Filed by:
G. Scott Shepherd, Site Development Specialist II - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3807 - GShepherd@sbasite.com

February 12, 2021

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

Notice of Exempt Modification
60 Rice Lane, Beacon Falls, CT 06403
Latitude : 41.455689
Longitude : -73.039866
T-Mobile #: CT11299D_Anchor

Dear Ms. Bachman:

T-Mobile currently maintains eleven (11) antennas at the 142-foot level of the existing 160-foot Monopole Tower at 60 Rice Lane in Beacon Falls, CT. The tower is owned by SBA Properties. The property is owned by Charles Edwards. T-Mobile plans to remove (3) three 1900/2100 MHz antennas and replace with (3) three new 2500MHz antennas install one (1) 2500 MHz antenna for a total of twelve (12) antennas.

The new antennas would support 5G services and would be installed at the 142-foot level of the tower.

> **Please note:** Per the Connecticut Siting Council Website: CSC COVID 19 Guidelines.
> *In order to prevent the spread of Coronavirus and protect the health and safety of our members and staff, as of March 18, 2020, the Connecticut Siting Council shall convert to full remote operations until March 30, 2020. Please be advised that during this time period, all hard copy filing requirements will be waived in lieu of an electronic filing. Please also be advised that the March 26, 2020 regular meeting shall be held via teleconference. The Council's website is not equipped with an on-line filing fee receipt service. Therefore, filing fees and/or direct cost charges associated with matters received electronically during the above-mentioned time period will be directly invoiced at a later date.*

Planned Modifications:

TOWER

Remove:
- N/A

Remove and Replace:
- (3) Ericsson AIR21 B2A/B4P (Remove) – (3) Ericsson AIR6449 B41 2500 MHz Antenna (Replace)

Install New:

- (1) Ericsson AIR6449 B41 2500 MHz Antenna
- (3) Ericsson Radio 4415 B66A RRUs
- (4) Commscope SDX1926Q-43 Diplexer
- (3) Modified T-Arms w/Handrail & Kickers

Existing Equipment to Remain:

- (1) Ericsson Radio 4415 B66A RRU
- (4) Ericsson Radio 4449 B71+B12 RRUs
- (3) Ericsson KRY 112 144/1 TMAs
- (4) Ericsson AIR32 KRD901146-1-B66_B2A 1900/2100 MHz antennas
- (3) Ericsson RFS APXVAARR24_43-U-NA20 600/700 MHz antennas
- (1) Ericsson RFS APXVAARR18_43-U-NA20 600/700 MHz antenna
- Platform w/Handrail and V-brace @ 142'
- (6) 1-5/8" Coax
- (4) 1-5/8" Fiber

Entitlements:

- (4) 1-5/8" Coax
- (2) 1-1/4" fiber

GROUND

Install New:

- Equipment inside existing 6131 cabinet
- (2) Ericsson B160 Battery Cabinet

Existing Equipment to Remain:

- (1) ½" Coax for GPS antenna
- (1) RBS 6131 Equipment cabinet

This facility was approved by the Town of Beacon Falls' Planning & Zoning Commission during their Regular Meeting of December 16, 1999. Approval was given for a monopole tower. The fire department was to be given space for their 12' whip antennas at 80' above ground level for zero compensation. SBA was additionally to cover the cost of the whip antenna, cabling and installation. Easement materials were to be filed and a Performance Bond set. There were no post construction stipulations made. Please see attached.

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 the Town of Beacon Falls' First Selectman, Christopher Bielik, and Zoning Enforcement Officer, Mike Mormile, as well as to the property owner. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. §16.50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modification 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 modification 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.

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

Sincerely,

G. Scott Shepherd
Site Development Specialist II
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3804 + T
508.366.2610 + F
508.868.6000 + C
GShepherd@sbasite.com

Attachments
cc: First Selectman Christopher Bielik / with attachments
Town of Beacon Falls, 10 Maple Ave., Beacon Falls, CT 06403
Mike Mormile, Zoning Enforcement Officer / with attachments
Town of Beacon Falls, 10 Maple Ave., Beacon Falls, CT 06403
Charles Edwards / with attachments
30 Lorraine Drive, Beacon Falls, CT 06403

Exhibit List

Exhibit 1	Check Copy	X
Exhibit 2	Notification Receipts	X
Exhibit 3	Property Card	X
Exhibit 4	Property Map	X
Exhibit 5	Original Zoning Approval	Town of Beacon Falls P&Z Commission 12/16/99
Exhibit 6	Construction Drawings	Chappell Engineering 2/9/21
Exhibit 7	Structural Analysis	TES 12/23/20
Exhibit 8	Post-Mod Mount Analysis	TES 2/12/20
Exhibit 9	Mount Mod Drawings	TES 1/4/21
Exhibit 10	EME Report	EBI Consulting 1/12/21

EXHIBIT 1

Normally, Exhibit 1 would contain a copy of the check for the filing fee.

EXHIBIT 2

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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EXHIBIT 3

Tax ID 017-002-0002 Printed 04/26/2019 Card No. 1 of 1

EDWARDS CHARLES
30 LORRAINE DRIVE
BEACON FALLS, CT 06403
Census: 3411

Neighborhood Number
5
Neighborhood Name
East Side
TAXING DISTRICT INFORMATION

Jurisdiction Name	BEACON FALLS
Area	006
Routing Number	017-002-0002

Transfer of Ownership

Owner	Consideration	Transfer Date	Deed Type	Deed Book/Page
EDWARDS	0	08/29/2002		131 14 &30
NA	0	05/25/1999		112 411

Site Description

Topography
High
Public Utilities
Sewer
Street or Road
Unpaved
Neighborhood
Static
Zoning:
R-1
Legal Acres:
49.7600

Valuation Record

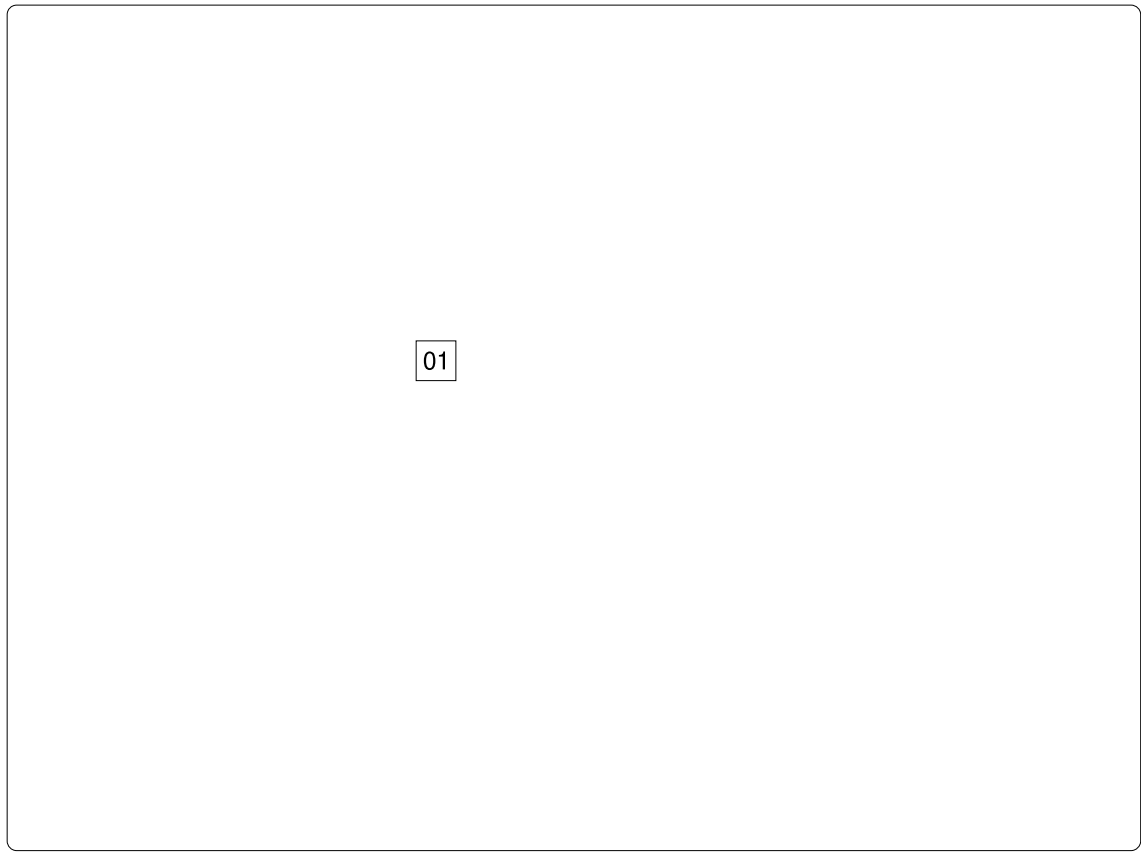
Assessment Year		2006	2007	2011	2016				
Reason for Change		2006 Reval	2007	2011 Reval	2016 Reval				
2016 Market	L	348520	348520	259360	202480				
	I	0	0	0	0				
	T	348520	348520	259360	202480				
70% Assessed	L	78170	78170	48160	81070				
	I	0	0	0	0				
	T	78170	78170	48160	81070				

Land Size

Land Type	Rating, Soil ID - or - Actual Frontage	Acreage - or - Effective Frontage	Square Feet - or - Effective Depth	Influence Factor
Primary Commercial		0.5200		U 100%
Res Excess Acres		49.2400		
PA490 Forest		49.2400		

Tax ID 017-002-0002 Printed 04/26/2019

Physical Characteristics



Special Features

Description

Summary of Improvements

ID	USE	Story Height	Const Type	Grade	Year Cons	Eff Year	Cond	Size or Area
01	TOWERMON	0.00		AVG	2011	2011	AV	160

EXHIBIT 4

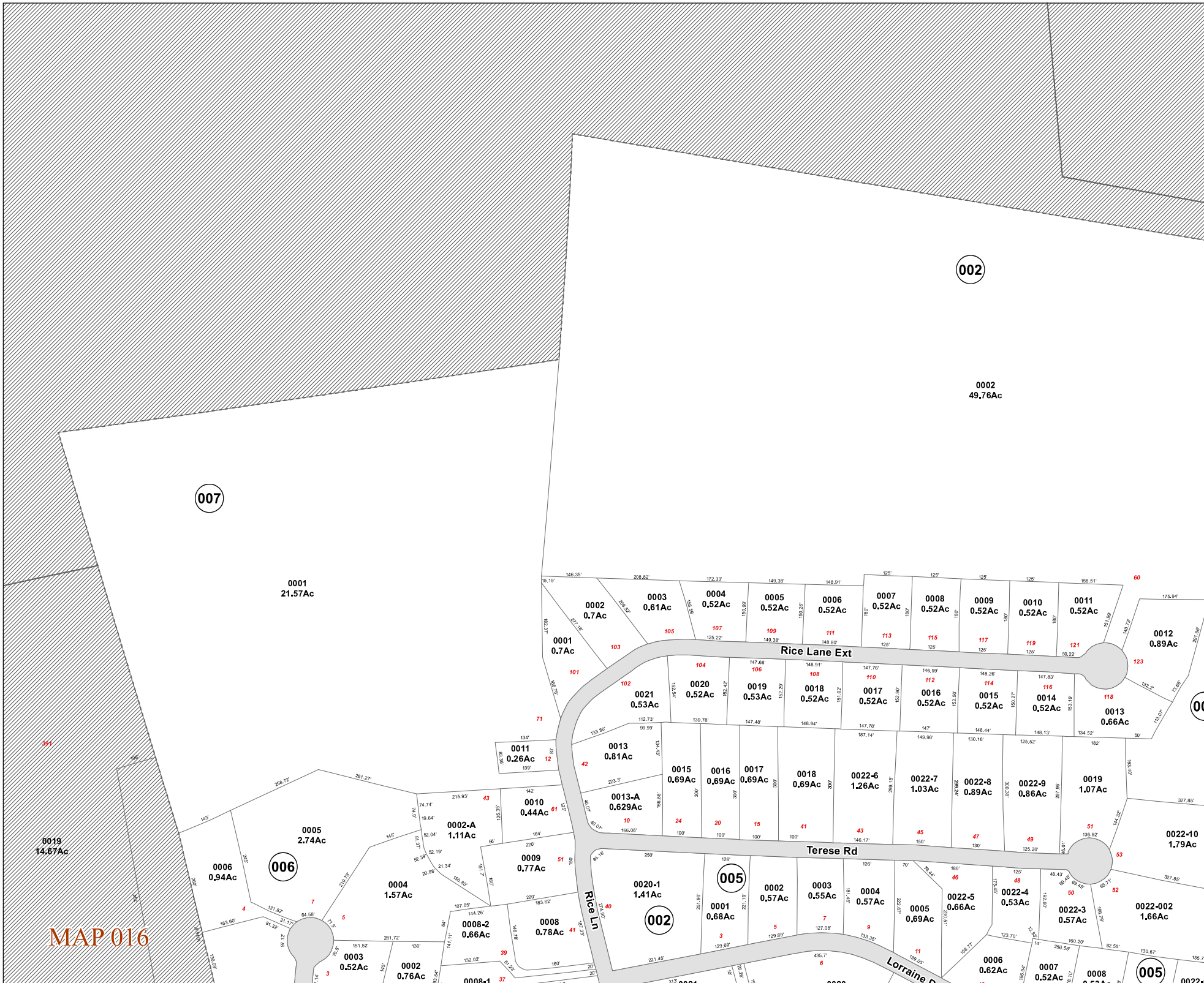

MAP 016
002
0002
49.76Ac
007
0001
21.57Ac
0001
0.7Ac
0002
0.7Ac
0003
0.61Ac
0004
0.52Ac
0005
0.52Ac
0006
0.52Ac
0007
0.52Ac
0008
0.52Ac
0009
0.52Ac
0010
0.52Ac
0011
0.52Ac
0012
0.89Ac
Rice Lane Ext
0021
0.53Ac
0020
0.52Ac
0019
0.53Ac
0018
0.52Ac
0017
0.52Ac
0016
0.52Ac
0015
0.52Ac
0014
0.52Ac
0013
0.66Ac
0011
0.26Ac
0013
0.81Ac
0015
0.69Ac
0016
0.69Ac
0017
0.69Ac
0018
0.69Ac
0022-6
1.26Ac
0022-7
1.03Ac
0022-8
0.89Ac
0022-9
0.86Ac
0019
1.07Ac
Terese Rd
0013-A
0.629Ac
0022-10
1.79Ac
0019
14.67Ac
0005
2.74Ac
006
0006
0.94Ac
0004
1.57Ac
0002-A
1.11Ac
0010
0.44Ac
0009
0.77Ac
0020-1
1.41Ac
002
005
0001
0.68Ac
0002
0.57Ac
0003
0.55Ac
0004
0.57Ac
0005
0.69Ac
0022-5
0.66Ac
0022-4
0.53Ac
0022-3
0.57Ac
0022-002
1.66Ac
Rice Ln
0008-2
0.66Ac
0008
0.78Ac
Lorraine D
0003
0.52Ac
0002
0.76Ac
0006
0.62Ac
0007
0.52Ac
0008
0.52Ac
005

EXHIBIT 5

TOWN OF BEACON FALLS
Planning & Zoning Commission
10 Maple Avenue
Beacon Falls CT 06403

DEC 20 1999
3:40 P.M.
Paula D'Blair

Regular Meeting
December 16, 1999
Minutes

Draft Minutes Subject to Modification Prior to Approval

I. Call to Order
Chairman Harvey called the Regular Meeting of the Beacon Falls Planning and Zoning Commission to order at 7:30 PM in the Public Meeting Room.

Chairman Harvey recessed the Regular Meeting at 7:31 PM to continue the Public Hearing.

Present: Chairman Mary Harvey, Commissioners Evan Betts, David Moran, Donald Perkins and Lynn Sirowich

Absent: Commissioners David D'Amico, Ellen Schultz and William Ambromaitis.

Chairman Harvey reconvened the Regular Meeting at 7:55 PM

II. Approval of Minutes
November 18, 1999 Public Hearing-Application P-99-86, Frank Kerski
Correction: Page 1, Commissioner Sirowich was not present at the meeting.

Motion: Commissioner Moran made a motion seconded by Commissioner Perkins to approve as Submitted the revised minutes of the November 18, 1999 Public Hearing. All voted in favor and the motion was carried 5-0.

November 18, 1999 Regular Meeting
Correction: Page 1, Section II should reflect that the motion was carried 5-0-1.

Motion: Commissioner Perkins made a motion seconded by Commissioner Betts to approve as submitted the revised minutes of the November 18, 1999 meeting. All voted in favor and the motion was carried 5-0.

III. Correspondence and Payment of Bills
Correspondence and Payment of Bills was tabled until the January 21, 1999 meeting.

IV. Comments from the Public
There were no comments from the Public

V. Zoning Enforcement Officer's Report
ZEO Tarascio was not present and therefore no report was submitted.

VI. Town Engineer's Report

Beacon Falls

SITE # 10125-003
FILE TYPE Zoning
SECTION Zoning

Town Engineer Sudimick distributed his report dated December 16, 1999 and reviewed activity pertaining to the Stop & Shop Development

I. Town Engineer's Report (Continued)

Motion: Commissioner Betts made a motion seconded by Commission Sirowich to approve and include the Town Engineer's Report in the minutes. All voted in favor and the motion carried 5-0.

II. Gravel
No Activity, no discussion

Motion: Commissioner Perkins made a motion to add to the agenda under Old Business the Sprint Application as #5 and Doug Crossley as #6. Seconded by Commissioner Betts.

III. Old Business:

1. Application P-94-30, Hockanum Glen Subdivision (Monthly Report)
No one was present representing the applicant. Town Engineer Sudimick asked if the Planning and Zoning Commission had ever sent correspondence to the First Selectman's Office regarding the acceptance of the road in Hockanum Glen. Commissioner Harvey said she would look into the matter.

2. Application P-98-67, Haley Ridge Subdivision, James Martin (Monthly Report)
Mr. Martin stated that the Driveway Maintenance & Easement Agreements were filed today at the Town Hall for Lots 19, 20, 21 & 22.
Mr. Martin requested his bond be reduced to 10%. He was referred to the Town Engineer's Report which notes items to be completed prior to approval of a reduction in the bond.

3. Application P-99-85, Rebecca Betkowski, Proposed Child Development Center
Discussion by the Commissioners

Motion: Commissioner Perkins made a motion seconded by Commissioner Sirowich to table this application to the January 21, 1999 Regular Meeting to allow the members of the Planning & Zoning Commission to investigate the concerns of the Beacon Street residents.

4. Application P-99-83, C.B.L., Inc., Wood Ridge Section 2 Subdivision.
Tabled until the January 21, 1999 Regular Meeting.

5. Sprint PCS
Steven T. Carty, representing Sprint as the Engineer for the project submitted revised plans that have addressed concerns of Town Engineer Sudimick.

Motion: Commissioner Sirowich made a motion seconded by Commission Betts that the plans as submitted be approved with conditions that the Easement must be filed in the Beacon Falls Land Records and that a Performance Bond be set. All voted in favor and the motion was carried 5-0.

6. Mr. Doug Crossley, represented by Attorney Mark Malloy. Mr. Malley presented a lot line revision for a parcel of land on Bethany Road. Mr. Crossley currently owns three parcel of land which are adjacent to one another. Two of the lots are on Bethany Road and are each 75 feet wide by 150 feet deep. These two parcels are one behind the other so that there is only 75foot frontage on

SPRINT ASSIGNED LEASE TO SBA - 12/99

DEC 2 2 '99

Beacon Falls
CT02049-S

Zoning

November 28, 1999

Ted Smith
Chief
Beacon Hose Co. #1
35 North Main St.
Beacon Falls, CT 06403

RE: 10125-003/Beacon Falls (11/23/99 meeting)

Dear Ted,

As per our meeting last Tuesday, the following is a summary of the issues we discussed:

1) SBA Inc. will provide space on our monopole tower for your **12ft. whip antenna** at **80ft. AGL** (Above Ground Level). Rent for this space on the tower will be $0 per month.

2) SBA Inc. will install your antenna and the approx. 6ft. side mount on to our tower at no cost to Beacon Hose Co. #1 .

3) SBA Inc. will pay for your 12ft. whip antenna and coax cable, which the total shall not exceed $1000.

4) Beacon Hose Co. #1 will be responsible for : a) equipment shed b) emergency power* c) utilities to power your antenna.

- I understand that emergency power is a concern for you. However, there probably will not be a generator at the site for some time.
- Please mail me back the completed "Collocation Application" as soon as possible so we can begin to make the appropriate arrangements. Thank you for your cooperation. SBA Inc. looks forward to building a relationship with Beacon Hose Co. #1.
- I look forward to seeing you again at the **Dec. 16, 1999** Beacon Falls Zoning Commission meeting .

Sincerely yours,

Joe Tassone
Project Manager
SBA, Inc.

cc. Julie Reibold (NE Communications)
Randy Freschlin (SBA)
Steven Carty (SEA Consultants)
Charlie Edwards (Land Owner)
Paul McGinn (SBA)

JFT:jft

EXHIBIT 6

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

CT BEACON FALLS/RT 8

60 RICE LANE
BEACON FALLS, CT 06403

SITE NO.: CT11299D

RF DESIGN GUIDELINE: 4SEC-67D5A997DB OUTDOOR

APPROVALS

PROJECT MANAGER:	DATE:	ZONING/SITE ACQ.:	DATE:
CONSTRUCTION:	DATE:	OPERATIONS:	DATE:
RF ENGINEERING:	DATE:	TOWER OWNER:	DATE:

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS
SECTOR A:	ACCESS BY CERTIFIED CLIMBER
SECTOR B:	ACCESS BY CERTIFIED CLIMBER
SECTOR C:	ACCESS BY CERTIFIED CLIMBER
GPS/LMU:	UNRESTRICTED
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE

SITE NOTES

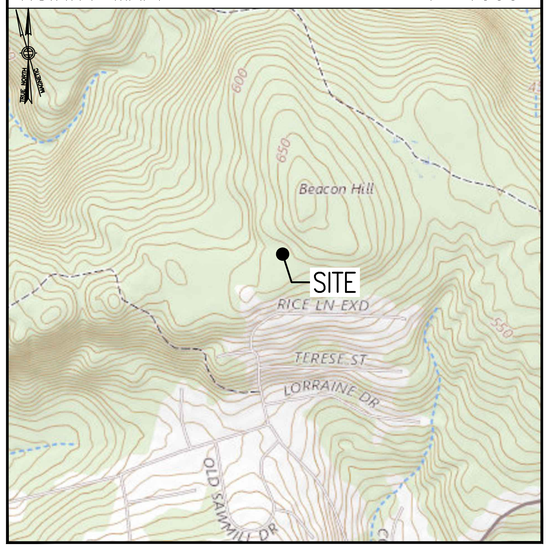
1. THIS IS AN UNMANNED AND RESTRICTED ACCESS TELECOMMUNICATION FACILITY, AND IS NOT FOR HUMAN HABITATION. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
   - ADA COMPLIANCE NOT REQUIRED.
   - POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
   - NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
2. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
3. NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
   - BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE
   - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
   - STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE OMNIPOINT REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
12. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
13. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE/LICENSEE REPRESENTATIVE.
16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
17. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK.

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

VICINITY MAP: 1"=1000'



DIRECTIONS

FROM COMMERCE WAY TRAVELING NE TOWARDS N BOUNDARY RD/S WASHINGTON ST, CONTINUE ONTO S. WASHINGTON ST TO TAKE A RIGHT ONTO MA-123 E, TURN LEFT TO MERGE ONTO I-495 N TOWARD MANSFIELD, MARLBORO, FOLLOW I-495 N, I-90 W AND I-84, TAKE EXIT 25A FOR AUSTIN ROAD, TAKE SCOTT ROAD, CT-69S AND CT-42 W TO RICE LANE IN BEACON FALLS, STAY ON RICE LANE, 60 RICE LANE WILL BE ON THE LEFT, TAKE LEFT ONTO SPRUCE LANE, FOLLOW SPRUCE LANE, DESTINATION WILL BE AT THE END OF SPRUCE LANE.

SHEET INDEX

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DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT SUMMARY

SITE NUMBER:	CT11299D
SITE NAME:	CT BEACON FALLS/RT 8
SBA SITE NUMBER:	CT02049-S
SBA SITE NAME:	BEACON FALLS
SITE ADDRESS:	60 RICE LANE BEACON FALLS, CT 06403
ASSESSOR'S PARCEL NO.:	017-002-002
ZONING DISTRICT:	RESIDENTIAL (R-1)
CONSTRUCTION TYPE:	ANCHOR UPGRADE
LAND OWNER:	EDWARDS CHARLES 20 LORRAINE DRIVE BEACON FALLS, CT 06403
TOWER OWNER:	SBA PROPERTIES, INC. 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
APPLICANT:	T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766
SBA RSM:	STEPHEN ROTH PHONE: 860-539-4920 EMAIL: SRoth@sbasite.com
ARCHITECT:	CHAPPELL ENGINEERING ASSOCIATES, LLC 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
STRUCTURAL ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
SITE CONTROL POINT:	LATITUDE: 41.45580000° N41°27'20.88" LONGITUDE: -73.03930000° W73°02'21.48"

SPECIAL ZONING NOTE:
BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST. EXPEDITED REVIEW, AND LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, OR ADMINISTRATIVE REVIEW).

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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED
PROFESSIONAL CIVIL ENGINEER
2/9/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	02/09/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

SITE NUMBER:
CT11299D
SITE ADDRESS:
60 RICE LANE
BEACON FALLS, CT 06403

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

1815.160

GENERAL NOTES:

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

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

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

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

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

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

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

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

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND 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 AND/OR LANDLORD PRIOR TO CONSTRUCTION.

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

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.

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

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

15. CONSTRUCTION SHALL COMPLY WITH ALL T–MOBILE STANDARDS AND SPECIFICATIONS.

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

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

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

SITE WORK GENERAL NOTES:

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

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

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

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

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

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

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

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

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

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

11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T–MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

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

2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS

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

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

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

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

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

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

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

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T–MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM–A–36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".

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

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

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

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

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

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

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

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

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

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

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

COMPACTION EQUIPMENT:

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

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T–MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.

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

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

ELECTRICAL INSTALLATION NOTES:

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

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

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

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

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

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

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

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

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

10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

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

12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.

13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED PROFESSIONAL CIVIL ENGINEER
2/9/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	02/09/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

SITE NUMBER:
CT11299D

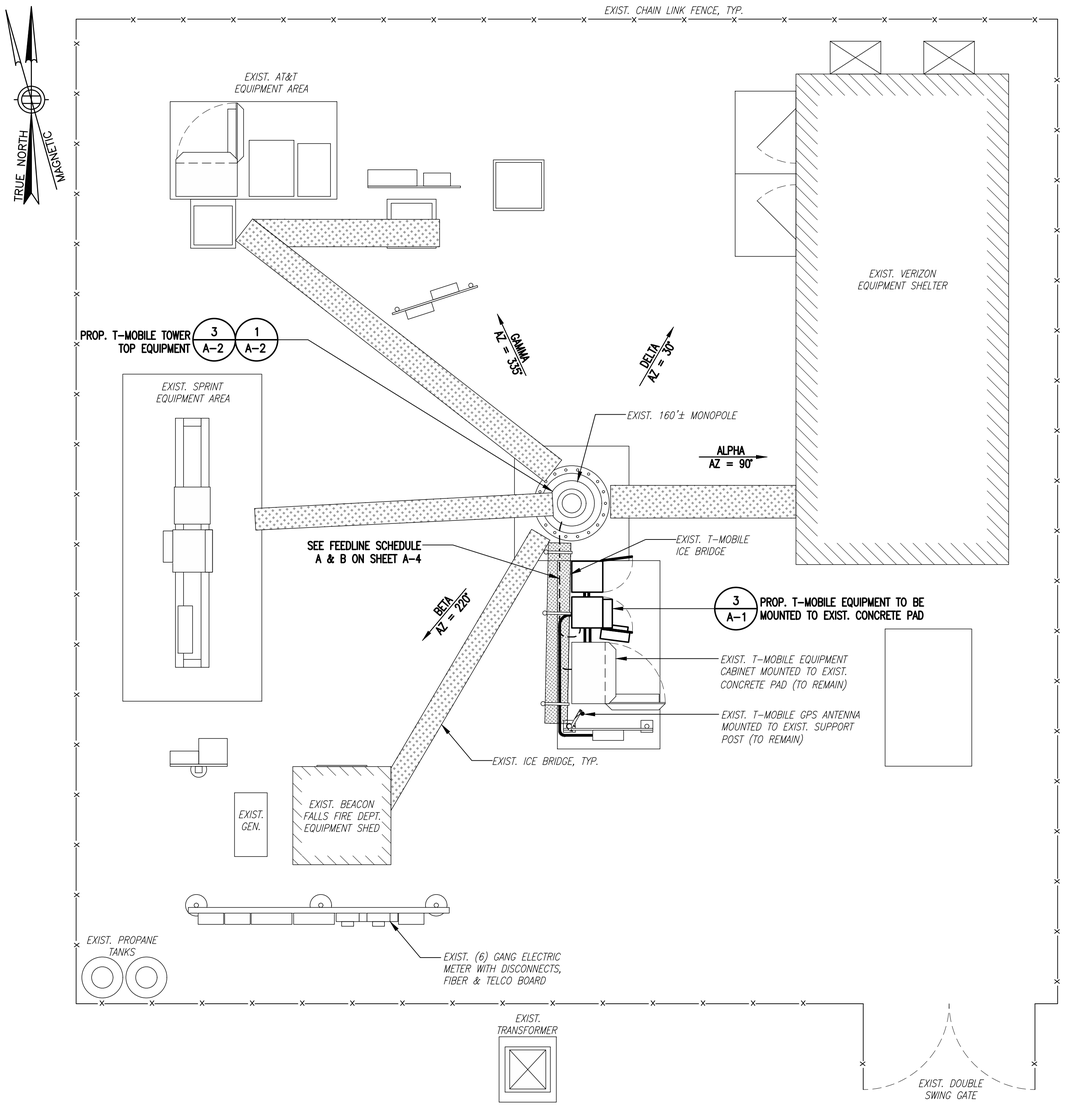
SITE ADDRESS:
60 RICE LANE
BEACON FALLS, CT 06403

SHEET TITLE
GENERAL NOTES

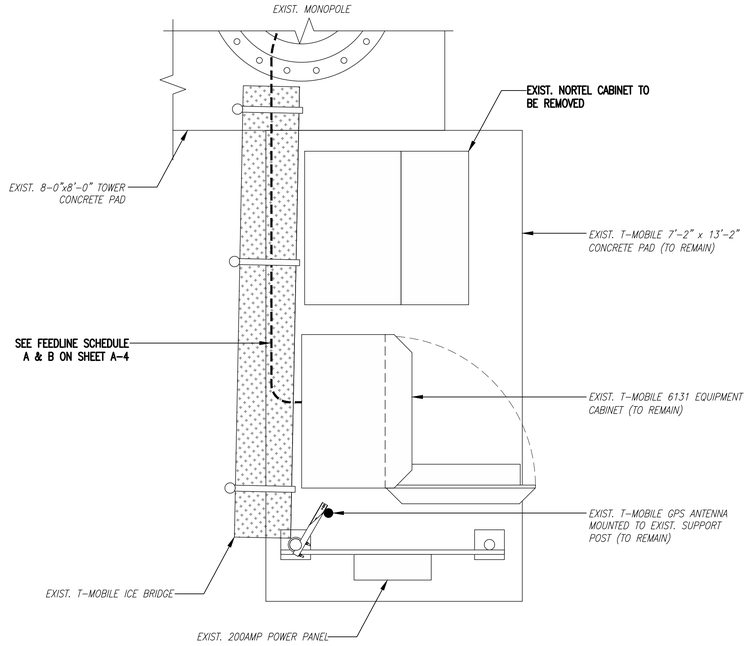
SHEET NUMBER
GN-1

1815.160

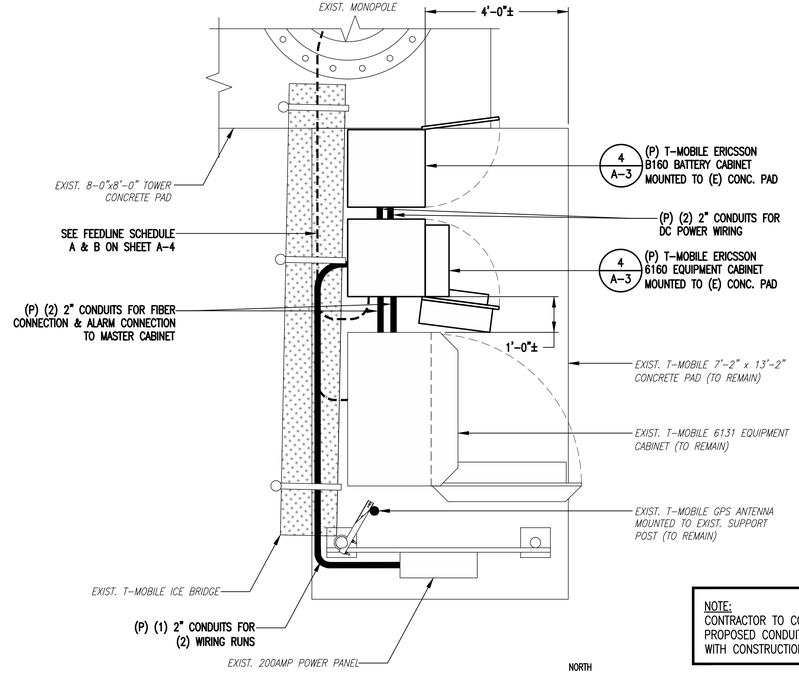
SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS): GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY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



COMPOUND PLAN 1 A-1
SCALE: 1" = 4'-0"
0 2.5' 5' 10' 15'



EXISTING EQUIPENT PLAN 2 A-1
SCALE: 1" = 2'-0"
NORTH



PROPOSED EQUIPENT PLAN 3 A-1
SCALE: 1" = 2'-0"
NORTH

NOTE:
CONTRACTOR TO CONFIRM PROPOSED CONDUIT DESIGN WITH CONSTRUCTION MANAGER

T-MOBILE NORTHEAST LLC
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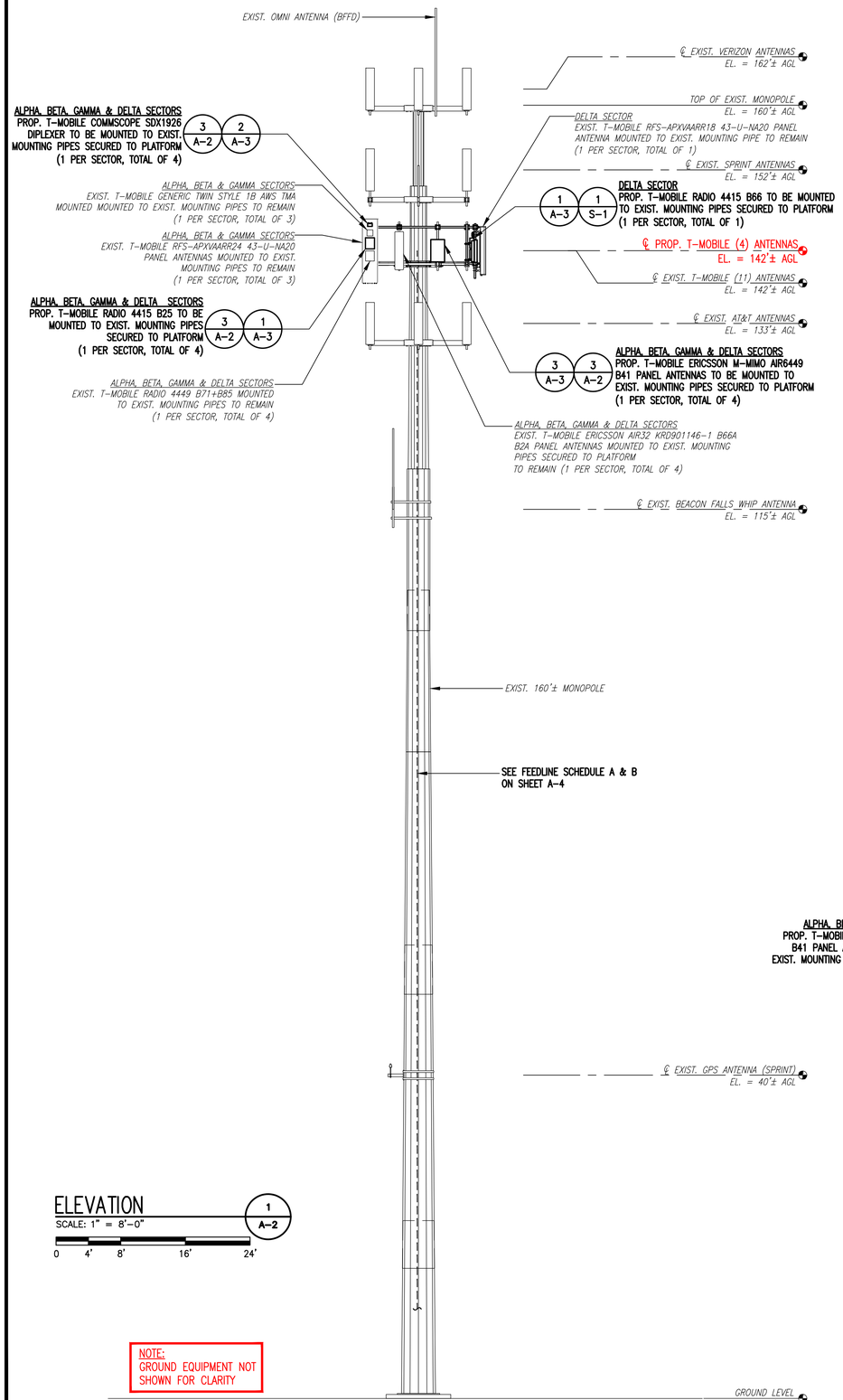
SHEET TITLE
COMPOUND PLAN & EQUIPMENT PLANS

SHEET NUMBER
A-1

1815.160

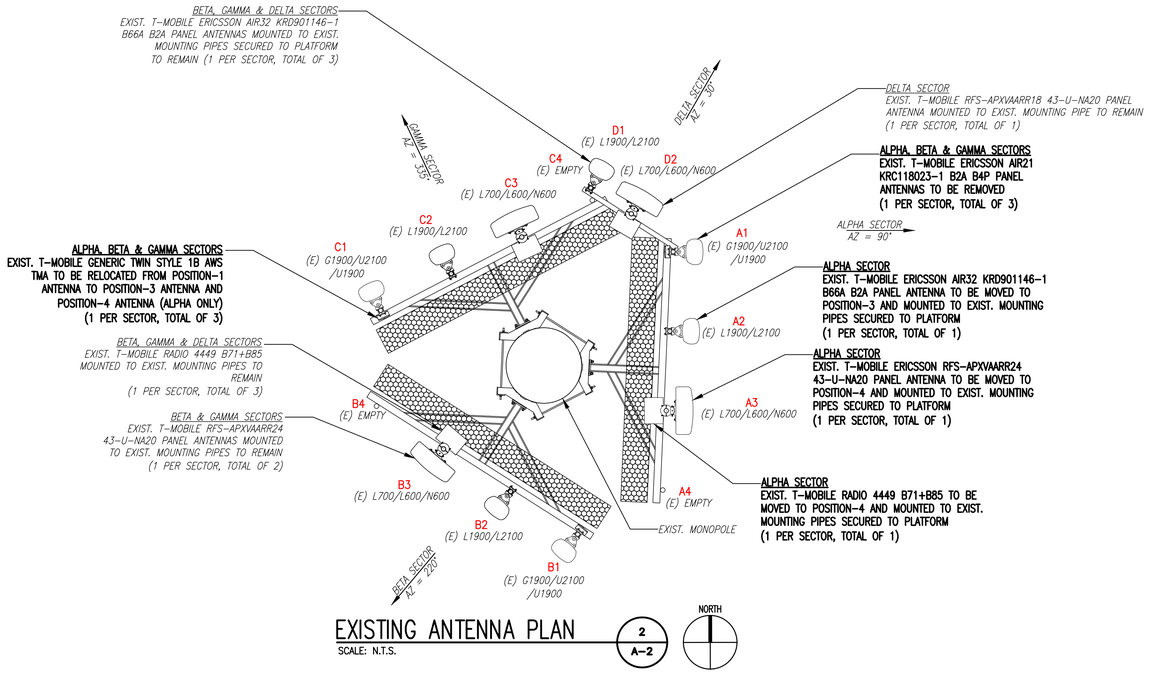


ELEVATION

SCALE: 1" = 8'-0"

1 / A-2

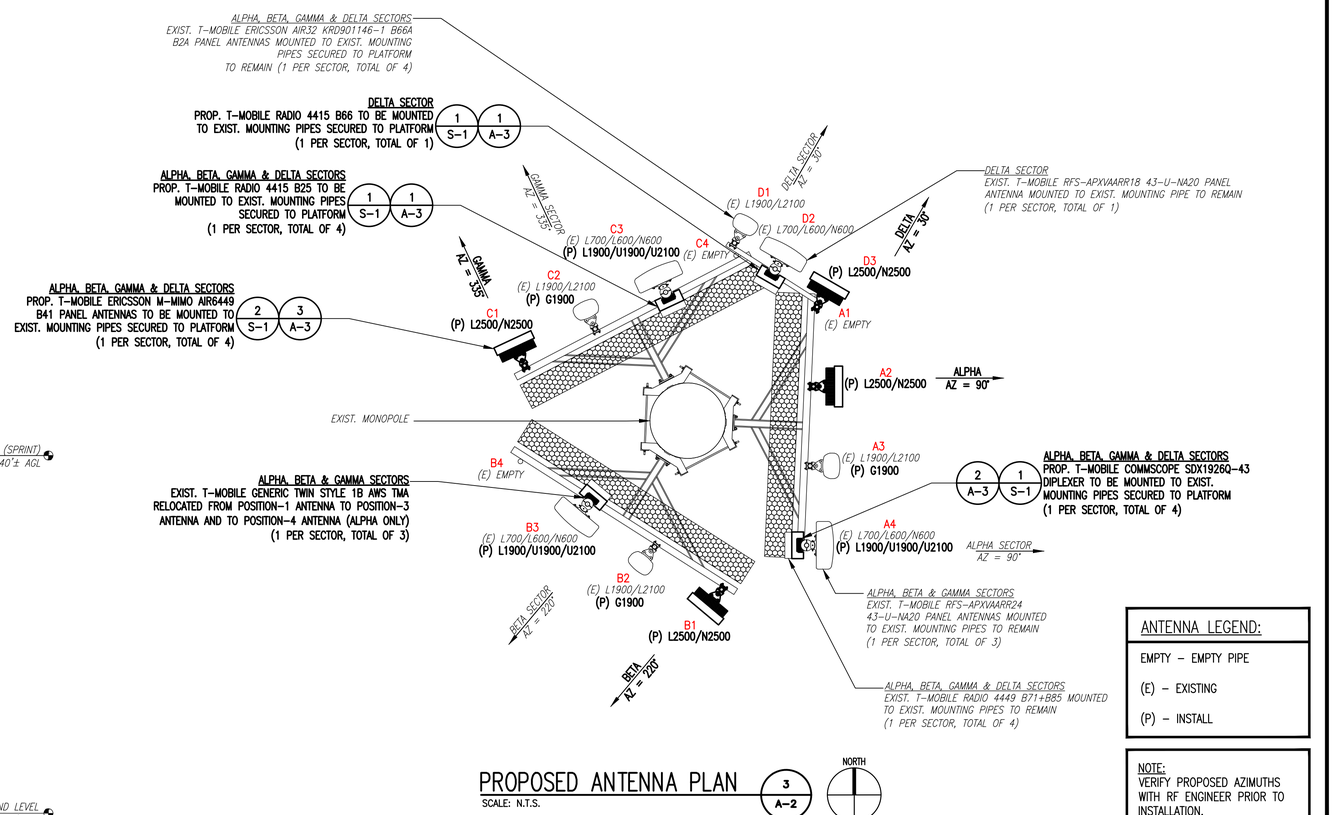
0 4' 8' 16' 24'



EXISTING ANTENNA PLAN

SCALE: N.T.S.

2 / A-2



PROPOSED ANTENNA PLAN

SCALE: N.T.S.

3 / A-2

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

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

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SHEET TITLE
ELEVATION & ANTENNA PLANS

SHEET NUMBER
A-2

1815.160

ERICSSON RRUS 4415 B25
DIMENSIONS: 16.5"H x 13.4"W x 5.9"D
WEIGHT: 46 LBS
1 PER SECTOR, TOTAL OF 4

ERICSSON RRUS 4415 B66
DIMENSIONS: 14.96"H x 13.19"W x 5.39"D
WEIGHT: 44 LBS
TOTAL OF 1

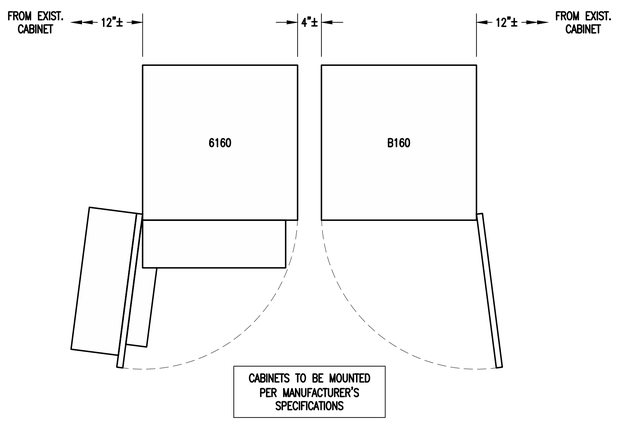
RADIO DETAILS
SCALE: N.T.S.
1 / A-3

COMMSCOPE DIPLEXER SDX19260 / E14F05P86
DIMENSIONS: 4.173"H x 6.929"W x 2.913"D
WEIGHT: 6.173 LBS
1 PER SECTOR, TOTAL OF 4

DIPLEXER DETAILS
SCALE: N.T.S.
2 / A-3

ERICSSON M-MIMO AIR6449 B41 PANEL ANTENNA
DIMENSIONS: 33.1"H x 20.5"W x 8.3"D
WEIGHT: 103.0 LBS
1 PER SECTOR, TOTAL OF 4

ANTENNA DETAILS
SCALE: N.T.S.
3 / A-3



ERICSSON 6161 SITE SUPPORT CABINET
DIMENSIONS: 63.25"H x 26.0W x 34.0"D
QUANTITY: TOTAL OF 1

ERICSSON B160 BATTERY CABINET
DIMENSIONS: 63.25"H x 26.0W x 26.0"D
QUANTITY: TOTAL OF 1

EQUIPMENT DETAIL
SCALE: N.T.S.
4 / A-3

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SHEET TITLE
SITE DETAILS

SHEET NUMBER
A-3

1815.160

FINAL ANTENNA CONFIGURATION

SECTOR		ANTENNA	RAD CENTER	AZIMUTH (TRUE NORTH)	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	BAND	TMA/RADIOS	SIGNAL CABLES
ALPHA	A1	**ERICSSON M-MIMO AIR6449 B41**	**142'-0"± AGL**	**90°**	**0°**	**2°**	**L2500/N2500**	**-**	
	A2	*ERICSSON AIR32 KRD901146-1 B66A/B2A*	*142'-0"± AGL*	*90°*	*0°*	*2°*	*L1900/***G1900** *L2100*	-	
	A3	*RFS APXVAARR24_43-U-NA20*	*142'-0"± AGL*	*90°*	*0°*	*2°*	*L700/L600/N600*	*ERICSSON RADIO 4449 B71+B85*	
							L1900/U2100	**ERICSSON RADIO 4415 B25** **COMMSCOPE DIPLEXER SDX1926Q-43** *GENERIC TWIN STYLE 1B AWS TMA*	
	A4	*EMPTY*	-	-	-	-	-	-	
BETA	B1	**ERICSSON M-MIMO AIR6449 B41**	**142'-0"± AGL**	**220°**	**0°**	**2°**	**L2500/N2500**	**-**	
	B2	*ERICSSON AIR32 KRD901146-1 B66A/B2A*	*142'-0"± AGL*	*220°*	*0°*	*2°*	*L1900/***G1900** *L2100*	-	
	B3	*RFS APXVAARR24_43-U-NA20*	*142'-0"± AGL*	*220°*	*0°*	*2°*	*L700/L600/N600*	*ERICSSON RADIO 4449 B71+B85*	
							L1900/U2100	**ERICSSON RADIO 4415 B25** **COMMSCOPE DIPLEXER SDX1926Q-43** *GENERIC TWIN STYLE 1B AWS TMA*	
	B4	*EMPTY*	-	-	-	-	-	-	*(E) (6) 1-⅝" COAX CABLES* *(E) (4) 1-⅝" (6x12) HCS FIBER CABLES* **(P) (2) 1-⅝" (6x12) HCS FIBER CABLE**
GAMMA	C1	**ERICSSON M-MIMO AIR6449 B41**	**142'-0"± AGL**	**335°**	**0°**	**2°**	**L2500/N2500**	**-**	
	C2	*ERICSSON AIR32 KRD901146-1 B66A/B2A*	*142'-0"± AGL*	*335°*	*0°*	*2°*	*L1900/***G1900** *L2100*	-	
	C3	*RFS APXVAARR24_43-U-NA20*	*142'-0"± AGL*	*335°*	*0°*	*2°*	*L700/L600/N600*	*ERICSSON RADIO 4449 B71+B85*	
							L1900/U2100	**ERICSSON RADIO 4415 B25** **COMMSCOPE DIPLEXER SDX1926Q-43** *GENERIC TWIN STYLE 1B AWS TMA*	
	C4	*EMPTY*	-	-	-	-	-	-	
DELTA	D1	*ERICSSON AIR32 KRD901146-1 B66A/B2A*	*142'-0"± AGL*	*30°*	*0°*	*2°*	*L1900/***G1900** *L2100*	-	
	D2	*RFS APXVAARR18_43-U-NA20*	*142'-0"± AGL*	*30°*	*0°*	*2°*	*L700/L600/N600*	*ERICSSON RADIO 4449 B71+B85*	
							L1900/U2100	**ERICSSON RADIO 4415 B66** **COMMSCOPE DIPLEXER SDX1926Q-43** **ERICSSON RADIO 4415 B66**	
	D3	**ERICSSON M-MIMO AIR6449 B41**	**142'-0"± AGL**	**30°**	**0°**	**2°**	**L2500/N2500**	-	

CABLE NOTE: EXISTING (4) 1-⅝" COAX CABLES (CAPPED & WRAPPED) & (2) 1-¼" (9x18) HCS FIBER CABLES TO BE REMOVED. SEE FEEDLINE SCHEDULE A & B BELOW.

NOTE: RFDS REV8 – 09/26/20

FEEDLINE SCHEDULE

SCHEDULE	FEEDLINES	LOCATION
A	*EXISTING TO REMAIN:* *(6) 1-⅝" COAX CABLES* *(4) 1-⅝" (6x12) HCS FIBER CABLES* *(1) ½" COAX CABLE FOR GPS ANTENNA* *EXISTING TO BE REMOVED:* *(4) 1-⅝" COAX CABLES* *(2) 1-¼" (9x18) HCS FIBER CABLE*	**ROUTED PER STRUCTURAL ANALYSIS**
B	**PROPOSED:** **(2) 1-5/8" (6x12) HCS FIBER CABLES**	

NOTE:
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

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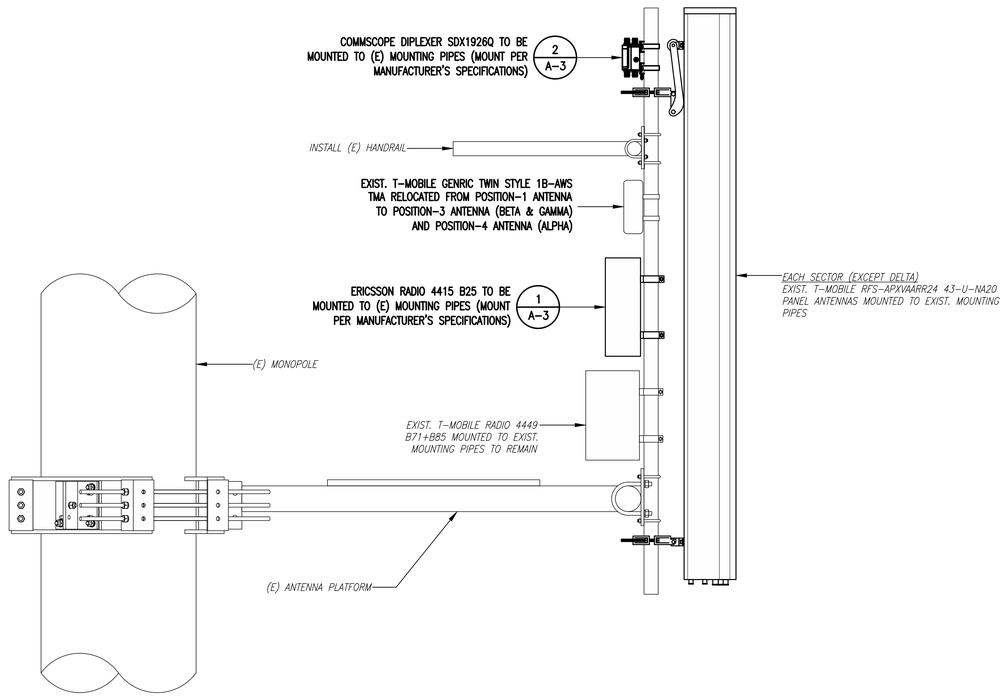
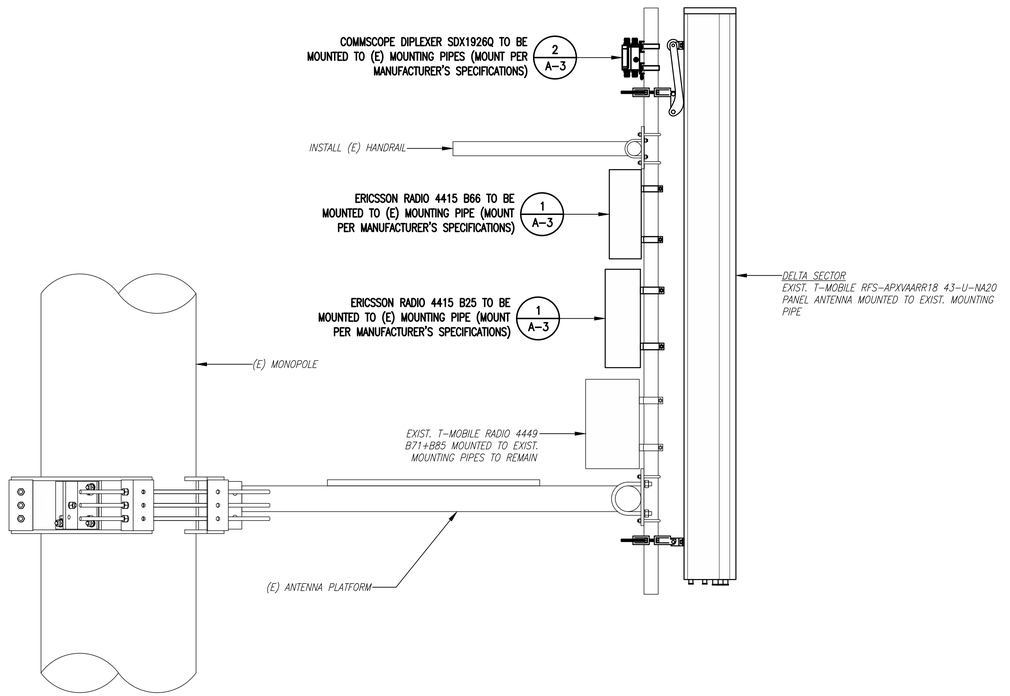
SHEET TITLE
ANTENNA & FEEDLINE CHARTS

SHEET NUMBER
A-4

1815.160

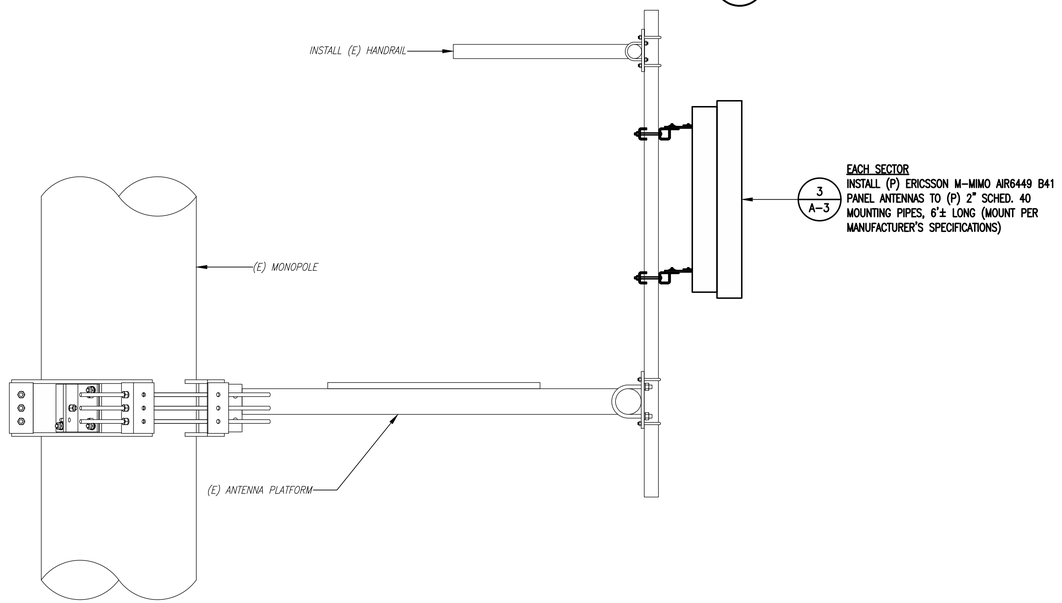




ANTENNA, DIPLEXER, TMA & RADIO MOUNT DETAIL

1 S-1

SCALE: N.T.S.



ANTENNA MOUNT DETAIL

2 S-1

SCALE: N.T.S.

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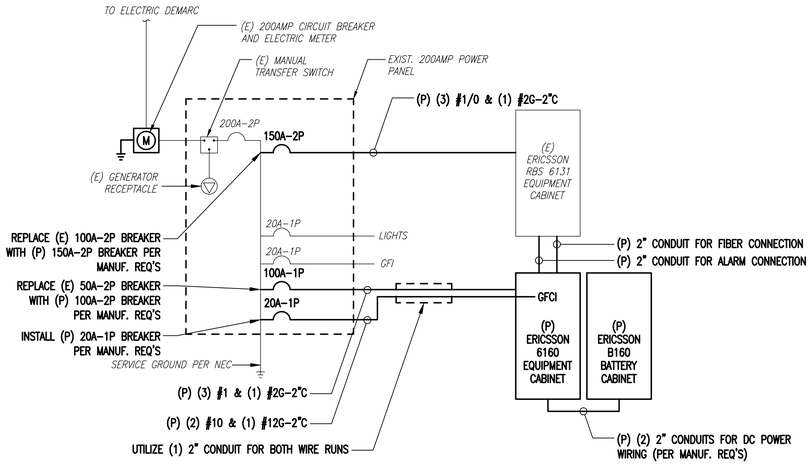
SHEET TITLE
ANTENNA MOUNTING DETAILS

SHEET NUMBER
S-1

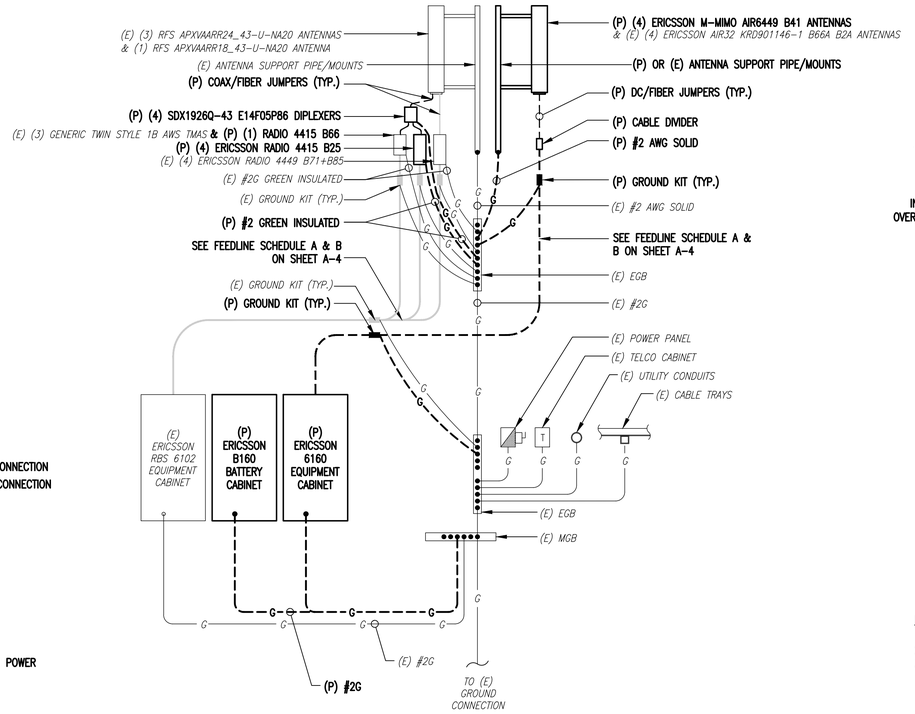
1815.160



ONE LINE DIAGRAM

SCALE: NOT TO SCALE

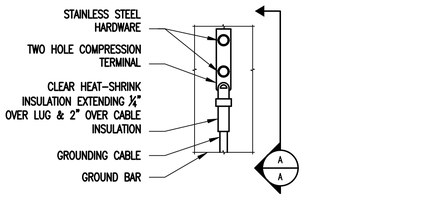
1 / E-1



GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE

2 / E-1



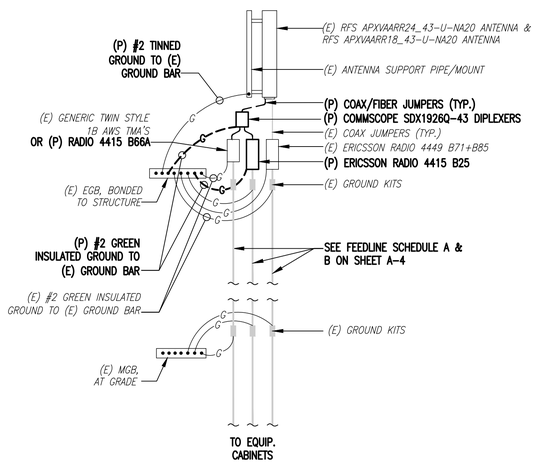
NOTES:

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

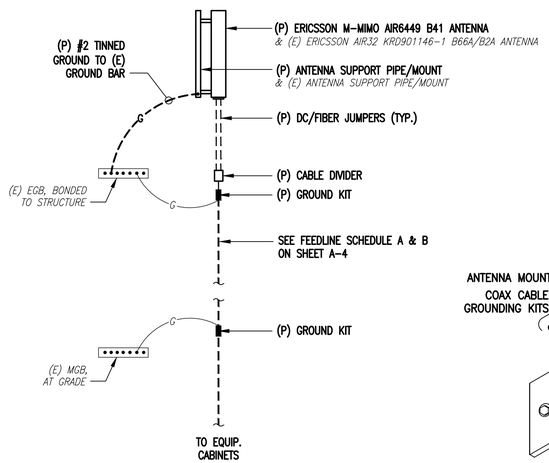
TYPICAL GROUND BAR CONNECTIONS DETAIL

SCALE: NOT TO SCALE

3 / E-1



L700/L600/N600/L1900/U2100 ANTENNA

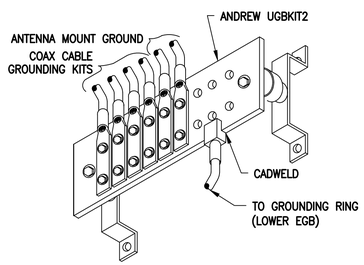


L2500/N2500 & L2100/L1900/G1900 ANTENNA

COAX CABLE CONNECTION AND GROUNDING DETAIL

SCALE: NOT TO SCALE

4 / E-1



GROUND BAR (EGB)

SCALE: NOT TO SCALE

5 / E-1

ELECTRICAL AND GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THHNINSULATION.
8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
10. WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
12. PPC SUPPLIED BY PROJECT OWNER.
13. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
14. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
15. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
16. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
17. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
18. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
19. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
20. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN (E) TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
21. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMNS MINIMUM RESISTANCE REQUIRED.
22. CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700

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

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil ·Structural ·Land Surveying
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
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www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED
PROFESSIONAL CIVIL ENGINEER
2/9/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	02/09/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

SITE NUMBER:

CT11299D

SITE ADDRESS:
60 RICE LANE
BEACON FALLS, CT 06403

SHEET TITLE

ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER

E-1

1815.160

EXHIBIT 7

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

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: T-Mobile (App#: 141288, V1)

Carrier Site ID / Name: CT11299D / CTBeacon Falls/Rt8

Site Location: 60 Rice Lane

Beacon Falls, Connecticut

New Haven County

Latitude: 41.455689

Longitude: -73.039866

Analysis Result:

Max Structural Usage: 91.7% [Pass]

Max Foundation Usage: 67.0% [Pass]

Additional Usage Caused by Mount Modification : +1.5%

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 modification listed under Sources of Information was assumed 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
Modification Drawings	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 TES, Job# 20939 Rev3, Dated 09/28/16 TES, Job# 80199, Dated 04/30/20
Mount Analysis	TES, Job# 99849, Dated 12/03/20

Analysis Criteria

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

Wind Speed Used in the Analysis:	118.0 mph (3-Sec. Gust) (Ultimate wind speed)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Service Load Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-H / 2018 IBC / 2018 Connecticut State Building
Exposure Category:	Code B
Risk Category:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S_S = 0.198, S_1 = 0.054

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	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-0Z - Dist. Box			
6	152.0	3	RFS - APXVSPP18-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			
12		3	Alcatel Lucent - TD-RRH8x20-25 - RRU			
-	142.0	3	Ericsson KRY 112 144/1 TMA	Platform w/ HR & Bracing	(10) 1 5/8" (2) 1 5/8" Fiber (2) 1-1/4" Fiber	T-Mobile
-		3	Ericsson AIR 21 B2A/B4P - Panel			
-		4	Ericsson Air 32 KRD901146-1_B66A_B2A - Panel			
-		3	RFS APXVAARR24_43-U-NA20 - Panel			
-		1	RFS APXVAARR18_43-U-NA20 - Panel			
-		4	Ericsson Radio 4449 B71+B12 RRUs			
-		1	Ericsson Radio 4415 B66A RRUs			
22	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
23		3	Kathrein 800 10121 - Panel			
24		3	Kathrein 800-10965 - Panel			
25		1	Cci TPA-65R-LCUUUU-H8 - Panel			
26		2	Quintel QS66512-2 - Panel			
27		6	Powerwave LGP21401 TMA			
28		3	Ericsson RRUS-32 RRU			
29		3	Ericsson B2/B66A 8843 RRU			
30		3	Ericsson B5/B12 4449 RRU			
31	115.0	1	DB222 - Whip	(1) 3 ft. Standoff	(1) 7/8"	BFFD
32	40.0	1	GPS	Standoff	(1) 1/2"	Sprint

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

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

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
13	142.0	3	Ericsson KRY 112 144/1 TMA	Modified T-arms w/Handrail & Kickers	(8) 1 5/8" (4) 1 5/8" Fiber (2) 1-1/4" Fiber	T-Mobile
14		4	Commscope SDX1926Q-43 Diplexer			
15		4	Ericsson 4415 B25 RRUs			
16		4	Ericsson AIR6449 B41 - Panel			
17		4	Ericsson Air 32 KRD901146-1_B66A_B2A – Panel			
18		3	RFS APXVAARR24_43-U-NA20 - Panel			
19		1	RFS APXVAARR18_43-U-NA20 - Panel			
20		4	Ericsson Radio 4449 B71+B85 RRUs			
21		1	Ericsson Radio 4415 B66A RRUs			

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

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate	Flange Connection	Reinforce Plate
Max. Usage:	**77.8%**	**56.2%**	**56.8%**	**89.4%**	**91.7%**
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	4053.6	34.4	74.3

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

Service Load Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.4793 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

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

Standard Conditions

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

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

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

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

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

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

Usage Diagram - Max Ratio 77.81% at 96.0ft

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020
Site Name:	Beacon Falls	**Exposure:**	B	
Height:	160.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

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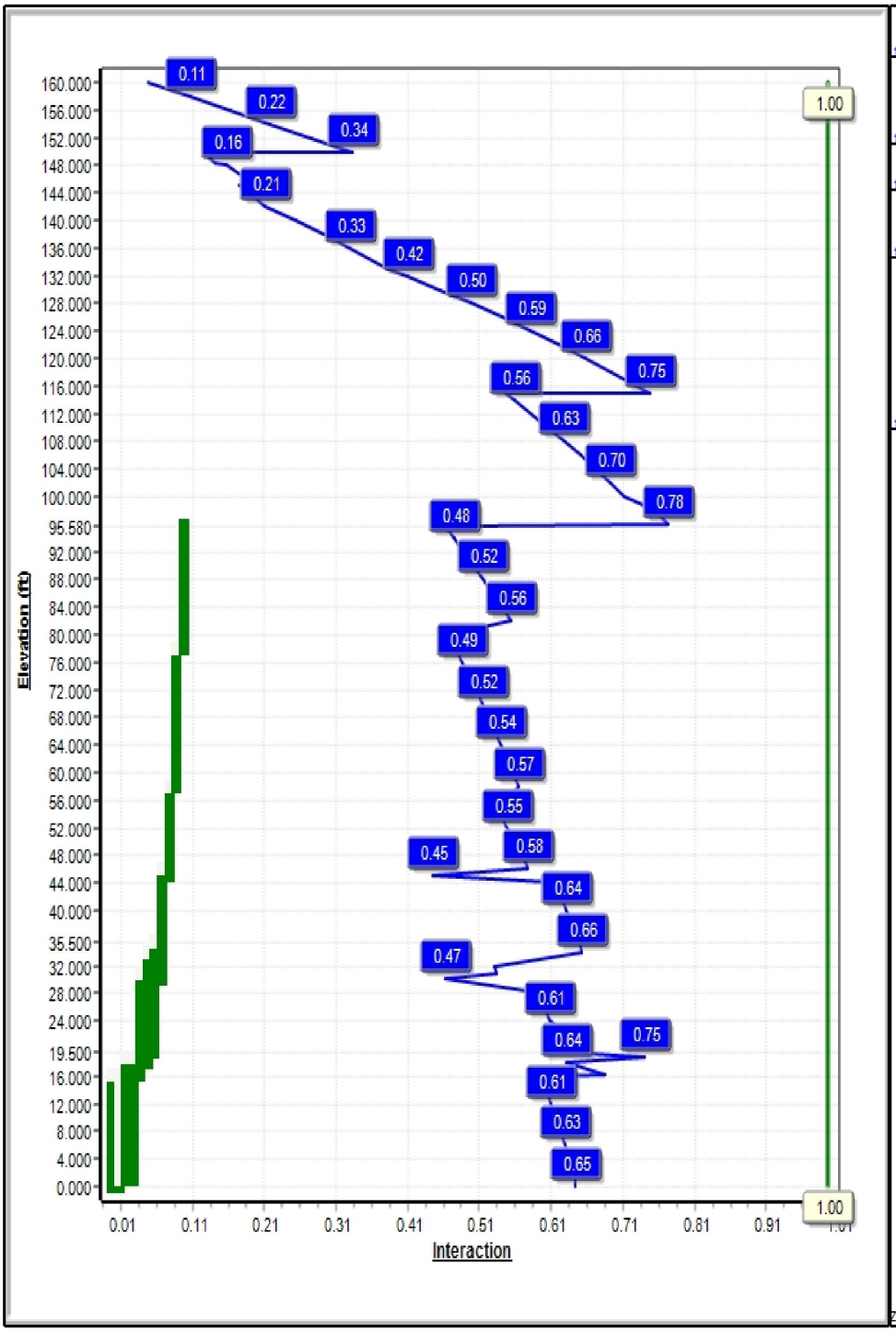
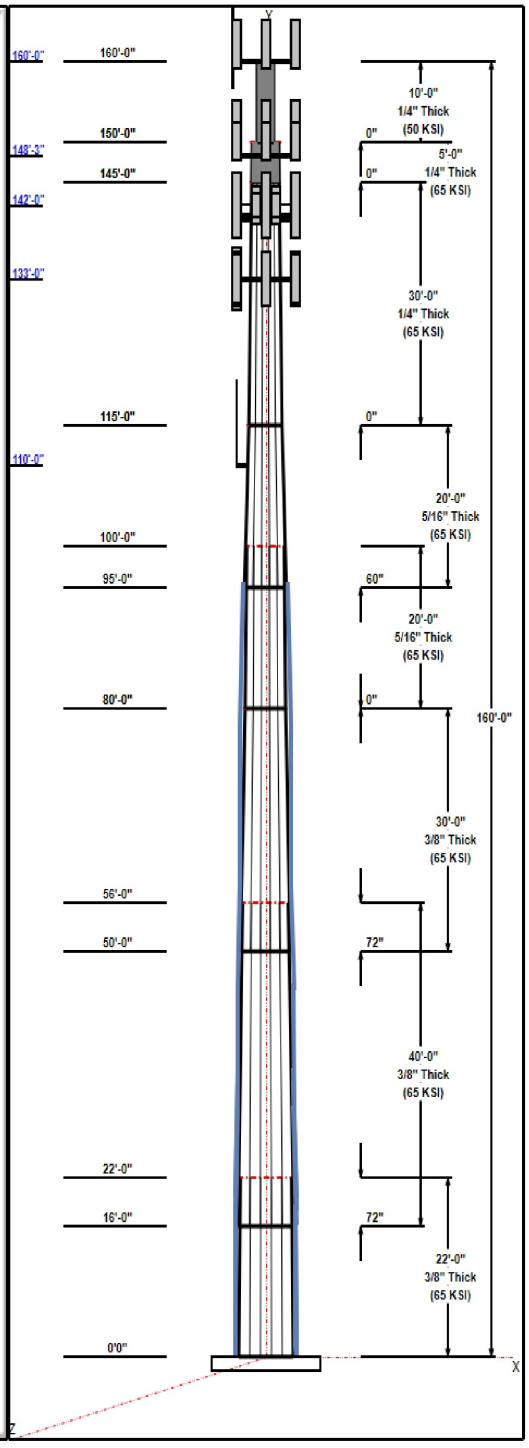
Dead Load Factor:	1.20	**Iterations:**	28
Wind Load Factor:	1.00		

Load Case : 1.2D + 1.0W 118 mph Wind





Structure: CT02049-S-SBA

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

Base Shape: 12 Sided
Taper: 0.19400

12/23/2020

Tower Engineering Solutions

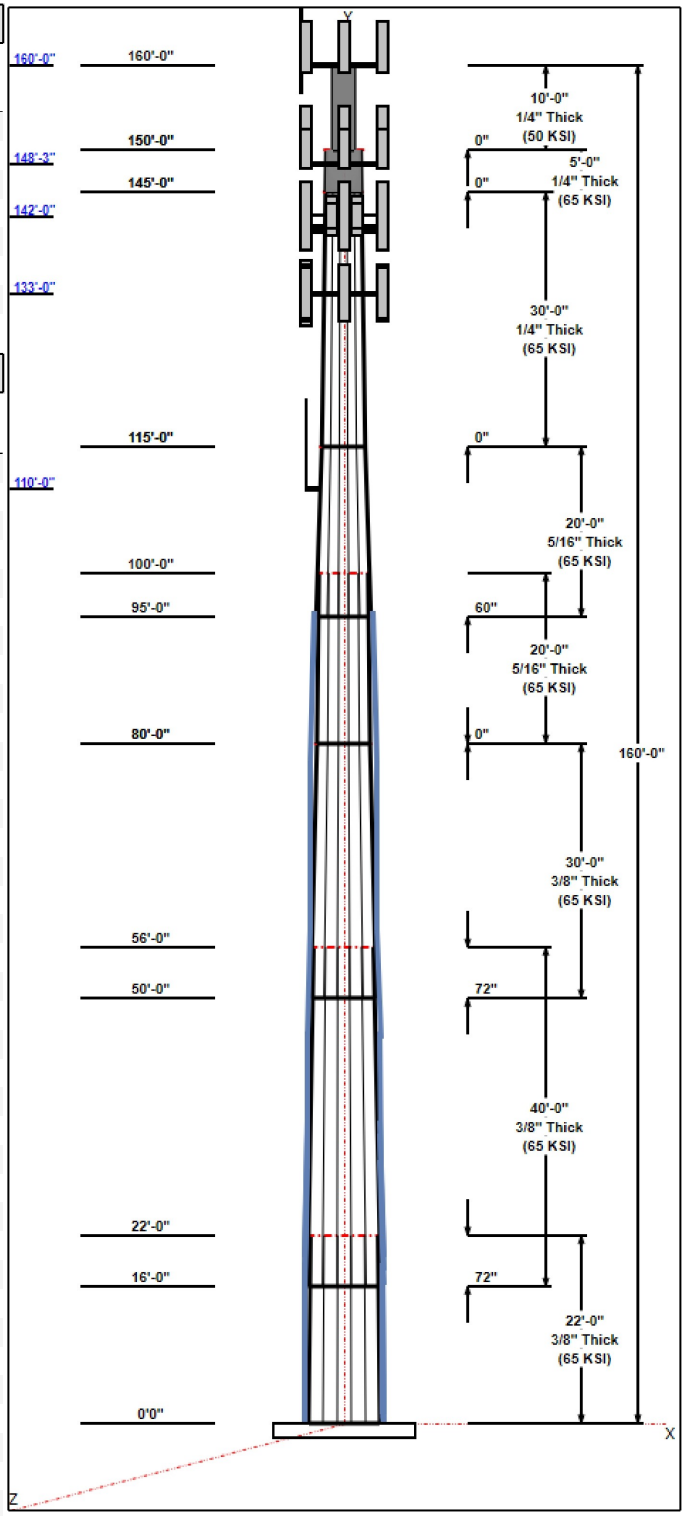
Shaft Properties

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	3	RRH2x90-AWS	Verizon
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	9	SBNHH-1D65B	Verizon
160.00	162.00	1	DB-T1-6Z-8AB-0Z	Verizon
160.00	162.00	1	6' Lightning rod	--
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
142.00	142.70	3	Ericsson KRY 112 144/1	T-Mobile
142.00	142.00	1	Platform w/ HR & Bracing	T-Mobile
142.00	142.00	4	Commscope	T-Mobile
142.00	142.00	4	Ericsson 4415 B25 RRU	T-Mobile
142.00	142.00	1	Mod	T-Mobile
142.00	142.00	4	Ericsson AIR6449 B41	T-Mobile
142.00	142.00	4	Ericsson Air 32	T-Mobile
142.00	142.00	3	RFS	T-Mobile
142.00	142.00	1	RFS	T-Mobile
142.00	142.00	4	Ericsson Radio 4449	T-Mobile
142.00	142.00	1	Ericsson Radio 4415 B66A	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
0.00	160.00	Outside	1 5/8" Hybrid	Verizon
0.00	160.00	Outside	7/8" Coax	BFFD
0.00	148.30	Inside	1-1/4" Hybrid	Sprint
0.00	148.30	Inside	1-1/4" Hybrid	Sprint
0.00	142.00	Inside	1 5/8" Coax	T-Mobile
0.00	142.00	Outside	1 5/8" Fiber	T-Mobile
0.00	142.00	Outside	1-1/4" Fiber	T-Mobile
0.00	133.00	Inside	1 1/4" Coax	AT&T
0.00	133.00	Inside	1 5/8" Coax	AT&T
0.00	133.00	Inside	3/4" DC Power	AT&T
0.00	133.00	Inside	3/8" Fiber	AT&T
0.00	110.00	Outside	7/8" Coax	BFFD
0.00	98.00	Outside	1.25" Reinforcing plate	
0.00	40.00	Inside	1/2" Coax	Sprint
0.00	32.00	Outside	1.25" Reinforcing plate	

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
18	2.00" F1554 105	105.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.5000	63.0	50.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 118 mph Wind	4053.6	34.4	53.2
0.9D + 1.0W 118 mph Wind	4002.7	34.4	39.9
1.2D + 1.0Di + 1.0Wi 50 mph Wind	998.8	8.2	74.3
1.2D + 1.0Ev + 1.0Eh	77.8	0.5	55.2
0.9D + 1.0Ev + 1.0Eh	76.9	0.5	41.8
1.0D + 1.0W 60 mph Wind	931.2	8.0	44.4

Structure: CT02049-S-SBA - Coax Line Placement

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

12/23/2020

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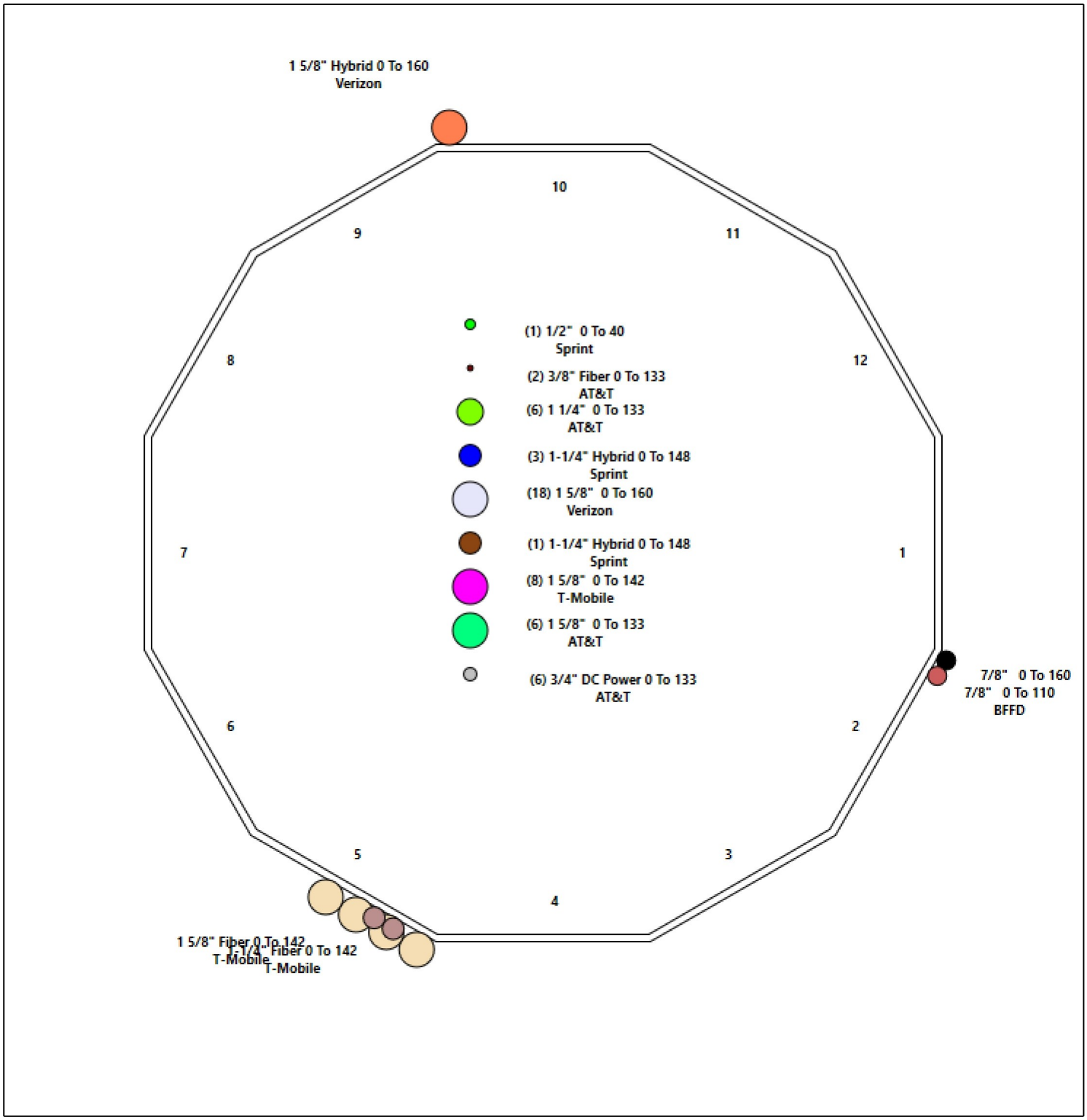

Shaft Properties

Structure:	CT02049-S-SBA		**Code:**	EIA/TIA-222-H	12/23/2020
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: 5

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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: Description	Intermediate Connectors: Spacing (in)	Termination Connectors: Description	Termination Connectors: Spacing (in)	Termination Connectors: Lower Qty	Termination Connectors: 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		
1.00	18.75	2	LNP LP6X100-BW-20T	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00		8
1.00	18.75	1	LNP LP6x100-B2-20T	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00		8
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-H	12/23/2020	
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: 6	

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Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	160.00	RRH2x90-AWS	3	44.00	2.66	0.67	84.75	3.526	0.67	0.00	2.00
2	160.00	DB222	1	16.00	2.25	1.00	62.50	6.317	1.00	0.00	2.00
3	160.00	DB846F65ZAXY	6	21.00	7.05	0.93	145.05	7.851	0.93	0.00	2.00
4	160.00	Low Profile Platform	1	1200.00	22.00	1.00	1902.61	33.851	1.00	0.00	2.00
5	160.00	SBNHH-1D65B	9	40.00	8.16	0.81	167.81	9.011	0.81	0.00	2.00
6	160.00	DB-T1-6Z-8AB-0Z	1	44.00	4.80	1.00	134.88	5.373	1.00	0.00	2.00
7	160.00	6' Lightning rod	1	6.50	0.38	1.00	30.86	1.110	1.00	0.00	2.00
8	148.30	APXVSPP18-C-A20	3	57.00	8.02	0.83	172.10	9.880	0.83	0.00	3.70
9	148.30	APXVTM14-C-120	3	56.00	6.34	0.76	155.70	7.065	0.77	0.00	1.70
10	148.30	1900MHz RRH	3	44.00	3.80	0.67	116.69	4.726	0.67	0.00	3.70
11	148.30	800 MHz RRH	3	53.00	2.49	0.67	102.25	3.252	0.67	0.00	3.70
12	148.30	ALU 800MHz External Notch Filt	3	8.80	0.78	0.67	20.55	1.211	0.67	0.00	3.70
13	148.30	TD-RRH8x20-25	3	70.00	4.05	0.67	138.53	4.577	0.67	0.00	1.70
14	148.30	ACU-A20-N	4	1.00	0.14	0.67	3.86	0.338	0.67	0.00	3.70
15	148.30	Low Profile Platform	1	1200.00	22.00	1.00	1897.29	33.761	1.00	0.00	0.00
16	142.00	Ericsson KRY 112 144/1 TMA	3	11.00	0.41	0.67	18.15	0.725	0.67	0.00	0.70
17	142.00	Platform w/ HR & Bracing	1	2246.00	52.00	1.00	4325.11	77.512	1.00	0.00	0.00
18	142.00	Commscope SDX1926Q-43 Diplexer	4	2.90	0.12	0.67	5.58	0.303	0.67	0.00	0.00
19	142.00	Ericsson 4415 B25 RRU	4	49.60	1.86	0.67	87.18	2.220	0.67	0.00	0.00
20	142.00	Mod	1	300.00	12.00	1.00	577.71	20.331	1.00	0.00	0.00
21	142.00	Ericsson AIR6449 B41	4	103.00	5.65	0.71	193.91	6.280	0.71	0.00	0.00
22	142.00	Ericsson Air 32	4	132.20	6.51	0.87	247.00	7.293	0.87	0.00	0.00
23	142.00	RFS APXVAARR24_43-U-NA20	3	128.00	20.24	0.70	393.32	21.484	0.70	0.00	0.00
24	142.00	RFS APXVAARR18_43-U-NA20	1	106.00	14.67	0.70	315.33	15.690	0.70	0.00	0.00
25	142.00	Ericsson Radio 4449 B71+B85 RRUs	4	70.00	1.65	0.67	111.43	1.993	0.67	0.00	0.00
26	142.00	Ericsson Radio 4415 B66A RRUs	1	44.10	1.86	0.67	75.55	2.240	0.67	0.00	0.00
27	133.00	Kathrein 800 10121	3	46.30	5.15	0.79	121.96	6.538	0.79	0.00	0.00
28	133.00	Kathrein 800-10965	3	108.60	13.81	0.71	295.10	14.836	0.71	0.00	0.00
29	133.00	Cci TPA-65R-LCUUUU-H8	1	105.00	12.75	0.79	280.26	13.784	0.79	0.00	0.00
30	133.00	Quintel QS66512-2	2	111.00	8.13	0.92	251.89	8.966	0.92	0.00	0.00
31	133.00	(3) SitePro 1 P/N RMV12-NP W/3	2	1357.77	21.34	1.00	2231.84	39.003	1.00	0.00	0.00
32	133.00	Powerwave LGP21401 TMA	6	14.10	1.29	0.67	30.57	1.841	0.67	0.00	0.00
33	133.00	Ericsson RRUS-32 RRU	3	77.00	3.87	0.67	146.63	3.822	0.67	0.00	0.00
34	133.00	Ericsson B2/B66A 8843 RRU	3	72.00	1.64	0.67	102.86	1.967	0.67	0.00	0.00
35	133.00	Ericsson B5/B12 4449 RRU	3	71.00	1.97	0.67	106.16	2.330	0.67	0.00	0.00
36	133.00	Raycap DC6-48-60-18-8F Junction	3	31.80	0.92	1.00	72.52	1.208	1.00	0.00	0.00
37	110.00	DB222	1	16.00	2.65	1.00	60.79	7.264	1.00	0.00	5.29
38	110.00	3 ft Standoff	1	40.00	2.63	1.00	91.89	6.488	1.00	0.00	0.00
39	40.00	GPS	1	10.00	1.00	1.00	27.13	1.416	1.00	0.00	0.00
		Totals:	**107**	**12,912.04**			**26,051.07**				

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

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
0.00	160.00	(1) 7/8" Coax			0.00	Outside					
0.00	148.30	(1) 1-1/4" Hybrid			0.00	Inside					
0.00	148.30	(3) 1-1/4" Hybrid			0.00	Inside					
0.00	142.00	(8) 1 5/8" Coax			0.00	Inside					
0.00	142.00	(4) 1 5/8" Fiber			2.00	Outside					
0.00	142.00	(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-H | 12/23/2020

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

Tower Engineering Solutions

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)	Additional Reinforcing Ixp (in^4)	Additional Reinforcing Iyp (in^4)	Additional Reinforcing Weight (lb)
0.00	RB1 RB2	0.3750	50.375	60.375	19265.6	33.85	134.33	65	68	0.0	38.70	17446.6	13285.7	
1.00	RT2 RB3 RB4	0.3750	50.181	60.141	19042.2	33.71	133.82	65	68	205.0	44.46	16928.4	13002.7	151.2
2.00		0.3750	49.987	59.906	18820.6	33.57	133.30	65	68	204.2	44.46	16802.1	12906.2	151.2
4.00		0.3750	49.599	59.438	18382.5	33.30	132.26	65	68	406.1	44.46	16551.1	12714.2	302.5
6.00		0.3750	49.211	58.969	17951.2	33.02	131.23	65	69	402.9	44.46	16301.9	12523.7	302.5
8.00		0.3750	48.823	58.501	17526.7	32.74	130.19	65	69	399.7	44.46	16054.6	12334.6	302.5
10.00		0.3750	48.435	58.032	17109.0	32.46	129.16	65	69	396.5	44.46	15809.2	12147.0	302.5
12.00		0.3750	48.047	57.564	16698.0	32.19	128.13	65	70	393.3	44.46	15565.7	11960.8	302.5
14.00		0.3750	47.659	57.095	16293.5	31.91	127.09	65	70	390.2	44.46	15324.1	11776.1	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	15084.3	11592.8	302.5
16.25	RT1 RB5	0.3750	47.222	56.568	15846.5	31.60	125.93	65	70	97.1	31.47	11629.5	8035.3	26.8
18.00	RB6	0.3750	46.883	56.158	15504.4	31.36	125.02	65	71	676.7	43.47	16818.9	9640.8	259.0
18.75	RT3 RT4	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	RB7	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	RB8	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	RT5	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	RT6	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	RT7	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	RB9	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	RT8	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	RT9 RB10	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	RT10 RB11	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	RT11	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				
144.00		0.2500	24.564	19.573	1476.9	24.18	98.26	65	78	134.3				
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**

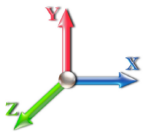
Wind Loading - Shaft

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 10	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	23.174	25.49	424.23	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT2 RB3 RB4	1.00	0.70	23.174	25.49	422.60	1.089 *	0.000	1.00	4.338	4.73	120.4	0.0	246.1
2.00		1.00	0.70	23.174	25.49	420.97	1.091 *	0.000	1.00	4.321	4.71	120.2	0.0	245.1
4.00		1.00	0.70	23.174	25.49	417.70	1.093 *	0.000	2.00	8.592	9.39	239.5	0.0	487.3
6.00		1.00	0.70	23.174	25.49	414.43	1.097 *	0.000	2.00	8.525	9.35	238.3	0.0	483.5
8.00		1.00	0.70	23.174	25.49	411.16	1.100 *	0.000	2.00	8.458	9.31	237.2	0.0	479.7
10.00		1.00	0.70	23.174	25.49	407.90	1.104 *	0.000	2.00	8.391	9.26	236.1	0.0	475.8
12.00		1.00	0.70	23.174	25.49	404.63	1.107 *	0.000	2.00	8.324	9.22	234.9	0.0	472.0
14.00		1.00	0.70	23.174	25.49	401.36	1.111 *	0.000	2.00	8.257	9.17	233.8	0.0	468.2
16.00	Bot - Section 2	1.00	0.70	23.174	25.49	398.09	1.114 *	0.000	2.00	8.190	9.13	232.7	0.0	464.4
16.25	RT1 RB5	1.00	0.70	23.174	25.49	397.69	1.117 *	0.000	0.25	1.035	1.16	29.5	0.0	116.5
18.00	RB6	1.00	0.70	23.174	25.49	394.83	1.118 *	0.000	1.75	7.217	8.07	205.8	0.0	812.0
18.75	RT3 RT4	1.00	0.70	23.174	25.49	393.60	1.121 *	0.000	0.75	3.077	3.45	87.9	0.0	346.2
19.50	RB7	1.00	0.70	23.174	25.49	392.38	1.122 *	0.000	0.75	3.068	3.44	87.8	0.0	345.1
20.00		1.00	0.70	23.174	25.49	391.56	1.123 *	0.000	0.50	2.040	2.29	58.4	0.0	229.5
22.00	Top - Section 1	1.00	0.70	23.174	25.49	388.29	1.126 *	0.000	2.00	8.118	9.14	233.0	0.0	913.2
24.00		1.00	0.70	23.174	25.49	391.34	1.122 *	0.000	2.00	8.052	9.04	230.3	0.0	456.5
26.00		1.00	0.70	23.174	25.49	388.07	1.126 *	0.000	2.00	7.985	8.99	229.2	0.0	452.6
28.00		1.00	0.70	23.174	25.49	384.81	1.130 *	0.000	2.00	7.918	8.95	228.1	0.0	448.8
30.00	RB8	1.00	0.70	23.193	25.51	381.70	1.134 *	0.000	2.00	7.851	8.90	227.1	0.0	445.0
31.00	RT5	1.00	0.71	23.412	25.75	381.85	1.137 *	0.000	1.00	3.900	4.43	114.2	0.0	221.1
32.00		1.00	0.71	23.625	25.99	381.93	1.139 *	0.000	1.00	3.883	4.42	114.9	0.0	220.1
34.00	RT6	1.00	0.73	24.038	26.44	381.93	0.988 *	0.000	2.00	7.717	7.63	201.6	0.0	437.3
35.50	RT7	1.00	0.74	24.336	26.77	381.78	0.991 *	0.000	1.50	5.744	5.69	152.3	0.0	325.5
36.00		1.00	0.74	24.433	26.88	381.71	0.992 *	0.000	0.50	1.906	1.89	50.8	0.0	108.0
38.00		1.00	0.75	24.814	27.30	381.28	0.994 *	0.000	2.00	7.583	7.54	205.7	0.0	429.7
40.00	Appurtenance(s)	1.00	0.76	25.180	27.70	380.68	0.997 *	0.000	2.00	7.516	7.49	207.5	0.0	425.8
42.00		1.00	0.77	25.534	28.09	379.91	1.000 *	0.000	2.00	7.449	7.45	209.2	0.0	422.0
44.00		1.00	0.78	25.875	28.46	379.00	1.003 *	0.000	2.00	7.382	7.40	210.7	0.0	418.2
45.16	RB9	1.00	0.79	26.068	28.68	378.40	1.005 *	0.000	1.16	4.251	4.27	122.5	0.0	240.8
46.00	RT8	1.00	0.79	26.206	28.83	377.93	1.007 *	0.000	0.84	3.064	3.09	88.9	0.0	173.6
48.00		1.00	0.80	26.527	29.18	376.74	1.009 *	0.000	2.00	7.248	7.31	213.4	0.0	410.5
50.00	Bot - Section 3	1.00	0.81	26.838	29.52	375.43	1.012 *	0.000	2.00	7.181	7.27	214.6	0.0	406.7
52.00		1.00	0.82	27.140	29.85	374.00	1.016 *	0.000	2.00	7.244	7.36	219.6	0.0	813.2
54.00		1.00	0.83	27.435	30.18	372.47	1.019 *	0.000	2.00	7.177	7.31	220.7	0.0	805.5
56.00	Top - Section 2	1.00	0.84	27.721	30.49	370.84	1.022 *	0.000	2.00	7.110	7.27	221.6	0.0	797.9
58.00	RT9 RB10	1.00	0.85	28.000	30.80	376.05	1.019 *	0.000	2.00	7.043	7.18	221.1	0.0	398.8
60.00		1.00	0.85	28.273	31.10	374.27	1.022 *	0.000	2.00	6.976	7.13	221.8	0.0	395.0
62.00		1.00	0.86	28.539	31.39	372.40	1.026 *	0.000	2.00	6.909	7.09	222.5	0.0	391.2
64.00		1.00	0.87	28.799	31.68	370.45	1.029 *	0.000	2.00	6.842	7.04	223.1	0.0	387.3
66.00		1.00	0.88	29.053	31.96	368.42	1.033 *	0.000	2.00	6.775	7.00	223.7	0.0	383.5
68.00		1.00	0.89	29.302	32.23	366.32	1.037 *	0.000	2.00	6.708	6.95	224.2	0.0	379.7
70.00		1.00	0.89	29.546	32.50	364.15	1.041 *	0.000	2.00	6.641	6.91	224.6	0.0	375.9
72.00		1.00	0.90	29.785	32.76	361.92	1.044 *	0.000	2.00	6.574	6.87	224.9	0.0	372.0
74.00		1.00	0.91	30.019	33.02	359.62	1.048 *	0.000	2.00	6.507	6.82	225.2	0.0	368.2
76.00		1.00	0.91	30.248	33.27	357.26	1.052 *	0.000	2.00	6.440	6.78	225.5	0.0	364.4
78.00	RT10 RB11	1.00	0.92	30.474	33.52	354.84	1.056 *	0.000	2.00	6.373	6.73	225.7	0.0	360.5

Wind Loading - Shaft

Structure: CT02049-S-SBA | **Code:** EIA/TIA-222-H | 12/23/2020
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: 11

Tower Engineering Solutions

80.00	Top - Section 3	1.00	0.93	30.695	33.76	352.36	1.060 *	0.000	2.00	6.306	6.69	225.8	0.0	356.7
82.00		1.00	0.93	30.912	34.00	349.84	1.065 *	0.000	2.00	6.239	6.64	225.9	0.0	294.6
84.00		1.00	0.94	31.126	34.24	347.25	1.069 *	0.000	2.00	6.172	6.60	225.9	0.0	291.4
86.00		1.00	0.95	31.336	34.47	344.62	1.073 *	0.000	2.00	6.106	6.55	225.9	0.0	288.2
88.00		1.00	0.95	31.542	34.70	341.95	1.078 *	0.000	2.00	6.039	6.51	225.9	0.0	285.0
90.00		1.00	0.96	31.746	34.92	339.22	1.083 *	0.000	2.00	5.972	6.46	225.8	0.0	281.8
92.00		1.00	0.96	31.946	35.14	336.45	1.087 *	0.000	2.00	5.905	6.42	225.6	0.0	278.7
94.00		1.00	0.97	32.142	35.36	333.64	1.092 *	0.000	2.00	5.838	6.38	225.4	0.0	275.5
95.00	Bot - Section 5	1.00	0.97	32.240	35.46	332.22	1.096 *	0.000	1.00	2.894	3.17	112.5	0.0	136.5
95.58	RT11	1.00	0.98	32.296	35.53	331.39	1.098 *	0.000	0.58	1.702	1.87	66.4	0.0	159.1
96.00		1.00	0.98	32.336	35.57	330.78	1.099 *	0.000	0.42	1.229	1.35	48.0	0.0	114.9
98.00		1.00	0.98	32.527	35.78	327.89	1.102 *	0.000	2.00	5.812	6.41	229.2	0.0	543.3
100.00	Top - Section 4	1.00	0.99	32.716	35.99	324.95	1.002 *	0.000	2.00	5.745	5.76	207.2	0.0	536.9
102.00		1.00	0.99	32.901	36.19	328.25	1.000 *	0.000	2.00	5.678	5.68	205.4	0.0	267.8
104.00		1.00	1.00	33.084	36.39	325.26	1.004 *	0.000	2.00	5.611	5.63	204.9	0.0	264.7
106.00		1.00	1.00	33.265	36.59	322.23	1.008 *	0.000	2.00	5.544	5.59	204.4	0.0	261.5
108.00		1.00	1.01	33.443	36.79	319.17	1.012 *	0.000	2.00	5.477	5.54	203.9	0.0	258.3
110.00	Appurtenance(s)	1.00	1.02	33.619	36.98	316.07	1.016 *	0.000	2.00	5.410	5.50	203.3	0.0	255.1
112.00		1.00	1.02	33.792	37.17	312.94	1.021 *	0.000	2.00	5.343	5.45	202.7	0.0	251.9
114.00		1.00	1.03	33.964	37.36	309.77	1.025 *	0.000	2.00	5.276	5.41	202.1	0.0	248.7
115.00	Top - Section 5	1.00	1.03	34.049	37.45	308.18	1.029 *	0.000	1.00	2.613	2.69	100.7	0.0	123.2
116.00		1.00	1.03	34.133	37.55	306.58	1.031 *	0.000	1.00	2.596	2.68	100.5	0.0	98.1
118.00		1.00	1.04	34.300	37.73	303.35	1.034 *	0.000	2.00	5.142	5.32	200.7	0.0	194.3
120.00		1.00	1.04	34.465	37.91	300.10	1.039 *	0.000	2.00	5.075	5.28	200.0	0.0	191.7
122.00		1.00	1.05	34.628	38.09	296.81	1.044 *	0.000	2.00	5.008	5.23	199.2	0.0	189.2
124.00		1.00	1.05	34.790	38.27	293.50	1.050 *	0.000	2.00	4.941	5.19	198.5	0.0	186.6
126.00		1.00	1.06	34.949	38.44	290.16	1.055 *	0.000	2.00	4.874	5.14	197.7	0.0	184.1
128.00		1.00	1.06	35.107	38.62	286.79	1.060 *	0.000	2.00	4.807	5.10	196.8	0.0	181.5
130.00		1.00	1.07	35.262	38.79	283.40	1.066 *	0.000	2.00	4.741	5.05	196.0	0.0	179.0
132.00		1.00	1.07	35.417	38.96	279.98	1.072 *	0.000	2.00	4.674	5.01	195.1	0.0	176.4
133.00	Appurtenance(s)	1.00	1.07	35.493	39.04	278.26	1.076 *	0.000	1.00	2.312	2.49	97.1	0.0	87.3
134.00		1.00	1.07	35.569	39.13	276.53	1.079 *	0.000	1.00	2.295	2.48	96.9	0.0	86.6
136.00		1.00	1.08	35.720	39.29	273.06	1.084 *	0.000	2.00	4.540	4.92	193.3	0.0	171.3
138.00		1.00	1.08	35.869	39.46	269.56	1.090 *	0.000	2.00	4.473	4.87	192.3	0.0	168.8
140.00		1.00	1.09	36.017	39.62	266.04	1.096 *	0.000	2.00	4.406	4.83	191.4	0.0	166.2
142.00	Appurtenance(s)	1.00	1.09	36.163	39.78	262.50	1.103 *	0.000	2.00	4.339	4.79	190.4	0.0	163.7
144.00		1.00	1.10	36.308	39.94	258.94	0.950	0.000	2.00	4.272	4.06	162.1	0.0	161.1
145.00	Top - Section 6	1.00	1.10	36.380	40.02	257.15	0.950	0.000	1.00	2.111	2.01	80.2	0.0	79.6
146.00		1.00	1.10	36.451	40.10	246.70	0.600	0.000	1.00	2.023	1.21	48.7	0.0	77.1
148.00		1.00	1.11	36.593	40.25	243.21	0.600	0.000	2.00	3.998	2.40	96.6	0.0	152.3
148.30	Appurtenance(s)	1.00	1.11	36.615	40.28	242.69	0.600	0.000	0.30	0.594	0.36	14.4	0.0	22.6
150.00	Top - Section 7	1.00	1.11	36.734	40.41	239.71	0.600	0.000	1.70	3.339	2.00	81.0	0.0	127.1
152.00		1.00	1.11	36.873	40.56	164.18	0.645 *	0.000	2.00	2.667	1.72	69.8	0.0	101.0
154.00		1.00	1.12	37.011	40.71	164.48	0.645 *	0.000	2.00	2.667	1.72	70.0	0.0	101.0
156.00		1.00	1.12	37.148	40.86	164.79	0.645 *	0.000	2.00	2.667	1.72	70.3	0.0	101.0
158.00		1.00	1.13	37.283	41.01	165.09	0.645 *	0.000	2.00	2.667	1.72	70.5	0.0	101.0
160.00	Appurtenance(s)	1.00	1.13	37.418	41.16	165.38	0.645 *	0.000	2.00	2.667	1.72	70.8	0.0	101.0
								Totals:	**160.00**			**16,217.6**		**28,543.3**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

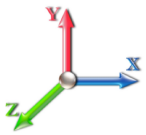
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 28

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	6' Lightning rod	1	37.551	41.306	1.00	1.00	0.38	7.80	0.000	2.000	15.70	0.00	31.39
2	160.00	DB-T1-6Z-8AB-0Z	1	37.551	41.306	1.00	1.00	4.80	52.80	0.000	2.000	198.27	0.00	396.54
3	160.00	SBNHH-1D65B	9	37.551	41.306	0.81	1.00	59.49	432.00	0.000	2.000	2457.13	0.00	4914.26
4	160.00	Low Profile Platform	1	37.551	41.306	1.00	1.00	22.00	1440.00	0.000	2.000	908.73	0.00	1817.45
5	160.00	DB846F65ZAXY	6	37.551	41.306	0.93	1.00	39.34	151.20	0.000	2.000	1624.93	0.00	3249.85
6	160.00	DB222	1	37.551	41.306	1.00	1.00	2.25	19.20	0.000	2.000	92.94	0.00	185.88
7	160.00	RRH2x90-AWS	3	37.551	41.306	0.67	1.00	5.35	158.40	0.000	2.000	220.85	0.00	441.69
8	148.30	1900MHz RRH	3	36.873	40.561	0.54	0.80	6.11	158.40	0.000	3.700	247.84	0.00	917.01
9	148.30	800 MHz RRH	3	36.873	40.561	0.54	0.80	4.00	190.80	0.000	3.700	162.40	0.00	600.89
10	148.30	APXVTM14-C-120	3	36.734	40.407	0.61	0.80	11.59	201.60	0.000	1.700	468.51	0.00	796.46
11	148.30	APXVSPP18-C-A20	3	36.873	40.561	0.66	0.80	15.98	205.20	0.000	3.700	647.99	0.00	2397.56
12	148.30	TD-RRH8x20-25	3	36.734	40.407	0.54	0.80	6.51	252.00	0.000	1.700	263.15	0.00	447.35
13	148.30	ALU 800MHz External	3	36.873	40.561	0.54	0.80	1.25	31.68	0.000	3.700	50.87	0.00	188.23
14	148.30	ACU-A20-N	4	36.873	40.561	0.54	0.80	0.30	4.80	0.000	3.700	12.17	0.00	45.05
15	148.30	Low Profile Platform	1	36.615	40.276	1.00	1.00	22.00	1440.00	0.000	0.000	886.07	0.00	0.00
16	142.00	Ericsson Radio 4415	1	36.163	39.780	0.50	0.75	0.93	52.92	0.000	0.000	37.18	0.00	0.00
17	142.00	Ericsson Radio 4449	4	36.163	39.780	0.50	0.75	3.32	336.00	0.000	0.000	131.93	0.00	0.00
18	142.00	RFS	1	36.163	39.780	0.52	0.75	7.70	127.20	0.000	0.000	306.37	0.00	0.00
19	142.00	RFS	3	36.163	39.780	0.52	0.75	31.88	460.80	0.000	0.000	1268.09	0.00	0.00
20	142.00	Ericsson Air 32	4	36.163	39.780	0.65	0.75	16.99	634.56	0.000	0.000	675.90	0.00	0.00
21	142.00	Mod	1	36.163	39.780	1.00	1.00	12.00	360.00	0.000	0.000	477.35	0.00	0.00
22	142.00	Ericsson 4415 B25 RRU	4	36.163	39.780	0.50	0.75	3.74	238.08	0.000	0.000	148.72	0.00	0.00
23	142.00	Commscope	4	36.163	39.780	0.50	0.75	0.24	13.92	0.000	0.000	9.59	0.00	0.00
24	142.00	Platform w/ HR & Bracing	1	36.163	39.780	1.00	1.00	52.00	2695.20	0.000	0.000	2068.54	0.00	0.00
25	142.00	Ericsson KRY 112 144/1	3	36.214	39.835	0.50	0.75	0.62	39.60	0.000	0.700	24.62	0.00	17.23
26	142.00	Ericsson AIR6449 B41	4	36.163	39.780	0.53	0.75	12.03	494.40	0.000	0.000	478.73	0.00	0.00
27	133.00	Cci TPA-65R-LCUUUU-H8	1	35.493	39.042	0.63	0.80	8.06	126.00	0.000	0.000	314.60	0.00	0.00
28	133.00	Quintel QS66512-2	2	35.493	39.042	0.74	0.80	11.97	266.40	0.000	0.000	467.23	0.00	0.00
29	133.00	(3) SitePro 1 P/N	2	35.493	39.042	0.75	0.75	32.01	3258.65	0.000	0.000	1249.74	0.00	0.00
30	133.00	Kathrein 800-10965	3	35.493	39.042	0.57	0.80	23.53	390.96	0.000	0.000	918.75	0.00	0.00
31	133.00	Kathrein 800 10121	3	35.493	39.042	0.63	0.80	9.76	166.68	0.000	0.000	381.22	0.00	0.00
32	133.00	Ericsson RRUS-32 RRU	3	35.493	39.042	0.54	0.80	6.22	277.20	0.000	0.000	242.96	0.00	0.00
33	133.00	Powerwave LGP21401	6	35.493	39.042	0.54	0.80	4.15	101.52	0.000	0.000	161.97	0.00	0.00
34	133.00	Ericsson B2/B66A 8843	3	35.493	39.042	0.54	0.80	2.64	259.20	0.000	0.000	102.96	0.00	0.00
35	133.00	Ericsson B5/B12 4449	3	35.493	39.042	0.54	0.80	3.17	255.60	0.000	0.000	123.68	0.00	0.00
36	133.00	Raycap DC6-48-60-18-8F	3	35.493	39.042	0.80	0.80	2.21	114.48	0.000	0.000	86.21	0.00	0.00
37	110.00	3 ft Standoff	1	33.619	36.981	1.00	1.00	2.63	48.00	0.000	0.000	97.26	0.00	0.00
38	110.00	DB222	1	34.073	37.481	1.00	1.00	2.65	19.20	0.000	5.292	99.32	0.00	525.59
39	40.00	GPS	1	25.180	27.698	1.00	1.00	1.00	12.00	0.000	0.000	27.70	0.00	0.00
							Totals:		**15,494.45**			**18,158.18**		

Total Applied Force Summary

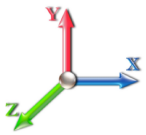
Structure:	CT02049-S-SBA		**Code:**	EIA/TIA-222-H	12/23/2020
Site Name:	Beacon Falls		**Exposure:**	B	
Height:	160.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 13

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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		120.45	308.67	0.00	0.00
2.00		120.17	307.72	0.00	0.00
4.00		239.48	612.56	0.00	0.00
6.00		238.35	608.74	0.00	0.00
8.00		237.21	604.91	0.00	0.00
10.00		236.08	601.09	0.00	0.00
12.00		234.94	597.26	0.00	0.00
14.00		233.81	593.43	0.00	0.00
16.00		232.67	589.61	0.00	0.00
16.25		29.46	132.13	0.00	0.00
18.00		205.76	921.58	0.00	0.00
18.75		87.92	393.17	0.00	0.00
19.50		87.76	392.10	0.00	0.00
20.00		58.42	260.80	0.00	0.00
22.00		232.98	1038.41	0.00	0.00
24.00		230.33	581.70	0.00	0.00
26.00		229.19	577.87	0.00	0.00
28.00		228.06	574.05	0.00	0.00
30.00		227.11	570.22	0.00	0.00
31.00		114.19	283.68	0.00	0.00
32.00		114.95	282.72	0.00	0.00
34.00		201.63	562.57	0.00	0.00
35.50		152.32	419.42	0.00	0.00
36.00		50.83	139.33	0.00	0.00
38.00		205.71	554.92	0.00	0.00
40.00	(1) attachments	235.21	563.09	0.00	0.00
42.00		209.17	546.88	0.00	0.00
44.00		210.70	543.05	0.00	0.00
45.16		122.54	313.22	0.00	0.00
46.00		88.93	226.01	0.00	0.00
48.00		213.41	535.40	0.00	0.00
50.00		214.60	531.57	0.00	0.00
52.00		219.61	938.04	0.00	0.00
54.00		220.66	930.38	0.00	0.00
56.00		221.62	922.73	0.00	0.00
58.00		221.06	523.67	0.00	0.00
60.00		221.83	519.84	0.00	0.00
62.00		222.52	516.01	0.00	0.00
64.00		223.14	512.19	0.00	0.00
66.00		223.68	508.36	0.00	0.00
68.00		224.16	504.54	0.00	0.00
70.00		224.58	500.71	0.00	0.00
72.00		224.94	496.88	0.00	0.00
74.00		225.24	493.06	0.00	0.00
76.00		225.48	489.23	0.00	0.00
78.00		225.66	485.40	0.00	0.00

Total Applied Force Summary

Structure:	CT02049-S-SBA		**Code:**	EIA/TIA-222-H	12/23/2020
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: 14

Tower Engineering Solutions

80.00		225.80	481.58	0.00	0.00
82.00		225.88	419.45	0.00	0.00
84.00		225.92	416.26	0.00	0.00
86.00		225.91	413.07	0.00	0.00
88.00		225.85	409.88	0.00	0.00
90.00		225.75	406.70	0.00	0.00
92.00		225.61	403.51	0.00	0.00
94.00		225.43	400.32	0.00	0.00
95.00		112.46	198.96	0.00	0.00
95.58		66.38	195.35	0.00	0.00
96.00		48.05	141.12	0.00	0.00
98.00		229.20	668.16	0.00	0.00
100.00		207.16	661.79	0.00	0.00
102.00		205.41	392.70	0.00	0.00
104.00		204.94	389.51	0.00	0.00
106.00		204.43	386.32	0.00	0.00
108.00		203.88	383.14	0.00	0.00
110.00	(2) attachments	399.89	447.15	0.00	525.59
112.00		202.70	375.51	0.00	0.00
114.00		202.07	372.32	0.00	0.00
115.00		100.66	184.97	0.00	0.00
116.00		100.49	159.90	0.00	0.00
118.00		200.71	317.89	0.00	0.00
120.00		199.99	315.34	0.00	0.00
122.00		199.24	312.79	0.00	0.00
124.00		198.46	310.24	0.00	0.00
126.00		197.66	307.69	0.00	0.00
128.00		196.83	305.14	0.00	0.00
130.00		195.98	302.58	0.00	0.00
132.00		195.10	300.03	0.00	0.00
133.00	(29) attachments	4146.44	5365.75	0.00	0.00
134.00		96.88	133.16	0.00	0.00
136.00		193.27	264.40	0.00	0.00
138.00		192.32	261.85	0.00	0.00
140.00		191.35	259.30	0.00	0.00
142.00	(30) attachments	5817.39	5709.43	0.00	17.23
144.00		162.08	219.09	0.00	0.00
145.00		80.25	108.59	0.00	0.00
146.00		48.67	106.05	0.00	0.00
148.00		96.55	210.23	0.00	0.00
148.30	(23) attachments	2753.37	2515.80	0.00	5392.55
150.00		80.95	168.63	0.00	0.00
152.00		69.76	149.84	0.00	0.00
154.00		70.03	149.84	0.00	0.00
156.00		70.28	149.84	0.00	0.00
158.00		70.54	149.84	0.00	0.00
160.00	(22) attachments	5589.32	2411.24	0.00	11037.06
	Totals:	**34,375.82**	**53,221.17**	**0.00**	**16,972.44**

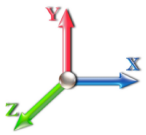
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 15	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	23.174	0.00	1.32
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	23.174	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	23.174	0.00	5.28
1.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	23.174	0.00	2.29
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	23.174	0.00	0.62
1.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	23.174	0.00	0.00
1.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.147	23.174	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	23.174	0.00	1.32
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	23.174	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	23.174	0.00	5.28
2.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	23.174	0.00	2.29
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	23.174	0.00	0.62
2.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.148	23.174	0.00	0.00
2.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.148	23.174	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	23.174	0.00	2.64
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	23.174	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	23.174	0.00	10.56
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	23.174	0.00	4.58
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	23.174	0.00	1.25
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	23.174	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	23.174	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	23.174	0.00	2.64
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	23.174	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	23.174	0.00	10.56
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	23.174	0.00	4.58
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	23.174	0.00	1.25
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	23.174	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	23.174	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	23.174	0.00	2.64
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	23.174	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	23.174	0.00	10.56
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	23.174	0.00	4.58
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	23.174	0.00	1.25
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	23.174	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	23.174	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	23.174	0.00	2.64
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	23.174	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	23.174	0.00	10.56
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	23.174	0.00	4.58
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	23.174	0.00	1.25
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	23.174	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	23.174	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	23.174	0.00	2.64
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	23.174	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	23.174	0.00	10.56
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	23.174	0.00	4.58
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	23.174	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

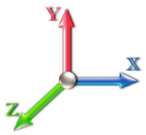
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	23.174	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	23.174	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	23.174	0.00	2.64
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	23.174	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	23.174	0.00	10.56
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	23.174	0.00	4.58
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	23.174	0.00	1.25
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	23.174	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	23.174	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	23.174	0.00	2.64
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	23.174	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	23.174	0.00	10.56
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	23.174	0.00	4.58
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	23.174	0.00	1.25
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	23.174	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	23.174	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	23.174	0.00	0.33
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	23.174	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	23.174	0.00	1.32
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	23.174	0.00	0.57
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	23.174	0.00	0.16
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	23.174	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	23.174	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	23.174	0.00	2.31
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	23.174	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	23.174	0.00	9.24
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	23.174	0.00	4.01
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	23.174	0.00	1.09
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	23.174	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	23.174	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	23.174	0.00	0.99
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	23.174	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	23.174	0.00	3.96
18.75	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	23.174	0.00	1.72
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	23.174	0.00	0.47
18.75	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.180	23.174	0.00	0.00
18.75	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.180	23.174	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	23.174	0.00	0.99
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	23.174	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	23.174	0.00	3.96
19.50	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	23.174	0.00	1.72
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	23.174	0.00	0.47
19.50	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.181	23.174	0.00	0.00
19.50	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.181	23.174	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	23.174	0.00	0.66
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	23.174	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	23.174	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

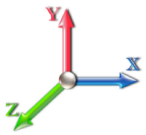
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	23.174	0.00	1.14
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	23.174	0.00	0.31
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	23.174	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	23.174	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	23.174	0.00	2.64
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	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	23.174	0.00	10.56
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	0.00	4.58
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	0.00	1.25
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	23.174	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	23.174	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	23.174	0.00	2.64
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	23.174	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	23.174	0.00	10.56
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	23.174	0.00	4.58
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	23.174	0.00	1.25
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	23.174	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	23.174	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	23.174	0.00	2.64
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	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	23.174	0.00	10.56
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	0.00	4.58
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	0.00	1.25
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	23.174	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	23.174	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	23.174	0.00	2.64
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	23.174	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	23.174	0.00	10.56
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	23.174	0.00	4.58
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	23.174	0.00	1.25
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	23.174	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	23.174	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	23.193	0.00	2.64
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	23.193	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	23.193	0.00	10.56
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	23.193	0.00	4.58
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	23.193	0.00	1.25
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	23.193	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	23.193	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	23.412	0.00	1.32
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	23.412	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	23.412	0.00	5.28
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	23.412	0.00	2.29
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	23.412	0.00	0.62
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	23.412	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	23.412	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	23.625	0.00	1.32

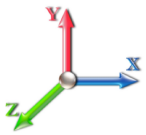
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 18	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	23.625	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	23.625	0.00	5.28
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	23.625	0.00	2.29
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	23.625	0.00	0.62
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	23.625	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	23.625	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	24.038	0.00	2.64
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	24.038	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	24.038	0.00	10.56
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	24.038	0.00	4.58
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	24.038	0.00	1.25
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	24.038	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	24.336	0.00	1.98
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	24.336	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	24.336	0.00	7.92
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	24.336	0.00	3.43
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	24.336	0.00	0.94
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	24.336	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	24.433	0.00	0.66
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	24.433	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	24.433	0.00	2.64
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	24.433	0.00	1.14
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	24.433	0.00	0.31
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	24.433	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	24.814	0.00	2.64
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	24.814	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	24.814	0.00	10.56
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	24.814	0.00	4.58
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	24.814	0.00	1.25
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	24.814	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	25.180	0.00	2.64
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	25.180	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	25.180	0.00	10.56
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	25.180	0.00	4.58
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	25.180	0.00	1.25
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	25.180	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	25.534	0.00	2.64
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	25.534	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	25.534	0.00	10.56
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	25.534	0.00	4.58
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	25.534	0.00	1.25
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	25.534	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	25.875	0.00	2.64
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	25.875	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	25.875	0.00	10.56
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	25.875	0.00	4.58
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	25.875	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

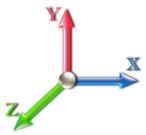
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	25.875	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	26.068	0.00	1.53
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	26.068	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	26.068	0.00	6.12
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	26.068	0.00	2.66
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	26.068	0.00	0.72
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	26.068	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	26.206	0.00	1.11
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	26.206	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	26.206	0.00	4.44
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	26.206	0.00	1.92
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	26.206	0.00	0.52
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	26.206	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	26.527	0.00	2.64
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	26.527	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	26.527	0.00	10.56
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	26.527	0.00	4.58
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	26.527	0.00	1.25
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	26.527	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	26.838	0.00	2.64
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	26.838	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	26.838	0.00	10.56
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	26.838	0.00	4.58
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	26.838	0.00	1.25
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	26.838	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	27.140	0.00	2.64
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	27.140	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	27.140	0.00	10.56
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	27.140	0.00	4.58
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	27.140	0.00	1.25
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	27.140	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	27.435	0.00	2.64
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	27.435	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	27.435	0.00	10.56
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	27.435	0.00	4.58
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	27.435	0.00	1.25
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	27.435	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	27.721	0.00	2.64
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	27.721	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	27.721	0.00	10.56
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	27.721	0.00	4.58
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	27.721	0.00	1.25
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	27.721	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	28.000	0.00	2.64
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	28.000	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	28.000	0.00	10.56
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	28.000	0.00	4.58

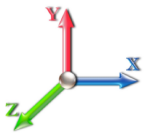
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 20	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	28.000	0.00	1.25
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	28.000	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	28.273	0.00	2.64
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	28.273	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	28.273	0.00	10.56
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	28.273	0.00	4.58
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	28.273	0.00	1.25
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	28.273	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	28.539	0.00	2.64
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	28.539	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	28.539	0.00	10.56
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	28.539	0.00	4.58
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	28.539	0.00	1.25
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	28.539	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	28.799	0.00	2.64
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	28.799	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	28.799	0.00	10.56
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	28.799	0.00	4.58
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	28.799	0.00	1.25
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	28.799	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	29.053	0.00	2.64
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	29.053	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	29.053	0.00	10.56
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	29.053	0.00	4.58
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	29.053	0.00	1.25
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	29.053	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	29.302	0.00	2.64
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	29.302	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	29.302	0.00	10.56
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	29.302	0.00	4.58
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	29.302	0.00	1.25
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	29.302	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	29.546	0.00	2.64
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	29.546	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	29.546	0.00	10.56
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	29.546	0.00	4.58
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	29.546	0.00	1.25
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	29.546	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	29.785	0.00	2.64
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	29.785	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	29.785	0.00	10.56
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	29.785	0.00	4.58
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	29.785	0.00	1.25
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	29.785	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	30.019	0.00	2.64
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	30.019	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	30.019	0.00	10.56

Linear Appurtenance Segment Forces (Factored)

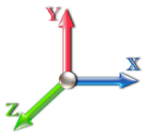
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	30.019	0.00	4.58
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	30.019	0.00	1.25
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	30.019	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	30.248	0.00	2.64
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	30.248	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	30.248	0.00	10.56
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	30.248	0.00	4.58
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	30.248	0.00	1.25
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	30.248	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	30.474	0.00	2.64
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	30.474	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	30.474	0.00	10.56
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	30.474	0.00	4.58
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	30.474	0.00	1.25
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	30.474	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	30.695	0.00	2.64
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	30.695	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	30.695	0.00	10.56
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	30.695	0.00	4.58
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	30.695	0.00	1.25
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	30.695	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	30.912	0.00	2.64
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	30.912	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	30.912	0.00	10.56
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	30.912	0.00	4.58
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	30.912	0.00	1.25
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	30.912	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	31.126	0.00	2.64
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	31.126	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	31.126	0.00	10.56
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	31.126	0.00	4.58
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	31.126	0.00	1.25
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	31.126	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	31.336	0.00	2.64
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	31.336	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	31.336	0.00	10.56
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	31.336	0.00	4.58
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	31.336	0.00	1.25
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	31.336	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	31.542	0.00	2.64
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	31.542	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	31.542	0.00	10.56
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	31.542	0.00	4.58
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	31.542	0.00	1.25
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	31.542	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	31.746	0.00	2.64
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	31.746	0.00	1.25

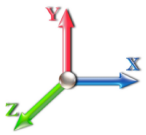
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 22	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	31.746	0.00	10.56
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	31.746	0.00	4.58
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	31.746	0.00	1.25
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	31.746	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	31.946	0.00	2.64
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	31.946	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	31.946	0.00	10.56
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	31.946	0.00	4.58
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	31.946	0.00	1.25
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	31.946	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	32.142	0.00	2.64
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	32.142	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	32.142	0.00	10.56
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	32.142	0.00	4.58
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	32.142	0.00	1.25
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	32.142	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	32.240	0.00	1.32
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	32.240	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	32.240	0.00	5.28
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	32.240	0.00	2.29
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	32.240	0.00	0.62
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	32.240	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	32.296	0.00	0.77
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	32.296	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	32.296	0.00	3.06
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	32.296	0.00	1.33
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	32.296	0.00	0.36
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	32.296	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	32.336	0.00	0.55
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	32.336	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	32.336	0.00	2.22
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	32.336	0.00	0.96
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	32.336	0.00	0.26
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	32.336	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	32.527	0.00	2.64
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	32.527	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	32.527	0.00	10.56
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	32.527	0.00	4.58
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	32.527	0.00	1.25
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	32.527	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	32.716	0.00	2.64
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	32.716	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	32.716	0.00	10.56
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	32.716	0.00	4.58
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	32.716	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	32.901	0.00	2.64
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	32.901	0.00	1.25

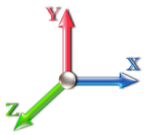
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 23	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	32.901	0.00	10.56
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	32.901	0.00	4.58
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	32.901	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	33.084	0.00	2.64
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	33.084	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	33.084	0.00	10.56
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	33.084	0.00	4.58
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	33.084	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	33.265	0.00	2.64
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	33.265	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	33.265	0.00	10.56
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	33.265	0.00	4.58
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	33.265	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	33.443	0.00	2.64
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	33.443	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	33.443	0.00	10.56
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	33.443	0.00	4.58
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	33.443	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	33.619	0.00	2.64
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	33.619	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	33.619	0.00	10.56
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	33.619	0.00	4.58
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	33.619	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	33.792	0.00	2.64
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	33.792	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	33.792	0.00	10.56
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	33.792	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	33.964	0.00	2.64
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	33.964	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	33.964	0.00	10.56
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	33.964	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	34.049	0.00	1.32
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	34.049	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	34.049	0.00	5.28
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	34.049	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	34.133	0.00	1.32
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	34.133	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	34.133	0.00	5.28
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	34.133	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	34.300	0.00	2.64
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	34.300	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	34.300	0.00	10.56
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	34.300	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	34.465	0.00	2.64
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	34.465	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	34.465	0.00	10.56
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	34.465	0.00	4.58

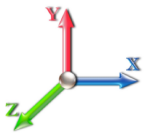
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 24	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	34.628	0.00	2.64
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	34.628	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	34.628	0.00	10.56
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	34.628	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	34.790	0.00	2.64
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	34.790	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	34.790	0.00	10.56
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	34.790	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	34.949	0.00	2.64
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	34.949	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	34.949	0.00	10.56
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	34.949	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	35.107	0.00	2.64
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	35.107	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	35.107	0.00	10.56
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	35.107	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	35.262	0.00	2.64
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	35.262	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	35.262	0.00	10.56
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	35.262	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	35.417	0.00	2.64
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	35.417	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	35.417	0.00	10.56
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	35.417	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	35.493	0.00	1.32
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	35.493	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	35.493	0.00	5.28
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	35.493	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	35.569	0.00	1.32
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	35.569	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	35.569	0.00	5.28
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	35.569	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	35.720	0.00	2.64
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	35.720	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	35.720	0.00	10.56
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	35.720	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	35.869	0.00	2.64
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	35.869	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	35.869	0.00	10.56
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	35.869	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	36.017	0.00	2.64
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	36.017	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	36.017	0.00	10.56
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	36.017	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	36.163	0.00	2.64
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	36.163	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	36.163	0.00	10.56

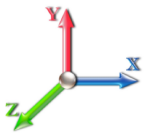
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 25	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



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	36.163	0.00	4.58
144.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	36.308	0.00	2.64
144.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	36.308	0.00	1.25
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	36.380	0.00	1.32
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	36.380	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	36.451	0.00	1.32
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	36.451	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	36.593	0.00	2.64
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	36.593	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	36.615	0.00	0.40
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	36.615	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	36.734	0.00	2.24
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	36.734	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	36.873	0.00	2.64
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	36.873	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	37.011	0.00	2.64
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	37.011	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	37.148	0.00	2.64
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	37.148	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	37.283	0.00	2.64
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	37.283	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	37.418	0.00	2.64
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	37.418	0.00	1.25
										Totals:	**0.0**	**1,454.6**

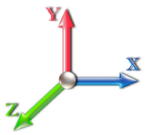
Calculated Forces

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 26	

Load Case: 1.2D + 1.0W 118 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 28

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-53.21	-34.39	0.00	-4053.5	0.00	4053.57	3683.82	1059.58	4414.92	3756.66	0.00	0.000	0.000	0.648
1.00	-52.88	-34.30	0.00	-4019.1	0.00	4019.18	3677.71	1055.47	4380.73	3735.77	0.00	-0.035	0.000	0.648
2.00	-52.54	-34.23	0.00	-3984.8	0.00	3984.87	3671.54	1051.36	4346.67	3714.86	0.02	-0.071	0.000	0.645
4.00	-51.89	-34.06	0.00	-3916.4	0.00	3916.41	3659.00	1043.14	4278.95	3673.00	0.06	-0.142	0.000	0.639
6.00	-51.24	-33.88	0.00	-3848.3	0.00	3848.30	3646.20	1034.91	4211.76	3631.09	0.14	-0.213	0.000	0.633
8.00	-50.59	-33.70	0.00	-3780.5	0.00	3780.54	3633.16	1026.69	4145.10	3589.13	0.24	-0.284	0.000	0.627
10.00	-49.95	-33.53	0.00	-3713.1	0.00	3713.13	3619.85	1018.47	4078.97	3547.13	0.37	-0.355	0.000	0.621
12.00	-49.31	-33.35	0.00	-3646.0	0.00	3646.08	3606.29	1010.25	4013.38	3505.10	0.54	-0.427	0.000	0.615
14.00	-48.68	-33.17	0.00	-3579.3	0.00	3579.39	3592.48	1002.02	3948.31	3463.03	0.73	-0.498	0.000	0.608
16.00	-48.07	-32.97	0.00	-3513.0	0.00	3513.04	3578.41	993.80	3883.78	3420.94	0.96	-0.570	0.000	0.602
16.25	-47.91	-32.97	0.00	-3504.8	0.00	3504.80	3576.63	992.77	3875.75	3415.68	0.99	-0.579	0.000	0.690
18.00	-46.96	-32.80	0.00	-3447.1	0.00	3447.11	3564.09	985.58	3819.78	3378.83	1.21	-0.652	0.000	0.636
18.75	-46.55	-32.73	0.00	-3422.5	0.00	3422.51	3558.65	982.50	3795.92	3363.04	1.32	-0.681	0.000	0.745
19.50	-46.15	-32.66	0.00	-3397.9	0.00	3397.96	3553.18	979.41	3772.13	3347.24	1.43	-0.715	0.000	0.631
20.00	-45.86	-32.64	0.00	-3381.6	0.00	3381.63	3549.51	977.36	3756.31	3336.71	1.50	-0.734	0.000	0.629
22.00	-44.78	-32.45	0.00	-3316.3	0.00	3316.36	3563.12	985.03	3815.51	3376.01	1.83	-0.811	0.000	0.638
24.00	-44.16	-32.27	0.00	-3251.4	0.00	3251.47	3548.52	976.81	3752.08	3333.89	2.19	-0.889	0.000	0.612
26.00	-43.54	-32.09	0.00	-3186.9	0.00	3186.93	3533.67	968.58	3689.18	3291.77	2.57	-0.964	0.000	0.606
28.00	-42.93	-31.91	0.00	-3122.7	0.00	3122.76	3518.56	960.36	3626.81	3249.64	2.99	-1.039	0.000	0.599
30.00	-42.34	-31.71	0.00	-3058.9	0.00	3058.95	3503.20	952.14	3564.97	3207.53	3.45	-1.114	0.000	0.467
31.00	-42.04	-31.61	0.00	-3027.2	0.00	3027.24	3495.43	948.03	3534.25	3186.48	3.68	-1.144	0.000	0.539
32.00	-41.73	-31.53	0.00	-2995.6	0.00	2995.63	3487.59	943.92	3503.66	3165.43	3.93	-1.179	0.000	0.536
34.00	-41.13	-31.36	0.00	-2932.5	0.00	2932.58	3471.72	935.70	3442.89	3123.35	4.43	-1.248	0.000	0.657
35.50	-40.70	-31.23	0.00	-2885.5	0.00	2885.54	3459.65	929.53	3397.66	3091.80	4.84	-1.313	0.000	0.653
36.00	-40.53	-31.22	0.00	-2869.9	0.00	2869.92	3455.59	927.47	3382.65	3081.29	4.98	-1.334	0.000	0.651
38.00	-39.93	-31.06	0.00	-2807.4	0.00	2807.49	3439.21	919.25	3322.94	3039.26	5.55	-1.420	0.000	0.644
40.00	-39.33	-30.87	0.00	-2745.3	0.00	2745.38	3422.57	911.03	3263.76	2997.28	6.17	-1.507	0.000	0.637
42.00	-38.74	-30.70	0.00	-2683.6	0.00	2683.65	3405.68	902.81	3205.11	2955.34	6.82	-1.593	0.000	0.629
44.00	-38.17	-30.52	0.00	-2622.2	0.00	2622.25	3388.54	894.58	3146.99	2913.44	7.50	-1.680	0.000	0.622
45.16	-37.84	-30.41	0.00	-2586.8	0.00	2586.85	3378.48	889.81	3113.53	2889.17	7.92	-1.730	0.000	0.449
46.00	-37.59	-30.35	0.00	-2561.3	0.00	2561.30	3371.14	886.36	3089.41	2871.61	8.22	-1.757	0.000	0.582
48.00	-37.01	-30.18	0.00	-2500.5	0.00	2500.59	3353.48	878.14	3032.36	2829.83	8.98	-1.839	0.000	0.575
50.00	-36.45	-30.00	0.00	-2440.2	0.00	2440.24	3335.57	869.92	2975.84	2788.13	9.77	-1.921	0.000	0.567
52.00	-35.47	-29.80	0.00	-2380.2	0.00	2380.25	3317.41	861.69	2919.85	2746.50	10.59	-2.003	0.000	0.553
54.00	-34.51	-29.59	0.00	-2320.6	0.00	2320.65	3298.98	853.47	2864.39	2704.94	11.45	-2.084	0.000	0.545
56.00	-33.56	-29.38	0.00	-2261.4	0.00	2261.47	3316.18	861.14	2916.12	2743.71	12.34	-2.165	0.000	0.551
58.00	-33.00	-29.19	0.00	-2202.7	0.00	2202.71	3297.74	852.92	2860.70	2702.16	13.26	-2.246	0.000	0.569
60.00	-32.44	-29.00	0.00	-2144.3	0.00	2144.33	3279.05	844.70	2805.81	2660.71	14.22	-2.331	0.000	0.561
62.00	-31.90	-28.80	0.00	-2086.3	0.00	2086.34	3260.10	836.48	2751.45	2619.34	15.21	-2.416	0.000	0.553
64.00	-31.35	-28.60	0.00	-2028.7	0.00	2028.74	3240.90	828.25	2697.62	2578.08	16.24	-2.500	0.000	0.544
66.00	-30.81	-28.40	0.00	-1971.5	0.00	1971.54	3221.44	820.03	2644.33	2536.92	17.31	-2.584	0.000	0.536
68.00	-30.28	-28.20	0.00	-1914.7	0.00	1914.75	3201.73	811.81	2591.56	2495.87	18.41	-2.668	0.000	0.527
70.00	-29.75	-27.99	0.00	-1858.3	0.00	1858.35	3181.76	803.59	2539.33	2454.94	19.55	-2.752	0.000	0.518
72.00	-29.22	-27.79	0.00	-1802.3	0.00	1802.37	3161.54	795.36	2487.63	2414.13	20.72	-2.836	0.000	0.509
74.00	-28.70	-27.58	0.00	-1746.8	0.00	1746.80	3141.06	787.14	2436.47	2373.45	21.92	-2.919	0.000	0.500
76.00	-28.18	-27.37	0.00	-1691.6	0.00	1691.64	3120.33	778.92	2385.83	2332.91	23.16	-3.002	0.000	0.491
78.00	-27.67	-27.16	0.00	-1636.9	0.00	1636.91	3099.34	770.70	2335.73	2292.51	24.44	-3.084	0.000	0.482
80.00	-27.16	-26.94	0.00	-1582.6	0.00	1582.60	3078.09	762.47	2286.15	2252.26	25.75	-3.166	0.000	0.472

Calculated Forces

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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

TES Tower Engineering Solutions

80.00	-27.16	-26.94	0.00	-1582.6	0.00	1582.60	2384.58	636.50	1911.75	1750.88	25.75	-3.166	0.000	0.509
82.00	-26.72	-26.74	0.00	-1528.7	0.00	1528.71	2370.62	629.65	1870.81	1721.73	27.09	-3.248	0.000	0.558
84.00	-26.27	-26.53	0.00	-1475.2	0.00	1475.24	2356.42	622.80	1830.32	1692.63	28.47	-3.339	0.000	0.545
86.00	-25.83	-26.32	0.00	-1422.1	0.00	1422.19	2341.95	615.94	1790.27	1663.57	29.89	-3.429	0.000	0.532
88.00	-25.40	-26.11	0.00	-1369.5	0.00	1369.55	2327.23	609.09	1750.66	1634.56	31.34	-3.518	0.000	0.519
90.00	-24.97	-25.89	0.00	-1317.3	0.00	1317.34	2312.26	602.24	1711.49	1605.61	32.83	-3.606	0.000	0.506
92.00	-24.54	-25.68	0.00	-1265.5	0.00	1265.55	2297.03	595.39	1672.77	1576.72	34.36	-3.694	0.000	0.493
94.00	-24.13	-25.46	0.00	-1214.1	0.00	1214.19	2281.55	588.54	1634.49	1547.90	35.93	-3.780	0.000	0.479
95.00	-23.92	-25.35	0.00	-1188.7	0.00	1188.73	2273.71	585.11	1615.51	1533.52	36.72	-3.824	0.000	0.472
95.58	-23.72	-25.28	0.00	-1174.0	0.00	1174.03	2269.13	583.12	1604.56	1525.19	37.19	-3.849	0.000	0.462
95.58	-23.72	-25.28	0.00	-1174.0	0.00	1174.03	2269.13	583.12	1604.56	1525.19	37.19	-3.849	0.000	0.462
96.00	-23.55	-25.25	0.00	-1163.4	0.00	1163.42	2265.81	581.68	1596.65	1519.16	37.53	-3.866	0.000	0.778
98.00	-22.83	-25.03	0.00	-1112.9	0.00	1112.92	2249.81	574.83	1559.25	1490.50	39.18	-4.007	0.000	0.759
100.00	-22.13	-24.83	0.00	-1062.8	0.00	1062.85	2259.61	579.02	1582.04	1508.00	40.89	-4.147	0.000	0.716
102.00	-21.69	-24.65	0.00	-1013.1	0.00	1013.19	2243.52	572.17	1544.82	1479.37	42.65	-4.285	0.000	0.696
104.00	-21.27	-24.46	0.00	-963.89	0.00	963.89	2227.17	565.31	1508.04	1450.84	44.47	-4.414	0.000	0.676
106.00	-20.85	-24.28	0.00	-914.96	0.00	914.96	2210.57	558.46	1471.71	1422.40	46.35	-4.541	0.000	0.655
108.00	-20.43	-24.09	0.00	-866.41	0.00	866.41	2193.71	551.61	1435.82	1394.06	48.28	-4.666	0.000	0.633
110.00	-19.97	-23.69	0.00	-817.72	0.00	817.72	2176.60	544.76	1400.37	1365.84	50.26	-4.788	0.000	0.610
112.00	-19.56	-23.50	0.00	-770.34	0.00	770.34	2159.23	537.91	1365.36	1337.73	52.29	-4.908	0.000	0.587
114.00	-19.17	-23.29	0.00	-723.34	0.00	723.34	2141.61	531.05	1330.80	1309.73	54.36	-5.025	0.000	0.563
115.00	-18.97	-23.20	0.00	-700.04	0.00	700.04	2132.70	527.63	1313.68	1295.79	55.42	-5.083	0.000	0.551
115.00	-18.97	-23.20	0.00	-700.04	0.00	700.04	1556.62	422.98	1055.35	949.74	55.42	-5.083	0.000	0.752
116.00	-18.78	-23.12	0.00	-676.85	0.00	676.85	1551.43	420.24	1041.71	940.38	56.49	-5.140	0.000	0.735
118.00	-18.43	-22.93	0.00	-630.62	0.00	630.62	1540.84	414.76	1014.72	921.68	58.67	-5.278	0.000	0.699
120.00	-18.08	-22.74	0.00	-584.76	0.00	584.76	1529.99	409.28	988.07	902.99	60.91	-5.411	0.000	0.662
122.00	-17.74	-22.55	0.00	-539.28	0.00	539.28	1518.89	403.80	961.78	884.33	63.20	-5.539	0.000	0.625
124.00	-17.40	-22.36	0.00	-494.17	0.00	494.17	1507.54	398.32	935.85	865.70	65.55	-5.661	0.000	0.586
126.00	-17.07	-22.17	0.00	-449.45	0.00	449.45	1495.93	392.84	910.27	847.11	67.94	-5.778	0.000	0.545
128.00	-16.75	-21.97	0.00	-405.11	0.00	405.11	1484.06	387.35	885.04	828.56	70.38	-5.888	0.000	0.503
130.00	-16.43	-21.78	0.00	-361.17	0.00	361.17	1471.95	381.87	860.17	810.06	72.87	-5.991	0.000	0.460
132.00	-16.13	-21.57	0.00	-317.62	0.00	317.62	1459.57	376.39	835.65	791.62	75.39	-6.086	0.000	0.416
133.00	-11.22	-16.88	0.00	-296.05	0.00	296.05	1453.29	373.65	823.53	782.42	76.67	-6.131	0.000	0.388
134.00	-11.08	-16.78	0.00	-279.17	0.00	279.17	1446.94	370.91	811.49	773.23	77.96	-6.174	0.000	0.371
136.00	-10.82	-16.58	0.00	-245.60	0.00	245.60	1434.06	365.43	787.68	754.91	80.56	-6.254	0.000	0.335
138.00	-10.56	-16.37	0.00	-212.44	0.00	212.44	1420.92	359.95	764.23	736.67	83.19	-6.328	0.000	0.298
140.00	-10.30	-16.16	0.00	-179.70	0.00	179.70	1407.52	354.47	741.13	718.50	85.85	-6.393	0.000	0.259
142.00	-5.27	-9.75	0.00	-147.35	0.00	147.35	1393.87	348.98	718.38	700.42	88.54	-6.451	0.000	0.215
144.00	-5.07	-9.57	0.00	-127.86	0.00	127.86	1379.97	343.50	695.99	682.44	91.24	-6.501	0.000	0.192
145.00	-4.96	-9.48	0.00	-118.29	0.00	118.29	1372.92	340.76	684.93	673.48	92.60	-6.525	0.000	0.180
145.00	-4.96	-9.48	0.00	-118.29	0.00	118.29	931.20	332.53	24157.3	604.09	92.60	-6.525	0.000	0.202
146.00	-4.86	-9.42	0.00	-108.81	0.00	108.81	925.24	329.86	23770.3	594.77	93.97	-6.547	0.000	0.189
148.00	-4.66	-9.30	0.00	-89.98	0.00	89.98	913.32	324.51	23005.8	576.36	96.72	-6.589	0.000	0.162
148.30	-2.47	-6.28	0.00	-81.79	0.00	81.79	911.53	323.71	22892.2	573.63	97.13	-6.595	0.000	0.146
150.00	-2.31	-6.18	0.00	-71.12	0.00	71.12	901.40	319.16	22253.7	558.24	99.48	-6.624	0.000	0.130
150.00	-2.31	-6.18	0.00	-71.12	0.00	71.12	556.65	167.00	10296.1	213.69	99.48	-6.624	0.000	0.338
152.00	-2.16	-6.09	0.00	-58.77	0.00	58.77	556.65	167.00	10296.1	213.69	102.26	-6.655	0.000	0.280
154.00	-2.02	-6.01	0.00	-46.58	0.00	46.58	556.65	167.00	10296.1	213.69	105.05	-6.733	0.000	0.223
156.00	-1.87	-5.92	0.00	-34.56	0.00	34.56	556.65	167.00	10296.1	213.69	107.88	-6.793	0.000	0.166
158.00	-1.73	-5.84	0.00	-22.71	0.00	22.71	556.65	167.00	10296.1	213.69	110.73	-6.835	0.000	0.111
160.00	0.00	-5.59	0.00	-11.04	0.00	11.04	556.65	167.00	10296.1	213.69	113.59	-6.860	0.000	0.053

Wind Loading - Shaft

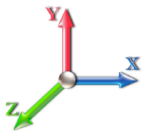
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 28	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	23.174	25.49	424.23	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT2 RB3 RB4	1.00	0.70	23.174	25.49	422.60	1.089 *	0.000	1.00	4.338	4.73	120.4	0.0	184.5
2.00		1.00	0.70	23.174	25.49	420.97	1.091 *	0.000	1.00	4.321	4.71	120.2	0.0	183.8
4.00		1.00	0.70	23.174	25.49	417.70	1.093 *	0.000	2.00	8.592	9.39	239.5	0.0	365.5
6.00		1.00	0.70	23.174	25.49	414.43	1.097 *	0.000	2.00	8.525	9.35	238.3	0.0	362.6
8.00		1.00	0.70	23.174	25.49	411.16	1.100 *	0.000	2.00	8.458	9.31	237.2	0.0	359.8
10.00		1.00	0.70	23.174	25.49	407.90	1.104 *	0.000	2.00	8.391	9.26	236.1	0.0	356.9
12.00		1.00	0.70	23.174	25.49	404.63	1.107 *	0.000	2.00	8.324	9.22	234.9	0.0	354.0
14.00		1.00	0.70	23.174	25.49	401.36	1.111 *	0.000	2.00	8.257	9.17	233.8	0.0	351.1
16.00	Bot - Section 2	1.00	0.70	23.174	25.49	398.09	1.114 *	0.000	2.00	8.190	9.13	232.7	0.0	348.3
16.25	RT1 RB5	1.00	0.70	23.174	25.49	397.69	1.117 *	0.000	0.25	1.035	1.16	29.5	0.0	87.4
18.00	RB6	1.00	0.70	23.174	25.49	394.83	1.118 *	0.000	1.75	7.217	8.07	205.8	0.0	609.0
18.75	RT3 RT4	1.00	0.70	23.174	25.49	393.60	1.121 *	0.000	0.75	3.077	3.45	87.9	0.0	259.7
19.50	RB7	1.00	0.70	23.174	25.49	392.38	1.122 *	0.000	0.75	3.068	3.44	87.8	0.0	258.8
20.00		1.00	0.70	23.174	25.49	391.56	1.123 *	0.000	0.50	2.040	2.29	58.4	0.0	172.1
22.00	Top - Section 1	1.00	0.70	23.174	25.49	388.29	1.126 *	0.000	2.00	8.118	9.14	233.0	0.0	684.9
24.00		1.00	0.70	23.174	25.49	391.34	1.122 *	0.000	2.00	8.052	9.04	230.3	0.0	342.3
26.00		1.00	0.70	23.174	25.49	388.07	1.126 *	0.000	2.00	7.985	8.99	229.2	0.0	339.5
28.00		1.00	0.70	23.174	25.49	384.81	1.130 *	0.000	2.00	7.918	8.95	228.1	0.0	336.6
30.00	RB8	1.00	0.70	23.193	25.51	381.70	1.134 *	0.000	2.00	7.851	8.90	227.1	0.0	333.7
31.00	RT5	1.00	0.71	23.412	25.75	381.85	1.137 *	0.000	1.00	3.900	4.43	114.2	0.0	165.8
32.00		1.00	0.71	23.625	25.99	381.93	1.139 *	0.000	1.00	3.883	4.42	114.9	0.0	165.1
34.00	RT6	1.00	0.73	24.038	26.44	381.93	0.988 *	0.000	2.00	7.717	7.63	201.6	0.0	328.0
35.50	RT7	1.00	0.74	24.336	26.77	381.78	0.991 *	0.000	1.50	5.744	5.69	152.3	0.0	244.1
36.00		1.00	0.74	24.433	26.88	381.71	0.992 *	0.000	0.50	1.906	1.89	50.8	0.0	81.0
38.00		1.00	0.75	24.814	27.30	381.28	0.994 *	0.000	2.00	7.583	7.54	205.7	0.0	322.3
40.00	Appurtenance(s)	1.00	0.76	25.180	27.70	380.68	0.997 *	0.000	2.00	7.516	7.49	207.5	0.0	319.4
42.00		1.00	0.77	25.534	28.09	379.91	1.000 *	0.000	2.00	7.449	7.45	209.2	0.0	316.5
44.00		1.00	0.78	25.875	28.46	379.00	1.003 *	0.000	2.00	7.382	7.40	210.7	0.0	313.6
45.16	RB9	1.00	0.79	26.068	28.68	378.40	1.005 *	0.000	1.16	4.251	4.27	122.5	0.0	180.6
46.00	RT8	1.00	0.79	26.206	28.83	377.93	1.007 *	0.000	0.84	3.064	3.09	88.9	0.0	130.2
48.00		1.00	0.80	26.527	29.18	376.74	1.009 *	0.000	2.00	7.248	7.31	213.4	0.0	307.9
50.00	Bot - Section 3	1.00	0.81	26.838	29.52	375.43	1.012 *	0.000	2.00	7.181	7.27	214.6	0.0	305.0
52.00		1.00	0.82	27.140	29.85	374.00	1.016 *	0.000	2.00	7.244	7.36	219.6	0.0	609.9
54.00		1.00	0.83	27.435	30.18	372.47	1.019 *	0.000	2.00	7.177	7.31	220.7	0.0	604.1
56.00	Top - Section 2	1.00	0.84	27.721	30.49	370.84	1.022 *	0.000	2.00	7.110	7.27	221.6	0.0	598.4
58.00	RT9 RB10	1.00	0.85	28.000	30.80	376.05	1.019 *	0.000	2.00	7.043	7.18	221.1	0.0	299.1
60.00		1.00	0.85	28.273	31.10	374.27	1.022 *	0.000	2.00	6.976	7.13	221.8	0.0	296.2
62.00		1.00	0.86	28.539	31.39	372.40	1.026 *	0.000	2.00	6.909	7.09	222.5	0.0	293.4
64.00		1.00	0.87	28.799	31.68	370.45	1.029 *	0.000	2.00	6.842	7.04	223.1	0.0	290.5
66.00		1.00	0.88	29.053	31.96	368.42	1.033 *	0.000	2.00	6.775	7.00	223.7	0.0	287.6
68.00		1.00	0.89	29.302	32.23	366.32	1.037 *	0.000	2.00	6.708	6.95	224.2	0.0	284.8
70.00		1.00	0.89	29.546	32.50	364.15	1.041 *	0.000	2.00	6.641	6.91	224.6	0.0	281.9
72.00		1.00	0.90	29.785	32.76	361.92	1.044 *	0.000	2.00	6.574	6.87	224.9	0.0	279.0
74.00		1.00	0.91	30.019	33.02	359.62	1.048 *	0.000	2.00	6.507	6.82	225.2	0.0	276.1
76.00		1.00	0.91	30.248	33.27	357.26	1.052 *	0.000	2.00	6.440	6.78	225.5	0.0	273.3
78.00	RT10 RB11	1.00	0.92	30.474	33.52	354.84	1.056 *	0.000	2.00	6.373	6.73	225.7	0.0	270.4

Wind Loading - Shaft

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 29

TES Tower Engineering Solutions

80.00	Top - Section 3	1.00	0.93	30.695	33.76	352.36	1.060 *	0.000	2.00	6.306	6.69	225.8	0.0	267.5
82.00		1.00	0.93	30.912	34.00	349.84	1.065 *	0.000	2.00	6.239	6.64	225.9	0.0	220.9
84.00		1.00	0.94	31.126	34.24	347.25	1.069 *	0.000	2.00	6.172	6.60	225.9	0.0	218.6
86.00		1.00	0.95	31.336	34.47	344.62	1.073 *	0.000	2.00	6.106	6.55	225.9	0.0	216.2
88.00		1.00	0.95	31.542	34.70	341.95	1.078 *	0.000	2.00	6.039	6.51	225.9	0.0	213.8
90.00		1.00	0.96	31.746	34.92	339.22	1.083 *	0.000	2.00	5.972	6.46	225.8	0.0	211.4
92.00		1.00	0.96	31.946	35.14	336.45	1.087 *	0.000	2.00	5.905	6.42	225.6	0.0	209.0
94.00		1.00	0.97	32.142	35.36	333.64	1.092 *	0.000	2.00	5.838	6.38	225.4	0.0	206.6
95.00	Bot - Section 5	1.00	0.97	32.240	35.46	332.22	1.096 *	0.000	1.00	2.894	3.17	112.5	0.0	102.4
95.58	RT11	1.00	0.98	32.296	35.53	331.39	1.098 *	0.000	0.58	1.702	1.87	66.4	0.0	119.4
96.00		1.00	0.98	32.336	35.57	330.78	1.099 *	0.000	0.42	1.229	1.35	48.0	0.0	86.2
98.00		1.00	0.98	32.527	35.78	327.89	1.102 *	0.000	2.00	5.812	6.41	229.2	0.0	407.5
100.00	Top - Section 4	1.00	0.99	32.716	35.99	324.95	1.002 *	0.000	2.00	5.745	5.76	207.2	0.0	402.7
102.00		1.00	0.99	32.901	36.19	328.25	1.000 *	0.000	2.00	5.678	5.68	205.4	0.0	200.9
104.00		1.00	1.00	33.084	36.39	325.26	1.004 *	0.000	2.00	5.611	5.63	204.9	0.0	198.5
106.00		1.00	1.00	33.265	36.59	322.23	1.008 *	0.000	2.00	5.544	5.59	204.4	0.0	196.1
108.00		1.00	1.01	33.443	36.79	319.17	1.012 *	0.000	2.00	5.477	5.54	203.9	0.0	193.7
110.00	Appurtenance(s)	1.00	1.02	33.619	36.98	316.07	1.016 *	0.000	2.00	5.410	5.50	203.3	0.0	191.3
112.00		1.00	1.02	33.792	37.17	312.94	1.021 *	0.000	2.00	5.343	5.45	202.7	0.0	188.9
114.00		1.00	1.03	33.964	37.36	309.77	1.025 *	0.000	2.00	5.276	5.41	202.1	0.0	186.5
115.00	Top - Section 5	1.00	1.03	34.049	37.45	308.18	1.029 *	0.000	1.00	2.613	2.69	100.7	0.0	92.4
116.00		1.00	1.03	34.133	37.55	306.58	1.031 *	0.000	1.00	2.596	2.68	100.5	0.0	73.6
118.00		1.00	1.04	34.300	37.73	303.35	1.034 *	0.000	2.00	5.142	5.32	200.7	0.0	145.7
120.00		1.00	1.04	34.465	37.91	300.10	1.039 *	0.000	2.00	5.075	5.28	200.0	0.0	143.8
122.00		1.00	1.05	34.628	38.09	296.81	1.044 *	0.000	2.00	5.008	5.23	199.2	0.0	141.9
124.00		1.00	1.05	34.790	38.27	293.50	1.050 *	0.000	2.00	4.941	5.19	198.5	0.0	140.0
126.00		1.00	1.06	34.949	38.44	290.16	1.055 *	0.000	2.00	4.874	5.14	197.7	0.0	138.1
128.00		1.00	1.06	35.107	38.62	286.79	1.060 *	0.000	2.00	4.807	5.10	196.8	0.0	136.1
130.00		1.00	1.07	35.262	38.79	283.40	1.066 *	0.000	2.00	4.741	5.05	196.0	0.0	134.2
132.00		1.00	1.07	35.417	38.96	279.98	1.072 *	0.000	2.00	4.674	5.01	195.1	0.0	132.3
133.00	Appurtenance(s)	1.00	1.07	35.493	39.04	278.26	1.076 *	0.000	1.00	2.312	2.49	97.1	0.0	65.4
134.00		1.00	1.07	35.569	39.13	276.53	1.079 *	0.000	1.00	2.295	2.48	96.9	0.0	65.0
136.00		1.00	1.08	35.720	39.29	273.06	1.084 *	0.000	2.00	4.540	4.92	193.3	0.0	128.5
138.00		1.00	1.08	35.869	39.46	269.56	1.090 *	0.000	2.00	4.473	4.87	192.3	0.0	126.6
140.00		1.00	1.09	36.017	39.62	266.04	1.096 *	0.000	2.00	4.406	4.83	191.4	0.0	124.7
142.00	Appurtenance(s)	1.00	1.09	36.163	39.78	262.50	1.103 *	0.000	2.00	4.339	4.79	190.4	0.0	122.8
144.00		1.00	1.10	36.308	39.94	258.94	0.950	0.000	2.00	4.272	4.06	162.1	0.0	120.8
145.00	Top - Section 6	1.00	1.10	36.380	40.02	257.15	0.950	0.000	1.00	2.111	2.01	80.2	0.0	59.7
146.00		1.00	1.10	36.451	40.10	246.70	0.600	0.000	1.00	2.023	1.21	48.7	0.0	57.8
148.00		1.00	1.11	36.593	40.25	243.21	0.600	0.000	2.00	3.998	2.40	96.6	0.0	114.2
148.30	Appurtenance(s)	1.00	1.11	36.615	40.28	242.69	0.600	0.000	0.30	0.594	0.36	14.4	0.0	17.0
150.00	Top - Section 7	1.00	1.11	36.734	40.41	239.71	0.600	0.000	1.70	3.339	2.00	81.0	0.0	95.4
152.00		1.00	1.11	36.873	40.56	164.18	0.645 *	0.000	2.00	2.667	1.72	69.8	0.0	75.8
154.00		1.00	1.12	37.011	40.71	164.48	0.645 *	0.000	2.00	2.667	1.72	70.0	0.0	75.8
156.00		1.00	1.12	37.148	40.86	164.79	0.645 *	0.000	2.00	2.667	1.72	70.3	0.0	75.8
158.00		1.00	1.13	37.283	41.01	165.09	0.645 *	0.000	2.00	2.667	1.72	70.5	0.0	75.8
160.00	Appurtenance(s)	1.00	1.13	37.418	41.16	165.38	0.645 *	0.000	2.00	2.667	1.72	70.8	0.0	75.8
								Totals:	**160.00**			**16,217.6**		**21,407.5**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

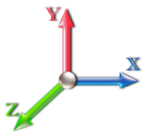
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 30	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 27

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	6' Lightning rod	1	37.551	41.306	1.00	1.00	0.38	5.85	0.000	2.000	15.70	0.00	31.39
2	160.00	DB-T1-6Z-8AB-0Z	1	37.551	41.306	1.00	1.00	4.80	39.60	0.000	2.000	198.27	0.00	396.54
3	160.00	SBNHH-1D65B	9	37.551	41.306	0.81	1.00	59.49	324.00	0.000	2.000	2457.13	0.00	4914.26
4	160.00	Low Profile Platform	1	37.551	41.306	1.00	1.00	22.00	1080.00	0.000	2.000	908.73	0.00	1817.45
5	160.00	DB846F65ZAXY	6	37.551	41.306	0.93	1.00	39.34	113.40	0.000	2.000	1624.93	0.00	3249.85
6	160.00	DB222	1	37.551	41.306	1.00	1.00	2.25	14.40	0.000	2.000	92.94	0.00	185.88
7	160.00	RRH2x90-AWS	3	37.551	41.306	0.67	1.00	5.35	118.80	0.000	2.000	220.85	0.00	441.69
8	148.30	1900MHz RRH	3	36.873	40.561	0.54	0.80	6.11	118.80	0.000	3.700	247.84	0.00	917.01
9	148.30	800 MHz RRH	3	36.873	40.561	0.54	0.80	4.00	143.10	0.000	3.700	162.40	0.00	600.89
10	148.30	APXVTM14-C-120	3	36.734	40.407	0.61	0.80	11.59	151.20	0.000	1.700	468.51	0.00	796.46
11	148.30	APXVSPP18-C-A20	3	36.873	40.561	0.66	0.80	15.98	153.90	0.000	3.700	647.99	0.00	2397.56
12	148.30	TD-RRH8x20-25	3	36.734	40.407	0.54	0.80	6.51	189.00	0.000	1.700	263.15	0.00	447.35
13	148.30	ALU 800MHz External	3	36.873	40.561	0.54	0.80	1.25	23.76	0.000	3.700	50.87	0.00	188.23
14	148.30	ACU-A20-N	4	36.873	40.561	0.54	0.80	0.30	3.60	0.000	3.700	12.17	0.00	45.05
15	148.30	Low Profile Platform	1	36.615	40.276	1.00	1.00	22.00	1080.00	0.000	0.000	886.07	0.00	0.00
16	142.00	Ericsson Radio 4415	1	36.163	39.780	0.50	0.75	0.93	39.69	0.000	0.000	37.18	0.00	0.00
17	142.00	Ericsson Radio 4449	4	36.163	39.780	0.50	0.75	3.32	252.00	0.000	0.000	131.93	0.00	0.00
18	142.00	RFS	1	36.163	39.780	0.52	0.75	7.70	95.40	0.000	0.000	306.37	0.00	0.00
19	142.00	RFS	3	36.163	39.780	0.52	0.75	31.88	345.60	0.000	0.000	1268.09	0.00	0.00
20	142.00	Ericsson Air 32	4	36.163	39.780	0.65	0.75	16.99	475.92	0.000	0.000	675.90	0.00	0.00
21	142.00	Mod	1	36.163	39.780	1.00	1.00	12.00	270.00	0.000	0.000	477.35	0.00	0.00
22	142.00	Ericsson 4415 B25 RRU	4	36.163	39.780	0.50	0.75	3.74	178.56	0.000	0.000	148.72	0.00	0.00
23	142.00	Commscope	4	36.163	39.780	0.50	0.75	0.24	10.44	0.000	0.000	9.59	0.00	0.00
24	142.00	Platform w/ HR & Bracing	1	36.163	39.780	1.00	1.00	52.00	2021.40	0.000	0.000	2068.54	0.00	0.00
25	142.00	Ericsson KRY 112 144/1	3	36.214	39.835	0.50	0.75	0.62	29.70	0.000	0.700	24.62	0.00	17.23
26	142.00	Ericsson AIR6449 B41	4	36.163	39.780	0.53	0.75	12.03	370.80	0.000	0.000	478.73	0.00	0.00
27	133.00	Cci TPA-65R-LCUUUU-H8	1	35.493	39.042	0.63	0.80	8.06	94.50	0.000	0.000	314.60	0.00	0.00
28	133.00	Quintel QS66512-2	2	35.493	39.042	0.74	0.80	11.97	199.80	0.000	0.000	467.23	0.00	0.00
29	133.00	(3) SitePro 1 P/N	2	35.493	39.042	0.75	0.75	32.01	2443.99	0.000	0.000	1249.74	0.00	0.00
30	133.00	Kathrein 800-10965	3	35.493	39.042	0.57	0.80	23.53	293.22	0.000	0.000	918.75	0.00	0.00
31	133.00	Kathrein 800 10121	3	35.493	39.042	0.63	0.80	9.76	125.01	0.000	0.000	381.22	0.00	0.00
32	133.00	Ericsson RRUS-32 RRU	3	35.493	39.042	0.54	0.80	6.22	207.90	0.000	0.000	242.96	0.00	0.00
33	133.00	Powerwave LGP21401	6	35.493	39.042	0.54	0.80	4.15	76.14	0.000	0.000	161.97	0.00	0.00
34	133.00	Ericsson B2/B66A 8843	3	35.493	39.042	0.54	0.80	2.64	194.40	0.000	0.000	102.96	0.00	0.00
35	133.00	Ericsson B5/B12 4449	3	35.493	39.042	0.54	0.80	3.17	191.70	0.000	0.000	123.68	0.00	0.00
36	133.00	Raycap DC6-48-60-18-8F	3	35.493	39.042	0.80	0.80	2.21	85.86	0.000	0.000	86.21	0.00	0.00
37	110.00	3 ft Standoff	1	33.619	36.981	1.00	1.00	2.63	36.00	0.000	0.000	97.26	0.00	0.00
38	110.00	DB222	1	34.073	37.481	1.00	1.00	2.65	14.40	0.000	5.292	99.32	0.00	525.59
39	40.00	GPS	1	25.180	27.698	1.00	1.00	1.00	9.00	0.000	0.000	27.70	0.00	0.00
							Totals:		**11,620.84**			**18,158.18**		

Total Applied Force Summary

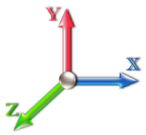
Structure:	CT02049-S-SBA		**Code:**	EIA/TIA-222-H	12/23/2020
Site Name:	Beacon Falls		**Exposure:**	B	
Height:	160.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 31

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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		120.45	231.51	0.00	0.00
2.00		120.17	230.79	0.00	0.00
4.00		239.48	459.42	0.00	0.00
6.00		238.35	456.55	0.00	0.00
8.00		237.21	453.68	0.00	0.00
10.00		236.08	450.81	0.00	0.00
12.00		234.94	447.95	0.00	0.00
14.00		233.81	445.08	0.00	0.00
16.00		232.67	442.21	0.00	0.00
16.25		29.46	99.10	0.00	0.00
18.00		205.76	691.19	0.00	0.00
18.75		87.92	294.88	0.00	0.00
19.50		87.76	294.07	0.00	0.00
20.00		58.42	195.60	0.00	0.00
22.00		232.98	778.81	0.00	0.00
24.00		230.33	436.27	0.00	0.00
26.00		229.19	433.40	0.00	0.00
28.00		228.06	430.54	0.00	0.00
30.00		227.11	427.67	0.00	0.00
31.00		114.19	212.76	0.00	0.00
32.00		114.95	212.04	0.00	0.00
34.00		201.63	421.93	0.00	0.00
35.50		152.32	314.56	0.00	0.00
36.00		50.83	104.50	0.00	0.00
38.00		205.71	416.19	0.00	0.00
40.00	(1) attachments	235.21	422.32	0.00	0.00
42.00		209.17	410.16	0.00	0.00
44.00		210.70	407.29	0.00	0.00
45.16		122.54	234.91	0.00	0.00
46.00		88.93	169.51	0.00	0.00
48.00		213.41	401.55	0.00	0.00
50.00		214.60	398.68	0.00	0.00
52.00		219.61	703.53	0.00	0.00
54.00		220.66	697.79	0.00	0.00
56.00		221.62	692.05	0.00	0.00
58.00		221.06	392.75	0.00	0.00
60.00		221.83	389.88	0.00	0.00
62.00		222.52	387.01	0.00	0.00
64.00		223.14	384.14	0.00	0.00
66.00		223.68	381.27	0.00	0.00
68.00		224.16	378.40	0.00	0.00
70.00		224.58	375.53	0.00	0.00
72.00		224.94	372.66	0.00	0.00
74.00		225.24	369.79	0.00	0.00
76.00		225.48	366.92	0.00	0.00
78.00		225.66	364.05	0.00	0.00

Total Applied Force Summary

Structure:	CT02049-S-SBA		**Code:**	EIA/TIA-222-H	12/23/2020
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: 32

80.00		225.80	361.18	0.00	0.00
82.00		225.88	314.59	0.00	0.00
84.00		225.92	312.20	0.00	0.00
86.00		225.91	309.80	0.00	0.00
88.00		225.85	307.41	0.00	0.00
90.00		225.75	305.02	0.00	0.00
92.00		225.61	302.63	0.00	0.00
94.00		225.43	300.24	0.00	0.00
95.00		112.46	149.22	0.00	0.00
95.58		66.38	146.51	0.00	0.00
96.00		48.05	105.84	0.00	0.00
98.00		229.20	501.12	0.00	0.00
100.00		207.16	496.34	0.00	0.00
102.00		205.41	294.53	0.00	0.00
104.00		204.94	292.13	0.00	0.00
106.00		204.43	289.74	0.00	0.00
108.00		203.88	287.35	0.00	0.00
110.00	(2) attachments	399.89	335.36	0.00	525.59
112.00		202.70	281.63	0.00	0.00
114.00		202.07	279.24	0.00	0.00
115.00		100.66	138.72	0.00	0.00
116.00		100.49	119.93	0.00	0.00
118.00		200.71	238.42	0.00	0.00
120.00		199.99	236.50	0.00	0.00
122.00		199.24	234.59	0.00	0.00
124.00		198.46	232.68	0.00	0.00
126.00		197.66	230.76	0.00	0.00
128.00		196.83	228.85	0.00	0.00
130.00		195.98	226.94	0.00	0.00
132.00		195.10	225.03	0.00	0.00
133.00	(29) attachments	4146.44	4024.31	0.00	0.00
134.00		96.88	99.87	0.00	0.00
136.00		193.27	198.30	0.00	0.00
138.00		192.32	196.39	0.00	0.00
140.00		191.35	194.48	0.00	0.00
142.00	(30) attachments	5817.39	4282.07	0.00	17.23
144.00		162.08	164.32	0.00	0.00
145.00		80.25	81.44	0.00	0.00
146.00		48.67	79.53	0.00	0.00
148.00		96.55	157.67	0.00	0.00
148.30	(23) attachments	2753.37	1886.85	0.00	5392.55
150.00		80.95	126.47	0.00	0.00
152.00		69.76	112.38	0.00	0.00
154.00		70.03	112.38	0.00	0.00
156.00		70.28	112.38	0.00	0.00
158.00		70.54	112.38	0.00	0.00
160.00	(22) attachments	5589.32	1808.43	0.00	11037.06
	Totals:	**34,375.82**	**39,915.88**	**0.00**	**16,972.44**

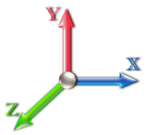
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 33	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	0.17	0.00	0.149	1.147	23.174	0.00	0.99
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	23.174	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	23.174	0.00	3.96
1.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	23.174	0.00	1.72
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	23.174	0.00	0.47
1.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	23.174	0.00	0.00
1.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.147	23.174	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	23.174	0.00	0.99
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	23.174	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	23.174	0.00	3.96
2.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	23.174	0.00	1.72
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	23.174	0.00	0.47
2.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.148	23.174	0.00	0.00
2.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.148	23.174	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	23.174	0.00	1.98
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	23.174	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	23.174	0.00	7.92
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	23.174	0.00	3.43
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	23.174	0.00	0.94
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	23.174	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	23.174	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	23.174	0.00	1.98
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	23.174	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	23.174	0.00	7.92
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	23.174	0.00	3.43
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	23.174	0.00	0.94
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	23.174	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	23.174	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	23.174	0.00	1.98
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	23.174	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	23.174	0.00	7.92
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	23.174	0.00	3.43
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	23.174	0.00	0.94
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	23.174	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	23.174	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	23.174	0.00	1.98
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	23.174	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	23.174	0.00	7.92
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	23.174	0.00	3.43
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	23.174	0.00	0.94
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	23.174	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	23.174	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	23.174	0.00	1.98
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	23.174	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	23.174	0.00	7.92
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	23.174	0.00	3.43
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	23.174	0.00	0.94

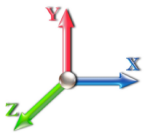
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 34	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	0.21	0.00	0.155	1.166	23.174	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	23.174	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	23.174	0.00	1.98
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	23.174	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	23.174	0.00	7.92
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	23.174	0.00	3.43
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	23.174	0.00	0.94
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	23.174	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	23.174	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	23.174	0.00	1.98
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	23.174	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	23.174	0.00	7.92
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	23.174	0.00	3.43
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	23.174	0.00	0.94
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	23.174	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	23.174	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	23.174	0.00	0.25
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	23.174	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	23.174	0.00	0.99
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	23.174	0.00	0.43
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	23.174	0.00	0.12
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	23.174	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	23.174	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	23.174	0.00	1.73
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	23.174	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	23.174	0.00	6.93
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	23.174	0.00	3.01
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	23.174	0.00	0.82
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	23.174	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	23.174	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	23.174	0.00	0.74
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	23.174	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	23.174	0.00	2.97
18.75	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	23.174	0.00	1.29
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	23.174	0.00	0.35
18.75	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.180	23.174	0.00	0.00
18.75	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.180	23.174	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	23.174	0.00	0.74
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	23.174	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	23.174	0.00	2.97
19.50	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	23.174	0.00	1.29
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	23.174	0.00	0.35
19.50	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.181	23.174	0.00	0.00
19.50	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.181	23.174	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	23.174	0.00	0.50
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	23.174	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	23.174	0.00	1.98

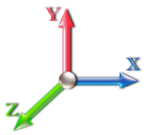
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 35	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	23.174	0.00	0.86
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	23.174	0.00	0.23
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	23.174	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	23.174	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	23.174	0.00	1.98
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	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	23.174	0.00	7.92
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	0.00	3.43
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	0.00	0.94
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	23.174	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	23.174	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	23.174	0.00	1.98
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	23.174	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	23.174	0.00	7.92
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	23.174	0.00	3.43
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	23.174	0.00	0.94
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	23.174	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	23.174	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	23.174	0.00	1.98
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	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	23.174	0.00	7.92
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	0.00	3.43
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	23.174	0.00	0.94
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	23.174	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	23.174	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	23.174	0.00	1.98
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	23.174	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	23.174	0.00	7.92
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	23.174	0.00	3.43
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	23.174	0.00	0.94
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	23.174	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	23.174	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	23.193	0.00	1.98
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	23.193	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	23.193	0.00	7.92
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	23.193	0.00	3.43
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	23.193	0.00	0.94
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	23.193	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	23.193	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	23.412	0.00	0.99
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	23.412	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	23.412	0.00	3.96
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	23.412	0.00	1.72
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	23.412	0.00	0.47
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	23.412	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	23.412	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	23.625	0.00	0.99

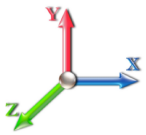
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 36	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	23.625	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	23.625	0.00	3.96
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	23.625	0.00	1.72
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	23.625	0.00	0.47
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	23.625	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	23.625	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	24.038	0.00	1.98
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	24.038	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	24.038	0.00	7.92
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	24.038	0.00	3.43
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	24.038	0.00	0.94
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	24.038	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	24.336	0.00	1.49
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	24.336	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	24.336	0.00	5.94
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	24.336	0.00	2.58
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	24.336	0.00	0.70
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	24.336	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	24.433	0.00	0.50
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	24.433	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	24.433	0.00	1.98
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	24.433	0.00	0.86
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	24.433	0.00	0.23
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	24.433	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	24.814	0.00	1.98
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	24.814	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	24.814	0.00	7.92
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	24.814	0.00	3.43
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	24.814	0.00	0.94
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	24.814	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	25.180	0.00	1.98
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	25.180	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	25.180	0.00	7.92
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	25.180	0.00	3.43
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	25.180	0.00	0.94
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	25.180	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	25.534	0.00	1.98
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	25.534	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	25.534	0.00	7.92
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	25.534	0.00	3.43
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	25.534	0.00	0.94
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	25.534	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	25.875	0.00	1.98
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	25.875	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	25.875	0.00	7.92
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	25.875	0.00	3.43
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	25.875	0.00	0.94

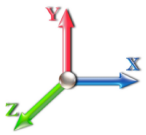
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 37	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	0.21	0.00	0.119	1.056	25.875	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	26.068	0.00	1.15
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	26.068	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	26.068	0.00	4.59
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	26.068	0.00	1.99
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	26.068	0.00	0.54
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	26.068	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	26.206	0.00	0.83
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	26.206	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	26.206	0.00	3.33
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	26.206	0.00	1.44
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	26.206	0.00	0.39
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	26.206	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	26.527	0.00	1.98
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	26.527	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	26.527	0.00	7.92
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	26.527	0.00	3.43
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	26.527	0.00	0.94
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	26.527	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	26.838	0.00	1.98
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	26.838	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	26.838	0.00	7.92
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	26.838	0.00	3.43
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	26.838	0.00	0.94
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	26.838	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	27.140	0.00	1.98
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	27.140	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	27.140	0.00	7.92
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	27.140	0.00	3.43
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	27.140	0.00	0.94
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	27.140	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	27.435	0.00	1.98
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	27.435	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	27.435	0.00	7.92
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	27.435	0.00	3.43
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	27.435	0.00	0.94
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	27.435	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	27.721	0.00	1.98
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	27.721	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	27.721	0.00	7.92
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	27.721	0.00	3.43
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	27.721	0.00	0.94
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	27.721	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	28.000	0.00	1.98
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	28.000	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	28.000	0.00	7.92
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	28.000	0.00	3.43

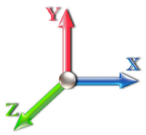
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 38	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	28.000	0.00	0.94
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	28.000	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	28.273	0.00	1.98
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	28.273	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	28.273	0.00	7.92
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	28.273	0.00	3.43
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	28.273	0.00	0.94
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	28.273	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	28.539	0.00	1.98
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	28.539	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	28.539	0.00	7.92
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	28.539	0.00	3.43
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	28.539	0.00	0.94
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	28.539	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	28.799	0.00	1.98
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	28.799	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	28.799	0.00	7.92
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	28.799	0.00	3.43
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	28.799	0.00	0.94
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	28.799	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	29.053	0.00	1.98
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	29.053	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	29.053	0.00	7.92
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	29.053	0.00	3.43
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	29.053	0.00	0.94
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	29.053	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	29.302	0.00	1.98
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	29.302	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	29.302	0.00	7.92
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	29.302	0.00	3.43
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	29.302	0.00	0.94
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	29.302	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	29.546	0.00	1.98
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	29.546	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	29.546	0.00	7.92
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	29.546	0.00	3.43
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	29.546	0.00	0.94
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	29.546	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	29.785	0.00	1.98
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	29.785	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	29.785	0.00	7.92
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	29.785	0.00	3.43
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	29.785	0.00	0.94
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	29.785	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	30.019	0.00	1.98
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	30.019	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	30.019	0.00	7.92

Linear Appurtenance Segment Forces (Factored)

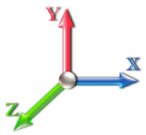
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 39	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	30.019	0.00	3.43
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	30.019	0.00	0.94
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	30.019	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	30.248	0.00	1.98
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	30.248	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	30.248	0.00	7.92
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	30.248	0.00	3.43
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	30.248	0.00	0.94
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	30.248	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	30.474	0.00	1.98
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	30.474	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	30.474	0.00	7.92
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	30.474	0.00	3.43
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	30.474	0.00	0.94
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	30.474	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	30.695	0.00	1.98
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	30.695	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	30.695	0.00	7.92
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	30.695	0.00	3.43
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	30.695	0.00	0.94
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	30.695	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	30.912	0.00	1.98
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	30.912	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	30.912	0.00	7.92
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	30.912	0.00	3.43
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	30.912	0.00	0.94
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	30.912	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	31.126	0.00	1.98
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	31.126	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	31.126	0.00	7.92
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	31.126	0.00	3.43
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	31.126	0.00	0.94
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	31.126	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	31.336	0.00	1.98
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	31.336	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	31.336	0.00	7.92
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	31.336	0.00	3.43
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	31.336	0.00	0.94
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	31.336	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	31.542	0.00	1.98
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	31.542	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	31.542	0.00	7.92
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	31.542	0.00	3.43
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	31.542	0.00	0.94
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	31.542	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	31.746	0.00	1.98
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	31.746	0.00	0.94

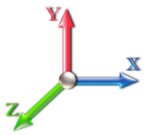
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 40	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	0.33	0.00	0.147	1.140	31.746	0.00	7.92
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	31.746	0.00	3.43
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	31.746	0.00	0.94
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	31.746	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	31.946	0.00	1.98
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	31.946	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	31.946	0.00	7.92
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	31.946	0.00	3.43
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	31.946	0.00	0.94
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	31.946	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	32.142	0.00	1.98
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	32.142	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	32.142	0.00	7.92
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	32.142	0.00	3.43
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	32.142	0.00	0.94
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	32.142	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	32.240	0.00	0.99
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	32.240	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	32.240	0.00	3.96
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	32.240	0.00	1.72
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	32.240	0.00	0.47
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	32.240	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	32.296	0.00	0.57
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	32.296	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	32.296	0.00	2.30
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	32.296	0.00	1.00
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	32.296	0.00	0.27
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	32.296	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	32.336	0.00	0.42
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	32.336	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	32.336	0.00	1.66
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	32.336	0.00	0.72
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	32.336	0.00	0.20
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	32.336	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	32.527	0.00	1.98
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	32.527	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	32.527	0.00	7.92
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	32.527	0.00	3.43
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	32.527	0.00	0.94
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	32.527	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	32.716	0.00	1.98
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	32.716	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	32.716	0.00	7.92
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	32.716	0.00	3.43
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	32.716	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	32.901	0.00	1.98
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	32.901	0.00	0.94

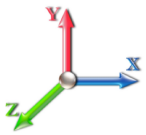
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 41	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	0.33	0.00	0.117	1.052	32.901	0.00	7.92
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	32.901	0.00	3.43
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	32.901	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	33.084	0.00	1.98
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	33.084	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	33.084	0.00	7.92
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	33.084	0.00	3.43
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	33.084	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	33.265	0.00	1.98
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	33.265	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	33.265	0.00	7.92
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	33.265	0.00	3.43
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	33.265	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	33.443	0.00	1.98
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	33.443	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	33.443	0.00	7.92
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	33.443	0.00	3.43
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	33.443	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	33.619	0.00	1.98
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	33.619	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	33.619	0.00	7.92
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	33.619	0.00	3.43
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	33.619	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	33.792	0.00	1.98
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	33.792	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	33.792	0.00	7.92
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	33.792	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	33.964	0.00	1.98
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	33.964	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	33.964	0.00	7.92
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	33.964	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	34.049	0.00	0.99
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	34.049	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	34.049	0.00	3.96
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	34.049	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	34.133	0.00	0.99
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	34.133	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	34.133	0.00	3.96
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	34.133	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	34.300	0.00	1.98
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	34.300	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	34.300	0.00	7.92
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	34.300	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	34.465	0.00	1.98
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	34.465	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	34.465	0.00	7.92
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	34.465	0.00	3.43

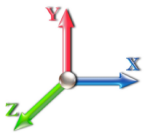
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 42	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	0.33	0.00	0.133	1.099	34.628	0.00	1.98
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	34.628	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	34.628	0.00	7.92
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	34.628	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	34.790	0.00	1.98
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	34.790	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	34.790	0.00	7.92
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	34.790	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	34.949	0.00	1.98
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	34.949	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	34.949	0.00	7.92
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	34.949	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	35.107	0.00	1.98
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	35.107	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	35.107	0.00	7.92
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	35.107	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	35.262	0.00	1.98
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	35.262	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	35.262	0.00	7.92
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	35.262	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	35.417	0.00	1.98
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	35.417	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	35.417	0.00	7.92
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	35.417	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	35.493	0.00	0.99
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	35.493	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	35.493	0.00	3.96
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	35.493	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	35.569	0.00	0.99
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	35.569	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	35.569	0.00	3.96
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	35.569	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	35.720	0.00	1.98
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	35.720	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	35.720	0.00	7.92
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	35.720	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	35.869	0.00	1.98
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	35.869	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	35.869	0.00	7.92
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	35.869	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	36.017	0.00	1.98
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	36.017	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	36.017	0.00	7.92
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	36.017	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	36.163	0.00	1.98
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	36.163	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	36.163	0.00	7.92

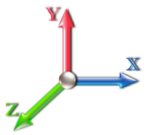
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 43	

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

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	36.163	0.00	3.43
144.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	36.308	0.00	1.98
144.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	36.308	0.00	0.94
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	36.380	0.00	0.99
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	36.380	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	36.451	0.00	0.99
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	36.451	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	36.593	0.00	1.98
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	36.593	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	36.615	0.00	0.30
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	36.615	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	36.734	0.00	1.68
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	36.734	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	36.873	0.00	1.98
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	36.873	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	37.011	0.00	1.98
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	37.011	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	37.148	0.00	1.98
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	37.148	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	37.283	0.00	1.98
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	37.283	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	37.418	0.00	1.98
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	37.418	0.00	0.94
										Totals:	**0.0**	**1,090.9**

Calculated Forces

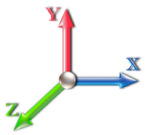
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 44	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 118 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



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	-39.90	-34.39	0.00	-4002.7	0.00	4002.73	3683.82	1059.58	4414.92	3756.66	0.00	0.000	0.000	0.638
1.00	-39.65	-34.29	0.00	-3968.3	0.00	3968.34	3677.71	1055.47	4380.73	3735.77	0.00	-0.035	0.000	0.638
2.00	-39.39	-34.21	0.00	-3934.0	0.00	3934.05	3671.54	1051.36	4346.67	3714.86	0.02	-0.070	0.000	0.635
4.00	-38.89	-34.01	0.00	-3865.6	0.00	3865.64	3659.00	1043.14	4278.95	3673.00	0.06	-0.140	0.000	0.629
6.00	-38.39	-33.82	0.00	-3797.6	0.00	3797.62	3646.20	1034.91	4211.76	3631.09	0.13	-0.210	0.000	0.623
8.00	-37.90	-33.63	0.00	-3729.9	0.00	3729.98	3633.16	1026.69	4145.10	3589.13	0.24	-0.280	0.000	0.617
10.00	-37.41	-33.44	0.00	-3662.7	0.00	3662.72	3619.85	1018.47	4078.97	3547.13	0.37	-0.350	0.000	0.610
12.00	-36.92	-33.24	0.00	-3595.8	0.00	3595.85	3606.29	1010.25	4013.38	3505.10	0.53	-0.421	0.000	0.604
14.00	-36.44	-33.05	0.00	-3529.3	0.00	3529.37	3592.48	1002.02	3948.31	3463.03	0.72	-0.492	0.000	0.598
16.00	-35.97	-32.84	0.00	-3463.2	0.00	3463.27	3578.41	993.80	3883.78	3420.94	0.94	-0.563	0.000	0.592
16.25	-35.85	-32.83	0.00	-3455.0	0.00	3455.06	3576.63	992.77	3875.75	3415.68	0.97	-0.572	0.000	0.678
18.00	-35.13	-32.65	0.00	-3397.6	0.00	3397.60	3564.09	985.58	3819.78	3378.83	1.20	-0.643	0.000	0.625
18.75	-34.82	-32.58	0.00	-3373.1	0.00	3373.11	3558.65	982.50	3795.92	3363.04	1.30	-0.672	0.000	0.732
19.50	-34.51	-32.50	0.00	-3348.6	0.00	3348.68	3553.18	979.41	3772.13	3347.24	1.41	-0.705	0.000	0.620
20.00	-34.29	-32.47	0.00	-3332.4	0.00	3332.43	3549.51	977.36	3756.31	3336.71	1.48	-0.724	0.000	0.618
22.00	-33.47	-32.27	0.00	-3267.4	0.00	3267.49	3563.12	985.03	3815.51	3376.01	1.80	-0.800	0.000	0.626
24.00	-33.00	-32.08	0.00	-3202.9	0.00	3202.94	3548.52	976.81	3752.08	3333.89	2.16	-0.876	0.000	0.601
26.00	-32.53	-31.88	0.00	-3138.7	0.00	3138.79	3533.67	968.58	3689.18	3291.77	2.54	-0.950	0.000	0.595
28.00	-32.06	-31.69	0.00	-3075.0	0.00	3075.02	3518.56	960.36	3626.81	3249.64	2.95	-1.024	0.000	0.588
30.00	-31.61	-31.48	0.00	-3011.6	0.00	3011.64	3503.20	952.14	3564.97	3207.53	3.40	-1.099	0.000	0.459
31.00	-31.38	-31.38	0.00	-2980.1	0.00	2980.15	3495.43	948.03	3534.25	3186.48	3.63	-1.128	0.000	0.529
32.00	-31.14	-31.29	0.00	-2948.7	0.00	2948.77	3487.59	943.92	3503.66	3165.43	3.87	-1.162	0.000	0.526
34.00	-30.69	-31.12	0.00	-2886.1	0.00	2886.19	3471.72	935.70	3442.89	3123.35	4.37	-1.230	0.000	0.645
35.50	-30.36	-30.98	0.00	-2839.5	0.00	2839.51	3459.65	929.53	3397.66	3091.80	4.77	-1.294	0.000	0.641
36.00	-30.22	-30.96	0.00	-2824.0	0.00	2824.02	3455.59	927.47	3382.65	3081.29	4.91	-1.315	0.000	0.639
38.00	-29.77	-30.78	0.00	-2762.1	0.00	2762.11	3439.21	919.25	3322.94	3039.26	5.48	-1.400	0.000	0.632
40.00	-29.31	-30.58	0.00	-2700.5	0.00	2700.55	3422.57	911.03	3263.76	2997.28	6.08	-1.485	0.000	0.624
42.00	-28.86	-30.40	0.00	-2639.3	0.00	2639.38	3405.68	902.81	3205.11	2955.34	6.72	-1.570	0.000	0.617
44.00	-28.42	-30.22	0.00	-2578.5	0.00	2578.58	3388.54	894.58	3146.99	2913.44	7.40	-1.655	0.000	0.609
45.16	-28.17	-30.10	0.00	-2543.5	0.00	2543.53	3378.48	889.81	3113.53	2889.17	7.81	-1.704	0.000	0.440
46.00	-27.97	-30.04	0.00	-2518.2	0.00	2518.24	3371.14	886.36	3089.41	2871.61	8.11	-1.731	0.000	0.571
48.00	-27.54	-29.85	0.00	-2458.1	0.00	2458.17	3353.48	878.14	3032.36	2829.83	8.85	-1.811	0.000	0.563
50.00	-27.10	-29.66	0.00	-2398.4	0.00	2398.47	3335.57	869.92	2975.84	2788.13	9.63	-1.892	0.000	0.556
52.00	-26.37	-29.45	0.00	-2339.1	0.00	2339.15	3317.41	861.69	2919.85	2746.50	10.44	-1.973	0.000	0.541
54.00	-25.64	-29.25	0.00	-2280.2	0.00	2280.24	3298.98	853.47	2864.39	2704.94	11.28	-2.053	0.000	0.534
56.00	-24.91	-29.03	0.00	-2221.7	0.00	2221.75	3316.18	861.14	2916.12	2743.71	12.16	-2.132	0.000	0.540
58.00	-24.49	-28.83	0.00	-2163.6	0.00	2163.68	3297.74	852.92	2860.70	2702.16	13.07	-2.212	0.000	0.558
60.00	-24.07	-28.63	0.00	-2106.0	0.00	2106.02	3279.05	844.70	2805.81	2660.71	14.01	-2.295	0.000	0.549
62.00	-23.65	-28.43	0.00	-2048.7	0.00	2048.76	3260.10	836.48	2751.45	2619.34	14.99	-2.378	0.000	0.541
64.00	-23.23	-28.22	0.00	-1991.9	0.00	1991.91	3240.90	828.25	2697.62	2578.08	16.01	-2.461	0.000	0.533
66.00	-22.82	-28.01	0.00	-1935.4	0.00	1935.47	3221.44	820.03	2644.33	2536.92	17.05	-2.544	0.000	0.524
68.00	-22.41	-27.80	0.00	-1879.4	0.00	1879.44	3201.73	811.81	2591.56	2495.87	18.14	-2.626	0.000	0.516
70.00	-22.01	-27.59	0.00	-1823.8	0.00	1823.83	3181.76	803.59	2539.33	2454.94	19.26	-2.708	0.000	0.507
72.00	-21.61	-27.38	0.00	-1768.6	0.00	1768.64	3161.54	795.36	2487.63	2414.13	20.41	-2.790	0.000	0.498
74.00	-21.21	-27.17	0.00	-1713.8	0.00	1713.88	3141.06	787.14	2436.47	2373.45	21.59	-2.872	0.000	0.489
76.00	-20.82	-26.96	0.00	-1659.5	0.00	1659.54	3120.33	778.92	2385.83	2332.91	22.81	-2.954	0.000	0.480
78.00	-20.43	-26.74	0.00	-1605.6	0.00	1605.63	3099.34	770.70	2335.73	2292.51	24.07	-3.034	0.000	0.471
80.00	-20.04	-26.52	0.00	-1552.1	0.00	1552.15	3078.09	762.47	2286.15	2252.26	25.36	-3.115	0.000	0.462

Calculated Forces

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 45

80.00	-20.04	-26.52	0.00	-1552.1	0.00	1552.15	2384.58	636.50	1911.75	1750.88	25.36	-3.115	0.000	0.498
82.00	-19.70	-26.31	0.00	-1499.1	0.00	1499.10	2370.62	629.65	1870.81	1721.73	26.68	-3.195	0.000	0.545
84.00	-19.36	-26.10	0.00	-1446.4	0.00	1446.48	2356.42	622.80	1830.32	1692.63	28.03	-3.284	0.000	0.533
86.00	-19.03	-25.88	0.00	-1394.2	0.00	1394.29	2341.95	615.94	1790.27	1663.57	29.43	-3.372	0.000	0.520
88.00	-18.69	-25.67	0.00	-1342.5	0.00	1342.53	2327.23	609.09	1750.66	1634.56	30.86	-3.460	0.000	0.507
90.00	-18.37	-25.45	0.00	-1291.1	0.00	1291.19	2312.26	602.24	1711.49	1605.61	32.33	-3.546	0.000	0.494
92.00	-18.04	-25.23	0.00	-1240.2	0.00	1240.29	2297.03	595.39	1672.77	1576.72	33.83	-3.632	0.000	0.481
94.00	-17.73	-25.01	0.00	-1189.8	0.00	1189.83	2281.55	588.54	1634.49	1547.90	35.37	-3.717	0.000	0.468
95.00	-17.57	-24.90	0.00	-1164.8	0.00	1164.82	2273.71	585.11	1615.51	1533.52	36.15	-3.759	0.000	0.461
95.58	-17.42	-24.83	0.00	-1150.3	0.00	1150.38	2269.13	583.12	1604.56	1525.19	36.61	-3.784	0.000	0.451
95.58	-17.42	-24.83	0.00	-1150.3	0.00	1150.38	2269.13	583.12	1604.56	1525.19	36.61	-3.784	0.000	0.451
96.00	-17.28	-24.80	0.00	-1139.9	0.00	1139.95	2265.81	581.68	1596.65	1519.16	36.94	-3.801	0.000	0.760
98.00	-16.74	-24.57	0.00	-1090.3	0.00	1090.36	2249.81	574.83	1559.25	1490.50	38.56	-3.939	0.000	0.741
100.00	-16.20	-24.37	0.00	-1041.2	0.00	1041.21	2259.61	579.02	1582.04	1508.00	40.24	-4.076	0.000	0.699
102.00	-15.87	-24.18	0.00	-992.47	0.00	992.47	2243.52	572.17	1544.82	1479.37	41.98	-4.212	0.000	0.680
104.00	-15.54	-23.99	0.00	-944.10	0.00	944.10	2227.17	565.31	1508.04	1450.84	43.77	-4.338	0.000	0.660
106.00	-15.22	-23.80	0.00	-896.13	0.00	896.13	2210.57	558.46	1471.71	1422.40	45.61	-4.462	0.000	0.639
108.00	-14.89	-23.60	0.00	-848.53	0.00	848.53	2193.71	551.61	1435.82	1394.06	47.51	-4.584	0.000	0.617
110.00	-14.55	-23.21	0.00	-800.81	0.00	800.81	2176.60	544.76	1400.37	1365.84	49.45	-4.704	0.000	0.595
112.00	-14.23	-23.01	0.00	-754.39	0.00	754.39	2159.23	537.91	1365.36	1337.73	51.45	-4.821	0.000	0.572
114.00	-13.94	-22.81	0.00	-708.37	0.00	708.37	2141.61	531.05	1330.80	1309.73	53.49	-4.936	0.000	0.549
115.00	-13.79	-22.71	0.00	-685.57	0.00	685.57	2132.70	527.63	1313.68	1295.79	54.53	-4.993	0.000	0.537
115.00	-13.79	-22.71	0.00	-685.57	0.00	685.57	1556.62	422.98	1055.35	949.74	54.53	-4.993	0.000	0.734
116.00	-13.64	-22.62	0.00	-662.86	0.00	662.86	1551.43	420.24	1041.71	940.38	55.58	-5.049	0.000	0.717
118.00	-13.37	-22.43	0.00	-617.62	0.00	617.62	1540.84	414.76	1014.72	921.68	57.72	-5.184	0.000	0.682
120.00	-13.10	-22.24	0.00	-572.77	0.00	572.77	1529.99	409.28	988.07	902.99	59.92	-5.314	0.000	0.646
122.00	-12.84	-22.05	0.00	-528.29	0.00	528.29	1518.89	403.80	961.78	884.33	62.17	-5.439	0.000	0.609
124.00	-12.58	-21.85	0.00	-484.20	0.00	484.20	1507.54	398.32	935.85	865.70	64.47	-5.559	0.000	0.571
126.00	-12.33	-21.66	0.00	-440.50	0.00	440.50	1495.93	392.84	910.27	847.11	66.82	-5.673	0.000	0.531
128.00	-12.08	-21.46	0.00	-397.19	0.00	397.19	1484.06	387.35	885.04	828.56	69.22	-5.781	0.000	0.491
130.00	-11.84	-21.26	0.00	-354.27	0.00	354.27	1471.95	381.87	860.17	810.06	71.66	-5.882	0.000	0.448
132.00	-11.61	-21.06	0.00	-311.75	0.00	311.75	1459.57	376.39	835.65	791.62	74.14	-5.976	0.000	0.405
133.00	-8.03	-16.52	0.00	-290.69	0.00	290.69	1453.29	373.65	823.53	782.42	75.39	-6.020	0.000	0.379
134.00	-7.92	-16.42	0.00	-274.17	0.00	274.17	1446.94	370.91	811.49	773.23	76.66	-6.062	0.000	0.362
136.00	-7.73	-16.22	0.00	-241.33	0.00	241.33	1434.06	365.43	787.68	754.91	79.21	-6.141	0.000	0.327
138.00	-7.53	-16.01	0.00	-208.90	0.00	208.90	1420.92	359.95	764.23	736.67	81.79	-6.213	0.000	0.291
140.00	-7.34	-15.81	0.00	-176.87	0.00	176.87	1407.52	354.47	741.13	718.50	84.41	-6.278	0.000	0.253
142.00	-3.72	-9.56	0.00	-145.23	0.00	145.23	1393.87	348.98	718.38	700.42	87.04	-6.334	0.000	0.211
144.00	-3.57	-9.38	0.00	-126.10	0.00	126.10	1379.97	343.50	695.99	682.44	89.70	-6.384	0.000	0.188
145.00	-3.49	-9.30	0.00	-116.72	0.00	116.72	1372.92	340.76	684.93	673.48	91.04	-6.407	0.000	0.177
145.00	-3.49	-9.30	0.00	-116.72	0.00	116.72	931.20	332.53	24157.3	604.09	91.04	-6.407	0.000	0.198
146.00	-3.41	-9.24	0.00	-107.42	0.00	107.42	925.24	329.86	23770.3	594.77	92.38	-6.429	0.000	0.185
148.00	-3.26	-9.13	0.00	-88.94	0.00	88.94	913.32	324.51	23005.8	576.36	95.08	-6.471	0.000	0.159
148.30	-1.70	-6.18	0.00	-80.81	0.00	80.81	911.53	323.71	22892.2	573.63	95.49	-6.477	0.000	0.143
150.00	-1.58	-6.09	0.00	-70.30	0.00	70.30	901.40	319.16	22253.7	558.24	97.79	-6.505	0.000	0.128
150.00	-1.58	-6.09	0.00	-70.30	0.00	70.30	556.65	167.00	10296.1	213.69	97.79	-6.505	0.000	0.333
152.00	-1.47	-6.01	0.00	-58.12	0.00	58.12	556.65	167.00	10296.1	213.69	100.52	-6.535	0.000	0.276
154.00	-1.36	-5.93	0.00	-46.11	0.00	46.11	556.65	167.00	10296.1	213.69	103.27	-6.613	0.000	0.219
156.00	-1.25	-5.85	0.00	-34.25	0.00	34.25	556.65	167.00	10296.1	213.69	106.04	-6.672	0.000	0.164
158.00	-1.14	-5.76	0.00	-22.56	0.00	22.56	556.65	167.00	10296.1	213.69	108.84	-6.714	0.000	0.109
160.00	0.00	-5.59	0.00	-11.04	0.00	11.04	556.65	167.00	10296.1	213.69	111.66	-6.739	0.000	0.053

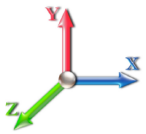
Wind Loading - Shaft

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 46	

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

Dead Load Factor 1.20

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	4.161	4.58	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT2 RB3 RB4	1.00	0.70	4.161	4.58	0.00	1.376 *	0.705	1.00	4.455	6.13	28.1	45.3	291.4
2.00		1.00	0.70	4.161	4.58	0.00	1.378 *	0.756	1.00	4.447	6.13	28.0	48.5	293.6
4.00		1.00	0.70	4.161	4.58	0.00	1.381 *	0.810	2.00	8.862	12.24	56.0	103.2	590.5
6.00		1.00	0.70	4.161	4.58	0.00	1.385 *	0.843	2.00	8.806	12.20	55.8	106.7	590.2
8.00		1.00	0.70	4.161	4.58	0.00	1.390 *	0.868	2.00	8.747	12.16	55.6	109.0	588.7
10.00		1.00	0.70	4.161	4.58	0.00	1.394 *	0.887	2.00	8.687	12.11	55.4	110.7	586.5
12.00		1.00	0.70	4.161	4.58	0.00	1.399 *	0.904	2.00	8.625	12.06	55.2	111.8	583.9
14.00		1.00	0.70	4.161	4.58	0.00	1.403 *	0.918	2.00	8.563	12.02	55.0	112.7	580.9
16.00	Bot - Section 2	1.00	0.70	4.161	4.58	0.00	1.408 *	0.930	2.00	8.500	11.97	54.8	113.3	577.7
16.25	RT1 RB5	1.00	0.70	4.161	4.58	0.00	1.410 *	0.932	0.25	1.074	1.51	6.9	14.4	130.9
18.00	RB6	1.00	0.70	4.161	4.58	0.00	1.413 *	0.941	1.75	7.492	10.58	48.4	101.1	913.1
18.75	RT3 RT4	1.00	0.70	4.161	4.58	0.00	1.416 *	0.945	0.75	3.196	4.52	20.7	43.4	389.6
19.50	RB7	1.00	0.70	4.161	4.58	0.00	1.418 *	0.949	0.75	3.187	4.52	20.7	43.4	388.6
20.00		1.00	0.70	4.161	4.58	0.00	1.419 *	0.951	0.50	2.119	3.01	13.8	29.0	258.5
22.00	Top - Section 1	1.00	0.70	4.161	4.58	0.00	1.422 *	0.960	2.00	8.439	12.00	54.9	116.1	1029.2
24.00		1.00	0.70	4.161	4.58	0.00	1.418 *	0.969	2.00	8.374	11.87	54.3	116.2	572.6
26.00		1.00	0.70	4.161	4.58	0.00	1.422 *	0.976	2.00	8.310	11.82	54.1	116.2	568.8
28.00		1.00	0.70	4.161	4.58	0.00	1.427 *	0.984	2.00	8.246	11.77	53.9	116.1	564.9
30.00	RB8	1.00	0.70	4.164	4.58	0.00	1.432 *	0.991	2.00	8.181	11.72	53.7	115.9	560.9
31.00	RT5	1.00	0.71	4.203	4.62	0.00	1.436 *	0.994	1.00	4.066	5.84	27.0	57.9	279.0
32.00		1.00	0.71	4.242	4.67	0.00	1.439 *	0.997	1.00	4.050	5.83	27.2	57.9	278.0
34.00	RT6	1.00	0.73	4.316	4.75	0.00	1.248 *	1.003	2.00	8.051	10.05	47.7	115.4	552.8
35.50	RT7	1.00	0.74	4.369	4.81	0.00	1.251 *	1.007	1.50	5.995	7.50	36.1	86.4	411.9
36.00		1.00	0.74	4.387	4.83	0.00	1.253 *	1.009	0.50	1.990	2.49	12.0	28.8	136.8
38.00		1.00	0.75	4.455	4.90	0.00	1.255 *	1.014	2.00	7.921	9.94	48.7	114.8	544.4
40.00	Appurtenance(s)	1.00	0.76	4.521	4.97	0.00	1.259 *	1.019	2.00	7.856	9.89	49.2	114.4	540.2
42.00		1.00	0.77	4.584	5.04	0.00	1.263 *	1.024	2.00	7.790	9.84	49.6	113.9	536.0
44.00		1.00	0.78	4.646	5.11	0.00	1.267 *	1.029	2.00	7.725	9.79	50.0	113.5	531.7
45.16	RB9	1.00	0.79	4.680	5.15	0.00	1.270 *	1.032	1.16	4.450	5.65	29.1	65.6	306.4
46.00	RT8	1.00	0.79	4.705	5.18	0.00	1.272 *	1.034	0.84	3.209	4.08	21.1	47.4	221.0
48.00		1.00	0.80	4.763	5.24	0.00	1.275 *	1.038	2.00	7.594	9.68	50.7	112.4	523.0
50.00	Bot - Section 3	1.00	0.81	4.819	5.30	0.00	1.279 *	1.042	2.00	7.529	9.63	51.0	111.9	518.6
52.00		1.00	0.82	4.873	5.36	0.00	1.283 *	1.047	2.00	7.592	9.74	52.2	113.3	926.5
54.00		1.00	0.83	4.926	5.42	0.00	1.287 *	1.050	2.00	7.527	9.69	52.5	112.7	918.2
56.00	Top - Section 2	1.00	0.84	4.977	5.47	0.00	1.291 *	1.054	2.00	7.461	9.63	52.7	112.1	910.0
58.00	RT9 RB10	1.00	0.85	5.027	5.53	0.00	1.287 *	1.058	2.00	7.395	9.52	52.6	111.5	510.3
60.00		1.00	0.85	5.076	5.58	0.00	1.292 *	1.062	2.00	7.330	9.47	52.9	110.8	505.8
62.00		1.00	0.86	5.124	5.64	0.00	1.296 *	1.065	2.00	7.264	9.41	53.1	110.1	501.3
64.00		1.00	0.87	5.171	5.69	0.00	1.300 *	1.068	2.00	7.198	9.36	53.2	109.4	496.8
66.00		1.00	0.88	5.216	5.74	0.00	1.305 *	1.072	2.00	7.132	9.31	53.4	108.7	492.2
68.00		1.00	0.89	5.261	5.79	0.00	1.310 *	1.075	2.00	7.066	9.25	53.6	108.0	487.7
70.00		1.00	0.89	5.305	5.84	0.00	1.314 *	1.078	2.00	7.000	9.20	53.7	107.3	483.1
72.00		1.00	0.90	5.348	5.88	0.00	1.319 *	1.081	2.00	6.935	9.15	53.8	106.5	478.6
74.00		1.00	0.91	5.390	5.93	0.00	1.324 *	1.084	2.00	6.869	9.09	53.9	105.8	474.0
76.00		1.00	0.91	5.431	5.97	0.00	1.329 *	1.087	2.00	6.803	9.04	54.0	105.0	469.4
78.00	RT10 RB11	1.00	0.92	5.471	6.02	0.00	1.334 *	1.090	2.00	6.737	8.99	54.1	104.2	464.7

Wind Loading - Shaft

Structure: CT02049-S-SBA | **Code:** EIA/TIA-222-H | 12/23/2020

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: 47

80.00 Top - Section 3	1.00	0.93	5.511	6.06	0.00	1.339 *	1.093	2.00	6.671	8.94	54.2	103.4	460.1
82.00	1.00	0.93	5.550	6.11	0.00	1.345 *	1.095	2.00	6.605	8.88	54.2	102.6	397.2
84.00	1.00	0.94	5.589	6.15	0.00	1.350 *	1.098	2.00	6.538	8.83	54.3	101.8	393.2
86.00	1.00	0.95	5.626	6.19	0.00	1.356 *	1.101	2.00	6.472	8.78	54.3	100.9	389.1
88.00	1.00	0.95	5.663	6.23	0.00	1.362 *	1.103	2.00	6.406	8.72	54.3	100.1	385.1
90.00	1.00	0.96	5.700	6.27	0.00	1.367 *	1.106	2.00	6.340	8.67	54.4	99.2	381.1
92.00	1.00	0.96	5.736	6.31	0.00	1.373 *	1.108	2.00	6.274	8.62	54.4	98.4	377.0
94.00	1.00	0.97	5.771	6.35	0.00	1.380 *	1.110	2.00	6.208	8.56	54.4	97.5	373.0
95.00 Bot - Section 5	1.00	0.97	5.789	6.37	0.00	1.384 *	1.112	1.00	3.079	4.26	27.1	48.5	185.1
95.58 RT11	1.00	0.98	5.799	6.38	0.00	1.387 *	1.112	0.58	1.810	2.51	16.0	28.6	187.7
96.00	1.00	0.98	5.806	6.39	0.00	1.388 *	1.113	0.42	1.307	1.81	11.6	20.7	135.6
98.00	1.00	0.98	5.840	6.42	0.00	1.392 *	1.115	2.00	6.183	8.61	55.3	97.5	640.8
100.00 Top - Section 4	1.00	0.99	5.874	6.46	0.00	1.266 *	1.117	2.00	6.117	7.74	50.0	96.6	633.5
102.00	1.00	0.99	5.907	6.50	0.00	1.263 *	1.119	2.00	6.051	7.64	49.6	95.7	363.5
104.00	1.00	1.00	5.940	6.53	0.00	1.268 *	1.122	2.00	5.985	7.59	49.6	94.8	359.4
106.00	1.00	1.00	5.973	6.57	0.00	1.273 *	1.124	2.00	5.918	7.53	49.5	93.9	355.3
108.00	1.00	1.01	6.005	6.61	0.00	1.278 *	1.126	2.00	5.852	7.48	49.4	92.9	351.2
110.00 Appurtenance(s)	1.00	1.02	6.036	6.64	0.00	1.284 *	1.128	2.00	5.786	7.43	49.3	92.0	347.1
112.00	1.00	1.02	6.067	6.67	0.00	1.289 *	1.130	2.00	5.720	7.37	49.2	91.1	343.0
114.00	1.00	1.03	6.098	6.71	0.00	1.295 *	1.132	2.00	5.653	7.32	49.1	90.1	338.8
115.00 Top - Section 5	1.00	1.03	6.113	6.72	0.00	1.299 *	1.133	1.00	2.802	3.64	24.5	44.8	168.0
116.00	1.00	1.03	6.128	6.74	0.00	1.302 *	1.134	1.00	2.785	3.63	24.5	44.6	142.7
118.00	1.00	1.04	6.158	6.77	0.00	1.307 *	1.136	2.00	5.521	7.21	48.9	88.2	282.5
120.00	1.00	1.04	6.188	6.81	0.00	1.313 *	1.138	2.00	5.455	7.16	48.7	87.3	279.0
122.00	1.00	1.05	6.217	6.84	0.00	1.319 *	1.140	2.00	5.388	7.11	48.6	86.3	275.5
124.00	1.00	1.05	6.246	6.87	0.00	1.326 *	1.142	2.00	5.322	7.06	48.5	85.3	271.9
126.00	1.00	1.06	6.275	6.90	0.00	1.332 *	1.143	2.00	5.256	7.00	48.3	84.3	268.4
128.00	1.00	1.06	6.303	6.93	0.00	1.339 *	1.145	2.00	5.189	6.95	48.2	83.4	264.9
130.00	1.00	1.07	6.331	6.96	0.00	1.346 *	1.147	2.00	5.123	6.90	48.0	82.4	261.3
132.00	1.00	1.07	6.359	6.99	0.00	1.354 *	1.149	2.00	5.056	6.84	47.9	81.4	257.8
133.00 Appurtenance(s)	1.00	1.07	6.373	7.01	0.00	1.359 *	1.150	1.00	2.503	3.40	23.8	40.4	127.7
134.00	1.00	1.07	6.386	7.02	0.00	1.363 *	1.150	1.00	2.487	3.39	23.8	40.2	126.8
136.00	1.00	1.08	6.413	7.05	0.00	1.369 *	1.152	2.00	4.924	6.74	47.5	79.4	250.7
138.00	1.00	1.08	6.440	7.08	0.00	1.377 *	1.154	2.00	4.857	6.69	47.4	78.3	247.1
140.00	1.00	1.09	6.467	7.11	0.00	1.385 *	1.155	2.00	4.791	6.63	47.2	77.3	243.6
142.00 Appurtenance(s)	1.00	1.09	6.493	7.14	0.00	1.393 *	1.157	2.00	4.725	6.58	47.0	76.3	240.0
144.00	1.00	1.10	6.519	7.17	0.00	1.200	1.159	2.00	4.658	5.59	40.1	75.3	236.4
145.00 Top - Section 6	1.00	1.10	6.532	7.19	0.00	1.200	1.160	1.00	2.304	2.76	19.9	37.4	117.0
146.00	1.00	1.10	6.545	7.20	0.00	1.200	1.160	1.00	2.217	2.66	19.1	35.9	113.0
148.00	1.00	1.11	6.570	7.23	0.00	1.200	1.162	2.00	4.385	5.26	38.0	70.8	223.1
148.30 Appurtenance(s)	1.00	1.11	6.574	7.23	0.00	1.200	1.162	0.30	0.652	0.78	5.7	10.6	33.2
150.00 Top - Section 7	1.00	1.11	6.595	7.25	0.00	1.200	1.163	1.70	3.669	4.40	31.9	59.4	186.5
152.00	1.00	1.11	6.620	7.28	0.00	1.290 *	1.165	2.00	3.055	3.94	28.7	48.9	149.9
154.00	1.00	1.12	6.645	7.31	0.00	1.290 *	1.167	2.00	3.056	3.94	28.8	48.9	150.0
156.00	1.00	1.12	6.670	7.34	0.00	1.290 *	1.168	2.00	3.056	3.94	28.9	49.0	150.0
158.00	1.00	1.13	6.694	7.36	0.00	1.290 *	1.170	2.00	3.057	3.94	29.0	49.1	150.1
160.00 Appurtenance(s)	1.00	1.13	6.718	7.39	0.00	1.290 *	1.171	2.00	3.057	3.94	29.1	49.1	150.2
							Totals:	**160.00**			**3,983.0**		**36,322.7**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

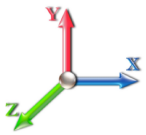
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 48	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	6' Lightning rod	1	6.742	7.416	1.00	1.00	1.11	26.86	0.000	2.000	8.23	0.00	16.46
2	160.00	DB-T1-6Z-8AB-0Z	1	6.742	7.416	1.00	1.00	5.37	143.68	0.000	2.000	39.85	0.00	79.70
3	160.00	SBNHH-1D65B	9	6.742	7.416	0.81	1.00	65.69	1582.26	0.000	2.000	487.20	0.00	974.39
4	160.00	Low Profile Platform	1	6.742	7.416	1.00	1.00	33.85	1542.61	0.000	2.000	251.05	0.00	502.09
5	160.00	DB846F65ZAXY	6	6.742	7.416	0.93	1.00	43.81	895.51	0.000	2.000	324.88	0.00	649.76
6	160.00	DB222	1	6.742	7.416	1.00	1.00	6.32	45.80	0.000	2.000	46.85	0.00	93.70
7	160.00	RRH2x90-AWS	3	6.742	7.416	0.67	1.00	7.09	228.44	0.000	2.000	52.56	0.00	105.12
8	148.30	1900MHz RRH	3	6.620	7.282	0.54	0.80	7.60	282.88	0.000	3.700	55.34	0.00	204.75
9	148.30	800 MHz RRH	3	6.620	7.282	0.54	0.80	5.23	275.25	0.000	3.700	38.08	0.00	140.89
10	148.30	APXVTM14-C-120	3	6.595	7.255	0.61	0.80	12.99	500.71	0.000	1.700	94.24	0.00	160.20
11	148.30	APXVSPP18-C-A20	3	6.620	7.282	0.66	0.80	19.68	402.01	0.000	3.700	143.33	0.00	530.33
12	148.30	TD-RRH8x20-25	3	6.595	7.255	0.54	0.80	7.36	457.60	0.000	1.700	53.39	0.00	90.77
13	148.30	ALU 800MHz External	3	6.620	7.282	0.54	0.80	1.95	51.93	0.000	3.700	14.18	0.00	52.46
14	148.30	ACU-A20-N	4	6.620	7.282	0.54	0.80	0.72	11.04	0.000	3.700	5.27	0.00	19.50
15	148.30	Low Profile Platform	1	6.574	7.231	1.00	1.00	33.76	1537.29	0.000	0.000	244.14	0.00	0.00
16	142.00	Ericsson Radio 4415	1	6.493	7.142	0.50	0.75	1.13	74.17	0.000	0.000	8.04	0.00	0.00
17	142.00	Ericsson Radio 4449	4	6.493	7.142	0.50	0.75	4.01	501.72	0.000	0.000	28.62	0.00	0.00
18	142.00	RFS	1	6.493	7.142	0.52	0.75	8.24	336.53	0.000	0.000	58.83	0.00	0.00
19	142.00	RFS	3	6.493	7.142	0.52	0.75	33.84	1256.77	0.000	0.000	241.68	0.00	0.00
20	142.00	Ericsson Air 32	4	6.493	7.142	0.65	0.75	19.04	1093.76	0.000	0.000	135.96	0.00	0.00
21	142.00	Mod	1	6.493	7.142	1.00	1.00	20.33	727.71	0.000	0.000	145.21	0.00	0.00
22	142.00	Ericsson 4415 B25 RRU	4	6.493	7.142	0.50	0.75	4.46	388.41	0.000	0.000	31.87	0.00	0.00
23	142.00	Commscope	4	6.493	7.142	0.50	0.75	0.61	20.26	0.000	0.000	4.34	0.00	0.00
24	142.00	Platform w/ HR & Bracing	1	6.493	7.142	1.00	1.00	77.51	3770.31	0.000	0.000	553.61	0.00	0.00
25	142.00	Ericsson KRY 112 144/1	3	6.502	7.152	0.50	0.75	1.09	51.74	0.000	0.700	7.82	0.00	5.47
26	142.00	Ericsson AIR6449 B41	4	6.493	7.142	0.53	0.75	13.38	731.25	0.000	0.000	95.54	0.00	0.00
27	133.00	Cci TPA-65R-LCUUUU-H8	1	6.373	7.010	0.63	0.80	8.71	301.26	0.000	0.000	61.07	0.00	0.00
28	133.00	Quintel QS66512-2	2	6.373	7.010	0.74	0.80	13.20	548.18	0.000	0.000	92.52	0.00	0.00
29	133.00	(3) SitePro 1 P/N	2	6.373	7.010	0.75	0.75	58.50	4522.34	0.000	0.000	410.11	0.00	0.00
30	133.00	Kathrein 800-10965	3	6.373	7.010	0.57	0.80	25.28	950.47	0.000	0.000	177.22	0.00	0.00
31	133.00	Kathrein 800 10121	3	6.373	7.010	0.63	0.80	12.40	294.97	0.000	0.000	86.89	0.00	0.00
32	133.00	Ericsson RRUS-32 RRU	3	6.373	7.010	0.54	0.80	6.15	486.09	0.000	0.000	43.09	0.00	0.00
33	133.00	Powerwave LGP21401	6	6.373	7.010	0.54	0.80	5.92	157.73	0.000	0.000	41.49	0.00	0.00
34	133.00	Ericsson B2/B66A 8843	3	6.373	7.010	0.54	0.80	3.16	315.77	0.000	0.000	22.18	0.00	0.00
35	133.00	Ericsson B5/B12 4449	3	6.373	7.010	0.54	0.80	3.75	320.28	0.000	0.000	26.27	0.00	0.00
36	133.00	Raycap DC6-48-60-18-8F	3	6.373	7.010	0.80	0.80	2.90	183.55	0.000	0.000	20.33	0.00	0.00
37	110.00	3 ft Standoff	1	6.036	6.640	1.00	1.00	6.49	76.89	0.000	0.000	43.08	0.00	0.00
38	110.00	DB222	1	6.118	6.729	1.00	1.00	7.26	44.09	0.000	5.292	48.88	0.00	258.67
39	40.00	GPS	1	4.521	4.973	1.00	1.00	1.42	21.13	0.000	0.000	7.04	0.00	0.00
							Totals:		**25,159.22**			**4,250.24**		

Total Applied Force Summary

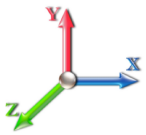
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 49	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 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		28.06	373.37	0.00	0.00
2.00		28.05	377.04	0.00	0.00
4.00		56.02	760.81	0.00	0.00
6.00		55.84	762.60	0.00	0.00
8.00		55.64	762.66	0.00	0.00
10.00		55.43	761.73	0.00	0.00
12.00		55.21	760.15	0.00	0.00
14.00		54.99	758.12	0.00	0.00
16.00		54.77	755.74	0.00	0.00
16.25		6.93	153.14	0.00	0.00
18.00		48.44	1069.54	0.00	0.00
18.75		20.71	456.73	0.00	0.00
19.50		20.67	455.79	0.00	0.00
20.00		13.76	303.32	0.00	0.00
22.00		54.92	1209.29	0.00	0.00
24.00		54.33	753.22	0.00	0.00
26.00		54.10	749.92	0.00	0.00
28.00		53.86	746.50	0.00	0.00
30.00		53.67	742.99	0.00	0.00
31.00		27.00	370.12	0.00	0.00
32.00		27.18	369.22	0.00	0.00
34.00		47.71	726.63	0.00	0.00
35.50		36.06	542.47	0.00	0.00
36.00		12.04	180.35	0.00	0.00
38.00		48.73	718.96	0.00	0.00
40.00	(1) attachments	56.23	736.16	0.00	0.00
42.00		49.61	710.69	0.00	0.00
44.00		50.01	706.67	0.00	0.00
45.16		29.09	408.04	0.00	0.00
46.00		21.12	294.63	0.00	0.00
48.00		50.71	698.53	0.00	0.00
50.00		51.03	694.40	0.00	0.00
52.00		52.21	1102.51	0.00	0.00
54.00		52.49	1094.51	0.00	0.00
56.00		52.75	1086.47	0.00	0.00
58.00		52.65	686.99	0.00	0.00
60.00		52.86	682.72	0.00	0.00
62.00		53.06	678.43	0.00	0.00
64.00		53.24	674.12	0.00	0.00
66.00		53.41	669.79	0.00	0.00
68.00		53.56	665.43	0.00	0.00
70.00		53.69	661.06	0.00	0.00
72.00		53.81	656.66	0.00	0.00
74.00		53.92	652.25	0.00	0.00
76.00		54.01	647.83	0.00	0.00
78.00		54.10	643.38	0.00	0.00

Total Applied Force Summary

Structure:	CT02049-S-SBA		**Code:**	EIA/TIA-222-H	12/23/2020
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: 50

Tower Engineering Solutions

80.00		54.17	638.92	0.00	0.00
82.00		54.23	576.15	0.00	0.00
84.00		54.28	572.30	0.00	0.00
86.00		54.31	568.43	0.00	0.00
88.00		54.34	564.55	0.00	0.00
90.00		54.36	560.66	0.00	0.00
92.00		54.37	556.76	0.00	0.00
94.00		54.37	552.85	0.00	0.00
95.00		27.14	275.04	0.00	0.00
95.58		16.01	239.92	0.00	0.00
96.00		11.59	173.37	0.00	0.00
98.00		55.30	820.97	0.00	0.00
100.00		50.03	803.49	0.00	0.00
102.00		49.65	533.61	0.00	0.00
104.00		49.58	529.63	0.00	0.00
106.00		49.50	525.63	0.00	0.00
108.00		49.41	521.62	0.00	0.00
110.00	(2) attachments	141.27	638.59	0.00	258.67
112.00		49.21	507.06	0.00	0.00
114.00		49.11	503.01	0.00	0.00
115.00		24.48	250.10	0.00	0.00
116.00		24.45	224.81	0.00	0.00
118.00		48.87	446.84	0.00	0.00
120.00		48.75	443.41	0.00	0.00
122.00		48.61	439.97	0.00	0.00
124.00		48.48	436.53	0.00	0.00
126.00		48.33	433.08	0.00	0.00
128.00		48.18	429.62	0.00	0.00
130.00		48.03	426.15	0.00	0.00
132.00		47.87	422.68	0.00	0.00
133.00	(29) attachments	1005.00	8290.79	0.00	0.00
134.00		23.81	194.02	0.00	0.00
136.00		47.54	385.19	0.00	0.00
138.00		47.37	381.71	0.00	0.00
140.00		47.19	378.21	0.00	0.00
142.00	(30) attachments	1358.52	9327.34	0.00	5.47
144.00		40.08	307.42	0.00	0.00
145.00		19.87	152.50	0.00	0.00
146.00		19.15	148.50	0.00	0.00
148.00		38.03	294.17	0.00	0.00
148.30	(23) attachments	653.62	3562.59	0.00	1198.90
150.00		31.94	239.15	0.00	0.00
152.00		28.70	211.84	0.00	0.00
154.00		28.81	211.94	0.00	0.00
156.00		28.92	212.03	0.00	0.00
158.00		29.03	212.12	0.00	0.00
160.00	(22) attachments	1239.76	4677.36	0.00	2421.22
	Totals:	**8,233.29**	**74,274.31**	**0.00**	**3,884.26**

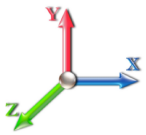
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 51	

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

Dead Load Factor 1.20

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	0.28	0.00	0.149	1.147	4.161	0.00	3.36
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	4.161	0.00	1.94
1.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.28	0.00	0.149	1.147	4.161	0.00	11.61
1.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	4.161	0.00	4.53
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	4.161	0.00	1.94
1.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.22	0.00	0.149	1.147	4.161	0.00	3.05
1.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.33	0.00	0.149	1.147	4.161	0.00	3.05
2.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.29	0.00	0.149	1.148	4.161	0.00	3.53
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	4.161	0.00	2.08
2.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.29	0.00	0.149	1.148	4.161	0.00	12.01
2.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	4.161	0.00	4.72
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	4.161	0.00	2.08
2.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.23	0.00	0.149	1.148	4.161	0.00	3.29
2.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.33	0.00	0.149	1.148	4.161	0.00	3.29
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.60	0.00	0.150	1.151	4.161	0.00	7.43
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.161	0.00	4.45
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.60	0.00	0.150	1.151	4.161	0.00	24.91
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.161	0.00	9.85
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.161	0.00	4.45
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.48	0.00	0.150	1.151	4.161	0.00	7.11
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.69	0.00	0.150	1.151	4.161	0.00	7.11
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.61	0.00	0.152	1.155	4.161	0.00	7.67
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.161	0.00	4.65
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.61	0.00	0.152	1.155	4.161	0.00	25.46
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.161	0.00	10.12
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.161	0.00	4.65
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.49	0.00	0.152	1.155	4.161	0.00	7.44
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.70	0.00	0.152	1.155	4.161	0.00	7.44
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.62	0.00	0.153	1.158	4.161	0.00	7.85
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.161	0.00	4.79
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.62	0.00	0.153	1.158	4.161	0.00	25.87
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.161	0.00	10.32
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.161	0.00	4.79
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.50	0.00	0.153	1.158	4.161	0.00	7.69
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.71	0.00	0.153	1.158	4.161	0.00	7.69
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.63	0.00	0.154	1.162	4.161	0.00	7.99
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.161	0.00	4.91
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.63	0.00	0.154	1.162	4.161	0.00	26.20
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.161	0.00	10.48
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.161	0.00	4.91
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.50	0.00	0.154	1.162	4.161	0.00	7.88
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.71	0.00	0.154	1.162	4.161	0.00	7.88
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.63	0.00	0.155	1.166	4.161	0.00	8.12
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.161	0.00	5.01
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.63	0.00	0.155	1.166	4.161	0.00	26.47
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.161	0.00	10.61
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.161	0.00	5.01

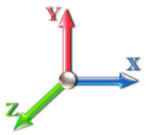
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 52	

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

Dead Load Factor 1.20

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	0.51	0.00	0.155	1.166	4.161	0.00	8.05
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.72	0.00	0.155	1.166	4.161	0.00	8.05
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.64	0.00	0.156	1.169	4.161	0.00	8.22
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.161	0.00	5.10
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.64	0.00	0.156	1.169	4.161	0.00	26.71
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.161	0.00	10.73
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.161	0.00	5.10
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.51	0.00	0.156	1.169	4.161	0.00	8.19
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.72	0.00	0.156	1.169	4.161	0.00	8.19
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.64	0.00	0.158	1.173	4.161	0.00	8.32
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.161	0.00	5.17
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.64	0.00	0.158	1.173	4.161	0.00	26.92
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.161	0.00	10.83
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.161	0.00	5.17
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.52	0.00	0.158	1.173	4.161	0.00	8.32
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.73	0.00	0.158	1.173	4.161	0.00	8.32
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.08	0.00	0.158	1.175	4.161	0.00	1.04
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.161	0.00	0.65
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.08	0.00	0.158	1.175	4.161	0.00	3.37
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.161	0.00	1.36
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.161	0.00	0.65
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.06	0.00	0.158	1.175	4.161	0.00	1.04
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.09	0.00	0.158	1.175	4.161	0.00	1.04
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.57	0.00	0.159	1.177	4.161	0.00	7.35
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.161	0.00	4.59
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.57	0.00	0.159	1.177	4.161	0.00	23.72
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.161	0.00	9.56
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.161	0.00	4.59
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.46	0.00	0.159	1.177	4.161	0.00	7.38
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.64	0.00	0.159	1.177	4.161	0.00	7.38
18.75	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.24	0.00	0.160	1.180	4.161	0.00	3.16
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	4.161	0.00	1.98
18.75	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.24	0.00	0.160	1.180	4.161	0.00	10.19
18.75	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	4.161	0.00	4.11
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	4.161	0.00	1.98
18.75	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.20	0.00	0.160	1.180	4.161	0.00	3.18
18.75	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.27	0.00	0.160	1.180	4.161	0.00	3.18
19.50	1 5/8" Hybrid	Yes	0.75	0.000	2.00	0.24	0.00	0.160	1.181	4.161	0.00	3.17
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	4.161	0.00	1.98
19.50	1 5/8" Fiber	Yes	0.75	0.000	2.00	0.24	0.00	0.160	1.181	4.161	0.00	10.21
19.50	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	4.161	0.00	4.12
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	4.161	0.00	1.98
19.50	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.20	0.00	0.160	1.181	4.161	0.00	3.19
19.50	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.27	0.00	0.160	1.181	4.161	0.00	3.19
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.16	0.00	0.161	1.183	4.161	0.00	2.12
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	4.161	0.00	1.33
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.16	0.00	0.161	1.183	4.161	0.00	6.82

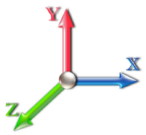
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 53	

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

Dead Load Factor 1.20

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	4.161	0.00	2.75
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	4.161	0.00	1.33
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.13	0.00	0.161	1.183	4.161	0.00	2.14
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.18	0.00	0.161	1.183	4.161	0.00	2.14
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.65	0.00	0.162	1.185	4.161	0.00	8.55
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.161	0.00	5.36
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.65	0.00	0.162	1.185	4.161	0.00	27.43
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.161	0.00	11.09
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.161	0.00	5.36
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.53	0.00	0.162	1.185	4.161	0.00	8.64
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.74	0.00	0.162	1.185	4.161	0.00	8.64
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.66	0.00	0.160	1.181	4.161	0.00	8.61
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.161	0.00	5.42
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.66	0.00	0.160	1.181	4.161	0.00	27.58
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.161	0.00	11.16
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.161	0.00	5.42
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.53	0.00	0.160	1.181	4.161	0.00	8.73
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.74	0.00	0.160	1.181	4.161	0.00	8.73
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.66	0.00	0.162	1.185	4.161	0.00	8.68
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.161	0.00	5.47
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.66	0.00	0.162	1.185	4.161	0.00	27.71
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.161	0.00	11.23
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.161	0.00	5.47
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.53	0.00	0.162	1.185	4.161	0.00	8.81
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.74	0.00	0.162	1.185	4.161	0.00	8.81
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.66	0.00	0.163	1.189	4.161	0.00	8.73
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.161	0.00	5.52
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.66	0.00	0.163	1.189	4.161	0.00	27.84
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.161	0.00	11.29
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.161	0.00	5.52
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.54	0.00	0.163	1.189	4.161	0.00	8.89
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.74	0.00	0.163	1.189	4.161	0.00	8.89
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.66	0.00	0.165	1.194	4.164	0.00	8.79
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.164	0.00	5.56
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.66	0.00	0.165	1.194	4.164	0.00	27.95
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.164	0.00	11.35
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.164	0.00	5.56
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.54	0.00	0.165	1.194	4.164	0.00	8.96
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.75	0.00	0.165	1.194	4.164	0.00	8.96
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.33	0.00	0.166	1.197	4.203	0.00	4.41
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.203	0.00	2.79
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.166	1.197	4.203	0.00	14.01
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.203	0.00	5.69
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.203	0.00	2.79
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.27	0.00	0.166	1.197	4.203	0.00	4.50
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.37	0.00	0.166	1.197	4.203	0.00	4.50
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.33	0.00	0.166	1.199	4.242	0.00	4.42

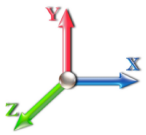
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 54	

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

Dead Load Factor 1.20

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	4.242	0.00	2.80
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.33	0.00	0.166	1.199	4.242	0.00	14.03
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	4.242	0.00	5.70
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	4.242	0.00	2.80
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.27	0.00	0.166	1.199	4.242	0.00	4.51
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.37	0.00	0.166	1.199	4.242	0.00	4.51
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.67	0.00	0.113	1.040	4.316	0.00	8.89
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.316	0.00	5.64
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.67	0.00	0.113	1.040	4.316	0.00	28.17
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.316	0.00	11.46
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.316	0.00	5.64
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.54	0.00	0.113	1.040	4.316	0.00	9.09
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.50	0.00	0.114	1.043	4.369	0.00	6.69
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.369	0.00	4.25
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.50	0.00	0.114	1.043	4.369	0.00	21.18
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.369	0.00	8.62
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.369	0.00	4.25
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.41	0.00	0.114	1.043	4.369	0.00	6.85
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.17	0.00	0.115	1.044	4.387	0.00	2.23
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.387	0.00	1.42
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.17	0.00	0.115	1.044	4.387	0.00	7.07
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.387	0.00	2.88
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.387	0.00	1.42
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.14	0.00	0.115	1.044	4.387	0.00	2.29
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.67	0.00	0.115	1.046	4.455	0.00	8.98
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.455	0.00	5.72
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.67	0.00	0.115	1.046	4.455	0.00	28.37
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.455	0.00	11.56
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.455	0.00	5.72
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.55	0.00	0.115	1.046	4.455	0.00	9.21
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.67	0.00	0.116	1.049	4.521	0.00	9.02
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.521	0.00	5.75
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.67	0.00	0.116	1.049	4.521	0.00	28.46
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.521	0.00	11.60
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.521	0.00	5.75
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.55	0.00	0.116	1.049	4.521	0.00	9.27
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.67	0.00	0.117	1.052	4.584	0.00	9.06
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.584	0.00	5.79
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.67	0.00	0.117	1.052	4.584	0.00	28.54
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.584	0.00	11.65
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.584	0.00	5.79
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.55	0.00	0.117	1.052	4.584	0.00	9.32
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.68	0.00	0.119	1.056	4.646	0.00	9.10
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.646	0.00	5.82
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.68	0.00	0.119	1.056	4.646	0.00	28.63
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.646	0.00	11.69
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.646	0.00	5.82

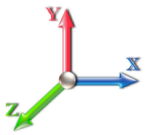
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 55	

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

Dead Load Factor 1.20

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	0.55	0.00	0.119	1.056	4.646	0.00	9.37
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.39	0.00	0.119	1.058	4.680	0.00	5.29
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.680	0.00	3.39
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.39	0.00	0.119	1.058	4.680	0.00	16.63
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.680	0.00	6.79
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.680	0.00	3.39
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.32	0.00	0.119	1.058	4.680	0.00	5.45
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.28	0.00	0.120	1.060	4.705	0.00	3.84
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.705	0.00	2.46
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.28	0.00	0.120	1.060	4.705	0.00	12.06
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.705	0.00	4.93
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.705	0.00	2.46
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.23	0.00	0.120	1.060	4.705	0.00	3.96
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.68	0.00	0.121	1.062	4.763	0.00	9.17
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.763	0.00	5.88
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.68	0.00	0.121	1.062	4.763	0.00	28.78
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.763	0.00	11.77
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.763	0.00	5.88
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.55	0.00	0.121	1.062	4.763	0.00	9.47
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.68	0.00	0.122	1.066	4.819	0.00	9.21
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.819	0.00	5.91
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.68	0.00	0.122	1.066	4.819	0.00	28.86
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.819	0.00	11.81
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.819	0.00	5.91
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.56	0.00	0.122	1.066	4.819	0.00	9.52
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.68	0.00	0.123	1.069	4.873	0.00	9.24
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.873	0.00	5.94
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.68	0.00	0.123	1.069	4.873	0.00	28.93
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.873	0.00	11.85
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.873	0.00	5.94
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.56	0.00	0.123	1.069	4.873	0.00	9.56
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.68	0.00	0.124	1.072	4.926	0.00	9.27
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	4.926	0.00	5.96
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.68	0.00	0.124	1.072	4.926	0.00	29.00
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	4.926	0.00	11.88
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	4.926	0.00	5.96
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.56	0.00	0.124	1.072	4.926	0.00	9.61
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.68	0.00	0.125	1.076	4.977	0.00	9.30
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	4.977	0.00	5.99
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.68	0.00	0.125	1.076	4.977	0.00	29.07
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	4.977	0.00	11.92
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	4.977	0.00	5.99
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.56	0.00	0.125	1.076	4.977	0.00	9.65
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.124	1.073	5.027	0.00	9.33
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	5.027	0.00	6.02
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.124	1.073	5.027	0.00	29.13
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	5.027	0.00	11.95

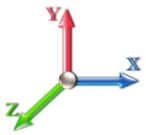
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 56	

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

Dead Load Factor 1.20

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	5.027	0.00	6.02
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.56	0.00	0.124	1.073	5.027	0.00	9.69
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.125	1.076	5.076	0.00	9.36
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.076	0.00	6.04
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.125	1.076	5.076	0.00	29.20
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.076	0.00	11.98
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.076	0.00	6.04
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.56	0.00	0.125	1.076	5.076	0.00	9.73
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.127	1.080	5.124	0.00	9.39
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.124	0.00	6.06
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.127	1.080	5.124	0.00	29.26
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.124	0.00	12.01
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.124	0.00	6.06
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.56	0.00	0.127	1.080	5.124	0.00	9.77
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.128	1.084	5.171	0.00	9.42
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.171	0.00	6.09
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.128	1.084	5.171	0.00	29.32
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.171	0.00	12.05
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.171	0.00	6.09
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.56	0.00	0.128	1.084	5.171	0.00	9.80
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.129	1.087	5.216	0.00	9.45
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.216	0.00	6.11
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.129	1.087	5.216	0.00	29.38
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.216	0.00	12.08
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.216	0.00	6.11
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.129	1.087	5.216	0.00	9.84
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.130	1.091	5.261	0.00	9.48
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.261	0.00	6.13
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.130	1.091	5.261	0.00	29.43
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.261	0.00	12.10
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.261	0.00	6.13
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.130	1.091	5.261	0.00	9.88
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.132	1.095	5.305	0.00	9.50
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.305	0.00	6.16
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.132	1.095	5.305	0.00	29.49
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.305	0.00	12.13
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.305	0.00	6.16
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.132	1.095	5.305	0.00	9.91
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.133	1.099	5.348	0.00	9.53
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.348	0.00	6.18
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.133	1.099	5.348	0.00	29.54
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.348	0.00	12.16
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.348	0.00	6.18
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.133	1.099	5.348	0.00	9.95
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.69	0.00	0.134	1.103	5.390	0.00	9.55
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	5.390	0.00	6.20
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.69	0.00	0.134	1.103	5.390	0.00	29.59

Linear Appurtenance Segment Forces (Factored)

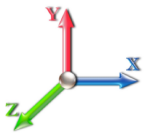
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 57	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 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	5.390	0.00	12.19
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	5.390	0.00	6.20
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.134	1.103	5.390	0.00	9.98
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.136	1.108	5.431	0.00	9.58
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.431	0.00	6.22
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.136	1.108	5.431	0.00	29.64
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.431	0.00	12.22
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.431	0.00	6.22
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.136	1.108	5.431	0.00	10.01
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.137	1.112	5.471	0.00	9.60
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.471	0.00	6.24
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.137	1.112	5.471	0.00	29.70
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.471	0.00	12.24
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.471	0.00	6.24
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.137	1.112	5.471	0.00	10.04
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.139	1.116	5.511	0.00	9.62
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.511	0.00	6.26
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.139	1.116	5.511	0.00	29.74
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.511	0.00	12.27
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.511	0.00	6.26
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.139	1.116	5.511	0.00	10.07
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.140	1.121	5.550	0.00	9.65
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.550	0.00	6.28
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.140	1.121	5.550	0.00	29.79
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.550	0.00	12.29
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.550	0.00	6.28
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.140	1.121	5.550	0.00	10.10
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.142	1.125	5.589	0.00	9.67
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.589	0.00	6.29
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.142	1.125	5.589	0.00	29.84
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.589	0.00	12.32
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.589	0.00	6.29
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.57	0.00	0.142	1.125	5.589	0.00	10.13
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.143	1.130	5.626	0.00	9.69
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.626	0.00	6.31
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.143	1.130	5.626	0.00	29.89
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.626	0.00	12.34
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.626	0.00	6.31
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.58	0.00	0.143	1.130	5.626	0.00	10.16
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.145	1.135	5.663	0.00	9.71
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.663	0.00	6.33
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.145	1.135	5.663	0.00	29.93
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.663	0.00	12.36
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.663	0.00	6.33
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.58	0.00	0.145	1.135	5.663	0.00	10.19
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.147	1.140	5.700	0.00	9.73
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.700	0.00	6.35

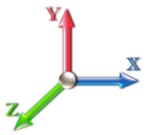
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 58	

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

Dead Load Factor 1.20

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	0.70	0.00	0.147	1.140	5.700	0.00	29.97
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.700	0.00	12.39
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.700	0.00	6.35
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.58	0.00	0.147	1.140	5.700	0.00	10.22
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.148	1.145	5.736	0.00	9.75
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.736	0.00	6.37
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.148	1.145	5.736	0.00	30.02
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.736	0.00	12.41
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.736	0.00	6.37
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.58	0.00	0.148	1.145	5.736	0.00	10.25
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.150	1.150	5.771	0.00	9.77
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.771	0.00	6.38
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.150	1.150	5.771	0.00	30.06
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.771	0.00	12.43
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.771	0.00	6.38
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.58	0.00	0.150	1.150	5.771	0.00	10.27
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.35	0.00	0.151	1.154	5.789	0.00	4.89
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.789	0.00	3.20
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.35	0.00	0.151	1.154	5.789	0.00	15.04
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.789	0.00	6.22
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.789	0.00	3.20
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.29	0.00	0.151	1.154	5.789	0.00	5.14
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.20	0.00	0.152	1.156	5.799	0.00	2.84
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.799	0.00	1.86
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.20	0.00	0.152	1.156	5.799	0.00	8.73
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.799	0.00	3.61
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.799	0.00	1.86
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.17	0.00	0.152	1.156	5.799	0.00	2.98
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.15	0.00	0.152	1.157	5.806	0.00	2.06
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.806	0.00	1.34
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.15	0.00	0.152	1.157	5.806	0.00	6.32
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.806	0.00	2.62
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.806	0.00	1.34
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.12	0.00	0.152	1.157	5.806	0.00	2.16
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.70	0.00	0.153	1.160	5.840	0.00	9.81
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.840	0.00	6.42
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.70	0.00	0.153	1.160	5.840	0.00	30.14
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.840	0.00	12.47
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.840	0.00	6.42
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.58	0.00	0.153	1.160	5.840	0.00	10.32
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.118	1.055	5.874	0.00	9.83
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	5.874	0.00	6.43
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.118	1.055	5.874	0.00	30.18
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	5.874	0.00	12.50
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	5.874	0.00	6.43
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.117	1.052	5.907	0.00	9.85
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	5.907	0.00	6.45

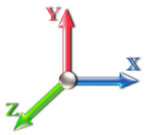
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 59	

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

Dead Load Factor 1.20

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	0.71	0.00	0.117	1.052	5.907	0.00	30.22
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	5.907	0.00	12.52
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	5.907	0.00	6.45
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.119	1.056	5.940	0.00	9.87
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	5.940	0.00	6.46
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.119	1.056	5.940	0.00	30.26
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	5.940	0.00	12.54
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	5.940	0.00	6.46
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.120	1.061	5.973	0.00	9.89
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	5.973	0.00	6.48
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.120	1.061	5.973	0.00	30.30
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	5.973	0.00	12.56
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	5.973	0.00	6.48
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.122	1.065	6.005	0.00	9.91
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.005	0.00	6.49
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.122	1.065	6.005	0.00	30.34
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.005	0.00	12.58
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.005	0.00	6.49
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.123	1.070	6.036	0.00	9.93
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.036	0.00	6.51
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.123	1.070	6.036	0.00	30.38
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.036	0.00	12.60
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.036	0.00	6.51
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.125	1.074	6.067	0.00	9.94
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	6.067	0.00	6.52
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.125	1.074	6.067	0.00	30.41
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	6.067	0.00	12.62
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.126	1.079	6.098	0.00	9.96
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	6.098	0.00	6.54
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.126	1.079	6.098	0.00	30.45
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	6.098	0.00	12.63
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.36	0.00	0.128	1.083	6.113	0.00	4.98
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	6.113	0.00	3.27
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.36	0.00	0.128	1.083	6.113	0.00	15.23
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	6.113	0.00	6.32
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.36	0.00	0.128	1.085	6.128	0.00	4.99
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	6.128	0.00	3.28
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.36	0.00	0.128	1.085	6.128	0.00	15.24
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	6.128	0.00	6.33
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.130	1.089	6.158	0.00	9.99
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	6.158	0.00	6.57
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.130	1.089	6.158	0.00	30.52
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	6.158	0.00	12.67
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.131	1.094	6.188	0.00	10.01
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	6.188	0.00	6.58
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.131	1.094	6.188	0.00	30.55
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	6.188	0.00	12.69

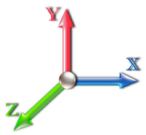
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 60	

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

Dead Load Factor 1.20

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	0.71	0.00	0.133	1.099	6.217	0.00	10.03
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.217	0.00	6.60
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.133	1.099	6.217	0.00	30.59
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.217	0.00	12.71
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.135	1.105	6.246	0.00	10.04
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	6.246	0.00	6.61
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.135	1.105	6.246	0.00	30.62
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	6.246	0.00	12.72
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.137	1.110	6.275	0.00	10.06
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	6.275	0.00	6.62
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.137	1.110	6.275	0.00	30.65
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	6.275	0.00	12.74
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.139	1.116	6.303	0.00	10.07
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	6.303	0.00	6.64
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.72	0.00	0.139	1.116	6.303	0.00	30.69
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	6.303	0.00	12.76
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.141	1.122	6.331	0.00	10.09
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	6.331	0.00	6.65
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.72	0.00	0.141	1.122	6.331	0.00	30.72
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	6.331	0.00	12.78
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.143	1.128	6.359	0.00	10.11
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	6.359	0.00	6.66
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.72	0.00	0.143	1.128	6.359	0.00	30.75
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	6.359	0.00	12.79
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.36	0.00	0.144	1.133	6.373	0.00	5.06
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	6.373	0.00	3.33
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.36	0.00	0.144	1.133	6.373	0.00	15.38
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	6.373	0.00	6.40
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.36	0.00	0.145	1.136	6.386	0.00	5.06
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	6.386	0.00	3.34
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.36	0.00	0.145	1.136	6.386	0.00	15.39
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	6.386	0.00	6.40
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.147	1.141	6.413	0.00	10.14
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	6.413	0.00	6.69
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.72	0.00	0.147	1.141	6.413	0.00	30.81
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	6.413	0.00	12.82
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.149	1.147	6.440	0.00	10.15
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	6.440	0.00	6.70
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.72	0.00	0.149	1.147	6.440	0.00	30.84
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	6.440	0.00	12.84
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.151	1.154	6.467	0.00	10.16
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	6.467	0.00	6.71
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.72	0.00	0.151	1.154	6.467	0.00	30.87
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	6.467	0.00	12.86
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.154	1.161	6.493	0.00	10.18
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	6.493	0.00	6.72
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.72	0.00	0.154	1.161	6.493	0.00	30.90

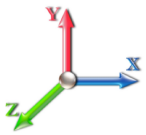
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 61	

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

Dead Load Factor 1.20

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	6.493	0.00	12.87
144.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.078	0.000	6.519	0.00	10.19
144.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.519	0.00	6.74
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.36	0.00	0.079	0.000	6.532	0.00	5.10
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	6.532	0.00	3.37
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.36	0.00	0.082	0.000	6.545	0.00	5.10
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	6.545	0.00	3.37
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.083	0.000	6.570	0.00	10.22
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	6.570	0.00	6.76
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.11	0.00	0.084	0.000	6.574	0.00	1.53
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	6.574	0.00	1.01
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.61	0.00	0.085	0.000	6.595	0.00	8.70
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	6.595	0.00	5.75
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.125	1.075	6.620	0.00	10.25
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.620	0.00	6.78
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.125	1.075	6.645	0.00	10.26
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.645	0.00	6.79
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.125	1.075	6.670	0.00	10.28
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.670	0.00	6.80
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.125	1.075	6.694	0.00	10.29
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.694	0.00	6.82
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.72	0.00	0.125	1.075	6.718	0.00	10.30
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.718	0.00	6.83
									Totals:		**0.0**	**5,063.5**

Calculated Forces

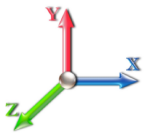
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 62	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 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	-74.27	-8.24	0.00	-998.85	0.00	998.85	3683.82	1059.58	4414.92	3756.66	0.00	0.000	0.000	0.170
1.00	-73.90	-8.22	0.00	-990.61	0.00	990.61	3677.71	1055.47	4380.73	3735.77	0.00	-0.009	0.000	0.169
2.00	-73.52	-8.21	0.00	-982.39	0.00	982.39	3671.54	1051.36	4346.67	3714.86	0.00	-0.017	0.000	0.168
4.00	-72.76	-8.17	0.00	-965.97	0.00	965.97	3659.00	1043.14	4278.95	3673.00	0.01	-0.035	0.000	0.167
6.00	-71.99	-8.14	0.00	-949.63	0.00	949.63	3646.20	1034.91	4211.76	3631.09	0.03	-0.052	0.000	0.165
8.00	-71.23	-8.11	0.00	-933.34	0.00	933.34	3633.16	1026.69	4145.10	3589.13	0.06	-0.070	0.000	0.164
10.00	-70.46	-8.07	0.00	-917.13	0.00	917.13	3619.85	1018.47	4078.97	3547.13	0.09	-0.088	0.000	0.162
12.00	-69.70	-8.04	0.00	-900.99	0.00	900.99	3606.29	1010.25	4013.38	3505.10	0.13	-0.105	0.000	0.161
14.00	-68.94	-8.00	0.00	-884.92	0.00	884.92	3592.48	1002.02	3948.31	3463.03	0.18	-0.123	0.000	0.159
16.00	-68.18	-7.96	0.00	-868.92	0.00	868.92	3578.41	993.80	3883.78	3420.94	0.24	-0.141	0.000	0.158
16.25	-68.03	-7.96	0.00	-866.93	0.00	866.93	3576.63	992.77	3875.75	3415.68	0.24	-0.143	0.000	0.181
18.00	-66.96	-7.92	0.00	-853.00	0.00	853.00	3564.09	985.58	3819.78	3378.83	0.30	-0.161	0.000	0.166
18.75	-66.50	-7.91	0.00	-847.06	0.00	847.06	3558.65	982.50	3795.92	3363.04	0.33	-0.168	0.000	0.195
19.50	-66.04	-7.90	0.00	-841.12	0.00	841.12	3553.18	979.41	3772.13	3347.24	0.35	-0.177	0.000	0.166
20.00	-65.74	-7.90	0.00	-837.17	0.00	837.17	3549.51	977.36	3756.31	3336.71	0.37	-0.181	0.000	0.165
22.00	-64.53	-7.86	0.00	-821.38	0.00	821.38	3563.12	985.03	3815.51	3376.01	0.45	-0.200	0.000	0.167
24.00	-63.77	-7.82	0.00	-805.67	0.00	805.67	3548.52	976.81	3752.08	3333.89	0.54	-0.220	0.000	0.161
26.00	-63.02	-7.79	0.00	-790.02	0.00	790.02	3533.67	968.58	3689.18	3291.77	0.64	-0.238	0.000	0.159
28.00	-62.27	-7.75	0.00	-774.45	0.00	774.45	3518.56	960.36	3626.81	3249.64	0.74	-0.257	0.000	0.158
30.00	-61.52	-7.71	0.00	-758.95	0.00	758.95	3503.20	952.14	3564.97	3207.53	0.85	-0.276	0.000	0.123
31.00	-61.15	-7.69	0.00	-751.25	0.00	751.25	3495.43	948.03	3534.25	3186.48	0.91	-0.283	0.000	0.142
32.00	-60.78	-7.67	0.00	-743.56	0.00	743.56	3487.59	943.92	3503.66	3165.43	0.97	-0.292	0.000	0.141
34.00	-60.05	-7.64	0.00	-728.22	0.00	728.22	3471.72	935.70	3442.89	3123.35	1.10	-0.309	0.000	0.172
35.50	-59.51	-7.61	0.00	-716.77	0.00	716.77	3459.65	929.53	3397.66	3091.80	1.20	-0.325	0.000	0.172
36.00	-59.33	-7.61	0.00	-712.96	0.00	712.96	3455.59	927.47	3382.65	3081.29	1.23	-0.330	0.000	0.172
38.00	-58.61	-7.58	0.00	-697.74	0.00	697.74	3439.21	919.25	3322.94	3039.26	1.37	-0.352	0.000	0.170
40.00	-57.87	-7.54	0.00	-682.59	0.00	682.59	3422.57	911.03	3263.76	2997.28	1.52	-0.373	0.000	0.168
42.00	-57.16	-7.51	0.00	-667.51	0.00	667.51	3405.68	902.81	3205.11	2955.34	1.69	-0.395	0.000	0.166
44.00	-56.45	-7.47	0.00	-652.50	0.00	652.50	3388.54	894.58	3146.99	2913.44	1.86	-0.416	0.000	0.164
45.16	-56.04	-7.45	0.00	-643.84	0.00	643.84	3378.48	889.81	3113.53	2889.17	1.96	-0.429	0.000	0.119
46.00	-55.74	-7.43	0.00	-637.58	0.00	637.58	3371.14	886.36	3089.41	2871.61	2.03	-0.435	0.000	0.154
48.00	-55.04	-7.40	0.00	-622.71	0.00	622.71	3353.48	878.14	3032.36	2829.83	2.22	-0.456	0.000	0.152
50.00	-54.34	-7.36	0.00	-607.92	0.00	607.92	3335.57	869.92	2975.84	2788.13	2.42	-0.476	0.000	0.150
52.00	-53.24	-7.32	0.00	-593.19	0.00	593.19	3317.41	861.69	2919.85	2746.50	2.62	-0.497	0.000	0.146
54.00	-52.14	-7.27	0.00	-578.56	0.00	578.56	3298.98	853.47	2864.39	2704.94	2.83	-0.517	0.000	0.144
56.00	-51.05	-7.23	0.00	-564.01	0.00	564.01	3316.18	861.14	2916.12	2743.71	3.05	-0.537	0.000	0.146
58.00	-50.37	-7.19	0.00	-549.55	0.00	549.55	3297.74	852.92	2860.70	2702.16	3.28	-0.557	0.000	0.151
60.00	-49.68	-7.15	0.00	-535.17	0.00	535.17	3279.05	844.70	2805.81	2660.71	3.52	-0.578	0.000	0.149
62.00	-49.00	-7.11	0.00	-520.88	0.00	520.88	3260.10	836.48	2751.45	2619.34	3.77	-0.599	0.000	0.147
64.00	-48.32	-7.06	0.00	-506.67	0.00	506.67	3240.90	828.25	2697.62	2578.08	4.02	-0.621	0.000	0.144
66.00	-47.65	-7.02	0.00	-492.54	0.00	492.54	3221.44	820.03	2644.33	2536.92	4.29	-0.642	0.000	0.142
68.00	-46.99	-6.98	0.00	-478.50	0.00	478.50	3201.73	811.81	2591.56	2495.87	4.56	-0.663	0.000	0.140
70.00	-46.32	-6.93	0.00	-464.55	0.00	464.55	3181.76	803.59	2539.33	2454.94	4.84	-0.684	0.000	0.138
72.00	-45.66	-6.89	0.00	-450.69	0.00	450.69	3161.54	795.36	2487.63	2414.13	5.13	-0.704	0.000	0.135
74.00	-45.01	-6.84	0.00	-436.92	0.00	436.92	3141.06	787.14	2436.47	2373.45	5.43	-0.725	0.000	0.133
76.00	-44.36	-6.79	0.00	-423.24	0.00	423.24	3120.33	778.92	2385.83	2332.91	5.74	-0.746	0.000	0.131
78.00	-43.72	-6.75	0.00	-409.65	0.00	409.65	3099.34	770.70	2335.73	2292.51	6.06	-0.767	0.000	0.128
80.00	-43.07	-6.70	0.00	-396.15	0.00	396.15	3078.09	762.47	2286.15	2252.26	6.38	-0.787	0.000	0.126

Calculated Forces

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 63

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80.00	-43.07	-6.70	0.00	-396.15	0.00	396.15	2384.58	636.50	1911.75	1750.88	6.38	-0.787	0.000	0.136
82.00	-42.50	-6.65	0.00	-382.75	0.00	382.75	2370.62	629.65	1870.81	1721.73	6.72	-0.808	0.000	0.149
84.00	-41.92	-6.61	0.00	-369.45	0.00	369.45	2356.42	622.80	1830.32	1692.63	7.06	-0.830	0.000	0.146
86.00	-41.35	-6.56	0.00	-356.23	0.00	356.23	2341.95	615.94	1790.27	1663.57	7.42	-0.853	0.000	0.142
88.00	-40.79	-6.51	0.00	-343.11	0.00	343.11	2327.23	609.09	1750.66	1634.56	7.78	-0.875	0.000	0.139
90.00	-40.22	-6.47	0.00	-330.08	0.00	330.08	2312.26	602.24	1711.49	1605.61	8.15	-0.897	0.000	0.136
92.00	-39.67	-6.42	0.00	-317.15	0.00	317.15	2297.03	595.39	1672.77	1576.72	8.53	-0.919	0.000	0.132
94.00	-39.11	-6.37	0.00	-304.31	0.00	304.31	2281.55	588.54	1634.49	1547.90	8.92	-0.941	0.000	0.129
95.00	-38.84	-6.34	0.00	-297.94	0.00	297.94	2273.71	585.11	1615.51	1533.52	9.12	-0.952	0.000	0.127
95.58	-38.60	-6.32	0.00	-294.27	0.00	294.27	2269.13	583.12	1604.56	1525.19	9.23	-0.958	0.000	0.124
95.58	-38.60	-6.32	0.00	-294.27	0.00	294.27	2269.13	583.12	1604.56	1525.19	9.23	-0.958	0.000	0.124
96.00	-38.42	-6.32	0.00	-291.61	0.00	291.61	2265.81	581.68	1596.65	1519.16	9.32	-0.963	0.000	0.209
98.00	-37.60	-6.28	0.00	-278.96	0.00	278.96	2249.81	574.83	1559.25	1490.50	9.73	-0.998	0.000	0.204
100.00	-36.79	-6.24	0.00	-266.41	0.00	266.41	2259.61	579.02	1582.04	1508.00	10.15	-1.033	0.000	0.193
102.00	-36.25	-6.20	0.00	-253.94	0.00	253.94	2243.52	572.17	1544.82	1479.37	10.59	-1.068	0.000	0.188
104.00	-35.72	-6.16	0.00	-241.55	0.00	241.55	2227.17	565.31	1508.04	1450.84	11.05	-1.100	0.000	0.183
106.00	-35.19	-6.12	0.00	-229.23	0.00	229.23	2210.57	558.46	1471.71	1422.40	11.52	-1.132	0.000	0.177
108.00	-34.67	-6.08	0.00	-217.00	0.00	217.00	2193.71	551.61	1435.82	1394.06	12.00	-1.163	0.000	0.172
110.00	-34.03	-5.94	0.00	-204.59	0.00	204.59	2176.60	544.76	1400.37	1365.84	12.49	-1.194	0.000	0.166
112.00	-33.52	-5.90	0.00	-192.71	0.00	192.71	2159.23	537.91	1365.36	1337.73	13.00	-1.224	0.000	0.160
114.00	-33.02	-5.85	0.00	-180.91	0.00	180.91	2141.61	531.05	1330.80	1309.73	13.52	-1.253	0.000	0.154
115.00	-32.77	-5.83	0.00	-175.06	0.00	175.06	2132.70	527.63	1313.68	1295.79	13.78	-1.267	0.000	0.151
115.00	-32.77	-5.83	0.00	-175.06	0.00	175.06	1556.62	422.98	1055.35	949.74	13.78	-1.267	0.000	0.206
116.00	-32.54	-5.81	0.00	-169.24	0.00	169.24	1551.43	420.24	1041.71	940.38	14.05	-1.282	0.000	0.201
118.00	-32.09	-5.77	0.00	-157.61	0.00	157.61	1540.84	414.76	1014.72	921.68	14.59	-1.316	0.000	0.192
120.00	-31.65	-5.73	0.00	-146.07	0.00	146.07	1529.99	409.28	988.07	902.99	15.15	-1.349	0.000	0.183
122.00	-31.21	-5.69	0.00	-134.60	0.00	134.60	1518.89	403.80	961.78	884.33	15.72	-1.381	0.000	0.173
124.00	-30.77	-5.65	0.00	-123.22	0.00	123.22	1507.54	398.32	935.85	865.70	16.31	-1.412	0.000	0.163
126.00	-30.33	-5.60	0.00	-111.93	0.00	111.93	1495.93	392.84	910.27	847.11	16.91	-1.441	0.000	0.153
128.00	-29.90	-5.56	0.00	-100.73	0.00	100.73	1484.06	387.35	885.04	828.56	17.52	-1.468	0.000	0.142
130.00	-29.47	-5.51	0.00	-89.61	0.00	89.61	1471.95	381.87	860.17	810.06	18.14	-1.494	0.000	0.131
132.00	-29.05	-5.46	0.00	-78.59	0.00	78.59	1459.57	376.39	835.65	791.62	18.77	-1.517	0.000	0.119
133.00	-20.79	-4.24	0.00	-73.13	0.00	73.13	1453.29	373.65	823.53	782.42	19.09	-1.528	0.000	0.108
134.00	-20.60	-4.22	0.00	-68.89	0.00	68.89	1446.94	370.91	811.49	773.23	19.41	-1.539	0.000	0.103
136.00	-20.21	-4.17	0.00	-60.46	0.00	60.46	1434.06	365.43	787.68	754.91	20.06	-1.559	0.000	0.094
138.00	-19.83	-4.11	0.00	-52.13	0.00	52.13	1420.92	359.95	764.23	736.67	20.71	-1.577	0.000	0.085
140.00	-19.45	-4.06	0.00	-43.90	0.00	43.90	1407.52	354.47	741.13	718.50	21.38	-1.593	0.000	0.075
142.00	-10.16	-2.44	0.00	-35.78	0.00	35.78	1393.87	348.98	718.38	700.42	22.05	-1.607	0.000	0.058
144.00	-9.86	-2.40	0.00	-30.89	0.00	30.89	1379.97	343.50	695.99	682.44	22.73	-1.619	0.000	0.052
145.00	-9.71	-2.37	0.00	-28.49	0.00	28.49	1372.92	340.76	684.93	673.48	23.07	-1.625	0.000	0.049
145.00	-9.71	-2.37	0.00	-28.49	0.00	28.49	931.20	332.53	24157.3	604.09	23.07	-1.625	0.000	0.058
146.00	-9.56	-2.35	0.00	-26.12	0.00	26.12	925.24	329.86	23770.3	594.77	23.41	-1.630	0.000	0.054
148.00	-9.26	-2.31	0.00	-21.41	0.00	21.41	913.32	324.51	23005.8	576.36	24.09	-1.640	0.000	0.047
148.30	-5.72	-1.55	0.00	-19.52	0.00	19.52	911.53	323.71	22892.2	573.63	24.19	-1.642	0.000	0.040
150.00	-5.48	-1.51	0.00	-16.88	0.00	16.88	901.40	319.16	22253.7	558.24	24.78	-1.649	0.000	0.036
150.00	-5.48	-1.51	0.00	-16.88	0.00	16.88	556.65	167.00	10296.1	213.69	24.78	-1.649	0.000	0.089
152.00	-5.27	-1.48	0.00	-13.86	0.00	13.86	556.65	167.00	10296.1	213.69	25.47	-1.656	0.000	0.074
154.00	-5.06	-1.45	0.00	-10.90	0.00	10.90	556.65	167.00	10296.1	213.69	26.17	-1.674	0.000	0.060
156.00	-4.85	-1.41	0.00	-8.00	0.00	8.00	556.65	167.00	10296.1	213.69	26.87	-1.688	0.000	0.046
158.00	-4.64	-1.38	0.00	-5.18	0.00	5.18	556.65	167.00	10296.1	213.69	27.58	-1.698	0.000	0.033
160.00	0.00	-1.24	0.00	-2.42	0.00	2.42	556.65	167.00	10296.1	213.69	28.30	-1.704	0.000	0.011

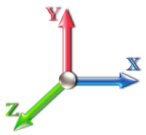
Seismic Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 64	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.21	**Iterations**	23
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.09	**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.25	**SA**	0.02	**S1**	0.05
						Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00	RB1 RB2	0.00	0.00	0.00	0.00	
1.00	RT2 RB3 RB4	267.66	0.50	11.31	0.00	
2.00		266.87	1.50	11.27	0.00	
4.00		531.34	3.00	22.44	0.00	
6.00		528.16	5.00	22.31	0.00	
8.00		524.97	7.00	22.17	0.01	
10.00		521.78	9.00	22.04	0.01	
12.00		518.59	11.00	21.91	0.02	
14.00		515.40	13.00	21.77	0.02	
16.00	Bot - Section 2	512.21	15.00	21.64	0.03	
16.25	RT1 RB5	112.72	16.13	4.76	0.00	
18.00	RB6	786.25	17.13	33.21	0.09	
18.75	RT3 RT4	335.47	18.38	14.17	0.02	
19.50	RB7	334.57	19.13	14.13	0.02	
20.00		222.55	19.75	9.40	0.01	
22.00	Top - Section 1	886.22	21.00	37.43	0.17	
24.00		505.62	23.00	21.36	0.07	
26.00		502.43	25.00	21.22	0.08	
28.00		499.25	27.00	21.09	0.09	
30.00	RB8	496.06	29.00	20.95	0.10	
31.00	RT5	246.83	30.50	10.43	0.03	
32.00		246.04	31.50	10.39	0.03	
34.00	RT6	489.68	33.00	20.68	0.13	
35.50	RT7	365.17	34.75	15.42	0.08	
36.00		121.32	35.75	5.12	0.01	
38.00		483.30	37.00	20.41	0.16	
40.00	Appurtenance(s)	490.12	39.00	20.70	0.18	
42.00		476.54	41.00	20.13	0.19	
44.00		473.35	43.00	19.99	0.21	
45.16	RB9	273.08	44.58	11.54	0.07	
46.00	RT8	197.08	45.58	8.32	0.04	
48.00		466.98	47.00	19.73	0.24	
50.00	Bot - Section 3	463.79	49.00	19.59	0.26	
52.00		802.51	51.00	33.90	0.84	
54.00		796.13	53.00	33.63	0.89	
56.00	Top - Section 2	789.75	55.00	33.36	0.94	
58.00	RT9 RB10	457.20	57.00	19.31	0.34	
60.00		454.01	59.00	19.18	0.36	
62.00		450.82	61.00	19.04	0.38	
64.00		447.63	63.00	18.91	0.40	
66.00		444.44	65.00	18.77	0.42	
68.00		441.26	67.00	18.64	0.44	
70.00		438.07	69.00	18.50	0.46	
72.00		434.88	71.00	18.37	0.48	
74.00		431.69	73.00	18.23	0.50	
76.00		428.50	75.00	18.10	0.52	

Seismic Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 65	

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78.00	RT10 RB11		425.31	77.00	17.97	0.54		
80.00	Top - Section 3		422.12	79.00	17.83	0.56		
82.00			370.35	81.00	15.64	0.45		
84.00			367.69	83.00	15.53	0.47		
86.00			365.04	85.00	15.42	0.48		
88.00			362.38	87.00	15.31	0.50		
90.00			359.72	89.00	15.19	0.51		
92.00			357.07	91.00	15.08	0.53		
94.00			354.41	93.00	14.97	0.54		
95.00	Bot - Section 5		176.21	94.50	7.44	0.14		
95.58	RT11		168.83	95.29	7.13	0.13		
96.00			121.97	95.79	5.15	0.07		
98.00			577.61	97.00	24.40	1.57		
100.00	Top - Section 4		572.30	99.00	24.17	1.61		
102.00			348.06	101.00	14.70	0.62		
104.00			345.40	103.00	14.59	0.63		
106.00			342.75	105.00	14.48	0.65		
108.00			340.09	107.00	14.37	0.66		
110.00	Appurtenance(s)		393.43	109.00	16.62	0.92		
112.00			333.53	111.00	14.09	0.69		
114.00			330.87	113.00	13.98	0.70		
115.00	Top - Section 5		164.44	114.50	6.95	0.18		
116.00			143.55	115.50	6.06	0.14		
118.00			285.51	117.00	12.06	0.56		
120.00			283.38	119.00	11.97	0.57		
122.00			281.26	121.00	11.88	0.58		
124.00			279.13	123.00	11.79	0.59		
126.00			277.01	125.00	11.70	0.60		
128.00			274.88	127.00	11.61	0.61		
130.00			272.76	129.00	11.52	0.62		
132.00			270.63	131.00	11.43	0.63		
133.00	Appurtenance(s)		4481.7	132.50	189.31	176.40		
134.00			118.72	133.50	5.01	0.13		
136.00			235.85	135.00	9.96	0.51		
138.00			233.72	137.00	9.87	0.51		
140.00			231.60	139.00	9.78	0.52		
142.00	Appurtenance(s)		4773.3	141.00	201.63	226.60		
144.00			192.24	143.00	8.12	0.38		
145.00	Top - Section 6		95.32	144.50	4.03	0.09		
146.00			93.20	145.50	3.94	0.09		
148.00			184.85	147.00	7.81	0.37		
148.30	Appurtenance(s)		2097.9	148.15	88.62	48.32		
150.00	Top - Section 7		147.44	149.15	6.23	0.24		
152.00			133.00	151.00	5.62	0.20		
154.00			133.00	153.00	5.62	0.21		
156.00			133.00	155.00	5.62	0.21		
158.00			133.00	157.00	5.62	0.22		
160.00	Appurtenance(s)		2017.5	159.00	85.22	51.47		
		Totals:	**45,881.5**		**1,938.0**	**533.8**	**Total Wind:**	**34,375.8**

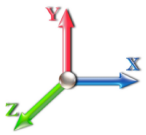
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 66	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Ev + 1.0Eh



Gust Response Factor	1.10			**Sds**	0.21	**Iterations**	23		
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.09	**Ss**	0.20		
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.25	**SA**	0.02	**S1**	0.05	**Seismic Importance Factor**	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-55.16	-0.53	0.00	-77.76	0.00	77.76	3683.82	1059.58	4414.92	3756.66		0.00	0.00	0.021
1.00	-54.84	-0.53	0.00	-77.23	0.00	77.23	3677.71	1055.47	4380.73	3735.77		0.00	0.00	0.021
2.00	-54.52	-0.53	0.00	-76.70	0.00	76.70	3671.54	1051.36	4346.67	3714.86		0.00	0.00	0.021
4.00	-53.89	-0.53	0.00	-75.63	0.00	75.63	3659.00	1043.14	4278.95	3673.00		0.00	0.00	0.021
6.00	-53.25	-0.54	0.00	-74.57	0.00	74.57	3646.20	1034.91	4211.76	3631.09		0.00	0.00	0.020
8.00	-52.63	-0.54	0.00	-73.49	0.00	73.49	3633.16	1026.69	4145.10	3589.13		0.00	-0.01	0.020
10.00	-52.00	-0.54	0.00	-72.42	0.00	72.42	3619.85	1018.47	4078.97	3547.13		0.01	-0.01	0.020
12.00	-51.38	-0.54	0.00	-71.34	0.00	71.34	3606.29	1010.25	4013.38	3505.10		0.01	-0.01	0.020
14.00	-50.77	-0.54	0.00	-70.27	0.00	70.27	3592.48	1002.02	3948.31	3463.03		0.01	-0.01	0.020
16.00	-50.16	-0.54	0.00	-69.18	0.00	69.18	3578.41	993.80	3883.78	3420.94		0.02	-0.01	0.020
16.25	-50.02	-0.54	0.00	-69.05	0.00	69.05	3576.63	992.77	3875.75	3415.68		0.02	-0.01	0.022
18.00	-49.07	-0.54	0.00	-68.10	0.00	68.10	3564.09	985.58	3819.78	3378.83		0.02	-0.01	0.020
18.75	-48.66	-0.54	0.00	-67.69	0.00	67.69	3558.65	982.50	3795.92	3363.04		0.03	-0.01	0.024
19.50	-48.25	-0.54	0.00	-67.29	0.00	67.29	3553.18	979.41	3772.13	3347.24		0.03	-0.01	0.021
20.00	-47.98	-0.54	0.00	-67.02	0.00	67.02	3549.51	977.36	3756.31	3336.71		0.03	-0.01	0.021
22.00	-46.91	-0.54	0.00	-65.93	0.00	65.93	3563.12	985.03	3815.51	3376.01		0.04	-0.02	0.021
24.00	-46.30	-0.55	0.00	-64.84	0.00	64.84	3548.52	976.81	3752.08	3333.89		0.04	-0.02	0.020
26.00	-45.70	-0.55	0.00	-63.75	0.00	63.75	3533.67	968.58	3689.18	3291.77		0.05	-0.02	0.020
28.00	-45.11	-0.55	0.00	-62.66	0.00	62.66	3518.56	960.36	3626.81	3249.64		0.06	-0.02	0.020
30.00	-44.52	-0.55	0.00	-61.56	0.00	61.56	3503.20	952.14	3564.97	3207.53		0.07	-0.02	0.016
31.00	-44.22	-0.55	0.00	-61.01	0.00	61.01	3495.43	948.03	3534.25	3186.48		0.07	-0.02	0.018
32.00	-43.93	-0.55	0.00	-60.47	0.00	60.47	3487.59	943.92	3503.66	3165.43		0.08	-0.02	0.018
34.00	-43.35	-0.55	0.00	-59.37	0.00	59.37	3471.72	935.70	3442.89	3123.35		0.09	-0.02	0.021
35.50	-42.91	-0.55	0.00	-58.54	0.00	58.54	3459.65	929.53	3397.66	3091.80		0.09	-0.03	0.022
36.00	-42.77	-0.55	0.00	-58.27	0.00	58.27	3455.59	927.47	3382.65	3081.29		0.10	-0.03	0.022
38.00	-42.19	-0.55	0.00	-57.17	0.00	57.17	3439.21	919.25	3322.94	3039.26		0.11	-0.03	0.022
40.00	-41.61	-0.55	0.00	-56.06	0.00	56.06	3422.57	911.03	3263.76	2997.28		0.12	-0.03	0.021
42.00	-41.04	-0.55	0.00	-54.96	0.00	54.96	3405.68	902.81	3205.11	2955.34		0.13	-0.03	0.021
44.00	-40.48	-0.55	0.00	-53.85	0.00	53.85	3388.54	894.58	3146.99	2913.44		0.15	-0.03	0.021
45.16	-40.15	-0.55	0.00	-53.21	0.00	53.21	3378.48	889.81	3113.53	2889.17		0.16	-0.03	0.015
46.00	-39.92	-0.55	0.00	-52.75	0.00	52.75	3371.14	886.36	3089.41	2871.61		0.16	-0.03	0.020
48.00	-39.37	-0.56	0.00	-51.64	0.00	51.64	3353.48	878.14	3032.36	2829.83		0.18	-0.04	0.019
50.00	-38.81	-0.56	0.00	-50.53	0.00	50.53	3335.57	869.92	2975.84	2788.13		0.19	-0.04	0.019
52.00	-37.84	-0.56	0.00	-49.42	0.00	49.42	3317.41	861.69	2919.85	2746.50		0.21	-0.04	0.019
54.00	-36.88	-0.55	0.00	-48.31	0.00	48.31	3298.98	853.47	2864.39	2704.94		0.23	-0.04	0.018
56.00	-35.92	-0.55	0.00	-47.20	0.00	47.20	3316.18	861.14	2916.12	2743.71		0.24	-0.04	0.018
58.00	-35.38	-0.55	0.00	-46.09	0.00	46.09	3297.74	852.92	2860.70	2702.16		0.26	-0.05	0.019
60.00	-34.84	-0.55	0.00	-44.98	0.00	44.98	3279.05	844.70	2805.81	2660.71		0.28	-0.05	0.019
62.00	-34.30	-0.56	0.00	-43.87	0.00	43.87	3260.10	836.48	2751.45	2619.34		0.30	-0.05	0.019
64.00	-33.77	-0.56	0.00	-42.76	0.00	42.76	3240.90	828.25	2697.62	2578.08		0.32	-0.05	0.019
66.00	-33.25	-0.56	0.00	-41.65	0.00	41.65	3221.44	820.03	2644.33	2536.92		0.34	-0.05	0.018
68.00	-32.72	-0.56	0.00	-40.54	0.00	40.54	3201.73	811.81	2591.56	2495.87		0.37	-0.05	0.018
70.00	-32.20	-0.56	0.00	-39.43	0.00	39.43	3181.76	803.59	2539.33	2454.94		0.39	-0.06	0.018
72.00	-31.69	-0.56	0.00	-38.32	0.00	38.32	3161.54	795.36	2487.63	2414.13		0.41	-0.06	0.018
74.00	-31.18	-0.56	0.00	-37.21	0.00	37.21	3141.06	787.14	2436.47	2373.45		0.44	-0.06	0.017
76.00	-30.67	-0.56	0.00	-36.10	0.00	36.10	3120.33	778.92	2385.83	2332.91		0.46	-0.06	0.017
78.00	-30.17	-0.56	0.00	-34.98	0.00	34.98	3099.34	770.70	2335.73	2292.51		0.49	-0.06	0.017

Calculated Forces

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 67

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80.00	-29.67	-0.56	0.00	-33.87	0.00	33.87	3078.09	762.47	2286.15	2252.26	0.52	-0.06	0.016
80.00	-29.67	-0.56	0.00	-33.87	0.00	33.87	2384.58	636.50	1911.75	1750.88	0.52	-0.06	0.018
82.00	-29.23	-0.56	0.00	-32.76	0.00	32.76	2370.62	629.65	1870.81	1721.73	0.54	-0.07	0.020
84.00	-28.80	-0.56	0.00	-31.65	0.00	31.65	2356.42	622.80	1830.32	1692.63	0.57	-0.07	0.019
86.00	-28.37	-0.56	0.00	-30.54	0.00	30.54	2341.95	615.94	1790.27	1663.57	0.60	-0.07	0.019
88.00	-27.95	-0.56	0.00	-29.43	0.00	29.43	2327.23	609.09	1750.66	1634.56	0.63	-0.07	0.019
90.00	-27.52	-0.55	0.00	-28.32	0.00	28.32	2312.26	602.24	1711.49	1605.61	0.66	-0.07	0.018
92.00	-27.11	-0.55	0.00	-27.21	0.00	27.21	2297.03	595.39	1672.77	1576.72	0.69	-0.08	0.018
94.00	-26.69	-0.55	0.00	-26.10	0.00	26.10	2281.55	588.54	1634.49	1547.90	0.72	-0.08	0.017
95.00	-26.48	-0.55	0.00	-25.55	0.00	25.55	2273.71	585.11	1615.51	1533.52	0.74	-0.08	0.017
95.58	-26.28	-0.55	0.00	-25.23	0.00	25.23	2269.13	583.12	1604.56	1525.19	0.75	-0.08	0.017
95.58	-26.28	-0.55	0.00	-25.23	0.00	25.23	2269.13	583.12	1604.56	1525.19	0.75	-0.08	0.017
96.00	-26.14	-0.55	0.00	-25.00	0.00	25.00	2265.81	581.68	1596.65	1519.16	0.76	-0.08	0.028
98.00	-25.44	-0.55	0.00	-23.89	0.00	23.89	2249.81	574.83	1559.25	1490.50	0.79	-0.08	0.027
100.00	-24.76	-0.55	0.00	-22.78	0.00	22.78	2259.61	579.02	1582.04	1508.00	0.83	-0.09	0.026
102.00	-24.35	-0.55	0.00	-21.68	0.00	21.68	2243.52	572.17	1544.82	1479.37	0.86	-0.09	0.026
104.00	-23.95	-0.55	0.00	-20.57	0.00	20.57	2227.17	565.31	1508.04	1450.84	0.90	-0.09	0.025
106.00	-23.54	-0.55	0.00	-19.47	0.00	19.47	2210.57	558.46	1471.71	1422.40	0.94	-0.09	0.024
108.00	-23.15	-0.55	0.00	-18.36	0.00	18.36	2193.71	551.61	1435.82	1394.06	0.98	-0.10	0.024
110.00	-22.68	-0.55	0.00	-17.26	0.00	17.26	2176.60	544.76	1400.37	1365.84	1.02	-0.10	0.023
112.00	-22.29	-0.55	0.00	-16.16	0.00	16.16	2159.23	537.91	1365.36	1337.73	1.06	-0.10	0.022
114.00	-21.91	-0.55	0.00	-15.06	0.00	15.06	2141.61	531.05	1330.80	1309.73	1.11	-0.10	0.022
115.00	-21.72	-0.55	0.00	-14.51	0.00	14.51	2132.70	527.63	1313.68	1295.79	1.13	-0.11	0.021
115.00	-21.72	-0.55	0.00	-14.51	0.00	14.51	1556.62	422.98	1055.35	949.74	1.13	-0.11	0.029
116.00	-21.55	-0.55	0.00	-13.96	0.00	13.96	1551.43	420.24	1041.71	940.38	1.15	-0.11	0.029
118.00	-21.22	-0.55	0.00	-12.86	0.00	12.86	1540.84	414.76	1014.72	921.68	1.20	-0.11	0.028
120.00	-20.89	-0.55	0.00	-11.76	0.00	11.76	1529.99	409.28	988.07	902.99	1.24	-0.11	0.027
122.00	-20.57	-0.55	0.00	-10.66	0.00	10.66	1518.89	403.80	961.78	884.33	1.29	-0.11	0.026
124.00	-20.25	-0.55	0.00	-9.56	0.00	9.56	1507.54	398.32	935.85	865.70	1.34	-0.12	0.024
126.00	-19.93	-0.55	0.00	-8.46	0.00	8.46	1495.93	392.84	910.27	847.11	1.39	-0.12	0.023
128.00	-19.61	-0.55	0.00	-7.36	0.00	7.36	1484.06	387.35	885.04	828.56	1.44	-0.12	0.022
130.00	-19.30	-0.55	0.00	-6.26	0.00	6.26	1471.95	381.87	860.17	810.06	1.49	-0.12	0.021
132.00	-18.98	-0.55	0.00	-5.17	0.00	5.17	1459.57	376.39	835.65	791.62	1.54	-0.12	0.020
133.00	-13.43	-0.36	0.00	-4.62	0.00	4.62	1453.29	373.65	823.53	782.42	1.57	-0.13	0.015
134.00	-13.29	-0.36	0.00	-4.26	0.00	4.26	1446.94	370.91	811.49	773.23	1.60	-0.13	0.015
136.00	-13.02	-0.36	0.00	-3.55	0.00	3.55	1434.06	365.43	787.68	754.91	1.65	-0.13	0.014
138.00	-12.74	-0.36	0.00	-2.83	0.00	2.83	1420.92	359.95	764.23	736.67	1.70	-0.13	0.013
140.00	-12.48	-0.36	0.00	-2.12	0.00	2.12	1407.52	354.47	741.13	718.50	1.76	-0.13	0.012
142.00	-6.57	-0.12	0.00	-1.41	0.00	1.41	1393.87	348.98	718.38	700.42	1.81	-0.13	0.007
144.00	-6.34	-0.12	0.00	-1.18	0.00	1.18	1379.97	343.50	695.99	682.44	1.87	-0.13	0.006
145.00	-6.23	-0.11	0.00	-1.06	0.00	1.06	1372.92	340.76	684.93	673.48	1.89	-0.13	0.006
145.00	-6.23	-0.11	0.00	-1.06	0.00	1.06	931.20	332.53	24157.3	604.09	1.89	-0.13	0.008
146.00	-6.12	-0.11	0.00	-0.95	0.00	0.95	925.24	329.86	23770.3	594.77	1.92	-0.13	0.008
148.00	-5.90	-0.11	0.00	-0.72	0.00	0.72	913.32	324.51	23005.8	576.36	1.97	-0.13	0.008
148.30	-3.29	-0.06	0.00	-0.68	0.00	0.68	911.53	323.71	22892.2	573.63	1.98	-0.13	0.005
150.00	-3.12	-0.06	0.00	-0.58	0.00	0.58	901.40	319.16	22253.7	558.24	2.03	-0.13	0.005
150.00	-3.12	-0.06	0.00	-0.58	0.00	0.58	556.65	167.00	10296.1	213.69	2.03	-0.13	0.008
152.00	-2.96	-0.06	0.00	-0.46	0.00	0.46	556.65	167.00	10296.1	213.69	2.08	-0.13	0.007
154.00	-2.81	-0.06	0.00	-0.35	0.00	0.35	556.65	167.00	10296.1	213.69	2.14	-0.13	0.007
156.00	-2.65	-0.06	0.00	-0.23	0.00	0.23	556.65	167.00	10296.1	213.69	2.20	-0.13	0.006
158.00	-2.50	-0.06	0.00	-0.11	0.00	0.11	556.65	167.00	10296.1	213.69	2.25	-0.13	0.005
160.00	0.00	-0.05	0.00	0.00	0.00	0.00	556.65	167.00	10296.1	213.69	2.31	-0.13	0.000

Seismic Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 68	

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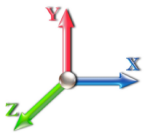
Load Case: 0.9D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.21	**Iterations**	23
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.09	**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.25	**SA**	0.02	**S1**	0.05
						Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00	RB1 RB2	0.00	0.00	0.00	0.00	
1.00	RT2 RB3 RB4	252.01	0.50	10.64	0.00	
2.00		251.21	1.50	10.61	0.00	
4.00		500.03	3.00	21.12	0.00	
6.00		496.85	5.00	20.99	0.00	
8.00		493.66	7.00	20.85	0.01	
10.00		490.47	9.00	20.72	0.01	
12.00		487.28	11.00	20.58	0.01	
14.00		484.09	13.00	20.45	0.02	
16.00	Bot - Section 2	480.90	15.00	20.31	0.03	
16.25	RT1 RB5	108.81	16.13	4.60	0.00	
18.00	RB6	758.85	17.13	32.05	0.09	
18.75	RT3 RT4	323.73	18.38	13.67	0.02	
19.50	RB7	322.83	19.13	13.64	0.02	
20.00		214.72	19.75	9.07	0.01	
22.00	Top - Section 1	854.91	21.00	36.11	0.16	
24.00		474.31	23.00	20.03	0.06	
26.00		471.12	25.00	19.90	0.07	
28.00		467.94	27.00	19.77	0.08	
30.00	RB8	464.75	29.00	19.63	0.09	
31.00	RT5	231.18	30.50	9.76	0.03	
32.00		230.38	31.50	9.73	0.03	
34.00	RT6	458.37	33.00	19.36	0.12	
35.50	RT7	341.69	34.75	14.43	0.07	
36.00		113.50	35.75	4.79	0.01	
38.00		451.99	37.00	19.09	0.14	
40.00	Appurtenance(s)	458.80	39.00	19.38	0.16	
42.00		445.33	41.00	18.81	0.17	
44.00		442.14	43.00	18.68	0.18	
45.16	RB9	254.98	44.58	10.77	0.07	
46.00	RT8	183.97	45.58	7.77	0.04	
48.00		435.76	47.00	18.41	0.21	
50.00	Bot - Section 3	432.57	49.00	18.27	0.23	
52.00		771.29	51.00	32.58	0.79	
54.00		764.91	53.00	32.31	0.84	
56.00	Top - Section 2	758.54	55.00	32.04	0.89	
58.00	RT9 RB10	425.98	57.00	17.99	0.30	
60.00		422.80	59.00	17.86	0.32	
62.00		419.61	61.00	17.72	0.33	
64.00		416.42	63.00	17.59	0.35	
66.00		413.23	65.00	17.45	0.37	
68.00		410.04	67.00	17.32	0.38	
70.00		406.85	69.00	17.19	0.40	
72.00		403.66	71.00	17.05	0.42	
74.00		400.48	73.00	16.92	0.43	
76.00		397.29	75.00	16.78	0.45	

Seismic Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 69	

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78.00	RT10 RB11		394.10	77.00	16.65	0.47		
80.00	Top - Section 3		390.91	79.00	16.51	0.49		
82.00			339.14	81.00	14.33	0.38		
84.00			336.48	83.00	14.21	0.40		
86.00			333.82	85.00	14.10	0.41		
88.00			331.17	87.00	13.99	0.42		
90.00			328.51	89.00	13.88	0.43		
92.00			325.85	91.00	13.76	0.45		
94.00			323.19	93.00	13.65	0.46		
95.00	Bot - Section 5		160.60	94.50	6.78	0.12		
95.58	RT11		159.77	95.29	6.75	0.12		
96.00			115.42	95.79	4.88	0.06		
98.00			546.40	97.00	23.08	1.43		
100.00	Top - Section 4		541.08	99.00	22.86	1.46		
102.00			316.85	101.00	13.38	0.52		
104.00			314.19	103.00	13.27	0.53		
106.00			311.53	105.00	13.16	0.54		
108.00			308.88	107.00	13.05	0.56		
110.00	Appurtenance(s)		362.22	109.00	15.30	0.79		
112.00			302.63	111.00	12.78	0.57		
114.00			299.97	113.00	12.67	0.58		
115.00	Top - Section 5		148.99	114.50	6.29	0.15		
116.00			128.10	115.50	5.41	0.11		
118.00			254.61	117.00	10.75	0.45		
120.00			252.48	119.00	10.66	0.46		
122.00			250.36	121.00	10.58	0.47		
124.00			248.23	123.00	10.49	0.47		
126.00			246.10	125.00	10.40	0.48		
128.00			243.98	127.00	10.31	0.49		
130.00			241.85	129.00	10.22	0.50		
132.00			239.73	131.00	10.13	0.50		
133.00	Appurtenance(s)		4466.3	132.50	188.66	178.14		
134.00			107.09	133.50	4.52	0.10		
136.00			212.58	135.00	8.98	0.42		
138.00			210.45	137.00	8.89	0.42		
140.00			208.33	139.00	8.80	0.43		
142.00	Appurtenance(s)		4750.1	141.00	200.64	228.17		
144.00			177.75	143.00	7.51	0.33		
145.00	Top - Section 6		88.08	144.50	3.72	0.08		
146.00			85.96	145.50	3.63	0.08		
148.00			170.36	147.00	7.20	0.32		
148.30	Appurtenance(s)		2095.7	148.15	88.53	49.04		
150.00	Top - Section 7		137.07	149.15	5.79	0.21		
152.00			120.80	151.00	5.10	0.17		
154.00			120.80	153.00	5.10	0.17		
156.00			120.80	155.00	5.10	0.18		
158.00			120.80	157.00	5.10	0.18		
160.00	Appurtenance(s)		2005.3	159.00	84.70	51.71		
		Totals:	**43,585.7**		**1,841.1**	**533.8**	**Total Wind:**	**34,375.8**

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-H	12/23/2020	
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: 70	

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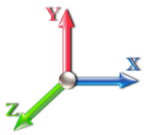
Load Case: 0.9D + 1.0Ev + 1.0Eh



Gust Response Factor	1.10			**Sds**	0.21			**Iterations**	23
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.09			**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.25	**SA**	0.02			**S1**	0.05
								Seismic Importance Factor	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-41.76	-0.53	0.00	-76.91	0.00	76.91	3683.82	1059.58	4414.92	3756.66		0.00	0.00	0.019
1.00	-41.51	-0.53	0.00	-76.38	0.00	76.38	3677.71	1055.47	4380.73	3735.77		0.00	0.00	0.019
2.00	-41.27	-0.53	0.00	-75.85	0.00	75.85	3671.54	1051.36	4346.67	3714.86		0.00	0.00	0.019
4.00	-40.79	-0.53	0.00	-74.79	0.00	74.79	3659.00	1043.14	4278.95	3673.00		0.00	0.00	0.018
6.00	-40.32	-0.53	0.00	-73.72	0.00	73.72	3646.20	1034.91	4211.76	3631.09		0.00	0.00	0.018
8.00	-39.84	-0.54	0.00	-72.65	0.00	72.65	3633.16	1026.69	4145.10	3589.13		0.00	-0.01	0.018
10.00	-39.37	-0.54	0.00	-71.58	0.00	71.58	3619.85	1018.47	4078.97	3547.13		0.01	-0.01	0.018
12.00	-38.90	-0.54	0.00	-70.50	0.00	70.50	3606.29	1010.25	4013.38	3505.10		0.01	-0.01	0.018
14.00	-38.44	-0.54	0.00	-69.43	0.00	69.43	3592.48	1002.02	3948.31	3463.03		0.01	-0.01	0.018
16.00	-37.97	-0.54	0.00	-68.35	0.00	68.35	3578.41	993.80	3883.78	3420.94		0.02	-0.01	0.017
16.25	-37.87	-0.54	0.00	-68.22	0.00	68.22	3576.63	992.77	3875.75	3415.68		0.02	-0.01	0.020
18.00	-37.15	-0.54	0.00	-67.27	0.00	67.27	3564.09	985.58	3819.78	3378.83		0.02	-0.01	0.018
18.75	-36.84	-0.54	0.00	-66.87	0.00	66.87	3558.65	982.50	3795.92	3363.04		0.03	-0.01	0.021
19.50	-36.53	-0.54	0.00	-66.46	0.00	66.46	3553.18	979.41	3772.13	3347.24		0.03	-0.01	0.019
20.00	-36.32	-0.54	0.00	-66.19	0.00	66.19	3549.51	977.36	3756.31	3336.71		0.03	-0.01	0.019
22.00	-35.51	-0.54	0.00	-65.11	0.00	65.11	3563.12	985.03	3815.51	3376.01		0.04	-0.02	0.019
24.00	-35.05	-0.54	0.00	-64.03	0.00	64.03	3548.52	976.81	3752.08	3333.89		0.04	-0.02	0.018
26.00	-34.60	-0.54	0.00	-62.95	0.00	62.95	3533.67	968.58	3689.18	3291.77		0.05	-0.02	0.018
28.00	-34.15	-0.54	0.00	-61.86	0.00	61.86	3518.56	960.36	3626.81	3249.64		0.06	-0.02	0.018
30.00	-33.70	-0.54	0.00	-60.78	0.00	60.78	3503.20	952.14	3564.97	3207.53		0.07	-0.02	0.014
31.00	-33.48	-0.54	0.00	-60.23	0.00	60.23	3495.43	948.03	3534.25	3186.48		0.07	-0.02	0.016
32.00	-33.26	-0.54	0.00	-59.69	0.00	59.69	3487.59	943.92	3503.66	3165.43		0.08	-0.02	0.016
34.00	-32.82	-0.54	0.00	-58.60	0.00	58.60	3471.72	935.70	3442.89	3123.35		0.09	-0.02	0.019
35.50	-32.49	-0.55	0.00	-57.78	0.00	57.78	3459.65	929.53	3397.66	3091.80		0.09	-0.03	0.019
36.00	-32.38	-0.55	0.00	-57.51	0.00	57.51	3455.59	927.47	3382.65	3081.29		0.10	-0.03	0.019
38.00	-31.94	-0.55	0.00	-56.42	0.00	56.42	3439.21	919.25	3322.94	3039.26		0.11	-0.03	0.019
40.00	-31.50	-0.55	0.00	-55.32	0.00	55.32	3422.57	911.03	3263.76	2997.28		0.12	-0.03	0.019
42.00	-31.07	-0.55	0.00	-54.23	0.00	54.23	3405.68	902.81	3205.11	2955.34		0.13	-0.03	0.019
44.00	-30.65	-0.55	0.00	-53.14	0.00	53.14	3388.54	894.58	3146.99	2913.44		0.15	-0.03	0.019
45.16	-30.40	-0.55	0.00	-52.50	0.00	52.50	3378.48	889.81	3113.53	2889.17		0.15	-0.03	0.014
46.00	-30.22	-0.55	0.00	-52.04	0.00	52.04	3371.14	886.36	3089.41	2871.61		0.16	-0.03	0.018
48.00	-29.80	-0.55	0.00	-50.94	0.00	50.94	3353.48	878.14	3032.36	2829.83		0.17	-0.04	0.017
50.00	-29.39	-0.55	0.00	-49.85	0.00	49.85	3335.57	869.92	2975.84	2788.13		0.19	-0.04	0.017
52.00	-28.65	-0.55	0.00	-48.75	0.00	48.75	3317.41	861.69	2919.85	2746.50		0.21	-0.04	0.017
54.00	-27.92	-0.55	0.00	-47.65	0.00	47.65	3298.98	853.47	2864.39	2704.94		0.22	-0.04	0.017
56.00	-27.20	-0.55	0.00	-46.55	0.00	46.55	3316.18	861.14	2916.12	2743.71		0.24	-0.04	0.017
58.00	-26.79	-0.55	0.00	-45.46	0.00	45.46	3297.74	852.92	2860.70	2702.16		0.26	-0.04	0.017
60.00	-26.38	-0.55	0.00	-44.36	0.00	44.36	3279.05	844.70	2805.81	2660.71		0.28	-0.05	0.017
62.00	-25.97	-0.55	0.00	-43.27	0.00	43.27	3260.10	836.48	2751.45	2619.34		0.30	-0.05	0.017
64.00	-25.57	-0.55	0.00	-42.17	0.00	42.17	3240.90	828.25	2697.62	2578.08		0.32	-0.05	0.017
66.00	-25.17	-0.55	0.00	-41.07	0.00	41.07	3221.44	820.03	2644.33	2536.92		0.34	-0.05	0.016
68.00	-24.78	-0.55	0.00	-39.98	0.00	39.98	3201.73	811.81	2591.56	2495.87		0.36	-0.05	0.016
70.00	-24.38	-0.55	0.00	-38.88	0.00	38.88	3181.76	803.59	2539.33	2454.94		0.38	-0.06	0.016
72.00	-23.99	-0.55	0.00	-37.78	0.00	37.78	3161.54	795.36	2487.63	2414.13		0.41	-0.06	0.016
74.00	-23.61	-0.55	0.00	-36.69	0.00	36.69	3141.06	787.14	2436.47	2373.45		0.43	-0.06	0.015
76.00	-23.22	-0.55	0.00	-35.59	0.00	35.59	3120.33	778.92	2385.83	2332.91		0.46	-0.06	0.015
78.00	-22.84	-0.55	0.00	-34.49	0.00	34.49	3099.34	770.70	2335.73	2292.51		0.48	-0.06	0.015

Calculated Forces

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 71

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80.00	-22.47	-0.55	0.00	-33.40	0.00	33.40	3078.09	762.47	2286.15	2252.26	0.51	-0.06	0.015
80.00	-22.47	-0.55	0.00	-33.40	0.00	33.40	2384.58	636.50	1911.75	1750.88	0.51	-0.06	0.016
82.00	-22.14	-0.55	0.00	-32.30	0.00	32.30	2370.62	629.65	1870.81	1721.73	0.54	-0.07	0.018
84.00	-21.81	-0.55	0.00	-31.21	0.00	31.21	2356.42	622.80	1830.32	1692.63	0.56	-0.07	0.017
86.00	-21.49	-0.55	0.00	-30.11	0.00	30.11	2341.95	615.94	1790.27	1663.57	0.59	-0.07	0.017
88.00	-21.16	-0.55	0.00	-29.02	0.00	29.02	2327.23	609.09	1750.66	1634.56	0.62	-0.07	0.017
90.00	-20.85	-0.55	0.00	-27.92	0.00	27.92	2312.26	602.24	1711.49	1605.61	0.65	-0.07	0.016
92.00	-20.53	-0.55	0.00	-26.83	0.00	26.83	2297.03	595.39	1672.77	1576.72	0.68	-0.07	0.016
94.00	-20.22	-0.55	0.00	-25.73	0.00	25.73	2281.55	588.54	1634.49	1547.90	0.72	-0.08	0.015
95.00	-20.06	-0.55	0.00	-25.19	0.00	25.19	2273.71	585.11	1615.51	1533.52	0.73	-0.08	0.015
95.58	-19.91	-0.55	0.00	-24.87	0.00	24.87	2269.13	583.12	1604.56	1525.19	0.74	-0.08	0.015
95.58	-19.91	-0.55	0.00	-24.87	0.00	24.87	2269.13	583.12	1604.56	1525.19	0.74	-0.08	0.015
96.00	-19.80	-0.55	0.00	-24.64	0.00	24.64	2265.81	581.68	1596.65	1519.16	0.75	-0.08	0.025
98.00	-19.27	-0.55	0.00	-23.55	0.00	23.55	2249.81	574.83	1559.25	1490.50	0.78	-0.08	0.024
100.00	-18.75	-0.54	0.00	-22.46	0.00	22.46	2259.61	579.02	1582.04	1508.00	0.82	-0.08	0.023
102.00	-18.44	-0.54	0.00	-21.37	0.00	21.37	2243.52	572.17	1544.82	1479.37	0.85	-0.09	0.023
104.00	-18.14	-0.54	0.00	-20.28	0.00	20.28	2227.17	565.31	1508.04	1450.84	0.89	-0.09	0.022
106.00	-17.84	-0.54	0.00	-19.19	0.00	19.19	2210.57	558.46	1471.71	1422.40	0.93	-0.09	0.022
108.00	-17.54	-0.54	0.00	-18.10	0.00	18.10	2193.71	551.61	1435.82	1394.06	0.97	-0.10	0.021
110.00	-17.18	-0.54	0.00	-17.01	0.00	17.01	2176.60	544.76	1400.37	1365.84	1.01	-0.10	0.020
112.00	-16.89	-0.54	0.00	-15.92	0.00	15.92	2159.23	537.91	1365.36	1337.73	1.05	-0.10	0.020
114.00	-16.60	-0.54	0.00	-14.84	0.00	14.84	2141.61	531.05	1330.80	1309.73	1.09	-0.10	0.019
115.00	-16.45	-0.54	0.00	-14.30	0.00	14.30	2132.70	527.63	1313.68	1295.79	1.11	-0.10	0.019
115.00	-16.45	-0.54	0.00	-14.30	0.00	14.30	1556.62	422.98	1055.35	949.74	1.11	-0.10	0.026
116.00	-16.33	-0.54	0.00	-13.75	0.00	13.75	1551.43	420.24	1041.71	940.38	1.14	-0.11	0.025
118.00	-16.08	-0.54	0.00	-12.67	0.00	12.67	1540.84	414.76	1014.72	921.68	1.18	-0.11	0.024
120.00	-15.83	-0.54	0.00	-11.58	0.00	11.58	1529.99	409.28	988.07	902.99	1.23	-0.11	0.023
122.00	-15.59	-0.54	0.00	-10.50	0.00	10.50	1518.89	403.80	961.78	884.33	1.27	-0.11	0.022
124.00	-15.34	-0.54	0.00	-9.41	0.00	9.41	1507.54	398.32	935.85	865.70	1.32	-0.12	0.021
126.00	-15.10	-0.54	0.00	-8.33	0.00	8.33	1495.93	392.84	910.27	847.11	1.37	-0.12	0.020
128.00	-14.86	-0.54	0.00	-7.24	0.00	7.24	1484.06	387.35	885.04	828.56	1.42	-0.12	0.019
130.00	-14.63	-0.54	0.00	-6.16	0.00	6.16	1471.95	381.87	860.17	810.06	1.47	-0.12	0.018
132.00	-14.39	-0.54	0.00	-5.08	0.00	5.08	1459.57	376.39	835.65	791.62	1.52	-0.12	0.016
133.00	-10.18	-0.35	0.00	-4.54	0.00	4.54	1453.29	373.65	823.53	782.42	1.55	-0.12	0.013
134.00	-10.07	-0.35	0.00	-4.19	0.00	4.19	1446.94	370.91	811.49	773.23	1.57	-0.12	0.012
136.00	-9.87	-0.35	0.00	-3.48	0.00	3.48	1434.06	365.43	787.68	754.91	1.63	-0.13	0.011
138.00	-9.66	-0.35	0.00	-2.78	0.00	2.78	1420.92	359.95	764.23	736.67	1.68	-0.13	0.011
140.00	-9.46	-0.35	0.00	-2.07	0.00	2.07	1407.52	354.47	741.13	718.50	1.73	-0.13	0.010
142.00	-4.98	-0.11	0.00	-1.37	0.00	1.37	1393.87	348.98	718.38	700.42	1.79	-0.13	0.006
144.00	-4.80	-0.11	0.00	-1.15	0.00	1.15	1379.97	343.50	695.99	682.44	1.84	-0.13	0.005
145.00	-4.72	-0.11	0.00	-1.03	0.00	1.03	1372.92	340.76	684.93	673.48	1.87	-0.13	0.005
145.00	-4.72	-0.11	0.00	-1.03	0.00	1.03	931.20	332.53	24157.3	604.09	1.87	-0.13	0.007
146.00	-4.64	-0.11	0.00	-0.92	0.00	0.92	925.24	329.86	23770.3	594.77	1.89	-0.13	0.007
148.00	-4.47	-0.11	0.00	-0.70	0.00	0.70	913.32	324.51	23005.8	576.36	1.95	-0.13	0.006
148.30	-2.50	-0.06	0.00	-0.67	0.00	0.67	911.53	323.71	22892.2	573.63	1.96	-0.13	0.004
150.00	-2.36	-0.06	0.00	-0.57	0.00	0.57	901.40	319.16	22253.7	558.24	2.00	-0.13	0.004
150.00	-2.36	-0.06	0.00	-0.57	0.00	0.57	556.65	167.00	10296.1	213.69	2.00	-0.13	0.007
152.00	-2.25	-0.06	0.00	-0.45	0.00	0.45	556.65	167.00	10296.1	213.69	2.06	-0.13	0.006
154.00	-2.13	-0.06	0.00	-0.34	0.00	0.34	556.65	167.00	10296.1	213.69	2.11	-0.13	0.005
156.00	-2.01	-0.06	0.00	-0.22	0.00	0.22	556.65	167.00	10296.1	213.69	2.17	-0.13	0.005
158.00	-1.89	-0.06	0.00	-0.11	0.00	0.11	556.65	167.00	10296.1	213.69	2.22	-0.13	0.004
160.00	0.00	-0.05	0.00	0.00	0.00	0.00	556.65	167.00	10296.1	213.69	2.28	-0.13	0.000

Wind Loading - Shaft

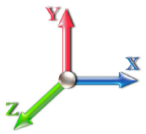
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 72	

Tower Engineering Solutions

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	5.361	5.90	215.71	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT2 RB3 RB4	1.00	0.70	5.361	5.90	214.88	1.089 *	0.000	1.00	4.338	4.73	27.9	0.0	205.0
2.00		1.00	0.70	5.361	5.90	214.05	1.091 *	0.000	1.00	4.321	4.71	27.8	0.0	204.2
4.00		1.00	0.70	5.361	5.90	212.39	1.093 *	0.000	2.00	8.592	9.39	55.4	0.0	406.1
6.00		1.00	0.70	5.361	5.90	210.73	1.097 *	0.000	2.00	8.525	9.35	55.1	0.0	402.9
8.00		1.00	0.70	5.361	5.90	209.07	1.100 *	0.000	2.00	8.458	9.31	54.9	0.0	399.7
10.00		1.00	0.70	5.361	5.90	207.41	1.104 *	0.000	2.00	8.391	9.26	54.6	0.0	396.5
12.00		1.00	0.70	5.361	5.90	205.74	1.107 *	0.000	2.00	8.324	9.22	54.3	0.0	393.3
14.00		1.00	0.70	5.361	5.90	204.08	1.111 *	0.000	2.00	8.257	9.17	54.1	0.0	390.2
16.00	Bot - Section 2	1.00	0.70	5.361	5.90	202.42	1.114 *	0.000	2.00	8.190	9.13	53.8	0.0	387.0
16.25	RT1 RB5	1.00	0.70	5.361	5.90	202.21	1.117 *	0.000	0.25	1.035	1.16	6.8	0.0	97.1
18.00	RB6	1.00	0.70	5.361	5.90	200.76	1.118 *	0.000	1.75	7.217	8.07	47.6	0.0	676.7
18.75	RT3 RT4	1.00	0.70	5.361	5.90	200.14	1.121 *	0.000	0.75	3.077	3.45	20.3	0.0	288.5
19.50	RB7	1.00	0.70	5.361	5.90	199.51	1.122 *	0.000	0.75	3.068	3.44	20.3	0.0	287.6
20.00		1.00	0.70	5.361	5.90	199.10	1.123 *	0.000	0.50	2.040	2.29	13.5	0.0	191.2
22.00	Top - Section 1	1.00	0.70	5.361	5.90	197.44	1.126 *	0.000	2.00	8.118	9.14	53.9	0.0	761.0
24.00		1.00	0.70	5.361	5.90	198.99	1.122 *	0.000	2.00	8.052	9.04	53.3	0.0	380.4
26.00		1.00	0.70	5.361	5.90	197.33	1.126 *	0.000	2.00	7.985	8.99	53.0	0.0	377.2
28.00		1.00	0.70	5.361	5.90	195.66	1.130 *	0.000	2.00	7.918	8.95	52.8	0.0	374.0
30.00	RB8	1.00	0.70	5.365	5.90	194.08	1.134 *	0.000	2.00	7.851	8.90	52.5	0.0	370.8
31.00	RT5	1.00	0.71	5.416	5.96	194.16	1.137 *	0.000	1.00	3.900	4.43	26.4	0.0	184.2
32.00		1.00	0.71	5.465	6.01	194.20	1.139 *	0.000	1.00	3.883	4.42	26.6	0.0	183.4
34.00	RT6	1.00	0.73	5.561	6.12	194.20	0.988 *	0.000	2.00	7.717	7.63	46.6	0.0	364.4
35.50	RT7	1.00	0.74	5.630	6.19	194.13	0.991 *	0.000	1.50	5.744	5.69	35.2	0.0	271.2
36.00		1.00	0.74	5.652	6.22	194.09	0.992 *	0.000	0.50	1.906	1.89	11.8	0.0	90.0
38.00		1.00	0.75	5.740	6.31	193.87	0.994 *	0.000	2.00	7.583	7.54	47.6	0.0	358.1
40.00	Appurtenance(s)	1.00	0.76	5.825	6.41	193.57	0.997 *	0.000	2.00	7.516	7.49	48.0	0.0	354.9
42.00		1.00	0.77	5.907	6.50	193.18	1.000 *	0.000	2.00	7.449	7.45	48.4	0.0	351.7
44.00		1.00	0.78	5.986	6.58	192.71	1.003 *	0.000	2.00	7.382	7.40	48.7	0.0	348.5
45.16	RB9	1.00	0.79	6.030	6.63	192.40	1.005 *	0.000	1.16	4.251	4.27	28.3	0.0	200.7
46.00	RT8	1.00	0.79	6.062	6.67	192.17	1.007 *	0.000	0.84	3.064	3.09	20.6	0.0	144.6
48.00		1.00	0.80	6.136	6.75	191.56	1.009 *	0.000	2.00	7.248	7.31	49.4	0.0	342.1
50.00	Bot - Section 3	1.00	0.81	6.208	6.83	190.90	1.012 *	0.000	2.00	7.181	7.27	49.6	0.0	338.9
52.00		1.00	0.82	6.278	6.91	190.17	1.016 *	0.000	2.00	7.244	7.36	50.8	0.0	677.6
54.00		1.00	0.83	6.346	6.98	189.39	1.019 *	0.000	2.00	7.177	7.31	51.0	0.0	671.3
56.00	Top - Section 2	1.00	0.84	6.413	7.05	188.56	1.022 *	0.000	2.00	7.110	7.27	51.3	0.0	664.9
58.00	RT9 RB10	1.00	0.85	6.477	7.13	191.21	1.019 *	0.000	2.00	7.043	7.18	51.1	0.0	332.3
60.00		1.00	0.85	6.540	7.19	190.31	1.022 *	0.000	2.00	6.976	7.13	51.3	0.0	329.2
62.00		1.00	0.86	6.602	7.26	189.36	1.026 *	0.000	2.00	6.909	7.09	51.5	0.0	326.0
64.00		1.00	0.87	6.662	7.33	188.36	1.029 *	0.000	2.00	6.842	7.04	51.6	0.0	322.8
66.00		1.00	0.88	6.721	7.39	187.33	1.033 *	0.000	2.00	6.775	7.00	51.7	0.0	319.6
68.00		1.00	0.89	6.779	7.46	186.27	1.037 *	0.000	2.00	6.708	6.95	51.9	0.0	316.4
70.00		1.00	0.89	6.835	7.52	185.16	1.041 *	0.000	2.00	6.641	6.91	52.0	0.0	313.2
72.00		1.00	0.90	6.890	7.58	184.03	1.044 *	0.000	2.00	6.574	6.87	52.0	0.0	310.0
74.00		1.00	0.91	6.944	7.64	182.86	1.048 *	0.000	2.00	6.507	6.82	52.1	0.0	306.8
76.00		1.00	0.91	6.997	7.70	181.66	1.052 *	0.000	2.00	6.440	6.78	52.2	0.0	303.6
78.00	RT10 RB11	1.00	0.92	7.050	7.75	180.43	1.056 *	0.000	2.00	6.373	6.73	52.2	0.0	300.5

Wind Loading - Shaft

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 73

TES Tower Engineering Solutions

80.00	Top - Section 3	1.00	0.93	7.101	7.81	179.17	1.060 *	0.000	2.00	6.306	6.69	52.2	0.0	297.3
82.00		1.00	0.93	7.151	7.87	177.88	1.065 *	0.000	2.00	6.239	6.64	52.3	0.0	245.5
84.00		1.00	0.94	7.200	7.92	176.57	1.069 *	0.000	2.00	6.172	6.60	52.3	0.0	242.8
86.00		1.00	0.95	7.249	7.97	175.23	1.073 *	0.000	2.00	6.106	6.55	52.3	0.0	240.2
88.00		1.00	0.95	7.297	8.03	173.87	1.078 *	0.000	2.00	6.039	6.51	52.2	0.0	237.5
90.00		1.00	0.96	7.344	8.08	172.49	1.083 *	0.000	2.00	5.972	6.46	52.2	0.0	234.9
92.00		1.00	0.96	7.390	8.13	171.08	1.087 *	0.000	2.00	5.905	6.42	52.2	0.0	232.2
94.00		1.00	0.97	7.436	8.18	169.65	1.092 *	0.000	2.00	5.838	6.38	52.1	0.0	229.6
95.00	Bot - Section 5	1.00	0.97	7.458	8.20	168.92	1.096 *	0.000	1.00	2.894	3.17	26.0	0.0	113.8
95.58	RT11	1.00	0.98	7.471	8.22	168.50	1.098 *	0.000	0.58	1.702	1.87	15.4	0.0	132.6
96.00		1.00	0.98	7.480	8.23	168.19	1.099 *	0.000	0.42	1.229	1.35	11.1	0.0	95.8
98.00		1.00	0.98	7.525	8.28	166.72	1.102 *	0.000	2.00	5.812	6.41	53.0	0.0	452.8
100.00	Top - Section 4	1.00	0.99	7.568	8.32	165.23	1.002 *	0.000	2.00	5.745	5.76	47.9	0.0	447.4
102.00		1.00	0.99	7.611	8.37	166.91	1.000 *	0.000	2.00	5.678	5.68	47.5	0.0	223.2
104.00		1.00	1.00	7.653	8.42	165.39	1.004 *	0.000	2.00	5.611	5.63	47.4	0.0	220.5
106.00		1.00	1.00	7.695	8.46	163.85	1.008 *	0.000	2.00	5.544	5.59	47.3	0.0	217.9
108.00		1.00	1.01	7.736	8.51	162.29	1.012 *	0.000	2.00	5.477	5.54	47.2	0.0	215.2
110.00	Appurtenance(s)	1.00	1.02	7.777	8.55	160.71	1.016 *	0.000	2.00	5.410	5.50	47.0	0.0	212.6
112.00		1.00	1.02	7.817	8.60	159.12	1.021 *	0.000	2.00	5.343	5.45	46.9	0.0	209.9
114.00		1.00	1.03	7.857	8.64	157.51	1.025 *	0.000	2.00	5.276	5.41	46.7	0.0	207.3
115.00	Top - Section 5	1.00	1.03	7.876	8.66	156.70	1.029 *	0.000	1.00	2.613	2.69	23.3	0.0	102.6
116.00		1.00	1.03	7.896	8.69	155.89	1.031 *	0.000	1.00	2.596	2.68	23.2	0.0	81.7
118.00		1.00	1.04	7.935	8.73	154.25	1.034 *	0.000	2.00	5.142	5.32	46.4	0.0	161.9
120.00		1.00	1.04	7.973	8.77	152.59	1.039 *	0.000	2.00	5.075	5.28	46.3	0.0	159.8
122.00		1.00	1.05	8.011	8.81	150.92	1.044 *	0.000	2.00	5.008	5.23	46.1	0.0	157.6
124.00		1.00	1.05	8.048	8.85	149.24	1.050 *	0.000	2.00	4.941	5.19	45.9	0.0	155.5
126.00		1.00	1.06	8.085	8.89	147.54	1.055 *	0.000	2.00	4.874	5.14	45.7	0.0	153.4
128.00		1.00	1.06	8.121	8.93	145.83	1.060 *	0.000	2.00	4.807	5.10	45.5	0.0	151.3
130.00		1.00	1.07	8.157	8.97	144.10	1.066 *	0.000	2.00	4.741	5.05	45.3	0.0	149.1
132.00		1.00	1.07	8.193	9.01	142.36	1.072 *	0.000	2.00	4.674	5.01	45.1	0.0	147.0
133.00	Appurtenance(s)	1.00	1.07	8.211	9.03	141.49	1.076 *	0.000	1.00	2.312	2.49	22.5	0.0	72.7
134.00		1.00	1.07	8.228	9.05	140.61	1.079 *	0.000	1.00	2.295	2.48	22.4	0.0	72.2
136.00		1.00	1.08	8.263	9.09	138.84	1.084 *	0.000	2.00	4.540	4.92	44.7	0.0	142.8
138.00		1.00	1.08	8.298	9.13	137.07	1.090 *	0.000	2.00	4.473	4.87	44.5	0.0	140.6
140.00		1.00	1.09	8.332	9.17	135.28	1.096 *	0.000	2.00	4.406	4.83	44.3	0.0	138.5
142.00	Appurtenance(s)	1.00	1.09	8.366	9.20	133.48	1.103 *	0.000	2.00	4.339	4.79	44.0	0.0	136.4
144.00		1.00	1.10	8.399	9.24	131.66	0.950	0.000	2.00	4.272	4.06	37.5	0.0	134.3
145.00	Top - Section 6	1.00	1.10	8.416	9.26	130.75	0.950	0.000	1.00	2.111	2.01	18.6	0.0	66.3
146.00		1.00	1.10	8.432	9.28	125.44	0.600	0.000	1.00	2.023	1.21	11.3	0.0	64.2
148.00		1.00	1.11	8.465	9.31	123.67	0.600	0.000	2.00	3.998	2.40	22.3	0.0	126.9
148.30	Appurtenance(s)	1.00	1.11	8.470	9.32	123.40	0.600	0.000	0.30	0.594	0.36	3.3	0.0	18.9
150.00	Top - Section 7	1.00	1.11	8.498	9.35	121.88	0.600	0.000	1.70	3.339	2.00	18.7	0.0	105.9
152.00		1.00	1.11	8.530	9.38	83.48	0.645 *	0.000	2.00	2.667	1.72	16.1	0.0	84.2
154.00		1.00	1.12	8.562	9.42	83.64	0.645 *	0.000	2.00	2.667	1.72	16.2	0.0	84.2
156.00		1.00	1.12	8.593	9.45	83.79	0.645 *	0.000	2.00	2.667	1.72	16.3	0.0	84.2
158.00		1.00	1.13	8.625	9.49	83.94	0.645 *	0.000	2.00	2.667	1.72	16.3	0.0	84.2
160.00	Appurtenance(s)	1.00	1.13	8.656	9.52	84.09	0.645 *	0.000	2.00	2.667	1.72	16.4	0.0	84.2
								Totals:	**160.00**			**3,751.6**		**23,786.1**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

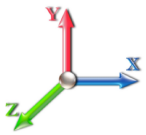
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 74	

Tower Engineering Solutions

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)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	6' Lightning rod	1	8.687	9.555	1.00	1.00	0.38	6.50	0.000	2.000	3.63	0.00	7.26
2	160.00	DB-T1-6Z-8AB-0Z	1	8.687	9.555	1.00	1.00	4.80	44.00	0.000	2.000	45.87	0.00	91.73
3	160.00	SBNHH-1D65B	9	8.687	9.555	0.81	1.00	59.49	360.00	0.000	2.000	568.41	0.00	1136.82
4	160.00	Low Profile Platform	1	8.687	9.555	1.00	1.00	22.00	1200.00	0.000	2.000	210.22	0.00	420.43
5	160.00	DB846F65ZAXY	6	8.687	9.555	0.93	1.00	39.34	126.00	0.000	2.000	375.90	0.00	751.79
6	160.00	DB222	1	8.687	9.555	1.00	1.00	2.25	16.00	0.000	2.000	21.50	0.00	43.00
7	160.00	RRH2x90-AWS	3	8.687	9.555	0.67	1.00	5.35	132.00	0.000	2.000	51.09	0.00	102.18
8	148.30	1900MHz RRH	3	8.530	9.383	0.54	0.80	6.11	132.00	0.000	3.700	57.33	0.00	212.13
9	148.30	800 MHz RRH	3	8.530	9.383	0.54	0.80	4.00	159.00	0.000	3.700	37.57	0.00	139.00
10	148.30	APXVTM14-C-120	3	8.498	9.347	0.61	0.80	11.59	168.00	0.000	1.700	108.38	0.00	184.25
11	148.30	APXVSPP18-C-A20	3	8.530	9.383	0.66	0.80	15.98	171.00	0.000	3.700	149.90	0.00	554.63
12	148.30	TD-RRH8x20-25	3	8.498	9.347	0.54	0.80	6.51	210.00	0.000	1.700	60.87	0.00	103.49
13	148.30	ALU 800MHz External	3	8.530	9.383	0.54	0.80	1.25	26.40	0.000	3.700	11.77	0.00	43.54
14	148.30	ACU-A20-N	4	8.530	9.383	0.54	0.80	0.30	4.00	0.000	3.700	2.82	0.00	10.42
15	148.30	Low Profile Platform	1	8.470	9.317	1.00	1.00	22.00	1200.00	0.000	0.000	204.98	0.00	0.00
16	142.00	Ericsson Radio 4415	1	8.366	9.202	0.50	0.75	0.93	44.10	0.000	0.000	8.60	0.00	0.00
17	142.00	Ericsson Radio 4449	4	8.366	9.202	0.50	0.75	3.32	280.00	0.000	0.000	30.52	0.00	0.00
18	142.00	RFS	1	8.366	9.202	0.52	0.75	7.70	106.00	0.000	0.000	70.87	0.00	0.00
19	142.00	RFS	3	8.366	9.202	0.52	0.75	31.88	384.00	0.000	0.000	293.35	0.00	0.00
20	142.00	Ericsson Air 32	4	8.366	9.202	0.65	0.75	16.99	528.80	0.000	0.000	156.36	0.00	0.00
21	142.00	Mod	1	8.366	9.202	1.00	1.00	12.00	300.00	0.000	0.000	110.43	0.00	0.00
22	142.00	Ericsson 4415 B25 RRU	4	8.366	9.202	0.50	0.75	3.74	198.40	0.000	0.000	34.40	0.00	0.00
23	142.00	Commscope	4	8.366	9.202	0.50	0.75	0.24	11.60	0.000	0.000	2.22	0.00	0.00
24	142.00	Platform w/ HR & Bracing	1	8.366	9.202	1.00	1.00	52.00	2246.00	0.000	0.000	478.52	0.00	0.00
25	142.00	Ericsson KRY 112 144/1	3	8.377	9.215	0.50	0.75	0.62	33.00	0.000	0.700	5.70	0.00	3.99
26	142.00	Ericsson AIR6449 B41	4	8.366	9.202	0.53	0.75	12.03	412.00	0.000	0.000	110.74	0.00	0.00
27	133.00	Cci TPA-65R-LCUUUU-H8	1	8.211	9.032	0.63	0.80	8.06	105.00	0.000	0.000	72.78	0.00	0.00
28	133.00	Quintel QS66512-2	2	8.211	9.032	0.74	0.80	11.97	222.00	0.000	0.000	108.09	0.00	0.00
29	133.00	(3) SitePro 1 P/N	2	8.211	9.032	0.75	0.75	32.01	2715.54	0.000	0.000	289.10	0.00	0.00
30	133.00	Kathrein 800-10965	3	8.211	9.032	0.57	0.80	23.53	325.80	0.000	0.000	212.54	0.00	0.00
31	133.00	Kathrein 800 10121	3	8.211	9.032	0.63	0.80	9.76	138.90	0.000	0.000	88.19	0.00	0.00
32	133.00	Ericsson RRUS-32 RRU	3	8.211	9.032	0.54	0.80	6.22	231.00	0.000	0.000	56.20	0.00	0.00
33	133.00	Powerwave LGP21401	6	8.211	9.032	0.54	0.80	4.15	84.60	0.000	0.000	37.47	0.00	0.00
34	133.00	Ericsson B2/B66A 8843	3	8.211	9.032	0.54	0.80	2.64	216.00	0.000	0.000	23.82	0.00	0.00
35	133.00	Ericsson B5/B12 4449	3	8.211	9.032	0.54	0.80	3.17	213.00	0.000	0.000	28.61	0.00	0.00
36	133.00	Raycap DC6-48-60-18-8F	3	8.211	9.032	0.80	0.80	2.21	95.40	0.000	0.000	19.94	0.00	0.00
37	110.00	3 ft Standoff	1	7.777	8.555	1.00	1.00	2.63	40.00	0.000	0.000	22.50	0.00	0.00
38	110.00	DB222	1	7.882	8.670	1.00	1.00	2.65	16.00	0.000	5.292	22.98	0.00	121.59
39	40.00	GPS	1	5.825	6.407	1.00	1.00	1.00	10.00	0.000	0.000	6.41	0.00	0.00
							Totals:		**12,912.04**			**4,200.55**		

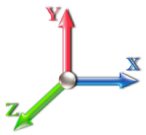
Total Applied Force Summary

Structure:	CT02049-S-SBA		**Code:**	EIA/TIA-222-H	12/23/2020
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: 75

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		27.86	257.23	0.00	0.00
2.00		27.80	256.43	0.00	0.00
4.00		55.40	510.47	0.00	0.00
6.00		55.14	507.28	0.00	0.00
8.00		54.87	504.09	0.00	0.00
10.00		54.61	500.91	0.00	0.00
12.00		54.35	497.72	0.00	0.00
14.00		54.09	494.53	0.00	0.00
16.00		53.82	491.34	0.00	0.00
16.25		6.82	110.11	0.00	0.00
18.00		47.60	767.99	0.00	0.00
18.75		20.34	327.64	0.00	0.00
19.50		20.30	326.75	0.00	0.00
20.00		13.51	217.33	0.00	0.00
22.00		53.90	865.34	0.00	0.00
24.00		53.28	484.75	0.00	0.00
26.00		53.02	481.56	0.00	0.00
28.00		52.76	478.37	0.00	0.00
30.00		52.54	475.18	0.00	0.00
31.00		26.42	236.40	0.00	0.00
32.00		26.59	235.60	0.00	0.00
34.00		46.64	468.81	0.00	0.00
35.50		35.24	349.51	0.00	0.00
36.00		11.76	116.11	0.00	0.00
38.00		47.59	462.43	0.00	0.00
40.00	(1) attachments	54.41	469.24	0.00	0.00
42.00		48.39	455.73	0.00	0.00
44.00		48.74	452.54	0.00	0.00
45.16		28.35	261.01	0.00	0.00
46.00		20.57	188.34	0.00	0.00
48.00		49.37	446.17	0.00	0.00
50.00		49.64	442.98	0.00	0.00
52.00		50.80	781.70	0.00	0.00
54.00		51.05	775.32	0.00	0.00
56.00		51.27	768.94	0.00	0.00
58.00		51.14	436.39	0.00	0.00
60.00		51.32	433.20	0.00	0.00
62.00		51.48	430.01	0.00	0.00
64.00		51.62	426.82	0.00	0.00
66.00		51.75	423.63	0.00	0.00
68.00		51.86	420.45	0.00	0.00
70.00		51.95	417.26	0.00	0.00
72.00		52.04	414.07	0.00	0.00
74.00		52.10	410.88	0.00	0.00
76.00		52.16	407.69	0.00	0.00
78.00		52.20	404.50	0.00	0.00

Total Applied Force Summary

Structure:	CT02049-S-SBA		**Code:**	EIA/TIA-222-H	12/23/2020
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: 76

Tower Engineering Solutions

80.00		52.23	401.32	0.00	0.00
82.00		52.25	349.54	0.00	0.00
84.00		52.26	346.88	0.00	0.00
86.00		52.26	344.23	0.00	0.00
88.00		52.25	341.57	0.00	0.00
90.00		52.22	338.91	0.00	0.00
92.00		52.19	336.26	0.00	0.00
94.00		52.15	333.60	0.00	0.00
95.00		26.02	165.80	0.00	0.00
95.58		15.36	162.79	0.00	0.00
96.00		11.11	117.60	0.00	0.00
98.00		53.02	556.80	0.00	0.00
100.00		47.92	551.49	0.00	0.00
102.00		47.52	327.25	0.00	0.00
104.00		47.41	324.59	0.00	0.00
106.00		47.29	321.94	0.00	0.00
108.00		47.16	319.28	0.00	0.00
110.00	(2) attachments	92.51	372.62	0.00	121.59
112.00		46.89	312.93	0.00	0.00
114.00		46.74	310.27	0.00	0.00
115.00		23.29	154.14	0.00	0.00
116.00		23.25	133.25	0.00	0.00
118.00		46.43	264.91	0.00	0.00
120.00		46.26	262.78	0.00	0.00
122.00		46.09	260.66	0.00	0.00
124.00		45.91	258.53	0.00	0.00
126.00		45.72	256.41	0.00	0.00
128.00		45.53	254.28	0.00	0.00
130.00		45.34	252.15	0.00	0.00
132.00		45.13	250.03	0.00	0.00
133.00	(29) attachments	959.20	4471.46	0.00	0.00
134.00		22.41	110.97	0.00	0.00
136.00		44.71	220.34	0.00	0.00
138.00		44.49	218.21	0.00	0.00
140.00		44.27	216.09	0.00	0.00
142.00	(30) attachments	1345.74	4757.86	0.00	3.99
144.00		37.50	182.58	0.00	0.00
145.00		18.56	90.49	0.00	0.00
146.00		11.26	88.37	0.00	0.00
148.00		22.34	175.19	0.00	0.00
148.30	(23) attachments	636.94	2096.50	0.00	1247.46
150.00		18.73	140.53	0.00	0.00
152.00		16.14	124.86	0.00	0.00
154.00		16.20	124.86	0.00	0.00
156.00		16.26	124.86	0.00	0.00
158.00		16.32	124.86	0.00	0.00
160.00	(22) attachments	1292.98	2009.36	0.00	2553.21
	Totals:	**7,952.19**	**44,350.98**	**0.00**	**3,926.25**

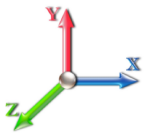
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 77	

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	5.361	0.00	1.10
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	5.361	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	5.361	0.00	4.40
1.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	5.361	0.00	1.91
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.147	5.361	0.00	0.52
1.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.147	5.361	0.00	0.00
1.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.147	5.361	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	5.361	0.00	1.10
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	5.361	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	5.361	0.00	4.40
2.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	5.361	0.00	1.91
2.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.149	1.148	5.361	0.00	0.52
2.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.149	1.148	5.361	0.00	0.00
2.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.149	1.148	5.361	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	5.361	0.00	2.20
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	5.361	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	5.361	0.00	8.80
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	5.361	0.00	3.82
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	5.361	0.00	1.04
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	5.361	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	5.361	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	5.361	0.00	2.20
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	5.361	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	5.361	0.00	8.80
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	5.361	0.00	3.82
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	5.361	0.00	1.04
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	5.361	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	5.361	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	5.361	0.00	2.20
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	5.361	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	5.361	0.00	8.80
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	5.361	0.00	3.82
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	5.361	0.00	1.04
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	5.361	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	5.361	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	5.361	0.00	2.20
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	5.361	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	5.361	0.00	8.80
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	5.361	0.00	3.82
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	5.361	0.00	1.04
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	5.361	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	5.361	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	5.361	0.00	2.20
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	5.361	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	5.361	0.00	8.80
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	5.361	0.00	3.82
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	5.361	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

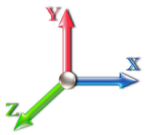
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 78	

Tower Engineering Solutions

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	5.361	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	5.361	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	5.361	0.00	2.20
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	5.361	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	5.361	0.00	8.80
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	5.361	0.00	3.82
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	5.361	0.00	1.04
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	5.361	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	5.361	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	5.361	0.00	2.20
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	5.361	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	5.361	0.00	8.80
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	5.361	0.00	3.82
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	5.361	0.00	1.04
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	5.361	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	5.361	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	5.361	0.00	0.28
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	5.361	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	5.361	0.00	1.10
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	5.361	0.00	0.48
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	5.361	0.00	0.13
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	5.361	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	5.361	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	5.361	0.00	1.93
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	5.361	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	5.361	0.00	7.70
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	5.361	0.00	3.34
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	5.361	0.00	0.91
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	5.361	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	5.361	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	5.361	0.00	0.83
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	5.361	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	5.361	0.00	3.30
18.75	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	5.361	0.00	1.43
18.75	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.180	5.361	0.00	0.39
18.75	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.180	5.361	0.00	0.00
18.75	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.180	5.361	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	5.361	0.00	0.83
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	5.361	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	5.361	0.00	3.30
19.50	1-1/4" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	5.361	0.00	1.43
19.50	7/8" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.160	1.181	5.361	0.00	0.39
19.50	1.25" Reinforcing	Yes	0.75	0.000	1.25	0.08	0.00	0.160	1.181	5.361	0.00	0.00
19.50	1.25" Reinforcing	Yes	0.75	0.000	2.50	0.16	0.00	0.160	1.181	5.361	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	5.361	0.00	0.55
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	5.361	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	5.361	0.00	2.20

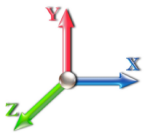
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 79	

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	5.361	0.00	0.95
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	5.361	0.00	0.26
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	5.361	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	5.361	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	5.361	0.00	2.20
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	5.361	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	5.361	0.00	8.80
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	5.361	0.00	3.82
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	5.361	0.00	1.04
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	5.361	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	5.361	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	5.361	0.00	2.20
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	5.361	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	5.361	0.00	8.80
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	5.361	0.00	3.82
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	5.361	0.00	1.04
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	5.361	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	5.361	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	5.361	0.00	2.20
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	5.361	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	5.361	0.00	8.80
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	5.361	0.00	3.82
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	5.361	0.00	1.04
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	5.361	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	5.361	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	5.361	0.00	2.20
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	5.361	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	5.361	0.00	8.80
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	5.361	0.00	3.82
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	5.361	0.00	1.04
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	5.361	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	5.361	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	5.365	0.00	2.20
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	5.365	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	5.365	0.00	8.80
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	5.365	0.00	3.82
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	5.365	0.00	1.04
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	5.365	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	5.365	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	5.416	0.00	1.10
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	5.416	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	5.416	0.00	4.40
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	5.416	0.00	1.91
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	5.416	0.00	0.52
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	5.416	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	5.416	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	5.465	0.00	1.10

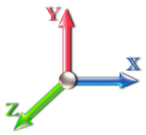
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 80	

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	5.465	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	5.465	0.00	4.40
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	5.465	0.00	1.91
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	5.465	0.00	0.52
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	5.465	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	5.465	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	5.561	0.00	2.20
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	5.561	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	5.561	0.00	8.80
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	5.561	0.00	3.82
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	5.561	0.00	1.04
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	5.561	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	5.630	0.00	1.65
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	5.630	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	5.630	0.00	6.60
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	5.630	0.00	2.86
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	5.630	0.00	0.78
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	5.630	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	5.652	0.00	0.55
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	5.652	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	5.652	0.00	2.20
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	5.652	0.00	0.95
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	5.652	0.00	0.26
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	5.652	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	5.740	0.00	2.20
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	5.740	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	5.740	0.00	8.80
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	5.740	0.00	3.82
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	5.740	0.00	1.04
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	5.740	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	5.825	0.00	2.20
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	5.825	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	5.825	0.00	8.80
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	5.825	0.00	3.82
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	5.825	0.00	1.04
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	5.825	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	5.907	0.00	2.20
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	5.907	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	5.907	0.00	8.80
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	5.907	0.00	3.82
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	5.907	0.00	1.04
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	5.907	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	5.986	0.00	2.20
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	5.986	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	5.986	0.00	8.80
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	5.986	0.00	3.82
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	5.986	0.00	1.04

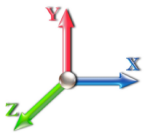
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 81	

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	5.986	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	6.030	0.00	1.28
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.030	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	6.030	0.00	5.10
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.030	0.00	2.21
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.030	0.00	0.60
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	6.030	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	6.062	0.00	0.92
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.062	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	6.062	0.00	3.70
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.062	0.00	1.60
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.062	0.00	0.44
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	6.062	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	6.136	0.00	2.20
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	6.136	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	6.136	0.00	8.80
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	6.136	0.00	3.82
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	6.136	0.00	1.04
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	6.136	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	6.208	0.00	2.20
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	6.208	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	6.208	0.00	8.80
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	6.208	0.00	3.82
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	6.208	0.00	1.04
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	6.208	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	6.278	0.00	2.20
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	6.278	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	6.278	0.00	8.80
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	6.278	0.00	3.82
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	6.278	0.00	1.04
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	6.278	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	6.346	0.00	2.20
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	6.346	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	6.346	0.00	8.80
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	6.346	0.00	3.82
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	6.346	0.00	1.04
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	6.346	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	6.413	0.00	2.20
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	6.413	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	6.413	0.00	8.80
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	6.413	0.00	3.82
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	6.413	0.00	1.04
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	6.413	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	6.477	0.00	2.20
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	6.477	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	6.477	0.00	8.80
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	6.477	0.00	3.82

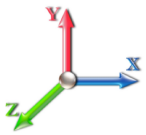
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 82	

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	6.477	0.00	1.04
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	6.477	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	6.540	0.00	2.20
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	6.540	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	6.540	0.00	8.80
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	6.540	0.00	3.82
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	6.540	0.00	1.04
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	6.540	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	6.602	0.00	2.20
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	6.602	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	6.602	0.00	8.80
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	6.602	0.00	3.82
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	6.602	0.00	1.04
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	6.602	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	6.662	0.00	2.20
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	6.662	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	6.662	0.00	8.80
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	6.662	0.00	3.82
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	6.662	0.00	1.04
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	6.662	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	6.721	0.00	2.20
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	6.721	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	6.721	0.00	8.80
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	6.721	0.00	3.82
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	6.721	0.00	1.04
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	6.721	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	6.779	0.00	2.20
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	6.779	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	6.779	0.00	8.80
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	6.779	0.00	3.82
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	6.779	0.00	1.04
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	6.779	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	6.835	0.00	2.20
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	6.835	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	6.835	0.00	8.80
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	6.835	0.00	3.82
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	6.835	0.00	1.04
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	6.835	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	6.890	0.00	2.20
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.890	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	6.890	0.00	8.80
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.890	0.00	3.82
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.890	0.00	1.04
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	6.890	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	6.944	0.00	2.20
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	6.944	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	6.944	0.00	8.80

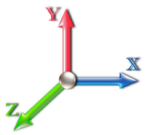
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 83	

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	6.944	0.00	3.82
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	6.944	0.00	1.04
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	6.944	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	6.997	0.00	2.20
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	6.997	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	6.997	0.00	8.80
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	6.997	0.00	3.82
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	6.997	0.00	1.04
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	6.997	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	7.050	0.00	2.20
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	7.050	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	7.050	0.00	8.80
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	7.050	0.00	3.82
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	7.050	0.00	1.04
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	7.050	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	7.101	0.00	2.20
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	7.101	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	7.101	0.00	8.80
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	7.101	0.00	3.82
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	7.101	0.00	1.04
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	7.101	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	7.151	0.00	2.20
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	7.151	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	7.151	0.00	8.80
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	7.151	0.00	3.82
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	7.151	0.00	1.04
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	7.151	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	7.200	0.00	2.20
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	7.200	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	7.200	0.00	8.80
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	7.200	0.00	3.82
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	7.200	0.00	1.04
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	7.200	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	7.249	0.00	2.20
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	7.249	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	7.249	0.00	8.80
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	7.249	0.00	3.82
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	7.249	0.00	1.04
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	7.249	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	7.297	0.00	2.20
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	7.297	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	7.297	0.00	8.80
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	7.297	0.00	3.82
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	7.297	0.00	1.04
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	7.297	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	7.344	0.00	2.20
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	7.344	0.00	1.04

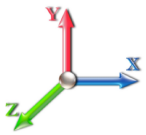
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 84	

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	7.344	0.00	8.80
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	7.344	0.00	3.82
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	7.344	0.00	1.04
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	7.344	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	7.390	0.00	2.20
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	7.390	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	7.390	0.00	8.80
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	7.390	0.00	3.82
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	7.390	0.00	1.04
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	7.390	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	7.436	0.00	2.20
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	7.436	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	7.436	0.00	8.80
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	7.436	0.00	3.82
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	7.436	0.00	1.04
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	7.436	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	7.458	0.00	1.10
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	7.458	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	7.458	0.00	4.40
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	7.458	0.00	1.91
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	7.458	0.00	0.52
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	7.458	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	7.471	0.00	0.64
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	7.471	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	7.471	0.00	2.55
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	7.471	0.00	1.11
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	7.471	0.00	0.30
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	7.471	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	7.480	0.00	0.46
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	7.480	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	7.480	0.00	1.85
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	7.480	0.00	0.80
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	7.480	0.00	0.22
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	7.480	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	7.525	0.00	2.20
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	7.525	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	7.525	0.00	8.80
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	7.525	0.00	3.82
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	7.525	0.00	1.04
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	7.525	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	7.568	0.00	2.20
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	7.568	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	7.568	0.00	8.80
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	7.568	0.00	3.82
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	7.568	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	7.611	0.00	2.20
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	7.611	0.00	1.04

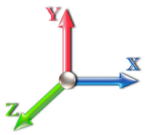
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 85	

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	7.611	0.00	8.80
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	7.611	0.00	3.82
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	7.611	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	7.653	0.00	2.20
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	7.653	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	7.653	0.00	8.80
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	7.653	0.00	3.82
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	7.653	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	7.695	0.00	2.20
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	7.695	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	7.695	0.00	8.80
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	7.695	0.00	3.82
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	7.695	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	7.736	0.00	2.20
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	7.736	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	7.736	0.00	8.80
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	7.736	0.00	3.82
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	7.736	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	7.777	0.00	2.20
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	7.777	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	7.777	0.00	8.80
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	7.777	0.00	3.82
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	7.777	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	7.817	0.00	2.20
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	7.817	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	7.817	0.00	8.80
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	7.817	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	7.857	0.00	2.20
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	7.857	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	7.857	0.00	8.80
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	7.857	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	7.876	0.00	1.10
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	7.876	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	7.876	0.00	4.40
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	7.876	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	7.896	0.00	1.10
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	7.896	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	7.896	0.00	4.40
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	7.896	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	7.935	0.00	2.20
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	7.935	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	7.935	0.00	8.80
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	7.935	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	7.973	0.00	2.20
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	7.973	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	7.973	0.00	8.80
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	7.973	0.00	3.82

Linear Appurtenance Segment Forces (Factored)

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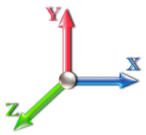
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 86	

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	8.011	0.00	2.20
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	8.011	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	8.011	0.00	8.80
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	8.011	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	8.048	0.00	2.20
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	8.048	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	8.048	0.00	8.80
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	8.048	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	8.085	0.00	2.20
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	8.085	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	8.085	0.00	8.80
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	8.085	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	8.121	0.00	2.20
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	8.121	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	8.121	0.00	8.80
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	8.121	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	8.157	0.00	2.20
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	8.157	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	8.157	0.00	8.80
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	8.157	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	8.193	0.00	2.20
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	8.193	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	8.193	0.00	8.80
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	8.193	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	8.211	0.00	1.10
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	8.211	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	8.211	0.00	4.40
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	8.211	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	8.228	0.00	1.10
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	8.228	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	8.228	0.00	4.40
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	8.228	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	8.263	0.00	2.20
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	8.263	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	8.263	0.00	8.80
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	8.263	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	8.298	0.00	2.20
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	8.298	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	8.298	0.00	8.80
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	8.298	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	8.332	0.00	2.20
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	8.332	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	8.332	0.00	8.80
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	8.332	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	8.366	0.00	2.20
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	8.366	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	8.366	0.00	8.80

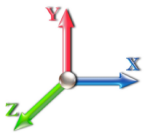
Linear Appurtenance Segment Forces (Factored)

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 87	

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	8.366	0.00	3.82
144.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	8.399	0.00	2.20
144.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	8.399	0.00	1.04
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	8.416	0.00	1.10
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	8.416	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	8.432	0.00	1.10
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	8.432	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	8.465	0.00	2.20
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	8.465	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	8.470	0.00	0.33
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	8.470	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	8.498	0.00	1.87
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	8.498	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	8.530	0.00	2.20
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	8.530	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	8.562	0.00	2.20
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	8.562	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	8.593	0.00	2.20
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	8.593	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	8.625	0.00	2.20
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	8.625	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	8.656	0.00	2.20
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	8.656	0.00	1.04
										Totals:	**0.0**	**1,212.1**

Calculated Forces

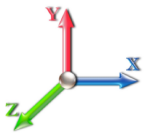
Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
Site Name:	Beacon Falls	**Exposure:**	B		
Height:	160.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 88	

Tower Engineering Solutions

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	-44.35	-7.95	0.00	-931.22	0.00	931.22	3683.82	1059.58	4414.92	3756.66	0.00	0.000	0.000	0.154
1.00	-44.09	-7.93	0.00	-923.27	0.00	923.27	3677.71	1055.47	4380.73	3735.77	0.00	-0.008	0.000	0.154
2.00	-43.83	-7.91	0.00	-915.34	0.00	915.34	3671.54	1051.36	4346.67	3714.86	0.00	-0.016	0.000	0.153
4.00	-43.32	-7.87	0.00	-899.51	0.00	899.51	3659.00	1043.14	4278.95	3673.00	0.01	-0.033	0.000	0.152
6.00	-42.81	-7.83	0.00	-883.77	0.00	883.77	3646.20	1034.91	4211.76	3631.09	0.03	-0.049	0.000	0.150
8.00	-42.31	-7.78	0.00	-868.12	0.00	868.12	3633.16	1026.69	4145.10	3589.13	0.06	-0.065	0.000	0.149
10.00	-41.80	-7.74	0.00	-852.55	0.00	852.55	3619.85	1018.47	4078.97	3547.13	0.09	-0.082	0.000	0.147
12.00	-41.30	-7.70	0.00	-837.07	0.00	837.07	3606.29	1010.25	4013.38	3505.10	0.12	-0.098	0.000	0.146
14.00	-40.81	-7.65	0.00	-821.67	0.00	821.67	3592.48	1002.02	3948.31	3463.03	0.17	-0.114	0.000	0.144
16.00	-40.31	-7.61	0.00	-806.37	0.00	806.37	3578.41	993.80	3883.78	3420.94	0.22	-0.131	0.000	0.143
16.25	-40.20	-7.61	0.00	-804.46	0.00	804.46	3576.63	992.77	3875.75	3415.68	0.23	-0.133	0.000	0.163
18.00	-39.43	-7.56	0.00	-791.15	0.00	791.15	3564.09	985.58	3819.78	3378.83	0.28	-0.150	0.000	0.150
18.75	-39.10	-7.55	0.00	-785.48	0.00	785.48	3558.65	982.50	3795.92	3363.04	0.30	-0.156	0.000	0.176
19.50	-38.78	-7.53	0.00	-779.82	0.00	779.82	3553.18	979.41	3772.13	3347.24	0.33	-0.164	0.000	0.150
20.00	-38.56	-7.52	0.00	-776.06	0.00	776.06	3549.51	977.36	3756.31	3336.71	0.35	-0.169	0.000	0.149
22.00	-37.69	-7.48	0.00	-761.01	0.00	761.01	3563.12	985.03	3815.51	3376.01	0.42	-0.186	0.000	0.151
24.00	-37.20	-7.44	0.00	-746.05	0.00	746.05	3548.52	976.81	3752.08	3333.89	0.50	-0.204	0.000	0.145
26.00	-36.72	-7.39	0.00	-731.18	0.00	731.18	3533.67	968.58	3689.18	3291.77	0.59	-0.221	0.000	0.144
28.00	-36.24	-7.35	0.00	-716.40	0.00	716.40	3518.56	960.36	3626.81	3249.64	0.69	-0.239	0.000	0.142
30.00	-35.76	-7.30	0.00	-701.70	0.00	701.70	3503.20	952.14	3564.97	3207.53	0.79	-0.256	0.000	0.111
31.00	-35.53	-7.28	0.00	-694.40	0.00	694.40	3495.43	948.03	3534.25	3186.48	0.85	-0.263	0.000	0.128
32.00	-35.29	-7.26	0.00	-687.12	0.00	687.12	3487.59	943.92	3503.66	3165.43	0.90	-0.271	0.000	0.127
34.00	-34.82	-7.22	0.00	-672.61	0.00	672.61	3471.72	935.70	3442.89	3123.35	1.02	-0.286	0.000	0.155
35.50	-34.47	-7.19	0.00	-661.78	0.00	661.78	3459.65	929.53	3397.66	3091.80	1.11	-0.301	0.000	0.155
36.00	-34.35	-7.18	0.00	-658.19	0.00	658.19	3455.59	927.47	3382.65	3081.29	1.14	-0.306	0.000	0.154
38.00	-33.89	-7.14	0.00	-643.83	0.00	643.83	3439.21	919.25	3322.94	3039.26	1.28	-0.326	0.000	0.152
40.00	-33.41	-7.10	0.00	-629.54	0.00	629.54	3422.57	911.03	3263.76	2997.28	1.42	-0.346	0.000	0.151
42.00	-32.96	-7.06	0.00	-615.35	0.00	615.35	3405.68	902.81	3205.11	2955.34	1.57	-0.366	0.000	0.149
44.00	-32.50	-7.02	0.00	-601.23	0.00	601.23	3388.54	894.58	3146.99	2913.44	1.72	-0.385	0.000	0.147
45.16	-32.24	-6.99	0.00	-593.09	0.00	593.09	3378.48	889.81	3113.53	2889.17	1.82	-0.397	0.000	0.106
46.00	-32.05	-6.98	0.00	-587.22	0.00	587.22	3371.14	886.36	3089.41	2871.61	1.89	-0.403	0.000	0.138
48.00	-31.60	-6.93	0.00	-573.27	0.00	573.27	3353.48	878.14	3032.36	2829.83	2.06	-0.422	0.000	0.136
50.00	-31.16	-6.89	0.00	-559.41	0.00	559.41	3335.57	869.92	2975.84	2788.13	2.24	-0.441	0.000	0.134
52.00	-30.37	-6.84	0.00	-545.63	0.00	545.63	3317.41	861.69	2919.85	2746.50	2.43	-0.460	0.000	0.131
54.00	-29.60	-6.80	0.00	-531.94	0.00	531.94	3298.98	853.47	2864.39	2704.94	2.63	-0.478	0.000	0.129
56.00	-28.83	-6.75	0.00	-518.35	0.00	518.35	3316.18	861.14	2916.12	2743.71	2.83	-0.497	0.000	0.130
58.00	-28.39	-6.70	0.00	-504.85	0.00	504.85	3297.74	852.92	2860.70	2702.16	3.04	-0.515	0.000	0.135
60.00	-27.95	-6.66	0.00	-491.45	0.00	491.45	3279.05	844.70	2805.81	2660.71	3.26	-0.535	0.000	0.133
62.00	-27.52	-6.61	0.00	-478.14	0.00	478.14	3260.10	836.48	2751.45	2619.34	3.49	-0.554	0.000	0.131
64.00	-27.09	-6.56	0.00	-464.92	0.00	464.92	3240.90	828.25	2697.62	2578.08	3.73	-0.573	0.000	0.129
66.00	-26.67	-6.52	0.00	-451.80	0.00	451.80	3221.44	820.03	2644.33	2536.92	3.97	-0.593	0.000	0.127
68.00	-26.25	-6.47	0.00	-438.77	0.00	438.77	3201.73	811.81	2591.56	2495.87	4.23	-0.612	0.000	0.125
70.00	-25.83	-6.42	0.00	-425.83	0.00	425.83	3181.76	803.59	2539.33	2454.94	4.49	-0.631	0.000	0.123
72.00	-25.41	-6.37	0.00	-412.99	0.00	412.99	3161.54	795.36	2487.63	2414.13	4.75	-0.650	0.000	0.121
74.00	-25.00	-6.32	0.00	-400.25	0.00	400.25	3141.06	787.14	2436.47	2373.45	5.03	-0.669	0.000	0.118
76.00	-24.59	-6.27	0.00	-387.60	0.00	387.60	3120.33	778.92	2385.83	2332.91	5.32	-0.688	0.000	0.116
78.00	-24.18	-6.23	0.00	-375.05	0.00	375.05	3099.34	770.70	2335.73	2292.51	5.61	-0.707	0.000	0.114
80.00	-23.78	-6.18	0.00	-362.60	0.00	362.60	3078.09	762.47	2286.15	2252.26	5.91	-0.726	0.000	0.112

Calculated Forces

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 89	

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80.00	-23.78	-6.18	0.00	-362.60	0.00	362.60	2384.58	636.50	1911.75	1750.88	5.91	-0.726	0.000	0.121
82.00	-23.43	-6.13	0.00	-350.25	0.00	350.25	2370.62	629.65	1870.81	1721.73	6.22	-0.745	0.000	0.132
84.00	-23.08	-6.08	0.00	-337.99	0.00	337.99	2356.42	622.80	1830.32	1692.63	6.53	-0.766	0.000	0.129
86.00	-22.74	-6.03	0.00	-325.84	0.00	325.84	2341.95	615.94	1790.27	1663.57	6.86	-0.786	0.000	0.126
88.00	-22.39	-5.98	0.00	-313.78	0.00	313.78	2327.23	609.09	1750.66	1634.56	7.19	-0.807	0.000	0.123
90.00	-22.05	-5.93	0.00	-301.81	0.00	301.81	2312.26	602.24	1711.49	1605.61	7.53	-0.827	0.000	0.120
92.00	-21.72	-5.88	0.00	-289.95	0.00	289.95	2297.03	595.39	1672.77	1576.72	7.89	-0.847	0.000	0.117
94.00	-21.38	-5.83	0.00	-278.19	0.00	278.19	2281.55	588.54	1634.49	1547.90	8.24	-0.867	0.000	0.114
95.00	-21.22	-5.81	0.00	-272.36	0.00	272.36	2273.71	585.11	1615.51	1533.52	8.43	-0.877	0.000	0.112
95.58	-21.05	-5.79	0.00	-268.99	0.00	268.99	2269.13	583.12	1604.56	1525.19	8.53	-0.882	0.000	0.110
95.58	-21.05	-5.79	0.00	-268.99	0.00	268.99	2269.13	583.12	1604.56	1525.19	8.53	-0.882	0.000	0.110
96.00	-20.93	-5.78	0.00	-266.56	0.00	266.56	2265.81	581.68	1596.65	1519.16	8.61	-0.887	0.000	0.185
98.00	-20.37	-5.73	0.00	-254.99	0.00	254.99	2249.81	574.83	1559.25	1490.50	8.99	-0.919	0.000	0.180
100.00	-19.82	-5.69	0.00	-243.53	0.00	243.53	2259.61	579.02	1582.04	1508.00	9.38	-0.951	0.000	0.170
102.00	-19.49	-5.64	0.00	-232.15	0.00	232.15	2243.52	572.17	1544.82	1479.37	9.79	-0.983	0.000	0.166
104.00	-19.16	-5.60	0.00	-220.86	0.00	220.86	2227.17	565.31	1508.04	1450.84	10.21	-1.012	0.000	0.161
106.00	-18.84	-5.56	0.00	-209.66	0.00	209.66	2210.57	558.46	1471.71	1422.40	10.64	-1.041	0.000	0.156
108.00	-18.52	-5.51	0.00	-198.55	0.00	198.55	2193.71	551.61	1435.82	1394.06	11.08	-1.070	0.000	0.151
110.00	-18.15	-5.42	0.00	-187.40	0.00	187.40	2176.60	544.76	1400.37	1365.84	11.53	-1.098	0.000	0.146
112.00	-17.83	-5.38	0.00	-176.56	0.00	176.56	2159.23	537.91	1365.36	1337.73	12.00	-1.125	0.000	0.140
114.00	-17.52	-5.33	0.00	-165.80	0.00	165.80	2141.61	531.05	1330.80	1309.73	12.48	-1.152	0.000	0.135
115.00	-17.37	-5.31	0.00	-160.47	0.00	160.47	2132.70	527.63	1313.68	1295.79	12.72	-1.165	0.000	0.132
115.00	-17.37	-5.31	0.00	-160.47	0.00	160.47	1556.62	422.98	1055.35	949.74	12.72	-1.165	0.000	0.180
116.00	-17.23	-5.29	0.00	-155.16	0.00	155.16	1551.43	420.24	1041.71	940.38	12.96	-1.178	0.000	0.176
118.00	-16.96	-5.25	0.00	-144.58	0.00	144.58	1540.84	414.76	1014.72	921.68	13.47	-1.210	0.000	0.168
120.00	-16.70	-5.20	0.00	-134.08	0.00	134.08	1529.99	409.28	988.07	902.99	13.98	-1.241	0.000	0.160
122.00	-16.44	-5.16	0.00	-123.68	0.00	123.68	1518.89	403.80	961.78	884.33	14.50	-1.270	0.000	0.151
124.00	-16.18	-5.12	0.00	-113.35	0.00	113.35	1507.54	398.32	935.85	865.70	15.04	-1.298	0.000	0.142
126.00	-15.92	-5.07	0.00	-103.12	0.00	103.12	1495.93	392.84	910.27	847.11	15.59	-1.325	0.000	0.133
128.00	-15.66	-5.03	0.00	-92.98	0.00	92.98	1484.06	387.35	885.04	828.56	16.15	-1.350	0.000	0.123
130.00	-15.41	-4.98	0.00	-82.92	0.00	82.92	1471.95	381.87	860.17	810.06	16.72	-1.374	0.000	0.113
132.00	-15.16	-4.94	0.00	-72.96	0.00	72.96	1459.57	376.39	835.65	791.62	17.30	-1.395	0.000	0.103
133.00	-10.71	-3.87	0.00	-68.02	0.00	68.02	1453.29	373.65	823.53	782.42	17.60	-1.406	0.000	0.094
134.00	-10.60	-3.85	0.00	-64.15	0.00	64.15	1446.94	370.91	811.49	773.23	17.89	-1.416	0.000	0.090
136.00	-10.38	-3.80	0.00	-56.46	0.00	56.46	1434.06	365.43	787.68	754.91	18.49	-1.434	0.000	0.082
138.00	-10.16	-3.75	0.00	-48.86	0.00	48.86	1420.92	359.95	764.23	736.67	19.10	-1.451	0.000	0.074
140.00	-9.95	-3.71	0.00	-41.35	0.00	41.35	1407.52	354.47	741.13	718.50	19.71	-1.466	0.000	0.065
142.00	-5.23	-2.24	0.00	-33.94	0.00	33.94	1393.87	348.98	718.38	700.42	20.32	-1.479	0.000	0.052
144.00	-5.04	-2.20	0.00	-29.46	0.00	29.46	1379.97	343.50	695.99	682.44	20.95	-1.491	0.000	0.047
145.00	-4.95	-2.18	0.00	-27.26	0.00	27.26	1372.92	340.76	684.93	673.48	21.26	-1.496	0.000	0.044
145.00	-4.95	-2.18	0.00	-27.26	0.00	27.26	931.20	332.53	24157.3	604.09	21.26	-1.496	0.000	0.050
146.00	-4.87	-2.16	0.00	-25.09	0.00	25.09	925.24	329.86	23770.3	594.77	21.57	-1.502	0.000	0.047
148.00	-4.69	-2.14	0.00	-20.76	0.00	20.76	913.32	324.51	23005.8	576.36	22.20	-1.511	0.000	0.041
148.30	-2.61	-1.45	0.00	-18.87	0.00	18.87	911.53	323.71	22892.2	573.63	22.30	-1.513	0.000	0.036
150.00	-2.47	-1.42	0.00	-16.41	0.00	16.41	901.40	319.16	22253.7	558.24	22.84	-1.519	0.000	0.032
150.00	-2.47	-1.42	0.00	-16.41	0.00	16.41	556.65	167.00	10296.1	213.69	22.84	-1.519	0.000	0.081
152.00	-2.35	-1.40	0.00	-13.56	0.00	13.56	556.65	167.00	10296.1	213.69	23.48	-1.526	0.000	0.068
154.00	-2.22	-1.39	0.00	-10.75	0.00	10.75	556.65	167.00	10296.1	213.69	24.12	-1.544	0.000	0.054
156.00	-2.10	-1.37	0.00	-7.98	0.00	7.98	556.65	167.00	10296.1	213.69	24.77	-1.558	0.000	0.041
158.00	-1.97	-1.35	0.00	-5.25	0.00	5.25	556.65	167.00	10296.1	213.69	25.43	-1.568	0.000	0.028
160.00	0.00	-1.29	0.00	-2.55	0.00	2.55	556.65	167.00	10296.1	213.69	26.08	-1.574	0.000	0.012

Final Analysis Summary

Structure:	CT02049-S-SBA	**Code:**	EIA/TIA-222-H	12/23/2020	
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: 90	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.0W 118 mph Wind	34.4	0.00	53.21	0.00	0.00	4053.57
0.9D + 1.0W 118 mph Wind	34.4	0.00	39.90	0.00	0.00	4002.73
1.2D + 1.0Di + 1.0Wi 50 mph Wind	8.2	0.00	74.27	0.00	0.00	998.85
1.2D + 1.0Ev + 1.0Eh	0.5	0.00	55.16	0.00	0.00	77.76
0.9D + 1.0Ev + 1.0Eh	0.5	0.00	41.76	0.00	0.00	76.91
1.0D + 1.0W 60 mph Wind	8.0	0.00	44.35	0.00	0.00	931.22

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.0W 118 mph Wind	-23.55	-25.25	0.00	-1163.4	0.00	-1163.4	2265.81	581.68	1596.65	1519.16	96.00	0.778
0.9D + 1.0W 118 mph Wind	-17.28	-24.80	0.00	-1139.9	0.00	-1139.9	2265.81	581.68	1596.65	1519.16	96.00	0.760
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-38.42	-6.32	0.00	-291.61	0.00	-291.61	2265.81	581.68	1596.65	1519.16	96.00	0.209
1.2D + 1.0Ev + 1.0Eh	-21.72	-0.55	0.00	-14.51	0.00	-14.51	2132.70	527.63	1313.68	1295.79	115.00	0.029
0.9D + 1.0Ev + 1.0Eh	-16.45	-0.54	0.00	-14.30	0.00	-14.30	2132.70	527.63	1313.68	1295.79	115.00	0.026
1.0D + 1.0W 60 mph Wind	-20.93	-5.78	0.00	-266.56	0.00	-266.56	2265.81	581.68	1596.65	1519.16	96.00	0.185

Additional Steel Summary

			Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
Elev From (ft)	Elev To (ft)	Member	VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
0.0	16.3	(3) PLT-C10x30(1.5" Hole)	-262.6	-5.25	37.1	345.2	37.1	10	0	335.0	37.1			347.77	505.1	468.64	0.742
0.0	1.0	(3) SOL-2 1/4" William R71	131.8	1.58	25.3	185.6	25.3	8	0	185.3	25.3	8	0	185.64	459.1	468.91	0.404
1.0	18.8	(2) LNP-LP6X100-BW-20T	191.3	4.59	25.3	218.8	25.3	9	0	233.4	25.3	10	8	242.43	297.8	288.75	0.840
1.0	18.8	(1) LNP-LP6x100-B2-20T	-183.4	-4.40	25.3	211.3	25.3	9	0	192.4	25.3	8	8	232.42	297.8	288.75	0.805
16.3	31.0	(3) PLT-C10x15.3(1.5" Hole)	-262.6	-5.25	37.1	203.3	37.1			138.2	37.1	4	0	227.19	257.8	247.80	0.917
18.0	34.0	(2) LNP-LP6X100-G-20TT	192.8	4.63	22.7	198.9	22.7	9	10	201.2	22.7	9	10	238.84	297.8	288.75	0.827
19.5	35.5	(1) LNP-LP6X100-G-20TT	192.8	4.63	22.7	237.9	22.7	11	10	200.5	22.7	9	10	237.92	297.8	288.75	0.824
30.0	46.0	(3) PLT-6"X1-1/4"(1.25" Hole	296.2	5.33	33.4	221.2	33.4	7	8	219.0	33.4	7	8	315.15	413.6	356.25	0.885
45.2	58.0	(3) PLT-7" x 1.25"(1.25"Hole	-346.1	-4.15	37.1	256.5	33.4	8	13	305.4	37.1			333.34	498.6	431.25	0.773
58.0	78.0	(3) PLT-5.5"x1 1/4"(1.25"hol	-337.2	-6.07	37.1	260.7	37.1			229.8	37.1			260.66	379.1	318.75	0.818
78.0	95.6	(3) PLT-5.5"x1 1/4"(1.25"hol	-389.8	-7.02	37.1	229.8	37.1			217.3	37.1	6	10	249.14	379.1	318.75	0.782

Monopole Mat Foundation Design

				Date
				12/23/2020
	Customer Name:	T-Mobile	**EIA/TIA Standard:**	EIA-222-H
	Site Name:		**Structure Height (Ft.):**	160
	Site Number:	CT02049-S-SBA	**Engineer Name:**	H. You
	Engr. Number:	99852	**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

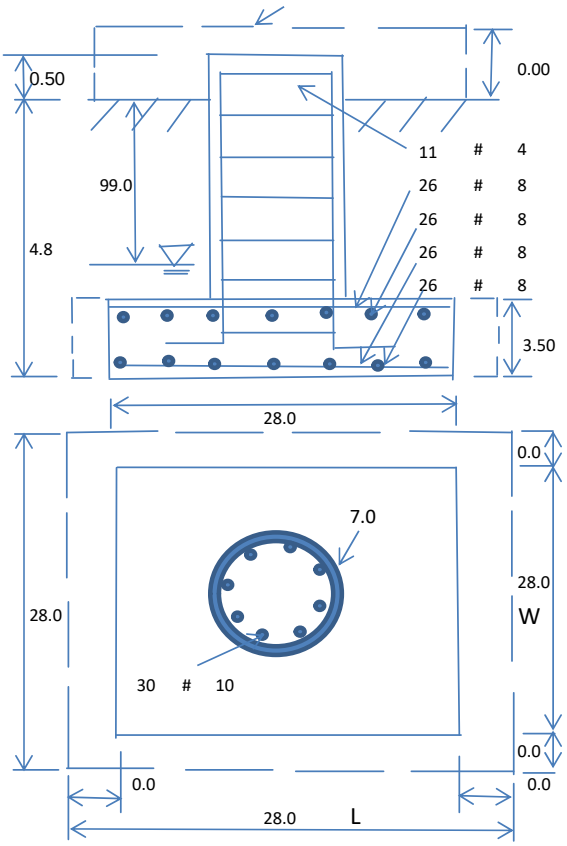
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	53.2	Shear Force (Kips):	34.4
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4053.6
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



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	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	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	6000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:			1.00	

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

Total Dry Soil Volume (cu. Ft.):	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):	586.65

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	2191	<	Allowable Factored Soil Bearing (psf):	4500	0.49	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7466.2	>	Design Factored Momont (kips-ft):	4236	0.57	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.76	OK!				

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75			
Strength reduction factor (Axial compresion):	0.65	Wind Load Factor on Concrete Design:	1.00			
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	1.27		Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	6154.8	>	Design Factored Moment (Mu, Kips-F	4115.5	0.67	OK!
Calculated Shear Capacity (Kips):	724.1	>	Design Factored Shear (Kips):	34.4	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):	53.2	0.01	OK!
Moment & Axial Strength Combination:	0.67	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):	247.4	0.23	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1062.8	>	One-Way Factored Shear (W-D., Kips)	247.4	0.23	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	993.8	>	One-Way Factored Shear (C-C, Kips):	242.8	0.24	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):	1590.6	0.46	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	3492.1	>	Moment at Bottom (W-Dir. K-Ft):	1590.6	0.46	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	4918.4	>	Moment at Bottom (C-C Dir. K-Ft):	2249.5	0.46	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):	708.8	0.20	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3492.1	>	Moment at the top (W-Dir K-Ft):	708.8	0.20	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	4918.4	>	Moment at the top (C-C Dir. K-Ft):	662.8	0.13	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	1621.4	k-ft.	Max. factored shear stress v_{u_CD}:		4.0	Psi
Max. factored shear stress v_{u_AB}:	9.4	Psi	Factored shear Strength ϕv_n:		164.3	Psi
Max. factored shear stress v_u:	9.4	Psi	Check Usage of Punching Shear Capacity:		0.06	OK!

EXHIBIT 8

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

Post-Mod Antenna Mount Analysis Report

Existing 160-Ft Monopole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT02049-S-SBA

Customer Site Name: Beacon Falls

Carrier Name: T-Mobile (App#: 141288, V1)

Carrier Site ID / Name: CT11299D / CTBeacon Falls/Rt8

Site Location: 60 Rice Lane

Beacon Falls, Connecticut

New Haven County

Latitude: 41.455689

Longitude: -73.039866

Analysis Result:

Max Structural Usage: 76.5% [Pass]

Report Prepared By: Mariana Franco

Introduction

The purpose of this report is to summarize the analysis results on the (3) Modified T-Arms w/handrail & kickers at 142.00' elevationincluding the proposed modifications to support the proposed antenna configuration. 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

Mount Drawings	Specs from CENTEK Engineering Project# 18127.22 10/05/18
Antenna Loading	Application #: 141288, v1
Existing Modification	N/A
Proposed Modification	TES Project No. 100487

Analysis Criteria

Wind Speed Used in the Analysis: V_{ULT} = 125.0 mph (3-Sec. Gust) / Equivalent to
V_{ASD} = 97 mph (3-Sec. Gust)
Wind Speed with Ice: 50 mph (3-Sec. Gust) with 0.75" radial ice concurrent
Operational Wind Speed: 60 mph +0" Radial ice
Standard/Codes: ANSI/TIA/EIA 222-G/ 2015 IBC
Exposure Category: C
Structure Class: II
Topographic Category: 1
Crest Height (Ft): 0

The site is a Risk Category II structure per IBC Table 1604.5. This site does not support emergency communication equipment for first responders such as fire departments, police, hospitals, ambulance services or any of the facilities listed for Risk Categories III and IV. The scope of work detailed in this structural analysis does not include items that are a part of emergency service as the 911 or essential facility service of an emergency response system.

Mount Information

(3) Modified T-Arms w/handrail & kickers at 142.00' elevation

Final Antenna Configuration

4 Ericsson AIR6449 B41
4 Ericsson Air 32 KRD901146-1_B66A_B2A
3 RFS APXVAARR24_43-U-NA20
1 RFS APXVAARR18_43-U-NA20
3 Ericsson KRY 112 144/1
4 CommScope SDX1926Q-43
4 Ericsson Radio 4449 B71+B85
1 Ericsson Radio 4415 B66A
4 Ericsson 4415 B25

Analysis Results

Our calculations have determined that under design wind load the existing mounts will be structurally adequate to support the proposed antenna configuration after the proposed modification is successfully completed. The maximum structural usage is 76.5%, which occurs in the bracing horizontal. The proposed equipment must be installed as stipulated in the Final Antenna Configuration section of this report. The analysis results are void if the proposed equipment is not installed in accordance with this report.

Attachments

1. Mount Photos Before Modification
2. Antenna Placement Diagram
3. Analysis Calculations

Standard Conditions

1. The loading configuration as analyzed in this report is as provided from the customer. Any deviation from this design shall be communicated to TES to verify deviation will not adversely impact the analysis.

2. The analysis is based on the presumption that the antenna mount members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.

3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion. The mount analysis is not a condition assessment of the mount.

4. The mount analysis was performed in accordance with the loading provided, and if applicable the modification required to support the additional loading.

5. If the mount is modified, installation must adhere to the configuration communicated in the modification drawings.

6. The modification drawings are not intended to convey means or methods. These are the responsibility of the installing contractor.

7. Rigging plan review is available if the contractor requires for a construction class IV or other if required. Review fee would apply.

8. The mount modification package was created based upon information provided for the mount loading. The underlying tower is assumed to provide support and sufficient rigidity to support the mount loads as a tower analysis was not part of the mount analysis.

9. TES is not responsible for modifications to climbing facilities unless communicated to TES in writing.

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Report Prepared By: Mariana Franco

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Mount Drawings	Specs from CENTEK Engineering Project# 18127.22 10/05/18
Antenna Loading	Application #: 141288, v1
Existing Modification	N/A
Proposed Modification	TES Project No. 100487

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Wind Speed Used in the Analysis: V_{ULT} = 125.0 mph (3-Sec. Gust) / Equivalent to
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2. Antenna Placement Diagram
3. Analysis Calculations

Structure: CT02049-S-SBA - Beacon Falls

Sector: A

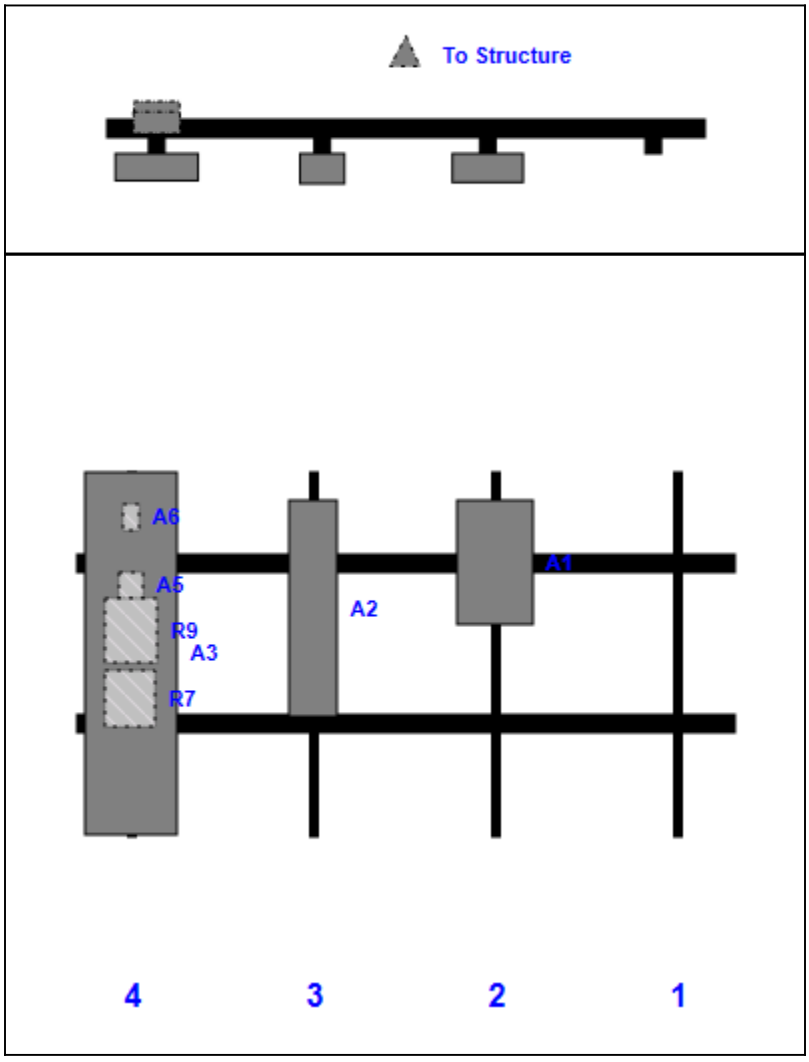
Structure Type: Monopole

Mount Elev: 142.00

12/23/2020

Tower Engineering Solutions

Plan View

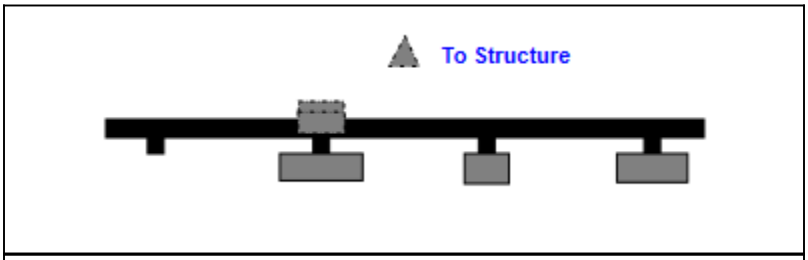


Front View

Looking Toward Structure

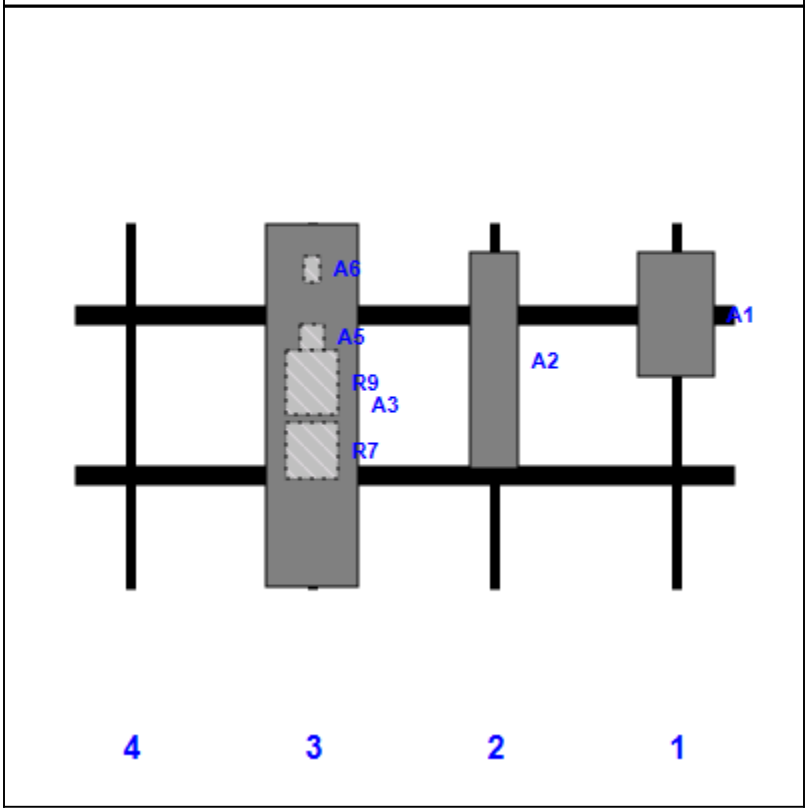
Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	AIR6449 B41	33.10	20.50	111.00	2	a	Front	24.00			
A2	Air 32 KRD901146-1_B66A_B2A	57.00	12.90	63.00	3	a	Front	36.00			
A3	APXVAARR24_43-U-NA20	95.90	24.00	15.00	4	a	Front	48.00			
A5	KRY 112 144/1	6.90	6.10	15.00	4	a	Behind	30.00			
A6	SDX1926Q-43	6.90	4.10	15.00	4	a	Behind	12.00			
R7	Radio 4449 B71+B85	15.00	13.20	15.00	4	a	Behind	60.00			
R9	4415 B25	16.50	13.50	15.00	4	a	Behind	42.00			
M71	APXVAARR18_43-U-NA20	72.00	24.00		Member						
M71	Radio 4415 B66A	16.50	13.50		Member						
M70	AIR6449 B41	33.10	20.50		Member						
M72	Air 32 KRD901146-1_B66A_B2A	57.00	12.90		Member						
M71	SDX1926Q-43	6.90	4.10		Member						
M71	Radio 4449 B71+B85	15.00	13.20		Member						
M71	4415 B25	16.50	13.50		Member						

Plan View



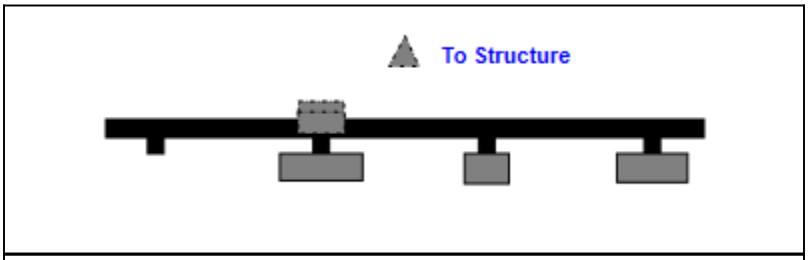
Front View

Looking Toward Structure



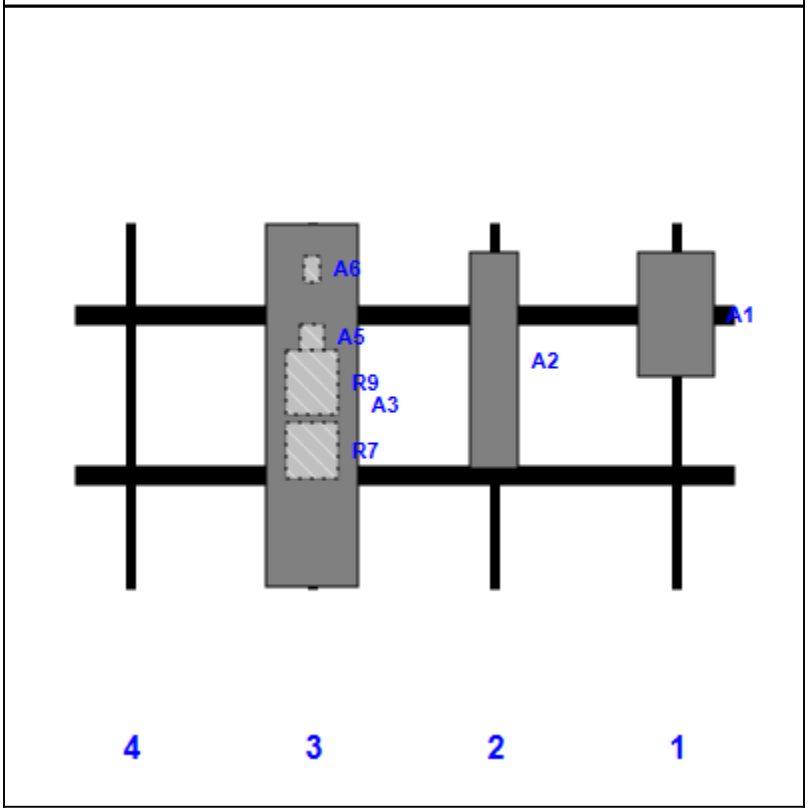
Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	AIR6449 B41	33.10	20.50	159.00	1	a	Front	24.00			
A2	Air 32 KRD901146-1_B66A_B2A	57.00	12.90	111.00	2	a	Front	36.00			
A3	APXVAARR24_43-U-NA20	95.90	24.00	63.00	3	a	Front	48.00			
A5	KRY 112 144/1	6.90	6.10	63.00	3	a	Behind	30.00			
A6	SDX1926Q-43	6.90	4.10	63.00	3	a	Behind	12.00			
R7	Radio 4449 B71+B85	15.00	13.20	63.00	3	a	Behind	60.00			
R9	4415 B25	16.50	13.50	63.00	3	a	Behind	42.00			

Plan View

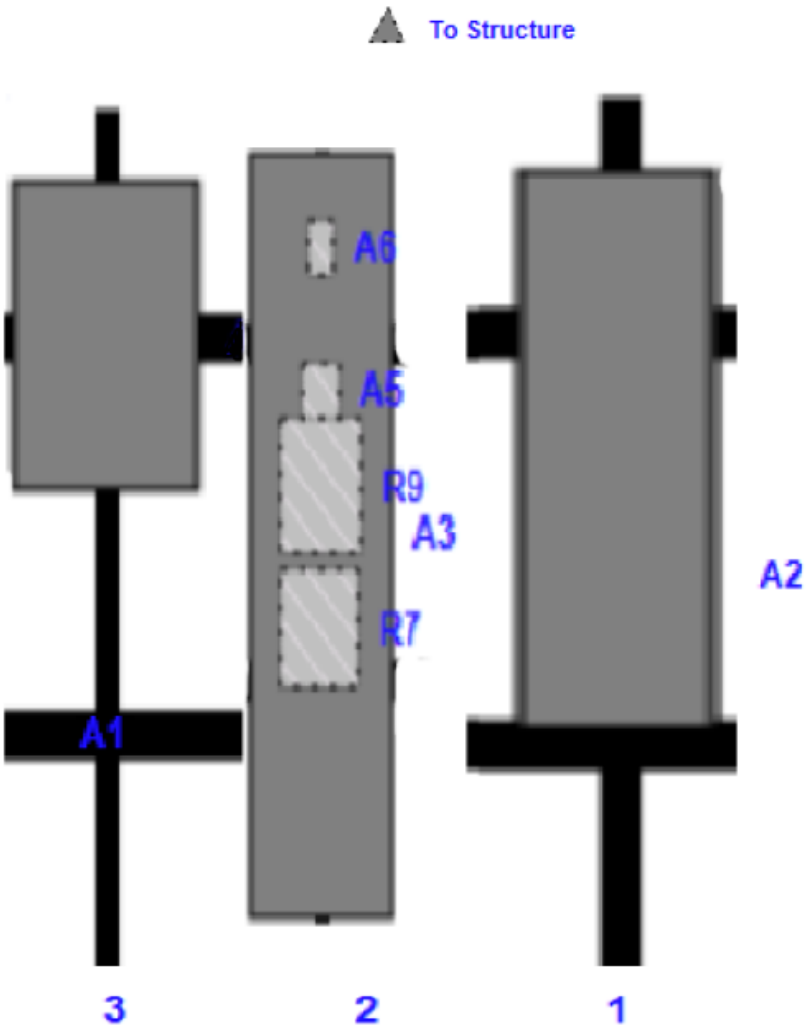


Front View

Looking Toward Structure



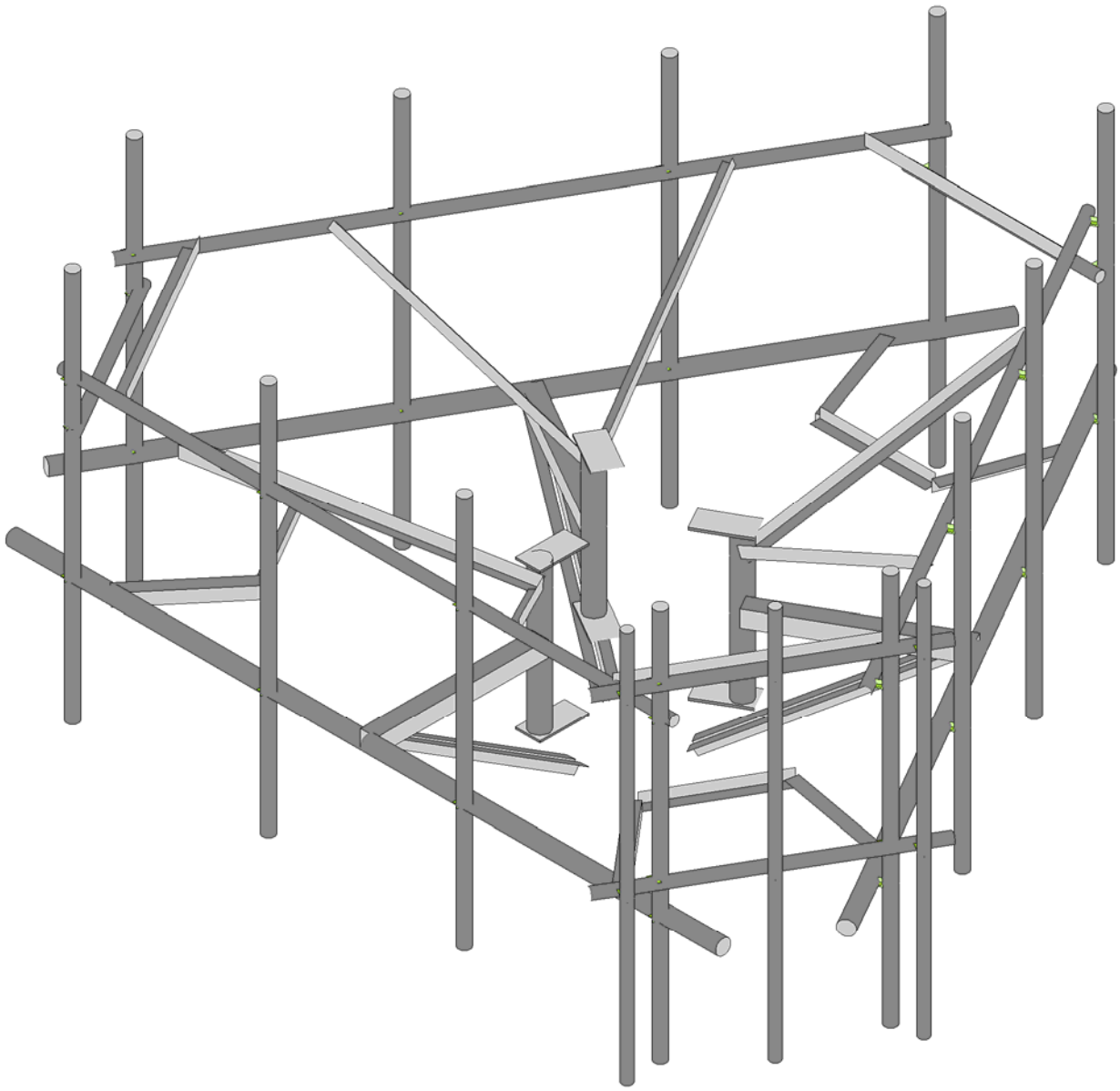
Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	AIR6449 B41	33.10	20.50	159.00	1	a	Front	24.00			
A2	Air 32 KRD901146-1_B66A_B2A	57.00	12.90	111.00	2	a	Front	36.00			
A3	APXVAARR24_43-U-NA20	95.90	24.00	63.00	3	a	Front	48.00			
A5	KRY 112 144/1	6.90	6.10	63.00	3	a	Behind	30.00			
A6	SDX1926Q-43	6.90	4.10	63.00	3	a	Behind	12.00			
R7	Radio 4449 B71+B85	15.00	13.20	63.00	3	a	Behind	60.00			
R9	4415 B25	16.50	13.50	63.00	3	a	Behind	42.00			



Front View

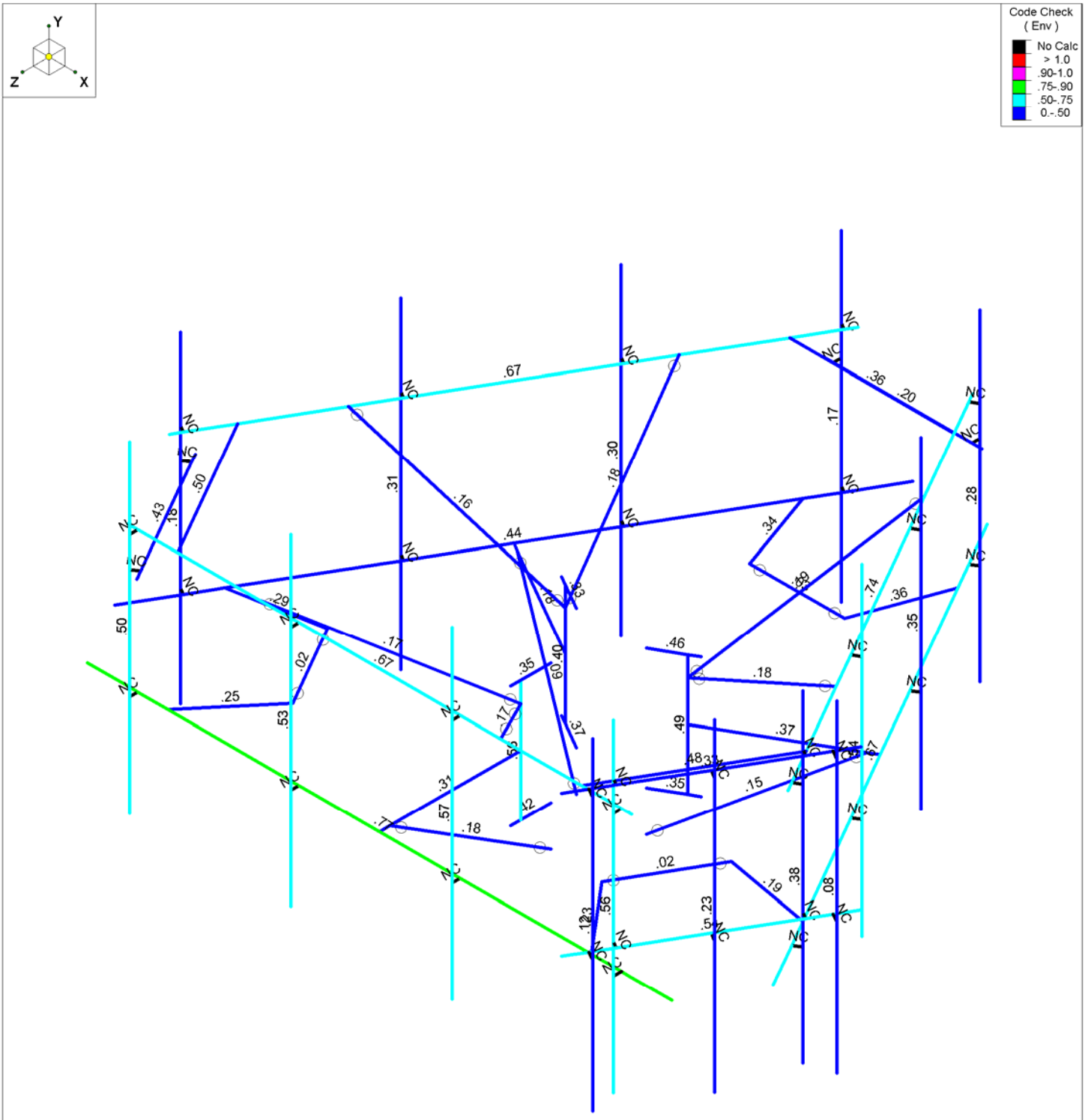
Looking Toward Structure

Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	AIR6449 B41	33.10	20.50	159.00	3	a	Front	24.00			
A2	Air 32 KRD901146-1_B66A_B2A	57.00	12.90	111.00	1	a	Front	36.00			
A3	APXVAARR18_43-U-NA20	95.90	24.00	63.00	2	a	Front	48.00			
A5	Radio 4415 B66A	16.5	13.5	63.00	2	a	Behind	30.00			
A6	SDX1926Q-43	6.90	4.10	63.00	2	a	Behind	12.00			
R7	Radio 4449 B71+B85	15.00	13.20	63.00	2	a	Behind	60.00			
R9	4415 B25	16.50	13.50	63.00	2	a	Behind	42.00			



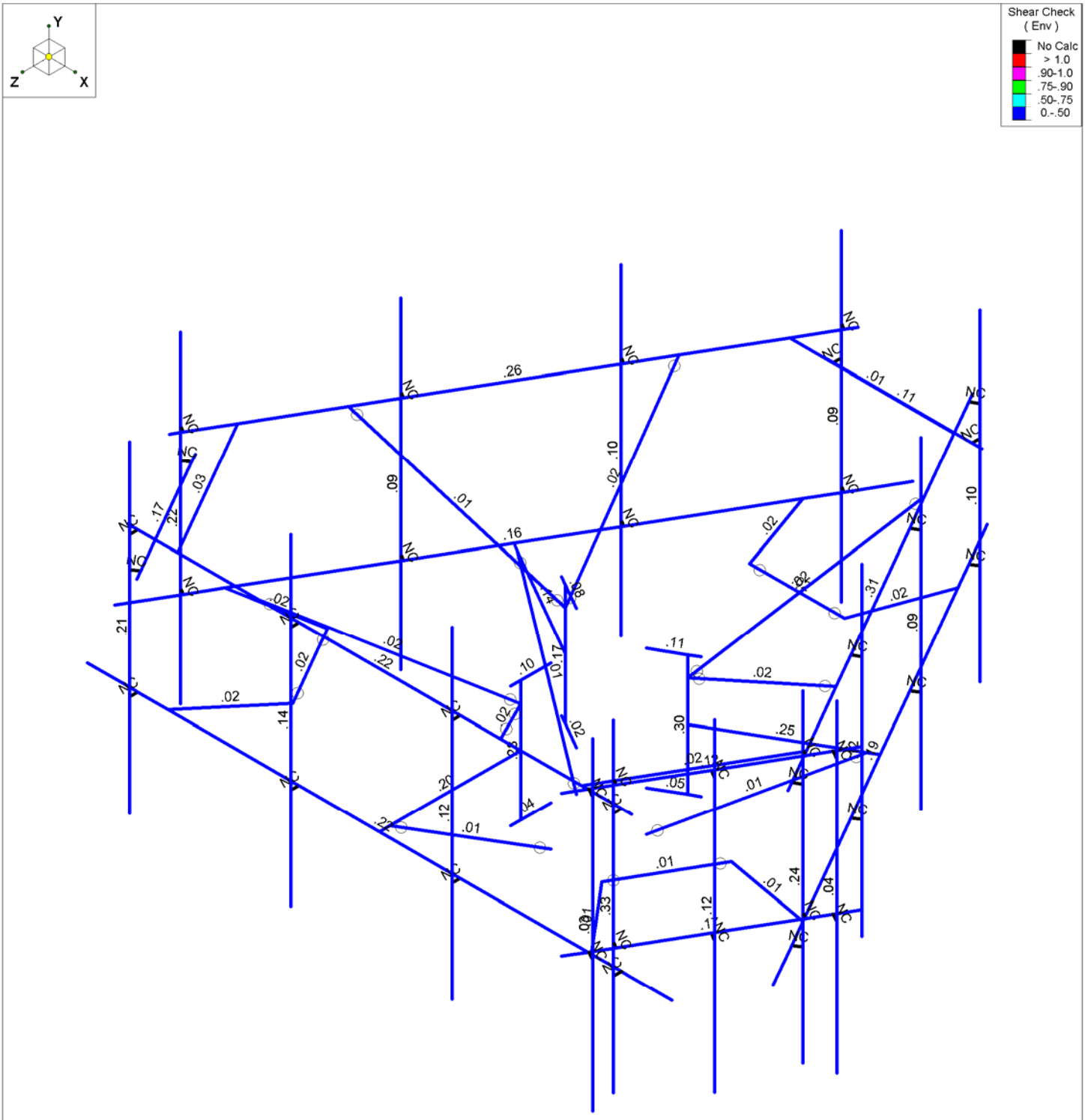
Loads: BLC 18,

Tower Engineering Solutio...	CT02049-S-SBA_MT_LO_Loads Only_G	SK - 1
		Dec 30, 2020 at 9:25 AM
TES Project No. 100487		CT02049-S-SBA_100487_G_RISA_...



Member Code Checks Displayed (Enveloped)
Loads: BLC 18,
Results for LC 1, 1.2D+1.6W (Front)

Tower Engineering Solutio...	CT02049-S-SBA_MT_LO_Loads Only_G	SK - 2
		Dec 30, 2020 at 9:25 AM
TES Project No. 100487		CT02049-S-SBA_100487_G_RISA_...



Member Shear Checks Displayed (Enveloped)
Loads: BLC 18,
Results for LC 1, 1.2D+1.6W (Front)

Tower Engineering Solutio...	CT02049-S-SBA_MT_LO_Loads Only_G	SK - 3
		Dec 30, 2020 at 9:26 AM
TES Project No. 100487		CT02049-S-SBA_100487_G_RISA_...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Member)	Surface(...
1	Antenna D	None					40			
2	Antenna Di	None					40			
3	Antenna W Front	None					40			
4	Antenna Wi Front	None					40			
5	Antenna W Side	None					40			
6	Antenna Wi Side	None					40			
7	Service Lm1	None					1			
8	Service Lm2	None					1			
9	Structure D	None		-1						
10	Structure Di	None						58		
11	Structure W Front	None						58		
12	Structure Wi Front	None						58		
13	Structure W Side	None						58		
14	Structure Wi Side	None						58		

Load Combinations

	Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.6W (Front)	Yes	Y		1	1.2	9	1.2	3	1.6	11	1.6												
2	1.2D+1.6W (Back)	Yes	Y		1	1.2	9	1.2	3	-1.6	11	-1.6												
3	1.2D+1.6W (Left)	Yes	Y		1	1.2	9	1.2	5	1.6	13	1.6												
4	1.2D+1.6W (Right)	Yes	Y		1	1.2	9	1.2	5	-1.6	13	-1.6												
5	1.2D+1.0Di+1.0Wi (Fro...	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	1	12	1								
6	1.2D+1.0Di+1.0Wi (Ba...	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	-1	12	-1								
7	1.2D+1.0Di+1.0Wi (Left)	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	1	14	1								
8	1.2D+1.0Di+1.0Wi (Rig...	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	-1	14	-1								
9	1.2D+1.5L1+.16W (Mai...	Yes	Y		1	1.2	9	1.2	7	1.5	3	.16	11	.16										
10	1.2D+1.5L2+.16W (Mai...	Yes	Y		1	1.2	9	1.2	8	1.5	3	.16	11	.16										
11	1.4D	Yes	Y		1	1.4	9	1.4																

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
1	N1	0	0	1.75	0	
2	N2	-7.25	0	5.25	0	
3	N3	7.25	0	5.25	0	
4	N4	0	0	5.25	0	
5	N5	-6	5.5	5.45	0	
6	N6	-6	-2.5	5.45	0	
7	N7	-6	0	5.25	0	
8	N8	-6	3.5	5.25	0	
9	N9	-6	0	5.45	0	
10	N10	-6	3.5	5.45	0	
11	N11	6	5.5	5.45	0	
12	N12	6	-2.5	5.45	0	
13	N13	6	0	5.25	0	
14	N14	6	3.5	5.25	0	
15	N15	6	0	5.45	0	
16	N16	6	3.5	5.45	0	
17	N17	-2	5.5	5.45	0	
18	N18	-2	-2.5	5.45	0	
19	N19	-2	0	5.25	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
20	N20	-2	3.5	5.25	0	
21	N21	-2	0	5.45	0	
22	N22	-2	3.5	5.45	0	
23	N23	2	5.5	5.45	0	
24	N24	2	-2.5	5.45	0	
25	N25	2	0	5.25	0	
26	N26	2	3.5	5.25	0	
27	N27	2	0	5.45	0	
28	N28	2	3.5	5.45	0	
29	N29	-5.25	0	5.25	0	
30	N30	5.25	0	5.25	0	
31	N31	0	0	5.	0	
32	N32	0	1.5	1.75	0	
33	N33	0	-1.5	1.75	0	
34	N34	0	1.5	2.	0	
35	N35	0	-1.5	2.	0	
36	N36	0	1.5	1.	0	
37	N37	0	-1.5	1	0	
38	N38	0	-2.5	1	0	
39	N39	-3.833333	0	3.573278	0	
40	N40	3.833333	0	3.573278	0	
41	N41	1.515544	0	-.875	0	
42	N42	8.171633	0	3.653684	0	
43	N43	0.921633	0	-8.903684	0	
44	N44	4.546633	0	-2.625	0	
45	N45	7.719838	5.5	2.471152	0	
46	N46	7.719838	-2.5	2.471152	0	
47	N47	7.546633	0	2.571152	0	
48	N48	7.546633	3.5	2.571152	0	
49	N49	7.719838	0	2.471152	0	
50	N50	7.719838	3.5	2.471152	0	
51	N51	1.719838	5.5	-7.921152	0	
52	N52	1.719838	-2.5	-7.921152	0	
53	N53	1.546633	0	-7.821152	0	
54	N54	1.546633	3.5	-7.821152	0	
55	N55	1.719838	0	-7.921152	0	
56	N56	1.719838	3.5	-7.921152	0	
57	N57	5.719838	5.5	-0.992949	0	
58	N58	5.719838	-2.5	-0.992949	0	
59	N59	5.546633	0	-0.892949	0	
60	N60	5.546633	3.5	-0.892949	0	
61	N61	5.719838	0	-0.992949	0	
62	N62	5.719838	3.5	-0.992949	0	
63	N63	3.719838	5.5	-4.457051	0	
64	N64	3.719838	-2.5	-4.457051	0	
65	N65	3.546633	0	-4.357051	0	
66	N66	3.546633	3.5	-4.357051	0	
67	N67	3.719838	0	-4.457051	0	
68	N68	3.719838	3.5	-4.457051	0	
69	N69	7.171633	0	1.921633	0	
70	N70	1.921633	0	-7.171633	0	
71	N71	4.330127	0	-2.5	0	
72	N72	1.515544	1.5	-.875	0	
73	N73	1.515544	-1.5	-.875	0	
74	N74	1.732051	1.5	-1.	0	
75	N75	1.732051	-1.5	-1.	0	
76	N76	0.866025	1.5	-0.5	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
77	N77	0.866025	-1.5	-.5	0	
78	N78	0.866025	-2.5	-.5	0	
79	N79	5.011217	0	1.533125	0	
80	N80	1.177883	0	-5.106403	0	
81	N81	-1.515544	0	-.875	0	
82	N82	-0.921633	0	-8.903684	0	
83	N83	-8.171633	0	3.653684	0	
84	N84	-4.546633	0	-2.625	0	
85	N85	-1.719838	5.5	-7.921152	0	
86	N86	-1.719838	-2.5	-7.921152	0	
87	N87	-1.546633	0	-7.821152	0	
88	N88	-1.546633	3.5	-7.821152	0	
89	N89	-1.719838	0	-7.921152	0	
90	N90	-1.719838	3.5	-7.921152	0	
91	N91	-7.719838	5.5	2.471152	0	
92	N92	-7.719838	-2.5	2.471152	0	
93	N93	-7.546633	0	2.571152	0	
94	N94	-7.546633	3.5	2.571152	0	
95	N95	-7.719838	0	2.471152	0	
96	N96	-7.719838	3.5	2.471152	0	
97	N97	-3.719838	5.5	-4.457051	0	
98	N98	-3.719838	-2.5	-4.457051	0	
99	N99	-3.546633	0	-4.357051	0	
100	N100	-3.546633	3.5	-4.357051	0	
101	N101	-3.719838	0	-4.457051	0	
102	N102	-3.719838	3.5	-4.457051	0	
103	N103	-5.719838	5.5	-0.992949	0	
104	N104	-5.719838	-2.5	-0.992949	0	
105	N105	-5.546633	0	-0.892949	0	
106	N106	-5.546633	3.5	-0.892949	0	
107	N107	-5.719838	0	-0.992949	0	
108	N108	-5.719838	3.5	-0.992949	0	
109	N109	-1.921633	0	-7.171633	0	
110	N110	-7.171633	0	1.921633	0	
111	N111	-4.330127	0	-2.5	0	
112	N112	-1.515544	1.5	-.875	0	
113	N113	-1.515544	-1.5	-.875	0	
114	N114	-1.732051	1.5	-1.	0	
115	N115	-1.732051	-1.5	-1.	0	
116	N116	-0.866025	1.5	-0.5	0	
117	N117	-0.866025	-1.5	-.5	0	
118	N118	-0.866025	-2.5	-.5	0	
119	N119	-1.177883	0	-5.106403	0	
120	N120	-5.011217	0	1.533125	0	
121	N121	-6.25	3.5	5.25	0	
122	N122	6.25	3.5	5.25	0	
123	N123	0	-1.5	0	0	
124	N124	7.671633	3.5	2.787659	0	
125	N125	1.421633	3.5	-8.037659	0	
126	N126	2.040634	3.5	-6.965519	0	
127	N127	-1.421633	3.5	-8.037659	0	
128	N128	-7.671633	3.5	2.787659	0	
129	N129	-2.040634	3.5	-6.965519	0	
130	N130	-6.1667	0	5.25	0	
131	N131	6.1667	0	5.25	0	
132	N132	7.629983	0	2.715519	0	
133	N133	1.463283	0	-7.965519	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
134	N134	-1.463283	0	-7.965519	0	
135	N135	-7.629983	0	2.715519	0	
136	N136	-3.	3.5	5.25	0	
137	N137	3.	3.5	5.25	0	
138	N138	6.046633	3.5	-0.026924	0	
139	N139	3.046633	3.5	-5.223076	0	
140	N140	-3.046633	3.5	-5.223076	0	
141	N141	-6.046633	3.5	-0.026924	0	
142	N142	6	.75	5.45	0	
143	N143	6	4.25	5.45	0	
144	N144	7.719838	.75	2.471152	0	
145	N145	7.719838	4.25	2.471152	0	
146	N146	6.173205	.75	5.55	0	
147	N147	6.173205	4.25	5.55	0	
148	N148	7.893044	.75	2.571152	0	
149	N149	7.893044	4.25	2.571152	0	
150	N150	5.673205	.75	6.416025	0	
151	N151	5.673205	4.25	6.416025	0	
152	N152	8.393044	.75	1.705127	0	
153	N153	8.393044	4.25	1.705127	0	
154	N154	5.923205	.75	5.983013	0	
155	N155	5.923205	4.25	5.983013	0	
156	N156	8.143044	.75	2.13814	0	
157	N157	8.143044	4.25	2.13814	0	
158	N158	7.033124	4.25	4.060576	0	
159	N159	7.033124	.75	4.060576	0	
160	N160	6.139711	.75	6.108013	0	
161	N161	6.139711	4.25	6.108013	0	
162	N162	8.35955	.75	2.26314	0	
163	N163	8.35955	4.25	2.26314	0	
164	N164	7.249631	4.25	4.185576	0	
165	N165	7.249631	.75	4.185576	0	
166	N166	6.139711	5.5	6.108013	0	
167	N167	8.35955	5.5	2.26314	0	
168	N168	7.249631	5.5	4.185576	0	
169	N169	6.139711	-2.5	6.108013	0	
170	N170	8.35955	-2.5	2.26314	0	
171	N171	7.249631	-2.5	4.185576	0	
172	N172	-7.052633	3.5	1.715519	0	
173	N173	-5.011999	3.5	5.25	0	
174	N174	5.011999	3.5	5.25	0	
175	N175	7.052633	3.5	1.715519	0	
176	N176	1.719838	2.75	-7.921152	0	
177	N177	-1.719838	2.75	-7.921152	0	
178	N178	1.719838	2.75	-7.721152	0	
179	N179	-1.719838	2.75	-7.721152	0	
180	N180	-1.969838	2.75	-7.721152	0	
181	N181	1.969838	2.75	-7.721152	0	
182	N182	-7.719838	2.75	2.471152	0	
183	N183	-6	2.75	5.45	0	
184	N184	-7.546633	2.75	2.371152	0	
185	N185	-5.826795	2.75	5.35	0	
186	N186	-5.701795	2.75	5.566506	0	
187	N187	-7.671633	2.75	2.154646	0	
188	N188	0	1	1.75	0	
189	N189	1.515544	1	-.875	0	
190	N190	-1.515544	1	-.875	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	xxxxx	HSS16x0.438	Beam	None	A572 Gr.50	Typical	19.9	606	606	1210

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF	4CU5.25X0375	Beam	CU	A570 Gr.33	Typical	4.854	13.238	12.817	.228

Aluminum Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	AL1A	AACS14...	Beam	AA Channel	3003-H14	Typical	11.8	44.7	401	1.19

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
8	COLD	29500	11346	.3	.65	.49	33	52	58	1.2

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft^...	Yield[ksi]	Fu[ksi]
1	A570 Gr.33	29500	11346	.3	.65	.49	33	52
2	A607 C1 Gr.55	29500	11346	.3	.65	.49	55	70

Aluminum Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (...	Density[...	Table B.4	kt	Ftu[ksi]	Fty[ksi]	Fcy[ksi]	Fsu[ksi]	Ct
1	3003-H14	10100	3787.5	.33	1.3	.173	Table B....	1	19	16	13	12	141
2	6061-T6	10100	3787.5	.33	1.3	.173	Table B....	1	38	35	35	24	141
3	6063-T5	10100	3787.5	.33	1.3	.173	Table B....	1	22	16	16	13	141
4	6063-T6	10100	3787.5	.33	1.3	.173	Table B....	1	30	25	25	19	141
5	5052-H34	10200	3787.5	.33	1.3	.173	Table B....	1	34	26	24	20	141
6	6061-T6 W	10100	3787.5	.33	1.3	.173	Table B....	1	24	15	15	15	141

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design List	Material	Design ...
1	M4	N1	N4			HSS4X4X3	Beam	None	A500 Gr.B Rect	DR1
2	M7	N29	N39		180	L3X3X4	Beam	Single Angle	A36 Gr.36	DR1
3	M8	N30	N40		180	L3X3X4	Beam	Single Angle	A36 Gr.36	DR1
4	MP4A	N5	N6			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
5	M26A	N8	N10			RIGID	Beam	None	RIGID	DR1
6	M27A	N7	N9			RIGID	Beam	None	RIGID	DR1
7	MP1A	N11	N12			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
8	M29A	N14	N16			RIGID	Beam	None	RIGID	DR1
9	M30A	N13	N15			RIGID	Beam	None	RIGID	DR1
10	MP3A	N17	N18			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design List	Material	Design ...
11	M32A	N20	N22			RIGID	Beam	None	RIGID	DR1
12	M33A	N19	N21			RIGID	Beam	None	RIGID	DR1
13	MP2A	N23	N24			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
14	M35	N26	N28			RIGID	Beam	None	RIGID	DR1
15	M36	N25	N27			RIGID	Beam	None	RIGID	DR1
16	M21	N2	N3			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
17	M20	N34	N36		90	PL1/2x6	Beam	RECT	A36 Gr.36	Typical
18	M21A	N35	N37		90	PL1/2x6	Beam	RECT	A36 Gr.36	Typical
19	M22	N32	N33			PIPE_4.0	Beam	Pipe	A53 Gr.B	Typical
20	M21B	N31	N38			LL2.5x2.5x3x3	Beam	Double Angle (3/8 Gap)	A36 Gr.36	Typical
21	M22A	N41	N44			HSS4X4X3	Beam	None	A500 Gr.B Rect	DR1
22	M23	N69	N79		180	L3X3X4	Beam	Single Angle	A36 Gr.36	DR1
23	M24	N70	N80		180	L3X3X4	Beam	Single Angle	A36 Gr.36	DR1
24	MP4C	N45	N46			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
25	M26	N48	N50			RIGID	Beam	None	RIGID	DR1
26	M27	N47	N49			RIGID	Beam	None	RIGID	DR1
27	MP1C	N51	N52			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
28	M29	N54	N56			RIGID	Beam	None	RIGID	DR1
29	M30	N53	N55			RIGID	Beam	None	RIGID	DR1
30	MP3C	N57	N58			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
31	M32	N60	N62			RIGID	Beam	None	RIGID	DR1
32	M33	N59	N61			RIGID	Beam	None	RIGID	DR1
33	MP2C	N63	N64			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
34	M35A	N66	N68			RIGID	Beam	None	RIGID	DR1
35	M36A	N65	N67			RIGID	Beam	None	RIGID	DR1
36	M37	N42	N43			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
37	M39	N74	N76		90	PL1/2x6	Beam	RECT	A36 Gr.36	Typical
38	M40	N75	N77		90	PL1/2x6	Beam	RECT	A36 Gr.36	Typical
39	M41	N72	N73			PIPE_4.0	Beam	Pipe	A53 Gr.B	Typical
40	M42	N71	N78			LL2.5x2.5x3x3	Beam	Double Angle (3/8 Gap)	A36 Gr.36	Typical
41	M43	N81	N84			HSS4X4X3	Beam	None	A500 Gr.B Rect	DR1
42	M44	N109	N119		180	L3X3X4	Beam	Single Angle	A36 Gr.36	DR1
43	M45	N110	N120		180	L3X3X4	Beam	Single Angle	A36 Gr.36	DR1
44	MP4B	N85	N86			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
45	M47	N88	N90			RIGID	Beam	None	RIGID	DR1
46	M48	N87	N89			RIGID	Beam	None	RIGID	DR1
47	MP1B	N91	N92			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
48	M50	N94	N96			RIGID	Beam	None	RIGID	DR1
49	M51	N93	N95			RIGID	Beam	None	RIGID	DR1
50	MP3B	N97	N98			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
51	M53	N100	N102			RIGID	Beam	None	RIGID	DR1
52	M54	N99	N101			RIGID	Beam	None	RIGID	DR1
53	MP2B	N103	N104			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1
54	M56	N106	N108			RIGID	Beam	None	RIGID	DR1
55	M57	N105	N107			RIGID	Beam	None	RIGID	DR1
56	M58	N82	N83			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
57	M60	N114	N116		90	PL1/2x6	Beam	RECT	A36 Gr.36	Typical
58	M61	N115	N117		90	PL1/2x6	Beam	RECT	A36 Gr.36	Typical
59	M62	N112	N113			PIPE_4.0	Beam	Pipe	A53 Gr.B	Typical
60	M63	N111	N118			LL2.5x2.5x3x3	Beam	Double Angle (3/8 Gap)	A36 Gr.36	Typical
61	M64	N120	N39			L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
62	M65	N40	N79			L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
63	M66	N119	N80			L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
64	M64A	N121	N122			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
65	M65A	N124	N125			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
66	M66A	N127	N128			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
67	M69	N126	N129			L3X3X4	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design List	Material	Design ...
68	M70	N166	N169			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
69	M71	N168	N171			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
70	M72	N167	N170			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
71	M76	N136	N188			L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
72	M77	N188	N137			L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
73	M78	N138	N189			L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
74	M79	N189	N139			L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
75	M80	N140	N190			L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
76	M81	N190	N141			L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
77	M97	N142	N146			RIGID	Beam	None	RIGID	DR1
78	M98	N144	N148			RIGID	Beam	None	RIGID	DR1
79	M99	N145	N149			RIGID	Beam	None	RIGID	DR1
80	M100	N143	N147			RIGID	Beam	None	RIGID	DR1
81	M101	N151	N153			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
82	M102	N150	N152			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
83	M103	N154	N160			RIGID	Beam	None	RIGID	DR1
84	M104	N159	N165			RIGID	Beam	None	RIGID	DR1
85	M105	N156	N162			RIGID	Beam	None	RIGID	DR1
86	M106	N157	N163			RIGID	Beam	None	RIGID	DR1
87	M107	N158	N164			RIGID	Beam	None	RIGID	DR1
88	M108	N155	N161			RIGID	Beam	None	RIGID	DR1
89	M92	N172	N173			L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
90	M93	N174	N175			L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
91	M91	N176	N178			RIGID	Beam	None	RIGID	DR1
92	M92A	N177	N179			RIGID	Beam	None	RIGID	DR1
93	M93A	N181	N180			PIPE_2.0	Beam	Wide Flange	A53 Gr.B	Typical
94	M94	N182	N184			RIGID	Beam	None	RIGID	DR1
95	M95	N183	N185			RIGID	Beam	None	RIGID	DR1
96	M96	N187	N186			PIPE_2.0	Beam	Wide Flange	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M4						Yes				None
2	M7						Yes				None
3	M8						Yes				None
4	MP4A						Yes		-z		None
5	M26A						Yes				None
6	M27A						Yes				None
7	MP1A						Yes		-z		None
8	M29A						Yes				None
9	M30A						Yes				None
10	MP3A						Yes		-z		None
11	M32A						Yes				None
12	M33A						Yes				None
13	MP2A						Yes		-z		None
14	M35						Yes				None
15	M36						Yes				None
16	M21						Yes				None
17	M20						Yes				None
18	M21A						Yes				None
19	M22						Yes				None
20	M21B	BenPIN	BenPIN				Yes				None
21	M22A						Yes				None
22	M23						Yes				None
23	M24						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
24	MP4C						Yes		-z		None
25	M26						Yes				None
26	M27						Yes				None
27	MP1C						Yes		-z		None
28	M29						Yes				None
29	M30						Yes				None
30	MP3C						Yes		-z		None
31	M32						Yes				None
32	M33						Yes				None
33	MP2C						Yes		-z		None
34	M35A						Yes				None
35	M36A						Yes				None
36	M37						Yes				None
37	M39						Yes				None
38	M40						Yes				None
39	M41						Yes				None
40	M42	BenPIN	BenPIN				Yes				None
41	M43						Yes				None
42	M44						Yes				None
43	M45						Yes				None
44	MP4B						Yes		-z		None
45	M47						Yes				None
46	M48						Yes				None
47	MP1B						Yes		-z		None
48	M50						Yes				None
49	M51						Yes				None
50	MP3B						Yes		-z		None
51	M53						Yes				None
52	M54						Yes				None
53	MP2B						Yes		-z		None
54	M56						Yes				None
55	M57						Yes				None
56	M58						Yes				None
57	M60						Yes				None
58	M61						Yes				None
59	M62						Yes				None
60	M63	BenPIN	BenPIN				Yes				None
61	M64	BenPIN	BenPIN				Yes				None
62	M65	BenPIN	BenPIN				Yes				None
63	M66	BenPIN	BenPIN				Yes				None
64	M64A						Yes				None
65	M65A						Yes				None
66	M66A						Yes				None
67	M69						Yes				None
68	M70						Yes				None
69	M71						Yes				None
70	M72						Yes				None
71	M76	BenPIN	BenPIN				Yes				None
72	M77	BenPIN	BenPIN				Yes				None
73	M78	BenPIN	BenPIN				Yes				None
74	M79	BenPIN	BenPIN				Yes				None
75	M80	BenPIN	BenPIN				Yes				None
76	M81	BenPIN	BenPIN				Yes				None
77	M97						Yes				None
78	M98						Yes				None
79	M99						Yes				None
80	M100						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
81	M101						Yes				None
82	M102						Yes				None
83	M103						Yes				None
84	M104						Yes				None
85	M105						Yes				None
86	M106						Yes				None
87	M107						Yes				None
88	M108						Yes				None
89	M92						Yes				None
90	M93						Yes				None
91	M91						Yes				None
92	M92A						Yes				None
93	M93A						Yes				None
94	M94						Yes				None
95	M95						Yes				None
96	M96						Yes				None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[...	Lcomp bot[...	L-torqu...	Kyy	Kzz	Cb	Functi...
1	M4	HSS4X4X3	3.5			Lbyy						Lateral
2	M7	L3X3X4	2.195			Lbyy						Lateral
3	M8	L3X3X4	2.195			Lbyy						Lateral
4	MP4A	PIPE_2.5	8			Lbyy						Lateral
5	MP1A	PIPE_2.5	8			Lbyy						Lateral
6	MP3A	PIPE_2.5	8			Lbyy						Lateral
7	MP2A	PIPE_2.5	8			Lbyy						Lateral
8	M21	PIPE_3.0	14.5			Lbyy						Lateral
9	M20	PL1/2x6	1			Lbyy						Lateral
10	M21A	PL1/2x6	1			Lbyy						Lateral
11	M22	PIPE_4.0	3			Lbyy						Lateral
12	M21B	LL2.5x2.5x3x3	4.717			Lbyy						Lateral
13	M22A	HSS4X4X3	3.5			Lbyy						Lateral
14	M23	L3X3X4	2.195			Lbyy						Lateral
15	M24	L3X3X4	2.195			Lbyy						Lateral
16	MP4C	PIPE_2.5	8			Lbyy						Lateral
17	MP1C	PIPE_2.5	8			Lbyy						Lateral
18	MP3C	PIPE_2.5	8			Lbyy						Lateral
19	MP2C	PIPE_2.5	8			Lbyy						Lateral
20	M37	PIPE_3.0	14.5			Lbyy						Lateral
21	M39	PL1/2x6	1			Lbyy						Lateral
22	M40	PL1/2x6	1			Lbyy						Lateral
23	M41	PIPE_4.0	3			Lbyy						Lateral
24	M42	LL2.5x2.5x3x3	4.717			Lbyy						Lateral
25	M43	HSS4X4X3	3.5			Lbyy						Lateral
26	M44	L3X3X4	2.195			Lbyy						Lateral
27	M45	L3X3X4	2.195			Lbyy						Lateral
28	MP4B	PIPE_2.5	8			Lbyy						Lateral
29	MP1B	PIPE_2.5	8			Lbyy						Lateral
30	MP3B	PIPE_2.5	8			Lbyy						Lateral
31	MP2B	PIPE_2.5	8			Lbyy						Lateral
32	M58	PIPE_3.0	14.5			Lbyy						Lateral
33	M60	PL1/2x6	1			Lbyy						Lateral
34	M61	PL1/2x6	1			Lbyy						Lateral
35	M62	PIPE_4.0	3			Lbyy						Lateral
36	M63	LL2.5x2.5x3x3	4.717			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[..	Lcomp bot[..	L-torqu...	Kyy	Kzz	Cb	Functi...
37	M64	L2.5x2.5x3	2.356			Lbyy						Lateral
38	M65	L2.5x2.5x3	2.356			Lbyy						Lateral
39	M66	L2.5x2.5x3	2.356			Lbyy						Lateral
40	M64A	PIPE_2.0	12.5			Lbyy						Lateral
41	M65A	PIPE_2.0	12.5			Lbyy						Lateral
42	M66A	PIPE_2.0	12.5			Lbyy						Lateral
43	M69	L3X3X4	4.081			Lbyy						Lateral
44	M70	PIPE_2.0	8			Lbyy						Lateral
45	M71	PIPE_2.0	8			Lbyy						Lateral
46	M72	PIPE_2.0	8			Lbyy						Lateral
47	M76	L2.5x2.5x4	5.244			Lbyy						Lateral
48	M77	L2.5x2.5x4	5.244			Lbyy						Lateral
49	M78	L2.5x2.5x4	5.244			Lbyy						Lateral
50	M79	L2.5x2.5x4	5.244			Lbyy						Lateral
51	M80	L2.5x2.5x4	5.244			Lbyy						Lateral
52	M81	L2.5x2.5x4	5.244			Lbyy						Lateral
53	M101	PIPE_2.0	5.44			Lbyy						Lateral
54	M102	PIPE_2.0	5.44			Lbyy						Lateral
55	M92	L3X3X4	4.081			Lbyy						Lateral
56	M93	L3X3X4	4.081			Lbyy						Lateral
57	M93A	PIPE_2.0	3.94			Lbyy						Lateral
58	M96	PIPE_2.0	3.94			Lbyy						Lateral

Cold Formed Steel Design Parameters

Label	Shape	Len...	Lbyy[ft]	Lbzz[ft]	Lcomp..	Lcomp..	L-torq...	Kyy	Kzz	Cm...	Cm...	Cb	R	a[ft]	y s...	z s...
No Data to Print ...																

Aluminum Design Parameters

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torq...	Kyy	Kzz	Cb	Function
No Data to Print ...											

Joint Loads and Enforced Displacements

Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
No Data to Print ...			

Member Area Loads

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

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N1						
2	N32						
3	N33						
4	N34						
5	N35						
6	N36	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	N37	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
8	N38	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Joint Boundary Conditions (Continued)

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
9	N41						
10	N72						
11	N73						
12	N74						
13	N75						
14	N76	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
15	N77	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
16	N78	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
17	N81						
18	N112						
19	N113						
20	N114						
21	N115						
22	N116	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
23	N117	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
24	N118	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
25	N123						
26	N188						
27	N189						
28	N190						

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N36	max	2208.708	4	718.96	5	3410.679	1	.083	2	2.67	4	.027	4
2		min	-2389.242	3	-95.042	2	-5428.451	2	-.255	1	-2.614	3	-.026	3
3	N37	max	571.822	4	907.891	1	915.68	1	.261	2	1.607	4	.018	3
4		min	-344.258	3	-807.828	2	-2943.566	6	-.327	1	-1.287	3	-.021	4
5	N38	max	44.712	4	4137.735	6	6562.099	6	0	11	0	6	.001	6
6		min	-46.183	3	7.907	1	13.517	1	0	1	0	4	0	4
7	N76	max	3229.166	4	723.748	8	3574.914	1	.125	6	3.289	2	.217	8
8		min	-4765.726	3	-35.707	3	-3073.433	2	-.032	1	-3.337	1	-.055	3
9	N77	max	930.972	4	824.581	4	1809.559	5	.158	4	1.797	2	.252	4
10		min	-2065.363	3	-647.967	3	-446.119	2	-.11	3	-2.349	1	-.176	3
11	N78	max	4740.803	7	3467.347	7	-18.68	4	0	4	0	4	0	7
12		min	68.879	4	40.672	4	-2748.913	7	-.002	7	-.001	7	0	4
13	N116	max	3897.48	4	666.501	7	2932.034	1	.119	6	1.697	1	.046	4
14		min	-3312.91	3	-31.437	4	-2734.655	2	-.018	1	-1.675	2	-.212	7
15	N117	max	1761.59	4	833.817	3	931.693	1	.156	3	.638	1	.146	4
16		min	-1063.255	3	-536.759	4	-371.913	2	-.092	4	-.453	2	-.254	3
17	N118	max	521.147	3	2139.736	8	323.188	3	0	1	0	2	0	1
18		min	-2892.859	8	-386.182	3	-1677.175	8	-.001	2	0	1	0	2
19	Totals:	max	10190.804	4	11337.737	7	10704.962	1						
20		min	-10190.799	3	4443.59	4	-10704.9...	2						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn y-y [...	phi*Mn z-z...	Cb	Eqn
1	M21	PIPE_3.0	.765	7.25	6	.222	7.25		2	21266.02	65205	5.749	5.749	1.862	H1-1b
2	M65A	PIPE_2.0	.743	9.245	2	.310	9.375		2	6295.422	32130	1.872	1.872	2.199	H1-1b
3	M37	PIPE_3.0	.667	7.25	7	.190	7.25		3	21266.02	65205	5.749	5.749	1.906	H1-1b
4	M64A	PIPE_2.0	.667	8.333	6	.220	3.125		3	6295.422	32130	1.872	1.872	2.39	H1-1b
5	M66A	PIPE_2.0	.666	1.302	2	.258	3.255		2	6295.422	32130	1.872	1.872	2.279	H1-1b
6	MP2A	PIPE_2.5	.571	5.5	6	.120	5.5		6	30038.4...	50715	3.596	3.596	2.257	H1-1b
7	MP1A	PIPE_2.5	.558	5.5	6	.334	5.5		2	30038.4...	50715	3.596	3.596	2.314	H1-1b
8	M22	PIPE_4.0	.555	1.5	2	.282	0		2	90593.9...	93240	10.631	10.631	1.457	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn y-y [...	phi*Mn z-z...	Cb	Eqn
9	MP3C	PIPE_2.5	.542	5.5	7	.116	2		3	30038.4...	50715	3.596	3.596	2.041	H1-1b
10	M102	PIPE_2.0	.542	4.42	2	.171	4.42		2	22533.6...	32130	1.872	1.872	1.644	H1-1b
11	MP3A	PIPE_2.5	.533	5.5	6	.137	5.5		2	30038.4...	50715	3.596	3.596	2.271	H1-1b
12	MP4A	PIPE_2.5	.502	5.5	6	.211	2.75		2	30038.4...	50715	3.596	3.596	2.443	H1-1b
13	M92	L3X3X4	.495	4.081	1	.032	0	z	1	32260.05	46656	1.688	3.756	2.153	H2-1
14	M41	PIPE_4.0	.487	1.5	3	.303	0		1	90593.9...	93240	10.631	10.631	1.367	H1-1b
15	M93	L3X3X4	.477	0	1	.022	4.081	z	1	32260.05	46656	1.688	3.756	2.17	H2-1
16	M39	PL1/2x6	.460	1	2	.109	1	y	2	67551.6...	97200	1.012	12.15	1.483	H1-1b
17	M58	PIPE_3.0	.440	7.25	4	.162	7.25		4	21266.02	65205	5.749	5.749	1.824	H1-1b
18	M96	PIPE_2.0	.426	3.652	1	.170	.287		2	26674.1...	32130	1.872	1.872	1.276	H1-1b
19	M21A	PL1/2x6	.419	.25	2	.042	1	y	4	67551.6...	97200	1.012	12.15	1.209	H1-1b
20	M62	PIPE_4.0	.396	1.5	4	.171	0		4	90593.9...	93240	10.631	10.631	1.36	H1-1b
21	MP4C	PIPE_2.5	.381	5.5	7	.236	5.5		2	30038.4...	50715	3.596	3.596	1.876	H1-1b
22	M61	PL1/2x6	.370	.25	3	.024	1	y	1	67551.6...	97200	1.012	12.15	1.156	H1-1b
23	M22A	HSS4X4...	.365	0	1	.252	3.281	y	7	101674....	106812	12.662	12.662	1.45	H1-1b
24	M69	L3X3X4	.362	1.275	2	.012	0	z	4	32260.05	46656	1.688	3.485	1.07	H2-1
25	M24	L3X3X4	.355	0	1	.020	2.195	z	1	41932.7...	46656	1.688	3.756	1.645	H2-1
26	M20	PL1/2x6	.353	1	1	.096	1	y	3	67551.6...	97200	1.012	12.15	1.176	H1-1b
27	M40	PL1/2x6	.353	.25	4	.055	1	y	1	67551.6...	97200	1.012	12.15	1.285	H1-1b
28	MP2C	PIPE_2.5	.346	5.5	1	.095	2		5	30038.4...	50715	3.596	3.596	2.074	H1-1b
29	M44	L3X3X4	.344	0	1	.020	2.195	z	1	41932.7...	46656	1.688	3.756	1.669	H2-1
30	M60	PL1/2x6	.333	1	3	.076	1	y	2	67551.6...	97200	1.012	12.15	1.524	H1-1b
31	M101	PIPE_2.0	.327	4.42	1	.124	.963		6	22533.6...	32130	1.872	1.872	1.728	H1-1b
32	MP2B	PIPE_2.5	.313	5.5	4	.089	2		4	30038.4...	50715	3.596	3.596	1.977	H1-1b
33	M4	HSS4X4...	.311	0	2	.204	3.281	y	7	101674....	106812	12.662	12.662	1.658	H1-1b
34	MP3B	PIPE_2.5	.299	2	1	.095	2		4	30038.4...	50715	3.596	3.596	2.167	H1-1b
35	M45	L3X3X4	.293	0	3	.017	0	z	3	41932.7...	46656	1.688	3.756	1.679	H2-1
36	MP1C	PIPE_2.5	.278	5.5	7	.099	2.75		2	30038.4...	50715	3.596	3.596	2.669	H1-1b
37	M7	L3X3X4	.248	0	3	.016	2.195	z	3	41932.7...	46656	1.688	3.756	1.599	H2-1
38	M71	PIPE_2.0	.227	4.75	2	.124	4.75		2	14916.0...	32130	1.872	1.872	2.043	H1-1b
39	M8	L3X3X4	.225	0	1	.014	0	z	1	41932.7...	46656	1.688	3.756	1.713	H2-1
40	M93A	PIPE_2.0	.202	3.652	2	.109	.287		3	26674.1...	32130	1.872	1.872	1.361	H1-1b
41	M79	L2.5x2.5...	.195	2.458	2	.020	0	z	2	15717.5...	38556	1.114	2.279	1.136	H2-1
42	M23	L3X3X4	.191	0	4	.011	2.195	z	1	41932.7...	46656	1.688	3.756	1.645	H2-1
43	M80	L2.5x2.5...	.184	2.786	2	.022	0	z	2	15717.5...	38556	1.114	2.279	1.136	H2-1
44	MP1B	PIPE_2.5	.182	2.75	1	.222	2		1	30038.4...	50715	3.596	3.596	2.122	H1-1b
45	M43	HSS4X4...	.180	0	4	.143	3.281	y	1	101674....	106812	12.662	12.662	1.788	H1-1b
46	M78	L2.5x2.5...	.179	3.114	4	.016	5.244	z	2	15717.5...	38556	1.114	2.279	1.136	H2-1
47	M21B	LL2.5x2....	.179	4.717	6	.008	4.717	z	3	43373.6...	58320	3.954	2.55	1	H1-...
48	MP4B	PIPE_2.5	.173	2.75	2	.093	2		2	30038.4...	50715	3.596	3.596	2.408	H1-1b
49	M76	L2.5x2.5...	.172	2.731	1	.017	0	z	3	15717.5...	38556	1.114	2.279	1.136	H2-1
50	M77	L2.5x2.5...	.170	2.513	1	.018	0	z	3	15717.5...	38556	1.114	2.279	1.136	H2-1
51	M81	L2.5x2.5...	.162	2.13	3	.014	0	z	1	15717.5...	38556	1.114	2.279	1.136	H2-1
52	M42	LL2.5x2....	.150	4.717	7	.012	4.717	y	7	43373.6...	58320	3.954	2.55	1.136	H1-...
53	M70	PIPE_2.0	.116	1.25	7	.029	4.75		4	14916.0...	32130	1.872	1.872	2.058	H1-1b
54	M63	LL2.5x2....	.092	4.717	8	.009	0	z	2	43373.6...	58320	3.954	2.55	1.136	H1-...
55	M72	PIPE_2.0	.083	4.75	5	.036	4.75		2	14916.0...	32130	1.872	1.872	2.012	H1-1b
56	M66	L2.5x2.5...	.032	1.178	1	.016	2.356	z	2	24035.2...	29192.4	.873	1.932	1.136	H2-1
57	M64	L2.5x2.5...	.023	1.153	3	.016	2.356	z	4	24035.2...	29192.4	.873	1.932	1.136	H2-1
58	M65	L2.5x2.5...	.020	1.202	4	.012	0	z	1	24035.2...	29192.4	.873	1.932	1.136	H2-1

Envelope AISI S100-10: LRFD Cold Formed Steel Code Checks

Member	Shape	Code Check	Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	phi*Pn...	phi*Tn...	phi*Mn...	phi*Mn...	Cb	Cmyy	Cmzz	Eqn
No Data to Print ...																

Envelope AA ADM1-10: ASD - Building Aluminum Code Checks

Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	Pnc/O...	Pnt/Om...	Mny/O...	Mnz/O...	Vny/O...	Vnz/O...	Cb	Eqn
No Data to Print ...																

EXHIBIT 9

MODIFICATION AND DESIGN DRAWINGS FOR EXISTING ANTENNA MOUNTS EXISTING MONOPOLE TOWER

PROPOSED CARRIER: T-MOBILE

TOWER OWNER: SBA / TOWER OWNER SITE #: CT02049-S

CARRIER SITE #/NAME: CT11299D / CT BEACON FALLS/RT8

COORDINATES (LATITUDE: 41.455689°, LONGITUDE: -73.039866°)

PLEASE NOTE THIS SET OF DRAWINGS ARE FOR INSTALLATION AND ASSEMBLY ONLY. FABRICATION DETAIL DRAWINGS ARE NOT PROVIDED AND MUST BE COMPLETED BY THE STEEL FABRICATOR SELECTED. TES CAN PROVIDE THE FABRICATION DETAIL DRAWINGS FOR AN ADDITIONAL FEE.

SHEET	SHEET TITLE	REV
T-1	TITLE SHEET	0
BOM	BILL OF MATERIALS	0
GN-1	GENERAL NOTES	0
A-1	ANTENNA MOUNT MODIFICATION DETAILS	0
A-2	ANTENNA MOUNT PHOTOS	0
D-1	STANDARD DETAILS	0
D-2	STANDARD DETAILS	0
D-3	STANDARD DETAILS	0
MS-HRCP-2375	METROSITE SUPPORT RAIL CENTER PIPE KIT	
MS-C2B-2875P	METROSITE V-BRACING KIT	
MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT	

NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE **TES** PROJECT NO. **99849**, DATED **12/03/2020**.

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PH: (972) 483-0607

SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO: 100487

CUSTOMER SITE NO: CT02049-S-SBA

CUSTOMER SITE NAME: BEACON FALLS

60 RICE LANE
BEACON FALLS, CT 06403

STATE OF CONNECTICUT
JARRYD TIBBETTS
No. 34170
LICENSED PROFESSIONAL ENGINEER
1/4/21

DRAWN BY: MS | CHECKED BY: MF/SK

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	MS	01/04/21

SHEET TITLE: TITLE SHEET

SHEET NUMBER: T-1

REV #: 0

BILL OF MATERIALS

QUANTITY COUNTED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTIONS	SHEET LIST	PIECE WEIGHT (LBS)	WEIGHT (LB)	NOTES
			MATERIAL & HARDWARE				
6	6	MS-HRCP-2375	METROSITE SUPPORT RAIL CENTER PIPE KIT	A-1, MS-HRCP-2375	10.7	64.2	Galvanized
1	1	MS-C2B-2875P	METROSITE V-BRACING KIT	A-1, MS-C2B-2875P	337.0	337.0	Galvanized
2	2	MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT	A-1, MS-HRCP-35-2875	11.0	22.0	Galvanized
			FOLLOWING ITEMS ARE "CUSTOM" PARTS				
2	2	PST2875-8	2 1/2" PST (2.875" O.D. X 0.203" THK) X 8'-0" A53 GR-B 35KSI	A-1	47.45	99.6	GALVANIZED
2	2	PST2375-6	2" PST (2.375" O.D. X 0.154" THK) X 6'-0" A53 GR-B 35KSI	A-1	22.61	45.2	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
3	3	PST2375-8	2" PST (2.375" O.D. X 0.154" THK) X 8'-0" A53 GR-B 35KSI	A-1	48.98	151.3	GALVANIZED
3	3	L3325-5	L 3" X 3" X 1/4" X 5'-0" A36	D-1	25.01	75.0	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
6	6	PL375-42510-A	PL 3/8" X 4 1/4" X 10" A36	D-1	4.60	27.6	GALVANIZED
24	26	MS02-625-250-400	RU-BOLT 5/8" X 2 1/2" I.W. X 4" I.L. A36 (OR EQUIV.)	D-1, D-2	1.17	30.4	(2) HHN & LKW-EA GALVANIZED
12	13	---	BOLT 5/8" X 2" A325	D-1	0.38	4.9	(1) HHN & LKW-EA GALVANIZED
6	6	PL2375-2875	PL 3/8" X 7 1/8" X 10" A36	D-2	7.70	46.2	GALVANIZED
12	13	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	D-2	1.37	17.8	(2) HHN & LKW-EA GALVANIZED
			ALL METROSITE PARTS ARE AVAILABLE FROM METROSITE, LLC. **180 IND PARK BLVD COMMERCE, GA 30529** **OFFICE: (706) 335-7045** **FAX: (706) 335-7056**				
			NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THIS SHEET, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.				
				TOTAL WEIGHT (LBS) =		**921.4**	

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PH: (972) 483-0607

SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
100487

CUSTOMER SITE NO:
CT02049-S-SBA
CUSTOMER SITE NAME:
BEACON FALLS
60 RICE LANE
BEACON FALLS, CT 06403

DRAWN BY: MS | CHECKED BY: MF/SK

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	MS	01/04/21

SHEET TITLE:
BILL OF MATERIALS

SHEET NUMBER: BOM
REV #: 0

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-G, ANSI/ASSP A10.48, AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.
7. IT IS THE RESPONSIBILITY OF THE GC TO VERIFY THAT THERE IS NO INTERFERENCES (WITH SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.
8. PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESORDERS@TESTOWER.US

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2015 SECTION 1705 FOR STEEL CONSTRUCTION AND TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING [a,b]

BOLT LENGTH [c]	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 [d]	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS [d]
NOT MORE THAN $4d_b$	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN $4d_b$ BUT NOT MORE THAN $8d_b$	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN $8d_b$ BUT NOT MORE THAN $12d_b$	2/3 TURN	5/6 TURN	1 TURN

[a] NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

[b] APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

[c] WHEN THE BOLT LENGTH EXCEEDS $12d_b$, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

[d] BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004 RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PH: (972) 483-0607

SBA

5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
100487

CUSTOMER SITE NO:
CT02049-S-SBA
CUSTOMER SITE NAME:
BEACON FALLS
60 RICE LANE
BEACON FALLS, CT 06403

DRAWN BY: MS | CHECKED BY: MF/SK

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	MS	01/04/21

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER: GN-1
REV #: 0

SCOPE OF WORK

1. REPLACE EXISTING ANTENNA MOUNT PIPES WITH NEW 2 1/2" PST ANTENNA MOUNT PIPES (8'-0" LONG) THEN RELOCATE EXISTING ANTENNAS TO NEW MOUNT PIPES, (1) FOR ALPHA AND (1) FOR GAMMA SECTOR. EXISTING ANTENNA RAD CENTER TO BE MAINTAINED.

   NOTE:
   CONTRACTOR TO COORDINATE WITH CARRIER PRIOR TO REPLACING OF EXISTING ANTENNA MOUNT PIPES TO DETERMINE IF EXISTING ANTENNAS NEED TO BE TURNED DOWN.

2. INSTALL NEW SUPPORT RAIL CENTER PIPE KIT ON EXISTING BOTTOM SUPPORT RAIL PIPE. (1) ON ALPHA AND GAMMA SECTOR. SEE SHEET MS-HRCP-35-2875 FOR DETAILS.

3. A. INSTALL NEW END CONNECTION ON EXISTING TOP SUPPORT RAIL. SEE SHEET D-1 FOR DETAILS.

   B. INSTALL NEW 2" PST TOP AND BOTTOM SUPPORT RAIL PIPES AS SHOWN. (2) FOR DELTA SECTOR ONLY.

   C. REMOVE THE EXISTING PIPE ON THE DELTA SECTOR TO ACCOMMODATE THE INSTALLATION OF NEW END CONNECTION.

4. INSTALL NEW 2" PST ANTENNA MOUNT PIPE (8'-0" LONG). (3) FOR DELTA SECTOR ONLY. SEE SHEET D-2 FOR DETAILS.

5. INSTALL NEW SUPPORT RAIL CENTER PIPE KIT ON NEW TOP AND BOTTOM SUPPORT RAIL PIPES. (6) FOR DELTA SECTOR ONLY. SEE SHEETS MS-HRCP-2375 & D-2 FOR DETAILS.

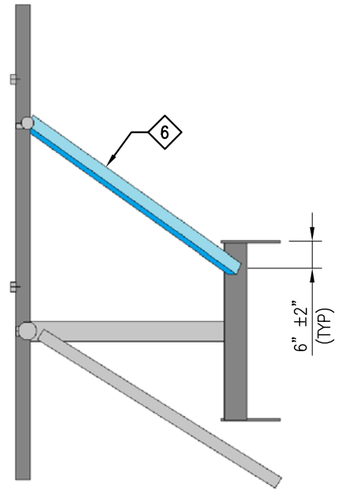
6. INSTALL NEW V-BRACING KIT ON EXISTING TOP SUPPORT RAIL. SEE SHEET MS-C2B-2875P FOR DETAILS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.

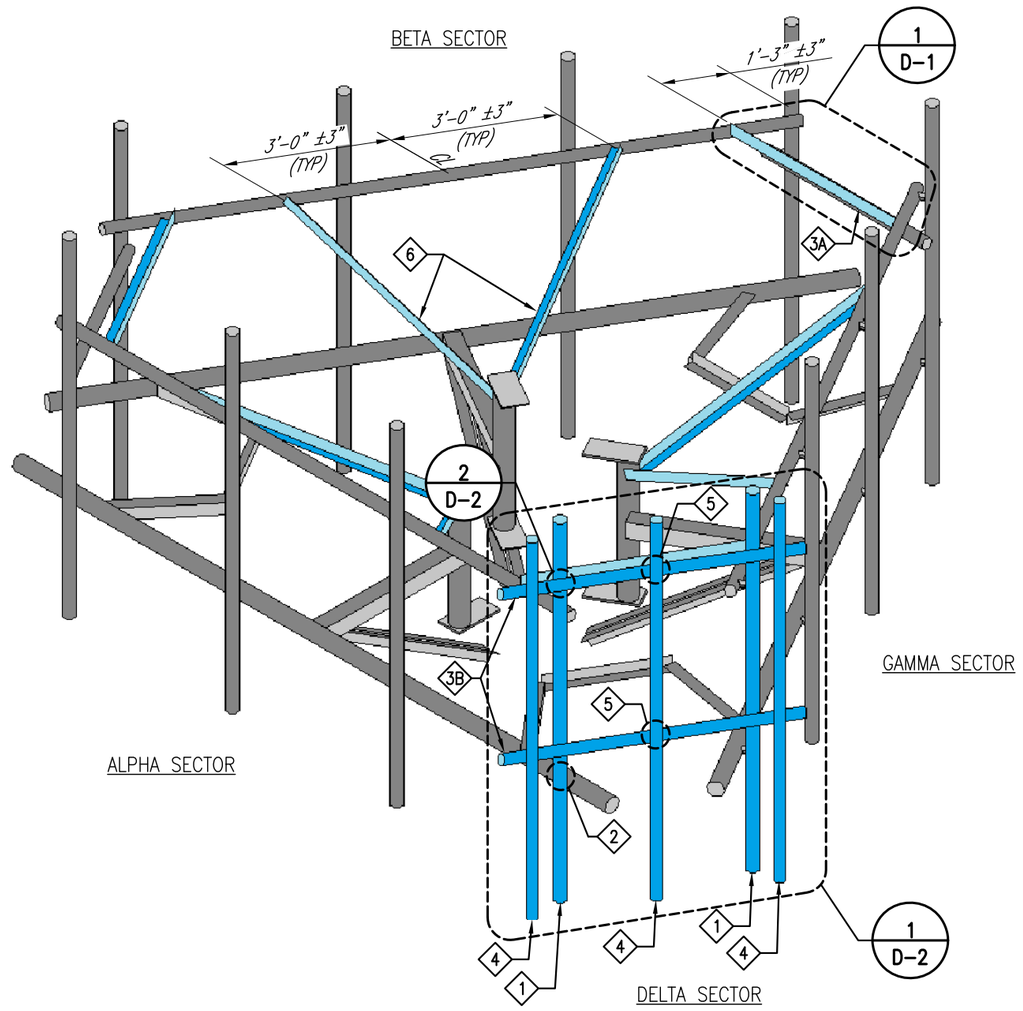
PHOTO 1

CONTRACTOR NOTE:
1. **IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THERE IS NO INTERFERENCES WITH (PORT HOLES, SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.**
2. **PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESORDERS@TESTOWER.US**

NOTES:
1. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
2. WHEN FIELD CUTTING AND DRILLING ANGLES, USE SAME GAGE LINES AND EDGE DISTANCES AS INDICATED ON SHOP CUT AND DRILLED ENDS.
3. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
4. **MEMBERS IN BLUE COLOR ARE NEW REINFORCEMENTS.**



SIDE VIEW



ISOMETRIC VIEW
EXISTING ANTENNA MOUNT @ 142' ELEV.

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	2	PST2875-8	2 1/2" PST (2.875" O.D. X 0.203" THK) X 8'-0" A53 GR-B 35
2	2	MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT
3	2	PST2375-6	2" PST (2.375" O.D. X 0.154" THK) X 6'-0" A53 GR-B 35KSI
4	3	PST2375-8	2" PST (2.375" O.D. X 0.154" THK) X 8'-0" A53 GR-B 35KSI
5	6	MS-HRCP-2375	METROSITE SUPPORT RAIL CENTER PIPE KIT
6	1	MS-C2B-2875P	METROSITE V-BRACING KIT

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(800)-487-SITE

TES JOB NO:
100487

CUSTOMER SITE NO:
CT02049-S-SBA
CUSTOMER SITE NAME:
BEACON FALLS
60 RICE LANE
BEACON FALLS, CT 06403

DRAWN BY: MS | CHECKED BY: MF/SK

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	MS	01/04/21

SHEET TITLE:
ANTENNA MOUNT MODIFICATION DETAILS

SHEET NUMBER: A-1
REV #: 0

REMOVE THE EXISTING PIPE ON THE DELTA SECTOR TO ACCOMMODATE THE INSTALLATION OF NEW END CONNECTION.

PHOTO 1

PHOTO 2

PHOTO 3

NOTE:
EXISTING RRUS/EQUIPMENT MAY BE RELOCATED ALONG THE MEMBER TO ACCOMMODATE THE INSTALLATION OF NEW MOUNT MODIFICATION

TES

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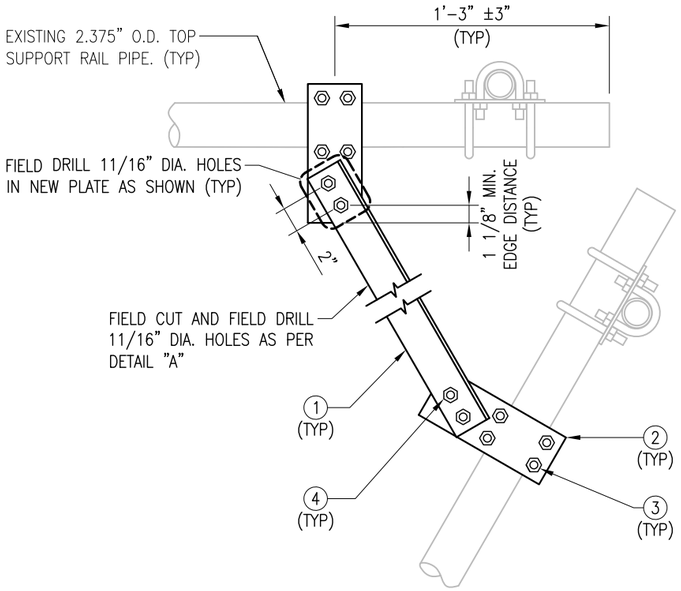
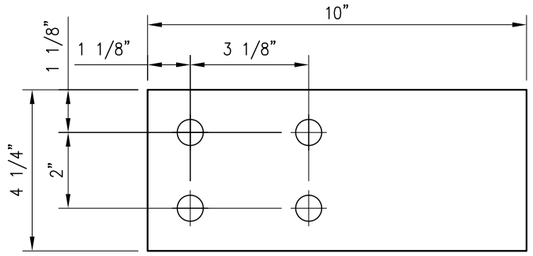
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	MS	01/04/21

SHEET TITLE:
ANTENNA MOUNT PHOTOS

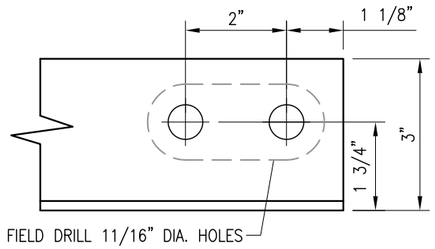
SHEET NUMBER: A-2
REV #: 0



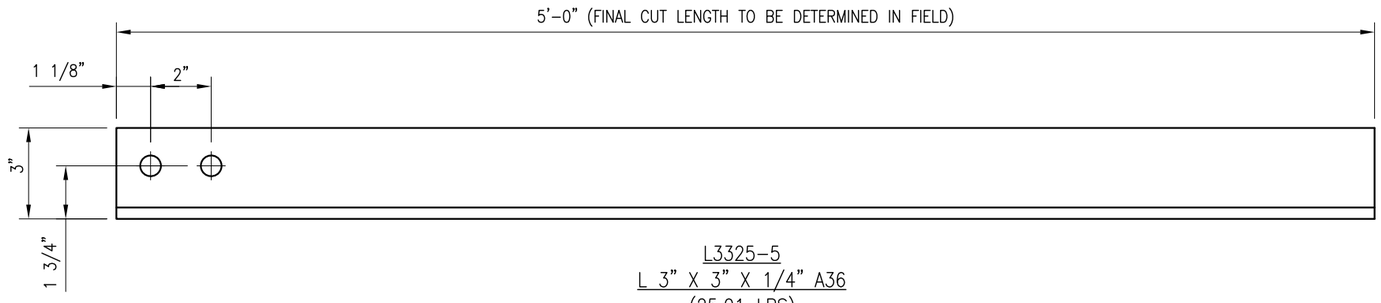
1/D-1 END CONNECTION DETAIL



PL375-42510-A
PL 3/8" X 4 1/4" X 10" A36
(4.6 LBS)



DETAIL "A"



L3325-5
L 3" X 3" X 1/4" A36
(25.01 LBS)

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
2. ALL HOLES ARE 11/16" DIA. U.N.O

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	3	L3325-5	L 3" X 3" X 1/4" X 5'-0" A36
2	6	PL375-42510-A	PL 3/8" X 4 1/4" X 10" A36
3	12	MS02-625-250-400	RU-BOLT 5/8" X 2 1/2" I.W. X 4" I.L. A36 (OR EQUIV.)
4	12	---	BOLT 5/8" X 2" A325

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TES JOB NO:
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CUSTOMER SITE NAME:
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60 RICE LANE
BEACON FALLS, CT 06403

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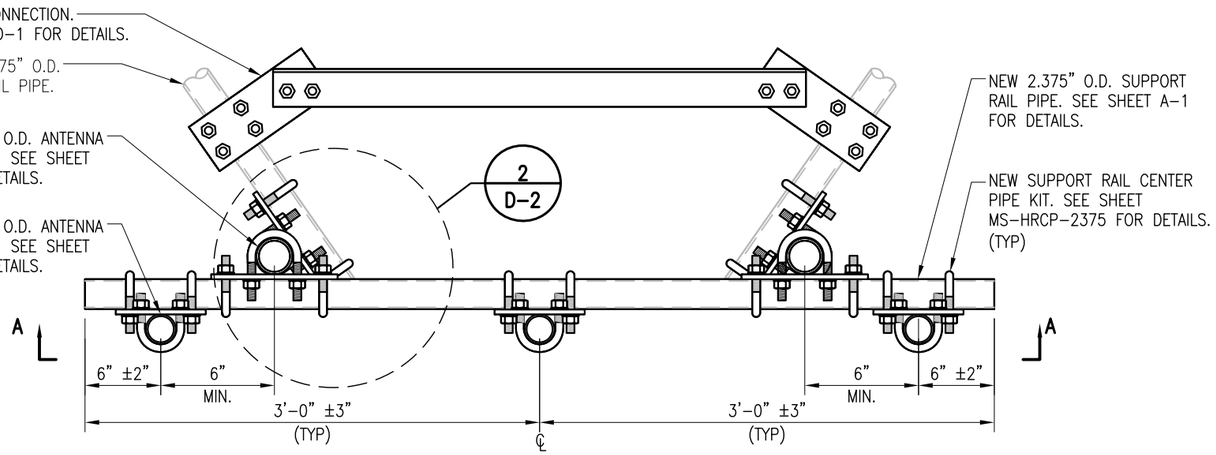
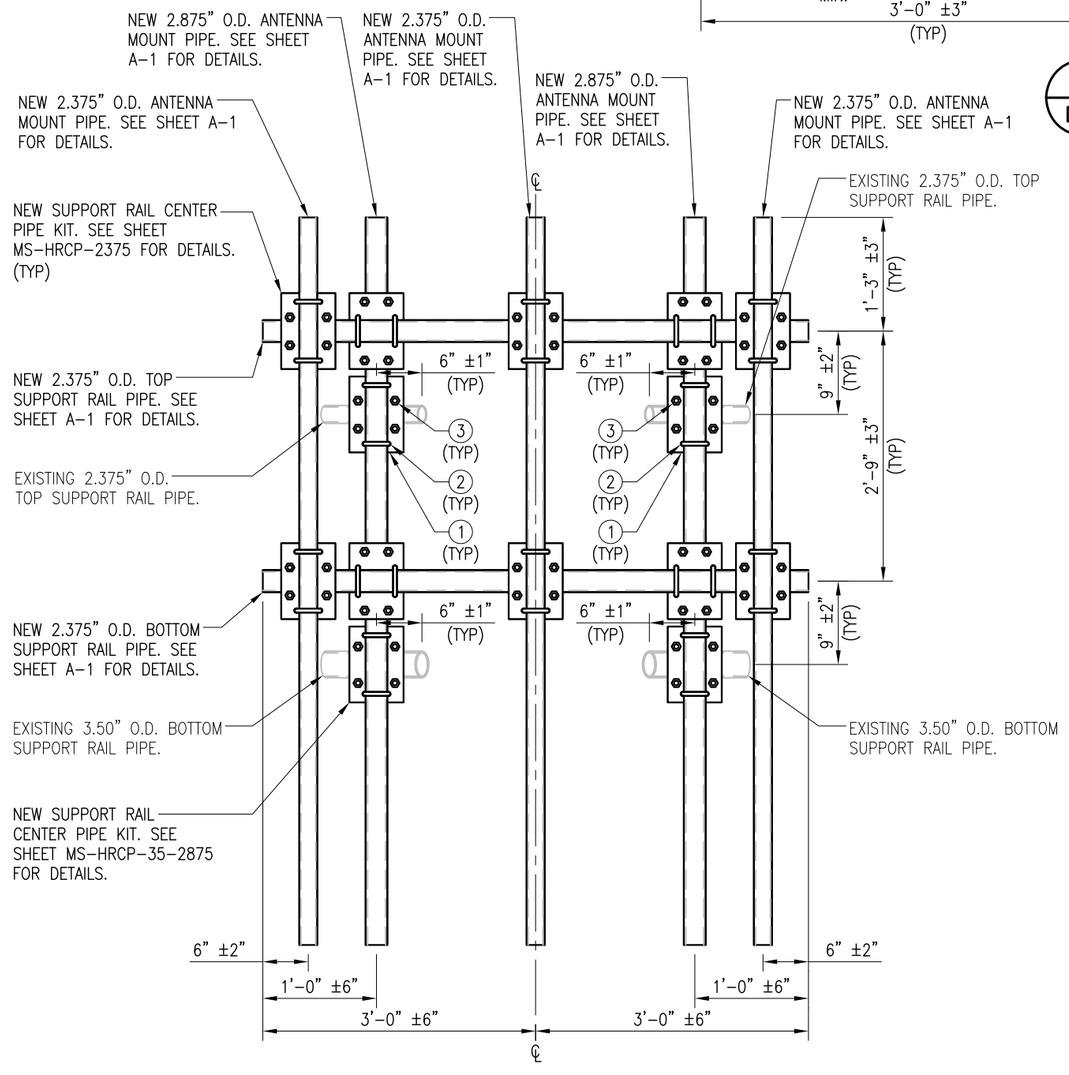
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	MS	01/04/21

SHEET TITLE:
STANDARD DETAILS

SHEET NUMBER: D-1
REV #: 0

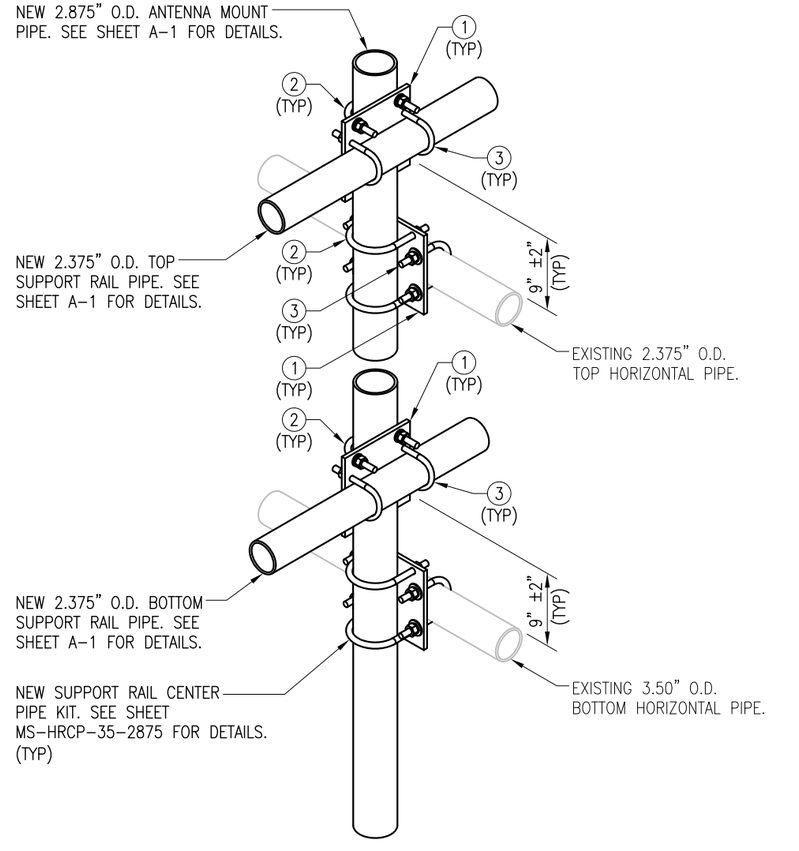


1 D-2 PLAN VIEW (DELTA SECTOR)



SECTION "A-A"

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
2. ALL HOLES ARE 11/16" DIA. U.N.O



2 D-2 DETAIL

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	6	PL2375-2875	PL 3/8" X 7 1/8" X 10" A36
2	12	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)
3	12	MS02-625-250-400	RU-BOLT 5/8" X 2 1/2" I.W. X 4" I.L. A36 (OR EQUIV.)

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CUSTOMER SITE NAME: BEACON FALLS

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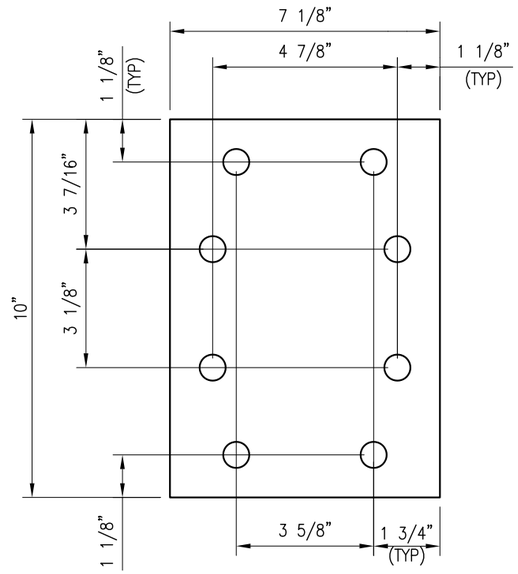
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	MS	01/04/21

SHEET TITLE: STANDARD DETAILS

SHEET NUMBER: D-2

REV #: 0



PL2375-2875
PL 3/8" X 7 1/8" X 10" A36
(7.7 LBS)

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
2. ALL HOLES ARE 11/16" DIA. U.N.O

TES
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TES JOB NO:
100487

CUSTOMER SITE NO:
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CUSTOMER SITE NAME:
BEACON FALLS
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BEACON FALLS, CT 06403

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	MS	01/04/21

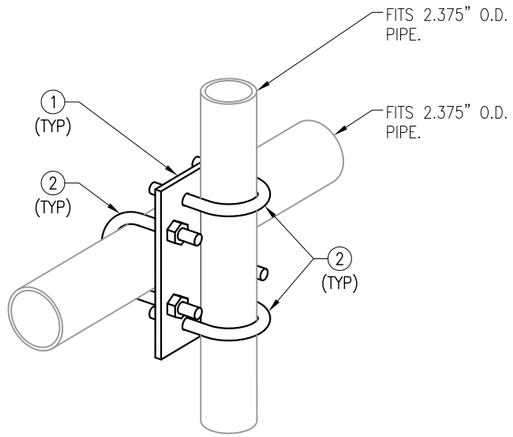
SHEET TITLE:
STANDARD DETAILS

SHEET NUMBER: D-3
REV #: 0

THE FOLLOWING DRAWINGS ARE INCLUDED FOR REFERENCE ONLY
PLEASE REFER TO THE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION DETAILS

NOTES:
1. 1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.

MS-HRCP-2375						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	1	PL2375-2375	PL 3/8" X 7 1/8" X 10"	A36	TAF-3	7.7
2	4	MS02-625-250-400	RU-BOLT 5/8" X 2 1/2" I.W. X 4" I.L. A36 (OR EQUIV.)	A36	RBC-1	1.2
					GALVANIZED WT	9



MS-HRCP-2375

THIRD ANGLE PROJECTION

METROSITE FABRICATORS LLC
180 INDUSTRIAL PARK BLVD.
COMMERCE GA 30529

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH

STANDARD SHEET TOLERANCES

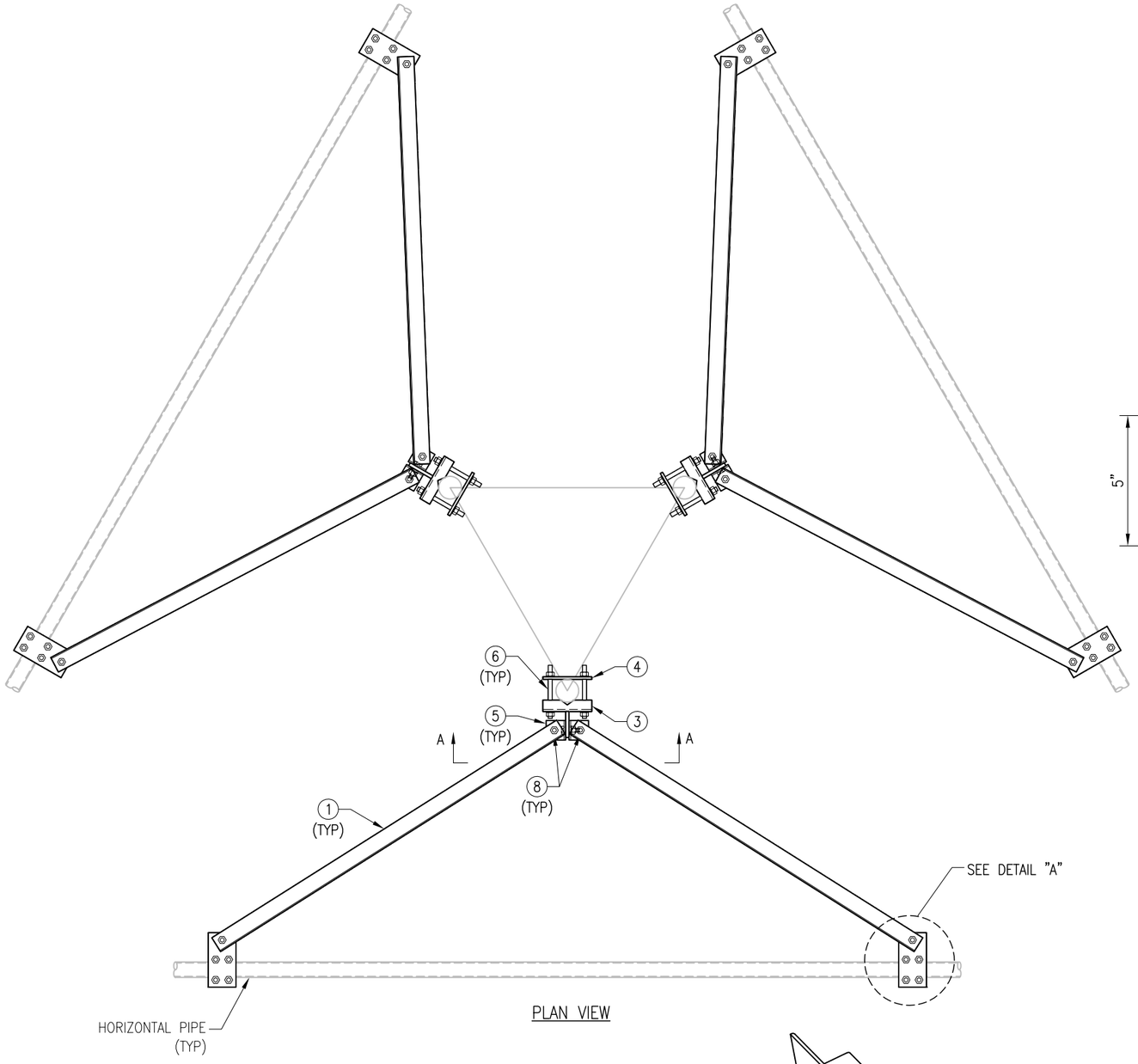
DECIMALS	ANGLES
.X ± 0.1	± 1°
.XX ± 0.02	FRACTIONS
.XXX ± 0.005	± 1/32

APPROVAL / SIGNATURES		DATE
DRAWN BY	XXX	05/12/17
REVIEWED	XXX	-
APPROVED	XXX	-

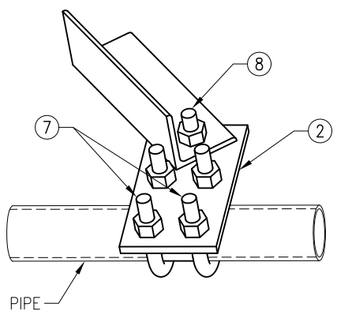
TITLE
MS-HRCP-2375
SUPPORT RAIL CENTER PIPE KIT

SIZE	DWG NO	REV
B	MS-HRCP-2375	0

SCALE - SHEET 1 OF 1

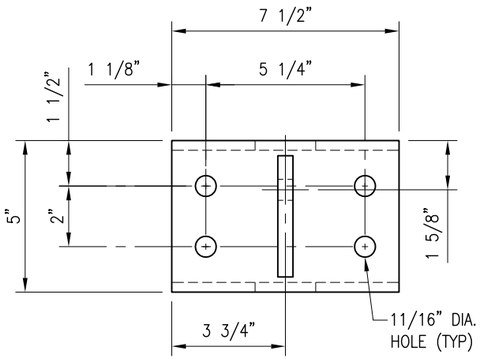


PLAN VIEW

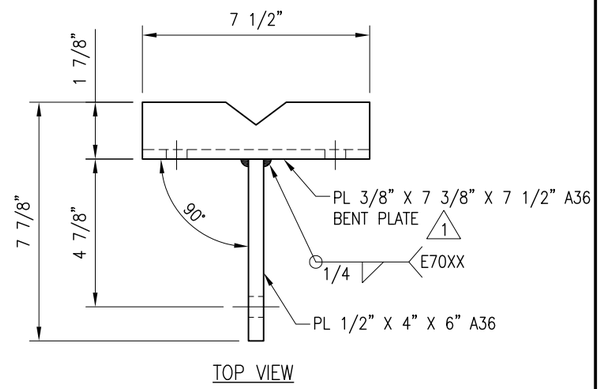


DETAIL "A"

MS-C2B-2875P						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	6	VB-25-10	L 2 1/2" X 2 1/2" X 1/4" X 10'-0"	A36	BK-1	258
2	6	PL375-4259	PL 3/8" X 4 1/4" X 9"	A36	BK-2	25.8
3	3	C2BW-275-450	BRACKET WELDMENT	A36	C2BW-275-450	28.5
4	3	PL5-42575	PL 1/2" X 4 1/4" X 7 1/2"	A572-50	BK-2	14.4
5	6	AL-533	L 5" X 3" X 1/4" X 3"	A36	BK-1	10.2
6	12	---	THREADED ROD 5/8" X 10" W/ (2) HHN & LKW EA.	A36	--	--
7	12	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	---	RBC-1	--
8	12	---	BOLT 5/8" X 1 3/4" A325 W/ HHN & LKW EA.	---	--	--
9	6	---	BOLT 5/8" X 2 1/4" A325 W/ HHN & LKW EA.	---	---	--
					GALVANIZED WT	337

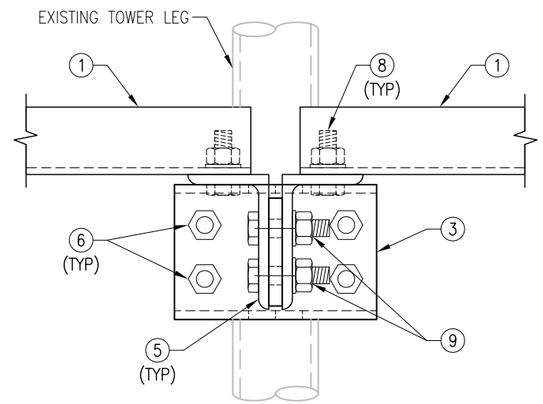


FRONT VIEW



TOP VIEW

C2BW-275-450 WELDMENT



SECTION "A-A"

NOTE:
1) FITS 2 7/8" DIA. TO 4 1/2" DIA. LEG.
2) THREADED ROD MAY BE CUT TO LENGTH AS REQUIRED.
3) FITS 1 1/2" TO 2 7/8" O.D HORIZONTAL PIPE.

THIRD ANGLE PROJECTION

METROSITE FABRICATORS LLC
180 INDUSTRIAL PARK BLVD.
COMMERCE GA 30529

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH
STANDARD SHEET TOLERANCES
DECIMALS .X ± 0.1, .XX ± 0.02, .XXX ± 0.005
ANGLES ± 1°
FRACTIONS ± 1/32

APPROVAL / SIGNATURES		DATE
DRAWN BY	XXX	05/12/17
REVIEWED	XXX	-
APPROVED	XXX	-

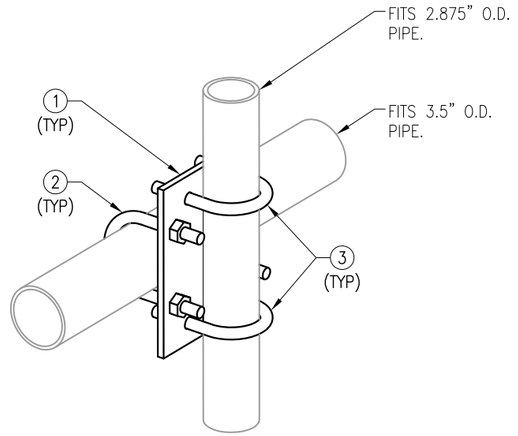
TITLE
MS-C2B-2875P
V-BRACING KIT

SIZE	DWG NO	REV
B	MS-C2B-2875P	1

SCALE -
SHEET 1 OF 1

NOTES:
1. 1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.

MS-HRCP-35-2875						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	1	PL350-2875	PL 3/8" X 7 1/8" X 10"	A36	TAF-2	7.7
2	2	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	A36	RBC-1	1.5
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	A36	RBC-1	1.4
					GALVANIZED WT	11



MS-HRCP-35-2875

THIRD ANGLE PROJECTION

METROSITE FABRICATORS LLC
180 INDUSTRIAL PARK BLVD.
COMMERCE GA 30529

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH

STANDARD SHEET TOLERANCES

DECIMALS	ANGLES
.X ± 0.1	± 1°
.XX ± 0.02	FRACTIONS
.XXX ± 0.005	± 1/32

APPROVAL / SIGNATURES		DATE
DRAWN BY	XXX	05/12/17
REVIEWED	XXX	-
APPROVED	XXX	-

TITLE
MS-HRCP-35-2875
SUPPORT RAIL CENTER PIPE KIT

SIZE	DWG NO	REV
B	MS-HRCP-35-2875	0

SCALE - SHEET 1 OF 1

EXHIBIT 10

EBI Consulting

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RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CT11299D

CTBeacon Falls/Rt 8
60 Rice Lane
Beacon Falls, Connecticut 06403

January 12, 2021

EBI Project Number: 6221000124

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**21.30%**

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January 12, 2021

T-Mobile
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, Connecticut 06002

Emissions Analysis for Site: CT11299D - CTBeacon Falls/Rt 8

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **60 Rice Lane** in **Beacon Falls, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu W/cm^2$). The number of $\mu W/cm^2$ 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.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is 1000 $\mu W/cm^2$. 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 done for the proposed T-Mobile Wireless antenna facility located at 60 Rice Lane in Beacon Falls, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile 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 manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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.

For all calculations, all equipment was calculated using the following assumptions:

1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

2) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.

3) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

4) 4 GSM channels (PCS Band - 1900 MHz) were considered in Sector A, B, and C of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

5) 2 UMTS channels (PCS Band - 1900 MHz) were considered in Sector A, B, and C of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

6) 4 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

7) 2 UMTS channels (AWS Band - 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

8) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

9) 1 LTE channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.

10) 1 NR channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.

11) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. 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. This is rarely the case, and if so, is never continuous.

12) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

13) The antennas used in this modeling are the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector A, the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector B, the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector C, the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR18_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector D. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna

manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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.

14) The antenna mounting height centerline of the proposed antennas is 142 feet above ground level (AGL).

15) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

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T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C	Sector:	D
Antenna #:	1	Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 32
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	1900 MHz / 2100 MHz
Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd	Gain:	15.35 dBd / 15.85 dBd
Height (AGL):	142 feet	Height (AGL):	142 feet	Height (AGL):	142 feet	Height (AGL):	142 feet
Channel Count:	2	Channel Count:	2	Channel Count:	2	Channel Count:	4
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	38,477.89	ERP (W):	38,477.89	ERP (W):	38,477.89	ERP (W):	8,728.31
Antenna A1 MPE %:	**6.86%**	Antenna B1 MPE %:	**6.86%**	Antenna C1 MPE %:	**6.86%**	Antenna D1 MPE %:	**1.56%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32	Make / Model:	RFS APXVAARR18_43-U-NA20
Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	11.95 dBd / 11.95 dBd / 12.35 dBd / 14.85 dBd / 15.55 dBd
Height (AGL):	142 feet	Height (AGL):	142 feet	Height (AGL):	142 feet	Height (AGL):	142 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8	Channel Count:	9
Total TX Power (W):	360 Watts	Total TX Power (W):	360 Watts	Total TX Power (W):	360 Watts	Total TX Power (W):	380 Watts
ERP (W):	12,841.53	ERP (W):	12,841.53	ERP (W):	12,841.53	ERP (W):	9043.63
Antenna A2 MPE %:	**2.29%**	Antenna B2 MPE %:	**2.29%**	Antenna C2 MPE %:	**2.29%**	Antenna D2 MPE %:	**2.41%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	Ericsson AIR 6449
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 15.65 dBd / 16.35 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 15.65 dBd / 16.35 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 15.65 dBd / 16.35 dBd	Gain:	22.05 dBd / 22.05 dBd
Height (AGL):	142 feet	Height (AGL):	142 feet	Height (AGL):	142 feet	Height (AGL):	142 feet
Channel Count:	11	Channel Count:	11	Channel Count:	11	Channel Count:	2
Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts	Total TX Power (W):	240 Watts
ERP (W):	13,259.22	ERP (W):	13,259.22	ERP (W):	13,259.22	ERP (W):	38,477.89
Antenna A3 MPE %:	**3.37%**	Antenna B3 MPE %:	**3.37%**	Antenna C3 MPE %:	**3.37%**	Antenna D3 MPE %:	**6.86%**

Site Composite MPE %	
Carrier	MPE %
T-Mobile (Max at Sector A):	12.52%
AT&T	4.9%
Verizon	3.53%
Clearwire	0.08%
Sprint	0.02%
Beacon Hose Co.	0.25%
Site Total MPE % :	21.30%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	12.52%
T-Mobile Sector B Total:	12.52%
T-Mobile Sector C Total:	12.52%
T-Mobile Sector D Total:	10.83%
Site Total MPE % :	21.30%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 2500 MHz LTE	1	19238.94	142.0	34.30	2500 MHz LTE	1000	3.43%
T-Mobile 2500 MHz NR	1	19238.94	142.0	34.30	2500 MHz NR	1000	3.43%
T-Mobile 1900 MHz GSM	4	1028.30	142.0	7.33	1900 MHz GSM	1000	0.73%
T-Mobile 1900 MHz LTE	2	2056.61	142.0	7.33	1900 MHz LTE	1000	0.73%
T-Mobile 2100 MHz LTE	2	2307.55	142.0	8.23	2100 MHz LTE	1000	0.82%
T-Mobile 600 MHz LTE	2	591.73	142.0	2.11	600 MHz LTE	400	0.53%
T-Mobile 600 MHz NR	1	1577.94	142.0	2.81	600 MHz NR	400	0.70%
T-Mobile 700 MHz LTE	2	648.82	142.0	2.31	700 MHz LTE	467	0.50%
T-Mobile 1900 MHz UMTS	2	1101.85	142.0	3.93	1900 MHz UMTS	1000	0.39%
T-Mobile 1900 MHz LTE	2	2203.69	142.0	7.86	1900 MHz LTE	1000	0.79%
T-Mobile 2100 MHz UMTS	2	1294.56	142.0	4.62	2100 MHz UMTS	1000	0.46%
						Total:	**12.52%**

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

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 T-Mobile 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:

T-Mobile Sector	Power Density Value (%)
Sector A:	12.52%
Sector B:	12.52%
Sector C:	12.52%
Sector D:	10.83%
T-Mobile Maximum MPE % (Sector A):	12.52%
Site Total:	21.30%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **21.30%** 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.