465.60	925.89	604.09	95.77	-6.783	0.000	0.216
146.00	-3.26	-9.99	0.00	-118.08	0.00	118.08	925.24	462.62	912.49	594.77	97.19	-6.807	0.000	0.203
148.00	-3.12	-9.87	0.00	-98.10	0.00	98.10	913.32	456.66	885.99	576.36	100.04	-6.853	0.000	0.174
148.30	-1.58	-6.82	0.00	-89.17	0.00	89.17	911.53	455.77	882.04	573.63	100.47	-6.859	0.000	0.157
150.00	-1.46	-6.72	0.00	-77.58	0.00	77.58	901.40	450.70	859.86	558.24	102.92	-6.891	0.000	0.141
150.00	-1.46	-6.72	0.00	-77.58	0.00	77.58	556.65	278.33	359.38	213.69	102.92	-6.891	0.000	0.366
152.00	-1.35	-6.63	0.00	-64.15	0.00	64.15	556.65	278.33	359.38	213.69	105.80	-6.924	0.000	0.303
154.00	-1.24	-6.54	0.00	-50.90	0.00	50.90	556.65	278.33	359.38	213.69	108.72	-7.009	0.000	0.241
156.00	-1.13	-6.45	0.00	-37.82	0.00	37.82	556.65	278.33	359.38	213.69	111.66	-7.075	0.000	0.180
158.00	-1.03	-6.36	0.00	-24.92	0.00	24.92	556.65	278.33	359.38	213.69	114.63	-7.122	0.000	0.119
160.00	0.00	-6.18	0.00	-12.21	0.00	12.21	556.65	278.33	359.38	213.69	117.61	-7.149	0.000	0.058

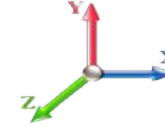
Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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	RB1 RB2	1.00	0.70	4.256	4.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT2 RB3	1.00	0.70	4.256	4.68	0.00	1.376 *	1.057	1.00	4.514	6.21	29.1	68.5	314.5
2.00		1.00	0.70	4.256	4.68	0.00	1.378 *	1.133	1.00	4.510	6.21	29.1	73.2	318.3
4.00		1.00	0.70	4.256	4.68	0.00	1.381 *	1.215	2.00	8.996	12.43	58.2	156.0	643.3
6.00		1.00	0.70	4.256	4.68	0.00	1.385 *	1.265	2.00	8.946	12.39	58.0	161.4	644.9
8.00		1.00	0.70	4.256	4.68	0.00	1.390 *	1.302	2.00	8.892	12.36	57.9	164.9	644.6
10.00		1.00	0.70	4.256	4.68	0.00	1.394 *	1.331	2.00	8.834	12.32	57.7	167.4	643.3
12.00		1.00	0.70	4.256	4.68	0.00	1.399 *	1.356	2.00	8.776	12.27	57.5	169.3	641.3
14.00		1.00	0.70	4.256	4.68	0.00	1.403 *	1.377	2.00	8.716	12.23	57.3	170.6	638.8
16.00	Bot - Section 2	1.00	0.70	4.256	4.68	0.00	1.408 *	1.395	2.00	8.655	12.18	57.0	171.6	636.0
16.25	RT1 RB4	1.00	0.70	4.256	4.68	0.00	1.410 *	1.397	0.25	1.093	1.54	7.2	21.8	138.3
18.00	RB5	1.00	0.70	4.256	4.68	0.00	1.413 *	1.412	1.75	7.629	10.78	50.5	153.1	965.1
18.75	RT3	1.00	0.70	4.256	4.68	0.00	1.416 *	1.418	0.75	3.255	4.61	21.6	65.7	411.9
19.50	RB6	1.00	0.70	4.256	4.68	0.00	1.418 *	1.423	0.75	3.246	4.60	21.5	65.8	410.9
20.00		1.00	0.70	4.256	4.68	0.00	1.419 *	1.427	0.50	2.159	3.06	14.3	43.9	273.4
22.00	Top - Section 1	1.00	0.70	4.256	4.68	0.00	1.422 *	1.440	2.00	8.599	12.23	57.2	175.8	1089.0
24.00		1.00	0.70	4.256	4.68	0.00	1.418 *	1.453	2.00	8.536	12.10	56.6	176.0	632.4
26.00		1.00	0.70	4.256	4.68	0.00	1.422 *	1.465	2.00	8.473	12.05	56.4	176.0	628.6
28.00		1.00	0.70	4.256	4.68	0.00	1.427 *	1.476	2.00	8.409	12.00	56.2	175.9	624.7
30.00	RB7	1.00	0.70	4.260	4.69	0.00	1.432 *	1.486	2.00	8.346	11.95	56.0	175.7	620.7
31.00	RT4	1.00	0.71	4.300	4.73	0.00	1.436 *	1.491	1.00	4.149	5.96	28.2	87.8	308.8
32.00		1.00	0.71	4.339	4.77	0.00	1.439 *	1.495	1.00	4.133	5.95	28.4	87.7	307.8
34.00	RT5	1.00	0.73	4.415	4.86	0.00	1.248 *	1.504	2.00	8.218	10.26	49.8	175.0	612.3
35.50	RT6	1.00	0.74	4.469	4.92	0.00	1.251 *	1.511	1.50	6.121	7.66	37.7	131.0	456.5
36.00		1.00	0.74	4.487	4.94	0.00	1.253 *	1.513	0.50	2.032	2.55	12.6	43.6	151.7
38.00		1.00	0.75	4.557	5.01	0.00	1.255 *	1.521	2.00	8.090	10.16	50.9	174.0	603.7
40.00	Appurtenance(s)	1.00	0.76	4.625	5.09	0.00	1.259 *	1.529	2.00	8.026	10.11	51.4	173.5	599.3
42.00		1.00	0.77	4.689	5.16	0.00	1.263 *	1.537	2.00	7.961	10.05	51.9	172.8	594.8
44.00		1.00	0.78	4.752	5.23	0.00	1.267 *	1.544	2.00	7.897	10.00	52.3	172.1	590.3
45.16	RB8	1.00	0.79	4.788	5.27	0.00	1.270 *	1.548	1.16	4.550	5.78	30.4	99.6	340.4
46.00	RT7	1.00	0.79	4.813	5.29	0.00	1.272 *	1.551	0.84	3.281	4.17	22.1	72.0	245.6
48.00		1.00	0.80	4.872	5.36	0.00	1.275 *	1.557	2.00	7.767	9.90	53.1	170.6	581.2
50.00	Bot - Section 3	1.00	0.81	4.929	5.42	0.00	1.279 *	1.564	2.00	7.702	9.85	53.4	169.8	576.5
52.00		1.00	0.82	4.984	5.48	0.00	1.283 *	1.570	2.00	7.767	9.96	54.6	172.0	985.1
54.00		1.00	0.83	5.039	5.54	0.00	1.287 *	1.576	2.00	7.702	9.91	54.9	171.1	976.6
56.00	Top - Section 2	1.00	0.84	5.091	5.60	0.00	1.291 *	1.581	2.00	7.637	9.86	55.2	170.2	968.1
58.00	RT8 RB9	1.00	0.85	5.142	5.66	0.00	1.287 *	1.587	2.00	7.572	9.75	55.1	169.2	568.0
60.00		1.00	0.85	5.193	5.71	0.00	1.292 *	1.592	2.00	7.507	9.70	55.4	168.3	563.3
62.00		1.00	0.86	5.241	5.77	0.00	1.296 *	1.598	2.00	7.441	9.64	55.6	167.3	558.4
64.00		1.00	0.87	5.289	5.82	0.00	1.300 *	1.603	2.00	7.376	9.59	55.8	166.3	553.6
66.00		1.00	0.88	5.336	5.87	0.00	1.305 *	1.608	2.00	7.311	9.54	56.0	165.2	548.7
68.00		1.00	0.89	5.382	5.92	0.00	1.310 *	1.612	2.00	7.246	9.49	56.2	164.1	543.8
70.00		1.00	0.89	5.426	5.97	0.00	1.314 *	1.617	2.00	7.180	9.44	56.3	163.0	538.9
72.00		1.00	0.90	5.470	6.02	0.00	1.319 *	1.622	2.00	7.115	9.39	56.5	161.9	534.0
74.00		1.00	0.91	5.513	6.06	0.00	1.324 *	1.626	2.00	7.049	9.33	56.6	160.8	529.0
76.00		1.00	0.91	5.555	6.11	0.00	1.329 *	1.631	2.00	6.984	9.28	56.7	159.6	524.0
78.00	RT9 RB10	1.00	0.92	5.597	6.16	0.00	1.334 *	1.635	2.00	6.918	9.23	56.8	158.5	519.0

Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00 Top - Section 3	1.00	0.93	5.637	6.20	0.00	1.339 *	1.639	2.00	6.853	9.18	56.9	157.3	514.0
82.00	1.00	0.93	5.677	6.24	0.00	1.345 *	1.643	2.00	6.787	9.13	57.0	156.1	450.7
84.00	1.00	0.94	5.716	6.29	0.00	1.350 *	1.647	2.00	6.721	9.08	57.1	154.9	446.3
86.00	1.00	0.95	5.755	6.33	0.00	1.356 *	1.651	2.00	6.656	9.02	57.1	153.6	441.8
88.00	1.00	0.95	5.793	6.37	0.00	1.362 *	1.655	2.00	6.590	8.97	57.2	152.4	437.4
90.00	1.00	0.96	5.830	6.41	0.00	1.367 *	1.658	2.00	6.524	8.92	57.2	151.1	432.9
92.00	1.00	0.96	5.867	6.45	0.00	1.373 *	1.662	2.00	6.459	8.87	57.2	149.8	428.5
94.00	1.00	0.97	5.903	6.49	0.00	1.380 *	1.666	2.00	6.393	8.82	57.3	148.5	424.0
95.00 Bot - Section 5	1.00	0.97	5.921	6.51	0.00	1.384 *	1.667	1.00	3.172	4.39	28.6	73.9	210.5
95.58 RT10	1.00	0.98	5.931	6.52	0.00	1.387 *	1.668	0.58	1.863	2.58	16.9	43.5	202.7
96.00	1.00	0.98	5.939	6.53	0.00	1.388 *	1.669	0.42	1.346	1.87	12.2	31.5	146.4
98.00	1.00	0.98	5.974	6.57	0.00	1.392 *	1.672	2.00	6.369	8.87	58.3	148.5	691.8
100.00 Top - Section 4	1.00	0.99	6.008	6.61	0.00	1.266 *	1.676	2.00	6.303	7.98	52.7	147.2	684.1
102.00	1.00	0.99	6.043	6.65	0.00	1.263 *	1.679	2.00	6.238	7.88	52.4	145.8	413.7
104.00	1.00	1.00	6.076	6.68	0.00	1.268 *	1.682	2.00	6.172	7.82	52.3	144.5	409.1
106.00	1.00	1.00	6.109	6.72	0.00	1.273 *	1.686	2.00	6.106	7.77	52.2	143.1	404.6
108.00	1.00	1.01	6.142	6.76	0.00	1.278 *	1.689	2.00	6.040	7.72	52.2	141.7	400.0
110.00 Appurtenance(s)	1.00	1.02	6.174	6.79	0.00	1.284 *	1.692	2.00	5.974	7.67	52.1	140.4	395.4
112.00	1.00	1.02	6.206	6.83	0.00	1.289 *	1.695	2.00	5.908	7.62	52.0	139.0	390.9
114.00	1.00	1.03	6.238	6.86	0.00	1.295 *	1.698	2.00	5.842	7.56	51.9	137.6	386.3
115.00 Top - Section 5	1.00	1.03	6.253	6.88	0.00	1.299 *	1.699	1.00	2.896	3.76	25.9	68.4	191.6
116.00	1.00	1.03	6.269	6.90	0.00	1.302 *	1.701	1.00	2.880	3.75	25.9	68.1	166.2
118.00	1.00	1.04	6.299	6.93	0.00	1.307 *	1.704	2.00	5.710	7.46	51.7	134.7	329.0
120.00	1.00	1.04	6.330	6.96	0.00	1.313 *	1.707	2.00	5.644	7.41	51.6	133.3	325.0
122.00	1.00	1.05	6.360	7.00	0.00	1.319 *	1.710	2.00	5.578	7.36	51.5	131.8	321.0
124.00	1.00	1.05	6.389	7.03	0.00	1.326 *	1.712	2.00	5.512	7.31	51.4	130.4	317.0
126.00	1.00	1.06	6.419	7.06	0.00	1.332 *	1.715	2.00	5.446	7.26	51.2	128.9	313.0
128.00	1.00	1.06	6.448	7.09	0.00	1.339 *	1.718	2.00	5.380	7.21	51.1	127.4	309.0
130.00	1.00	1.07	6.476	7.12	0.00	1.346 *	1.720	2.00	5.314	7.15	51.0	126.0	304.9
132.00	1.00	1.07	6.504	7.15	0.00	1.354 *	1.723	2.00	5.248	7.10	50.8	124.5	300.9
133.00 Appurtenance(s)	1.00	1.07	6.519	7.17	0.00	1.359 *	1.724	1.00	2.599	3.53	25.3	61.9	149.1
134.00	1.00	1.07	6.532	7.19	0.00	1.363 *	1.726	1.00	2.583	3.52	25.3	61.5	148.1
136.00	1.00	1.08	6.560	7.22	0.00	1.369 *	1.728	2.00	5.116	7.00	50.5	121.5	292.8
138.00	1.00	1.08	6.588	7.25	0.00	1.377 *	1.731	2.00	5.050	6.95	50.4	120.0	288.7
140.00	1.00	1.09	6.615	7.28	0.00	1.385 *	1.733	2.00	4.984	6.90	50.2	118.4	284.7
142.00	1.00	1.09	6.642	7.31	0.00	1.393 *	1.736	2.00	4.917	6.85	50.0	116.9	280.6
142.90 Appurtenance(s)	1.00	1.09	6.654	7.32	0.00	1.399 *	1.737	0.90	2.191	3.07	22.4	52.3	125.1
144.00	1.00	1.10	6.668	7.34	0.00	1.200	1.738	1.10	2.660	3.19	23.4	63.5	151.8
145.00 Top - Section 6	1.00	1.10	6.681	7.35	0.00	1.200	1.739	1.00	2.401	2.88	21.2	57.3	136.9
146.00	1.00	1.10	6.695	7.36	0.00	1.200	1.741	1.00	2.313	2.78	20.4	55.1	132.2
148.00	1.00	1.11	6.721	7.39	0.00	1.200	1.743	2.00	4.579	5.49	40.6	108.7	261.0
148.30 Appurtenance(s)	1.00	1.11	6.724	7.40	0.00	1.200	1.743	0.30	0.681	0.82	6.0	16.3	38.9
150.00 Top - Section 7	1.00	1.11	6.746	7.42	0.00	1.200	1.745	1.70	3.834	4.60	34.1	91.2	218.3
152.00	1.00	1.11	6.772	7.45	0.00	1.290 *	1.748	2.00	3.249	4.19	31.2	75.8	176.8
154.00	1.00	1.12	6.797	7.48	0.00	1.290 *	1.750	2.00	3.250	4.19	31.3	75.9	176.9
156.00	1.00	1.12	6.822	7.50	0.00	1.290 *	1.752	2.00	3.251	4.19	31.5	76.0	177.0
158.00	1.00	1.13	6.847	7.53	0.00	1.290 *	1.754	2.00	3.251	4.19	31.6	76.1	177.1
160.00 Appurtenance(s)	1.00	1.13	6.872	7.56	0.00	1.290 *	1.757	2.00	3.252	4.20	31.7	76.2	177.2

* Cf Adjusted by Linear Load Ra Effect

Totals:	160.00	4,193.3	40,381.1
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Discrete Appurtenance Forces

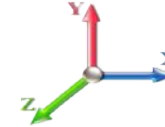
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	DB-T1-6Z-8AB-OZ	1	6.896	7.586	1.00	1.00	5.68	197.63	0.000	2.000	43.09	0.00	86.17
2	160.00	SBNHH-1D65B	9	6.896	7.586	0.81	1.00	69.03	2274.32	0.000	2.000	523.66	0.00	1047.32
3	160.00	6' Lightning rod	1	6.896	7.586	1.00	1.00	1.47	39.04	0.000	2.000	11.19	0.00	22.37
4	160.00	Low Profile Platform	1	6.896	7.586	1.00	1.00	39.78	1893.91	0.000	2.000	301.74	0.00	603.49
5	160.00	DB846F65ZAXY	6	6.896	7.586	0.93	1.00	46.26	1344.74	0.000	2.000	350.91	0.00	701.81
6	160.00	DB222	1	6.896	7.586	1.00	1.00	8.35	69.05	0.000	2.000	63.35	0.00	126.70
7	160.00	RRH2x90-AWS	3	6.896	7.586	0.67	1.00	7.96	289.55	0.000	2.000	60.37	0.00	120.73
8	148.30	APXVTM14-C-120	3	6.746	7.421	0.61	0.80	13.70	682.17	0.000	1.700	101.67	0.00	172.83
9	148.30	1900MHz RRH	3	6.772	7.449	0.54	0.80	8.34	391.92	0.000	3.700	62.15	0.00	229.95
10	148.30	800 MHz RRH	3	6.772	7.449	0.54	0.80	5.84	349.13	0.000	3.700	43.51	0.00	160.99
11	148.30	APXVSPP18-C-A20	3	6.772	7.449	0.66	0.80	21.53	574.66	0.000	3.700	160.42	0.00	593.54
12	148.30	ACU-A20-N	4	6.772	7.449	0.54	0.80	0.94	16.76	0.000	3.700	6.97	0.00	25.79
13	148.30	ALU 800MHz External	3	6.772	7.449	0.54	0.80	2.29	69.55	0.000	3.700	17.08	0.00	63.21
14	148.30	TD-RRH8x20-25	3	6.746	7.421	0.54	0.80	7.82	582.93	0.000	1.700	58.02	0.00	98.64
15	148.30	Low Profile Platform	1	6.724	7.397	1.00	1.00	31.53	1885.94	0.000	0.000	233.25	0.00	0.00
16	142.90	Commscope	3	6.654	7.319	0.60	0.75	26.50	677.38	0.000	0.000	193.94	0.00	0.00
17	142.90	Platform w/ HR & Bracing	1	6.654	7.319	1.00	1.00	89.77	4811.83	0.000	0.000	657.03	0.00	0.00
18	142.90	Ericsson AIR 21 B2A/B4P	3	6.654	7.319	0.65	0.75	13.90	833.14	0.000	0.000	101.71	0.00	0.00
19	142.90	Ericsson AIR 3246 B66	3	6.654	7.319	0.62	0.75	17.02	1103.63	0.000	0.000	124.58	0.00	0.00
20	142.90	Ericsson AIR 32 B4A/B2P	1	6.654	7.319	0.65	0.75	5.01	310.28	0.000	0.000	36.70	0.00	0.00
21	142.90	Ericsson RRUS11B12 -	1	6.654	7.319	0.50	0.75	1.61	113.60	0.000	0.000	11.82	0.00	0.00
22	142.90	Ericsson RUS01 B12 -	3	6.654	7.319	0.50	0.75	5.30	441.57	0.000	0.000	38.80	0.00	0.00
23	142.90	Ericsson KRY 112 144/1	3	6.663	7.329	0.52	0.75	1.39	62.49	0.000	0.700	10.19	0.00	7.13
24	142.90	Ericsson AIR 21 B4A	1	6.654	7.319	0.67	0.75	8.80	434.86	0.000	0.000	64.44	0.00	0.00
25	133.00	(3) SitePro 1 P/N	2	6.519	7.170	0.75	0.75	71.75	5396.41	0.000	0.000	514.48	0.00	0.00
26	133.00	Kathrein 800 10121	3	6.519	7.170	0.63	0.80	13.71	408.47	0.000	0.000	98.31	0.00	0.00
27	133.00	Kathrein 800-10965	3	6.519	7.170	0.57	0.80	26.19	1273.14	0.000	0.000	187.81	0.00	0.00
28	133.00	Cci TPA-65R-LCUUUU-H8	1	6.519	7.170	0.63	0.80	9.06	404.29	0.000	0.000	64.97	0.00	0.00
29	133.00	Quintel QS66512-2	2	6.519	7.170	0.74	0.80	13.86	714.59	0.000	0.000	99.35	0.00	0.00
30	133.00	Ericsson RRUS-32 RRU	3	6.519	7.170	0.54	0.80	6.59	613.06	0.000	0.000	47.23	0.00	0.00
31	133.00	Powerwave LGP21401	6	6.519	7.170	0.54	0.80	6.80	207.13	0.000	0.000	48.79	0.00	0.00
32	133.00	Ericsson B2/B66A 8843	3	6.519	7.170	0.54	0.80	3.43	362.05	0.000	0.000	24.57	0.00	0.00
33	133.00	Ericsson B5/B12 4449	3	6.519	7.170	0.54	0.80	4.04	373.03	0.000	0.000	28.95	0.00	0.00
34	133.00	Raycap DC6-48-60-18-8F	3	6.519	7.170	0.80	0.80	3.25	244.64	0.000	0.000	23.28	0.00	0.00
35	110.00	3 ft Standoff	1	6.174	6.792	1.00	1.00	8.42	102.83	0.000	0.000	57.16	0.00	0.00
36	110.00	DB222	1	6.258	6.884	1.00	1.00	9.57	66.49	0.000	5.292	65.88	0.00	348.62
37	40.00	GPS	1	4.625	5.087	1.00	1.00	1.62	29.69	0.000	0.000	8.26	0.00	0.00

Totals: 29,645.91

4,545.60

Total Applied Force Summary

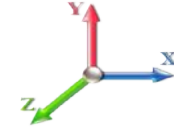
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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		29.08	401.76	0.00	0.00
2.00		29.10	407.92	0.00	0.00
4.00		58.17	827.85	0.00	0.00
6.00		58.03	832.79	0.00	0.00
8.00		57.85	835.07	0.00	0.00
10.00		57.66	835.82	0.00	0.00
12.00		57.46	835.57	0.00	0.00
14.00		57.25	834.60	0.00	0.00
16.00		57.04	833.11	0.00	0.00
16.25		7.22	162.93	0.00	0.00
18.00		50.46	1138.67	0.00	0.00
18.75		21.57	486.45	0.00	0.00
19.50		21.54	485.59	0.00	0.00
20.00		14.34	323.22	0.00	0.00
22.00		57.24	1289.45	0.00	0.00
24.00		56.65	833.83	0.00	0.00
26.00		56.42	830.90	0.00	0.00
28.00		56.19	827.79	0.00	0.00
30.00		56.01	824.54	0.00	0.00
31.00		28.18	410.95	0.00	0.00
32.00		28.38	410.10	0.00	0.00
34.00		49.81	802.56	0.00	0.00
35.50		37.66	599.47	0.00	0.00
36.00		12.57	199.35	0.00	0.00
38.00		50.91	795.01	0.00	0.00
40.00	(1) attachments	59.67	820.80	0.00	0.00
42.00		51.86	786.75	0.00	0.00
44.00		52.29	782.70	0.00	0.00
45.16		30.43	452.12	0.00	0.00
46.00		22.09	326.54	0.00	0.00
48.00		53.05	774.42	0.00	0.00
50.00		53.40	770.20	0.00	0.00
52.00		54.63	1179.19	0.00	0.00
54.00		54.94	1171.05	0.00	0.00
56.00		55.23	1162.87	0.00	0.00
58.00		55.14	763.23	0.00	0.00
60.00		55.38	758.80	0.00	0.00
62.00		55.60	754.32	0.00	0.00
64.00		55.81	749.81	0.00	0.00
66.00		56.00	745.27	0.00	0.00
68.00		56.17	740.69	0.00	0.00
70.00		56.33	736.09	0.00	0.00
72.00		56.47	731.45	0.00	0.00
74.00		56.60	726.79	0.00	0.00
76.00		56.72	722.10	0.00	0.00
78.00		56.83	717.39	0.00	0.00

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00		56.92	712.65	0.00	0.00
82.00		57.00	649.59	0.00	0.00
84.00		57.07	645.44	0.00	0.00
86.00		57.13	641.28	0.00	0.00
88.00		57.18	637.09	0.00	0.00
90.00		57.22	632.89	0.00	0.00
92.00		57.25	628.66	0.00	0.00
94.00		57.27	624.42	0.00	0.00
95.00		28.60	310.75	0.00	0.00
95.58		16.86	260.86	0.00	0.00
96.00		12.21	188.52	0.00	0.00
98.00		58.27	892.75	0.00	0.00
100.00		52.73	867.85	0.00	0.00
102.00		52.35	597.61	0.00	0.00
104.00		52.29	593.24	0.00	0.00
106.00		52.23	588.86	0.00	0.00
108.00		52.16	584.47	0.00	0.00
110.00	(2) attachments	175.12	749.38	0.00	348.62
112.00		52.00	564.25	0.00	0.00
114.00		51.91	559.79	0.00	0.00
115.00		25.88	278.38	0.00	0.00
116.00		25.86	252.99	0.00	0.00
118.00		51.70	502.77	0.00	0.00
120.00		51.59	498.91	0.00	0.00
122.00		51.48	495.04	0.00	0.00
124.00		51.36	491.17	0.00	0.00
126.00		51.23	487.28	0.00	0.00
128.00		51.10	483.38	0.00	0.00
130.00		50.96	479.47	0.00	0.00
132.00		50.82	475.55	0.00	0.00
133.00	(29) attachments	1163.06	10233.29	0.00	0.00
134.00		25.29	220.23	0.00	0.00
136.00		50.53	437.15	0.00	0.00
138.00		50.37	433.21	0.00	0.00
140.00		50.21	429.25	0.00	0.00
142.00		50.05	425.29	0.00	0.00
142.90	(19) attachments	1261.65	8979.04	0.00	7.13
144.00		23.41	196.87	0.00	0.00
145.00		21.17	177.93	0.00	0.00
146.00		20.44	173.22	0.00	0.00
148.00		40.62	343.12	0.00	0.00
148.30	(23) attachments	689.11	4604.29	0.00	1344.94
150.00		34.14	280.37	0.00	0.00
152.00		31.22	249.87	0.00	0.00
154.00		31.35	250.03	0.00	0.00
156.00		31.47	250.19	0.00	0.00
158.00		31.59	250.34	0.00	0.00
160.00	(22) attachments	1386.01	6358.74	0.00	2708.59
Totals:		8,738.90	84,105.59	0.00	4,409.29

Linear Appurtenance Segment Forces (Factored)

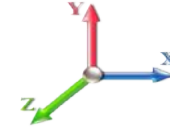
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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" Hybrid	Yes	1.00	0.000	2.00	0.34	0.00	0.149	1.147	4.256	0.00	4.66
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	4.256	0.00	3.01
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.34	0.00	0.149	1.147	4.256	0.00	4.66
1.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	4.256	0.00	5.97
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	4.256	0.00	3.01
1.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.28	0.00	0.149	1.147	4.256	0.00	4.84
1.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.38	0.00	0.149	1.147	4.256	0.00	4.84
2.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.36	0.00	0.149	1.148	4.256	0.00	4.99
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	4.256	0.00	3.27
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.36	0.00	0.149	1.148	4.256	0.00	4.99
2.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	4.256	0.00	6.32
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	4.256	0.00	3.27
2.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.149	1.148	4.256	0.00	5.27
2.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.40	0.00	0.149	1.148	4.256	0.00	5.27
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.74	0.00	0.150	1.151	4.256	0.00	10.69
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.256	0.00	7.16
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.74	0.00	0.150	1.151	4.256	0.00	10.69
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.256	0.00	13.43
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.256	0.00	7.16
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.61	0.00	0.150	1.151	4.256	0.00	11.47
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.82	0.00	0.150	1.151	4.256	0.00	11.47
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.75	0.00	0.152	1.155	4.256	0.00	11.15
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.256	0.00	7.55
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.75	0.00	0.152	1.155	4.256	0.00	11.15
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.256	0.00	13.93
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.256	0.00	7.55
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.63	0.00	0.152	1.155	4.256	0.00	12.07
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.84	0.00	0.152	1.155	4.256	0.00	12.07
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.77	0.00	0.153	1.158	4.256	0.00	11.50
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.256	0.00	7.84
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.77	0.00	0.153	1.158	4.256	0.00	11.50
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.256	0.00	14.30
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.256	0.00	7.84
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.64	0.00	0.153	1.158	4.256	0.00	12.52
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.85	0.00	0.153	1.158	4.256	0.00	12.52
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.78	0.00	0.154	1.162	4.256	0.00	11.78
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.256	0.00	8.08
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.78	0.00	0.154	1.162	4.256	0.00	11.78
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.256	0.00	14.61
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.256	0.00	8.08
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.65	0.00	0.154	1.162	4.256	0.00	12.88
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.86	0.00	0.154	1.162	4.256	0.00	12.88
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.79	0.00	0.155	1.166	4.256	0.00	12.02
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.256	0.00	8.29
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.79	0.00	0.155	1.166	4.256	0.00	12.02
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.256	0.00	14.86
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.256	0.00	8.29

Linear Appurtenance Segment Forces (Factored)

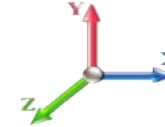
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
12.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.66	0.00	0.155	1.166	4.256	0.00	13.18
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.87	0.00	0.155	1.166	4.256	0.00	13.18
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.79	0.00	0.156	1.169	4.256	0.00	12.22
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.256	0.00	8.46
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.79	0.00	0.156	1.169	4.256	0.00	12.22
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.256	0.00	15.09
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.256	0.00	8.46
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.67	0.00	0.156	1.169	4.256	0.00	13.44
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.88	0.00	0.156	1.169	4.256	0.00	13.44
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.80	0.00	0.158	1.173	4.256	0.00	12.41
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.256	0.00	8.62
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.80	0.00	0.158	1.173	4.256	0.00	12.41
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.256	0.00	15.28
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.256	0.00	8.62
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.67	0.00	0.158	1.173	4.256	0.00	13.68
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.88	0.00	0.158	1.173	4.256	0.00	13.68
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.10	0.00	0.158	1.175	4.256	0.00	1.55
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.256	0.00	1.08
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.10	0.00	0.158	1.175	4.256	0.00	1.55
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.256	0.00	1.91
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.256	0.00	1.08
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.08	0.00	0.158	1.175	4.256	0.00	1.71
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.11	0.00	0.158	1.175	4.256	0.00	1.71
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.70	0.00	0.159	1.177	4.256	0.00	11.00
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.256	0.00	7.67
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.70	0.00	0.159	1.177	4.256	0.00	11.00
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.256	0.00	13.53
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.256	0.00	7.67
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.59	0.00	0.159	1.177	4.256	0.00	12.15
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.78	0.00	0.159	1.177	4.256	0.00	12.15
18.75	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.30	0.00	0.160	1.180	4.256	0.00	4.74
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	4.256	0.00	3.30
18.75	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.30	0.00	0.160	1.180	4.256	0.00	4.74
18.75	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	4.256	0.00	5.82
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	4.256	0.00	3.30
18.75	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.26	0.00	0.160	1.180	4.256	0.00	5.24
18.75	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.33	0.00	0.160	1.180	4.256	0.00	5.24
19.50	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.30	0.00	0.160	1.181	4.256	0.00	4.76
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	3.32
19.50	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.30	0.00	0.160	1.181	4.256	0.00	4.76
19.50	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	5.84
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	3.32
19.50	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.26	0.00	0.160	1.181	4.256	0.00	5.26
19.50	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.33	0.00	0.160	1.181	4.256	0.00	5.26
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.20	0.00	0.161	1.183	4.256	0.00	3.18
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	4.256	0.00	2.22
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.20	0.00	0.161	1.183	4.256	0.00	3.18

Linear Appurtenance Segment Forces (Factored)

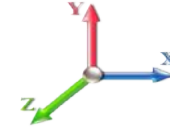
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
20.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	4.256	0.00	3.91
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	4.256	0.00	2.22
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.17	0.00	0.161	1.183	4.256	0.00	3.52
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.22	0.00	0.161	1.183	4.256	0.00	3.52
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.81	0.00	0.162	1.185	4.256	0.00	12.86
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	9.01
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.81	0.00	0.162	1.185	4.256	0.00	12.86
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	15.77
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	9.01
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.69	0.00	0.162	1.185	4.256	0.00	14.25
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.90	0.00	0.162	1.185	4.256	0.00	14.25
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.82	0.00	0.160	1.181	4.256	0.00	12.99
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	9.12
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.82	0.00	0.160	1.181	4.256	0.00	12.99
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	15.91
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	9.12
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.69	0.00	0.160	1.181	4.256	0.00	14.42
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.90	0.00	0.160	1.181	4.256	0.00	14.42
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.82	0.00	0.162	1.185	4.256	0.00	13.11
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	9.22
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.82	0.00	0.162	1.185	4.256	0.00	13.11
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	16.04
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	9.22
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.70	0.00	0.162	1.185	4.256	0.00	14.57
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.90	0.00	0.162	1.185	4.256	0.00	14.57
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.83	0.00	0.163	1.189	4.256	0.00	13.22
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.256	0.00	9.32
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.83	0.00	0.163	1.189	4.256	0.00	13.22
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.256	0.00	16.16
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.256	0.00	9.32
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.70	0.00	0.163	1.189	4.256	0.00	14.71
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.91	0.00	0.163	1.189	4.256	0.00	14.71
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.83	0.00	0.165	1.194	4.260	0.00	13.32
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.260	0.00	9.41
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.83	0.00	0.165	1.194	4.260	0.00	13.32
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.260	0.00	16.27
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.260	0.00	9.41
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.70	0.00	0.165	1.194	4.260	0.00	14.84
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.91	0.00	0.165	1.194	4.260	0.00	14.84
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.42	0.00	0.166	1.197	4.300	0.00	6.69
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.300	0.00	4.73
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.42	0.00	0.166	1.197	4.300	0.00	6.69
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.300	0.00	8.16
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.300	0.00	4.73
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.35	0.00	0.166	1.197	4.300	0.00	7.45
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.46	0.00	0.166	1.197	4.300	0.00	7.45
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.42	0.00	0.166	1.199	4.339	0.00	6.71

Linear Appurtenance Segment Forces (Factored)

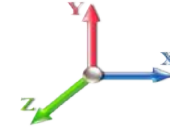
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	4.339	0.00	4.75
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.42	0.00	0.166	1.199	4.339	0.00	6.71
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	4.339	0.00	8.19
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	4.339	0.00	4.75
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.35	0.00	0.166	1.199	4.339	0.00	7.48
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.46	0.00	0.166	1.199	4.339	0.00	7.48
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.83	0.00	0.113	1.040	4.415	0.00	13.52
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.415	0.00	9.58
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.83	0.00	0.113	1.040	4.415	0.00	13.52
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.415	0.00	16.48
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.415	0.00	9.58
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.71	0.00	0.113	1.040	4.415	0.00	15.09
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.63	0.00	0.114	1.043	4.469	0.00	10.19
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.469	0.00	7.23
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.63	0.00	0.114	1.043	4.469	0.00	10.19
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.469	0.00	12.42
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.469	0.00	7.23
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.53	0.00	0.114	1.043	4.469	0.00	11.38
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.21	0.00	0.115	1.044	4.487	0.00	3.40
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.487	0.00	2.42
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.21	0.00	0.115	1.044	4.487	0.00	3.40
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.487	0.00	4.14
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.487	0.00	2.42
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.18	0.00	0.115	1.044	4.487	0.00	3.80
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.84	0.00	0.115	1.046	4.557	0.00	13.70
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.557	0.00	9.74
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.84	0.00	0.115	1.046	4.557	0.00	13.70
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.557	0.00	16.67
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.557	0.00	9.74
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.72	0.00	0.115	1.046	4.557	0.00	15.31
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.84	0.00	0.116	1.049	4.625	0.00	13.78
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.625	0.00	9.81
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.84	0.00	0.116	1.049	4.625	0.00	13.78
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.625	0.00	16.76
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.625	0.00	9.81
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.72	0.00	0.116	1.049	4.625	0.00	15.42
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.85	0.00	0.117	1.052	4.689	0.00	13.86
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.689	0.00	9.88
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.85	0.00	0.117	1.052	4.689	0.00	13.86
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.689	0.00	16.85
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.689	0.00	9.88
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.72	0.00	0.117	1.052	4.689	0.00	15.52
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.85	0.00	0.119	1.056	4.752	0.00	13.93
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.752	0.00	9.94
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.85	0.00	0.119	1.056	4.752	0.00	13.93
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.752	0.00	16.93
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.752	0.00	9.94

Linear Appurtenance Segment Forces (Factored)

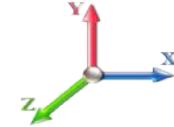
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
44.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.72	0.00	0.119	1.056	4.752	0.00	15.61
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.49	0.00	0.119	1.058	4.788	0.00	8.11
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.788	0.00	5.79
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.49	0.00	0.119	1.058	4.788	0.00	8.11
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.788	0.00	9.84
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.788	0.00	5.79
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.42	0.00	0.119	1.058	4.788	0.00	9.09
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.36	0.00	0.120	1.060	4.813	0.00	5.88
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.813	0.00	4.20
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.36	0.00	0.120	1.060	4.813	0.00	5.88
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.813	0.00	7.14
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.813	0.00	4.20
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.30	0.00	0.120	1.060	4.813	0.00	6.60
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.85	0.00	0.121	1.062	4.872	0.00	14.08
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.872	0.00	10.07
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.85	0.00	0.121	1.062	4.872	0.00	14.08
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.872	0.00	17.08
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.872	0.00	10.07
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.73	0.00	0.121	1.062	4.872	0.00	15.79
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.85	0.00	0.122	1.066	4.929	0.00	14.15
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.929	0.00	10.13
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.85	0.00	0.122	1.066	4.929	0.00	14.15
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.929	0.00	17.16
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.929	0.00	10.13
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.73	0.00	0.122	1.066	4.929	0.00	15.88
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.123	1.069	4.984	0.00	14.21
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.984	0.00	10.19
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.123	1.069	4.984	0.00	14.21
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.984	0.00	17.23
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.984	0.00	10.19
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.73	0.00	0.123	1.069	4.984	0.00	15.96
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.124	1.072	5.039	0.00	14.28
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	5.039	0.00	10.24
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.124	1.072	5.039	0.00	14.28
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	5.039	0.00	17.30
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	5.039	0.00	10.24
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.73	0.00	0.124	1.072	5.039	0.00	16.04
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.125	1.076	5.091	0.00	14.34
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.091	0.00	10.30
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.125	1.076	5.091	0.00	14.34
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.091	0.00	17.36
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.091	0.00	10.30
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.125	1.076	5.091	0.00	16.12
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.124	1.073	5.142	0.00	14.40
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	5.142	0.00	10.35
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.124	1.073	5.142	0.00	14.40
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	5.142	0.00	17.43

Linear Appurtenance Segment Forces (Factored)

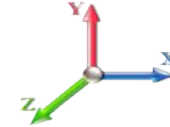
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	5.142	0.00	10.35
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.124	1.073	5.142	0.00	16.19
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.125	1.076	5.193	0.00	14.46
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.193	0.00	10.40
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.125	1.076	5.193	0.00	14.46
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.193	0.00	17.49
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.193	0.00	10.40
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.125	1.076	5.193	0.00	16.27
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.127	1.080	5.241	0.00	14.51
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.241	0.00	10.45
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.127	1.080	5.241	0.00	14.51
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.241	0.00	17.55
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.241	0.00	10.45
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.127	1.080	5.241	0.00	16.34
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.128	1.084	5.289	0.00	14.57
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.289	0.00	10.50
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.128	1.084	5.289	0.00	14.57
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.289	0.00	17.61
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.289	0.00	10.50
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.128	1.084	5.289	0.00	16.41
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.129	1.087	5.336	0.00	14.62
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.336	0.00	10.54
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.129	1.087	5.336	0.00	14.62
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.336	0.00	17.67
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.336	0.00	10.54
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.129	1.087	5.336	0.00	16.48
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.130	1.091	5.382	0.00	14.68
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.382	0.00	10.59
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.130	1.091	5.382	0.00	14.68
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.382	0.00	17.72
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.382	0.00	10.59
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.130	1.091	5.382	0.00	16.54
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.132	1.095	5.426	0.00	14.73
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.426	0.00	10.64
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.132	1.095	5.426	0.00	14.73
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.426	0.00	17.78
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.426	0.00	10.64
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.132	1.095	5.426	0.00	16.61
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.133	1.099	5.470	0.00	14.78
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.470	0.00	10.68
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.133	1.099	5.470	0.00	14.78
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.470	0.00	17.83
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.470	0.00	10.68
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.133	1.099	5.470	0.00	16.67
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.134	1.103	5.513	0.00	14.83
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	5.513	0.00	10.72
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.134	1.103	5.513	0.00	14.83

Linear Appurtenance Segment Forces (Factored)

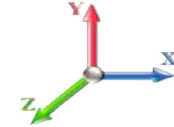
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
74.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	5.513	0.00	17.89
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	5.513	0.00	10.72
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.134	1.103	5.513	0.00	16.73
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.136	1.108	5.555	0.00	14.88
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.555	0.00	10.77
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.136	1.108	5.555	0.00	14.88
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.555	0.00	17.94
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.555	0.00	10.77
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.136	1.108	5.555	0.00	16.79
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.137	1.112	5.597	0.00	14.92
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.597	0.00	10.81
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.137	1.112	5.597	0.00	14.92
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.597	0.00	17.99
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.597	0.00	10.81
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.137	1.112	5.597	0.00	16.85
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.139	1.116	5.637	0.00	14.97
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.637	0.00	10.85
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.139	1.116	5.637	0.00	14.97
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.637	0.00	18.04
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.637	0.00	10.85
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.139	1.116	5.637	0.00	16.91
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.140	1.121	5.677	0.00	15.01
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.677	0.00	10.89
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.140	1.121	5.677	0.00	15.01
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.677	0.00	18.09
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.677	0.00	10.89
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.140	1.121	5.677	0.00	16.96
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.142	1.125	5.716	0.00	15.06
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.716	0.00	10.92
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.142	1.125	5.716	0.00	15.06
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.716	0.00	18.13
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.716	0.00	10.92
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.142	1.125	5.716	0.00	17.02
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.143	1.130	5.755	0.00	15.10
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.755	0.00	10.96
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.143	1.130	5.755	0.00	15.10
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.755	0.00	18.18
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.755	0.00	10.96
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.143	1.130	5.755	0.00	17.07
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.145	1.135	5.793	0.00	15.14
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.793	0.00	11.00
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.145	1.135	5.793	0.00	15.14
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.793	0.00	18.22
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.793	0.00	11.00
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.145	1.135	5.793	0.00	17.12
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.147	1.140	5.830	0.00	15.19
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.830	0.00	11.04

Linear Appurtenance Segment Forces (Factored)

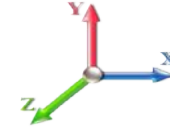
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
90.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.147	1.140	5.830	0.00	15.19
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.830	0.00	18.27
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.830	0.00	11.04
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.147	1.140	5.830	0.00	17.18
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.148	1.145	5.867	0.00	15.23
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.867	0.00	11.07
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.148	1.145	5.867	0.00	15.23
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.867	0.00	18.31
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.867	0.00	11.07
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.148	1.145	5.867	0.00	17.23
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.150	1.150	5.903	0.00	15.27
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.903	0.00	11.11
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.150	1.150	5.903	0.00	15.27
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.903	0.00	18.36
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.903	0.00	11.11
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.150	1.150	5.903	0.00	17.28
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.44	0.00	0.151	1.154	5.921	0.00	7.64
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.921	0.00	5.56
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.44	0.00	0.151	1.154	5.921	0.00	7.64
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.921	0.00	9.19
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.921	0.00	5.56
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.38	0.00	0.151	1.154	5.921	0.00	8.65
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.26	0.00	0.152	1.156	5.931	0.00	4.44
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.931	0.00	3.23
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.26	0.00	0.152	1.156	5.931	0.00	4.44
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.931	0.00	5.33
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.931	0.00	3.23
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.22	0.00	0.152	1.156	5.931	0.00	5.02
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.19	0.00	0.152	1.157	5.939	0.00	3.21
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.939	0.00	2.34
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.19	0.00	0.152	1.157	5.939	0.00	3.21
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.939	0.00	3.86
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.939	0.00	2.34
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.16	0.00	0.152	1.157	5.939	0.00	3.64
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.153	1.160	5.974	0.00	15.35
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.974	0.00	11.18
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.153	1.160	5.974	0.00	15.35
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.974	0.00	18.44
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.974	0.00	11.18
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.77	0.00	0.153	1.160	5.974	0.00	17.37
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.118	1.055	6.008	0.00	15.38
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	6.008	0.00	11.21
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.118	1.055	6.008	0.00	15.38
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	6.008	0.00	18.48
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	6.008	0.00	11.21
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.117	1.052	6.043	0.00	15.42
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.043	0.00	11.24

Linear Appurtenance Segment Forces (Factored)

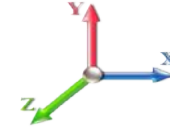
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
102.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.117	1.052	6.043	0.00	15.42
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.043	0.00	18.52
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.043	0.00	11.24
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.119	1.056	6.076	0.00	15.46
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.076	0.00	11.28
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.119	1.056	6.076	0.00	15.46
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.076	0.00	18.56
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.076	0.00	11.28
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.120	1.061	6.109	0.00	15.49
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	6.109	0.00	11.31
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.120	1.061	6.109	0.00	15.49
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	6.109	0.00	18.60
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	6.109	0.00	11.31
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.122	1.065	6.142	0.00	15.53
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.142	0.00	11.34
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.122	1.065	6.142	0.00	15.53
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.142	0.00	18.64
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.142	0.00	11.34
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.123	1.070	6.174	0.00	15.57
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.174	0.00	11.37
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.123	1.070	6.174	0.00	15.57
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.174	0.00	18.68
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.174	0.00	11.37
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.125	1.074	6.206	0.00	15.60
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	6.206	0.00	11.40
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.125	1.074	6.206	0.00	15.60
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	6.206	0.00	18.71
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.126	1.079	6.238	0.00	15.63
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	6.238	0.00	11.43
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.126	1.079	6.238	0.00	15.63
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	6.238	0.00	18.75
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.45	0.00	0.128	1.083	6.253	0.00	7.83
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	6.253	0.00	5.72
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.45	0.00	0.128	1.083	6.253	0.00	7.83
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	6.253	0.00	9.38
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.45	0.00	0.128	1.085	6.269	0.00	7.83
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	6.269	0.00	5.73
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.45	0.00	0.128	1.085	6.269	0.00	7.83
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	6.269	0.00	9.39
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.130	1.089	6.299	0.00	15.70
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	6.299	0.00	11.49
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.130	1.089	6.299	0.00	15.70
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	6.299	0.00	18.82
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.131	1.094	6.330	0.00	15.73
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	6.330	0.00	11.52
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.131	1.094	6.330	0.00	15.73
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	6.330	0.00	18.86

Linear Appurtenance Segment Forces (Factored)

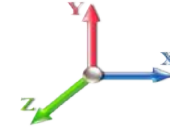
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
122.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.133	1.099	6.360	0.00	15.77
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.360	0.00	11.55
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.133	1.099	6.360	0.00	15.77
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.360	0.00	18.89
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.135	1.105	6.389	0.00	15.80
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	6.389	0.00	11.57
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.135	1.105	6.389	0.00	15.80
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	6.389	0.00	18.92
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.137	1.110	6.419	0.00	15.83
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	6.419	0.00	11.60
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.137	1.110	6.419	0.00	15.83
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	6.419	0.00	18.96
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.139	1.116	6.448	0.00	15.86
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	6.448	0.00	11.63
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.139	1.116	6.448	0.00	15.86
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	6.448	0.00	18.99
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.141	1.122	6.476	0.00	15.89
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	6.476	0.00	11.66
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.141	1.122	6.476	0.00	15.89
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	6.476	0.00	19.02
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.143	1.128	6.504	0.00	15.92
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	6.504	0.00	11.68
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.143	1.128	6.504	0.00	15.92
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	6.504	0.00	19.06
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.45	0.00	0.144	1.133	6.519	0.00	7.97
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	6.519	0.00	5.85
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.45	0.00	0.144	1.133	6.519	0.00	7.97
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	6.519	0.00	9.54
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.45	0.00	0.145	1.136	6.532	0.00	7.98
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	6.532	0.00	5.85
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.45	0.00	0.145	1.136	6.532	0.00	7.98
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	6.532	0.00	9.54
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.147	1.141	6.560	0.00	15.98
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	6.560	0.00	11.74
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.147	1.141	6.560	0.00	15.98
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	6.560	0.00	19.12
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.149	1.147	6.588	0.00	16.01
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	6.588	0.00	11.76
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.149	1.147	6.588	0.00	16.01
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	6.588	0.00	19.15
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.151	1.154	6.615	0.00	16.04
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	6.615	0.00	11.79
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.151	1.154	6.615	0.00	16.04
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	6.615	0.00	19.18
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.154	1.161	6.642	0.00	16.07
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	6.642	0.00	11.81
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.154	1.161	6.642	0.00	16.07

Linear Appurtenance Segment Forces (Factored)

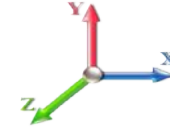
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
142.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	6.642	0.00	19.21
142.90	1 5/8" Hybrid	Yes	0.90	0.000	2.00	0.41	0.00	0.155	1.166	6.654	0.00	7.24
142.90	7/8" Coax	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	6.654	0.00	5.32
142.90	1 5/8" Fiber	Yes	0.90	0.000	2.00	0.41	0.00	0.155	1.166	6.654	0.00	7.24
142.90	1-1/4" Fiber	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	6.654	0.00	8.65
144.00	1 5/8" Hybrid	Yes	1.10	0.000	2.00	0.50	0.00	0.078	0.000	6.668	0.00	8.85
144.00	7/8" Coax	Yes	1.10	0.000	0.00	0.00	0.00	0.078	0.000	6.668	0.00	6.51
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.46	0.00	0.079	0.000	6.681	0.00	8.06
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	6.681	0.00	5.92
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.46	0.00	0.082	0.000	6.695	0.00	8.06
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	6.695	0.00	5.93
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.083	0.000	6.721	0.00	16.15
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	6.721	0.00	11.89
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.14	0.00	0.084	0.000	6.724	0.00	2.42
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	6.724	0.00	1.78
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.78	0.00	0.085	0.000	6.746	0.00	13.75
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	6.746	0.00	10.12
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.772	0.00	16.21
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.772	0.00	11.93
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.797	0.00	16.23
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.797	0.00	11.96
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.822	0.00	16.26
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.822	0.00	11.98
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.847	0.00	16.29
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.847	0.00	12.00
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.872	0.00	16.31
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.872	0.00	12.03
Totals:											0.0	5,805.7

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

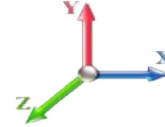


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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 27

Dead Load Factor 1.20
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-84.10	-8.74	0.00	-1079.5	0.00	1079.59	3683.82	1841.91	7606.69	3756.66	0.00	0.000	0.000	0.174
1.00	-83.70	-8.73	0.00	-1070.8	0.00	1070.84	3677.71	1838.86	7564.39	3735.77	0.00	-0.009	0.000	0.173
2.00	-83.29	-8.72	0.00	-1062.1	0.00	1062.11	3671.54	1835.77	7522.06	3714.86	0.00	-0.018	0.000	0.173
4.00	-82.46	-8.69	0.00	-1044.6	0.00	1044.68	3659.00	1829.50	7437.30	3673.00	0.02	-0.036	0.000	0.171
6.00	-81.63	-8.65	0.00	-1027.3	0.00	1027.30	3646.20	1823.10	7352.44	3631.09	0.03	-0.053	0.000	0.169
8.00	-80.79	-8.62	0.00	-1010.0	0.00	1010.00	3633.16	1816.58	7267.48	3589.13	0.06	-0.071	0.000	0.168
10.00	-79.95	-8.59	0.00	-992.76	0.00	992.76	3619.85	1809.93	7182.43	3547.13	0.09	-0.089	0.000	0.166
12.00	-79.11	-8.55	0.00	-975.59	0.00	975.59	3606.29	1803.15	7097.31	3505.10	0.14	-0.107	0.000	0.165
14.00	-78.27	-8.52	0.00	-958.49	0.00	958.49	3592.48	1796.24	7012.13	3463.03	0.18	-0.125	0.000	0.163
16.00	-77.44	-8.47	0.00	-941.46	0.00	941.46	3578.41	1789.21	6926.91	3420.94	0.24	-0.143	0.000	0.162
16.25	-77.28	-8.48	0.00	-939.34	0.00	939.34	3576.63	1788.32	6916.25	3415.68	0.25	-0.146	0.000	0.183
18.00	-76.14	-8.44	0.00	-924.50	0.00	924.50	3564.09	1782.04	6841.65	3378.83	0.30	-0.164	0.000	0.170
18.75	-75.65	-8.43	0.00	-918.17	0.00	918.17	3558.65	1779.32	6809.67	3363.04	0.33	-0.171	0.000	0.212
19.50	-75.16	-8.42	0.00	-911.85	0.00	911.85	3553.18	1776.59	6777.69	3347.24	0.36	-0.180	0.000	0.180
20.00	-74.84	-8.42	0.00	-907.64	0.00	907.64	3549.51	1774.75	6756.36	3336.71	0.38	-0.185	0.000	0.180
22.00	-73.54	-8.38	0.00	-890.81	0.00	890.81	3563.12	1781.56	6835.93	3376.01	0.46	-0.206	0.000	0.182
24.00	-72.71	-8.35	0.00	-874.04	0.00	874.04	3548.52	1774.26	6750.65	3333.89	0.55	-0.227	0.000	0.175
26.00	-71.87	-8.31	0.00	-857.35	0.00	857.35	3533.67	1766.84	6665.35	3291.77	0.65	-0.247	0.000	0.174
28.00	-71.04	-8.28	0.00	-840.72	0.00	840.72	3518.56	1759.28	6580.06	3249.64	0.76	-0.267	0.000	0.172
30.00	-70.22	-8.24	0.00	-824.16	0.00	824.16	3503.20	1751.60	6494.78	3207.53	0.87	-0.287	0.000	0.134
31.00	-69.80	-8.22	0.00	-815.93	0.00	815.93	3495.43	1747.71	6452.15	3186.48	0.94	-0.296	0.000	0.155
32.00	-69.39	-8.20	0.00	-807.71	0.00	807.71	3487.59	1743.79	6409.53	3165.43	1.00	-0.305	0.000	0.154
34.00	-68.59	-8.17	0.00	-791.31	0.00	791.31	3471.72	1735.86	6324.32	3123.35	1.13	-0.323	0.000	0.188
35.50	-67.99	-8.14	0.00	-779.05	0.00	779.05	3459.65	1729.82	6260.45	3091.80	1.23	-0.341	0.000	0.188
36.00	-67.79	-8.15	0.00	-774.98	0.00	774.98	3455.59	1727.80	6239.16	3081.29	1.27	-0.347	0.000	0.187
38.00	-66.99	-8.12	0.00	-758.69	0.00	758.69	3439.21	1719.61	6154.07	3039.26	1.42	-0.370	0.000	0.185
40.00	-66.16	-8.08	0.00	-742.45	0.00	742.45	3422.57	1711.29	6069.05	2997.28	1.58	-0.393	0.000	0.183
42.00	-65.37	-8.05	0.00	-726.29	0.00	726.29	3405.68	1702.84	5984.13	2955.34	1.75	-0.417	0.000	0.181
44.00	-64.59	-8.01	0.00	-710.19	0.00	710.19	3388.54	1694.27	5899.30	2913.44	1.93	-0.440	0.000	0.179
45.16	-64.14	-7.99	0.00	-700.90	0.00	700.90	3378.48	1689.24	5850.15	2889.17	2.04	-0.454	0.000	0.130
46.00	-63.81	-7.98	0.00	-694.19	0.00	694.19	3371.14	1685.57	5814.59	2871.61	2.12	-0.461	0.000	0.168
48.00	-63.03	-7.95	0.00	-678.23	0.00	678.23	3353.48	1676.74	5730.00	2829.83	2.32	-0.483	0.000	0.166
50.00	-62.26	-7.91	0.00	-662.33	0.00	662.33	3335.57	1667.79	5645.55	2788.13	2.53	-0.506	0.000	0.164
52.00	-61.08	-7.87	0.00	-646.51	0.00	646.51	3317.41	1658.70	5561.26	2746.50	2.74	-0.528	0.000	0.160
54.00	-59.90	-7.83	0.00	-630.78	0.00	630.78	3298.98	1649.49	5477.12	2704.94	2.97	-0.550	0.000	0.158
56.00	-58.74	-7.78	0.00	-615.12	0.00	615.12	3316.18	1658.09	5555.61	2743.71	3.20	-0.572	0.000	0.159
58.00	-57.97	-7.74	0.00	-599.56	0.00	599.56	3297.74	1648.87	5471.49	2702.16	3.45	-0.594	0.000	0.165
60.00	-57.21	-7.70	0.00	-584.08	0.00	584.08	3279.05	1639.52	5387.54	2660.71	3.70	-0.617	0.000	0.163
62.00	-56.45	-7.66	0.00	-568.67	0.00	568.67	3260.10	1630.05	5303.79	2619.34	3.96	-0.640	0.000	0.161
64.00	-55.70	-7.62	0.00	-553.35	0.00	553.35	3240.90	1620.45	5220.23	2578.08	4.24	-0.663	0.000	0.158
66.00	-54.95	-7.58	0.00	-538.12	0.00	538.12	3221.44	1610.72	5136.89	2536.92	4.52	-0.686	0.000	0.156
68.00	-54.21	-7.53	0.00	-522.97	0.00	522.97	3201.73	1600.86	5053.77	2495.87	4.81	-0.709	0.000	0.154
70.00	-53.47	-7.49	0.00	-507.90	0.00	507.90	3181.76	1590.88	4970.89	2454.94	5.12	-0.732	0.000	0.151
72.00	-52.74	-7.44	0.00	-492.93	0.00	492.93	3161.54	1580.77	4888.26	2414.13	5.43	-0.755	0.000	0.149
74.00	-52.01	-7.40	0.00	-478.04	0.00	478.04	3141.06	1570.53	4805.90	2373.45	5.75	-0.778	0.000	0.146
76.00	-51.29	-7.35	0.00	-463.25	0.00	463.25	3120.33	1560.16	4723.81	2332.91	6.08	-0.800	0.000	0.144
78.00	-50.57	-7.30	0.00	-448.55	0.00	448.55	3099.34	1549.67	4642.00	2292.51	6.42	-0.823	0.000	0.141
80.00	-49.85	-7.26	0.00	-433.94	0.00	433.94	3078.09	1539.05	4560.50	2252.26	6.77	-0.845	0.000	0.138

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



80.00	-49.85	-7.26	0.00	-433.94	0.00	433.94	2384.58	1192.29	3545.27	1750.88	6.77	-0.845	0.000	0.149
82.00	-49.20	-7.21	0.00	-419.43	0.00	419.43	2370.62	1185.31	3486.26	1721.73	7.13	-0.868	0.000	0.164
84.00	-48.55	-7.16	0.00	-405.01	0.00	405.01	2356.42	1178.21	3427.33	1692.63	7.50	-0.893	0.000	0.160
86.00	-47.91	-7.12	0.00	-390.68	0.00	390.68	2341.95	1170.98	3368.48	1663.57	7.88	-0.917	0.000	0.157
88.00	-47.27	-7.07	0.00	-376.45	0.00	376.45	2327.23	1163.62	3309.75	1634.56	8.27	-0.942	0.000	0.153
90.00	-46.64	-7.02	0.00	-362.31	0.00	362.31	2312.26	1156.13	3251.12	1605.61	8.67	-0.966	0.000	0.149
92.00	-46.01	-6.97	0.00	-348.26	0.00	348.26	2297.03	1148.52	3192.63	1576.72	9.08	-0.990	0.000	0.146
94.00	-45.38	-6.92	0.00	-334.32	0.00	334.32	2281.55	1140.77	3134.28	1547.90	9.50	-1.014	0.000	0.142
95.00	-45.07	-6.89	0.00	-327.40	0.00	327.40	2273.71	1136.85	3105.16	1533.52	9.71	-1.026	0.000	0.140
95.58	-44.81	-6.88	0.00	-323.40	0.00	323.40	2269.13	1134.57	3088.29	1525.19	9.83	-1.033	0.000	0.137
95.58	-44.81	-6.88	0.00	-323.40	0.00	323.40	2269.13	1134.57	3088.29	1525.19	9.83	-1.033	0.000	0.137
96.00	-44.62	-6.88	0.00	-320.51	0.00	320.51	2265.81	1132.90	3076.09	1519.16	9.93	-1.038	0.000	0.231
98.00	-43.72	-6.83	0.00	-306.76	0.00	306.76	2249.81	1124.91	3018.05	1490.50	10.37	-1.077	0.000	0.225
100.00	-42.85	-6.79	0.00	-293.10	0.00	293.10	2259.61	1129.81	3053.48	1508.00	10.83	-1.115	0.000	0.213
102.00	-42.25	-6.75	0.00	-279.52	0.00	279.52	2243.52	1121.76	2995.52	1479.37	11.30	-1.153	0.000	0.208
104.00	-41.65	-6.72	0.00	-266.01	0.00	266.01	2227.17	1113.59	2937.74	1450.84	11.79	-1.189	0.000	0.202
106.00	-41.06	-6.68	0.00	-252.58	0.00	252.58	2210.57	1105.28	2880.15	1422.40	12.30	-1.224	0.000	0.196
108.00	-40.47	-6.64	0.00	-239.23	0.00	239.23	2193.71	1096.86	2822.78	1394.06	12.82	-1.258	0.000	0.190
110.00	-39.72	-6.47	0.00	-225.61	0.00	225.61	2176.60	1088.30	2765.62	1365.84	13.35	-1.292	0.000	0.183
112.00	-39.16	-6.42	0.00	-212.68	0.00	212.68	2159.23	1079.61	2708.70	1337.73	13.90	-1.325	0.000	0.177
114.00	-38.60	-6.38	0.00	-199.83	0.00	199.83	2141.61	1070.80	2652.02	1309.73	14.47	-1.358	0.000	0.171
115.00	-38.32	-6.35	0.00	-193.45	0.00	193.45	2132.70	1066.35	2623.78	1295.79	14.75	-1.374	0.000	0.167
115.00	-38.32	-6.35	0.00	-193.45	0.00	193.45	1556.62	778.31	1923.08	949.74	14.75	-1.374	0.000	0.228
116.00	-38.06	-6.34	0.00	-187.10	0.00	187.10	1551.43	775.71	1904.13	940.38	15.04	-1.389	0.000	0.224
118.00	-37.56	-6.30	0.00	-174.42	0.00	174.42	1540.84	770.42	1866.26	921.68	15.63	-1.427	0.000	0.214
120.00	-37.05	-6.26	0.00	-161.82	0.00	161.82	1529.99	765.00	1828.43	902.99	16.24	-1.464	0.000	0.203
122.00	-36.56	-6.22	0.00	-149.31	0.00	149.31	1518.89	759.45	1790.65	884.33	16.86	-1.500	0.000	0.193
124.00	-36.06	-6.17	0.00	-136.87	0.00	136.87	1507.54	753.77	1752.93	865.70	17.49	-1.534	0.000	0.182
126.00	-35.58	-6.13	0.00	-124.53	0.00	124.53	1495.93	747.96	1715.28	847.11	18.14	-1.566	0.000	0.171
128.00	-35.09	-6.08	0.00	-112.27	0.00	112.27	1484.06	742.03	1677.72	828.56	18.81	-1.596	0.000	0.159
130.00	-34.61	-6.03	0.00	-100.11	0.00	100.11	1471.95	735.97	1640.26	810.06	19.48	-1.625	0.000	0.147
132.00	-34.13	-5.98	0.00	-88.04	0.00	88.04	1459.57	729.79	1602.91	791.62	20.17	-1.651	0.000	0.135
133.00	-23.94	-4.53	0.00	-82.06	0.00	82.06	1453.29	726.64	1584.28	782.42	20.52	-1.664	0.000	0.121
134.00	-23.72	-4.50	0.00	-77.53	0.00	77.53	1446.94	723.47	1565.68	773.23	20.87	-1.676	0.000	0.117
136.00	-23.28	-4.45	0.00	-68.52	0.00	68.52	1434.06	717.03	1528.59	754.91	21.57	-1.698	0.000	0.107
138.00	-22.85	-4.39	0.00	-59.62	0.00	59.62	1420.92	710.46	1491.65	736.67	22.29	-1.719	0.000	0.097
140.00	-22.42	-4.34	0.00	-50.84	0.00	50.84	1407.52	703.76	1454.87	718.50	23.01	-1.737	0.000	0.087
142.00	-21.99	-4.28	0.00	-42.16	0.00	42.16	1393.87	696.94	1418.26	700.42	23.74	-1.753	0.000	0.076
142.90	-13.06	-2.74	0.00	-38.31	0.00	38.31	1387.65	693.82	1401.84	692.32	24.07	-1.760	0.000	0.065
144.00	-12.86	-2.72	0.00	-35.29	0.00	35.29	1379.97	689.99	1381.83	682.44	24.48	-1.768	0.000	0.061
145.00	-12.68	-2.69	0.00	-32.57	0.00	32.57	1372.92	686.46	1363.70	673.48	24.85	-1.774	0.000	0.058
145.00	-12.68	-2.69	0.00	-32.57	0.00	32.57	931.20	465.60	925.89	604.09	24.85	-1.774	0.000	0.068
146.00	-12.51	-2.67	0.00	-29.88	0.00	29.88	925.24	462.62	912.49	594.77	25.22	-1.780	0.000	0.064
148.00	-12.17	-2.62	0.00	-24.55	0.00	24.55	913.32	456.66	885.99	576.36	25.97	-1.792	0.000	0.056
148.30	-7.59	-1.78	0.00	-22.42	0.00	22.42	911.53	455.77	882.04	573.63	26.09	-1.793	0.000	0.047
150.00	-7.31	-1.74	0.00	-19.39	0.00	19.39	901.40	450.70	859.86	558.24	26.73	-1.801	0.000	0.043
150.00	-7.31	-1.74	0.00	-19.39	0.00	19.39	556.65	278.33	359.38	213.69	26.73	-1.801	0.000	0.104
152.00	-7.06	-1.71	0.00	-15.90	0.00	15.90	556.65	278.33	359.38	213.69	27.48	-1.810	0.000	0.087
154.00	-6.81	-1.67	0.00	-12.49	0.00	12.49	556.65	278.33	359.38	213.69	28.24	-1.831	0.000	0.071
156.00	-6.56	-1.63	0.00	-9.15	0.00	9.15	556.65	278.33	359.38	213.69	29.01	-1.847	0.000	0.055
158.00	-6.31	-1.59	0.00	-5.89	0.00	5.89	556.65	278.33	359.38	213.69	29.79	-1.858	0.000	0.039
160.00	0.00	-1.39	0.00	-2.71	0.00	2.71	556.65	278.33	359.38	213.69	30.57	-1.864	0.000	0.013

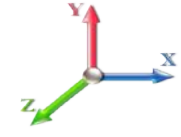
Seismic Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0E				Iterations 25
Gust Response Factor	1.10	Sds	0.20	Ss 0.19
Dead Load Factor	1.20	Seismic Load Factor	1.00	S1 0.06
Wind Load Factor	0.00	Structure Frequency (f1)	0.26	SA 0.03
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1 RB2	0.00	0.00	0.00	0.00	0.00	
1.00	RT2 RB3	205.04	0.00	0.01	0.00	1.43	
2.00		204.25	0.00	0.01	0.01	2.52	
4.00		406.10	0.00	0.03	0.01	8.17	
6.00		402.91	0.00	0.04	0.02	10.29	
8.00		399.73	0.00	0.04	0.02	11.77	
10.00		396.54	0.01	0.05	0.03	12.82	
12.00		393.35	0.01	0.06	0.03	13.58	
14.00		390.16	0.01	0.06	0.04	14.11	
16.00	Bot - Section 2	386.97	0.02	0.06	0.04	14.48	
16.25	RT1 RB4	97.07	0.02	0.06	0.04	3.65	
18.00	RB5	676.67	0.02	0.07	0.04	25.97	
18.75	RT3	288.50	0.03	0.07	0.04	11.16	
19.50	RB6	287.61	0.03	0.07	0.04	11.21	
20.00		191.24	0.03	0.07	0.04	7.48	
22.00	Top - Section 1	760.98	0.04	0.07	0.04	30.24	
24.00		380.38	0.04	0.07	0.04	15.30	
26.00		377.19	0.05	0.07	0.04	15.34	
28.00		374.00	0.06	0.07	0.04	15.36	
30.00	RB7	370.82	0.07	0.07	0.04	15.36	
31.00	RT4	184.21	0.07	0.07	0.04	7.67	
32.00		183.42	0.08	0.07	0.04	7.67	
34.00	RT5	364.44	0.09	0.07	0.04	15.38	
35.50	RT6	271.24	0.09	0.07	0.04	11.52	
36.00		90.01	0.10	0.07	0.04	3.83	
38.00		358.06	0.11	0.07	0.04	15.40	
40.00	Appurtenance(s)	364.87	0.12	0.07	0.03	15.84	
42.00		351.69	0.13	0.07	0.03	15.42	
44.00		348.50	0.14	0.07	0.03	15.42	
45.16	RB8	200.67	0.15	0.07	0.03	8.92	
46.00	RT7	144.64	0.16	0.07	0.03	6.45	
48.00		342.12	0.17	0.07	0.03	15.37	
50.00	Bot - Section 3	338.93	0.18	0.06	0.03	15.30	
52.00		677.65	0.20	0.06	0.02	30.65	
54.00		671.27	0.22	0.06	0.02	30.31	
56.00	Top - Section 2	664.89	0.23	0.06	0.02	29.82	
58.00	RT8 RB9	332.34	0.25	0.06	0.02	14.71	
60.00		329.15	0.27	0.05	0.02	14.26	
62.00		325.96	0.28	0.05	0.01	13.68	
64.00		322.78	0.30	0.04	0.01	12.96	
66.00		319.59	0.32	0.04	0.01	12.06	
68.00		316.40	0.34	0.04	0.01	10.97	
70.00		313.21	0.36	0.03	0.01	9.68	
72.00		310.02	0.38	0.02	0.01	8.18	
74.00		306.83	0.40	0.02	0.01	6.48	
76.00		303.64	0.43	0.01	0.01	4.59	

Seismic Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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78.00	RT9 RB10	300.46	0.45	0.00	0.01	2.56
80.00	Top - Section 3	297.27	0.47	-0.01	0.01	0.43
82.00		245.49	0.50	-0.01	0.01	-1.44
84.00		242.84	0.52	-0.02	0.01	-3.20
86.00		240.18	0.55	-0.03	0.01	-4.86
88.00		237.52	0.57	-0.04	0.01	-6.37
90.00		234.87	0.60	-0.05	0.01	-7.70
92.00		232.21	0.62	-0.06	0.02	-8.82
94.00		229.55	0.65	-0.07	0.02	-9.72
95.00	Bot - Section 5	113.78	0.67	-0.08	0.02	-5.03
95.58	RT10	132.62	0.67	-0.08	0.03	-5.99
96.00		95.75	0.68	-0.08	0.03	-4.39
98.00		452.75	0.71	-0.09	0.03	-21.89
100.00	Top - Section 4	447.44	0.74	-0.10	0.04	-22.38
102.00		223.20	0.77	-0.11	0.05	-11.34
104.00		220.55	0.80	-0.11	0.05	-11.19
106.00		217.89	0.83	-0.12	0.06	-10.87
108.00		215.23	0.86	-0.12	0.07	-10.38
110.00	Appurtenance(s)	268.57	0.89	-0.12	0.08	-12.30
112.00		209.92	0.93	-0.12	0.10	-8.95
114.00		207.26	0.96	-0.12	0.11	-8.02
115.00	Top - Section 5	102.63	0.98	-0.12	0.12	-3.74
116.00		81.75	0.99	-0.11	0.13	-2.79
118.00		161.90	1.03	-0.10	0.15	-4.65
120.00		159.77	1.06	-0.09	0.17	-3.62
122.00		157.65	1.10	-0.07	0.19	-2.50
124.00		155.52	1.14	-0.05	0.21	-1.30
126.00		153.40	1.17	-0.02	0.23	-0.02
128.00		151.27	1.21	0.01	0.26	1.33
130.00		149.15	1.25	0.05	0.29	2.76
132.00		147.02	1.29	0.10	0.32	4.25
133.00	Appurtenance(s)	4419.9	1.31	0.13	0.34	151.84
134.00		72.18	1.33	0.16	0.36	2.89
136.00		142.77	1.37	0.22	0.40	7.41
138.00		140.64	1.41	0.30	0.44	9.08
140.00		138.52	1.45	0.38	0.48	10.79
142.00		136.39	1.49	0.47	0.53	12.56
142.90	Appurtenance(s)	3740.8	1.51	0.52	0.55	369.22
144.00		73.58	1.53	0.58	0.58	7.87
145.00	Top - Section 6	66.34	1.55	0.64	0.61	7.61
146.00		64.22	1.57	0.70	0.63	7.88
148.00		126.88	1.62	0.83	0.69	17.67
148.30	Appurtenance(s)	2089.2	1.62	0.85	0.70	296.21
150.00	Top - Section 7	105.95	1.66	0.98	0.76	16.59
152.00		84.18	1.71	1.14	0.82	14.70
154.00		84.18	1.75	1.32	0.90	16.30
156.00		84.18	1.80	1.52	0.97	17.96
158.00		84.18	1.84	1.74	1.05	19.69
160.00	Appurtenance(s)	1968.6	1.89	1.98	1.14	502.72
Totals:		35,834.4				1,899.6
						Total Wind: 37,658.2

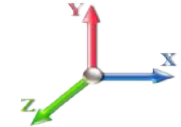
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0E		Iterations 25
Gust Response Factor 1.10	Sds 0.20	Ss 0.19
Dead Load Factor 1.20	Seismic Load Factor 1.00	S1 0.06
Wind Load Factor 0.00	Structure Frequency (f1) 0.26	SA 0.03
	Seismic Importance Factor 1.00	



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-52.17	-2.09	0.00	-258.51	0.00	258.51	3683.82	1841.91	7606.69	3756.66	0.00	0.00	0.00	0.047
1.00	-51.86	-2.09	0.00	-256.41	0.00	256.41	3677.71	1838.86	7564.39	3735.77	0.00	0.00	0.00	0.046
2.00	-51.55	-2.09	0.00	-254.32	0.00	254.32	3671.54	1835.77	7522.06	3714.86	0.00	0.00	0.00	0.046
4.00	-50.94	-2.09	0.00	-250.13	0.00	250.13	3659.00	1829.50	7437.30	3673.00	0.00	-0.01	0.00	0.046
6.00	-50.33	-2.08	0.00	-245.96	0.00	245.96	3646.20	1823.10	7352.44	3631.09	0.01	-0.01	0.00	0.045
8.00	-49.73	-2.07	0.00	-241.79	0.00	241.79	3633.16	1816.58	7267.48	3589.13	0.01	-0.02	0.00	0.045
10.00	-49.13	-2.06	0.00	-237.64	0.00	237.64	3619.85	1809.93	7182.43	3547.13	0.02	-0.02	0.00	0.045
12.00	-48.53	-2.05	0.00	-233.51	0.00	233.51	3606.29	1803.15	7097.31	3505.10	0.03	-0.03	0.00	0.044
14.00	-47.94	-2.04	0.00	-229.40	0.00	229.40	3592.48	1796.24	7012.13	3463.03	0.04	-0.03	0.00	0.044
16.00	-47.35	-2.03	0.00	-225.32	0.00	225.32	3578.41	1789.21	6926.91	3420.94	0.06	-0.03	0.00	0.043
16.25	-47.22	-2.03	0.00	-224.81	0.00	224.81	3576.63	1788.32	6916.25	3415.68	0.06	-0.03	0.00	0.049
18.00	-46.29	-2.01	0.00	-221.26	0.00	221.26	3564.09	1782.04	6841.65	3378.83	0.07	-0.04	0.00	0.045
18.75	-45.90	-2.00	0.00	-219.75	0.00	219.75	3558.65	1779.32	6809.67	3363.04	0.08	-0.04	0.00	0.056
19.50	-45.51	-1.99	0.00	-218.26	0.00	218.26	3553.18	1776.59	6777.69	3347.24	0.09	-0.04	0.00	0.048
20.00	-45.25	-1.98	0.00	-217.27	0.00	217.27	3549.51	1774.75	6756.36	3336.71	0.09	-0.04	0.00	0.048
22.00	-44.21	-1.95	0.00	-213.31	0.00	213.31	3563.12	1781.56	6835.93	3376.01	0.11	-0.05	0.00	0.048
24.00	-43.63	-1.94	0.00	-209.40	0.00	209.40	3548.52	1774.26	6750.65	3333.89	0.13	-0.05	0.00	0.047
26.00	-43.05	-1.93	0.00	-205.52	0.00	205.52	3533.67	1766.84	6665.35	3291.77	0.16	-0.06	0.00	0.046
28.00	-42.48	-1.92	0.00	-201.66	0.00	201.66	3518.56	1759.28	6580.06	3249.64	0.18	-0.06	0.00	0.046
30.00	-41.91	-1.90	0.00	-197.83	0.00	197.83	3503.20	1751.60	6494.78	3207.53	0.21	-0.07	0.00	0.036
31.00	-41.62	-1.90	0.00	-195.93	0.00	195.93	3495.43	1747.71	6452.15	3186.48	0.22	-0.07	0.00	0.041
32.00	-41.34	-1.89	0.00	-194.03	0.00	194.03	3487.59	1743.79	6409.53	3165.43	0.24	-0.07	0.00	0.041
34.00	-40.78	-1.88	0.00	-190.25	0.00	190.25	3471.72	1735.86	6324.32	3123.35	0.27	-0.08	0.00	0.050
35.50	-40.36	-1.87	0.00	-187.44	0.00	187.44	3459.65	1729.82	6260.45	3091.80	0.30	-0.08	0.00	0.050
36.00	-40.22	-1.87	0.00	-186.50	0.00	186.50	3455.59	1727.80	6239.16	3081.29	0.30	-0.08	0.00	0.050
38.00	-39.67	-1.85	0.00	-182.77	0.00	182.77	3439.21	1719.61	6154.07	3039.26	0.34	-0.09	0.00	0.049
40.00	-39.10	-1.84	0.00	-179.06	0.00	179.06	3422.57	1711.29	6069.05	2997.28	0.38	-0.09	0.00	0.049
42.00	-38.56	-1.83	0.00	-175.38	0.00	175.38	3405.68	1702.84	5984.13	2955.34	0.42	-0.10	0.00	0.048
44.00	-38.01	-1.81	0.00	-171.73	0.00	171.73	3388.54	1694.27	5899.30	2913.44	0.46	-0.11	0.00	0.048
45.16	-37.70	-1.81	0.00	-169.62	0.00	169.62	3378.48	1689.24	5850.15	2889.17	0.49	-0.11	0.00	0.035
46.00	-37.48	-1.80	0.00	-168.10	0.00	168.10	3371.14	1685.57	5814.59	2871.61	0.51	-0.11	0.00	0.045
48.00	-36.94	-1.79	0.00	-164.50	0.00	164.50	3353.48	1676.74	5730.00	2829.83	0.56	-0.12	0.00	0.044
50.00	-36.41	-1.78	0.00	-160.92	0.00	160.92	3335.57	1667.79	5645.55	2788.13	0.61	-0.12	0.00	0.044
52.00	-35.47	-1.75	0.00	-157.37	0.00	157.37	3317.41	1658.70	5561.26	2746.50	0.66	-0.13	0.00	0.043
54.00	-34.54	-1.72	0.00	-153.88	0.00	153.88	3298.98	1649.49	5477.12	2704.94	0.71	-0.13	0.00	0.042
56.00	-33.62	-1.69	0.00	-150.44	0.00	150.44	3316.18	1658.09	5555.61	2743.71	0.77	-0.14	0.00	0.043
58.00	-33.10	-1.68	0.00	-147.06	0.00	147.06	3297.74	1648.87	5471.49	2702.16	0.83	-0.14	0.00	0.045
60.00	-32.58	-1.66	0.00	-143.71	0.00	143.71	3279.05	1639.52	5387.54	2660.71	0.89	-0.15	0.00	0.044
62.00	-32.06	-1.65	0.00	-140.38	0.00	140.38	3260.10	1630.05	5303.79	2619.34	0.95	-0.15	0.00	0.044
64.00	-31.55	-1.64	0.00	-137.08	0.00	137.08	3241.90	1620.45	5220.23	2578.08	1.02	-0.16	0.00	0.043
66.00	-31.04	-1.63	0.00	-133.80	0.00	133.80	3221.44	1610.72	5136.89	2536.92	1.09	-0.17	0.00	0.043
68.00	-30.54	-1.62	0.00	-130.54	0.00	130.54	3201.73	1600.86	5053.77	2495.87	1.16	-0.17	0.00	0.042
70.00	-30.04	-1.61	0.00	-127.30	0.00	127.30	3181.76	1590.88	4970.89	2454.94	1.23	-0.18	0.00	0.041
72.00	-29.54	-1.61	0.00	-124.07	0.00	124.07	3161.54	1580.77	4888.26	2414.13	1.31	-0.18	0.00	0.041
74.00	-29.05	-1.60	0.00	-120.86	0.00	120.86	3141.06	1570.53	4805.90	2373.45	1.38	-0.19	0.00	0.040
76.00	-28.56	-1.60	0.00	-117.66	0.00	117.66	3120.33	1560.16	4723.81	2332.91	1.46	-0.19	0.00	0.040
78.00	-28.07	-1.60	0.00	-114.46	0.00	114.46	3099.34	1549.67	4642.00	2292.51	1.55	-0.20	0.00	0.039

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00	-27.59	-1.60	0.00	-111.27	0.00	111.27	3078.09	1539.05	4560.50	2252.26	1.63	-0.21	0.039
80.00	-27.59	-1.60	0.00	-111.27	0.00	111.27	2384.58	1192.29	3545.27	1750.88	1.63	-0.21	0.042
82.00	-27.17	-1.60	0.00	-108.08	0.00	108.08	2370.62	1185.31	3486.26	1721.73	1.72	-0.21	0.046
84.00	-26.76	-1.60	0.00	-104.88	0.00	104.88	2356.42	1178.21	3427.33	1692.63	1.81	-0.22	0.045
86.00	-26.34	-1.60	0.00	-101.68	0.00	101.68	2341.95	1170.98	3368.48	1663.57	1.90	-0.22	0.045
88.00	-25.93	-1.60	0.00	-98.48	0.00	98.48	2327.23	1163.62	3309.75	1634.56	2.00	-0.23	0.044
90.00	-25.53	-1.60	0.00	-95.28	0.00	95.28	2312.26	1156.13	3251.12	1605.61	2.10	-0.24	0.043
92.00	-25.12	-1.60	0.00	-92.07	0.00	92.07	2297.03	1148.52	3192.63	1576.72	2.20	-0.24	0.042
94.00	-24.72	-1.60	0.00	-88.86	0.00	88.86	2281.55	1140.77	3134.28	1547.90	2.30	-0.25	0.041
95.00	-24.52	-1.60	0.00	-87.26	0.00	87.26	2273.71	1136.85	3105.16	1533.52	2.35	-0.25	0.041
95.58	-24.33	-1.60	0.00	-86.33	0.00	86.33	2269.13	1134.57	3088.29	1525.19	2.38	-0.26	0.040
95.58	-24.33	-1.60	0.00	-86.33	0.00	86.33	2269.13	1134.57	3088.29	1525.19	2.38	-0.26	0.040
96.00	-24.19	-1.61	0.00	-85.65	0.00	85.65	2265.81	1132.90	3076.09	1519.16	2.41	-0.26	0.067
98.00	-23.52	-1.61	0.00	-82.44	0.00	82.44	2249.81	1124.91	3018.05	1490.50	2.52	-0.27	0.066
100.00	-22.86	-1.61	0.00	-79.23	0.00	79.23	2259.61	1129.81	3053.48	1508.00	2.63	-0.28	0.063
102.00	-22.47	-1.61	0.00	-76.01	0.00	76.01	2243.52	1121.76	2995.52	1479.37	2.75	-0.29	0.061
104.00	-22.08	-1.61	0.00	-72.79	0.00	72.79	2227.17	1113.59	2937.74	1450.84	2.87	-0.30	0.060
106.00	-21.69	-1.61	0.00	-69.56	0.00	69.56	2210.57	1105.28	2880.15	1422.40	3.00	-0.31	0.059
108.00	-21.31	-1.62	0.00	-66.33	0.00	66.33	2193.71	1096.86	2822.78	1394.06	3.13	-0.32	0.057
110.00	-20.86	-1.62	0.00	-63.10	0.00	63.10	2176.60	1088.30	2765.62	1365.84	3.26	-0.33	0.056
112.00	-20.49	-1.62	0.00	-59.87	0.00	59.87	2159.23	1079.61	2708.70	1337.73	3.40	-0.33	0.054
114.00	-20.11	-1.62	0.00	-56.63	0.00	56.63	2141.61	1070.80	2652.02	1309.73	3.54	-0.34	0.053
115.00	-19.93	-1.62	0.00	-55.01	0.00	55.01	2132.70	1066.35	2623.78	1295.79	3.62	-0.35	0.052
115.00	-19.93	-1.62	0.00	-55.01	0.00	55.01	1556.62	778.31	1923.08	949.74	3.62	-0.35	0.071
116.00	-19.77	-1.62	0.00	-53.40	0.00	53.40	1551.43	775.71	1904.13	940.38	3.69	-0.35	0.070
118.00	-19.45	-1.62	0.00	-50.16	0.00	50.16	1540.84	770.42	1866.26	921.68	3.84	-0.36	0.067
120.00	-19.14	-1.62	0.00	-46.91	0.00	46.91	1529.99	765.00	1828.43	902.99	3.99	-0.37	0.064
122.00	-18.82	-1.62	0.00	-43.66	0.00	43.66	1518.89	759.45	1790.65	884.33	4.15	-0.38	0.062
124.00	-18.51	-1.63	0.00	-40.42	0.00	40.42	1507.54	753.77	1752.93	865.70	4.32	-0.39	0.059
126.00	-18.21	-1.63	0.00	-37.16	0.00	37.16	1495.93	747.96	1715.28	847.11	4.48	-0.40	0.056
128.00	-17.90	-1.63	0.00	-33.91	0.00	33.91	1484.06	742.03	1677.72	828.56	4.66	-0.41	0.053
130.00	-17.60	-1.62	0.00	-30.66	0.00	30.66	1471.95	735.97	1640.26	810.06	4.83	-0.42	0.050
132.00	-17.30	-1.62	0.00	-27.41	0.00	27.41	1459.57	729.79	1602.91	791.62	5.01	-0.43	0.046
133.00	-11.93	-1.43	0.00	-25.79	0.00	25.79	1453.29	726.64	1584.28	782.42	5.10	-0.43	0.041
134.00	-11.80	-1.42	0.00	-24.37	0.00	24.37	1446.94	723.47	1565.68	773.23	5.19	-0.44	0.040
136.00	-11.54	-1.42	0.00	-21.52	0.00	21.52	1434.06	717.03	1528.59	754.91	5.38	-0.45	0.037
138.00	-11.28	-1.41	0.00	-18.68	0.00	18.68	1420.92	710.46	1491.65	736.67	5.57	-0.45	0.033
140.00	-11.02	-1.39	0.00	-15.87	0.00	15.87	1407.52	703.76	1454.87	718.50	5.76	-0.46	0.030
142.00	-10.76	-1.38	0.00	-13.08	0.00	13.08	1393.87	696.94	1418.26	700.42	5.95	-0.46	0.026
142.90	-6.23	-0.98	0.00	-11.84	0.00	11.84	1387.65	693.82	1401.84	692.32	6.04	-0.46	0.022
144.00	-6.11	-0.97	0.00	-10.76	0.00	10.76	1379.97	689.99	1381.83	682.44	6.14	-0.47	0.020
145.00	-6.00	-0.96	0.00	-9.80	0.00	9.80	1372.92	686.46	1363.70	673.48	6.24	-0.47	0.019
145.00	-6.00	-0.96	0.00	-9.80	0.00	9.80	931.20	465.60	925.89	604.09	6.24	-0.47	0.023
146.00	-5.90	-0.95	0.00	-8.84	0.00	8.84	925.24	462.62	912.49	594.77	6.34	-0.47	0.021
148.00	-5.69	-0.93	0.00	-6.94	0.00	6.94	913.32	456.66	885.99	576.36	6.54	-0.47	0.018
148.30	-3.17	-0.61	0.00	-6.66	0.00	6.66	911.53	455.77	882.04	573.63	6.57	-0.47	0.015
150.00	-3.01	-0.60	0.00	-5.62	0.00	5.62	901.40	450.70	859.86	558.24	6.74	-0.48	0.013
150.00	-3.01	-0.60	0.00	-5.62	0.00	5.62	556.65	278.33	359.38	213.69	6.74	-0.48	0.032
152.00	-2.86	-0.58	0.00	-4.42	0.00	4.42	556.65	278.33	359.38	213.69	6.94	-0.48	0.026
154.00	-2.71	-0.56	0.00	-3.26	0.00	3.26	556.65	278.33	359.38	213.69	7.14	-0.48	0.020
156.00	-2.56	-0.54	0.00	-2.14	0.00	2.14	556.65	278.33	359.38	213.69	7.34	-0.49	0.015
158.00	-2.41	-0.52	0.00	-1.05	0.00	1.05	556.65	278.33	359.38	213.69	7.55	-0.49	0.009
160.00	0.00	-0.50	0.00	0.00	0.00	0.00	556.65	278.33	359.38	213.69	7.75	-0.49	0.000

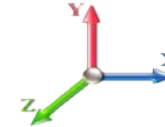
Seismic Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0E				Iterations 25
Gust Response Factor	1.10	Sds	0.20	Ss 0.19
Dead Load Factor	0.90	Seismic Load Factor	1.00	S1 0.06
Wind Load Factor	0.00	Structure Frequency (f1)	0.26	SA 0.03
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1 RB2	0.00	0.00	0.00	0.00	0.00	
1.00	RT2 RB3	205.04	0.00	0.01	0.00	1.43	
2.00		204.25	0.00	0.01	0.01	2.52	
4.00		406.10	0.00	0.03	0.01	8.17	
6.00		402.91	0.00	0.04	0.02	10.29	
8.00		399.73	0.00	0.04	0.02	11.77	
10.00		396.54	0.01	0.05	0.03	12.82	
12.00		393.35	0.01	0.06	0.03	13.58	
14.00		390.16	0.01	0.06	0.04	14.11	
16.00	Bot - Section 2	386.97	0.02	0.06	0.04	14.48	
16.25	RT1 RB4	97.07	0.02	0.06	0.04	3.65	
18.00	RB5	676.67	0.02	0.07	0.04	25.97	
18.75	RT3	288.50	0.03	0.07	0.04	11.16	
19.50	RB6	287.61	0.03	0.07	0.04	11.21	
20.00		191.24	0.03	0.07	0.04	7.48	
22.00	Top - Section 1	760.98	0.04	0.07	0.04	30.24	
24.00		380.38	0.04	0.07	0.04	15.30	
26.00		377.19	0.05	0.07	0.04	15.34	
28.00		374.00	0.06	0.07	0.04	15.36	
30.00	RB7	370.82	0.07	0.07	0.04	15.36	
31.00	RT4	184.21	0.07	0.07	0.04	7.67	
32.00		183.42	0.08	0.07	0.04	7.67	
34.00	RT5	364.44	0.09	0.07	0.04	15.38	
35.50	RT6	271.24	0.09	0.07	0.04	11.52	
36.00		90.01	0.10	0.07	0.04	3.83	
38.00		358.06	0.11	0.07	0.04	15.40	
40.00	Appurtenance(s)	364.87	0.12	0.07	0.03	15.84	
42.00		351.69	0.13	0.07	0.03	15.42	
44.00		348.50	0.14	0.07	0.03	15.42	
45.16	RB8	200.67	0.15	0.07	0.03	8.92	
46.00	RT7	144.64	0.16	0.07	0.03	6.45	
48.00		342.12	0.17	0.07	0.03	15.37	
50.00	Bot - Section 3	338.93	0.18	0.06	0.03	15.30	
52.00		677.65	0.20	0.06	0.02	30.65	
54.00		671.27	0.22	0.06	0.02	30.31	
56.00	Top - Section 2	664.89	0.23	0.06	0.02	29.82	
58.00	RT8 RB9	332.34	0.25	0.06	0.02	14.71	
60.00		329.15	0.27	0.05	0.02	14.26	
62.00		325.96	0.28	0.05	0.01	13.68	
64.00		322.78	0.30	0.04	0.01	12.96	
66.00		319.59	0.32	0.04	0.01	12.06	
68.00		316.40	0.34	0.04	0.01	10.97	
70.00		313.21	0.36	0.03	0.01	9.68	
72.00		310.02	0.38	0.02	0.01	8.18	
74.00		306.83	0.40	0.02	0.01	6.48	
76.00		303.64	0.43	0.01	0.01	4.59	

Seismic Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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78.00	RT9 RB10	300.46	0.45	0.00	0.01	2.56	
80.00	Top - Section 3	297.27	0.47	-0.01	0.01	0.43	
82.00		245.49	0.50	-0.01	0.01	-1.44	
84.00		242.84	0.52	-0.02	0.01	-3.20	
86.00		240.18	0.55	-0.03	0.01	-4.86	
88.00		237.52	0.57	-0.04	0.01	-6.37	
90.00		234.87	0.60	-0.05	0.01	-7.70	
92.00		232.21	0.62	-0.06	0.02	-8.82	
94.00		229.55	0.65	-0.07	0.02	-9.72	
95.00	Bot - Section 5	113.78	0.67	-0.08	0.02	-5.03	
95.58	RT10	132.62	0.67	-0.08	0.03	-5.99	
96.00		95.75	0.68	-0.08	0.03	-4.39	
98.00		452.75	0.71	-0.09	0.03	-21.89	
100.00	Top - Section 4	447.44	0.74	-0.10	0.04	-22.38	
102.00		223.20	0.77	-0.11	0.05	-11.34	
104.00		220.55	0.80	-0.11	0.05	-11.19	
106.00		217.89	0.83	-0.12	0.06	-10.87	
108.00		215.23	0.86	-0.12	0.07	-10.38	
110.00	Appurtenance(s)	268.57	0.89	-0.12	0.08	-12.30	
112.00		209.92	0.93	-0.12	0.10	-8.95	
114.00		207.26	0.96	-0.12	0.11	-8.02	
115.00	Top - Section 5	102.63	0.98	-0.12	0.12	-3.74	
116.00		81.75	0.99	-0.11	0.13	-2.79	
118.00		161.90	1.03	-0.10	0.15	-4.65	
120.00		159.77	1.06	-0.09	0.17	-3.62	
122.00		157.65	1.10	-0.07	0.19	-2.50	
124.00		155.52	1.14	-0.05	0.21	-1.30	
126.00		153.40	1.17	-0.02	0.23	-0.02	
128.00		151.27	1.21	0.01	0.26	1.33	
130.00		149.15	1.25	0.05	0.29	2.76	
132.00		147.02	1.29	0.10	0.32	4.25	
133.00	Appurtenance(s)	4419.9	1.31	0.13	0.34	151.84	
134.00		72.18	1.33	0.16	0.36	2.89	
136.00		142.77	1.37	0.22	0.40	7.41	
138.00		140.64	1.41	0.30	0.44	9.08	
140.00		138.52	1.45	0.38	0.48	10.79	
142.00		136.39	1.49	0.47	0.53	12.56	
142.90	Appurtenance(s)	3740.8	1.51	0.52	0.55	369.22	
144.00		73.58	1.53	0.58	0.58	7.87	
145.00	Top - Section 6	66.34	1.55	0.64	0.61	7.61	
146.00		64.22	1.57	0.70	0.63	7.88	
148.00		126.88	1.62	0.83	0.69	17.67	
148.30	Appurtenance(s)	2089.2	1.62	0.85	0.70	296.21	
150.00	Top - Section 7	105.95	1.66	0.98	0.76	16.59	
152.00		84.18	1.71	1.14	0.82	14.70	
154.00		84.18	1.75	1.32	0.90	16.30	
156.00		84.18	1.80	1.52	0.97	17.96	
158.00		84.18	1.84	1.74	1.05	19.69	
160.00	Appurtenance(s)	1968.6	1.89	1.98	1.14	502.72	
Totals:		35,834.4				1,899.6	Total Wind: 37,658.2

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

Calculated Forces

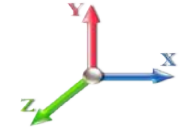
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0E

Iterations 25

Gust Response Factor 1.10	Sds 0.20	Ss 0.19
Dead Load Factor 0.90	Seismic Load Factor 1.00	Sd1 0.10
Wind Load Factor 0.00	Structure Frequency (f1) 0.26	SA 0.03
	Seismic Importance Factor 1.00	



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-39.13	-2.09	0.00	-255.28	0.00	255.28	3683.82	1841.91	7606.69	3756.66	0.00	0.00	0.00	0.044
1.00	-38.90	-2.09	0.00	-253.18	0.00	253.18	3677.71	1838.86	7564.39	3735.77	0.00	0.00	0.00	0.044
2.00	-38.67	-2.09	0.00	-251.09	0.00	251.09	3671.54	1835.77	7522.06	3714.86	0.00	0.00	0.00	0.044
4.00	-38.21	-2.09	0.00	-246.91	0.00	246.91	3659.00	1829.50	7437.30	3673.00	0.00	-0.01	-0.01	0.043
6.00	-37.75	-2.08	0.00	-242.73	0.00	242.73	3646.20	1823.10	7352.44	3631.09	0.01	-0.01	-0.01	0.043
8.00	-37.30	-2.07	0.00	-238.57	0.00	238.57	3633.16	1816.58	7267.48	3589.13	0.01	-0.02	-0.02	0.043
10.00	-36.85	-2.06	0.00	-234.44	0.00	234.44	3619.85	1809.93	7182.43	3547.13	0.02	-0.02	-0.02	0.042
12.00	-36.40	-2.05	0.00	-230.32	0.00	230.32	3606.29	1803.15	7097.31	3505.10	0.03	-0.03	-0.03	0.042
14.00	-35.95	-2.04	0.00	-226.22	0.00	226.22	3592.48	1796.24	7012.13	3463.03	0.04	-0.03	-0.03	0.041
16.00	-35.51	-2.02	0.00	-222.14	0.00	222.14	3578.41	1789.21	6926.91	3420.94	0.06	-0.04	-0.03	0.041
16.25	-35.41	-2.02	0.00	-221.64	0.00	221.64	3576.63	1788.32	6916.25	3415.68	0.06	-0.03	-0.03	0.046
18.00	-34.72	-2.00	0.00	-218.10	0.00	218.10	3564.09	1782.04	6841.65	3378.83	0.07	-0.04	-0.04	0.043
18.75	-34.43	-1.99	0.00	-216.60	0.00	216.60	3558.65	1779.32	6809.67	3363.04	0.08	-0.04	-0.04	0.053
19.50	-34.13	-1.98	0.00	-215.11	0.00	215.11	3553.18	1776.59	6777.69	3347.24	0.08	-0.04	-0.04	0.045
20.00	-33.94	-1.97	0.00	-214.13	0.00	214.13	3549.51	1774.75	6756.36	3336.71	0.09	-0.04	-0.04	0.045
22.00	-33.16	-1.94	0.00	-210.18	0.00	210.18	3563.12	1781.56	6835.93	3376.01	0.11	-0.05	-0.05	0.046
24.00	-32.72	-1.93	0.00	-206.30	0.00	206.30	3548.52	1774.26	6750.65	3333.89	0.13	-0.05	-0.05	0.044
26.00	-32.29	-1.92	0.00	-202.44	0.00	202.44	3533.67	1766.84	6665.35	3291.77	0.15	-0.06	-0.06	0.044
28.00	-31.86	-1.90	0.00	-198.61	0.00	198.61	3518.56	1759.28	6580.06	3249.64	0.18	-0.06	-0.06	0.043
30.00	-31.43	-1.89	0.00	-194.80	0.00	194.80	3503.20	1751.60	6494.78	3207.53	0.21	-0.07	-0.07	0.034
31.00	-31.22	-1.88	0.00	-192.91	0.00	192.91	3495.43	1747.71	6452.15	3186.48	0.22	-0.07	-0.07	0.039
32.00	-31.01	-1.88	0.00	-191.03	0.00	191.03	3487.59	1743.79	6409.53	3165.43	0.24	-0.07	-0.07	0.039
34.00	-30.58	-1.86	0.00	-187.28	0.00	187.28	3471.72	1735.86	6324.32	3123.35	0.27	-0.08	-0.08	0.047
35.50	-30.27	-1.85	0.00	-184.48	0.00	184.48	3459.65	1729.82	6260.45	3091.80	0.29	-0.08	-0.08	0.047
36.00	-30.17	-1.85	0.00	-183.56	0.00	183.56	3455.59	1727.80	6239.16	3081.29	0.30	-0.08	-0.08	0.047
38.00	-29.75	-1.84	0.00	-179.86	0.00	179.86	3439.21	1719.61	6154.07	3039.26	0.34	-0.09	-0.09	0.047
40.00	-29.33	-1.82	0.00	-176.18	0.00	176.18	3422.57	1711.29	6069.05	2997.28	0.37	-0.09	-0.09	0.046
42.00	-28.92	-1.81	0.00	-172.54	0.00	172.54	3405.68	1702.84	5984.13	2955.34	0.41	-0.10	-0.10	0.046
44.00	-28.51	-1.80	0.00	-168.92	0.00	168.92	3388.54	1694.27	5899.30	2913.44	0.46	-0.10	-0.10	0.045
45.16	-28.28	-1.79	0.00	-166.83	0.00	166.83	3378.48	1689.24	5850.15	2889.17	0.48	-0.11	-0.11	0.033
46.00	-28.11	-1.78	0.00	-165.33	0.00	165.33	3371.14	1685.57	5814.59	2871.61	0.50	-0.11	-0.11	0.043
48.00	-27.70	-1.77	0.00	-161.77	0.00	161.77	3353.48	1676.74	5730.00	2829.83	0.55	-0.11	-0.11	0.042
50.00	-27.31	-1.76	0.00	-158.23	0.00	158.23	3335.57	1667.79	5645.55	2788.13	0.60	-0.12	-0.12	0.042
52.00	-26.60	-1.73	0.00	-154.72	0.00	154.72	3317.41	1658.70	5561.26	2746.50	0.65	-0.13	-0.13	0.041
54.00	-25.90	-1.70	0.00	-151.26	0.00	151.26	3298.98	1649.49	5477.12	2704.94	0.70	-0.13	-0.13	0.040
56.00	-25.21	-1.67	0.00	-147.87	0.00	147.87	3316.18	1658.09	5555.61	2743.71	0.76	-0.14	-0.14	0.041
58.00	-24.82	-1.65	0.00	-144.54	0.00	144.54	3297.74	1648.87	5471.49	2702.16	0.82	-0.14	-0.14	0.042
60.00	-24.43	-1.64	0.00	-141.23	0.00	141.23	3279.05	1639.52	5387.54	2660.71	0.88	-0.15	-0.15	0.042
62.00	-24.04	-1.63	0.00	-137.95	0.00	137.95	3260.10	1630.05	5303.79	2619.34	0.94	-0.15	-0.15	0.041
64.00	-23.66	-1.62	0.00	-134.69	0.00	134.69	3240.90	1620.45	5220.23	2578.08	1.00	-0.16	-0.16	0.041
66.00	-23.28	-1.61	0.00	-131.45	0.00	131.45	3221.44	1610.72	5136.89	2536.92	1.07	-0.16	-0.16	0.040
68.00	-22.90	-1.60	0.00	-128.24	0.00	128.24	3201.73	1600.86	5053.77	2495.87	1.14	-0.17	-0.17	0.040
70.00	-22.53	-1.59	0.00	-125.05	0.00	125.05	3181.76	1590.88	4970.89	2454.94	1.21	-0.17	-0.17	0.039
72.00	-22.15	-1.58	0.00	-121.87	0.00	121.87	3161.54	1580.77	4888.26	2414.13	1.29	-0.18	-0.18	0.039
74.00	-21.78	-1.58	0.00	-118.71	0.00	118.71	3141.06	1570.53	4805.90	2373.45	1.36	-0.19	-0.19	0.038
76.00	-21.42	-1.57	0.00	-115.56	0.00	115.56	3120.33	1560.16	4723.81	2332.91	1.44	-0.19	-0.19	0.038
78.00	-21.05	-1.57	0.00	-112.42	0.00	112.42	3099.34	1549.67	4642.00	2292.51	1.52	-0.20	-0.20	0.037

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00	-20.69	-1.57	0.00	-109.28	0.00	109.28	3078.09	1539.05	4560.50	2252.26	1.61	-0.20	0.037
80.00	-20.69	-1.57	0.00	-109.28	0.00	109.28	2384.58	1192.29	3545.27	1750.88	1.61	-0.20	0.039
82.00	-20.38	-1.57	0.00	-106.14	0.00	106.14	2370.62	1185.31	3486.26	1721.73	1.69	-0.21	0.044
84.00	-20.07	-1.57	0.00	-102.99	0.00	102.99	2356.42	1178.21	3427.33	1692.63	1.78	-0.21	0.043
86.00	-19.76	-1.57	0.00	-99.85	0.00	99.85	2341.95	1170.98	3368.48	1663.57	1.87	-0.22	0.042
88.00	-19.45	-1.57	0.00	-96.70	0.00	96.70	2327.23	1163.62	3309.75	1634.56	1.97	-0.23	0.041
90.00	-19.14	-1.58	0.00	-93.55	0.00	93.55	2312.26	1156.13	3251.12	1605.61	2.06	-0.23	0.041
92.00	-18.84	-1.58	0.00	-90.40	0.00	90.40	2297.03	1148.52	3192.63	1576.72	2.16	-0.24	0.040
94.00	-18.54	-1.58	0.00	-87.25	0.00	87.25	2281.55	1140.77	3134.28	1547.90	2.26	-0.25	0.039
95.00	-18.39	-1.58	0.00	-85.67	0.00	85.67	2273.71	1136.85	3105.16	1533.52	2.32	-0.25	0.038
95.58	-18.25	-1.58	0.00	-84.76	0.00	84.76	2269.13	1134.57	3088.29	1525.19	2.35	-0.25	0.038
95.58	-18.25	-1.58	0.00	-84.76	0.00	84.76	2269.13	1134.57	3088.29	1525.19	2.35	-0.25	0.038
96.00	-18.14	-1.58	0.00	-84.10	0.00	84.10	2265.81	1132.90	3076.09	1519.16	2.37	-0.25	0.063
98.00	-17.64	-1.58	0.00	-80.94	0.00	80.94	2249.81	1124.91	3018.05	1490.50	2.48	-0.26	0.062
100.00	-17.14	-1.58	0.00	-77.78	0.00	77.78	2259.61	1129.81	3053.48	1508.00	2.59	-0.27	0.059
102.00	-16.85	-1.58	0.00	-74.63	0.00	74.63	2243.52	1121.76	2995.52	1479.37	2.71	-0.28	0.058
104.00	-16.56	-1.58	0.00	-71.46	0.00	71.46	2227.17	1113.59	2937.74	1450.84	2.83	-0.29	0.057
106.00	-16.27	-1.58	0.00	-68.30	0.00	68.30	2210.57	1105.28	2880.15	1422.40	2.95	-0.30	0.055
108.00	-15.98	-1.58	0.00	-65.13	0.00	65.13	2193.71	1096.86	2822.78	1394.06	3.08	-0.31	0.054
110.00	-15.64	-1.59	0.00	-61.96	0.00	61.96	2176.60	1088.30	2765.62	1365.84	3.21	-0.32	0.053
112.00	-15.36	-1.59	0.00	-58.79	0.00	58.79	2159.23	1079.61	2708.70	1337.73	3.35	-0.33	0.051
114.00	-15.08	-1.59	0.00	-55.62	0.00	55.62	2141.61	1070.80	2652.02	1309.73	3.49	-0.34	0.050
115.00	-14.94	-1.59	0.00	-54.04	0.00	54.04	2132.70	1066.35	2623.78	1295.79	3.56	-0.34	0.049
115.00	-14.94	-1.59	0.00	-54.04	0.00	54.04	1556.62	778.31	1923.08	949.74	3.56	-0.34	0.066
116.00	-14.82	-1.59	0.00	-52.45	0.00	52.45	1551.43	775.71	1904.13	940.38	3.63	-0.35	0.065
118.00	-14.59	-1.59	0.00	-49.27	0.00	49.27	1540.84	770.42	1866.26	921.68	3.78	-0.36	0.063
120.00	-14.35	-1.59	0.00	-46.10	0.00	46.10	1529.99	765.00	1828.43	902.99	3.93	-0.37	0.060
122.00	-14.11	-1.59	0.00	-42.92	0.00	42.92	1518.89	759.45	1790.65	884.33	4.09	-0.38	0.058
124.00	-13.88	-1.59	0.00	-39.73	0.00	39.73	1507.54	753.77	1752.93	865.70	4.25	-0.39	0.055
126.00	-13.65	-1.59	0.00	-36.55	0.00	36.55	1495.93	747.96	1715.28	847.11	4.41	-0.40	0.052
128.00	-13.42	-1.59	0.00	-33.36	0.00	33.36	1484.06	742.03	1677.72	828.56	4.58	-0.41	0.049
130.00	-13.20	-1.59	0.00	-30.18	0.00	30.18	1471.95	735.97	1640.26	810.06	4.75	-0.42	0.046
132.00	-12.97	-1.58	0.00	-27.00	0.00	27.00	1459.57	729.79	1602.91	791.62	4.93	-0.42	0.043
133.00	-8.95	-1.40	0.00	-25.42	0.00	25.42	1453.29	726.64	1584.28	782.42	5.02	-0.43	0.039
134.00	-8.85	-1.40	0.00	-24.02	0.00	24.02	1446.94	723.47	1565.68	773.23	5.11	-0.43	0.037
136.00	-8.65	-1.39	0.00	-21.21	0.00	21.21	1434.06	717.03	1528.59	754.91	5.29	-0.44	0.034
138.00	-8.45	-1.38	0.00	-18.43	0.00	18.43	1420.92	710.46	1491.65	736.67	5.48	-0.44	0.031
140.00	-8.26	-1.37	0.00	-15.66	0.00	15.66	1407.52	703.76	1454.87	718.50	5.66	-0.45	0.028
142.00	-8.07	-1.36	0.00	-12.92	0.00	12.92	1393.87	696.94	1418.26	700.42	5.85	-0.45	0.024
142.90	-4.67	-0.96	0.00	-11.70	0.00	11.70	1387.65	693.82	1401.84	692.32	5.94	-0.46	0.020
144.00	-4.58	-0.95	0.00	-10.64	0.00	10.64	1379.97	689.99	1381.83	682.44	6.04	-0.46	0.019
145.00	-4.50	-0.95	0.00	-9.68	0.00	9.68	1372.92	686.46	1363.70	673.48	6.14	-0.46	0.018
145.00	-4.50	-0.95	0.00	-9.68	0.00	9.68	931.20	465.60	925.89	604.09	6.14	-0.46	0.021
146.00	-4.42	-0.94	0.00	-8.74	0.00	8.74	925.24	462.62	912.49	594.77	6.24	-0.46	0.019
148.00	-4.26	-0.92	0.00	-6.86	0.00	6.86	913.32	456.66	885.99	576.36	6.43	-0.47	0.017
148.30	-2.38	-0.61	0.00	-6.59	0.00	6.59	911.53	455.77	882.04	573.63	6.46	-0.47	0.014
150.00	-2.25	-0.59	0.00	-5.56	0.00	5.56	901.40	450.70	859.86	558.24	6.63	-0.47	0.012
150.00	-2.25	-0.59	0.00	-5.56	0.00	5.56	556.65	278.33	359.38	213.69	6.63	-0.47	0.030
152.00	-2.14	-0.57	0.00	-4.38	0.00	4.38	556.65	278.33	359.38	213.69	6.82	-0.47	0.024
154.00	-2.03	-0.56	0.00	-3.23	0.00	3.23	556.65	278.33	359.38	213.69	7.02	-0.48	0.019
156.00	-1.92	-0.54	0.00	-2.11	0.00	2.11	556.65	278.33	359.38	213.69	7.22	-0.48	0.013
158.00	-1.80	-0.52	0.00	-1.04	0.00	1.04	556.65	278.33	359.38	213.69	7.43	-0.48	0.008
160.00	0.00	-0.50	0.00	0.00	0.00	0.00	556.65	278.33	359.38	213.69	7.63	-0.48	0.000

Wind Loading - Shaft

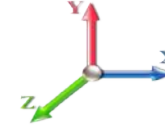
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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	RB1 RB2	1.00	0.70	6.129	6.74	218.17	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT2 RB3	1.00	0.70	6.129	6.74	217.33	1.147 *	0.000	1.00	4.338	4.97	33.5	0.0	205.0
2.00		1.00	0.70	6.129	6.74	216.49	1.148 *	0.000	1.00	4.321	4.96	33.5	0.0	204.2
4.00		1.00	0.70	6.129	6.74	214.81	1.151 *	0.000	2.00	8.592	9.89	66.7	0.0	406.1
6.00		1.00	0.70	6.129	6.74	213.13	1.155 *	0.000	2.00	8.525	9.84	66.4	0.0	402.9
8.00		1.00	0.70	6.129	6.74	211.45	1.158 *	0.000	2.00	8.458	9.80	66.0	0.0	399.7
10.00		1.00	0.70	6.129	6.74	209.77	1.162 *	0.000	2.00	8.391	9.75	65.7	0.0	396.5
12.00		1.00	0.70	6.129	6.74	208.09	1.166 *	0.000	2.00	8.324	9.70	65.4	0.0	393.3
14.00		1.00	0.70	6.129	6.74	206.40	1.169 *	0.000	2.00	8.257	9.65	65.1	0.0	390.2
16.00	Bot - Section 2	1.00	0.70	6.129	6.74	204.72	1.173 *	0.000	2.00	8.190	9.61	64.8	0.0	387.0
16.25	RT1 RB4	1.00	0.70	6.129	6.74	204.51	1.175 *	0.000	0.25	1.035	1.22	8.2	0.0	97.1
18.00	RB5	1.00	0.70	6.129	6.74	203.04	1.177 *	0.000	1.75	7.217	8.50	57.3	0.0	676.7
18.75	RT3	1.00	0.70	6.129	6.74	202.41	1.180 *	0.000	0.75	3.077	3.63	24.5	0.0	288.5
19.50	RB6	1.00	0.70	6.129	6.74	201.78	1.181 *	0.000	0.75	3.068	3.62	24.4	0.0	287.6
20.00		1.00	0.70	6.129	6.74	201.36	1.183 *	0.000	0.50	2.040	2.41	16.3	0.0	191.2
22.00	Top - Section 1	1.00	0.70	6.129	6.74	199.68	1.185 *	0.000	2.00	8.118	9.62	64.9	0.0	761.0
24.00		1.00	0.70	6.129	6.74	201.25	1.181 *	0.000	2.00	8.052	9.51	64.1	0.0	380.4
26.00		1.00	0.70	6.129	6.74	199.57	1.185 *	0.000	2.00	7.985	9.46	63.8	0.0	377.2
28.00		1.00	0.70	6.129	6.74	197.89	1.189 *	0.000	2.00	7.918	9.42	63.5	0.0	374.0
30.00	RB7	1.00	0.70	6.134	6.75	196.29	1.194 *	0.000	2.00	7.851	9.37	63.2	0.0	370.8
31.00	RT4	1.00	0.71	6.192	6.81	196.37	1.197 *	0.000	1.00	3.900	4.67	31.8	0.0	184.2
32.00		1.00	0.71	6.248	6.87	196.41	1.199 *	0.000	1.00	3.883	4.66	32.0	0.0	183.4
34.00	RT5	1.00	0.73	6.357	6.99	196.41	1.040 *	0.000	2.00	7.717	8.03	56.1	0.0	364.4
35.50	RT6	1.00	0.74	6.436	7.08	196.34	1.043 *	0.000	1.50	5.744	5.99	42.4	0.0	271.2
36.00		1.00	0.74	6.462	7.11	196.30	1.044 *	0.000	0.50	1.906	1.99	14.1	0.0	90.0
38.00		1.00	0.75	6.562	7.22	196.08	1.046 *	0.000	2.00	7.583	7.93	57.3	0.0	358.1
40.00	Appurtenance(s)	1.00	0.76	6.659	7.33	195.77	1.049 *	0.000	2.00	7.516	7.89	57.8	0.0	354.9
42.00		1.00	0.77	6.753	7.43	195.38	1.052 *	0.000	2.00	7.449	7.84	58.2	0.0	351.7
44.00		1.00	0.78	6.843	7.53	194.90	1.056 *	0.000	2.00	7.382	7.79	58.7	0.0	348.5
45.16	RB8	1.00	0.79	6.894	7.58	194.59	1.058 *	0.000	1.16	4.251	4.50	34.1	0.0	200.7
46.00	RT7	1.00	0.79	6.931	7.62	194.36	1.060 *	0.000	0.84	3.064	3.25	24.8	0.0	144.6
48.00		1.00	0.80	7.015	7.72	193.74	1.062 *	0.000	2.00	7.248	7.70	59.4	0.0	342.1
50.00	Bot - Section 3	1.00	0.81	7.098	7.81	193.07	1.066 *	0.000	2.00	7.181	7.65	59.7	0.0	338.9
52.00		1.00	0.82	7.178	7.90	192.34	1.069 *	0.000	2.00	7.244	7.74	61.1	0.0	677.6
54.00		1.00	0.83	7.255	7.98	191.55	1.072 *	0.000	2.00	7.177	7.70	61.4	0.0	671.3
56.00	Top - Section 2	1.00	0.84	7.331	8.06	190.71	1.076 *	0.000	2.00	7.110	7.65	61.7	0.0	664.9
58.00	RT8 RB9	1.00	0.85	7.405	8.15	193.39	1.073 *	0.000	2.00	7.043	7.55	61.5	0.0	332.3
60.00		1.00	0.85	7.477	8.22	192.47	1.076 *	0.000	2.00	6.976	7.51	61.8	0.0	329.2
62.00		1.00	0.86	7.548	8.30	191.51	1.080 *	0.000	2.00	6.909	7.46	61.9	0.0	326.0
64.00		1.00	0.87	7.616	8.38	190.51	1.084 *	0.000	2.00	6.842	7.41	62.1	0.0	322.8
66.00		1.00	0.88	7.684	8.45	189.47	1.087 *	0.000	2.00	6.775	7.37	62.3	0.0	319.6
68.00		1.00	0.89	7.749	8.52	188.39	1.091 *	0.000	2.00	6.708	7.32	62.4	0.0	316.4
70.00		1.00	0.89	7.814	8.60	187.27	1.095 *	0.000	2.00	6.641	7.27	62.5	0.0	313.2
72.00		1.00	0.90	7.877	8.66	186.12	1.099 *	0.000	2.00	6.574	7.23	62.6	0.0	310.0
74.00		1.00	0.91	7.939	8.73	184.94	1.103 *	0.000	2.00	6.507	7.18	62.7	0.0	306.8
76.00		1.00	0.91	8.000	8.80	183.72	1.108 *	0.000	2.00	6.440	7.13	62.8	0.0	303.6
78.00	RT9 RB10	1.00	0.92	8.059	8.87	182.48	1.112 *	0.000	2.00	6.373	7.09	62.8	0.0	300.5

Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00 Top - Section 3	1.00	0.93	8.118	8.93	181.21	1.116 *	0.000	2.00	6.306	7.04	62.9	0.0	297.3
82.00	1.00	0.93	8.175	8.99	179.91	1.121 *	0.000	2.00	6.239	6.99	62.9	0.0	245.5
84.00	1.00	0.94	8.232	9.05	178.58	1.125 *	0.000	2.00	6.172	6.95	62.9	0.0	242.8
86.00	1.00	0.95	8.287	9.12	177.23	1.130 *	0.000	2.00	6.106	6.90	62.9	0.0	240.2
88.00	1.00	0.95	8.342	9.18	175.85	1.135 *	0.000	2.00	6.039	6.85	62.9	0.0	237.5
90.00	1.00	0.96	8.396	9.24	174.45	1.140 *	0.000	2.00	5.972	6.81	62.8	0.0	234.9
92.00	1.00	0.96	8.448	9.29	173.02	1.145 *	0.000	2.00	5.905	6.76	62.8	0.0	232.2
94.00	1.00	0.97	8.501	9.35	171.58	1.150 *	0.000	2.00	5.838	6.71	62.8	0.0	229.6
95.00 Bot - Section 5	1.00	0.97	8.526	9.38	170.85	1.154 *	0.000	1.00	2.894	3.34	31.3	0.0	113.8
95.58 RT10	1.00	0.98	8.541	9.40	170.42	1.156 *	0.000	0.58	1.702	1.97	18.5	0.0	132.6
96.00	1.00	0.98	8.552	9.41	170.11	1.157 *	0.000	0.42	1.229	1.42	13.4	0.0	95.8
98.00	1.00	0.98	8.602	9.46	168.62	1.160 *	0.000	2.00	5.812	6.74	63.8	0.0	452.8
100.00 Top - Section 4	1.00	0.99	8.652	9.52	167.11	1.055 *	0.000	2.00	5.745	6.06	57.7	0.0	447.4
102.00	1.00	0.99	8.701	9.57	168.81	1.052 *	0.000	2.00	5.678	5.97	57.2	0.0	223.2
104.00	1.00	1.00	8.750	9.62	167.27	1.056 *	0.000	2.00	5.611	5.93	57.1	0.0	220.5
106.00	1.00	1.00	8.797	9.68	165.71	1.061 *	0.000	2.00	5.544	5.88	56.9	0.0	217.9
108.00	1.00	1.01	8.845	9.73	164.14	1.065 *	0.000	2.00	5.477	5.83	56.8	0.0	215.2
110.00 Appurtenance(s)	1.00	1.02	8.891	9.78	162.54	1.070 *	0.000	2.00	5.410	5.79	56.6	0.0	212.6
112.00	1.00	1.02	8.937	9.83	160.93	1.074 *	0.000	2.00	5.343	5.74	56.4	0.0	209.9
114.00	1.00	1.03	8.982	9.88	159.31	1.079 *	0.000	2.00	5.276	5.69	56.3	0.0	207.3
115.00 Top - Section 5	1.00	1.03	9.005	9.91	158.49	1.083 *	0.000	1.00	2.613	2.83	28.0	0.0	102.6
116.00	1.00	1.03	9.027	9.93	157.66	1.085 *	0.000	1.00	2.596	2.82	28.0	0.0	81.7
118.00	1.00	1.04	9.071	9.98	156.00	1.089 *	0.000	2.00	5.142	5.60	55.9	0.0	161.9
120.00	1.00	1.04	9.115	10.03	154.33	1.094 *	0.000	2.00	5.075	5.55	55.7	0.0	159.8
122.00	1.00	1.05	9.158	10.07	152.64	1.099 *	0.000	2.00	5.008	5.51	55.5	0.0	157.6
124.00	1.00	1.05	9.201	10.12	150.94	1.105 *	0.000	2.00	4.941	5.46	55.2	0.0	155.5
126.00	1.00	1.06	9.243	10.17	149.22	1.110 *	0.000	2.00	4.874	5.41	55.0	0.0	153.4
128.00	1.00	1.06	9.284	10.21	147.49	1.116 *	0.000	2.00	4.807	5.37	54.8	0.0	151.3
130.00	1.00	1.07	9.326	10.26	145.74	1.122 *	0.000	2.00	4.741	5.32	54.6	0.0	149.1
132.00	1.00	1.07	9.366	10.30	143.98	1.128 *	0.000	2.00	4.674	5.27	54.3	0.0	147.0
133.00 Appurtenance(s)	1.00	1.07	9.387	10.33	143.10	1.133 *	0.000	1.00	2.312	2.62	27.0	0.0	72.7
134.00	1.00	1.07	9.407	10.35	142.21	1.136 *	0.000	1.00	2.295	2.61	27.0	0.0	72.2
136.00	1.00	1.08	9.447	10.39	140.42	1.141 *	0.000	2.00	4.540	5.18	53.8	0.0	142.8
138.00	1.00	1.08	9.486	10.43	138.63	1.147 *	0.000	2.00	4.473	5.13	53.5	0.0	140.6
140.00	1.00	1.09	9.525	10.48	136.82	1.154 *	0.000	2.00	4.406	5.08	53.3	0.0	138.5
142.00	1.00	1.09	9.564	10.52	134.99	1.161 *	0.000	2.00	4.339	5.04	53.0	0.0	136.4
142.90 Appurtenance(s)	1.00	1.09	9.581	10.54	134.17	1.166 *	0.000	0.90	1.931	2.25	23.7	0.0	60.7
144.00	1.00	1.10	9.602	10.56	133.16	1.000	0.000	1.10	2.341	2.34	24.7	0.0	73.6
145.00 Top - Section 6	1.00	1.10	9.621	10.58	132.24	1.000	0.000	1.00	2.111	2.11	22.3	0.0	66.3
146.00	1.00	1.10	9.640	10.60	126.87	0.600	0.000	1.00	2.023	1.21	12.9	0.0	64.2
148.00	1.00	1.11	9.678	10.65	125.08	0.600	0.000	2.00	3.998	2.40	25.5	0.0	126.9
148.30 Appurtenance(s)	1.00	1.11	9.683	10.65	124.81	0.600	0.000	0.30	0.594	0.36	3.8	0.0	18.9
150.00 Top - Section 7	1.00	1.11	9.715	10.69	123.27	0.600	0.000	1.70	3.339	2.00	21.4	0.0	105.9
152.00	1.00	1.11	9.752	10.73	84.43	0.645 *	0.000	2.00	2.667	1.72	18.5	0.0	84.2
154.00	1.00	1.12	9.788	10.77	84.59	0.645 *	0.000	2.00	2.667	1.72	18.5	0.0	84.2
156.00	1.00	1.12	9.824	10.81	84.74	0.645 *	0.000	2.00	2.667	1.72	18.6	0.0	84.2
158.00	1.00	1.13	9.860	10.85	84.90	0.645 *	0.000	2.00	2.667	1.72	18.7	0.0	84.2
160.00 Appurtenance(s)	1.00	1.13	9.896	10.89	85.05	0.645 *	0.000	2.00	2.667	1.72	18.7	0.0	84.2

* Cf Adjusted by Linear Load Ra Effect

Totals:	160.00	4,509.8	23,786.1
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Discrete Appurtenance Forces

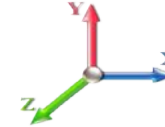
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	DB-T1-6Z-8AB-OZ	1	9.931	10.924	1.00	1.00	4.80	44.00	0.000	2.000	52.43	0.00	104.87
2	160.00	SBNHH-1D65B	9	9.931	10.924	0.81	1.00	59.49	360.00	0.000	2.000	649.83	0.00	1299.65
3	160.00	6' Lightning rod	1	9.931	10.924	1.00	1.00	0.38	6.50	0.000	2.000	4.15	0.00	8.30
4	160.00	Low Profile Platform	1	9.931	10.924	1.00	1.00	22.00	1200.00	0.000	2.000	240.33	0.00	480.65
5	160.00	DB846F65ZAXY	6	9.931	10.924	0.93	1.00	39.34	126.00	0.000	2.000	429.74	0.00	859.47
6	160.00	DB222	1	9.931	10.924	1.00	1.00	2.25	16.00	0.000	2.000	24.58	0.00	49.16
7	160.00	RRH2x90-AWS	3	9.931	10.924	0.67	1.00	5.35	132.00	0.000	2.000	58.41	0.00	116.81
8	148.30	APXVTM14-C-120	3	9.715	10.686	0.61	0.80	11.59	168.00	0.000	1.700	123.90	0.00	210.64
9	148.30	1900MHz RRH	3	9.752	10.727	0.54	0.80	6.11	132.00	0.000	3.700	65.55	0.00	242.52
10	148.30	800 MHz RRH	3	9.752	10.727	0.54	0.80	4.00	159.00	0.000	3.700	42.95	0.00	158.91
11	148.30	APXVSPP18-C-A20	3	9.752	10.727	0.66	0.80	15.98	171.00	0.000	3.700	171.37	0.00	634.07
12	148.30	ACU-A20-N	4	9.752	10.727	0.54	0.80	0.30	4.00	0.000	3.700	3.22	0.00	11.91
13	148.30	ALU 800MHz External	3	9.752	10.727	0.54	0.80	1.25	26.40	0.000	3.700	13.45	0.00	49.78
14	148.30	TD-RRH8x20-25	3	9.715	10.686	0.54	0.80	6.51	210.00	0.000	1.700	69.59	0.00	118.31
15	148.30	Low Profile Platform	1	9.683	10.652	1.00	1.00	17.50	1200.00	0.000	0.000	186.40	0.00	0.00
16	142.90	Commscope	3	9.581	10.539	0.60	0.75	20.65	150.90	0.000	0.000	217.59	0.00	0.00
17	142.90	Platform w/ HR & Bracing	1	9.581	10.539	1.00	1.00	51.70	2246.00	0.000	0.000	544.88	0.00	0.00
18	142.90	Ericsson AIR 21 B2A/B4P	3	9.581	10.539	0.65	0.75	11.78	274.50	0.000	0.000	124.20	0.00	0.00
19	142.90	Ericsson AIR 3246 B66	3	9.581	10.539	0.62	0.75	14.83	540.00	0.000	0.000	156.28	0.00	0.00
20	142.90	Ericsson AIR 32 B4A/B2P	1	9.581	10.539	0.65	0.75	4.25	105.80	0.000	0.000	44.77	0.00	0.00
21	142.90	Ericsson RRUS11B12 -	1	9.581	10.539	0.50	0.75	1.29	51.00	0.000	0.000	13.61	0.00	0.00
22	142.90	Ericsson RUS01 B12 -	3	9.581	10.539	0.50	0.75	3.80	153.00	0.000	0.000	40.04	0.00	0.00
23	142.90	Ericsson KRY 112 144/1	3	9.595	10.554	0.52	0.75	0.65	33.00	0.000	0.700	6.82	0.00	4.77
24	142.90	Ericsson AIR 21 B4A	1	9.581	10.539	0.67	0.75	7.70	126.00	0.000	0.000	81.18	0.00	0.00
25	133.00	(3) SitePro 1 P/N	2	9.387	10.325	0.75	0.75	32.01	2715.54	0.000	0.000	330.51	0.00	0.00
26	133.00	Kathrein 800 10121	3	9.387	10.325	0.63	0.80	9.76	138.90	0.000	0.000	100.82	0.00	0.00
27	133.00	Kathrein 800-10965	3	9.387	10.325	0.57	0.80	23.53	325.80	0.000	0.000	242.98	0.00	0.00
28	133.00	Cci TPA-65R-LCUUUU-H8	1	9.387	10.325	0.63	0.80	8.06	105.00	0.000	0.000	83.20	0.00	0.00
29	133.00	Quintel QS66512-2	2	9.387	10.325	0.74	0.80	11.97	222.00	0.000	0.000	123.57	0.00	0.00
30	133.00	Ericsson RRUS-32 RRU	3	9.387	10.325	0.54	0.80	6.22	231.00	0.000	0.000	64.25	0.00	0.00
31	133.00	Powerwave LGP21401	6	9.387	10.325	0.54	0.80	4.15	84.60	0.000	0.000	42.84	0.00	0.00
32	133.00	Ericsson B2/B66A 8843	3	9.387	10.325	0.54	0.80	2.64	216.00	0.000	0.000	27.23	0.00	0.00
33	133.00	Ericsson B5/B12 4449	3	9.387	10.325	0.54	0.80	3.17	213.00	0.000	0.000	32.71	0.00	0.00
34	133.00	Raycap DC6-48-60-18-8F	3	9.387	10.325	0.80	0.80	2.21	95.40	0.000	0.000	22.80	0.00	0.00
35	110.00	3 ft Standoff	1	8.891	9.780	1.00	1.00	2.63	40.00	0.000	0.000	25.72	0.00	0.00
36	110.00	DB222	1	9.011	9.912	1.00	1.00	2.65	16.00	0.000	5.292	26.27	0.00	139.00
37	40.00	GPS	1	6.659	7.325	1.00	1.00	1.00	10.00	0.000	0.000	7.33	0.00	0.00

Totals: 12,048.34

4,495.48

Total Applied Force Summary

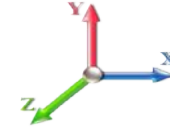
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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		33.53	257.05	0.00	0.00
2.00		33.45	256.25	0.00	0.00
4.00		66.67	510.11	0.00	0.00
6.00		66.35	506.92	0.00	0.00
8.00		66.04	503.73	0.00	0.00
10.00		65.72	500.55	0.00	0.00
12.00		65.40	497.36	0.00	0.00
14.00		65.09	494.17	0.00	0.00
16.00		64.77	490.98	0.00	0.00
16.25		8.20	110.07	0.00	0.00
18.00		57.28	767.67	0.00	0.00
18.75		24.48	327.51	0.00	0.00
19.50		24.43	326.61	0.00	0.00
20.00		16.26	217.24	0.00	0.00
22.00		64.86	864.98	0.00	0.00
24.00		64.12	484.39	0.00	0.00
26.00		63.80	481.20	0.00	0.00
28.00		63.49	478.01	0.00	0.00
30.00		63.22	474.82	0.00	0.00
31.00		31.79	236.22	0.00	0.00
32.00		32.00	235.42	0.00	0.00
34.00		56.13	468.45	0.00	0.00
35.50		42.40	349.24	0.00	0.00
36.00		14.15	116.02	0.00	0.00
38.00		57.27	462.07	0.00	0.00
40.00	(1) attachments	65.09	468.88	0.00	0.00
42.00		58.23	455.37	0.00	0.00
44.00		58.66	452.18	0.00	0.00
45.16		34.11	260.81	0.00	0.00
46.00		24.76	188.19	0.00	0.00
48.00		59.41	445.81	0.00	0.00
50.00		59.74	442.62	0.00	0.00
52.00		61.14	781.34	0.00	0.00
54.00		61.43	774.96	0.00	0.00
56.00		61.70	768.58	0.00	0.00
58.00		61.54	436.03	0.00	0.00
60.00		61.75	432.84	0.00	0.00
62.00		61.95	429.65	0.00	0.00
64.00		62.12	426.46	0.00	0.00
66.00		62.27	423.27	0.00	0.00
68.00		62.40	420.09	0.00	0.00
70.00		62.52	416.90	0.00	0.00
72.00		62.62	413.71	0.00	0.00
74.00		62.70	410.52	0.00	0.00
76.00		62.77	407.33	0.00	0.00
78.00		62.82	404.14	0.00	0.00

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00		62.86	400.96	0.00	0.00
82.00		62.88	349.18	0.00	0.00
84.00		62.89	346.52	0.00	0.00
86.00		62.89	343.87	0.00	0.00
88.00		62.87	341.21	0.00	0.00
90.00		62.85	338.55	0.00	0.00
92.00		62.81	335.90	0.00	0.00
94.00		62.76	333.24	0.00	0.00
95.00		31.31	165.62	0.00	0.00
95.58		18.48	162.69	0.00	0.00
96.00		13.38	117.53	0.00	0.00
98.00		63.80	556.44	0.00	0.00
100.00		57.67	551.13	0.00	0.00
102.00		57.18	326.89	0.00	0.00
104.00		57.05	324.23	0.00	0.00
106.00		56.91	321.58	0.00	0.00
108.00		56.76	318.92	0.00	0.00
110.00	(2) attachments	108.59	372.26	0.00	139.00
112.00		56.43	312.57	0.00	0.00
114.00		56.25	309.91	0.00	0.00
115.00		28.02	153.96	0.00	0.00
116.00		27.98	133.07	0.00	0.00
118.00		55.87	264.55	0.00	0.00
120.00		55.67	262.42	0.00	0.00
122.00		55.46	260.30	0.00	0.00
124.00		55.25	258.17	0.00	0.00
126.00		55.03	256.05	0.00	0.00
128.00		54.79	253.92	0.00	0.00
130.00		54.56	251.79	0.00	0.00
132.00		54.31	249.67	0.00	0.00
133.00	(29) attachments	1097.94	4471.28	0.00	0.00
134.00		26.97	110.79	0.00	0.00
136.00		53.80	219.98	0.00	0.00
138.00		53.54	217.85	0.00	0.00
140.00		53.27	215.73	0.00	0.00
142.00		52.99	213.60	0.00	0.00
142.90	(19) attachments	1253.10	3775.63	0.00	4.77
144.00		24.73	100.16	0.00	0.00
145.00		22.34	90.49	0.00	0.00
146.00		12.87	88.37	0.00	0.00
148.00		25.54	175.19	0.00	0.00
148.30	(23) attachments	680.24	2096.50	0.00	1426.14
150.00		21.41	140.53	0.00	0.00
152.00		18.45	124.86	0.00	0.00
154.00		18.52	124.86	0.00	0.00
156.00		18.59	124.86	0.00	0.00
158.00		18.66	124.86	0.00	0.00
160.00	(22) attachments	1478.18	2009.36	0.00	2918.92
Totals:		9,005.32	43,474.72	0.00	4,488.83

Linear Appurtenance Segment Forces (Factored)

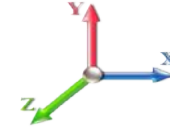
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	6.129	0.00	1.10
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	6.129	0.00	0.52
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.147	6.129	0.00	1.10
1.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	6.129	0.00	1.91
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	6.129	0.00	0.52
1.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	6.129	0.00	0.00
1.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.147	6.129	0.00	0.00
2.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.148	6.129	0.00	1.10
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	6.129	0.00	0.52
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.149	1.148	6.129	0.00	1.10
2.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	6.129	0.00	1.91
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	6.129	0.00	0.52
2.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.148	6.129	0.00	0.00
2.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.148	6.129	0.00	0.00
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	6.129	0.00	2.20
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	6.129	0.00	1.04
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	6.129	0.00	2.20
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	6.129	0.00	3.82
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	6.129	0.00	1.04
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	6.129	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	6.129	0.00	0.00
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	6.129	0.00	2.20
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	6.129	0.00	1.04
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	6.129	0.00	2.20
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	6.129	0.00	3.82
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	6.129	0.00	1.04
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	6.129	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	6.129	0.00	0.00
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	6.129	0.00	2.20
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	6.129	0.00	1.04
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	6.129	0.00	2.20
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	6.129	0.00	3.82
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	6.129	0.00	1.04
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	6.129	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	6.129	0.00	0.00
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	6.129	0.00	2.20
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	6.129	0.00	1.04
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	6.129	0.00	2.20
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	6.129	0.00	3.82
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	6.129	0.00	1.04
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	6.129	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	6.129	0.00	0.00
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	6.129	0.00	2.20
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	6.129	0.00	1.04
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	6.129	0.00	2.20
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	6.129	0.00	3.82
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	6.129	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

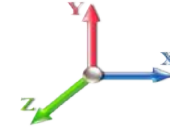
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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)
12.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.155	1.166	6.129	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	6.129	0.00	0.00
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	6.129	0.00	2.20
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	6.129	0.00	1.04
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	6.129	0.00	2.20
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	6.129	0.00	3.82
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	6.129	0.00	1.04
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	6.129	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	6.129	0.00	0.00
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	6.129	0.00	2.20
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	6.129	0.00	1.04
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	6.129	0.00	2.20
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	6.129	0.00	3.82
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	6.129	0.00	1.04
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	6.129	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	6.129	0.00	0.00
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	6.129	0.00	0.28
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	6.129	0.00	0.13
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	6.129	0.00	0.28
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	6.129	0.00	0.48
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	6.129	0.00	0.13
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	6.129	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	6.129	0.00	0.00
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	6.129	0.00	1.93
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	6.129	0.00	0.91
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	6.129	0.00	1.93
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	6.129	0.00	3.34
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	6.129	0.00	0.91
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	6.129	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	6.129	0.00	0.00
18.75	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.180	6.129	0.00	0.83
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	6.129	0.00	0.39
18.75	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.180	6.129	0.00	0.83
18.75	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	6.129	0.00	1.43
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	6.129	0.00	0.39
18.75	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.180	6.129	0.00	0.00
18.75	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.180	6.129	0.00	0.00
19.50	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.181	6.129	0.00	0.83
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	0.39
19.50	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.13	0.00	0.160	1.181	6.129	0.00	0.83
19.50	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	1.43
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	0.39
19.50	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.181	6.129	0.00	0.00
19.50	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.181	6.129	0.00	0.00
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	6.129	0.00	0.55
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	6.129	0.00	0.26
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	6.129	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

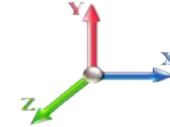
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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)
20.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	6.129	0.00	0.95
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	6.129	0.00	0.26
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	6.129	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	6.129	0.00	0.00
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	6.129	0.00	2.20
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	1.04
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	6.129	0.00	2.20
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	3.82
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	1.04
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	6.129	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	6.129	0.00	0.00
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	6.129	0.00	2.20
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	1.04
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	6.129	0.00	2.20
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	3.82
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	1.04
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	6.129	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	6.129	0.00	0.00
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	6.129	0.00	2.20
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	1.04
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	6.129	0.00	2.20
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	3.82
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	1.04
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	6.129	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	6.129	0.00	0.00
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	6.129	0.00	2.20
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	6.129	0.00	1.04
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	6.129	0.00	2.20
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	6.129	0.00	3.82
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	6.129	0.00	1.04
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	6.129	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	6.129	0.00	0.00
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	6.134	0.00	2.20
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	6.134	0.00	1.04
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	6.134	0.00	2.20
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	6.134	0.00	3.82
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	6.134	0.00	1.04
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	6.134	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	6.134	0.00	0.00
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	6.192	0.00	1.10
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	6.192	0.00	0.52
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	6.192	0.00	1.10
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	6.192	0.00	1.91
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	6.192	0.00	0.52
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	6.192	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	6.192	0.00	0.00
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	6.248	0.00	1.10

Linear Appurtenance Segment Forces (Factored)

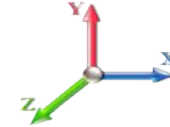
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	6.248	0.00	0.52
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	6.248	0.00	1.10
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	6.248	0.00	1.91
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	6.248	0.00	0.52
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	6.248	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	6.248	0.00	0.00
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	6.357	0.00	2.20
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	6.357	0.00	1.04
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	6.357	0.00	2.20
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	6.357	0.00	3.82
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	6.357	0.00	1.04
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	6.357	0.00	0.00
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	6.436	0.00	1.65
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	6.436	0.00	0.78
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	6.436	0.00	1.65
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	6.436	0.00	2.86
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	6.436	0.00	0.78
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	6.436	0.00	0.00
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	6.462	0.00	0.55
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	6.462	0.00	0.26
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	6.462	0.00	0.55
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	6.462	0.00	0.95
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	6.462	0.00	0.26
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	6.462	0.00	0.00
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	6.562	0.00	2.20
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	6.562	0.00	1.04
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	6.562	0.00	2.20
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	6.562	0.00	3.82
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	6.562	0.00	1.04
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	6.562	0.00	0.00
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	6.659	0.00	2.20
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	6.659	0.00	1.04
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	6.659	0.00	2.20
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	6.659	0.00	3.82
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	6.659	0.00	1.04
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	6.659	0.00	0.00
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	6.753	0.00	2.20
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.753	0.00	1.04
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	6.753	0.00	2.20
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.753	0.00	3.82
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.753	0.00	1.04
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	6.753	0.00	0.00
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	6.843	0.00	2.20
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.843	0.00	1.04
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	6.843	0.00	2.20
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.843	0.00	3.82
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.843	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

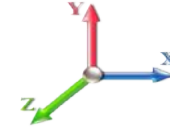
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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)
44.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.119	1.056	6.843	0.00	0.00
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	6.894	0.00	1.28
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.894	0.00	0.60
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	6.894	0.00	1.28
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.894	0.00	2.21
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.894	0.00	0.60
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	6.894	0.00	0.00
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	6.931	0.00	0.92
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.931	0.00	0.44
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	6.931	0.00	0.92
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.931	0.00	1.60
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.931	0.00	0.44
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	6.931	0.00	0.00
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	7.015	0.00	2.20
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	7.015	0.00	1.04
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	7.015	0.00	2.20
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	7.015	0.00	3.82
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	7.015	0.00	1.04
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	7.015	0.00	0.00
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	7.098	0.00	2.20
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	7.098	0.00	1.04
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	7.098	0.00	2.20
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	7.098	0.00	3.82
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	7.098	0.00	1.04
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	7.098	0.00	0.00
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	7.178	0.00	2.20
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	7.178	0.00	1.04
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	7.178	0.00	2.20
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	7.178	0.00	3.82
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	7.178	0.00	1.04
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	7.178	0.00	0.00
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	7.255	0.00	2.20
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	7.255	0.00	1.04
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	7.255	0.00	2.20
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	7.255	0.00	3.82
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	7.255	0.00	1.04
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	7.255	0.00	0.00
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	7.331	0.00	2.20
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.331	0.00	1.04
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	7.331	0.00	2.20
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.331	0.00	3.82
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.331	0.00	1.04
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	7.331	0.00	0.00
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	7.405	0.00	2.20
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	7.405	0.00	1.04
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	7.405	0.00	2.20
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	7.405	0.00	3.82

Linear Appurtenance Segment Forces (Factored)

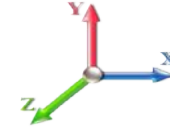
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	7.405	0.00	1.04
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	7.405	0.00	0.00
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	7.477	0.00	2.20
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.477	0.00	1.04
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	7.477	0.00	2.20
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.477	0.00	3.82
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.477	0.00	1.04
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	7.477	0.00	0.00
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	7.548	0.00	2.20
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	7.548	0.00	1.04
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	7.548	0.00	2.20
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	7.548	0.00	3.82
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	7.548	0.00	1.04
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	7.548	0.00	0.00
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	7.616	0.00	2.20
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	7.616	0.00	1.04
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	7.616	0.00	2.20
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	7.616	0.00	3.82
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	7.616	0.00	1.04
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	7.616	0.00	0.00
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	7.684	0.00	2.20
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	7.684	0.00	1.04
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	7.684	0.00	2.20
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	7.684	0.00	3.82
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	7.684	0.00	1.04
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	7.684	0.00	0.00
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	7.749	0.00	2.20
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	7.749	0.00	1.04
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	7.749	0.00	2.20
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	7.749	0.00	3.82
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	7.749	0.00	1.04
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	7.749	0.00	0.00
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	7.814	0.00	2.20
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	7.814	0.00	1.04
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	7.814	0.00	2.20
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	7.814	0.00	3.82
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	7.814	0.00	1.04
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	7.814	0.00	0.00
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	7.877	0.00	2.20
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	7.877	0.00	1.04
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	7.877	0.00	2.20
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	7.877	0.00	3.82
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	7.877	0.00	1.04
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	7.877	0.00	0.00
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	7.939	0.00	2.20
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	7.939	0.00	1.04
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	7.939	0.00	2.20

Linear Appurtenance Segment Forces (Factored)

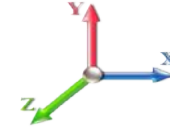
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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)
74.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	7.939	0.00	3.82
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	7.939	0.00	1.04
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	7.939	0.00	0.00
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	8.000	0.00	2.20
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	8.000	0.00	1.04
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	8.000	0.00	2.20
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	8.000	0.00	3.82
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	8.000	0.00	1.04
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	8.000	0.00	0.00
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	8.059	0.00	2.20
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	8.059	0.00	1.04
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	8.059	0.00	2.20
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	8.059	0.00	3.82
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	8.059	0.00	1.04
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	8.059	0.00	0.00
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	8.118	0.00	2.20
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	8.118	0.00	1.04
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	8.118	0.00	2.20
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	8.118	0.00	3.82
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	8.118	0.00	1.04
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	8.118	0.00	0.00
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	8.175	0.00	2.20
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	8.175	0.00	1.04
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	8.175	0.00	2.20
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	8.175	0.00	3.82
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	8.175	0.00	1.04
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	8.175	0.00	0.00
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	8.232	0.00	2.20
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	8.232	0.00	1.04
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	8.232	0.00	2.20
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	8.232	0.00	3.82
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	8.232	0.00	1.04
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	8.232	0.00	0.00
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	8.287	0.00	2.20
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	8.287	0.00	1.04
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	8.287	0.00	2.20
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	8.287	0.00	3.82
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	8.287	0.00	1.04
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	8.287	0.00	0.00
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	8.342	0.00	2.20
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	8.342	0.00	1.04
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	8.342	0.00	2.20
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	8.342	0.00	3.82
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	8.342	0.00	1.04
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	8.342	0.00	0.00
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	8.396	0.00	2.20
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	8.396	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

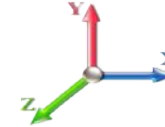
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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)
90.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	8.396	0.00	2.20
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	8.396	0.00	3.82
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	8.396	0.00	1.04
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	8.396	0.00	0.00
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	8.448	0.00	2.20
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	8.448	0.00	1.04
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	8.448	0.00	2.20
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	8.448	0.00	3.82
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	8.448	0.00	1.04
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	8.448	0.00	0.00
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	8.501	0.00	2.20
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	8.501	0.00	1.04
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	8.501	0.00	2.20
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	8.501	0.00	3.82
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	8.501	0.00	1.04
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	8.501	0.00	0.00
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	8.526	0.00	1.10
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	8.526	0.00	0.52
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	8.526	0.00	1.10
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	8.526	0.00	1.91
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	8.526	0.00	0.52
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	8.526	0.00	0.00
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	8.541	0.00	0.64
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	8.541	0.00	0.30
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	8.541	0.00	0.64
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	8.541	0.00	1.11
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	8.541	0.00	0.30
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	8.541	0.00	0.00
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	8.552	0.00	0.46
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	8.552	0.00	0.22
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	8.552	0.00	0.46
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	8.552	0.00	0.80
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	8.552	0.00	0.22
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	8.552	0.00	0.00
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	8.602	0.00	2.20
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	8.602	0.00	1.04
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	8.602	0.00	2.20
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	8.602	0.00	3.82
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	8.602	0.00	1.04
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	8.602	0.00	0.00
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	8.652	0.00	2.20
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	8.652	0.00	1.04
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	8.652	0.00	2.20
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	8.652	0.00	3.82
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	8.652	0.00	1.04
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	8.701	0.00	2.20
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	8.701	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

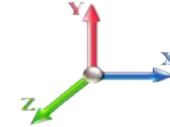
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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)
102.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	8.701	0.00	2.20
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	8.701	0.00	3.82
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	8.701	0.00	1.04
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	8.750	0.00	2.20
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	8.750	0.00	1.04
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	8.750	0.00	2.20
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	8.750	0.00	3.82
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	8.750	0.00	1.04
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	8.797	0.00	2.20
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	8.797	0.00	1.04
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	8.797	0.00	2.20
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	8.797	0.00	3.82
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	8.797	0.00	1.04
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	8.845	0.00	2.20
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	8.845	0.00	1.04
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	8.845	0.00	2.20
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	8.845	0.00	3.82
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	8.845	0.00	1.04
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	8.891	0.00	2.20
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	8.891	0.00	1.04
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	8.891	0.00	2.20
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	8.891	0.00	3.82
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	8.891	0.00	1.04
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	8.937	0.00	2.20
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	8.937	0.00	1.04
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	8.937	0.00	2.20
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	8.937	0.00	3.82
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	8.982	0.00	2.20
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	8.982	0.00	1.04
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	8.982	0.00	2.20
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	8.982	0.00	3.82
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	9.005	0.00	1.10
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	9.005	0.00	0.52
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	9.005	0.00	1.10
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	9.005	0.00	1.91
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	9.027	0.00	1.10
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	9.027	0.00	0.52
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	9.027	0.00	1.10
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	9.027	0.00	1.91
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	9.071	0.00	2.20
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	9.071	0.00	1.04
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	9.071	0.00	2.20
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	9.071	0.00	3.82
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	9.115	0.00	2.20
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	9.115	0.00	1.04
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	9.115	0.00	2.20
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	9.115	0.00	3.82

Linear Appurtenance Segment Forces (Factored)

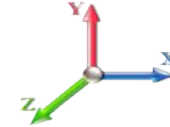
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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)
122.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	9.158	0.00	2.20
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	9.158	0.00	1.04
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	9.158	0.00	2.20
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	9.158	0.00	3.82
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	9.201	0.00	2.20
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	9.201	0.00	1.04
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	9.201	0.00	2.20
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	9.201	0.00	3.82
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	9.243	0.00	2.20
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	9.243	0.00	1.04
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	9.243	0.00	2.20
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	9.243	0.00	3.82
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	9.284	0.00	2.20
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	9.284	0.00	1.04
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	9.284	0.00	2.20
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	9.284	0.00	3.82
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	9.326	0.00	2.20
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	9.326	0.00	1.04
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	9.326	0.00	2.20
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	9.326	0.00	3.82
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	9.366	0.00	2.20
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	9.366	0.00	1.04
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	9.366	0.00	2.20
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	9.366	0.00	3.82
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	9.387	0.00	1.10
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	9.387	0.00	0.52
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	9.387	0.00	1.10
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	9.387	0.00	1.91
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	9.407	0.00	1.10
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	9.407	0.00	0.52
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	9.407	0.00	1.10
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	9.407	0.00	1.91
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	9.447	0.00	2.20
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	9.447	0.00	1.04
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	9.447	0.00	2.20
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	9.447	0.00	3.82
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	9.486	0.00	2.20
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	9.486	0.00	1.04
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	9.486	0.00	2.20
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	9.486	0.00	3.82
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	9.525	0.00	2.20
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	9.525	0.00	1.04
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	9.525	0.00	2.20
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	9.525	0.00	3.82
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	9.564	0.00	2.20
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	9.564	0.00	1.04
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	9.564	0.00	2.20

Linear Appurtenance Segment Forces (Factored)

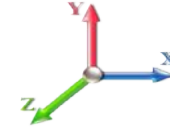
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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)
142.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	9.564	0.00	3.82
142.90	1 5/8" Hybrid	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	9.581	0.00	0.99
142.90	7/8" Coax	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	9.581	0.00	0.47
142.90	1 5/8" Fiber	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	9.581	0.00	0.99
142.90	1-1/4" Fiber	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	9.581	0.00	1.72
144.00	1 5/8" Hybrid	Yes	1.10	0.000	2.00	0.18	0.00	0.078	0.000	9.602	0.00	1.21
144.00	7/8" Coax	Yes	1.10	0.000	0.00	0.00	0.00	0.078	0.000	9.602	0.00	0.57
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	9.621	0.00	1.10
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	9.621	0.00	0.52
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	9.640	0.00	1.10
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	9.640	0.00	0.52
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	9.678	0.00	2.20
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	9.678	0.00	1.04
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.05	0.00	0.084	0.000	9.683	0.00	0.33
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	9.683	0.00	0.16
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.28	0.00	0.085	0.000	9.715	0.00	1.87
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	9.715	0.00	0.88
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.752	0.00	2.20
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.752	0.00	1.04
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.788	0.00	2.20
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.788	0.00	1.04
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.824	0.00	2.20
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.824	0.00	1.04
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.860	0.00	2.20
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.860	0.00	1.04
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.896	0.00	2.20
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.896	0.00	1.04
Totals:											0.0	746.2

Calculated Forces

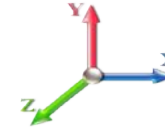
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

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	-43.47	-9.01	0.00	-1034.0	0.00	1034.09	3683.82	1841.91	7606.69	3756.66	0.00	0.000	0.000	0.160
1.00	-43.22	-8.98	0.00	-1025.0	0.00	1025.08	3677.71	1838.86	7564.39	3735.77	0.00	-0.008	0.000	0.160
2.00	-42.96	-8.96	0.00	-1016.1	0.00	1016.10	3671.54	1835.77	7522.06	3714.86	0.00	-0.017	0.000	0.159
4.00	-42.44	-8.90	0.00	-998.19	0.00	998.19	3659.00	1829.50	7437.30	3673.00	0.01	-0.034	0.000	0.158
6.00	-41.94	-8.85	0.00	-980.39	0.00	980.39	3646.20	1823.10	7352.44	3631.09	0.03	-0.051	0.000	0.156
8.00	-41.43	-8.79	0.00	-962.69	0.00	962.69	3633.16	1816.58	7267.48	3589.13	0.06	-0.068	0.000	0.154
10.00	-40.93	-8.74	0.00	-945.11	0.00	945.11	3619.85	1809.93	7182.43	3547.13	0.09	-0.085	0.000	0.153
12.00	-40.43	-8.68	0.00	-927.63	0.00	927.63	3606.29	1803.15	7097.31	3505.10	0.13	-0.102	0.000	0.151
14.00	-39.93	-8.63	0.00	-910.26	0.00	910.26	3592.48	1796.24	7012.13	3463.03	0.18	-0.119	0.000	0.150
16.00	-39.44	-8.57	0.00	-893.00	0.00	893.00	3578.41	1789.21	6926.91	3420.94	0.23	-0.137	0.000	0.148
16.25	-39.33	-8.57	0.00	-890.86	0.00	890.86	3576.63	1788.32	6916.25	3415.68	0.24	-0.139	0.000	0.168
18.00	-38.56	-8.52	0.00	-875.86	0.00	875.86	3564.09	1782.04	6841.65	3378.83	0.29	-0.156	0.000	0.156
18.75	-38.23	-8.50	0.00	-869.47	0.00	869.47	3558.65	1779.32	6809.67	3363.04	0.32	-0.163	0.000	0.194
19.50	-37.90	-8.48	0.00	-863.10	0.00	863.10	3553.18	1776.59	6777.69	3347.24	0.34	-0.171	0.000	0.165
20.00	-37.68	-8.47	0.00	-858.86	0.00	858.86	3549.51	1774.75	6756.36	3336.71	0.36	-0.176	0.000	0.164
22.00	-36.81	-8.41	0.00	-841.92	0.00	841.92	3563.12	1781.56	6835.93	3376.01	0.44	-0.196	0.000	0.166
24.00	-36.33	-8.36	0.00	-825.09	0.00	825.09	3548.52	1774.26	6750.65	3333.89	0.53	-0.216	0.000	0.160
26.00	-35.84	-8.31	0.00	-808.38	0.00	808.38	3533.67	1766.84	6665.35	3291.77	0.62	-0.235	0.000	0.158
28.00	-35.36	-8.25	0.00	-791.76	0.00	791.76	3518.56	1759.28	6580.06	3249.64	0.72	-0.254	0.000	0.156
30.00	-34.89	-8.19	0.00	-775.26	0.00	775.26	3503.20	1751.60	6494.78	3207.53	0.83	-0.273	0.000	0.122
31.00	-34.65	-8.17	0.00	-767.07	0.00	767.07	3495.43	1747.71	6452.15	3186.48	0.89	-0.280	0.000	0.140
32.00	-34.41	-8.14	0.00	-758.90	0.00	758.90	3487.59	1743.79	6409.53	3165.43	0.95	-0.289	0.000	0.139
34.00	-33.94	-8.09	0.00	-742.62	0.00	742.62	3471.72	1735.86	6324.32	3123.35	1.07	-0.307	0.000	0.171
35.50	-33.59	-8.06	0.00	-730.48	0.00	730.48	3459.65	1729.82	6260.45	3091.80	1.17	-0.323	0.000	0.170
36.00	-33.47	-8.05	0.00	-726.45	0.00	726.45	3455.59	1727.80	6239.16	3081.29	1.21	-0.328	0.000	0.169
38.00	-33.01	-8.00	0.00	-710.35	0.00	710.35	3439.21	1719.61	6154.07	3039.26	1.35	-0.350	0.000	0.167
40.00	-32.54	-7.95	0.00	-694.35	0.00	694.35	3422.57	1711.29	6069.05	2997.28	1.50	-0.372	0.000	0.165
42.00	-32.08	-7.90	0.00	-678.46	0.00	678.46	3405.68	1702.84	5984.13	2955.34	1.66	-0.394	0.000	0.163
44.00	-31.62	-7.84	0.00	-662.67	0.00	662.67	3388.54	1694.27	5899.30	2913.44	1.83	-0.416	0.000	0.161
45.16	-31.36	-7.81	0.00	-653.57	0.00	653.57	3378.48	1689.24	5850.15	2889.17	1.94	-0.429	0.000	0.117
46.00	-31.17	-7.79	0.00	-647.01	0.00	647.01	3371.14	1685.57	5814.59	2871.61	2.01	-0.435	0.000	0.151
48.00	-30.72	-7.74	0.00	-631.42	0.00	631.42	3353.48	1676.74	5730.00	2829.83	2.20	-0.456	0.000	0.149
50.00	-30.28	-7.69	0.00	-615.93	0.00	615.93	3335.57	1667.79	5645.55	2788.13	2.39	-0.477	0.000	0.147
52.00	-29.50	-7.63	0.00	-600.55	0.00	600.55	3317.41	1658.70	5561.26	2746.50	2.60	-0.498	0.000	0.143
54.00	-28.72	-7.58	0.00	-585.28	0.00	585.28	3298.98	1649.49	5477.12	2704.94	2.81	-0.518	0.000	0.141
56.00	-27.95	-7.52	0.00	-570.13	0.00	570.13	3316.18	1658.09	5555.61	2743.71	3.03	-0.538	0.000	0.142
58.00	-27.51	-7.46	0.00	-555.10	0.00	555.10	3297.74	1648.87	5471.49	2702.16	3.26	-0.559	0.000	0.147
60.00	-27.08	-7.40	0.00	-540.18	0.00	540.18	3279.05	1639.52	5387.54	2660.71	3.50	-0.580	0.000	0.145
62.00	-26.64	-7.35	0.00	-525.37	0.00	525.37	3260.10	1630.05	5303.79	2619.34	3.75	-0.601	0.000	0.143
64.00	-26.21	-7.29	0.00	-510.67	0.00	510.67	3240.90	1620.45	5220.23	2578.08	4.00	-0.623	0.000	0.141
66.00	-25.79	-7.23	0.00	-496.09	0.00	496.09	3221.44	1610.72	5136.89	2536.92	4.27	-0.644	0.000	0.138
68.00	-25.37	-7.18	0.00	-481.62	0.00	481.62	3201.73	1600.86	5053.77	2495.87	4.54	-0.665	0.000	0.136
70.00	-24.95	-7.12	0.00	-467.27	0.00	467.27	3181.76	1590.88	4970.89	2454.94	4.83	-0.686	0.000	0.134
72.00	-24.53	-7.06	0.00	-453.04	0.00	453.04	3161.54	1580.77	4888.26	2414.13	5.12	-0.707	0.000	0.131
74.00	-24.12	-7.00	0.00	-438.92	0.00	438.92	3141.06	1570.53	4805.90	2373.45	5.42	-0.728	0.000	0.129
76.00	-23.71	-6.94	0.00	-424.92	0.00	424.92	3120.33	1560.16	4723.81	2332.91	5.73	-0.749	0.000	0.127
78.00	-23.31	-6.88	0.00	-411.04	0.00	411.04	3099.34	1549.67	4642.00	2292.51	6.05	-0.770	0.000	0.124
80.00	-22.90	-6.82	0.00	-397.27	0.00	397.27	3078.09	1539.05	4560.50	2252.26	6.38	-0.790	0.000	0.122

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
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80.00	-22.90	-6.82	0.00	-397.27	0.00	397.27	2384.58	1192.29	3545.27	1750.88	6.38	-0.790	0.000	0.131
82.00	-22.55	-6.76	0.00	-383.63	0.00	383.63	2370.62	1185.31	3486.26	1721.73	6.71	-0.811	0.000	0.144
84.00	-22.20	-6.70	0.00	-370.11	0.00	370.11	2356.42	1178.21	3427.33	1692.63	7.06	-0.833	0.000	0.141
86.00	-21.86	-6.64	0.00	-356.70	0.00	356.70	2341.95	1170.98	3368.48	1663.57	7.41	-0.856	0.000	0.137
88.00	-21.52	-6.58	0.00	-343.42	0.00	343.42	2327.23	1163.62	3309.75	1634.56	7.77	-0.878	0.000	0.134
90.00	-21.18	-6.52	0.00	-330.25	0.00	330.25	2312.26	1156.13	3251.12	1605.61	8.15	-0.901	0.000	0.130
92.00	-20.84	-6.46	0.00	-317.20	0.00	317.20	2297.03	1148.52	3192.63	1576.72	8.53	-0.923	0.000	0.127
94.00	-20.51	-6.40	0.00	-304.28	0.00	304.28	2281.55	1140.77	3134.28	1547.90	8.92	-0.944	0.000	0.124
95.00	-20.34	-6.37	0.00	-297.88	0.00	297.88	2273.71	1136.85	3105.16	1533.52	9.12	-0.955	0.000	0.122
95.58	-20.18	-6.35	0.00	-294.18	0.00	294.18	2269.13	1134.57	3088.29	1525.19	9.23	-0.961	0.000	0.119
95.58	-20.18	-6.35	0.00	-294.18	0.00	294.18	2269.13	1134.57	3088.29	1525.19	9.23	-0.961	0.000	0.119
96.00	-20.06	-6.34	0.00	-291.51	0.00	291.51	2265.81	1132.90	3076.09	1519.16	9.32	-0.966	0.000	0.201
98.00	-19.50	-6.28	0.00	-278.83	0.00	278.83	2249.81	1124.91	3018.05	1490.50	9.73	-1.001	0.000	0.196
100.00	-18.94	-6.23	0.00	-266.27	0.00	266.27	2259.61	1129.81	3053.48	1508.00	10.16	-1.036	0.000	0.185
102.00	-18.61	-6.17	0.00	-253.82	0.00	253.82	2243.52	1121.76	2995.52	1479.37	10.60	-1.071	0.000	0.180
104.00	-18.29	-6.12	0.00	-241.47	0.00	241.47	2227.17	1113.59	2937.74	1450.84	11.06	-1.103	0.000	0.175
106.00	-17.96	-6.07	0.00	-229.23	0.00	229.23	2210.57	1105.28	2880.15	1422.40	11.52	-1.135	0.000	0.169
108.00	-17.64	-6.01	0.00	-217.10	0.00	217.10	2193.71	1096.86	2822.78	1394.06	12.01	-1.166	0.000	0.164
110.00	-17.27	-5.91	0.00	-204.93	0.00	204.93	2176.60	1088.30	2765.62	1365.84	12.50	-1.197	0.000	0.158
112.00	-16.96	-5.85	0.00	-193.12	0.00	193.12	2159.23	1079.61	2708.70	1337.73	13.01	-1.227	0.000	0.152
114.00	-16.64	-5.80	0.00	-181.42	0.00	181.42	2141.61	1070.80	2652.02	1309.73	13.53	-1.256	0.000	0.146
115.00	-16.49	-5.77	0.00	-175.62	0.00	175.62	2132.70	1066.35	2623.78	1295.79	13.80	-1.271	0.000	0.143
115.00	-16.49	-5.77	0.00	-175.62	0.00	175.62	2132.70	1066.35	2623.78	1295.79	13.80	-1.271	0.000	0.143
116.00	-16.36	-5.74	0.00	-169.85	0.00	169.85	2121.43	1061.71	2595.52	1282.40	14.06	-1.285	0.000	0.191
118.00	-16.09	-5.69	0.00	-158.36	0.00	158.36	2108.84	1056.84	2567.26	1269.68	14.61	-1.320	0.000	0.182
120.00	-15.82	-5.64	0.00	-146.98	0.00	146.98	2096.99	1051.76	2539.43	1257.99	15.17	-1.353	0.000	0.173
122.00	-15.56	-5.59	0.00	-135.70	0.00	135.70	2085.89	1046.45	2512.65	1247.33	15.74	-1.385	0.000	0.164
124.00	-15.30	-5.53	0.00	-124.53	0.00	124.53	2075.54	1040.86	2486.93	1237.70	16.33	-1.416	0.000	0.154
126.00	-15.05	-5.48	0.00	-113.46	0.00	113.46	2065.93	1034.97	2462.76	1229.11	16.93	-1.445	0.000	0.144
128.00	-14.79	-5.42	0.00	-102.51	0.00	102.51	2057.06	1028.76	2439.72	1221.56	17.54	-1.473	0.000	0.134
130.00	-14.54	-5.37	0.00	-91.66	0.00	91.66	2048.95	1022.21	2417.74	1215.06	18.16	-1.499	0.000	0.123
132.00	-14.29	-5.31	0.00	-80.92	0.00	80.92	2041.57	1015.31	2396.91	1209.62	18.80	-1.524	0.000	0.112
133.00	-9.85	-4.10	0.00	-75.60	0.00	75.60	2034.29	1008.06	2377.26	1205.28	19.12	-1.535	0.000	0.103
134.00	-9.74	-4.07	0.00	-71.51	0.00	71.51	2027.94	1000.45	2358.77	1202.03	19.44	-1.546	0.000	0.099
136.00	-9.52	-4.02	0.00	-63.36	0.00	63.36	2021.66	992.48	2341.43	1200.00	20.09	-1.567	0.000	0.091
138.00	-9.30	-3.96	0.00	-55.33	0.00	55.33	2015.44	984.15	2325.24	1199.16	20.75	-1.586	0.000	0.082
140.00	-9.08	-3.90	0.00	-47.42	0.00	47.42	2009.27	975.96	2310.20	1199.50	21.42	-1.603	0.000	0.072
142.00	-8.87	-3.84	0.00	-39.61	0.00	39.61	2003.15	967.91	2296.31	1200.00	22.10	-1.618	0.000	0.063
142.90	-5.13	-2.49	0.00	-36.15	0.00	36.15	1997.08	959.99	2283.57	1202.32	22.40	-1.624	0.000	0.056
144.00	-5.03	-2.46	0.00	-33.41	0.00	33.41	1991.06	952.19	2271.98	1205.74	22.78	-1.632	0.000	0.053
145.00	-4.94	-2.43	0.00	-30.95	0.00	30.95	1985.09	944.51	2261.54	1210.24	23.12	-1.638	0.000	0.050
145.00	-4.94	-2.43	0.00	-30.95	0.00	30.95	1985.09	944.51	2261.54	1210.24	23.12	-1.638	0.000	0.057
146.00	-4.85	-2.42	0.00	-28.52	0.00	28.52	1979.16	936.96	2252.25	1215.89	23.46	-1.644	0.000	0.053
148.00	-4.68	-2.39	0.00	-23.68	0.00	23.68	1973.31	929.54	2244.00	1222.68	24.15	-1.655	0.000	0.046
148.30	-2.60	-1.65	0.00	-21.54	0.00	21.54	1967.53	922.25	2236.79	1230.63	24.26	-1.656	0.000	0.040
150.00	-2.46	-1.62	0.00	-18.73	0.00	18.73	1961.83	915.09	2230.62	1239.74	24.85	-1.664	0.000	0.036
150.00	-2.46	-1.62	0.00	-18.73	0.00	18.73	1961.83	915.09	2230.62	1239.74	24.85	-1.664	0.000	0.092
152.00	-2.34	-1.60	0.00	-15.48	0.00	15.48	1956.24	908.06	2225.59	1249.90	25.55	-1.672	0.000	0.077
154.00	-2.21	-1.58	0.00	-12.28	0.00	12.28	1950.76	901.16	2221.60	1261.11	26.25	-1.692	0.000	0.061
156.00	-2.09	-1.56	0.00	-9.11	0.00	9.11	1945.39	894.39	2218.74	1273.39	26.97	-1.708	0.000	0.046
158.00	-1.96	-1.54	0.00	-5.99	0.00	5.99	1940.14	887.74	2216.91	1286.74	27.68	-1.719	0.000	0.032
160.00	0.00	-1.48	0.00	-2.92	0.00	2.92	1935.00	881.21	2216.10	1301.16	28.41	-1.726	0.000	0.014

Final Analysis Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	3/26/2019
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
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Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 97 mph Wind	37.7	0.00	52.16	0.00	0.00	4351.58
0.9D + 1.6W 97 mph Wind	37.7	0.00	39.11	0.00	0.00	4300.34
1.2D + 1.0Di + 1.0Wi 50 mph Wind	8.7	0.00	84.10	0.00	0.00	1079.59
1.2D + 1.0E	2.1	0.00	52.17	0.00	0.00	258.51
0.9D + 1.0E	2.1	0.00	39.13	0.00	0.00	255.28
1.0D + 1.0W 60 mph Wind	9.0	0.00	43.47	0.00	0.00	1034.09

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 97 mph Wind	-22.32	-26.77	0.00	-1229.4	0.00	-1229.4	2265.81	1132.9	3076.09	1519.16	96.00	0.820
0.9D + 1.6W 97 mph Wind	-16.31	-26.31	0.00	-1205.8	0.00	-1205.8	2265.81	1132.9	3076.09	1519.16	96.00	0.802
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-44.62	-6.88	0.00	-320.51	0.00	-320.51	2265.81	1132.9	3076.09	1519.16	96.00	0.231
1.2D + 1.0E	-19.93	-1.62	0.00	-55.01	0.00	-55.01	2132.70	1066.3	2623.78	1295.79	115.00	0.071
0.9D + 1.0E	-14.94	-1.59	0.00	-54.04	0.00	-54.04	2132.70	1066.3	2623.78	1295.79	115.00	0.066
1.0D + 1.0W 60 mph Wind	-20.06	-6.34	0.00	-291.51	0.00	-291.51	2265.81	1132.9	3076.09	1519.16	96.00	0.201

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
			VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Req'd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Req'd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
0.0	16.3	(3) PLT-C10x30(1.5" Hole)	-268.4	-5.37	37.1	349.1	37.1	10	0	336.3	37.1			351.03	505.1	468.64	0.749
0.0	1.0	(3) SOL-2 1/4" William R71	169.4	2.03	25.3	196.2	25.3	8	8	233.4	25.3			196.24	459.1	468.91	0.427
1.0	18.8	(3) LNP-LP6X100-B-20T	206.3	4.95	25.3	233.4	25.3			226.6	25.3	9	9	257.04	297.8	292.50	0.879
16.3	31.0	(3) PLT-C10x15.3(1.5" Hole)	-268.4	-5.37	37.1	202.1	37.1			147.6	37.1	4	0	243.09	257.8	247.80	0.981
18.0	34.0	(2) LNP-LP6X100-G-20TT	209.5	5.03	25.3	211.3	25.3	9	10	214.7	25.3	9	10	255.56	297.8	292.50	0.874
19.5	35.5	(1) LNP-LP6X100-G-20TT	-209.5	-5.03	25.3	254.5	25.3	11	10	213.9	25.3	9	10	254.55	297.8	292.50	0.870
30.0	46.0	(3) PLT-6"X1-1/4"(1.25" Hole)	320.1	5.76	37.1	236.2	37.1	7	8	233.2	37.1	7	8	336.33	413.6	356.25	0.944
45.2	58.0	(3) PLT-7" x 1.25"(1.25"Hole)	-372.8	-4.47	37.1	273.2	37.1	8	13	324.5	37.1			355.00	498.6	431.25	0.823
58.0	78.0	(3) PLT-5.5"x1 1/4"(1.25"hol)	-363.0	-6.53	37.1	277.0	37.1			243.4	37.1			277.00	379.1	318.75	0.869
78.0	95.6	(3) PLT-5.5"x1 1/4"(1.25"hol)	-413.4	-7.44	37.1	243.4	37.1			229.6	37.1	7	10	263.71	379.1	318.75	0.827



Monopole Mat Foundation Design

Date

3/26/2019

Customer Name:	AT&T	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	160
Site Number:	CT02049-S-SBA	Engineer Name:	H. You
Engr. Number:	71100	Engineer Login ID:	

Foundation Info Obtained from:

Drawings/Calculations

Structure Type:

Monopole

Analysis or Design?

Analysis

Base Reactions (Factored):

Axial Load (Kips):	52.2	Shear Force (Kips):	37.7
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4351.6

Allowable overstress %: 5.0%

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	4.8
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	3.50
Length of Pad (ft.):	28	Width of Pad (ft.):	28
Final Length of pad (ft)	28.0	Final width of pad (ft):	28.0
Control Value for Cell D18:	0	Control Value for Cell F18:	0

Material Properties and Rebar Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	10	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	30	Tie Spacing (in):	6.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	26	Qty. of Rebar in Pad (W):	26	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	26	Qty. of Rebar in Pad (W):	26	

Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

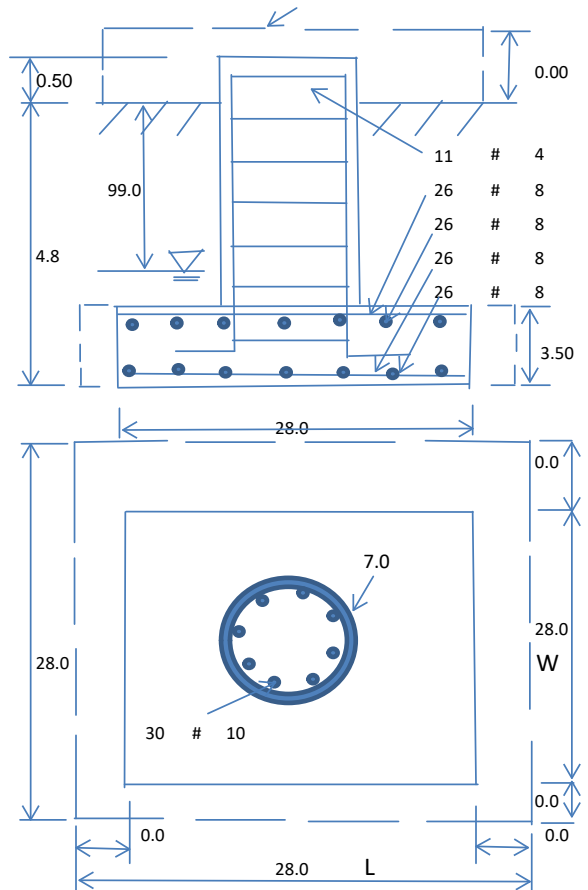
Soil Unit Weight (pcf):	115.0	Soil Buoyant Weight:	50.0	Pcf
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf
Ultimate Bearing Pressure (psf):	6000	Ultimate Skin Friction:	0	Psf
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No	
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00	
		Angle from Top of Pad:	30	
		Angle from Bottm of Pad:	25	
		Angle from Bottm of Pad:	25	

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	969.17	Total Dry Soil Weight (Kips):	111.45
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	111.45	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2813.27	Total Dry Concrete Weight (Kips):	421.99
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	421.99	Total Vertical Load on Base (Kips):	585.61

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	2357	<	Allowable Factored Soil Bearing (psf):	4500	0.52	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7451.7	>	Design Factored Momont (kips-ft):	4551	0.61	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.64					OK!



Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00

Load/
Capacity
Ratio**(1) Concrete Pier:**

Vertical Steel Rebar Area (sq. in./each):	1.27	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	6154.8	> Design Factored Moment (Mu, Kips-Ft):	4419.5	0.72	OK!
Calculated Shear Capacity (Kips):	724.1	> Design Factored Shear (Kips):	37.7	0.05	OK!
Calculated Tension Capacity (Tn, Kips):	2057.4	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	7297.9	> Design Factored Axial Load (Pu Kips):	52.2	0.01	OK!
Moment & Axial Strength Combination:	0.72	OK! Check Tie Spacing (Design/Required):		0.5	OK!
Pier Reinforcement Ratio:	0.007	Reinforcement Ratio is satisfied per ACI			

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	1062.8	> One-Way Factored Shear (L-D. Kips):	260.5	0.25	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1062.8	> One-Way Factored Shear (W-D., Kips)	260.5	0.25	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	993.8	> One-Way Factored Shear (C-C, Kips):	257.6	0.26	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0016	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0016		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	3492.1	> Moment at Bottom (L-Dir. K-Ft):	1661.0	0.48	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	3492.1	> Moment at Bottom (W-Dir. K-Ft):	1661.0	0.48	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	4918.4	> Moment at Bottom (C-C Dir. K-Ft):	2349.0	0.48	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0016	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0016		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	3492.1	> Moment at the top (L-Dir K-Ft):	763.1	0.22	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3492.1	> Moment at the top (W-Dir K-Ft):	763.1	0.22	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	4918.4	> Moment at the top (C-C Dir. K-Ft):	713.5	0.15	OK!

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

Moment transferred by punching shear:	1740.6	k-ft.	Max. factored shear stress $v_{u,CD}$:	4.5	Psi
Max. factored shear stress $v_{u,AB}$:	9.9	Psi	Factored shear Strength ϕv_n :	164.3	Psi
Max. factored shear stress v_u :	9.9	Psi	Check Usage of Punching Shear Capacity:	0.06	OK!



January 24, 2019



Centerline Communications
750 West Center Street, Suite #301
West Bridgewater, MA 02379

RE: Site Number: CT5416 (LTE 4C/5C)
 FA Number: 10070922
 PACE Number: MRCTB033636
 PT Number: 2051A0JD92
 Site Name: BEACON FALLS NE
 Site Address: 10 Teresa Rd
 Beacon Falls, CT 06403

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by Centerline Communications to perform a mount analysis on the existing AT&T antenna/RRH mounts to determine their capability of supporting the following additional loading:

- (3) 800-10121 Antennas (54.5"x10.3"x5.9" – Wt. = 45 lbs. /each)
- (3) QS66512-2 Antennas (72.0"x12.0"x9.6" – Wt. = 111 lbs. /each)
- (3) RRUS-32 RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each) (Tower Mount)
- (6) LGP21401 TMA's (14.4"x9.0"x2.7" – Wt. = 19 lbs. /each)
- (2) Squid Surge Arrestor (24.0"x9.7" Φ – Wt. = 33 lbs. /each) (Tower Mount)
- **(3) 800-10965 Antennas (78.7"x20.0"x6.9" – Wt. = 109 lbs. /each)**
- **(3) B2/B66A 8843 RRH's (14.9"x13.2"x10.9" – Wt. = 72 lbs. /each)**
- **(3) 4449 B5 RRH's (18.0"x13.2"x9.5" – Wt. = 71 lbs. /each)**
- **(1) Squid Surge Arrestor (24.0"x9.7" Φ – Wt. = 33 lbs. /each)**

**Proposed equipment shown in bold*

No original structural design documents or fabrication drawings were available for the existing mounts. HDG's subconsultant, ProVertic LLC, conducted a survey climb and mapping of the existing AT&T antenna mounts on January 19, 2019.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-G, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2015 with 2018 Connecticut State Building Code, and AT&T Mount Technical Directive – R11.
- HDG considers this mount to be asymmetrical and has applied wind loads in 30 degree increments all around the mount. Per TIA-222-G and Appendix N of the Connecticut State Building Code, the max basic wind speed for this site is equal to 115 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 0.75 in. An escalated ice thickness of 1.0 in was used for this analysis.
- HDG considers this site to be exposure category B; tower is located in an urban/suburban or wooded area with numerous closely spaced obstructions.
- HDG considers this site to be topographic category 3; tower is located at the upper half of a hill.
- The mount has been analyzed with load combinations consisting of 250 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 1.
- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The existing mount is secured to the existing monopole with ring mounts. The connection is considered OK by visual inspection.

Based on our evaluation, we have determined that the existing mount **ARE NOT CAPABLE** of supporting the proposed installation. HDG recommends the following modifications:

- **Install new T-Frame, SitePro 1 P/N RMV12-NP (or approved equal)(typ. Of 1 per sector, total of 3).**
- **Remove existing pipe masts and replace with 2-1/2" (2.88" O.D.) pipe mast secured to mount face (typ. of 1 per sector, total of 3).**

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing (LTE 4C/5C) Mount Rating	22	LC28	1984%	FAIL
Modified (LTE 4C/5C) Mount Rating	28	LC28	96%	PASS

Reference Documents:

- Mount mapping report prepared by ProVertic LLC.

This determination was based on the following limitations and assumptions:

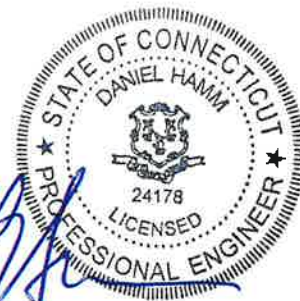
1. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.
4. The existing mount has been adequately secured to the tower structure per the mount manufacturer's specifications.
5. All components pertaining to AT&T's mounts must be tightened and re-plumbed prior to the installation of new appurtenances.
6. HDG performed a localized analysis on the mount itself and not on the supporting tower structure.

Please feel free to contact our office should you have any questions.

Respectfully Submitted,
Hudson Design Group LLC

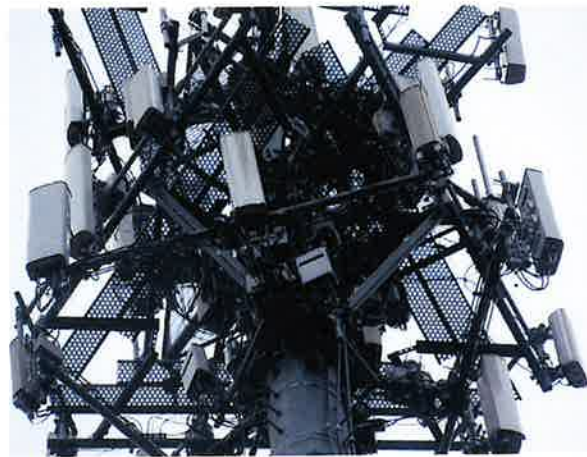


Michael Cabral
Structural Dept. Head



Daniel P. Hamm, PE
Principal

FIELD PHOTOS:







HUDSON
Design Group LLC

Wind & Ice Calculations

Date: 01/24/2019
 Project Name: BEACON FALLS NE
 Project No.: CT5416
 Designed By: LBW Checked By: MSC

2.6.5.2 Velocity Pressure Coeff:

$$K_z = 2.01 (z/z_g)^{2/\alpha}$$

$K_z =$ **1.269** $z =$ 135 (ft)
 $z_g =$ 1200 (ft)
 $\alpha =$ 9.5

$K_{zmin} \leq K_z \leq 2.01$

Table 2-4

Exposure	Z_g	α	K_{zmin}	K_e
B	1200 ft	7.0	0.70	0.9
C	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

2.6.6.4 Topographic Factor:

Table 2-5

Topo. Category	K_t	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$$K_{zt} = [1 + (K_e K_t / K_h)]^2$$

$$K_h = e^{(f * z / H)}$$

$K_{zt} =$ **1.043648252**

$K_h =$ 22.09
 $K_e =$ 0.9 (from Table 2-4)
 $K_t =$ 0.53 (from Table 2-5)
 $f =$ 2 (from Table 2-5)
 $z =$ 650
 $H =$ 420 (Ht. of the crest above surrounding terrain)
 $K_{zt} =$ 1.04
 $K_{iz} =$ 1.35 (from Sec. 2.6.8)

(If Category 1 then $K_{zt} = 1.0$)

Category = 3

2.6.8 Design Ice Thickness

Max Ice Thickness =

$t_i =$ **1.00** in

Importance Factor, $I_{ice} =$

$I_{ice} =$ **1.00** (from Table 2-3)

$$t_{iz} = 2.0 * t_i * I_{ice} * K_{iz} * (K_{zt})^{0.35}$$

$t_{iz} =$ **2.74** in

Date: 01/24/2019
 Project Name: BEACON FALLS NE
 Project No.: CT5416
 Designed By: LBW Checked By: MSC



2.6.7 Gust Effect Factor

2.6.7.1 Self Supporting Lattice Structures

Gh = 1.0 Latticed Structures > 600 ft

Gh = 0.85 Latticed Structures 450 ft or less

Gh = 0.85 + 0.15 [h/150 - 3.0] h= ht. of structure

h= 135 Gh= 0.85

2.6.7.2 Guyed Masts

Gh= 0.85

2.6.7.3 Pole Structures

Gh= 1.1

2.6.9 Appurtenances

Gh= 1.0

2.6.7.4 Structures Supported on Other Structures

(Cantilivered tubular or latticed spines, pole, structures on buildings (ht. : width ratio > 5)

Gh= 1.35 Gh= 1.00

2.6.9.2 Design Wind Force on Appurtenances

State Code Ultimate Design Wind Speed: V_{ult} = 125 mph

Nomial Design Wind Speed, V_{asd} = V_{ult} v(0.6) V_{asd} = 97 mph

V_{asd} per the AT&T Mount Technical Directive and Connecticut State Building Code, Latest Edition.

Per TIA-222-G, V_{min} = 95 mph V_{max} = 115 mph

F = q_z*Gh*(EPA)_A

q_z = 0.00256*K_z*K_{zt}*K_d*V_{max}²*I

q_z = 30.19

q_{z (ice)} = 8.05

q_{z (30)} = 2.90

K_z = 1.269

K_{zt} = 1.0

K_d = 0.95 (from Table 2-2)

V_{asd} = 97 mph

V_{max (ice)} = 50 mph

V₃₀ = 30 mph

I = 1.0 (from Table 2-3)

I_{wice} = 1.0 (from Table 2-3)

Table 2-2

Structure Type	Wind Direction Probability Factor, Kd
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95

Date: 01/24/2019
 Project Name: BEACON FALLS NE
 Project No.: CT5416
 Designed By: LBW Checked By: MSC



Determine Co:

Table 2-8

Force Coefficients (Ca) for Appurtenances				
Member Type		Aspect Ratio ≤ 2.5	Aspect Ratio = 7	Aspect Ratio ≥ 25
		Ca	Ca	Ca
Flat		1.2	1.4	2.0
Round	C < 32 (Subcritical)	0.7	0.8	1.2
	32 ≤ C ≤ 64 (Transitional)	$3.76/(C^{0.485})$	$3.37/(C^{0.415})$	$38.4/(C^{1.0})$
	C > 64 (Supercritical)	0.5	0.6	0.6

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.
 (Aspect ratio is independent of the spacing between support points of a linear appurtenance.)

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = **2.74 in** **Angle = 0 (deg)** **Equivalent Angle = 180 (deg)**

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (w/ ice)	Force (lbs) (30 mph)
800-10121 Antenna	54.5	10.3	5.9	3.90	5.29	1.32	156	70	15
QS66512-2 Antenna	72.0	12.0	9.6	6.00	6.00	1.36	246	103	24
800-10965 Antenna	78.7	20.0	6.9	10.93	3.94	1.26	417	151	40
RRUS-32 RRH	27.2	12.1	7.0	2.29	2.25	1.20	83	39	8
RRUS-32 RRH (Shielded)	27.2	1.8	7.0	0.34	15.11	1.67	17	22	2
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.20	49	26	5
B2/B66A 8843 RRH (Shielded)	14.9	1.2	10.9	0.12	12.42	1.58	6	12	1
4449 B5 RRH	18.0	13.2	9.5	1.65	1.36	1.20	60	29	6
4449 B5 RRH (Shielded)	18.0	0.0	9.5	0.00	0.00	1.20	0	9	0
LGP21401 TMA	14.4	2.7	9.0	0.27	5.33	1.33	11	12	1
Surge Arrestor	24.0	9.7	9.7	1.62	2.47	0.70	34	17	3
2" Pipe	2.4	12.0		0.20	0.20	1.20	7	9	1
2x2 Angle	2.0	12.0		0.17	0.17	2.00	10	15	1

WIND LOADS

Angle = 30 (deg)

Ice Thickness = 2.74 in.

Equivalent Angle = 210 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Aspect Ratio	Aspect Ratio	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	156	99	142
Q56512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	246	205	236
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	417	176	357
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	83	50	75
RRUS-32 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	44	50	46
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	49	41	47
B2/B66A 8843 RRH (Shielded)	14.9	6.6	10.9	0.68	1.13	2.26	1.37	1.20	1.20	25	41	29
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	60	43	56
4449 B5 RRH (Shielded)	18.0	6.6	9.5	0.83	1.19	2.73	1.89	1.21	1.20	30	43	33
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	11	33	16

WIND LOADS WITH ICE:

800-10121 Antenna	60.0	15.8	11.4	6.57	4.74	3.80	5.27	1.26	1.32	67	50	63
Q56512-2 Antenna	77.5	17.5	15.1	9.40	8.11	4.43	5.14	1.29	1.32	97	86	94
800-10965 Antenna	84.2	25.5	12.4	14.89	7.23	3.30	6.80	1.24	1.39	148	81	131
RRUS-32 RRH	32.7	17.6	12.5	3.99	2.83	1.86	2.62	1.20	1.21	39	27	36
RRUS-32 RRH (Shielded)	32.7	8.8	12.5	1.99	2.83	3.72	2.62	1.25	1.21	20	27	22
B2/B66A 8843 RRH	20.4	18.7	16.4	2.64	2.32	1.09	1.24	1.20	1.20	26	22	25
B2/B66A 8843 RRH (Shielded)	20.4	9.3	16.4	1.32	2.32	2.18	1.24	1.20	1.20	13	22	15
4449 B5 RRH	23.5	18.7	15.0	3.04	2.44	1.26	1.57	1.20	1.20	29	24	28
4449 B5 RRH (Shielded)	23.5	9.3	15.0	1.52	2.44	2.51	1.57	1.20	1.20	15	24	17
LGP21401 TMA	19.9	8.2	14.5	1.13	2.00	2.43	1.37	1.20	1.20	11	19	13

WIND LOADS AT 30 MPH:

800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	15	10	14
Q56512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	24	20	23
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	40	17	34
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	8	5	7
RRUS-32 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	4	5	4
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	5
B2/B66A 8843 RRH (Shielded)	14.9	6.6	10.9	0.68	1.13	2.26	1.37	1.20	1.20	2	4	3
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	6	4	5
4449 B5 RRH (Shielded)	18.0	6.6	9.5	0.83	1.19	2.73	1.89	1.21	1.20	3	4	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	2

WIND LOADS

Angle = 60 (deg) Ice Thickness = 2.74 in. Equivalent Angle = 240 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	156	99	114
Q566512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	246	205	215
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	417	176	236
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	83	50	58
RRUS-32 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	63	50	54
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	49	41	43
B2/B66A 8843 RRH (Shielded)	14.9	9.9	10.9	1.02	1.13	1.51	1.37	1.20	1.20	37	41	40
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	60	43	47
4449 B5 RRH (Shielded)	18.0	9.9	9.5	1.24	1.19	1.82	1.89	1.20	1.20	45	43	43
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	11	33	27

WIND LOADS WITH ICE:

800-10121 Antenna	60.0	15.8	11.4	6.57	4.74	3.80	5.27	1.26	1.32	67	50	54
Q566512-2 Antenna	77.5	17.5	15.1	9.40	8.11	4.43	5.14	1.29	1.32	97	86	89
800-10965 Antenna	84.2	25.5	12.4	14.89	7.23	3.30	6.80	1.24	1.39	148	81	98
RRUS-32 RRH	32.7	17.6	12.5	3.99	2.83	1.86	2.62	1.20	1.21	39	27	30
RRUS-32 RRH (Shielded)	32.7	13.2	12.5	2.99	2.83	2.48	2.62	1.20	1.21	29	27	28
B2/B66A 8843 RRH	20.4	18.7	16.4	2.64	2.32	1.09	1.24	1.20	1.20	26	22	23
B2/B66A 8843 RRH (Shielded)	20.4	14.0	16.4	1.98	2.32	1.45	1.24	1.20	1.20	19	22	22
4449 B5 RRH	23.5	18.7	15.0	3.04	2.44	1.26	1.57	1.20	1.20	29	24	25
4449 B5 RRH (Shielded)	23.5	14.0	15.0	2.28	2.44	1.68	1.57	1.20	1.20	22	24	23
LGP21401 TMA	19.9	8.2	14.5	1.13	2.00	2.43	1.37	1.20	1.20	11	19	17

WIND LOADS AT 30 MPH:

800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	15	10	11
Q566512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	24	20	21
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	40	17	23
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	8	5	6
RRUS-32 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	6	5	5
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	4
B2/B66A 8843 RRH (Shielded)	14.9	9.9	10.9	1.02	1.13	1.51	1.37	1.20	1.20	4	4	4
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	6	4	5
4449 B5 RRH (Shielded)	18.0	9.9	9.5	1.24	1.19	1.82	1.89	1.20	1.20	4	4	4
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	3

WIND LOADS

Angle = 90 (deg)

Ice Thickness = 2.74 in.

Equivalent Angle = 270 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ce (normal)	Ce (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	156	99	99
Q566512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	246	205	205
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	417	176	176
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	83	50	50
RRUS-32 RRH (Shielded)	27.2	1.8	7.0	0.34	1.32	15.11	3.89	1.67	1.26	17	50	50
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	49	41	41
B2/B66A 8843 RRH (Shielded)	14.9	1.2	10.9	0.12	1.13	12.42	1.37	1.58	1.20	6	41	41
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	60	43	43
4449 B5 RRH (Shielded)	18.0	0.0	9.5	0.00	1.19	0.00	1.89	1.20	1.20	0	43	43
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	11	33	33

WIND LOADS WITH ICE:

800-10121 Antenna	60.0	15.8	11.4	6.57	4.74	3.80	5.27	1.26	1.32	67	50	50
Q566512-2 Antenna	77.5	17.5	15.1	9.40	8.11	4.43	5.14	1.29	1.32	97	86	86
800-10965 Antenna	84.2	25.5	12.4	14.89	7.23	3.30	6.80	1.24	1.39	148	81	81
RRUS-32 RRH	32.7	17.6	12.5	3.99	2.83	1.86	2.62	1.20	1.21	39	27	27
RRUS-32 RRH (Shielded)	32.7	7.3	12.5	1.65	2.83	4.49	2.62	1.29	1.21	17	27	27
B2/B66A 8843 RRH	20.4	18.7	16.4	2.64	2.32	1.09	1.24	1.20	1.20	26	22	22
B2/B66A 8843 RRH (Shielded)	20.4	6.7	16.4	0.94	2.32	3.05	1.24	1.22	1.20	9	22	22
4449 B5 RRH	23.5	18.7	15.0	3.04	2.44	1.26	1.57	1.20	1.20	29	24	24
4449 B5 RRH (Shielded)	23.5	5.5	15.0	0.89	2.44	4.29	1.57	1.28	1.20	9	24	24
LGP21401 TMA	19.9	8.2	14.5	1.13	2.00	2.43	1.37	1.20	1.20	11	19	19

WIND LOADS AT 30 MPH:

800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	15	10	10
Q566512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	24	20	20
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	40	17	17
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	8	5	5
RRUS-32 RRH (Shielded)	27.2	1.8	7.0	0.34	1.32	15.11	3.89	1.67	1.26	2	5	5
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	4
B2/B66A 8843 RRH (Shielded)	14.9	1.2	10.9	0.12	1.13	12.42	1.37	1.58	1.20	1	4	4
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	6	4	4
4449 B5 RRH (Shielded)	18.0	0.0	9.5	0.00	1.19	0.00	1.89	1.20	1.20	0	4	4
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	3

WIND LOADS

Angle = 120 (deg)

Ice Thickness = 2.74 in.

Equivalent Angle = 300 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	156	99	114
Q566512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	246	205	215
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	417	176	236
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	83	50	58
RRUS-32 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	63	50	54
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	49	41	43
B2/B66A 8843 RRH (Shielded)	14.9	9.9	10.9	1.02	1.13	1.51	1.37	1.20	1.20	37	41	40
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	60	43	47
4449 B5 RRH (Shielded)	18.0	9.9	9.5	1.24	1.19	1.82	1.89	1.20	1.20	45	43	43
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	11	33	27

WIND LOADS WITH ICE:

800-10121 Antenna	60.0	15.8	11.4	6.57	4.74	3.80	5.27	1.26	1.32	67	50	54
Q566512-2 Antenna	77.5	17.5	15.1	9.40	8.11	4.43	5.14	1.29	1.32	97	86	89
800-10965 Antenna	84.2	25.5	12.4	14.89	7.23	3.30	6.80	1.24	1.39	148	81	98
RRUS-32 RRH	32.7	17.6	12.5	3.99	2.83	1.86	2.62	1.20	1.21	39	27	30
RRUS-32 RRH (Shielded)	32.7	13.2	12.5	2.99	2.83	2.48	2.62	1.20	1.21	29	27	28
B2/B66A 8843 RRH	20.4	18.7	16.4	2.64	2.32	1.09	1.24	1.20	1.20	26	22	23
B2/B66A 8843 RRH (Shielded)	20.4	14.0	16.4	1.98	2.32	1.45	1.24	1.20	1.20	19	22	22
4449 B5 RRH	23.5	18.7	15.0	3.04	2.44	1.26	1.57	1.20	1.20	29	24	25
4449 B5 RRH (Shielded)	23.5	14.0	15.0	2.28	2.44	1.68	1.57	1.20	1.20	22	24	23
LGP21401 TMA	19.9	8.2	14.5	1.13	2.00	2.43	1.37	1.20	1.20	11	19	17

WIND LOADS AT 30 MPH:

800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	15	10	11
Q566512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	24	20	21
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	40	17	23
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	8	5	6
RRUS-32 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	6	5	5
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	4
B2/B66A 8843 RRH (Shielded)	14.9	9.9	10.9	1.02	1.13	1.51	1.37	1.20	1.20	4	4	4
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	6	4	5
4449 B5 RRH (Shielded)	18.0	9.9	9.5	1.24	1.19	1.82	1.89	1.20	1.20	4	4	4
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	3

WIND LOADS

Angle = 150 (deg)

Ice Thickness = 2.74 in.

Equivalent Angle = 330 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	156	99	142
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	246	205	236
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	417	176	357
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	83	50	75
RRUS-32 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	44	50	46
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	49	41	47
B2/B66A 8843 RRH (Shielded)	14.9	6.6	10.9	0.68	1.13	2.26	1.37	1.20	1.20	25	41	29
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	60	43	56
4449 B5 RRH (Shielded)	18.0	6.6	9.5	0.83	1.19	2.73	1.89	1.21	1.20	30	43	33
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	11	33	16

WIND LOADS WITH ICE:

800-10121 Antenna	60.0	15.8	11.4	6.57	4.74	3.80	5.27	1.26	1.32	67	50	69
QS66512-2 Antenna	77.5	17.5	15.1	9.40	8.11	4.43	5.14	1.29	1.32	97	86	94
800-10965 Antenna	84.2	25.5	12.4	14.89	7.23	3.30	6.80	1.24	1.39	148	81	131
RRUS-32 RRH	32.7	17.6	12.5	3.99	2.83	1.86	2.62	1.20	1.21	39	27	36
RRUS-32 RRH (Shielded)	32.7	8.8	12.5	1.99	2.83	3.72	2.62	1.25	1.21	20	27	22
B2/B66A 8843 RRH	20.4	18.7	16.4	2.64	2.32	1.09	1.24	1.20	1.20	26	22	25
B2/B66A 8843 RRH (Shielded)	20.4	9.3	16.4	1.32	2.32	2.18	1.24	1.20	1.20	13	22	15
4449 B5 RRH	23.5	18.7	15.0	3.04	2.44	1.26	1.57	1.20	1.20	29	24	28
4449 B5 RRH (Shielded)	23.5	9.3	15.0	1.52	2.44	2.51	1.57	1.20	1.20	15	24	17
LGP21401 TMA	19.9	8.2	14.5	1.13	2.00	2.43	1.37	1.20	1.20	11	19	13

WIND LOADS AT 30 MPH:

800-10121 Antenna	54.5	10.3	5.9	3.90	2.23	5.29	9.24	1.32	1.47	15	10	14
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	24	20	23
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	40	17	34
RRUS-32 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	8	5	7
RRUS-32 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	4	5	4
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	5
B2/B66A 8843 RRH (Shielded)	14.9	6.6	10.9	0.68	1.13	2.26	1.37	1.20	1.20	2	4	3
4449 B5 RRH	18.0	13.2	9.5	1.65	1.19	1.36	1.89	1.20	1.20	6	4	5
4449 B5 RRH (Shielded)	18.0	6.6	9.5	0.83	1.19	2.73	1.89	1.21	1.20	3	4	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	2

Date: 01/24/2019
 Project Name: BEACON FALLS NE
 Project No.: CT5416
 Designed By: LBW Checked By: MSC



ICE WEIGHT CALCULATIONS

Thickness of ice: 2.74 in.
 Density of ice: 56 pcf

800-10121 Antenna

Weight of ice based on total radial SF area:
 Height (in): 54.5
 Width (in): 10.3
 Depth (in): 5.9
 Total weight of ice on object: 222 lbs
 Weight of object: 47.0 lbs
Combined weight of ice and object: 269 lbs

QS66512-2 Antenna

Weight of ice based on total radial SF area:
 Height (in): 72.0
 Width (in): 12.0
 Depth (in): 9.6
 Total weight of ice on object: 364 lbs
 Weight of object: 111.0 lbs
Combined weight of ice and object: 475 lbs

800-10965 Antenna

Weight of ice based on total radial SF area:
 Height (in): 78.7
 Width (in): 20.0
 Depth (in): 6.9
 Total weight of ice on object: 525 lbs
 Weight of object: 109.0 lbs
Combined weight of ice and object: 634 lbs

4449 B5 RRH

Weight of ice based on total radial SF area:
 Height (in): 18.0
 Width (in): 13.2
 Depth (in): 9.5
 Total weight of ice on object: 95 lbs
 Weight of object: 71.0 lbs
Combined weight of ice and object: 166 lbs

B2/B66A 8843 RRH

Weight of ice based on total radial SF area:
 Height (in): 14.9
 Width (in): 13.2
 Depth (in): 10.9
 Total weight of ice on object: 83 lbs
 Weight of object: 72.0 lbs
Combined weight of ice and object: 155 lbs

RRUS-32 RRH

Weight of ice based on total radial SF area:
 Height (in): 27.2
 Width (in): 12.1
 Depth (in): 7.0
 Total weight of ice on object: 127 lbs
 Weight of object: 60.0 lbs
Combined weight of ice and object: 187 lbs

LGP21401 TMA

Weight of ice based on total radial SF area:
 Height (in): 14.4
 Width (in): 2.7
 Depth (in): 9.0
 Total weight of ice on object: 49 lbs
 Weight of object: 19.0 lbs
Combined weight of ice and object: 68 lbs

Squid Surge Arrestor

Weight of ice based on total radial SF area:
 Depth (in): 24.0
 Diameter(in): 9.7
 Total weight of ice on object: 83 lbs
 Weight of object: 33 lbs
Combined weight of ice and object: 116 lbs

HSS 4x4

Weight of ice based on total radial SF area:
 Height (in): 4
 Width (in): 4
Per foot weight of ice on object: 28 plf

2-1/2" pipe

Per foot weight of ice:
 diameter (in): 2.88
Per foot weight of ice on object: 19 plf

3-1/2" Pipe

Per foot weight of ice:
 diameter (in): 4
Per foot weight of ice on object: 23 plf

4" Pipe

Per foot weight of ice:
 diameter (in): 4.5
Per foot weight of ice on object: 24 plf

1-1/2" Round Bar

Per foot weight of ice:
 diameter (in): 1.5
Per foot weight of ice on object: 14 plf

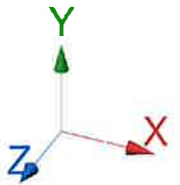
2" Round Bar

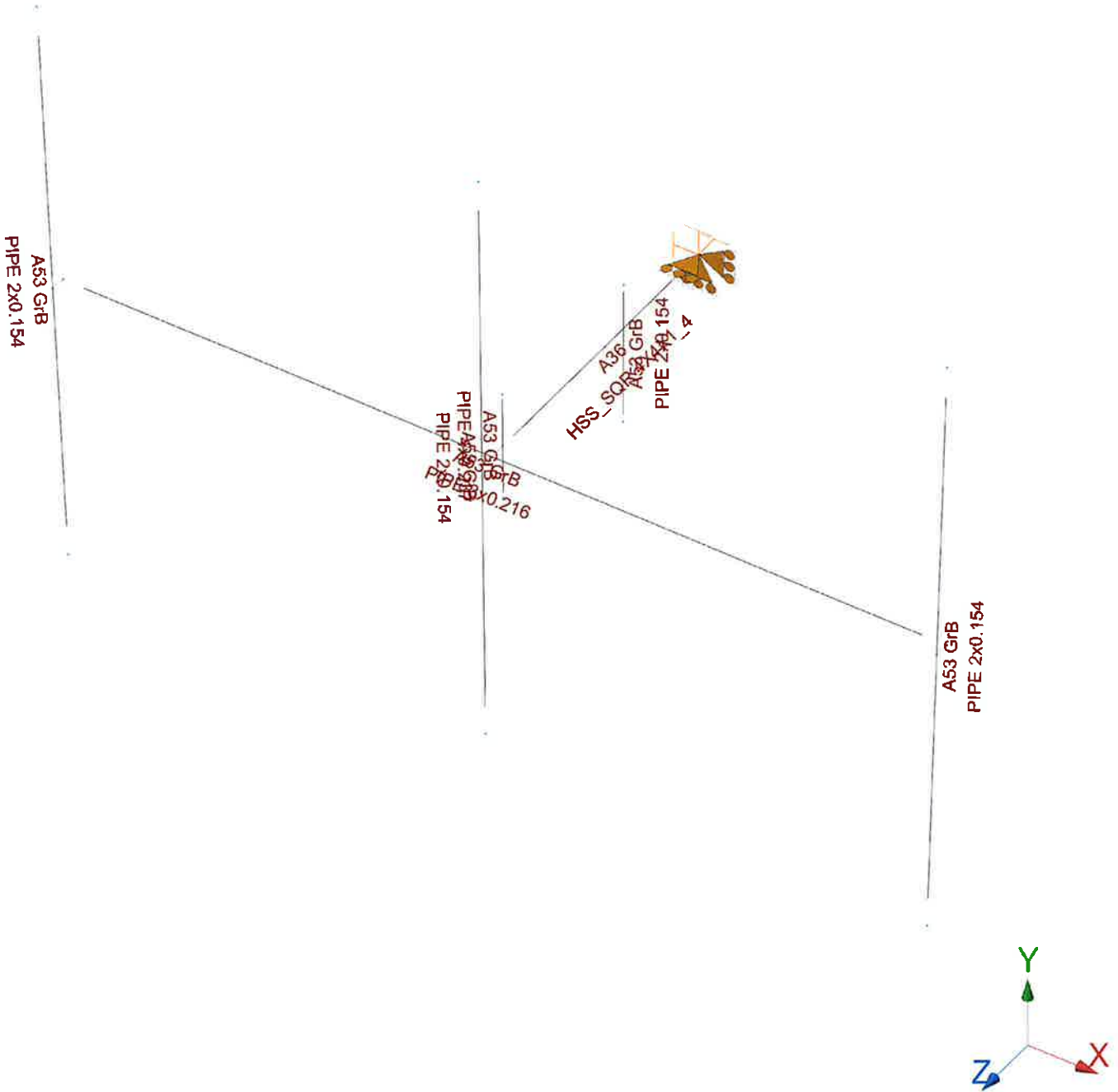
Per foot weight of ice:
 diameter (in): 2
Per foot weight of ice on object: 16 plf







HUDSON
Design Group LLC

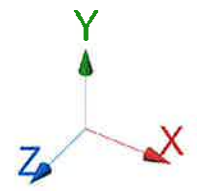
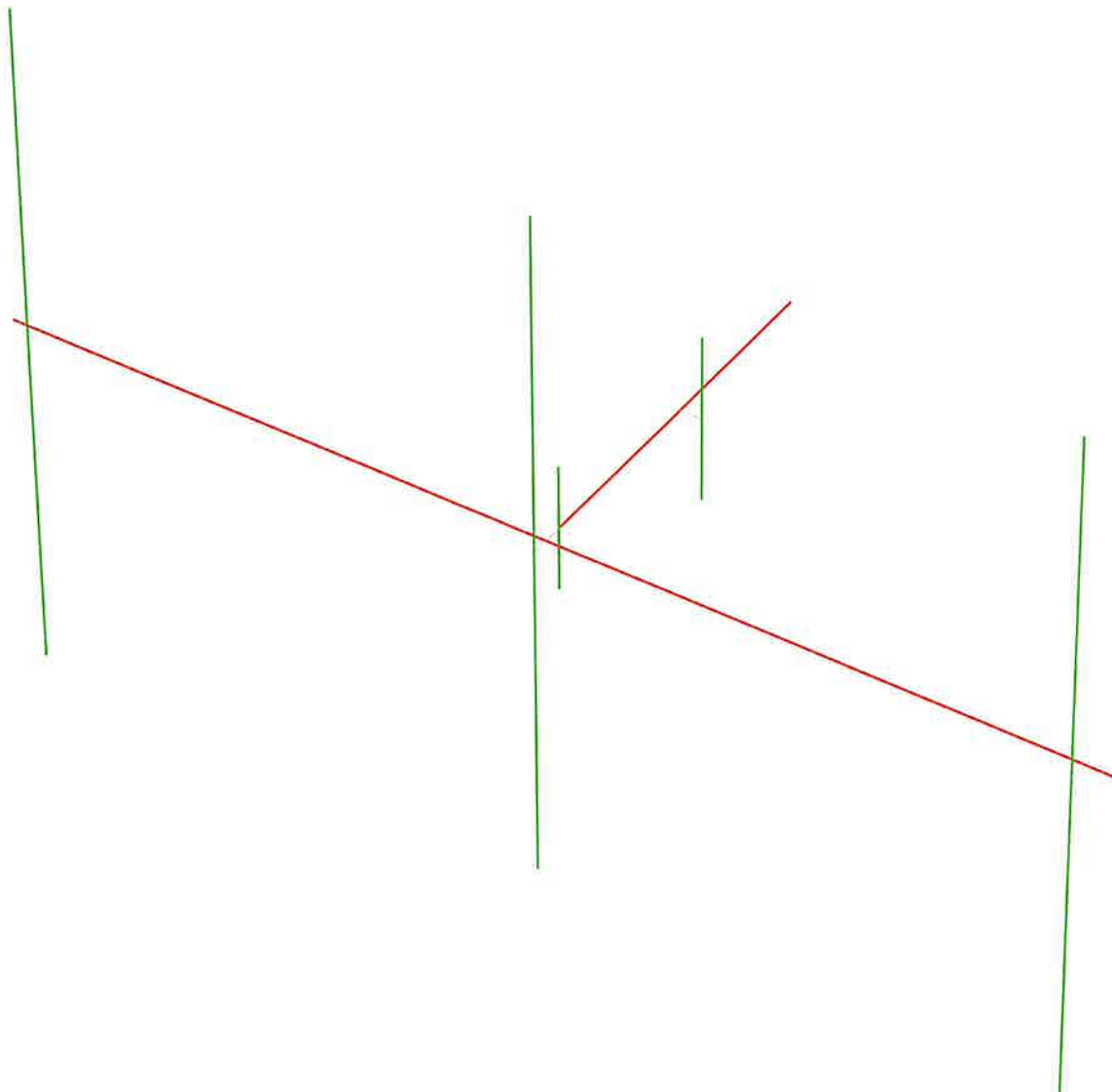
**Mount Calculations
(Existing Conditions)**

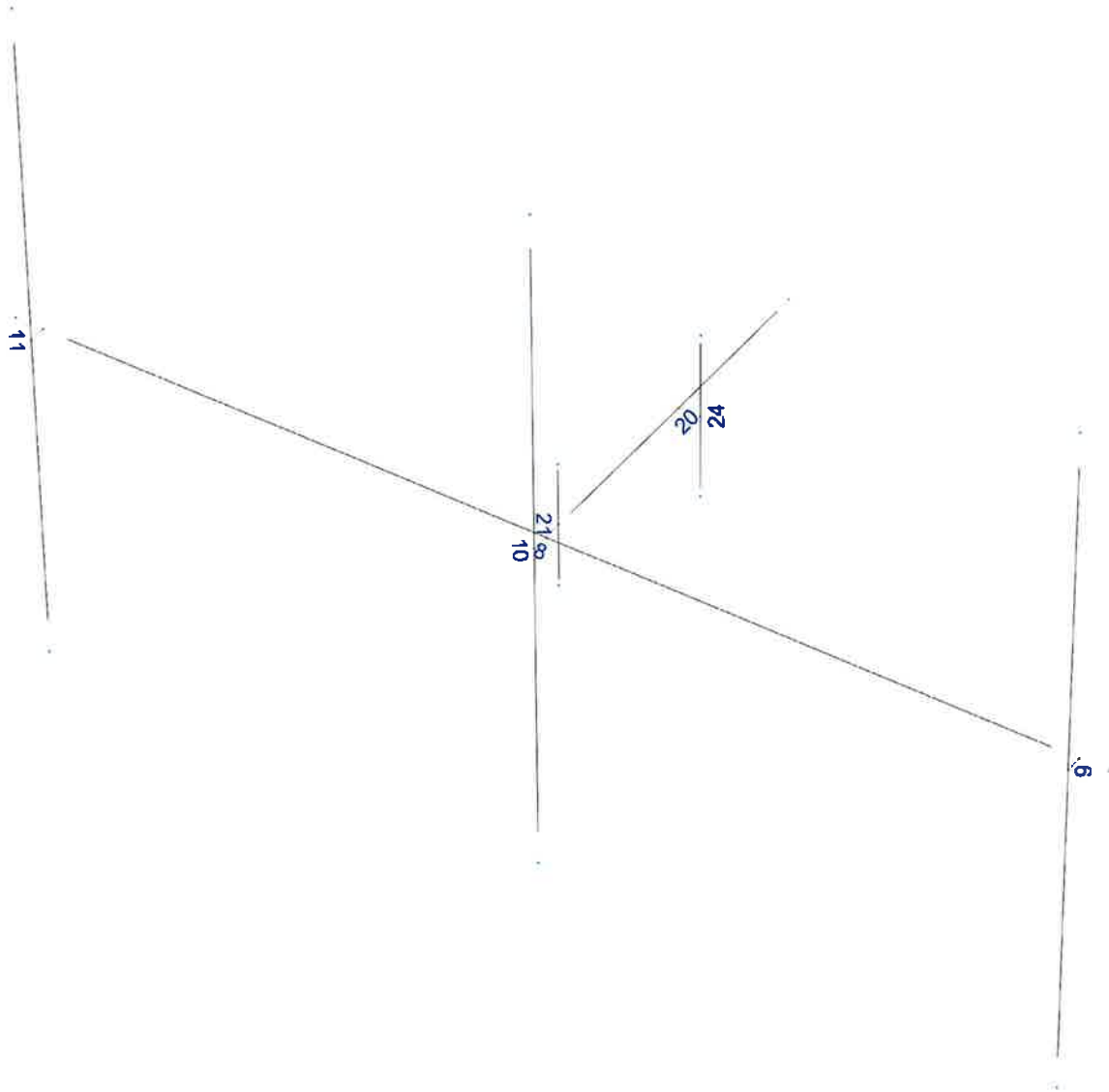




Design status

-  Not designed
-  Error on design
-  Design O.K.
-  With warnings





Load data

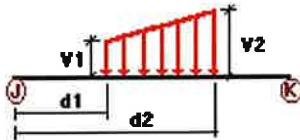
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

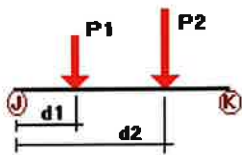
Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	250 lb Live Load Antenna 1	No	LL
LLa2	250 lb Live Load Antenna 2	No	LL
LLa3	250 lb Live Load Antenna 3	No	LL
LLa4	250 lb Live Load Antenna 4	No	LL

Distributed force on members



Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	8	Z	-0.021	0.00	0.00	No	0.00	No
	24	Z	-0.017	0.00	0.00	No	0.00	No
W30	8	Z	-0.021	0.00	0.00	No	0.00	No
	24	Z	-0.017	0.00	0.00	No	0.00	No
W60	8	X	-0.008	0.00	0.00	No	0.00	No
	9	X	-0.06	0.00	0.00	No	0.00	No
	10	X	-0.06	0.00	0.00	No	0.00	No
	11	X	-0.06	0.00	0.00	No	0.00	No
	20	X	-0.028	0.00	0.00	No	0.00	No
	21	X	-0.024	0.00	0.00	No	0.00	No
	24	X	-0.017	0.00	0.00	No	0.00	No
W90	8	X	-0.008	0.00	0.00	No	0.00	No
	9	X	-0.06	0.00	0.00	No	0.00	No
	10	X	-0.06	0.00	0.00	No	0.00	No
	11	X	-0.06	0.00	0.00	No	0.00	No
	20	X	-0.028	0.00	0.00	No	0.00	No
	21	X	-0.024	0.00	0.00	No	0.00	No
	24	X	-0.017	0.00	0.00	No	0.00	No
W120	8	X	-0.008	0.00	0.00	No	0.00	No
	9	X	-0.06	0.00	0.00	No	0.00	No
	10	X	-0.06	0.00	0.00	No	0.00	No
	11	X	-0.06	0.00	0.00	No	0.00	No
	20	X	-0.028	0.00	0.00	No	0.00	No
	21	X	-0.024	0.00	0.00	No	0.00	No
	24	X	-0.017	0.00	0.00	No	0.00	No
W150	8	Z	0.021	0.00	0.00	No	0.00	No
	24	Z	0.017	0.00	0.00	No	0.00	No
Di	8	X	-0.008	0.00	0.00	No	0.00	No
	9	X	-0.06	0.00	0.00	No	0.00	No
	10	X	-0.06	0.00	0.00	No	0.00	No
	11	X	-0.06	0.00	0.00	No	0.00	No
	20	X	-0.028	0.00	0.00	No	0.00	No
	21	X	-0.024	0.00	0.00	No	0.00	No
	24	X	-0.017	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	9	Y	-0.024	0.50	No
		Y	-0.024	5.00	No
		Y	-0.038	3.00	No
	10	Y	-0.056	0.50	No
		Y	-0.056	5.50	No
		Y	-0.072	3.00	No
	11	Y	-0.055	0.50	No
		Y	-0.055	6.00	No
		Y	-0.071	3.00	No
	24	Y	-0.033	1.00	No
Wo	9	z	-0.078	0.50	No

		z	-0.078	5.00	No
		z	-0.011	3.00	No
	10	z	-0.123	0.50	No
		z	-0.123	5.50	No
		z	-0.006	3.00	No
	11	z	-0.209	0.50	No
		z	-0.209	6.00	No
	24	z	-0.034	1.00	No
W30	9	2	-0.071	0.50	No
		2	-0.071	5.00	No
		2	-0.016	3.00	No
	10	2	-0.118	0.50	No
		2	-0.118	5.50	No
		2	-0.029	3.00	No
	11	2	-0.179	0.50	No
		2	-0.179	6.00	No
		2	-0.033	3.00	No
	24	2	-0.059	1.00	No
W60	9	2	-0.057	0.50	No
		2	-0.057	5.00	No
		2	-0.027	3.00	No
	10	2	-0.108	0.50	No
		2	-0.108	5.50	No
		2	-0.04	3.00	No
	11	2	-0.119	0.50	No
		2	-0.119	6.00	No
		2	-0.043	3.00	No
	24	2	-0.059	1.00	No
W90	9	x	-0.05	0.50	No
		x	-0.05	5.00	No
		x	-0.033	3.00	No
	10	x	-0.103	0.50	No
		x	-0.103	5.50	No
		x	-0.041	3.00	No
	11	x	-0.089	0.50	No
		x	-0.089	6.00	No
		x	-0.043	3.00	No
	24	x	-0.059	1.00	No
W120	9	3	0.057	0.50	No
		3	0.057	5.00	No
		3	0.027	3.00	No
	10	3	0.108	0.50	No
		3	0.108	5.50	No
		3	0.04	3.00	No
	11	3	0.119	0.50	No
		3	0.119	6.00	No
		3	0.043	3.00	No
	24	3	0.059	1.00	No
W150	9	3	0.071	0.50	No
		3	0.071	5.00	No
		3	0.016	3.00	No
	10	3	0.118	0.50	No
		3	0.118	5.50	No
		3	0.029	3.00	No
	11	3	0.179	0.50	No
		3	0.179	6.00	No
		3	0.033	3.00	No
	24	3	0.059	1.00	No
Di	9	Y	-0.111	0.50	No
		Y	-0.111	5.00	No

		Y	-0.049	3.00	No
	10	Y	-0.182	0.50	No
		Y	-0.182	5.50	No
		Y	-0.083	3.00	No
	11	Y	-0.263	0.50	No
		Y	-0.263	6.00	No
		Y	-0.095	3.00	No
WI0	24	Y	-0.083	1.00	No
	9	z	-0.036	0.50	No
		z	-0.036	5.00	No
		z	-0.012	3.00	No
	10	z	-0.052	0.50	No
		z	-0.052	5.50	No
		z	-0.012	3.00	No
	11	z	-0.076	0.50	No
		z	-0.076	6.00	No
		z	-0.009	3.00	No
WI30	24	z	-0.017	1.00	No
	9	2	-0.032	0.50	No
		2	-0.032	5.00	No
		2	-0.013	3.00	No
	10	2	-0.048	0.50	No
		2	-0.048	5.50	No
		2	-0.015	3.00	No
	11	2	-0.066	0.50	No
		2	-0.066	6.00	No
		2	-0.017	3.00	No
WI60	24	2	-0.03	1.00	No
	9	2	-0.028	0.50	No
		2	-0.028	5.00	No
		2	-0.017	3.00	No
	10	2	-0.045	0.50	No
		2	-0.045	5.50	No
		2	-0.022	3.00	No
	11	2	-0.049	0.50	No
		2	-0.049	6.00	No
		2	-0.023	3.00	No
WI90	24	2	-0.03	1.00	No
	9	x	-0.026	0.50	No
		x	-0.026	5.00	No
		x	-0.019	3.00	No
	10	x	-0.043	0.50	No
		x	-0.043	5.50	No
		x	-0.022	3.00	No
	11	x	-0.041	0.50	No
		x	-0.041	6.00	No
		x	-0.024	3.00	No
WI120	24	x	-0.03	1.00	No
	9	3	0.028	0.50	No
		3	0.028	5.00	No
		3	0.017	3.00	No
	10	3	0.045	0.50	No
		3	0.045	5.50	No
		3	0.022	3.00	No
	11	3	0.049	0.50	No
		3	0.049	6.00	No
		3	0.023	3.00	No
WI150	24	3	0.03	1.00	No
	9	3	0.032	0.50	No
		3	0.032	5.00	No

		3	0.013	3.00	No
	10	3	0.048	0.50	No
		3	0.048	5.50	No
		3	0.015	3.00	No
	11	3	0.066	0.50	No
		3	0.066	6.00	No
		3	0.017	3.00	No
	24	3	0.03	1.00	No
WLO	9	z	-0.008	0.50	No
		z	-0.008	5.00	No
		z	-0.002	3.00	No
	10	z	-0.012	0.50	No
		z	-0.012	5.50	No
		z	-0.001	3.00	No
	11	z	-0.021	0.50	No
		z	-0.021	6.00	No
	24	z	-0.004	1.00	No
WL30	9	2	-0.007	0.50	No
		2	-0.007	5.00	No
		2	-0.002	3.00	No
	10	2	-0.012	0.50	No
		2	-0.012	5.50	No
		2	-0.003	3.00	No
	11	2	-0.018	0.50	No
		2	-0.018	6.00	No
		2	-0.004	3.00	No
	24	2	-0.006	1.00	No
WL60	9	2	-0.006	0.50	No
		2	-0.006	5.00	No
		2	-0.003	3.00	No
	10	2	-0.011	0.50	No
		2	-0.011	5.50	No
		2	-0.004	3.00	No
	11	2	-0.012	0.50	No
		2	-0.012	6.00	No
		2	-0.005	3.00	No
	24	2	-0.006	1.00	No
WL90	9	x	-0.005	0.50	No
		x	-0.005	5.00	No
		x	-0.004	3.00	No
	10	x	-0.01	0.50	No
		x	-0.01	5.50	No
		x	-0.004	3.00	No
	11	x	-0.009	0.50	No
		x	-0.009	6.00	No
		x	-0.005	3.00	No
	24	x	-0.006	1.00	No
WL120	9	3	0.006	0.50	No
		3	0.006	5.00	No
		3	0.003	3.00	No
	10	3	0.011	0.50	No
		3	0.011	5.50	No
		3	0.004	3.00	No
	11	3	0.012	0.50	No
		3	0.012	6.00	No
		3	0.005	3.00	No
	24	3	0.006	1.00	No
WL150	9	3	0.007	0.50	No
		3	0.007	5.00	No
		3	0.002	3.00	No

	10	3	0.012	0.50	No
		3	0.012	5.50	No
		3	0.003	3.00	No
	11	3	0.018	0.50	No
		3	0.018	6.00	No
		3	0.004	3.00	No
	24	3	0.006	1.00	No
LL1	8	Y	-0.25	6.25	No
LL2	11	Y	-0.25	4.00	No
LL3	9	Y	-0.25	4.00	No
LLa1	9	Y	-0.25	4.00	No
LLa2	10	Y	-0.25	4.00	No
LLa3	11	Y	-0.25	4.00	No

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	250 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	250 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	250 lb Live Load Antenna 3	No	0.00	0.00	0.00
LLa4	250 lb Live Load Antenna 4	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
W0	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00
LLa4	0.00	0.00	0.00

Steel Code Check

Report: Summary - Group by member**Load conditions to be included in design :**

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+W10
LC26=1.2D+Di+W130
LC27=1.2D+Di+W160
LC28=1.2D+Di+W190
LC29=1.2D+Di+W120
LC30=1.2D+Di+W1150
LC31=1.2D+Di-W10
LC32=1.2D+Di-W130
LC33=1.2D+Di-W160
LC34=1.2D+Di-W190
LC35=1.2D+Di-W1120
LC36=1.2D+Di-W1150
LC38=1.2D+1.5LL1
LC39=1.2D+1.5LL2
LC40=1.2D+1.5LL3
LC41=1.2D+W10+1.5LLa1
LC42=1.2D+W130+1.5LLa1
LC43=1.2D+W160+1.5LLa1
LC44=1.2D+W190+1.5LLa1
LC45=1.2D+W120+1.5LLa1
LC46=1.2D+W1150+1.5LLa1
LC47=1.2D-W10+1.5LLa1
LC48=1.2D-W130+1.5LLa1
LC49=1.2D-W160+1.5LLa1
LC50=1.2D-W190+1.5LLa1
LC51=1.2D-W120+1.5LLa1
LC52=1.2D-W1150+1.5LLa1
LC53=1.2D+W10+1.5LLa2
LC54=1.2D+W130+1.5LLa2

LC55=1.2D+WL60+1.5LLa2
 LC56=1.2D+WL90+1.5LLa2
 LC57=1.2D+WL120+1.5LLa2
 LC58=1.2D+WL150+1.5LLa2
 LC59=1.2D-WL0+1.5LLa2
 LC60=1.2D-WL30+1.5LLa2
 LC61=1.2D-WL60+1.5LLa2
 LC62=1.2D-WL90+1.5LLa2
 LC63=1.2D-WL120+1.5LLa2
 LC64=1.2D-WL150+1.5LLa2
 LC65=1.2D+WL0+1.5LLa3
 LC66=1.2D+WL30+1.5LLa3
 LC67=1.2D+WL60+1.5LLa3
 LC68=1.2D+WL90+1.5LLa3
 LC69=1.2D+WL120+1.5LLa3
 LC70=1.2D+WL150+1.5LLa3
 LC71=1.2D-WL0+1.5LLa3
 LC72=1.2D-WL30+1.5LLa3
 LC73=1.2D-WL60+1.5LLa3
 LC74=1.2D-WL90+1.5LLa3
 LC75=1.2D-WL120+1.5LLa3
 LC76=1.2D-WL150+1.5LLa3
 LC77=1.2D+WL0+1.5LLa4
 LC78=1.2D+WL30+1.5LLa4
 LC79=1.2D+WL60+1.5LLa4
 LC80=1.2D+WL90+1.5LLa4
 LC81=1.2D+WL120+1.5LLa4
 LC82=1.2D+WL150+1.5LLa4
 LC83=1.2D-WL0+1.5LLa4
 LC84=1.2D-WL30+1.5LLa4
 LC85=1.2D-WL60+1.5LLa4
 LC86=1.2D-WL90+1.5LLa4
 LC87=1.2D-WL120+1.5LLa4
 LC88=1.2D-WL150+1.5LLa4

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	HSS_SQR 4X4X1_4	20	LC28 at 0.00%	2.57	N.G.	Eq. H3-6
	PIPE 2x0.154	9	LC10 at 46.88%	0.70	OK	
		10	LC4 at 46.88%	0.90	OK	Eq. H1-1b
		11	LC4 at 46.88%	0.85	OK	Eq. H1-1b
		24	LC28 at 50.00%	0.01	OK	Eq. H1-1b
	PIPE 3x0.216	8	LC25 at 48.44%	1.62	N.G.	Eq. H1-1b
	PIPE 4x0.237	21	LC32 at 50.00%	0.00	OK	Eq. H1-1b

Geometry data

GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	0.00	0.00	0
6	-6.25	0.00	4.325	0
13	0.00	4.00	4.525	0
16	0.00	-4.00	4.525	0
21	-5.92	-4.00	4.525	0
22	5.92	-4.00	4.525	0
23	-5.92	4.00	4.525	0
24	5.92	4.00	4.525	0
31	0.00	-0.75	4.1042	0
32	0.00	0.75	4.1042	0
35	0.25	1.00	2.00	0
36	0.25	-1.00	2.00	0
5	6.25	0.00	4.325	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
1	1	1	1	1	1	1

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
8	6	5		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
9	24	22		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
10	13	16		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
11	23	21		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
20	1	2		HSS_SQR 4X4X1_4	A36	0.00	0.00	0.00
21	31	32		PIPE 4x0.237	A53 GrB	0.00	0.00	0.00
24	35	36		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00

Orientation of local axes

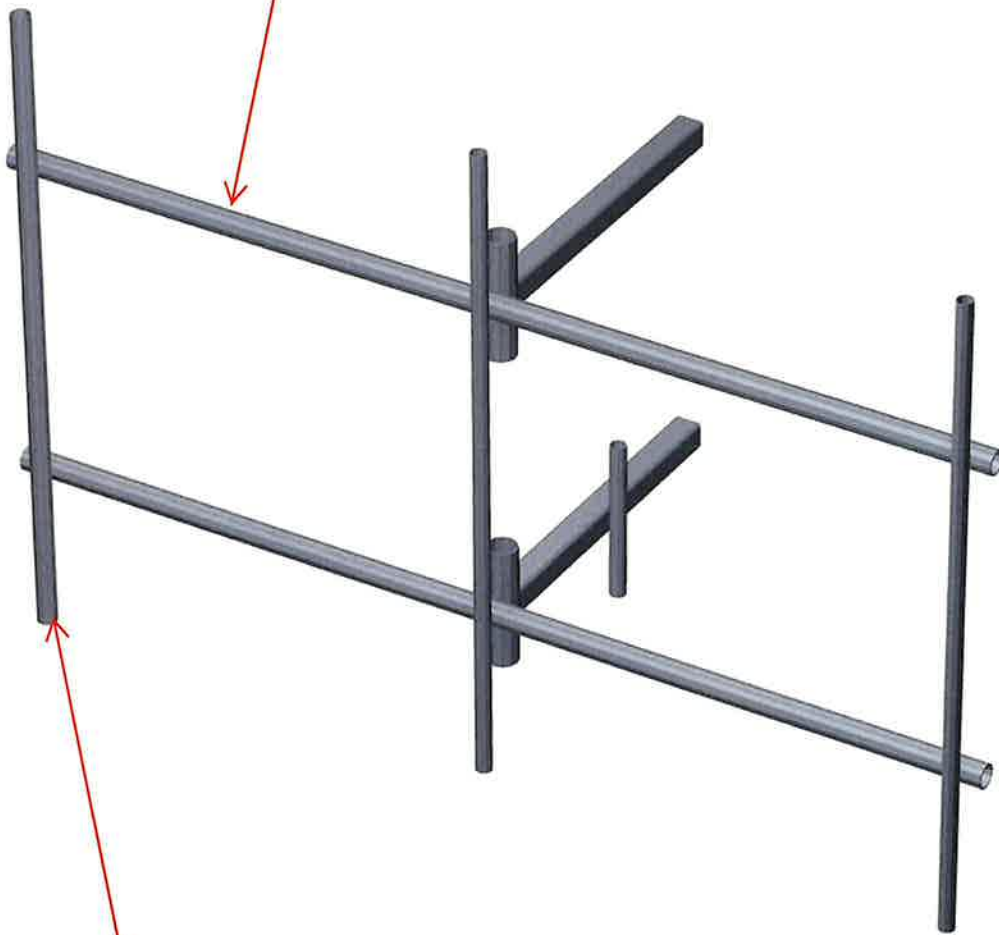
Member	Rotation [Deg]	Axes23	NX	NY	NZ
9	45.00	0	0.00	0.00	0.00
10	45.00	0	0.00	0.00	0.00
11	45.00	0	0.00	0.00	0.00



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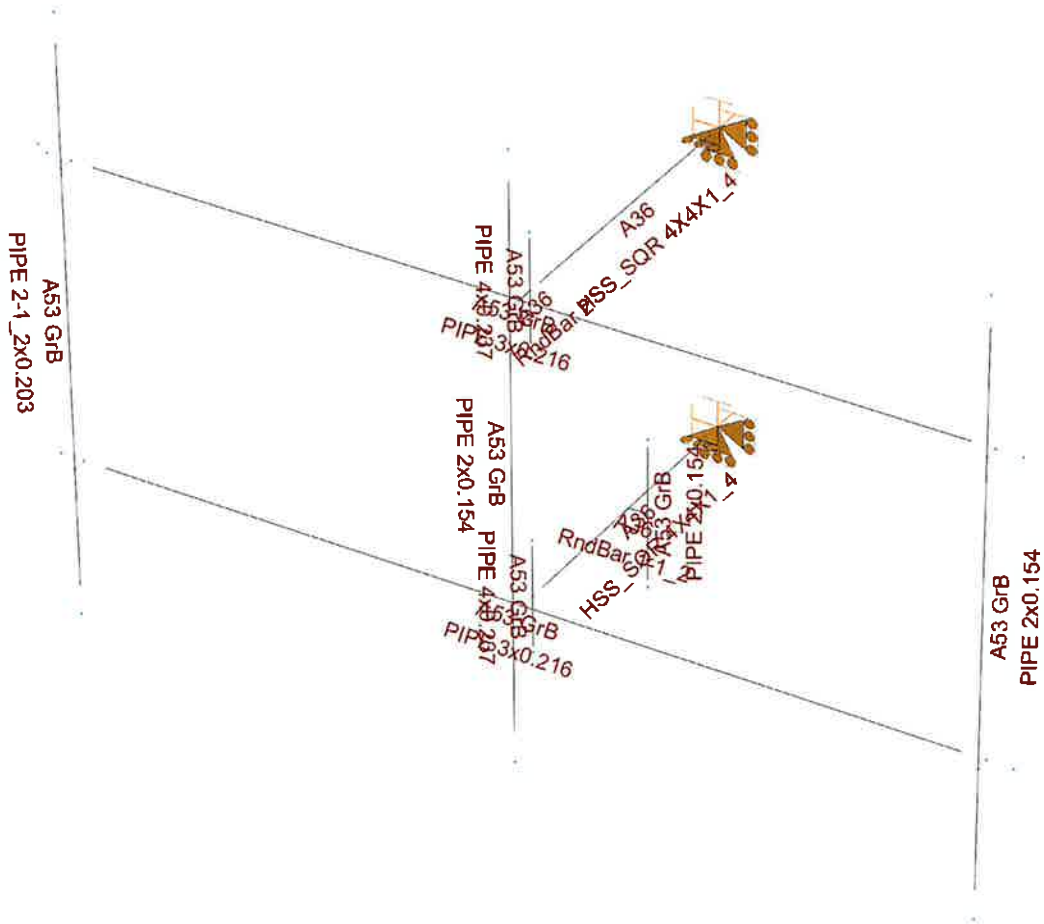
**Mount Calculations
(Modified Conditions)**

Install new T-Frame, SitePro 1
P/N RMV12-NP (or approved
equal) (typ. of 1 per sector, total
of 3).







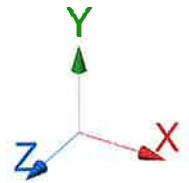
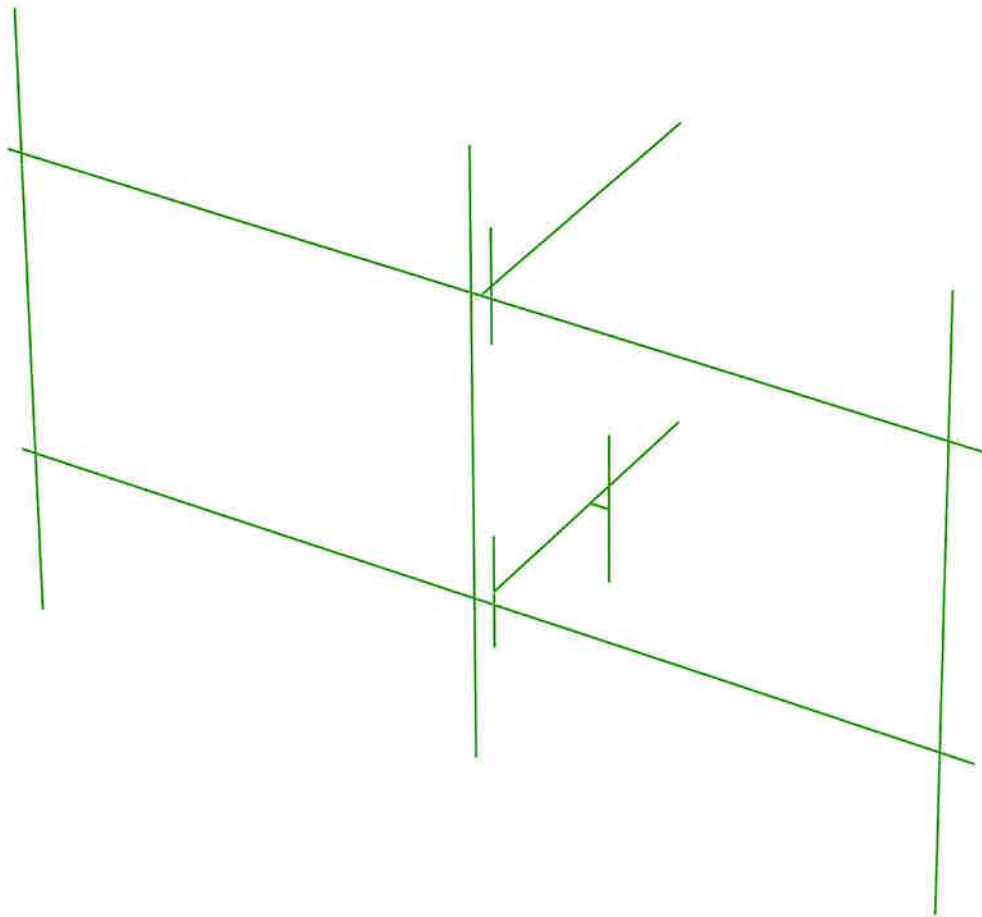
Remove existing pipe mast and
replace with 2-1/2" (2.88" O.D.) pipe
mast secured to mount face (typ. of 1
per sector, total of 3).





Design status

-  Not designed
-  Error on design
-  Design O.K.
-  With warnings



Load data

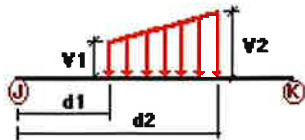
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No <td WIND	
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	250 lb Live Load Antenna 1	No	LL
LLa2	250 lb Live Load Antenna 2	No	LL
LLa3	250 lb Live Load Antenna 3	No	LL
LLa4	250 lb Live Load Antenna 4	No	LL

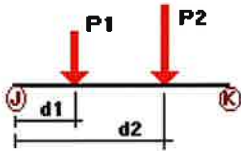
Distributed force on members



Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	8	Z	-0.021	0.00	0.00	No	0.00	No
	20	Z	-0.028	0.00	0.00	No	0.00	No
	21	Z	-0.024	0.00	0.00	No	0.00	No
	24	Z	-0.017	0.00	0.00	No	0.00	No
	25	Z	-0.021	0.00	0.00	No	0.00	No
	28	Z	-0.028	0.00	0.00	No	0.00	No
	29	Z	-0.024	0.00	0.00	No	0.00	No
W30	8	Z	-0.021	0.00	0.00	No	0.00	No
	20	Z	-0.028	0.00	0.00	No	0.00	No
	21	Z	-0.024	0.00	0.00	No	0.00	No
	24	Z	-0.017	0.00	0.00	No	0.00	No
	25	Z	-0.021	0.00	0.00	No	0.00	No
	28	Z	-0.028	0.00	0.00	No	0.00	No
	29	Z	-0.024	0.00	0.00	No	0.00	No
W60	8	X	-0.021	0.00	0.00	No	0.00	No
	9	X	-0.017	0.00	0.00	No	0.00	No
	10	X	-0.017	0.00	0.00	No	0.00	No
	11	X	-0.019	0.00	0.00	No	0.00	No
	20	X	-0.028	0.00	0.00	No	0.00	No
	21	X	-0.024	0.00	0.00	No	0.00	No
	23	X	-0.014	0.00	0.00	No	0.00	No
	24	X	-0.017	0.00	0.00	No	0.00	No
	25	X	-0.021	0.00	0.00	No	0.00	No
	28	X	-0.028	0.00	0.00	No	0.00	No
	29	X	-0.024	0.00	0.00	No	0.00	No
	30	X	-0.016	0.00	0.00	No	0.00	No
	W90	8	X	-0.021	0.00	0.00	No	0.00
9		X	-0.017	0.00	0.00	No	0.00	No
10		X	-0.017	0.00	0.00	No	0.00	No
11		X	-0.019	0.00	0.00	No	0.00	No
20		X	-0.028	0.00	0.00	No	0.00	No
21		X	-0.024	0.00	0.00	No	0.00	No
23		X	-0.014	0.00	0.00	No	0.00	No
24		X	-0.017	0.00	0.00	No	0.00	No
25		X	-0.021	0.00	0.00	No	0.00	No
28		X	-0.028	0.00	0.00	No	0.00	No
29		X	-0.024	0.00	0.00	No	0.00	No
30		X	-0.016	0.00	0.00	No	0.00	No
W120		8	X	-0.021	0.00	0.00	No	0.00
	9	X	-0.017	0.00	0.00	No	0.00	No
	10	X	-0.017	0.00	0.00	No	0.00	No
	11	X	-0.019	0.00	0.00	No	0.00	No
	20	X	-0.028	0.00	0.00	No	0.00	No
	21	X	-0.024	0.00	0.00	No	0.00	No
	23	X	-0.014	0.00	0.00	No	0.00	No
	24	X	-0.017	0.00	0.00	No	0.00	No
	25	X	-0.021	0.00	0.00	No	0.00	No
	28	X	-0.028	0.00	0.00	No	0.00	No
	29	X	-0.024	0.00	0.00	No	0.00	No
	30	X	-0.016	0.00	0.00	No	0.00	No
	W150	8	Z	0.021	0.00	0.00	No	0.00
20		Z	0.028	0.00	0.00	No	0.00	No
21		Z	0.024	0.00	0.00	No	0.00	No
24		Z	0.017	0.00	0.00	No	0.00	No
25		Z	0.021	0.00	0.00	No	0.00	No
28		Z	0.028	0.00	0.00	No	0.00	No
29		Z	0.024	0.00	0.00	No	0.00	No
Di	8	X	-0.021	0.00	0.00	No	0.00	No
	9	X	-0.017	0.00	0.00	No	0.00	No
	10	X	-0.017	0.00	0.00	No	0.00	No

11	X	-0.019	0.00	0.00	No	0.00	No
20	X	-0.028	0.00	0.00	No	0.00	No
21	X	-0.024	0.00	0.00	No	0.00	No
23	X	-0.014	0.00	0.00	No	0.00	No
24	X	-0.017	0.00	0.00	No	0.00	No
25	X	-0.021	0.00	0.00	No	0.00	No
28	X	-0.028	0.00	0.00	No	0.00	No
29	X	-0.024	0.00	0.00	No	0.00	No
30	X	-0.016	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%	
D	9	Y	-0.024	0.50	No	
		Y	-0.024	5.00	No	
		Y	-0.038	3.00	No	
	10	Y	-0.056	0.50	No	
		Y	-0.056	5.50	No	
		Y	-0.072	3.00	No	
	11	Y	-0.055	0.50	No	
		Y	-0.055	6.00	No	
		Y	-0.071	3.00	No	
	24	Y	-0.033	1.00	No	
	Wo	9	z	-0.078	0.50	No
			z	-0.078	5.00	No
z			-0.011	3.00	No	
10		z	-0.123	0.50	No	
		z	-0.123	5.50	No	
		z	-0.006	3.00	No	
11		z	-0.209	0.50	No	
		z	-0.209	6.00	No	
		z	-0.034	3.00	No	
24		z	-0.034	1.00	No	
W30		9	2	-0.071	0.50	No
			2	-0.071	5.00	No
	2		-0.016	3.00	No	
	10	2	-0.118	0.50	No	
		2	-0.118	5.50	No	
		2	-0.029	3.00	No	
	11	2	-0.179	0.50	No	
		2	-0.179	6.00	No	
		2	-0.033	3.00	No	
	24	2	-0.059	1.00	No	
	W60	9	2	-0.057	0.50	No
			2	-0.057	5.00	No
2			-0.027	3.00	No	
10		2	-0.108	0.50	No	
		2	-0.108	5.50	No	
		2	-0.04	3.00	No	
11		2	-0.119	0.50	No	

		2	-0.119	6.00	No	
		2	-0.043	3.00	No	
W90	24	2	-0.059	1.00	No	
	9	x	-0.05	0.50	No	
		x	-0.05	5.00	No	
		x	-0.033	3.00	No	
	10	x	-0.103	0.50	No	
		x	-0.103	5.50	No	
x		-0.041	3.00	No		
11	x	-0.089	0.50	No		
	x	-0.089	6.00	No		
	x	-0.043	3.00	No		
W120	24	x	-0.059	1.00	No	
	9	3	0.057	0.50	No	
		3	0.057	5.00	No	
		3	0.027	3.00	No	
	10	3	0.108	0.50	No	
		3	0.108	5.50	No	
		3	0.04	3.00	No	
	11	3	0.119	0.50	No	
		3	0.119	6.00	No	
		3	0.043	3.00	No	
	W150	24	3	0.059	1.00	No
		9	3	0.071	0.50	No
3			0.071	5.00	No	
3			0.016	3.00	No	
10		3	0.118	0.50	No	
		3	0.118	5.50	No	
		3	0.029	3.00	No	
11		3	0.179	0.50	No	
		3	0.179	6.00	No	
		3	0.033	3.00	No	
DI		24	3	0.059	1.00	No
		9	Y	-0.111	0.50	No
	Y		-0.111	5.00	No	
	Y		-0.049	3.00	No	
	10	Y	-0.182	0.50	No	
		Y	-0.182	5.50	No	
Y		-0.083	3.00	No		
11	Y	-0.263	0.50	No		
	Y	-0.263	6.00	No		
	Y	-0.095	3.00	No		
	24	Y	-0.083	1.00	No	
		9	z	-0.036	0.50	No
			z	-0.036	5.00	No
z	-0.012		3.00	No		
10	z	-0.052	0.50	No		
	z	-0.052	5.50	No		
	z	-0.012	3.00	No		
11	z	-0.076	0.50	No		
	z	-0.076	6.00	No		
	z	-0.009	3.00	No		
	24	z	-0.017	1.00	No	
		9	2	-0.032	0.50	No
			2	-0.032	5.00	No
2	-0.013		3.00	No		
10	2	-0.048	0.50	No		
	2	-0.048	5.50	No		
	2	-0.015	3.00	No		
	11	2	-0.066	0.50	No	

		2	-0.066	6.00	No	
		2	-0.017	3.00	No	
WI60	24	2	-0.03	1.00	No	
	9	2	-0.028	0.50	No	
		2	-0.028	5.00	No	
	10	2	-0.017	3.00	No	
		2	-0.045	0.50	No	
		2	-0.045	5.50	No	
11	2	-0.022	3.00	No		
	2	-0.049	0.50	No		
	2	-0.049	6.00	No		
	2	-0.023	3.00	No		
	24	2	-0.03	1.00	No	
		9	x	-0.026	0.50	No
WI90	9	x	-0.026	5.00	No	
		x	-0.019	3.00	No	
		x	-0.043	0.50	No	
	10	x	-0.043	5.50	No	
		x	-0.022	3.00	No	
		x	-0.041	0.50	No	
11	x	-0.041	6.00	No		
	x	-0.024	3.00	No		
	24	x	-0.03	1.00	No	
		9	3	0.028	0.50	No
	WI120	9	3	0.028	5.00	No
			3	0.017	3.00	No
3			0.045	0.50	No	
10		3	0.045	5.50	No	
		3	0.022	3.00	No	
		3	0.049	0.50	No	
11	3	0.049	6.00	No		
	3	0.023	3.00	No		
	24	3	0.03	1.00	No	
		9	3	0.032	0.50	No
	WI150	9	3	0.032	5.00	No
			3	0.013	3.00	No
3			0.048	0.50	No	
10		3	0.048	5.50	No	
		3	0.015	3.00	No	
		3	0.066	0.50	No	
11	3	0.066	6.00	No		
	3	0.017	3.00	No		
	24	3	0.03	1.00	No	
		9	z	-0.008	0.50	No
	WL0	9	z	-0.008	5.00	No
			z	-0.002	3.00	No
z			-0.012	0.50	No	
10		z	-0.012	5.50	No	
		z	-0.001	3.00	No	
		z	-0.021	0.50	No	
11	z	-0.021	6.00	No		
	24	z	-0.004	1.00	No	
		9	2	-0.007	0.50	No
	WL30	9	2	-0.007	5.00	No
			2	-0.002	3.00	No
			2	-0.012	0.50	No
10		2	-0.012	5.50	No	
		2	-0.003	3.00	No	
		2	-0.018	0.50	No	
11	2	-0.018	6.00	No		
	2	-0.018	6.00	No		

		2	-0.004	3.00	No
	24	2	-0.006	1.00	No
WL60	9	2	-0.006	0.50	No
		2	-0.006	5.00	No
		2	-0.003	3.00	No
	10	2	-0.011	0.50	No
		2	-0.011	5.50	No
		2	-0.004	3.00	No
	11	2	-0.012	0.50	No
		2	-0.012	6.00	No
		2	-0.005	3.00	No
	24	2	-0.006	1.00	No
WL90	9	x	-0.005	0.50	No
		x	-0.005	5.00	No
		x	-0.004	3.00	No
	10	x	-0.01	0.50	No
		x	-0.01	5.50	No
		x	-0.004	3.00	No
	11	x	-0.009	0.50	No
		x	-0.009	6.00	No
		x	-0.005	3.00	No
	24	x	-0.006	1.00	No
WL120	9	3	0.006	0.50	No
		3	0.006	5.00	No
		3	0.003	3.00	No
	10	3	0.011	0.50	No
		3	0.011	5.50	No
		3	0.004	3.00	No
	11	3	0.012	0.50	No
		3	0.012	6.00	No
		3	0.005	3.00	No
	24	3	0.006	1.00	No
WL150	9	3	0.007	0.50	No
		3	0.007	5.00	No
		3	0.002	3.00	No
	10	3	0.012	0.50	No
		3	0.012	5.50	No
		3	0.003	3.00	No
	11	3	0.018	0.50	No
		3	0.018	6.00	No
		3	0.004	3.00	No
	24	3	0.006	1.00	No
LL1	8	Y	-0.25	6.25	No
	25	Y	-0.25	6.25	No
LL2	11	Y	-0.25	4.00	No
LL3	9	Y	-0.25	4.00	No
LLa1	9	Y	-0.25	4.00	No
LLa2	10	Y	-0.25	4.00	No
LLa3	11	Y	-0.25	4.00	No

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	250 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	250 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	250 lb Live Load Antenna 3	No	0.00	0.00	0.00
LLa4	250 lb Live Load Antenna 4	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00

LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00
LLa4	0.00	0.00	0.00

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+W10
LC26=1.2D+Di+W130
LC27=1.2D+Di+W160
LC28=1.2D+Di+W190
LC29=1.2D+Di+W120
LC30=1.2D+Di+W1150
LC31=1.2D+Di-W10
LC32=1.2D+Di-W130
LC33=1.2D+Di-W160
LC34=1.2D+Di-W190
LC35=1.2D+Di-W120
LC36=1.2D+Di-W1150
LC38=1.2D+1.5LL1
LC39=1.2D+1.5LL2
LC40=1.2D+1.5LL3
LC41=1.2D+W10+1.5LLa1
LC42=1.2D+W130+1.5LLa1
LC43=1.2D+W160+1.5LLa1
LC44=1.2D+W190+1.5LLa1
LC45=1.2D+W120+1.5LLa1
LC46=1.2D+W1150+1.5LLa1
LC47=1.2D-W10+1.5LLa1
LC48=1.2D-W130+1.5LLa1
LC49=1.2D-W160+1.5LLa1
LC50=1.2D-W190+1.5LLa1
LC51=1.2D-W120+1.5LLa1
LC52=1.2D-W1150+1.5LLa1
LC53=1.2D+W10+1.5LLa2
LC54=1.2D+W130+1.5LLa2

LC55=1.2D+WL60+1.5LLa2
 LC56=1.2D+WL90+1.5LLa2
 LC57=1.2D+WL120+1.5LLa2
 LC58=1.2D+WL150+1.5LLa2
 LC59=1.2D-WL0+1.5LLa2
 LC60=1.2D-WL30+1.5LLa2
 LC61=1.2D-WL60+1.5LLa2
 LC62=1.2D-WL90+1.5LLa2
 LC63=1.2D-WL120+1.5LLa2
 LC64=1.2D-WL150+1.5LLa2
 LC65=1.2D+WL0+1.5LLa3
 LC66=1.2D+WL30+1.5LLa3
 LC67=1.2D+WL60+1.5LLa3
 LC68=1.2D+WL90+1.5LLa3
 LC69=1.2D+WL120+1.5LLa3
 LC70=1.2D+WL150+1.5LLa3
 LC71=1.2D-WL0+1.5LLa3
 LC72=1.2D-WL30+1.5LLa3
 LC73=1.2D-WL60+1.5LLa3
 LC74=1.2D-WL90+1.5LLa3
 LC75=1.2D-WL120+1.5LLa3
 LC76=1.2D-WL150+1.5LLa3
 LC77=1.2D+WL0+1.5LLa4
 LC78=1.2D+WL30+1.5LLa4
 LC79=1.2D+WL60+1.5LLa4
 LC80=1.2D+WL90+1.5LLa4
 LC81=1.2D+WL120+1.5LLa4
 LC82=1.2D+WL150+1.5LLa4
 LC83=1.2D-WL0+1.5LLa4
 LC84=1.2D-WL30+1.5LLa4
 LC85=1.2D-WL60+1.5LLa4
 LC86=1.2D-WL90+1.5LLa4
 LC87=1.2D-WL120+1.5LLa4
 LC88=1.2D-WL150+1.5LLa4

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
HSS_SQR 4X4X1_4		20	LC32 at 0.00%	0.62	OK	Eq. H1-1b
		28	LC28 at 0.00%	0.96	OK	Eq. H1-1b
PIPE 2-1_2x0.203		11	LC30 at 25.00%	0.68	OK	Eq. H1-1b
PIPE 2x0.154		9	LC50 at 25.00%	0.55	OK	Eq. H1-1b
		10	LC31 at 25.00%	0.65	OK	Eq. H1-1b
		24	LC3 at 50.00%	0.01	OK	Eq. H1-1b
PIPE 3x0.216		8	LC25 at 48.44%	0.68	OK	Eq. H1-1b
		25	LC31 at 48.44%	0.70	OK	Eq. H1-1b
PIPE 4x0.237		21	LC4 at 50.00%	0.00	OK	Eq. H1-1b
		29	LC28 at 50.00%	0.00	OK	Eq. H1-1b

Geometry data

GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	-2.00	0.00	0
5	6.25	-2.00	4.325	0
6	-6.25	-2.00	4.325	0
13	0.00	4.00	4.525	0
16	0.00	-4.00	4.525	0
21	-5.92	-4.00	4.525	0
22	5.92	-4.00	4.525	0
23	-5.92	4.00	4.525	0
24	5.92	4.00	4.525	0
31	0.00	-2.75	4.1042	0
32	0.00	-1.25	4.1042	0
33	0.00	-2.00	2.00	0
34	0.25	-2.00	2.00	0
35	0.25	-1.00	2.00	0
36	0.25	-3.00	2.00	0
37	0.00	2.00	0.00	0
40	6.25	2.00	4.325	0
44	0.00	1.25	4.1042	0
45	0.00	2.75	4.1042	0
50	-6.25	2.00	4.325	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
1	1	1	1	1	1	1
37	1	1	1	1	1	1

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
8	6	5		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
9	24	22		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
10	13	16		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
11	23	21		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
20	1	2		HSS_SQR 4X4X1_4	A36	0.00	0.00	0.00
21	31	32		PIPE 4x0.237	A53 GrB	0.00	0.00	0.00
23	33	34		RndBar 1-1_2	A36	0.00	0.00	0.00
24	35	36		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
25	50	40		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
28	37	38		HSS_SQR 4X4X1_4	A36	0.00	0.00	0.00
29	44	45		PIPE 4x0.237	A53 GrB	0.00	0.00	0.00
30	38	39		RndBar 2	A36	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axis23	NX	NY	NZ
9	45.00	0	0.00	0.00	0.00
10	45.00	0	0.00	0.00	0.00
11	45.00	0	0.00	0.00	0.00

STRUCTURAL NOTES:

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
- STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
- INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
- UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-70 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
- EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
- WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
- ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

SPECIAL INSPECTION CHECKLIST	
BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
N/A	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
N/A	PACKING SLIPS ³
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS ⁴
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION ⁵
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS ⁶
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTES:

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4.
- AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

NOTES:

- ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"Ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
- VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
- CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
- EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

750 WEST CENTER STREET., SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CT5416
SITE NAME: BEACON FALLS NE

10 TERESA ROAD
BEACON FALLS, CT 06403
NEW HAVEN COUNTY

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

1	04/19/19	ISSUED FOR CONSTRUCTION	ET	AT	DJC
A	01/28/19	ISSUED FOR REVIEW	GA	AT	DJC
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: GA		



AT&T

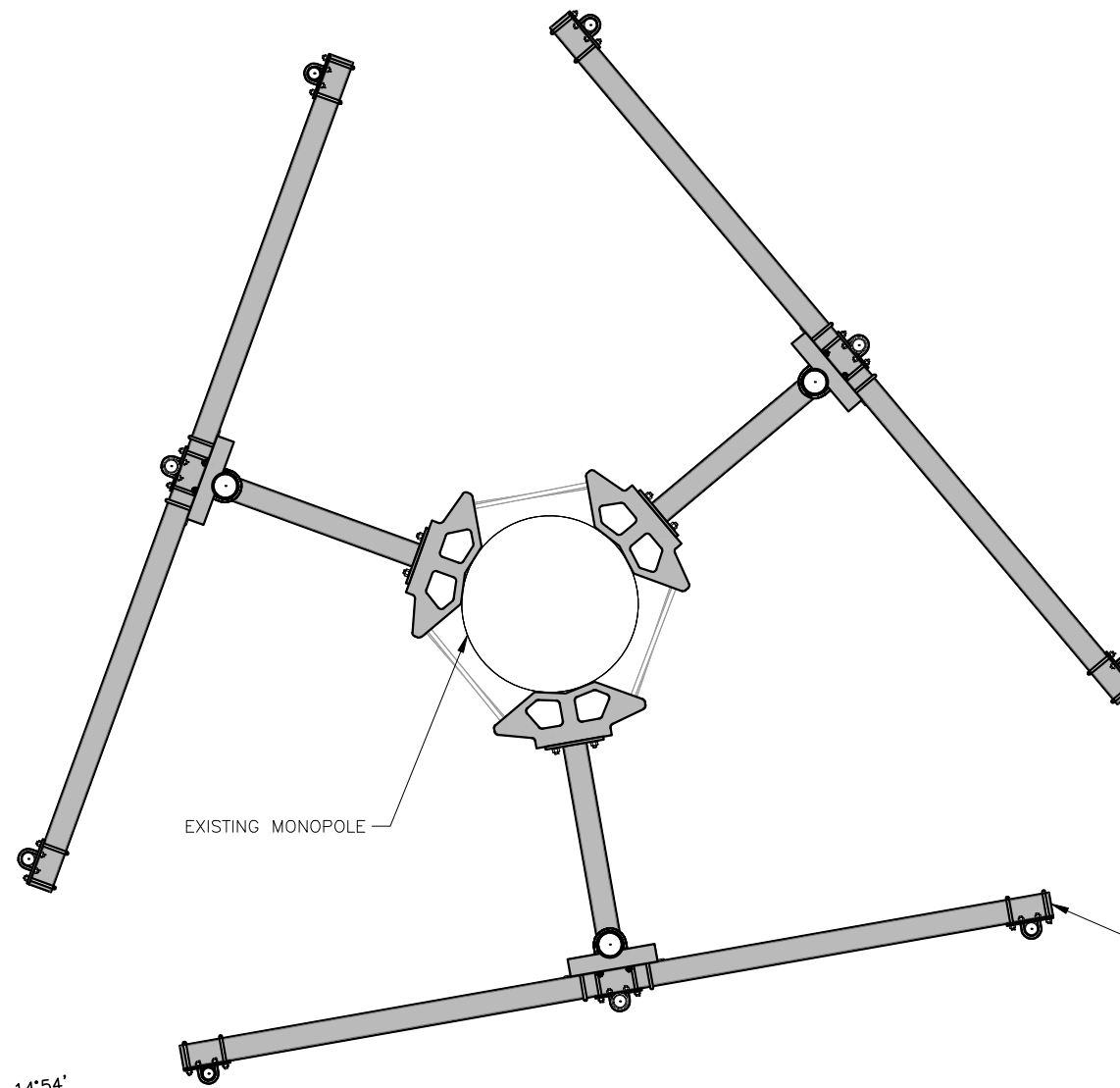
STRUCTURAL NOTES
(LTE 4C-5C)

SITE NUMBER	DRAWING NUMBER	REV
CT5416	SN-1	1

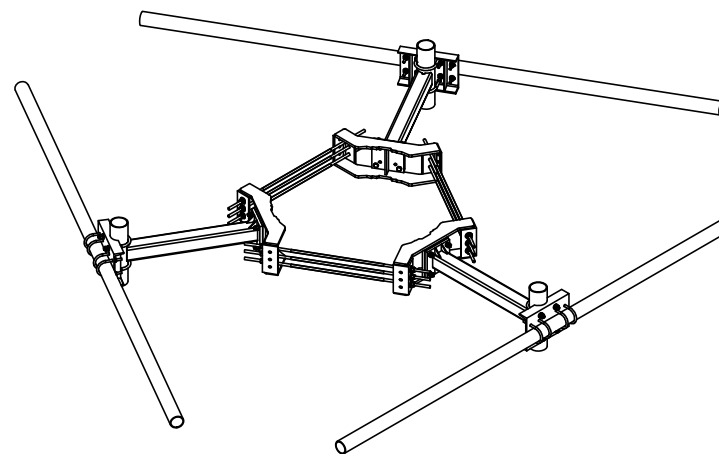
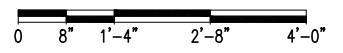
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
REFER TO STRUCTURAL ANALYSIS BY: TES, DATED: MARCH 26, 2019, AND MONOPOLE MODIFICATION DESIGN BY: TES, DATED: APRIL, 8, 2019, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

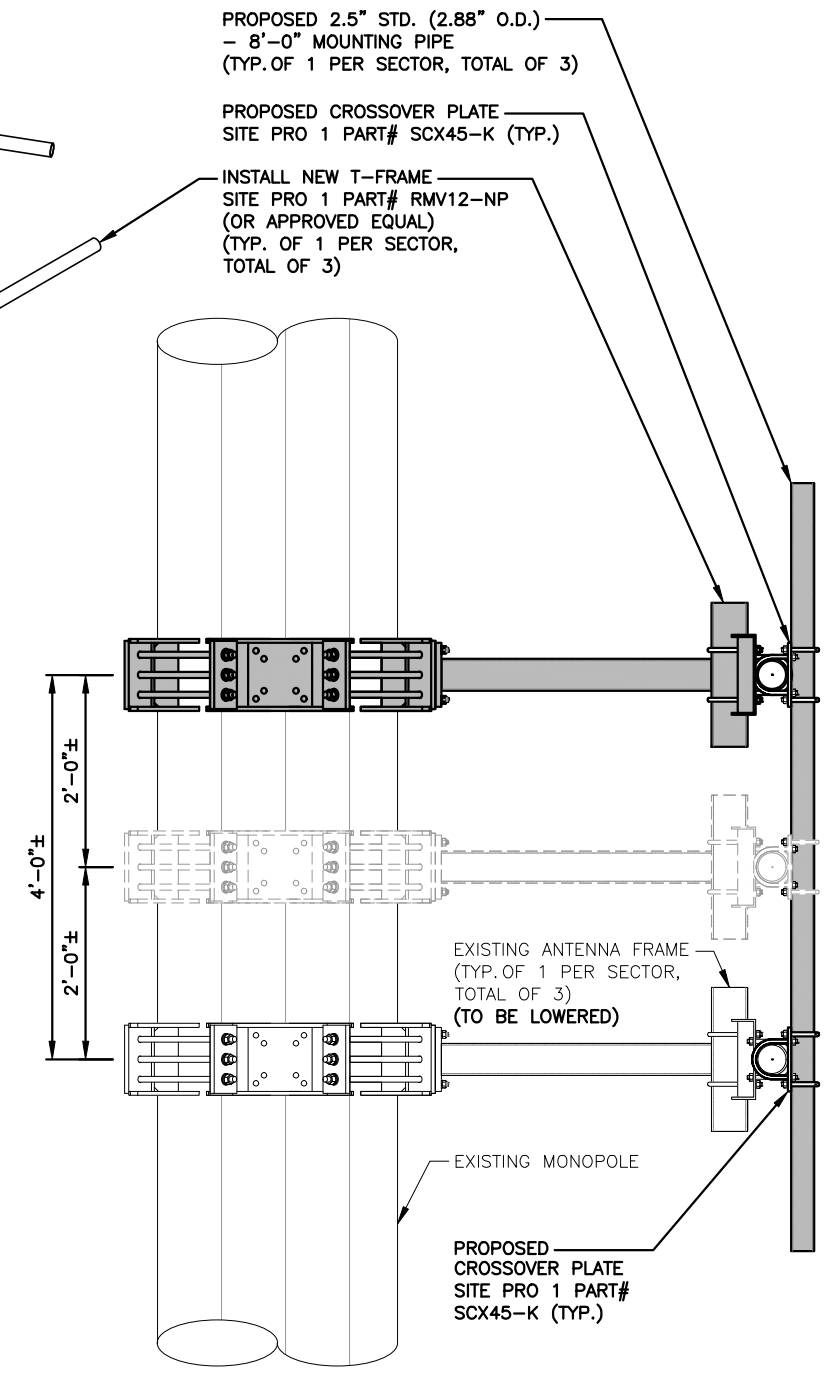
NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: JANUARY 24, 2019



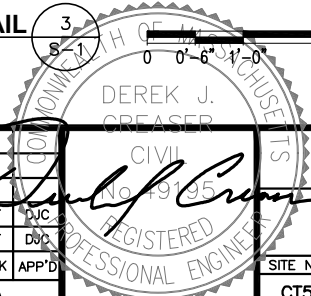
PROPOSED MOUNT MODIFICATIONS PLAN
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0"
1 S-1



T-FRAME DETAIL
SCALE: N.T.S.
2 S-1



PROPOSED MOUNT MODIFICATIONS DETAIL
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"
3 S-1



HDG HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET., SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CT5416
SITE NAME: BEACON FALLS NE
10 TERESA ROAD
BEACON FALLS, CT 06403
NEW HAVEN COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	04/19/19	ISSUED FOR CONSTRUCTION	ET	AT	DJC
A	01/28/19	ISSUED FOR REVIEW	GA	AT	DJC

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: GA

AT&T
MOUNT MODIFICATION DESIGN
(LTE 4C-5C)
SITE NUMBER: CT5416 DRAWING NUMBER: S-1 REV: 1



Radio Frequency Emissions Analysis Report

AT&T Existing Facility

Site ID: CT5416

FA#: 10070922

Beacon Falls NE
10 Teresa Road
Beacon Falls, CT 06403

March 4, 2019

Centerline Communications Project Number: 950012-201

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	11.73 %



March 4, 2019

AT&T Mobility – New England
Attn: John Benedetto, RF Manager
550 Cochituate Road
Suite 550 – 13&14
Framingham, MA 06040

Emissions Analysis for Site: **CT5416 – Beacon Falls NE**

Centerline Communications, LLC (“Centerline”) was directed to analyze the proposed AT&T facility located at **10 Teresa Road, Beacon Falls, CT**, for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 700 and 850 MHz Bands are approximately $467 \mu\text{W}/\text{cm}^2$ and $567 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



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

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed AT&T Wireless antenna facility located at **10 Teresa Road, Beacon Falls, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
UMTS	850 MHz	2	30
LTE	2300 MHz (WCS)	4	30
LTE	1900 MHz (PCS)	4	40
LTE	700 MHz	2	40
LTE	850 MHz	2	40
LTE	2100 MHz (AWS)	4	30
5G	850 MHz	2	25

Table 1: Channel Data Table



The following antennas listed in *Table 2* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Kathrein 800-10121	133
A	2	Quintel QS66512-2	133
A	3	Kathrein 800-10965	133
B	1	Kathrein 800-10121	133
B	2	Quintel QS66512-2	133
B	3	Kathrein 800-10965	133
C	1	Kathrein 800-10121	133
C	2	Quintel QS66512-2	133
C	3	Kathrein 800-10965	133

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.

RESULTS

Per the calculations completed for the proposed AT&T configurations *Table 3* shows resulting emissions power levels and percentages of the FCC’s allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Kathrein 800-10121	850 MHz	11.45	2	60	837.82	0.33
Antenna A2	Quintel QS66512-2	2300 MHz (WCS) / 1900 MHz (PCS)	14.85 / 13.85	8	280	7,548.48	1.68
Antenna A3	Kathrein 800-10965	700 MHz / 850 MHz / 2100 MHz (AWS)	12.65 / 13.45 / 15.95	10	330	9,072.24	2.89
Sector A Composite MPE%							4.90
Antenna B1	Kathrein 800-10121	850 MHz	11.45	2	60	837.82	0.33
Antenna B2	Quintel QS66512-2	2300 MHz (WCS) / 1900 MHz (PCS)	14.85 / 13.85	8	280	7,548.48	1.68
Antenna B3	Kathrein 800-10965	700 MHz / 850 MHz / 2100 MHz (AWS)	12.65 / 13.45 / 15.95	10	330	9,072.24	2.89
Sector B Composite MPE%							4.90
Antenna C1	Kathrein 800-10121	850 MHz	11.45	2	60	837.82	0.33
Antenna C2	Quintel QS66512-2	2300 MHz (WCS) / 1900 MHz (PCS)	14.85 / 13.85	8	280	7,548.48	1.68
Antenna C3	Kathrein 800-10965	700 MHz / 850 MHz / 2100 MHz (AWS)	12.65 / 13.45 / 15.95	10	330	9,072.24	2.89
Sector C Composite MPE%							4.90

Table 3: AT&T Emissions Levels



The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum AT&T MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each AT&T Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	MPE%
AT&T – Max Per Sector Value	4.90 %
T-Mobile	2.95 %
Verizon Wireless	3.53 %
Clearwire	0.08 %
Sprint	0.02 %
Beacon Hose Co	0.25 %
Site Total MPE %:	11.73 %

Table 4: All Carrier MPE Contributions

AT&T Sector A Total:	4.90 %
AT&T Sector B Total:	4.90 %
AT&T Sector C Total:	4.90 %
Site Total:	11.73 %

Table 5: Site MPE Summary



FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

AT&T _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
AT&T 850 MHz UMTS – Antenna 1	2	418.91	133	1.87	850 MHz	567	0.33%
AT&T 2300 MHz (WCS) LTE – Antenna 2	4	916.48	133	8.17	2300 MHz (WCS)	1000	0.82%
AT&T 1900 MHz (PCS) LTE – Antenna 2	4	970.64	133	8.65	1900 MHz (PCS)	1000	0.87%
AT&T 700 MHz LTE – Antenna 3	2	736.31	133	3.28	700 MHz	467	0.70%
AT&T 850 MHz LTE – Antenna 3	2	885.24	133	3.95	850 MHz	567	0.70%
AT&T 2100 MHz (AWS) LTE – Antenna 3	4	1,180.65	133	10.53	2100 MHz (AWS)	1000	1.05%
AT&T 850 MHz 5G – Antenna 3	2	553.27	133	2.47	850 MHz	567	0.43%
						Total:	4.90%

Table 6: AT&T Maximum Sector MPE Power Values



Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	4.90 %
Sector B:	4.90 %
Sector C:	4.90 %
AT&T Maximum Total (per sector):	4.90 %
Site Total:	11.73 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **11.73 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

A handwritten signature in black ink, appearing to read 'Scott Heffernan', is positioned above the printed name.

Scott Heffernan
RF Engineering Director
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767

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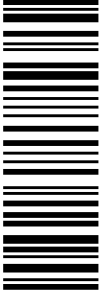


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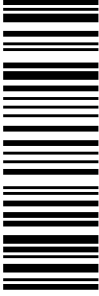

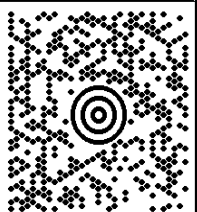

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