



Filed by:

Kri Pelletier, Property Specialist - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3804 - kpelletier@sbsite.com

December 5, 2018

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

Notice of Exempt Modification

60 Rice Lane, Beacon Falls, CT 06403

41 27 20.48 N

-73 2 23.52 W

T-Mobile #: CT11299D_L1900

Dear Ms. Bachman:

T-Mobile currently maintains eleven (11) antennas at the 142.9-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 replace (3) existing antennas with (3) newer technology antennas at the 142.9-foot level. The full scope of proposed work is as follows:

Remove: N/A

Remove and Replace:

- Remove: (3) Ericsson - AIR 21 B2P/B4A – Panel Antennas
 - Replace with: (3) Ericsson AIR 3246 B66 – Panel Antennas

Install: N/A

Existing Equipment to Remain (including entitlements):

- (1) Ericsson Air 32 B4A/B2P Panel Antenna
- (1) Ericsson Air 21 B4A B12P Panel Antenna
- (3) Ericsson - AIR 21 B2A/B4P – Panel Antennas
- (3) Andrew - LNX-6515DS-A1M – Panel Antennas
- (1) Ericsson RRUS11 B12 – RRU
- (3) Ericsson - RUS01 B12 – RRUs
- (3) Ericsson - KRY 112 144/1 – TMAs
- (1) Platform with Handrail (Commscope MT0195-12) and V-Brace (VSR-MS-8)
- (11) 1-5/8" lines
- (1) 1-5/8" hybrid
- (2) 1-1/4" hybrid

SBA

This facility was approved by the Town of Beacon Falls' Planning & Zoning Commission during their Regular Meeting of December 16, 1999. There were no conditions placed on the tower or compound, thus this proposed modification is in full compliance.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16.50j-72(b)(2). In accordance with R.C.S.A. § 16.50j-73, a copy of this letter is being sent to Christopher Bielik, First Selectman for the Town of Beacon Falls, Mike Mormile, Zoning Enforcement Officer for the Town of Beacon Falls, and to the property owner, Charles Edwards. (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,



Kri Pelletier
Property Specialist
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581

508.251.0720 x3804 + T
508.366.2610 + F
203.446.7700 + C
kpelletier@sbsite.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



POWER DENSITY

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C	Sector:	D
Antenna #:	1	Antenna #:	1	Antenna #:	1	Make / Model:	1
Make / Model:	Ericsson AIR3246 B66	Make / Model:	Ericsson AIR3246 B66	Make / Model:	Ericsson AIR3246 B66	Make / Model:	Ericsson AIR32 B4A / B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	160	Total TX Power(W):	160	Total TX Power(W):	160	Total TX Power(W):	160
ERP (W):	6,224.72	ERP (W):	6,224.72	ERP (W):	6,224.72	ERP (W):	6,224.72
Antenna A1 MPE%	1.20	Antenna B1 MPE%	1.20	Antenna C1 MPE%	1.20	Antenna D1 MPE%	1.20
Antenna #:	2	Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B4A / B12P
Gain:	dBd	Gain:	dBd	Gain:	dBd	Gain:	15.9 / 13.6 dBd
Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	2100 MHz (AWS) / 700 MHz
Channel Count	3	Channel Count	3	Channel Count	3	Channel Count	3
Total TX Power(W):	95	Total TX Power(W):	95	Total TX Power(W):	95	Total TX Power(W):	95
ERP (W):	3,695.93	ERP (W):	3,695.93	ERP (W):	3,695.93	ERP (W):	2,416.26
Antenna A2 MPE%	0.71	Antenna B2 MPE%	0.71	Antenna C2 MPE%	0.71	Antenna D2 MPE%	0.86
Antenna #:	3	Antenna #:	3	Antenna #:	3		
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M		
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd		
Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet		
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz		
Channel Count	2	Channel Count	2	Channel Count	2		
Total TX Power(W):	40	Total TX Power(W):	40	Total TX Power(W):	40		
ERP (W):	1153.61	ERP (W):	1153.61	ERP (W):	1153.61		
Antenna A3 MPE%	0.47	Antenna B3 MPE%	0.47	Antenna C3 MPE%	0.47		

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Sectors A, B & C)	2.38 %
AT&T	3.64 %
Verizon Wireless	3.53 %
Clearwire	0.08 %
Sprint	0.02 %
Beacon Hose Co.	0.25 %
Site Total MPE %:	9.90 %

T-Mobile Sector A Total:	2.38 %
T-Mobile Sector B Total:	2.38 %
T-Mobile Sector C Total:	2.38 %
T-Mobile Sector D Total:	2.06 %
Site Total:	
	9.90 %

ORIGIN ID:BBEA (508) 251-0720
KRI BEL LETTER
SSA COMMUNICATIONS CORPORATION
334 FLANDERS RD
SUITE 4125
WESTBOROUGH, MA 01581
UNITED STATES US

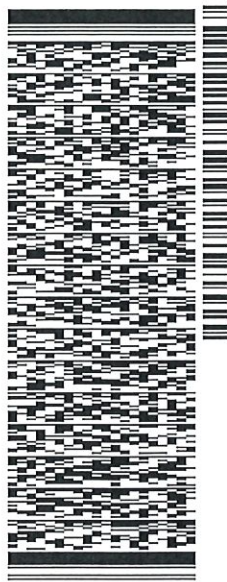
SHIP DATE: 05DEC18
ACTWGT: 1.00 LB
CAD: 105843304INET4040
BILL SENDER

TO CHRISTOPHER BIELIK, FIRST SELECTMAN
TOWN OF BEACON FALLS
10 MAPLE AVE

BEACON FALLS CT 06403

(508) 251-0720 X 3808 REF: 10-56-92009-6039
INV. DEPT:

552J2IE4AF/DCA5



J182118081501uv

TRK# 7738 9069 3075 THU - 06 DEC 10:30A
0201 PRIORITY OVERNIGHT

EB BNHA 06403
CT-US BDL



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 Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

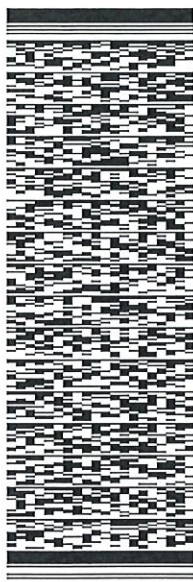
ORIGIN ID:BBFA (508) 251-0720
KRIPEL LETTER
SBA COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 05DEC18
ACTWGT: 1.00 LB
CAD: 109843304IN1T4040
BILL SENDER

TO **MIKE MORMILE, ZONING ENF. OFFICER**
TOWN OF BEACON FALLS
10 MAPLE AVE

BEACON FALLS CT 06403

(508) 251-0720 X 3808 REF: 10-56-92009-6039
INV: DEPT:



552J2IE4AFIDCA5

TRK# 7738 9073 5914 THU - 06 DEC 10:30A
0201 PRIORITY OVERNIGHT

EB BNHA 06403
CT-US BDL



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.

ORIGIN ID:BBFA (508) 251-0720
KRIPELLETIER
SBA COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 729
WESTBOROUGH, MA 01581
UNITED STATES US

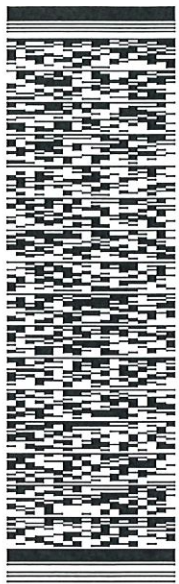
SHIP DATE: 05DEC18
ACTWGT: 1.001LB
CAD: 105843304/NET14040

BILL SENDER

TO **CHARLES EDWARDS**
30 LORRAINE DRIVE

BEACON FALLS CT 06403
(508) 251-0729 X 3808 REF: 1058592009-6089
INV: DEPT:
PO:

552.I2/E4AF/DCA5



TRK# 7738 9076 0731
0201

THU - 06 DEC 10:30A
PRIORITY OVERNIGHT

EB BNHA

06403
CT-US BDL



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.

SBA PROPERTIES INC
 TAX DEPARTMENT
 8051 CONGRESS AVE
 BOCA RATON, FL 33487
 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

Valuation Record

Site Description
 Topography
 High
 Public Utilities
 Sewer
 Street or Road
 Unpaved
 Neighborhood
 Static
 Zoning:
 R-1
 Legal Acres:
 0.0000

Assessment Year	2011	2016						
Reason for Change	2011 Reval	2016 Reval						
2016 Market L	0	0						
I	250000	275000						
T	250000	275000						
70% Assessed L	0	0						
I	175000	192500						
T	175000	192500						

Land Size

Land Type	Rating, Soil ID - or - Actual Frontage	Acreage - or - Effective Frontage	Square Feet - or - Effective Depth	Influence Factor

Physical Characteristics

Empty box for Physical Characteristics details.

Empty box for details, containing a small box with '01' in the center.

01

Special Features

Description

Empty box for 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	2000	2000	AV	0

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

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

Transfer of Ownership

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

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		

Physical Characteristics

Empty box for Physical Characteristics details.

Large empty box for details, containing a small box with the number 01.

01

Special Features

Description

Empty box for 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



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, CT 06403

November 21, 2018

EBI Project Number: 6218007221

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	9.90 %



November 21, 2018

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 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, Beacon Falls, CT**, 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 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (AWS) frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at **60 Rice Lane, Beacon Falls, CT**, 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 manufactures supplied specifications, minus 10 dB for directional panel antennas, 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) 1 GSM channels (PCS Band - 1900 MHz) was considered for sectors A, B & C of the proposed installation. These Channels have a transmit power of 15 Watts per Channel.
- 2) 1 UMTS channel (PCS Band - 1900 MHz) was considered for sectors A, B & C of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 3) 1 UMTS channel (AWS Band – 2100 MHz) was considered for all 4 sectors of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 4) 2 LTE channels (PCS Band - 1900 MHz) were considered for all 4 sectors of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 5) 2 LTE channels (AWS Band – 2100 MHz) were considered for all 4 sectors of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 6) 2 LTE channels (700 MHz Band) were considered for all 4 sectors of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.



- 7) 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.
- 8) 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 manufactures supplied specifications, minus 10 dB for directional panel antennas, 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.
- 9) The antennas used in this modeling are the **Ericsson AIR3246 B66, Ericsson AIR21 B2A/B4P, Ericsson AIR32 B4A / B2P, Ericsson AIR21 B4A / B12P** and the **Commscope LNX-6515DS-A1M** for 700 MHz, 1900 MHz (PCS) and 2100 MHz (AWS) channels. 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 manufactures supplied specifications, minus 10 dB for directional panel antennas, 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.
- 10) The antenna mounting height centerline of the proposed antennas is **142.9 feet** above ground level (AGL).
- 11) 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.
- 12) All calculations were done with respect to uncontrolled / general population threshold limits.



T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C	Sector:	D
Antenna #:	1	Antenna #:	1	Antenna #:	1	Make / Model:	1
Make / Model:	Ericsson AIR3246 B66	Make / Model:	Ericsson AIR3246 B66	Make / Model:	Ericsson AIR3246 B66	Make / Model:	Ericsson AIR32 B4A / B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	160	Total TX Power(W):	160	Total TX Power(W):	160	Total TX Power(W):	160
ERP (W):	6,224.72	ERP (W):	6,224.72	ERP (W):	6,224.72	ERP (W):	6,224.72
Antenna A1 MPE%	1.20	Antenna B1 MPE%	1.20	Antenna C1 MPE%	1.20	Antenna D1 MPE%	1.20
Antenna #:	2	Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B4A / B12P
Gain:	dBd	Gain:	dBd	Gain:	dBd	Gain:	15.9 / 13.6 dBd
Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	2100 MHz (AWS) / 700 MHz
Channel Count	3	Channel Count	3	Channel Count	3	Channel Count	3
Total TX Power(W):	95	Total TX Power(W):	95	Total TX Power(W):	95	Total TX Power(W):	95
ERP (W):	3,695.93	ERP (W):	3,695.93	ERP (W):	3,695.93	ERP (W):	2,416.26
Antenna A2 MPE%	0.71	Antenna B2 MPE%	0.71	Antenna C2 MPE%	0.71	Antenna D2 MPE%	0.86
Antenna #:	3	Antenna #:	3	Antenna #:	3		
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M		
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd		
Height (AGL):	142.9 feet	Height (AGL):	142.9 feet	Height (AGL):	142.9 feet		
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz		
Channel Count	2	Channel Count	2	Channel Count	2		
Total TX Power(W):	40	Total TX Power(W):	40	Total TX Power(W):	40		
ERP (W):	1153.61	ERP (W):	1153.61	ERP (W):	1153.61		
Antenna A3 MPE%	0.47	Antenna B3 MPE%	0.47	Antenna C3 MPE%	0.47		

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Sectors A, B & C)	2.38 %
AT&T	3.64 %
Verizon Wireless	3.53 %
Clearwire	0.08 %
Sprint	0.02 %
Beacon Hose Co.	0.25 %
Site Total MPE %:	9.90 %

T-Mobile Sector A Total:	2.38 %
T-Mobile Sector B Total:	2.38 %
T-Mobile Sector C Total:	2.38 %
T-Mobile Sector D Total:	2.06 %
Site Total:	9.90 %



T-Mobile Maximum MPE Power Values (Sectors A, B & C)

T-Mobile_Frequency Band / Technology (Sectors A, B & C)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	1,556.18	142.9	5.97	AWS - 2100 MHz	1000.00	0.60%
T-Mobile PCS - 1900 MHz LTE	2	1,556.18	142.9	5.97	PCS - 1900 MHz	1000.00	0.60%
T-Mobile PCS - 1900 MHz GSM	1	583.57	142.9	1.12	PCS - 1900 MHz	1000.00	0.11%
T-Mobile PCS - 1900 MHz UMTS	1	1,556.18	142.9	2.99	PCS - 1900 MHz	1000.00	0.30%
T-Mobile AWS - 2100 MHz UMTS	1	1,556.18	142.9	2.99	AWS - 2100 MHz	1000.00	0.30%
T-Mobile 700 MHz LTE	2	576.81	142.9	2.21	700 MHz	467.00	0.47%
						Total:	2.38%

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:	2.38 %
Sector B:	2.38 %
Sector C:	2.38 %
Sector D:	2.06%
T-Mobile Maximum MPE % (Sectors A, B & C):	2.38 %
Site Total:	9.90 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **9.90%** 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.



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

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: 98.3% [Pass]

Max Foundation Usage: 68.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification : N/A



10/25/18

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

Analysis Criteria

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

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 125.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 97.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	ANSI/TIA/EIA 222-G / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_S = 0.192$, $S_1 = 0.064$

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft.)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	165.0	1	Andrew - DB222 - Whip	Low Profile Platform	(1) 7/8"	BFFD
2	162.0	6	Decibel - DB846F65ZAXY - Panel		(18) 1 5/8" (1) 1 5/8" Fiber	Verizon
3		9	Andrew - SBNHH-1D65B - Panel			
4		3	Alcatel Lucent - RRH2x90-AWS - RRU			
5		1	Celwave - DB-T1-6Z-8AB-OZ - Dist. Box			
6	152.0	3	RFS - APXVSP18-C-A20 - Panel	Low Profile Platform	(3) 1-1/4" (1) 1-1/4"	Sprint
7		3	ALU - 1900MHz - RRU			
8		3	ALU - 800MHz - Filter			
9		3	ALU - 800 MHz - RRU			
10	150.0	4	RFS - ACU-A20-N - RET	Platform w Handrail (Commscope MT-195-12) and V-Brace (VSR-MS-8)	(11) 1 5/8" (1) 1 5/8" Hybrid (2) 1-1/4" Hybrid	T-Mobile
11		3	RFS - APXVTM14-C-120 - Panel			
12	3	Alcatel Lucent - TD-RRH8x20-25 - RRU				
-	142.9	3	Ericsson - AIR 21 B2A/B4P - Panel			
-		3	Ericsson - AIR 21 B4A/B2P - Panel			
-		3	Andrew - LNX-6515DS-A1M - Panel			
-		1	Ericsson - AIR 21 B4A B12P - Panel			
-		1	Ericsson - AIR 32 B4A/B2P - Panel			
-		3	Ericsson - KRY 112 144/1 - TMA			
-		3	Ericsson - RUS01 B12 - RRU			
-	1	Ericsson - RRUS11B12 - RRU				
21	133.0	3	Kathrein - 800 10121 - Panel	Low Profile Platform	(6) 1 1/4" (6) 1 5/8" (2) 3/8" Fiber (4) 3/4" DC inside 3" Conduit	AT&T
22		3	Kathrein - 800 10798 - Panel			
23		3	CCI - DTMABP7819VG12A - TMA/TTA			
24		3	Ericsson - RRUS 12 - RRU			
25		3	Ericsson - RRUS 11 - RRU			
26		3	Ericsson - RRU A2 - RRU			
27		3	Ericsson - RRUS 32 - RRU			
28		2	Raycap - DC6-48-60-18-8F - SP			
29	115.0	1	DB222 - Whip	(1) 3 ft. Standoff	(1) 7/8"	BFFD
30	40.0	1	GPS	Standoff	(1) 1/2"	Sprint

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

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
13	142.9	3	Ericsson KRY 112 144/1 TMA	Platform w Handrail (Commscope MT-195-12) and V-Brace (VSR-MS-8)	(11) 1 5/8" (1) 1 5/8" Fiber (2) 1-1/4" Fiber	T-Mobile
14		3	Ericsson RUS01 B12 - RRU			
15		1	Ericsson RRUS11B12 - RRU			
16		3	Commscope LNX-6515DS-A1M - Panel			
17		1	Ericsson AIR 32 B4A/B2P - Panel			
18		1	Ericsson AIR 21 B4A B12P - Panel			
19		3	Ericsson AIR 3246 B66 - Panel			
20		3	Ericsson AIR 21 B2A/B4P - Panel			

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

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate	Flange Plate	Reinforce Plate
Max. Usage:	82.2%	57.5%	58.1%	98.3%	97.8%
Pass/Fail	Pass	Pass	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	4125.6	36.1	80.1

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

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.5807 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 ANSI/TIA/EIA 222-G 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 analysis is based on the presumption that the tower 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.
4. An initial tension of 10% of the break strength on all the existing guy wires was assumed in all the structural analyses of guyed towers unless different values were provided by the client. **TES** cannot take responsibility for the deviations in the analysis results because of differences in the initial tension forces of the existing guy wires.
5. Secondary component or connection secondary components, welds and bolts are assumed to be able to carry their intended original design loads. **TES** cannot take responsibility for verification of the adequacy on the connections, bolts and welds present in the structure.
6. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
7. 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.
8. 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.
9. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 82.16% at 16.3ft

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

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

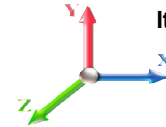
10/25/2018



Page: 1

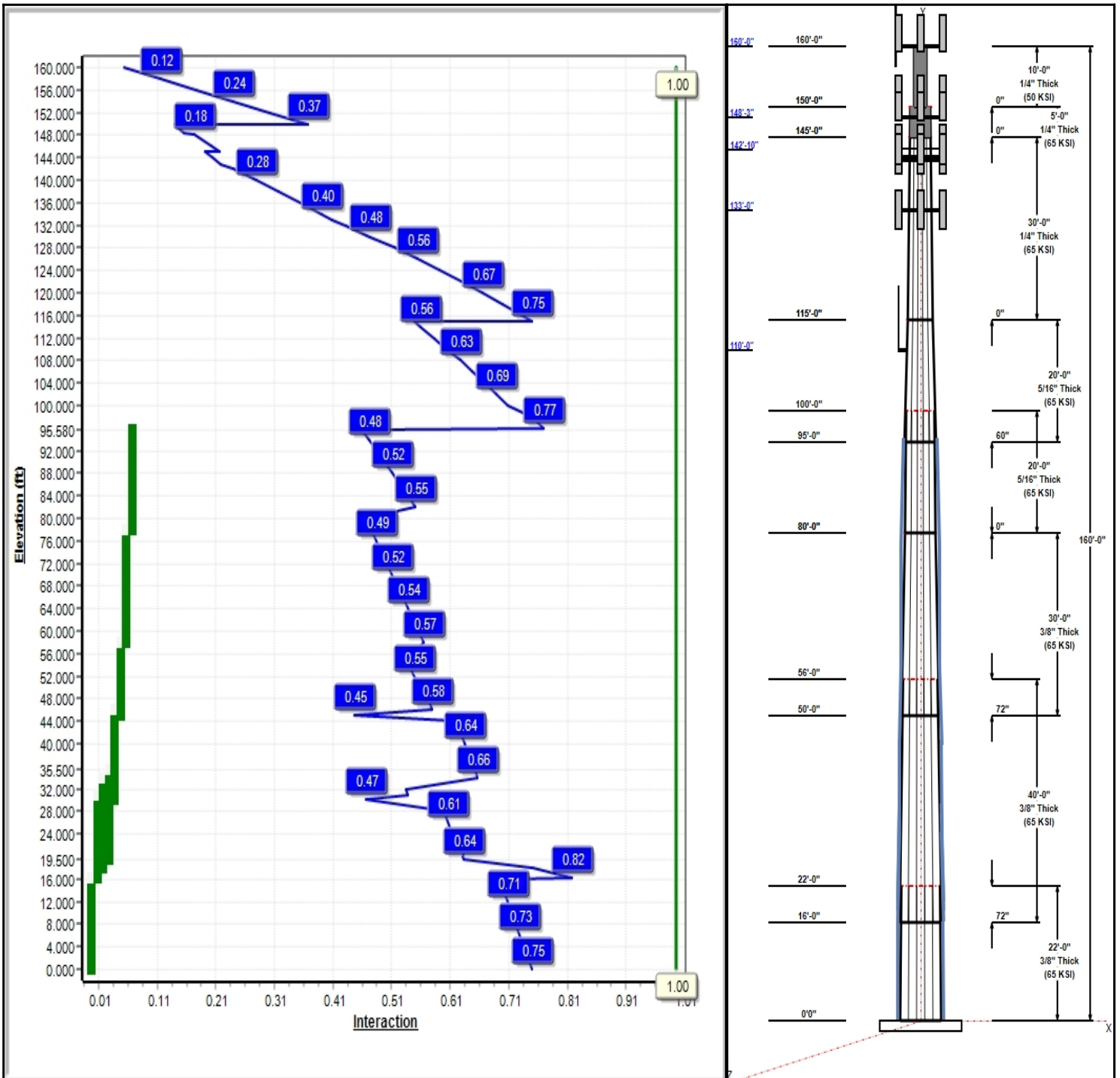
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 97 mph Wind



Iterations: 28

Copyright © 2018 by Tower Engineering Solutions, LLC. All rights reserved.



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

10/25/2018

Page: 2



Shaft Properties

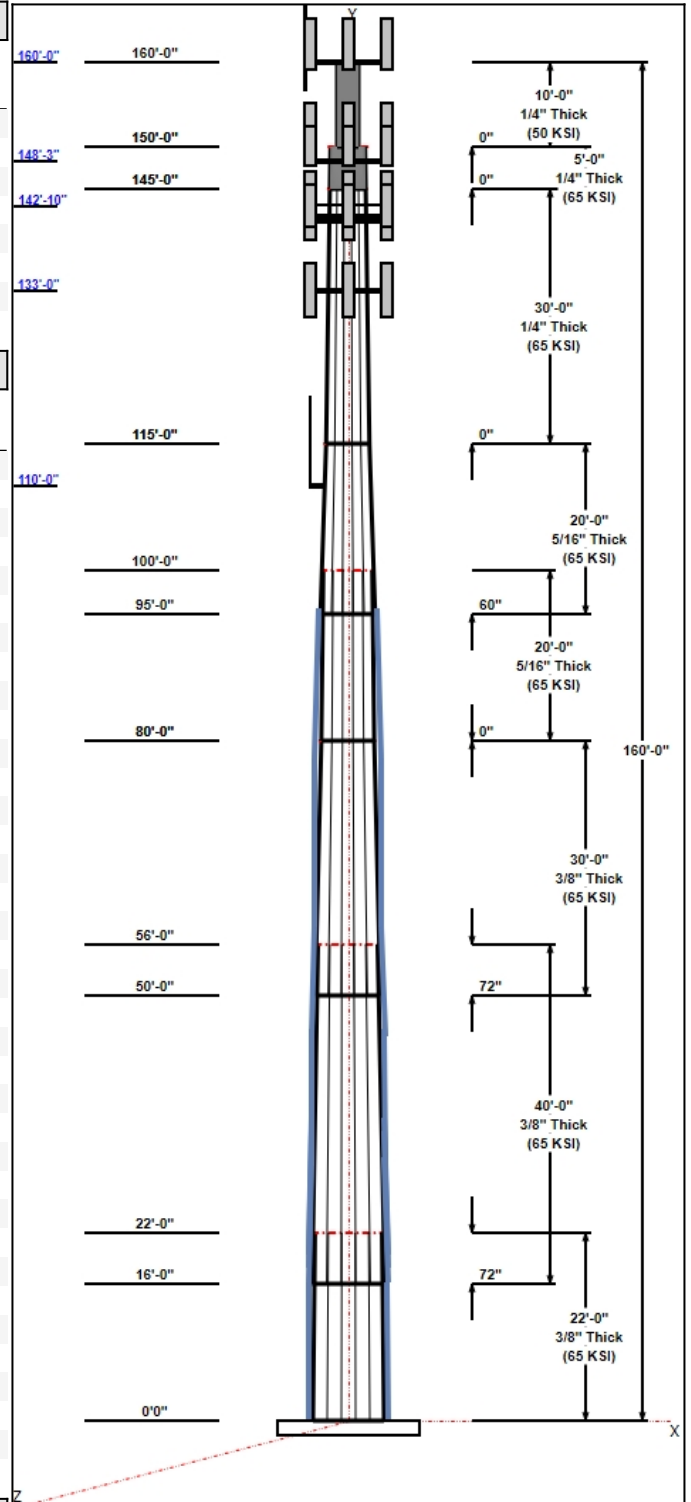
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	22.00	46.11	50.38	0.375		0.19400	65
2	40.00	40.26	48.02	0.375	Slip	0.19400	65
3	30.00	36.35	42.17	0.375	Slip	0.19400	65
4	20.00	32.48	36.35	0.313	Butt	0.19400	65
5	20.00	30.19	34.07	0.313	Slip	0.19400	65
6	30.00	24.38	30.19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

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
160.00	162.00	1	DB222	BFFD
160.00	162.00	6	DB846F65ZAXY	Verizon
160.00	162.00	1	Low Profile Platform	Verizon
160.00	162.00	1	6' Lightning rod	
160.00	162.00	3	RRH2x90-AWS	Verizon
160.00	162.00	9	SBNHH-1D65B	Verizon
160.00	162.00	1	DB-T1-6Z-8AB-OZ	Verizon
148.30	152.00	3	APXVSPP18-C-A20	Sprint
148.30	150.00	3	APXVTM14-C-120	Sprint
148.30	152.00	3	1900MHz RRH	Sprint
148.30	152.00	3	800 MHz RRH	Sprint
148.30	152.00	3	ALU 800MHz External	Sprint
148.30	150.00	3	TD-RRH8x20-25	Sprint
148.30	152.00	4	ACU-A20-N	Sprint
148.30	148.30	1	Low Profile Platform	Sprint
142.90	143.60	3	Ericsson KRY 112 144/1	T-Mobile
142.90	142.90	1	Platform w/ HR & Bracing	T-Mobile
142.90	142.90	3	Commscope	T-Mobile
142.90	142.90	1	Ericsson AIR 32 B4A/B2P	T-Mobile
142.90	142.90	1	Ericsson AIR 21 B4A B12P	T-Mobile
142.90	142.90	3	Ericsson AIR 3246 B66	T-Mobile
142.90	142.90	3	Ericsson AIR 21 B2A/B4P	T-Mobile
142.90	142.90	3	Ericsson RUS01 B12 -	T-Mobile
142.90	142.90	1	Ericsson RRUS11B12 -	T-Mobile
133.00	133.00	3	800 10121	AT&T
133.00	133.00	3	RRUS 11	AT&T
133.00	133.00	3	RRUS A2 Module	AT&T
133.00	133.00	1	Low Profile Platform	AT&T
133.00	133.00	3	RRUS 32	AT&T
133.00	133.00	2	DC6-48-60-18-8F	AT&T
133.00	133.00	3	800 10798	AT&T
133.00	133.00	3	DTMABP7819VG12A	AT&T
133.00	133.00	3	RRUS 12	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



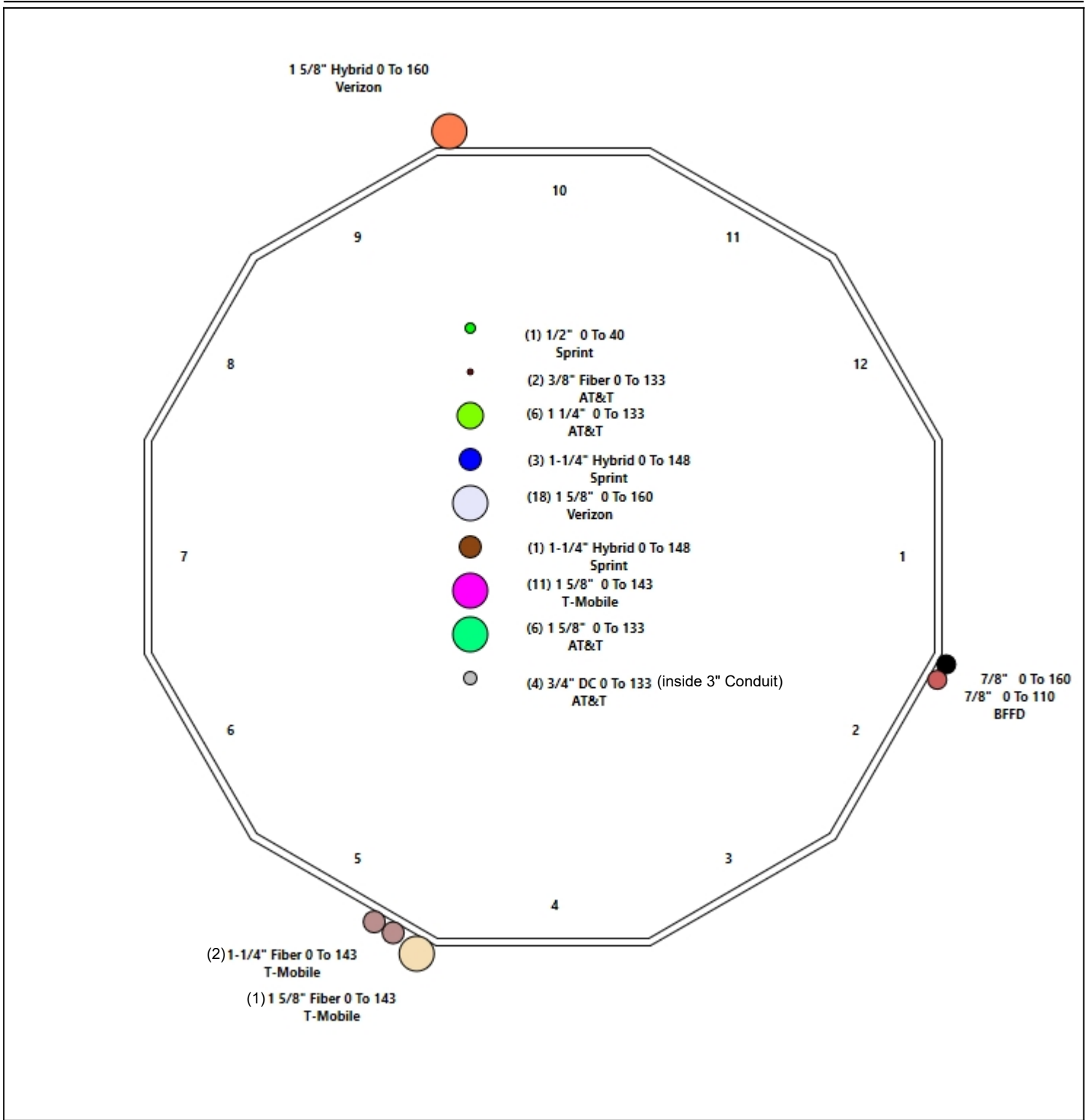
Structure: CT02049-S-SBA - Coax Line Placement

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

10/25/2018



Page: 4



Shaft Properties

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

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

Bottom

Top

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	50.38	0.00	60.38	19265.63	33.85	134.33	46.11	22.00	55.22	14741.2	30.80	122.9	0.194000
2	48.02	16.00	57.53	16670.65	32.17	128.06	40.26	56.00	48.16	9779.90	26.62	107.3	0.194000
3	42.17	50.00	50.47	11256.46	27.99	112.47	36.35	80.00	43.45	7178.88	23.83	96.95	0.194000
4	36.35	80.00	36.27	6013.63	29.03	116.34	32.48	100.00	32.36	4273.08	25.70	103.9	0.194000
5	34.07	95.00	33.97	4940.86	27.07	109.02	30.19	115.00	30.06	3425.51	23.74	96.61	0.194000
6	30.19	115.0	24.10	2757.64	30.21	120.76	24.38	145.00	19.42	1441.83	23.98	97.50	0.194000
7	24.38	145.0	18.95	1379.54	0.00	97.50	24.38	150.00	18.19	1219.74	0.00	97.50	0.194000
8	16.00	150.0	12.37	383.86	0.00	64.00	16.00	160.00	12.37	383.86	0.00	64.00	0.000000

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	┌ Intermediate Connectors ┐	┌ Termination Connectors ┐	Lower Qty	Upper Qty	
							Spacing (in)	Description			Spacing (in)
0.00	16.25	3	PLT C10x30(1.5" Hole)	65	80	0.00	AJM20&sleeve	20.00	AJM20&sleeve	3.00	
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
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
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
45.16	58.00	3	PLT 7" x 1.25"(1.25"Hole)	65	80	0.00	AJM20&sleeve	12.00	AJM20&sleeve	3.00	13
58.00	78.00	3	PLT 5.5"x1 1/4"(1.25"hol)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00	
78.00	95.58	3	PLT 5.5"x1 1/4"(1.25"hol)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00	10

Load Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	160.00	DB222	1	16.00	2.25	1.00	85.75	8.351	1.00	0.00	2.00
2	160.00	DB846F65ZAXY	6	21.00	7.05	0.93	219.92	8.290	0.93	0.00	2.00
3	160.00	Low Profile Platform	1	1200.00	22.00	1.00	2253.91	39.776	1.00	0.00	2.00
4	160.00	6' Lightning rod	1	6.50	0.38	1.00	43.04	1.475	1.00	0.00	2.00
5	160.00	RRH2x90-AWS	3	44.00	2.66	0.67	105.12	3.959	0.67	0.00	2.00
6	160.00	SBNHH-1D65B	9	40.00	8.16	0.81	244.70	9.469	0.81	0.00	2.00
7	160.00	DB-T1-6Z-8AB-0Z	1	44.00	4.80	1.00	188.83	5.680	1.00	0.00	2.00
8	148.30	APXVSPP18-C-A20	3	57.00	8.02	0.83	229.65	10.810	0.83	0.00	3.70
9	148.30	APXVTM14-C-120	3	56.00	6.34	0.76	216.19	7.452	0.77	0.00	1.70
10	148.30	1900MHz RRH	3	44.00	3.80	0.67	153.04	5.188	0.67	0.00	3.70
11	148.30	800 MHz RRH	3	53.00	2.49	0.67	126.88	3.632	0.67	0.00	3.70
12	148.30	ALU 800MHz External Notch Filt	3	8.80	0.78	0.67	26.42	1.426	0.67	0.00	3.70
13	148.30	TD-RRH8x20-25	3	70.00	4.05	0.67	180.31	4.862	0.67	0.00	1.70
14	148.30	ACU-A20-N	4	1.00	0.14	0.67	5.29	0.436	0.67	0.00	3.70
15	148.30	Low Profile Platform	1	1200.00	17.50	1.00	2245.94	31.533	1.00	0.00	0.00
16	142.90	Ericsson KRY 112 144/1 TMA	3	11.00	0.41	0.70	21.73	0.883	0.70	0.00	0.70
17	142.90	Platform w/ HR & Bracing	1	2246.00	51.70	1.00	5366.63	89.772	1.00	0.00	0.00
18	142.90	Commscope LNX-6515DS-A1M	3	50.30	11.47	0.80	281.03	14.721	0.80	0.00	0.00
19	142.90	Ericsson AIR 32 B4A/B2P	1	105.80	6.51	0.87	289.12	7.684	0.87	0.00	0.00
20	142.90	Ericsson AIR 21 B4A B12P	1	126.00	11.54	0.89	409.66	13.190	0.89	0.00	0.00
21	142.90	Ericsson AIR 3246 B66	3	180.00	7.94	0.83	380.58	9.115	0.83	0.00	0.00
22	142.90	Ericsson AIR 21 B2A/B4P	3	91.50	6.09	0.86	259.41	7.182	0.86	0.00	0.00
23	142.90	Ericsson RUS01 B12 - RRU	3	51.00	2.52	0.67	136.99	3.517	0.67	0.00	0.00
24	142.90	Ericsson RRUS11B12 - RRU	1	51.00	2.57	0.67	116.90	3.213	0.67	0.00	0.00
25	133.00	800 10121	3	46.30	5.15	0.79	159.80	7.232	0.81	0.00	0.00
26	133.00	RRUS 11	3	50.70	2.52	0.67	138.59	3.163	0.67	0.00	0.00
27	133.00	RRUS A2 Module	3	21.20	1.86	0.67	56.88	2.822	0.67	0.00	0.00
28	133.00	Low Profile Platform	1	1350.00	22.00	1.00	2513.94	39.450	1.00	0.00	0.00
29	133.00	RRUS 32	3	77.00	2.65	0.67	124.72	2.222	0.67	0.00	0.00
30	133.00	DC6-48-60-18-8F	2	32.80	1.47	0.75	95.81	2.162	0.75	0.00	0.00
31	133.00	800 10798	3	81.40	8.62	0.75	511.19	11.539	0.76	0.00	0.00
32	133.00	DTMABP7819VG12A	3	19.00	1.14	0.67	43.95	1.900	0.67	0.00	0.00
33	133.00	RRUS 12	3	58.00	2.81	0.67	143.86	3.479	0.67	0.00	0.00
34	110.00	DB222	1	16.00	2.65	1.00	83.19	9.571	1.00	0.00	5.29
35	110.00	3 ft Standoff	1	40.00	2.63	1.00	117.83	8.416	1.00	0.00	0.00
36	40.00	GPS	1	10.00	1.00	1.00	35.69	1.624	1.00	0.00	0.00
Totals:			91	10,177.50			27,374.09				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	160.00	(18) 1 5/8" Coax	0.00	Inside
0.00	160.00	(1) 1 5/8" Hybrid	2.00	Outside
0.00	160.00	(1) 7/8" Coax	0.00	Outside
0.00	148.30	(1) 1-1/4" Hybrid	0.00	Inside
0.00	148.30	(3) 1-1/4" Hybrid	0.00	Inside

Discrete Appurtenances

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

Shaft Section Properties

Structure: CT02049-S-SBA **Code:** EIA/TIA-222-G 10/25/2018
Site Name: Beacon Falls **Exposure:** B
Height: 160.00 (ft) **Crest Height:** 0.00
Base Elev: 0.000 (ft) **Site Class:** D - Stiff Soil
Gh: 1.1 **Topography:** 1 **Struct Class:** II **Page:** 8



Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
											Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00	RB1	0.3750	50.375	60.375	19265.6	33.85	134.33	65	68	0.0	26.46	9158.8	9158.8	
2.00		0.3750	49.987	59.906	18820.6	33.57	133.30	65	68	409.3	26.46	9024.4	9024.4	180.0
4.00		0.3750	49.599	59.438	18382.5	33.30	132.26	65	68	406.1	26.46	8891.0	8891.0	180.0
6.00		0.3750	49.211	58.969	17951.2	33.02	131.23	65	69	402.9	26.46	8758.6	8758.6	180.0
8.00		0.3750	48.823	58.501	17526.7	32.74	130.19	65	69	399.7	26.46	8627.2	8627.2	180.0
10.00		0.3750	48.435	58.032	17109.0	32.46	129.16	65	69	396.5	26.46	8496.8	8496.8	180.0
12.00		0.3750	48.047	57.564	16698.0	32.19	128.13	65	70	393.3	26.46	8367.4	8367.4	180.0
14.00		0.3750	47.659	57.095	16293.5	31.91	127.09	65	70	390.2	26.46	8238.9	8238.9	180.0
16.00	Bot - Section 2	0.3750	47.271	56.627	15895.7	31.63	126.06	65	70	387.0	26.46	8111.5	8111.5	180.0
16.25	RT1 RB2	0.3750	47.222	56.568	15846.5	31.60	125.93	65	70	97.1	13.47	4462.4	4462.4	11.5
18.00	RB3	0.3750	46.883	56.158	15504.4	31.36	125.02	65	71	676.7	25.47	9741.7	9758.1	151.8
19.50	RB4	0.3750	46.592	55.807	15215.2	31.15	124.25	65	71	576.1	31.47	9639.7	9639.7	160.7
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	RB5	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	RT2	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	RT3	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	RT4	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	RB6	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	RT5	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	RT6 RB7	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	RT7 RB8	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
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

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)
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	RT8	0.3125	33.332	33.226	4624.0	26.44	106.66	65	76	132.6	20.63	3223.1	3223.1	40.7
96.00		0.3125	33.251	33.144	4589.9	26.37	106.40	65	76	95.8				
98.00		0.3125	32.863	32.754	4429.6	26.03	105.16	65	76	452.8				
100.00	Top - Section 4	0.3125	33.100	32.992	4527.1	26.24	105.92	65	76	447.4				
102.00		0.3125	32.712	32.602	4368.2	25.90	104.68	65	76	223.2				
104.00		0.3125	32.324	32.212	4213.2	25.57	103.44	65	77	220.5				
106.00		0.3125	31.936	31.821	4061.8	25.24	102.20	65	77	217.9				
108.00		0.3125	31.548	31.431	3914.1	24.91	100.95	65	78	215.2				
110.00		0.3125	31.160	31.040	3770.1	24.57	99.71	65	78	212.6				
112.00		0.3125	30.772	30.650	3629.6	24.24	98.47	65	78	209.9				
114.00		0.3125	30.384	30.259	3492.7	23.91	97.23	65	79	207.3				
115.00	Top - Section 5	0.3125	30.190	30.064	3425.5	23.74	96.61	65	79	102.6				
115.00	Bot - Section 6	0.2500	30.190	24.102	2757.6	29.68	120.76	65	72					
116.00		0.2500	29.996	23.946	2704.4	30.01	119.98	65	72	81.7				
118.00		0.2500	29.608	23.633	2599.9	29.59	118.43	65	72	161.9				
120.00		0.2500	29.220	23.321	2498.2	29.17	116.88	65	73	159.8				
122.00		0.2500	28.832	23.009	2399.2	28.76	115.33	65	73	157.6				
124.00		0.2500	28.444	22.696	2302.8	28.34	113.78	65	74	155.5				
126.00		0.2500	28.056	22.384	2209.0	27.93	112.22	65	74	153.4				
128.00		0.2500	27.668	22.071	2117.8	27.51	110.67	65	75	151.3				
130.00		0.2500	27.280	21.759	2029.2	27.10	109.12	65	75	149.1				
132.00		0.2500	26.892	21.447	1943.0	26.68	107.57	65	76	147.0				
133.00		0.2500	26.698	21.291	1900.9	26.47	106.79	65	76	72.7				
134.00		0.2500	26.504	21.134	1859.4	26.26	106.02	65	76	72.2				
136.00		0.2500	26.116	20.822	1778.2	25.85	104.46	65	77	142.8				
138.00		0.2500	25.728	20.510	1699.3	25.43	102.91	65	77	140.6				
140.00		0.2500	25.340	20.197	1622.9	25.02	101.36	65	77	138.5				
142.00		0.2500	24.952	19.885	1548.7	24.60	99.81	65	78	136.4				
142.90		0.2500	24.777	19.745	1516.1	24.41	99.11	65	78	60.7				
144.00		0.2500	24.564	19.573	1476.9	24.18	98.26	65	78	73.6				
145.00	Top - Section 6	0.2500	24.370	19.417	1441.8	23.98	97.48	65	79	66.3				
145.00	Bot - Section 7	0.2500	24.375	18.948	1379.5	23.98	97.48	65	55					
146.00		0.2500	24.181	18.795	1346.5	0.00	96.72	65	55	64.2				
148.00		0.2500	23.793	18.491	1282.1	0.00	95.17	65	55	126.9				
148.30		0.2500	23.735	18.445	1272.6	0.00	94.94	65	55	18.9				
150.00	Top - Section 7	0.2500	23.405	18.186	1219.7	0.00	93.62	65	55	105.9				
150.00	Bot - Section 8	0.2500	16.000	12.370	383.9	0.00	93.62	50	50					
152.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
154.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
156.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
158.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
160.00		0.2500	16.000	12.370	383.9	0.00	64.00	50	50	84.2				
Total Weight										23786.1	8215.7			

Wind Loading - Shaft

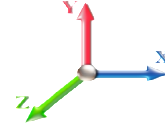
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 97 mph Wind

Iterations 28

Dead Load Factor 1.20
Wind Load Factor 1.60



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	1.00	0.70	16.018	17.62	352.70	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	16.018	17.62	349.99	1.148 *	0.000	2.00	8.659	9.94	280.1	0.0	491.1
4.00		1.00	0.70	16.018	17.62	347.27	1.151 *	0.000	2.00	8.592	9.89	278.8	0.0	487.3
6.00		1.00	0.70	16.018	17.62	344.55	1.155 *	0.000	2.00	8.525	9.84	277.5	0.0	483.5
8.00		1.00	0.70	16.018	17.62	341.84	1.158 *	0.000	2.00	8.458	9.80	276.1	0.0	479.7
10.00		1.00	0.70	16.018	17.62	339.12	1.162 *	0.000	2.00	8.391	9.75	274.8	0.0	475.8
12.00		1.00	0.70	16.018	17.62	336.40	1.166 *	0.000	2.00	8.324	9.70	273.5	0.0	472.0
14.00		1.00	0.70	16.018	17.62	333.69	1.169 *	0.000	2.00	8.257	9.65	272.2	0.0	468.2
16.00	Bot - Section 2	1.00	0.70	16.018	17.62	330.97	1.173 *	0.000	2.00	8.190	9.61	270.9	0.0	464.4
16.25	RT1 RB2	1.00	0.70	16.018	17.62	330.63	1.175 *	0.000	0.25	1.035	1.22	34.3	0.0	116.5
18.00	RB3	1.00	0.70	16.018	17.62	328.25	1.177 *	0.000	1.75	7.217	8.50	239.5	0.0	812.0
19.50	RB4	1.00	0.70	16.018	17.62	326.22	1.181 *	0.000	1.50	6.145	7.25	204.5	0.0	691.3
20.00		1.00	0.70	16.018	17.62	325.54	1.183 *	0.000	0.50	2.040	2.41	68.0	0.0	229.5
22.00	Top - Section 1	1.00	0.70	16.018	17.62	322.82	1.185 *	0.000	2.00	8.118	9.62	271.2	0.0	913.2
24.00		1.00	0.70	16.018	17.62	325.36	1.181 *	0.000	2.00	8.052	9.51	268.1	0.0	456.5
26.00		1.00	0.70	16.018	17.62	322.64	1.185 *	0.000	2.00	7.985	9.46	266.8	0.0	452.6
28.00		1.00	0.70	16.018	17.62	319.92	1.189 *	0.000	2.00	7.918	9.42	265.5	0.0	448.8
30.00	RB5	1.00	0.70	16.031	17.63	317.34	1.194 *	0.000	2.00	7.851	9.37	264.4	0.0	445.0
31.00	RT2	1.00	0.71	16.182	17.80	317.46	1.197 *	0.000	1.00	3.900	4.67	132.9	0.0	221.1
32.00		1.00	0.71	16.330	17.96	317.54	1.199 *	0.000	1.00	3.883	4.66	133.8	0.0	220.1
34.00	RT3	1.00	0.73	16.615	18.28	317.53	1.040 *	0.000	2.00	7.717	8.03	234.7	0.0	437.3
35.50	RT4	1.00	0.74	16.821	18.50	317.41	1.043 *	0.000	1.50	5.744	5.99	177.3	0.0	325.5
36.00		1.00	0.74	16.889	18.58	317.35	1.044 *	0.000	0.50	1.906	1.99	59.2	0.0	108.0
38.00		1.00	0.75	17.152	18.87	317.00	1.046 *	0.000	2.00	7.583	7.93	239.5	0.0	429.7
40.00	Appurtenance(s)	1.00	0.76	17.405	19.15	316.49	1.049 *	0.000	2.00	7.516	7.89	241.6	0.0	425.8
42.00		1.00	0.77	17.649	19.41	315.86	1.052 *	0.000	2.00	7.449	7.84	243.5	0.0	422.0
44.00		1.00	0.78	17.885	19.67	315.09	1.056 *	0.000	2.00	7.382	7.79	245.3	0.0	418.2
45.16	RB6	1.00	0.79	18.019	19.82	314.59	1.058 *	0.000	1.16	4.251	4.50	142.6	0.0	240.8
46.00	RT5	1.00	0.79	18.114	19.93	314.21	1.060 *	0.000	0.84	3.064	3.25	103.5	0.0	173.6
48.00		1.00	0.80	18.335	20.17	313.22	1.062 *	0.000	2.00	7.248	7.70	248.4	0.0	410.5
50.00	Bot - Section 3	1.00	0.81	18.551	20.41	312.13	1.066 *	0.000	2.00	7.181	7.65	249.8	0.0	406.7
52.00		1.00	0.82	18.760	20.64	310.94	1.069 *	0.000	2.00	7.244	7.74	255.7	0.0	813.2
54.00		1.00	0.83	18.963	20.86	309.67	1.072 *	0.000	2.00	7.177	7.70	256.9	0.0	805.5
56.00	Top - Section 2	1.00	0.84	19.161	21.08	308.31	1.076 *	0.000	2.00	7.110	7.65	258.0	0.0	797.9
58.00	RT6 RB7	1.00	0.85	19.354	21.29	312.65	1.073 *	0.000	2.00	7.043	7.55	257.3	0.0	398.8
60.00		1.00	0.85	19.543	21.50	311.16	1.076 *	0.000	2.00	6.976	7.51	258.2	0.0	395.0
62.00		1.00	0.86	19.726	21.70	309.61	1.080 *	0.000	2.00	6.909	7.46	259.0	0.0	391.2
64.00		1.00	0.87	19.906	21.90	307.99	1.084 *	0.000	2.00	6.842	7.41	259.8	0.0	387.3
66.00		1.00	0.88	20.082	22.09	306.30	1.087 *	0.000	2.00	6.775	7.37	260.4	0.0	383.5
68.00		1.00	0.89	20.254	22.28	304.56	1.091 *	0.000	2.00	6.708	7.32	261.0	0.0	379.7
70.00		1.00	0.89	20.422	22.46	302.75	1.095 *	0.000	2.00	6.641	7.27	261.4	0.0	375.9
72.00		1.00	0.90	20.587	22.65	300.89	1.099 *	0.000	2.00	6.574	7.23	261.9	0.0	372.0
74.00		1.00	0.91	20.749	22.82	298.98	1.103 *	0.000	2.00	6.507	7.18	262.2	0.0	368.2
76.00		1.00	0.91	20.908	23.00	297.02	1.108 *	0.000	2.00	6.440	7.13	262.5	0.0	364.4
78.00	RT7 RB8	1.00	0.92	21.064	23.17	295.01	1.112 *	0.000	2.00	6.373	7.09	262.7	0.0	360.5
80.00	Top - Section 3	1.00	0.93	21.217	23.34	292.95	1.116 *	0.000	2.00	6.306	7.04	262.9	0.0	356.7
82.00		1.00	0.93	21.367	23.50	290.85	1.121 *	0.000	2.00	6.239	6.99	263.0	0.0	294.6

Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00	1.00	0.94	21.514	23.67	288.70	1.125 *	0.000	2.00	6.172	6.95	263.0	0.0	291.4		
86.00	1.00	0.95	21.660	23.83	286.52	1.130 *	0.000	2.00	6.106	6.90	263.0	0.0	288.2		
88.00	1.00	0.95	21.802	23.98	284.29	1.135 *	0.000	2.00	6.039	6.85	262.9	0.0	285.0		
90.00	1.00	0.96	21.943	24.14	282.02	1.140 *	0.000	2.00	5.972	6.81	262.8	0.0	281.8		
92.00	1.00	0.96	22.081	24.29	279.72	1.145 *	0.000	2.00	5.905	6.76	262.6	0.0	278.7		
94.00	1.00	0.97	22.217	24.44	277.38	1.150 *	0.000	2.00	5.838	6.71	262.4	0.0	275.5		
95.00 Bot - Section 5	1.00	0.97	22.284	24.51	276.20	1.154 *	0.000	1.00	2.894	3.34	130.9	0.0	136.5		
95.58 RT8	1.00	0.98	22.323	24.56	275.51	1.156 *	0.000	0.58	1.702	1.97	77.3	0.0	159.1		
96.00	1.00	0.98	22.351	24.59	275.01	1.157 *	0.000	0.42	1.229	1.42	55.9	0.0	114.9		
98.00	1.00	0.98	22.483	24.73	272.60	1.160 *	0.000	2.00	5.812	6.74	266.8	0.0	543.3		
100.00 Top - Section 4	1.00	0.99	22.613	24.87	270.16	1.055 *	0.000	2.00	5.745	6.06	241.2	0.0	536.9		
102.00	1.00	0.99	22.742	25.02	272.91	1.052 *	0.000	2.00	5.678	5.97	239.1	0.0	267.8		
104.00	1.00	1.00	22.868	25.16	270.42	1.056 *	0.000	2.00	5.611	5.93	238.6	0.0	264.7		
106.00	1.00	1.00	22.993	25.29	267.90	1.061 *	0.000	2.00	5.544	5.88	238.0	0.0	261.5		
108.00	1.00	1.01	23.116	25.43	265.35	1.065 *	0.000	2.00	5.477	5.83	237.3	0.0	258.3		
110.00 Appurtenance(s)	1.00	1.02	23.238	25.56	262.78	1.070 *	0.000	2.00	5.410	5.79	236.7	0.0	255.1		
112.00	1.00	1.02	23.358	25.69	260.17	1.074 *	0.000	2.00	5.343	5.74	236.0	0.0	251.9		
114.00	1.00	1.03	23.476	25.82	257.54	1.079 *	0.000	2.00	5.276	5.69	235.2	0.0	248.7		
115.00 Top - Section 5	1.00	1.03	23.535	25.89	256.22	1.083 *	0.000	1.00	2.613	2.83	117.2	0.0	123.2		
116.00	1.00	1.03	23.593	25.95	254.89	1.085 *	0.000	1.00	2.596	2.82	117.0	0.0	98.1		
118.00	1.00	1.04	23.708	26.08	252.21	1.089 *	0.000	2.00	5.142	5.60	233.7	0.0	194.3		
120.00	1.00	1.04	23.823	26.20	249.50	1.094 *	0.000	2.00	5.075	5.55	232.8	0.0	191.7		
122.00	1.00	1.05	23.935	26.33	246.77	1.099 *	0.000	2.00	5.008	5.51	231.9	0.0	189.2		
124.00	1.00	1.05	24.047	26.45	244.01	1.105 *	0.000	2.00	4.941	5.46	231.0	0.0	186.6		
126.00	1.00	1.06	24.157	26.57	241.24	1.110 *	0.000	2.00	4.874	5.41	230.1	0.0	184.1		
128.00	1.00	1.06	24.266	26.69	238.43	1.116 *	0.000	2.00	4.807	5.37	229.1	0.0	181.5		
130.00	1.00	1.07	24.374	26.81	235.61	1.122 *	0.000	2.00	4.741	5.32	228.1	0.0	179.0		
132.00	1.00	1.07	24.480	26.93	232.77	1.128 *	0.000	2.00	4.674	5.27	227.1	0.0	176.4		
133.00 Appurtenance(s)	1.00	1.07	24.533	26.99	231.34	1.133 *	0.000	1.00	2.312	2.62	113.0	0.0	87.3		
134.00	1.00	1.07	24.586	27.04	229.90	1.136 *	0.000	1.00	2.295	2.61	112.8	0.0	86.6		
136.00	1.00	1.08	24.690	27.16	227.02	1.141 *	0.000	2.00	4.540	5.18	225.0	0.0	171.3		
138.00	1.00	1.08	24.793	27.27	224.11	1.147 *	0.000	2.00	4.473	5.13	223.9	0.0	168.8		
140.00	1.00	1.09	24.895	27.38	221.19	1.154 *	0.000	2.00	4.406	5.08	222.8	0.0	166.2		
142.00	1.00	1.09	24.996	27.50	218.24	1.161 *	0.000	2.00	4.339	5.04	221.6	0.0	163.7		
142.90 Appurtenance(s)	1.00	1.09	25.042	27.55	216.91	1.166 *	0.000	0.90	1.931	2.25	99.2	0.0	72.8		
144.00	1.00	1.10	25.096	27.61	215.28	1.000	0.000	1.10	2.341	2.34	103.4	0.0	88.3		
145.00 Top - Section 6	1.00	1.10	25.146	27.66	213.79	1.000	0.000	1.00	2.111	2.11	93.4	0.0	79.6		
146.00	1.00	1.10	25.196	27.72	205.10	0.600	0.000	1.00	2.023	1.21	53.8	0.0	77.1		
148.00	1.00	1.11	25.294	27.82	202.21	0.600	0.000	2.00	3.998	2.40	106.8	0.0	152.3		
148.30 Appurtenance(s)	1.00	1.11	25.308	27.84	201.77	0.600	0.000	0.30	0.594	0.36	15.9	0.0	22.6		
150.00 Top - Section 7	1.00	1.11	25.391	27.93	199.29	0.600	0.000	1.70	3.339	2.00	89.5	0.0	127.1		
152.00	1.00	1.11	25.487	28.04	136.50	0.645 *	0.000	2.00	2.667	1.72	77.2	0.0	101.0		
154.00	1.00	1.12	25.582	28.14	136.75	0.645 *	0.000	2.00	2.667	1.72	77.4	0.0	101.0		
156.00	1.00	1.12	25.677	28.24	137.00	0.645 *	0.000	2.00	2.667	1.72	77.7	0.0	101.0		
158.00	1.00	1.13	25.771	28.35	137.25	0.645 *	0.000	2.00	2.667	1.72	78.0	0.0	101.0		
160.00 Appurtenance(s)	1.00	1.13	25.863	28.45	137.50	0.645 *	0.000	2.00	2.667	1.72	78.3	0.0	101.0		
Totals:								160.00				18,859.1			28,543.3

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

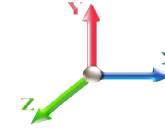
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 12

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	DB-T1-6Z-8AB-0Z	1	25.955	28.551	1.00	1.00	4.80	52.80	0.000	2.000	219.27	0.00	438.54
2	160.00	SBNHH-1D65B	9	25.955	28.551	0.81	1.00	59.49	432.00	0.000	2.000	2717.42	0.00	5434.85
3	160.00	6' Lightning rod	1	25.955	28.551	1.00	1.00	0.38	7.80	0.000	2.000	17.36	0.00	34.72
4	160.00	Low Profile Platform	1	25.955	28.551	1.00	1.00	22.00	1440.00	0.000	2.000	1004.99	0.00	2009.98
5	160.00	DB846F65ZAXY	6	25.955	28.551	0.93	1.00	39.34	151.20	0.000	2.000	1797.06	0.00	3594.12
6	160.00	DB222	1	25.955	28.551	1.00	1.00	2.25	19.20	0.000	2.000	102.78	0.00	205.57
7	160.00	RRH2x90-AWS	3	25.955	28.551	0.67	1.00	5.35	158.40	0.000	2.000	244.24	0.00	488.48
8	148.30	APXVTM14-C-120	3	25.391	27.930	0.61	0.80	11.59	201.60	0.000	1.700	518.14	0.00	880.83
9	148.30	1900MHz RRH	3	25.487	28.036	0.54	0.80	6.11	158.40	0.000	3.700	274.10	0.00	1014.16
10	148.30	800 MHz RRH	3	25.487	28.036	0.54	0.80	4.00	190.80	0.000	3.700	179.61	0.00	664.54
11	148.30	APXVSPP18-C-A20	3	25.487	28.036	0.66	0.80	15.98	205.20	0.000	3.700	716.63	0.00	2651.55
12	148.30	ACU-A20-N	4	25.487	28.036	0.54	0.80	0.30	4.80	0.000	3.700	13.46	0.00	49.82
13	148.30	ALU 800MHz External	3	25.487	28.036	0.54	0.80	1.25	31.68	0.000	3.700	56.26	0.00	208.17
14	148.30	TD-RRH8x20-25	3	25.391	27.930	0.54	0.80	6.51	252.00	0.000	1.700	291.03	0.00	494.74
15	148.30	Low Profile Platform	1	25.308	27.839	1.00	1.00	17.50	1440.00	0.000	0.000	779.50	0.00	0.00
16	142.90	Commscope	3	25.042	27.546	0.60	0.75	20.65	181.08	0.000	0.000	909.93	0.00	0.00
17	142.90	Platform w/ HR & Bracing	1	25.042	27.546	1.00	1.00	51.70	2695.20	0.000	0.000	2278.58	0.00	0.00
18	142.90	Ericsson RRUS11B12 -	1	25.042	27.546	0.50	0.75	1.29	61.20	0.000	0.000	56.92	0.00	0.00
19	142.90	Ericsson RUS01 B12 -	3	25.042	27.546	0.50	0.75	3.80	183.60	0.000	0.000	167.43	0.00	0.00
20	142.90	Ericsson AIR 3246 B66	3	25.042	27.546	0.62	0.75	14.83	648.00	0.000	0.000	653.51	0.00	0.00
21	142.90	Ericsson AIR 21 B4A	1	25.042	27.546	0.67	0.75	7.70	151.20	0.000	0.000	339.49	0.00	0.00
22	142.90	Ericsson AIR 32 B4A/B2P	1	25.042	27.546	0.65	0.75	4.25	126.96	0.000	0.000	187.21	0.00	0.00
23	142.90	Ericsson KRY 112 144/1	3	25.076	27.584	0.52	0.75	0.65	39.60	0.000	0.700	28.50	0.00	19.95
24	142.90	Ericsson AIR 21 B2A/B4P	3	25.042	27.546	0.65	0.75	11.78	329.40	0.000	0.000	519.36	0.00	0.00
25	133.00	800 10798	3	24.533	26.986	0.60	0.80	15.56	293.04	0.000	0.000	671.74	0.00	0.00
26	133.00	RRUS 12	3	24.533	26.986	0.54	0.80	4.52	208.80	0.000	0.000	195.10	0.00	0.00
27	133.00	RRUS 32	3	24.533	26.986	0.54	0.80	4.26	277.20	0.000	0.000	183.99	0.00	0.00
28	133.00	DC6-48-60-18-8F	2	24.533	26.986	0.68	0.90	1.98	78.72	0.000	0.000	85.69	0.00	0.00
29	133.00	800 10121	3	24.533	26.986	0.63	0.80	9.76	166.68	0.000	0.000	421.61	0.00	0.00
30	133.00	DTMABP7819VG12A	3	24.533	26.986	0.54	0.80	1.83	68.40	0.000	0.000	79.15	0.00	0.00
31	133.00	RRUS 11	3	24.533	26.986	0.54	0.80	4.05	182.52	0.000	0.000	174.96	0.00	0.00
32	133.00	RRUS A2 Module	3	24.533	26.986	0.54	0.80	2.99	76.32	0.000	0.000	129.14	0.00	0.00
33	133.00	Low Profile Platform	1	24.533	26.986	1.00	1.00	22.00	1620.00	0.000	0.000	949.92	0.00	0.00
34	110.00	3 ft Standoff	1	23.238	25.561	1.00	1.00	2.63	48.00	0.000	0.000	107.56	0.00	0.00
35	110.00	DB222	1	23.552	25.907	1.00	1.00	2.65	19.20	0.000	5.292	109.85	0.00	581.27
36	40.00	GPS	1	17.405	19.145	1.00	1.00	1.00	12.00	0.000	0.000	30.63	0.00	0.00

Totals: 12,213.00

17,212.13

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		280.11	614.04	0.00	0.00
4.00		278.79	610.21	0.00	0.00
6.00		277.47	606.39	0.00	0.00
8.00		276.15	602.56	0.00	0.00
10.00		274.83	598.73	0.00	0.00
12.00		273.50	594.91	0.00	0.00
14.00		272.18	591.08	0.00	0.00
16.00		270.86	587.26	0.00	0.00
16.25		34.30	131.84	0.00	0.00
18.00		239.53	919.53	0.00	0.00
19.50		204.52	783.50	0.00	0.00
20.00		68.01	260.21	0.00	0.00
22.00		271.22	1036.06	0.00	0.00
24.00		268.13	579.35	0.00	0.00
26.00		266.81	575.52	0.00	0.00
28.00		265.49	571.69	0.00	0.00
30.00		264.39	567.87	0.00	0.00
31.00		132.94	282.50	0.00	0.00
32.00		133.81	281.54	0.00	0.00
34.00		234.72	560.22	0.00	0.00
35.50		177.32	417.65	0.00	0.00
36.00		59.17	138.74	0.00	0.00
38.00		239.47	552.56	0.00	0.00
40.00	(1) attachments	272.20	560.74	0.00	0.00
42.00		243.51	544.53	0.00	0.00
44.00		245.29	540.70	0.00	0.00
45.16		142.65	311.85	0.00	0.00
46.00		103.53	225.02	0.00	0.00
48.00		248.44	533.05	0.00	0.00
50.00		249.82	529.22	0.00	0.00
52.00		255.66	935.68	0.00	0.00
54.00		256.88	928.03	0.00	0.00
56.00		258.00	920.38	0.00	0.00
58.00		257.35	521.31	0.00	0.00
60.00		258.24	517.49	0.00	0.00
62.00		259.04	513.66	0.00	0.00
64.00		259.76	509.84	0.00	0.00
66.00		260.40	506.01	0.00	0.00
68.00		260.96	502.18	0.00	0.00
70.00		261.45	498.36	0.00	0.00
72.00		261.86	494.53	0.00	0.00
74.00		262.21	490.70	0.00	0.00
76.00		262.49	486.88	0.00	0.00
78.00		262.71	483.05	0.00	0.00
80.00		262.86	479.23	0.00	0.00
82.00		262.96	417.10	0.00	0.00

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00		263.00	413.91	0.00	0.00
86.00		262.99	410.72	0.00	0.00
88.00		262.93	407.53	0.00	0.00
90.00		262.81	404.34	0.00	0.00
92.00		262.64	401.16	0.00	0.00
94.00		262.43	397.97	0.00	0.00
95.00		130.92	197.79	0.00	0.00
95.58		77.28	194.67	0.00	0.00
96.00		55.93	140.63	0.00	0.00
98.00		266.82	665.81	0.00	0.00
100.00		241.17	659.43	0.00	0.00
102.00		239.13	390.35	0.00	0.00
104.00		238.57	387.16	0.00	0.00
106.00		237.98	383.97	0.00	0.00
108.00		237.35	380.78	0.00	0.00
110.00	(2) attachments	454.09	444.80	0.00	581.27
112.00		235.97	373.16	0.00	0.00
114.00		235.23	369.97	0.00	0.00
115.00		117.18	183.79	0.00	0.00
116.00		116.99	158.73	0.00	0.00
118.00		233.65	315.54	0.00	0.00
120.00		232.81	312.99	0.00	0.00
122.00		231.94	310.44	0.00	0.00
124.00		231.04	307.89	0.00	0.00
126.00		230.10	305.33	0.00	0.00
128.00		229.14	302.78	0.00	0.00
130.00		228.15	300.23	0.00	0.00
132.00		227.12	297.68	0.00	0.00
133.00	(24) attachments	3004.35	3119.56	0.00	0.00
134.00		112.78	132.94	0.00	0.00
136.00		225.00	263.97	0.00	0.00
138.00		223.89	261.42	0.00	0.00
140.00		222.76	258.87	0.00	0.00
142.00		221.60	256.32	0.00	0.00
142.90	(19) attachments	5240.17	4530.75	0.00	19.95
144.00		103.41	120.19	0.00	0.00
145.00		93.42	108.59	0.00	0.00
146.00		53.83	106.05	0.00	0.00
148.00		106.78	210.23	0.00	0.00
148.30	(23) attachments	2844.60	2515.80	0.00	5963.81
150.00		89.53	168.63	0.00	0.00
152.00		77.15	149.84	0.00	0.00
154.00		77.44	149.84	0.00	0.00
156.00		77.73	149.84	0.00	0.00
158.00		78.01	149.84	0.00	0.00
160.00	(22) attachments	6181.42	2411.24	0.00	12206.26
Totals:		36,071.25	49,796.98	0.00	18,771.28

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.148	16.018	0.00	2.64
2.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	1.25
2.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.148	16.018	0.00	2.64
2.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	4.58
2.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	1.25
2.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.149	1.148	16.018	0.00	0.00
2.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.149	1.148	16.018	0.00	0.00
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	16.018	0.00	2.64
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	1.25
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	16.018	0.00	2.64
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	4.58
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	1.25
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	16.018	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	16.018	0.00	0.00
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	16.018	0.00	2.64
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	1.25
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	16.018	0.00	2.64
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	4.58
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	1.25
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	16.018	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	16.018	0.00	0.00
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	16.018	0.00	2.64
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	1.25
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	16.018	0.00	2.64
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	4.58
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	1.25
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	16.018	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	16.018	0.00	0.00
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	16.018	0.00	2.64
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	1.25
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	16.018	0.00	2.64
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	4.58
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	1.25
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	16.018	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	16.018	0.00	0.00
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	16.018	0.00	2.64
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	1.25
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	16.018	0.00	2.64
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	4.58
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	1.25
12.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.155	1.166	16.018	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	16.018	0.00	0.00
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	16.018	0.00	2.64
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	1.25
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	16.018	0.00	2.64
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	4.58
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	16.018	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	16.018	0.00	0.00
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	16.018	0.00	2.64
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	1.25
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	16.018	0.00	2.64
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	4.58
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	1.25
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	16.018	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	16.018	0.00	0.00
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	16.018	0.00	0.33
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.16
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	16.018	0.00	0.33
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.57
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.16
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	16.018	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	16.018	0.00	0.00
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	16.018	0.00	2.31
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	1.09
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	16.018	0.00	2.31
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	4.01
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	1.09
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	16.018	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	16.018	0.00	0.00
19.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.160	1.181	16.018	0.00	1.98
19.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.94
19.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.160	1.181	16.018	0.00	1.98
19.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	3.43
19.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.94
19.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.160	1.181	16.018	0.00	0.00
19.50	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.160	1.181	16.018	0.00	0.00
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	16.018	0.00	0.66
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.31
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	16.018	0.00	0.66
20.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	1.14
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.31
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	16.018	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	16.018	0.00	0.00
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	2.64
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	1.25
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	2.64
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	4.58
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	1.25
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	16.018	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	16.018	0.00	0.00
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	16.018	0.00	2.64
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	1.25
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	16.018	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	4.58
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	1.25
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	16.018	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	16.018	0.00	0.00
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	2.64
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	1.25
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	2.64
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	4.58
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	1.25
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	16.018	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	16.018	0.00	0.00
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	16.018	0.00	2.64
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	1.25
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	16.018	0.00	2.64
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	4.58
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	1.25
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	16.018	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	16.018	0.00	0.00
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	16.031	0.00	2.64
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	1.25
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	16.031	0.00	2.64
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	4.58
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	1.25
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	16.031	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	16.031	0.00	0.00
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	16.182	0.00	1.32
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	0.62
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	16.182	0.00	1.32
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	2.29
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	0.62
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	16.182	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	16.182	0.00	0.00
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	16.330	0.00	1.32
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	0.62
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	16.330	0.00	1.32
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	2.29
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	0.62
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	16.330	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	16.330	0.00	0.00
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	16.615	0.00	2.64
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	1.25
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	16.615	0.00	2.64
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	4.58
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	1.25
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	16.615	0.00	0.00
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	16.821	0.00	1.98
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	16.821	0.00	1.98
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	3.43
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	0.94
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	16.821	0.00	0.00
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	16.889	0.00	0.66
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.31
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	16.889	0.00	0.66
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	1.14
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.31
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	16.889	0.00	0.00
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	17.152	0.00	2.64
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	1.25
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	17.152	0.00	2.64
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	4.58
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	1.25
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	17.152	0.00	0.00
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	17.405	0.00	2.64
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	1.25
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	17.405	0.00	2.64
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	4.58
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	1.25
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	17.405	0.00	0.00
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	17.649	0.00	2.64
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	1.25
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	17.649	0.00	2.64
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	4.58
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	1.25
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	17.649	0.00	0.00
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	17.885	0.00	2.64
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	1.25
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	17.885	0.00	2.64
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	4.58
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	1.25
44.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.119	1.056	17.885	0.00	0.00
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	18.019	0.00	1.53
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	0.72
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	18.019	0.00	1.53
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	2.66
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	0.72
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	18.019	0.00	0.00
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	18.114	0.00	1.11
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	0.52
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	18.114	0.00	1.11
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	1.92
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	0.52
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	18.114	0.00	0.00
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	18.335	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	1.25
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	18.335	0.00	2.64
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	4.58
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	1.25
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	18.335	0.00	0.00
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	18.551	0.00	2.64
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	1.25
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	18.551	0.00	2.64
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	4.58
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	1.25
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	18.551	0.00	0.00
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	18.760	0.00	2.64
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	1.25
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	18.760	0.00	2.64
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	4.58
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	1.25
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	18.760	0.00	0.00
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	18.963	0.00	2.64
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	1.25
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	18.963	0.00	2.64
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	4.58
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	1.25
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	18.963	0.00	0.00
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.161	0.00	2.64
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	1.25
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.161	0.00	2.64
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	4.58
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	1.25
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	19.161	0.00	0.00
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	19.354	0.00	2.64
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	1.25
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	19.354	0.00	2.64
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	4.58
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	1.25
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	19.354	0.00	0.00
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.543	0.00	2.64
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	1.25
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.543	0.00	2.64
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	4.58
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	1.25
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	19.543	0.00	0.00
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	19.726	0.00	2.64
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	1.25
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	19.726	0.00	2.64
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	4.58
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	1.25
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	19.726	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	19.906	0.00	2.64
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	1.25
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	19.906	0.00	2.64
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	4.58
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	1.25
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	19.906	0.00	0.00
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	20.082	0.00	2.64
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	1.25
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	20.082	0.00	2.64
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	4.58
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	1.25
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	20.082	0.00	0.00
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	20.254	0.00	2.64
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	1.25
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	20.254	0.00	2.64
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	4.58
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	1.25
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	20.254	0.00	0.00
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	20.422	0.00	2.64
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	1.25
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	20.422	0.00	2.64
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	4.58
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	1.25
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	20.422	0.00	0.00
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	20.587	0.00	2.64
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	1.25
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	20.587	0.00	2.64
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	4.58
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	1.25
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	20.587	0.00	0.00
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	20.749	0.00	2.64
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	1.25
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	20.749	0.00	2.64
74.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	4.58
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	1.25
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	20.749	0.00	0.00
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	20.908	0.00	2.64
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	1.25
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	20.908	0.00	2.64
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	4.58
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	1.25
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	20.908	0.00	0.00
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	21.064	0.00	2.64
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	1.25
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	21.064	0.00	2.64
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	4.58
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	21.064	0.00	0.00
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	21.217	0.00	2.64
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	1.25
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	21.217	0.00	2.64
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	4.58
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	1.25
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	21.217	0.00	0.00
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	21.367	0.00	2.64
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	1.25
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	21.367	0.00	2.64
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	4.58
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	1.25
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	21.367	0.00	0.00
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	21.514	0.00	2.64
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	1.25
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	21.514	0.00	2.64
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	4.58
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	1.25
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	21.514	0.00	0.00
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	21.660	0.00	2.64
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	1.25
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	21.660	0.00	2.64
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	4.58
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	1.25
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	21.660	0.00	0.00
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	21.802	0.00	2.64
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	1.25
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	21.802	0.00	2.64
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	4.58
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	1.25
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	21.802	0.00	0.00
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	21.943	0.00	2.64
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	1.25
90.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	21.943	0.00	2.64
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	4.58
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	1.25
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	21.943	0.00	0.00
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	22.081	0.00	2.64
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	1.25
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	22.081	0.00	2.64
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	4.58
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	1.25
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	22.081	0.00	0.00
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	22.217	0.00	2.64
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	1.25
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	22.217	0.00	2.64
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	4.58

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	1.25
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	22.217	0.00	0.00
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	22.284	0.00	1.32
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	0.62
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	22.284	0.00	1.32
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	2.29
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	0.62
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	22.284	0.00	0.00
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	22.323	0.00	0.77
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	0.36
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	22.323	0.00	0.77
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	1.33
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	0.36
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	22.323	0.00	0.00
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	22.351	0.00	0.55
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.26
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	22.351	0.00	0.55
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.96
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.26
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	22.351	0.00	0.00
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	22.483	0.00	2.64
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	1.25
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	22.483	0.00	2.64
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	4.58
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	1.25
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	22.483	0.00	0.00
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	22.613	0.00	2.64
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	1.25
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	22.613	0.00	2.64
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	4.58
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	1.25
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	22.742	0.00	2.64
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	1.25
102.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	22.742	0.00	2.64
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	4.58
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	1.25
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	22.868	0.00	2.64
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	1.25
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	22.868	0.00	2.64
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	4.58
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	1.25
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	22.993	0.00	2.64
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	1.25
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	22.993	0.00	2.64
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	4.58
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	1.25
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	23.116	0.00	2.64

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

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)
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	1.25
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	23.116	0.00	2.64
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	4.58
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	1.25
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	23.238	0.00	2.64
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	1.25
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	23.238	0.00	2.64
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	4.58
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	1.25
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	23.358	0.00	2.64
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	23.358	0.00	1.25
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	23.358	0.00	2.64
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	23.358	0.00	4.58
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	23.476	0.00	2.64
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	23.476	0.00	1.25
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	23.476	0.00	2.64
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	23.476	0.00	4.58
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	23.535	0.00	1.32
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	23.535	0.00	0.62
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	23.535	0.00	1.32
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	23.535	0.00	2.29
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	23.593	0.00	1.32
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	23.593	0.00	0.62
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	23.593	0.00	1.32
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	23.593	0.00	2.29
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	23.708	0.00	2.64
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	23.708	0.00	1.25
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	23.708	0.00	2.64
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	23.708	0.00	4.58
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	23.823	0.00	2.64
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	23.823	0.00	1.25
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	23.823	0.00	2.64
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	23.823	0.00	4.58
122.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	23.935	0.00	2.64
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	23.935	0.00	1.25
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	23.935	0.00	2.64
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	23.935	0.00	4.58
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	24.047	0.00	2.64
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	24.047	0.00	1.25
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	24.047	0.00	2.64
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	24.047	0.00	4.58
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	24.157	0.00	2.64
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	24.157	0.00	1.25
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	24.157	0.00	2.64
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	24.157	0.00	4.58
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	24.266	0.00	2.64
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	24.266	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	24.266	0.00	2.64
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	24.266	0.00	4.58
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	24.374	0.00	2.64
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	24.374	0.00	1.25
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	24.374	0.00	2.64
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	24.374	0.00	4.58
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	24.480	0.00	2.64
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	24.480	0.00	1.25
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	24.480	0.00	2.64
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	24.480	0.00	4.58
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	24.533	0.00	1.32
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	24.533	0.00	0.62
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	24.533	0.00	1.32
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	24.533	0.00	2.29
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	24.586	0.00	1.32
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	24.586	0.00	0.62
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	24.586	0.00	1.32
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	24.586	0.00	2.29
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	24.690	0.00	2.64
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	24.690	0.00	1.25
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	24.690	0.00	2.64
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	24.690	0.00	4.58
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	24.793	0.00	2.64
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	24.793	0.00	1.25
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	24.793	0.00	2.64
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	24.793	0.00	4.58
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	24.895	0.00	2.64
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	24.895	0.00	1.25
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	24.895	0.00	2.64
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	24.895	0.00	4.58
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	24.996	0.00	2.64
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	24.996	0.00	1.25
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	24.996	0.00	2.64
142.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	24.996	0.00	4.58
142.90	1 5/8" Hybrid	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	25.042	0.00	1.19
142.90	7/8" Coax	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	25.042	0.00	0.56
142.90	1 5/8" Fiber	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	25.042	0.00	1.19
142.90	1-1/4" Fiber	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	25.042	0.00	2.06
144.00	1 5/8" Hybrid	Yes	1.10	0.000	2.00	0.18	0.00	0.078	0.000	25.096	0.00	1.45
144.00	7/8" Coax	Yes	1.10	0.000	0.00	0.00	0.00	0.078	0.000	25.096	0.00	0.69
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	25.146	0.00	1.32
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	25.146	0.00	0.62
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	25.196	0.00	1.32
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	25.196	0.00	0.62
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	25.294	0.00	2.64
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	25.294	0.00	1.25
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.05	0.00	0.084	0.000	25.308	0.00	0.40

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	25.308	0.00	0.19
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.28	0.00	0.085	0.000	25.391	0.00	2.24
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	25.391	0.00	1.06
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.487	0.00	2.64
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.487	0.00	1.25
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.582	0.00	2.64
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.582	0.00	1.25
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.677	0.00	2.64
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.677	0.00	1.25
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.771	0.00	2.64
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.771	0.00	1.25
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.863	0.00	2.64
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.863	0.00	1.25
Totals:											0.0	895.5

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

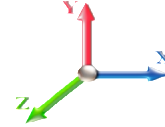


Page: 26

Load Case: 1.2D + 1.6W 97 mph Wind

Iterations 28

Dead Load Factor 1.20
Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-49.77	-36.11	0.00	-4125.6	0.00	4125.65	3683.82	1841.91	7606.69	3756.66	0.00	0.000	0.000	0.754
2.00	-49.10	-35.90	0.00	-4053.4	0.00	4053.44	3671.54	1835.77	7522.06	3714.86	0.02	-0.082	0.000	0.747
4.00	-48.44	-35.69	0.00	-3981.6	0.00	3981.64	3659.00	1829.50	7437.30	3673.00	0.07	-0.164	0.000	0.740
6.00	-47.79	-35.48	0.00	-3910.2	0.00	3910.27	3646.20	1823.10	7352.44	3631.09	0.16	-0.246	0.000	0.733
8.00	-47.14	-35.26	0.00	-3839.3	0.00	3839.32	3633.16	1816.58	7267.48	3589.13	0.28	-0.329	0.000	0.726
10.00	-46.49	-35.05	0.00	-3768.8	0.00	3768.80	3619.85	1809.93	7182.43	3547.13	0.43	-0.412	0.000	0.719
12.00	-45.84	-34.84	0.00	-3698.6	0.00	3698.69	3606.29	1803.15	7097.31	3505.10	0.62	-0.495	0.000	0.712
14.00	-45.21	-34.63	0.00	-3629.0	0.00	3629.01	3592.48	1796.24	7012.13	3463.03	0.85	-0.578	0.000	0.705
16.00	-44.59	-34.39	0.00	-3559.7	0.00	3559.76	3578.41	1789.21	6926.91	3420.94	1.11	-0.661	0.000	0.698
16.25	-44.43	-34.39	0.00	-3551.1	0.00	3551.16	3576.63	1788.32	6916.25	3415.68	1.14	-0.672	0.000	0.822
18.00	-43.47	-34.20	0.00	-3490.9	0.00	3490.98	3564.09	1782.04	6841.65	3378.83	1.41	-0.758	0.000	0.756
19.50	-42.66	-34.02	0.00	-3439.6	0.00	3439.68	3553.18	1776.59	6777.69	3347.24	1.66	-0.827	0.000	0.637
20.00	-42.38	-33.98	0.00	-3422.6	0.00	3422.67	3549.51	1774.75	6756.36	3336.71	1.74	-0.847	0.000	0.635
22.00	-41.30	-33.75	0.00	-3354.7	0.00	3354.71	3563.12	1781.56	6835.93	3376.01	2.12	-0.925	0.000	0.644
24.00	-40.68	-33.53	0.00	-3287.2	0.00	3287.22	3548.52	1774.26	6750.65	3333.89	2.52	-1.003	0.000	0.618
26.00	-40.06	-33.30	0.00	-3220.1	0.00	3220.17	3533.67	1766.84	6665.35	3291.77	2.96	-1.079	0.000	0.611
28.00	-39.45	-33.08	0.00	-3153.5	0.00	3153.57	3518.56	1759.28	6580.06	3249.64	3.43	-1.155	0.000	0.604
30.00	-38.86	-32.84	0.00	-3087.4	0.00	3087.41	3503.20	1751.60	6494.78	3207.53	3.93	-1.231	0.000	0.470
31.00	-38.56	-32.72	0.00	-3054.5	0.00	3054.57	3495.43	1747.71	6452.15	3186.48	4.19	-1.261	0.000	0.542
32.00	-38.25	-32.61	0.00	-3021.8	0.00	3021.86	3487.59	1743.79	6409.53	3165.43	4.45	-1.296	0.000	0.539
34.00	-37.66	-32.41	0.00	-2956.6	0.00	2956.63	3471.72	1735.86	6324.32	3123.35	5.01	-1.365	0.000	0.661
35.50	-37.22	-32.25	0.00	-2908.0	0.00	2908.01	3459.65	1729.82	6260.45	3091.80	5.45	-1.431	0.000	0.656
36.00	-37.06	-32.23	0.00	-2891.8	0.00	2891.88	3455.59	1727.80	6239.16	3081.29	5.60	-1.452	0.000	0.655
38.00	-36.46	-32.03	0.00	-2827.4	0.00	2827.43	3439.21	1719.61	6154.07	3039.26	6.23	-1.539	0.000	0.647
40.00	-35.86	-31.79	0.00	-2763.3	0.00	2763.38	3422.57	1711.29	6069.05	2997.28	6.89	-1.626	0.000	0.639
42.00	-35.28	-31.59	0.00	-2699.8	0.00	2699.80	3405.68	1702.84	5984.13	2955.34	7.59	-1.713	0.000	0.631
44.00	-34.70	-31.37	0.00	-2636.6	0.00	2636.62	3388.54	1694.27	5899.30	2913.44	8.33	-1.800	0.000	0.623
45.16	-34.38	-31.24	0.00	-2600.2	0.00	2600.24	3378.48	1689.24	5850.15	2889.17	8.77	-1.851	0.000	0.450
46.00	-34.13	-31.16	0.00	-2574.0	0.00	2574.00	3371.14	1685.57	5814.59	2871.61	9.10	-1.877	0.000	0.584
48.00	-33.56	-30.94	0.00	-2511.6	0.00	2511.68	3353.48	1676.74	5730.00	2829.83	9.91	-1.960	0.000	0.576
50.00	-32.99	-30.72	0.00	-2449.7	0.00	2449.79	3335.57	1667.79	5645.55	2788.13	10.75	-2.043	0.000	0.568
52.00	-32.02	-30.48	0.00	-2388.3	0.00	2388.35	3317.41	1658.70	5561.26	2746.50	11.62	-2.125	0.000	0.553
54.00	-31.06	-30.23	0.00	-2327.4	0.00	2327.40	3298.98	1649.49	5477.12	2704.94	12.53	-2.206	0.000	0.545
56.00	-30.11	-29.98	0.00	-2266.9	0.00	2266.94	3316.18	1658.09	5555.61	2743.71	13.47	-2.288	0.000	0.551
58.00	-29.56	-29.74	0.00	-2206.9	0.00	2206.98	3297.74	1648.87	5471.49	2702.16	14.44	-2.369	0.000	0.569
60.00	-29.01	-29.51	0.00	-2147.4	0.00	2147.49	3279.05	1639.52	5387.54	2660.71	15.45	-2.454	0.000	0.560
62.00	-28.46	-29.27	0.00	-2088.4	0.00	2088.48	3260.10	1630.05	5303.79	2619.34	16.50	-2.538	0.000	0.552
64.00	-27.92	-29.03	0.00	-2029.9	0.00	2029.94	3240.90	1620.45	5220.23	2578.08	17.58	-2.623	0.000	0.543
66.00	-27.39	-28.78	0.00	-1971.8	0.00	1971.89	3221.44	1610.72	5136.89	2536.92	18.70	-2.707	0.000	0.534
68.00	-26.85	-28.54	0.00	-1914.3	0.00	1914.33	3201.73	1600.86	5053.77	2495.87	19.85	-2.791	0.000	0.525
70.00	-26.33	-28.29	0.00	-1857.2	0.00	1857.25	3181.76	1590.88	4970.89	2454.94	21.04	-2.875	0.000	0.516
72.00	-25.81	-28.04	0.00	-1800.6	0.00	1800.67	3161.54	1580.77	4888.26	2414.13	22.26	-2.958	0.000	0.507
74.00	-25.29	-27.79	0.00	-1744.5	0.00	1744.59	3141.06	1570.53	4805.90	2373.45	23.52	-3.042	0.000	0.498
76.00	-24.78	-27.54	0.00	-1689.0	0.00	1689.01	3120.33	1560.16	4723.81	2332.91	24.81	-3.124	0.000	0.488
78.00	-24.27	-27.28	0.00	-1633.9	0.00	1633.94	3099.34	1549.67	4642.00	2292.51	26.13	-3.207	0.000	0.479
80.00	-23.77	-27.03	0.00	-1579.3	0.00	1579.37	3078.09	1539.05	4560.50	2252.26	27.49	-3.289	0.000	0.469
80.00	-23.77	-27.03	0.00	-1579.3	0.00	1579.37	2384.58	1192.29	3545.27	1750.88	27.49	-3.289	0.000	0.506
82.00	-23.33	-26.78	0.00	-1525.3	0.00	1525.31	2370.62	1185.31	3486.26	1721.73	28.89	-3.370	0.000	0.554

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00	-22.89	-26.53	0.00	-1471.7	0.00	1471.76	2356.42	1178.21	3427.33	1692.63	30.32	-3.461	0.000	0.542
86.00	-22.45	-26.27	0.00	-1418.7	0.00	1418.71	2341.95	1170.98	3368.48	1663.57	31.79	-3.550	0.000	0.529
88.00	-22.02	-26.02	0.00	-1366.1	0.00	1366.17	2327.23	1163.62	3309.75	1634.56	33.29	-3.639	0.000	0.516
90.00	-21.60	-25.76	0.00	-1314.1	0.00	1314.13	2312.26	1156.13	3251.12	1605.61	34.84	-3.728	0.000	0.503
92.00	-21.18	-25.51	0.00	-1262.6	0.00	1262.60	2297.03	1148.52	3192.63	1576.72	36.42	-3.815	0.000	0.489
94.00	-20.77	-25.24	0.00	-1211.5	0.00	1211.59	2281.55	1140.77	3134.28	1547.90	38.03	-3.901	0.000	0.476
95.00	-20.57	-25.11	0.00	-1186.3	0.00	1186.35	2273.71	1136.85	3105.16	1533.52	38.85	-3.944	0.000	0.469
95.58	-20.37	-25.03	0.00	-1171.7	0.00	1171.79	2269.13	1134.57	3088.29	1525.19	39.33	-3.969	0.000	0.459
95.58	-20.37	-25.03	0.00	-1171.7	0.00	1171.79	2269.13	1134.57	3088.29	1525.19	39.33	-3.969	0.000	0.459
96.00	-20.20	-24.99	0.00	-1161.2	0.00	1161.27	2265.81	1132.90	3076.09	1519.16	39.68	-3.987	0.000	0.774
98.00	-19.49	-24.72	0.00	-1111.3	0.00	1111.30	2249.81	1124.91	3018.05	1490.50	41.38	-4.128	0.000	0.755
100.00	-18.79	-24.48	0.00	-1061.8	0.00	1061.85	2259.61	1129.81	3053.48	1508.00	43.14	-4.267	0.000	0.713
102.00	-18.36	-24.26	0.00	-1012.8	0.00	1012.88	2243.52	1121.76	2995.52	1479.37	44.96	-4.405	0.000	0.693
104.00	-17.94	-24.03	0.00	-964.37	0.00	964.37	2227.17	1113.59	2937.74	1450.84	46.83	-4.534	0.000	0.673
106.00	-17.53	-23.80	0.00	-916.32	0.00	916.32	2210.57	1105.28	2880.15	1422.40	48.75	-4.661	0.000	0.653
108.00	-17.12	-23.57	0.00	-868.72	0.00	868.72	2193.71	1096.86	2822.78	1394.06	50.73	-4.786	0.000	0.631
110.00	-16.66	-23.11	0.00	-821.00	0.00	821.00	2176.60	1088.30	2765.62	1365.84	52.76	-4.909	0.000	0.609
112.00	-16.26	-22.88	0.00	-774.78	0.00	774.78	2159.23	1079.61	2708.70	1337.73	54.84	-5.030	0.000	0.587
114.00	-15.88	-22.64	0.00	-729.02	0.00	729.02	2141.61	1070.80	2652.02	1309.73	56.97	-5.147	0.000	0.564
115.00	-15.69	-22.52	0.00	-706.38	0.00	706.38	2132.70	1066.35	2623.78	1295.79	58.06	-5.206	0.000	0.553
115.00	-15.69	-22.52	0.00	-706.38	0.00	706.38	1556.62	778.31	1923.08	949.74	58.06	-5.206	0.000	0.755
116.00	-15.50	-22.42	0.00	-683.86	0.00	683.86	1551.43	775.71	1904.13	940.38	59.15	-5.264	0.000	0.738
118.00	-15.15	-22.19	0.00	-639.03	0.00	639.03	1540.84	770.42	1866.26	921.68	61.38	-5.403	0.000	0.704
120.00	-14.81	-21.96	0.00	-594.65	0.00	594.65	1529.99	765.00	1828.43	902.99	63.67	-5.538	0.000	0.669
122.00	-14.48	-21.73	0.00	-550.73	0.00	550.73	1518.89	759.45	1790.65	884.33	66.02	-5.668	0.000	0.633
124.00	-14.15	-21.50	0.00	-507.26	0.00	507.26	1507.54	753.77	1752.93	865.70	68.42	-5.794	0.000	0.596
126.00	-13.83	-21.27	0.00	-464.25	0.00	464.25	1495.93	747.96	1715.28	847.11	70.87	-5.914	0.000	0.558
128.00	-13.51	-21.04	0.00	-421.71	0.00	421.71	1484.06	742.03	1677.72	828.56	73.36	-6.028	0.000	0.519
130.00	-13.20	-20.80	0.00	-379.63	0.00	379.63	1471.95	735.97	1640.26	810.06	75.91	-6.136	0.000	0.478
132.00	-12.90	-20.56	0.00	-338.02	0.00	338.02	1459.57	729.79	1602.91	791.62	78.50	-6.236	0.000	0.437
133.00	-10.11	-17.24	0.00	-317.46	0.00	317.46	1453.29	726.64	1584.28	782.42	79.81	-6.284	0.000	0.413
134.00	-9.97	-17.13	0.00	-300.21	0.00	300.21	1446.94	723.47	1565.68	773.23	81.13	-6.330	0.000	0.396
136.00	-9.71	-16.89	0.00	-265.95	0.00	265.95	1434.06	717.03	1528.59	754.91	83.79	-6.417	0.000	0.360
138.00	-9.45	-16.65	0.00	-232.17	0.00	232.17	1420.92	710.46	1491.65	736.67	86.49	-6.497	0.000	0.322
140.00	-9.20	-16.41	0.00	-198.87	0.00	198.87	1407.52	703.76	1454.87	718.50	89.22	-6.569	0.000	0.284
142.00	-8.96	-16.17	0.00	-166.05	0.00	166.05	1393.87	696.94	1418.26	700.42	91.98	-6.633	0.000	0.244
142.90	-5.06	-10.44	0.00	-151.48	0.00	151.48	1387.65	693.82	1401.84	692.32	93.24	-6.659	0.000	0.223
144.00	-4.95	-10.33	0.00	-139.99	0.00	139.99	1379.97	689.99	1381.83	682.44	94.77	-6.689	0.000	0.209
145.00	-4.85	-10.22	0.00	-129.66	0.00	129.66	1372.92	686.46	1363.70	673.48	96.17	-6.715	0.000	0.196
145.00	-4.85	-10.22	0.00	-129.66	0.00	129.66	931.20	465.60	925.89	604.09	96.17	-6.715	0.000	0.220
146.00	-4.74	-10.16	0.00	-119.44	0.00	119.44	925.24	462.62	912.49	594.77	97.58	-6.740	0.000	0.206
148.00	-4.54	-10.03	0.00	-99.11	0.00	99.11	913.32	456.66	885.99	576.36	100.40	-6.786	0.000	0.177
148.30	-2.38	-6.91	0.00	-90.14	0.00	90.14	911.53	455.77	882.04	573.63	100.83	-6.792	0.000	0.160
150.00	-2.22	-6.80	0.00	-78.39	0.00	78.39	901.40	450.70	859.86	558.24	103.25	-6.824	0.000	0.143
150.00	-2.22	-6.80	0.00	-78.39	0.00	78.39	556.65	278.33	359.38	213.69	103.25	-6.824	0.000	0.371
152.00	-2.07	-6.71	0.00	-64.78	0.00	64.78	556.65	278.33	359.38	213.69	106.11	-6.858	0.000	0.307
154.00	-1.92	-6.62	0.00	-51.36	0.00	51.36	556.65	278.33	359.38	213.69	108.99	-6.944	0.000	0.244
156.00	-1.77	-6.53	0.00	-38.12	0.00	38.12	556.65	278.33	359.38	213.69	111.91	-7.010	0.000	0.182
158.00	-1.63	-6.43	0.00	-25.07	0.00	25.07	556.65	278.33	359.38	213.69	114.85	-7.057	0.000	0.121
160.00	0.00	-6.18	0.00	-12.21	0.00	12.21	556.65	278.33	359.38	213.69	117.81	-7.085	0.000	0.058

Wind Loading - Shaft

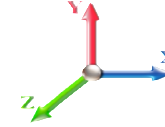
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 28

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.70	16.018	17.62	352.70	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	16.018	17.62	349.99	1.148 *	0.000	2.00	8.659	9.94	280.1	0.0	368.4
4.00		1.00	0.70	16.018	17.62	347.27	1.151 *	0.000	2.00	8.592	9.89	278.8	0.0	365.5
6.00		1.00	0.70	16.018	17.62	344.55	1.155 *	0.000	2.00	8.525	9.84	277.5	0.0	362.6
8.00		1.00	0.70	16.018	17.62	341.84	1.158 *	0.000	2.00	8.458	9.80	276.1	0.0	359.8
10.00		1.00	0.70	16.018	17.62	339.12	1.162 *	0.000	2.00	8.391	9.75	274.8	0.0	356.9
12.00		1.00	0.70	16.018	17.62	336.40	1.166 *	0.000	2.00	8.324	9.70	273.5	0.0	354.0
14.00		1.00	0.70	16.018	17.62	333.69	1.169 *	0.000	2.00	8.257	9.65	272.2	0.0	351.1
16.00	Bot - Section 2	1.00	0.70	16.018	17.62	330.97	1.173 *	0.000	2.00	8.190	9.61	270.9	0.0	348.3
16.25	RT1 RB2	1.00	0.70	16.018	17.62	330.63	1.175 *	0.000	0.25	1.035	1.22	34.3	0.0	87.4
18.00	RB3	1.00	0.70	16.018	17.62	328.25	1.177 *	0.000	1.75	7.217	8.50	239.5	0.0	609.0
19.50	RB4	1.00	0.70	16.018	17.62	326.22	1.181 *	0.000	1.50	6.145	7.25	204.5	0.0	518.5
20.00		1.00	0.70	16.018	17.62	325.54	1.183 *	0.000	0.50	2.040	2.41	68.0	0.0	172.1
22.00	Top - Section 1	1.00	0.70	16.018	17.62	322.82	1.185 *	0.000	2.00	8.118	9.62	271.2	0.0	684.9
24.00		1.00	0.70	16.018	17.62	325.36	1.181 *	0.000	2.00	8.052	9.51	268.1	0.0	342.3
26.00		1.00	0.70	16.018	17.62	322.64	1.185 *	0.000	2.00	7.985	9.46	266.8	0.0	339.5
28.00		1.00	0.70	16.018	17.62	319.92	1.189 *	0.000	2.00	7.918	9.42	265.5	0.0	336.6
30.00	RB5	1.00	0.70	16.031	17.63	317.34	1.194 *	0.000	2.00	7.851	9.37	264.4	0.0	333.7
31.00	RT2	1.00	0.71	16.182	17.80	317.46	1.197 *	0.000	1.00	3.900	4.67	132.9	0.0	165.8
32.00		1.00	0.71	16.330	17.96	317.54	1.199 *	0.000	1.00	3.883	4.66	133.8	0.0	165.1
34.00	RT3	1.00	0.73	16.615	18.28	317.53	1.040 *	0.000	2.00	7.717	8.03	234.7	0.0	328.0
35.50	RT4	1.00	0.74	16.821	18.50	317.41	1.043 *	0.000	1.50	5.744	5.99	177.3	0.0	244.1
36.00		1.00	0.74	16.889	18.58	317.35	1.044 *	0.000	0.50	1.906	1.99	59.2	0.0	81.0
38.00		1.00	0.75	17.152	18.87	317.00	1.046 *	0.000	2.00	7.583	7.93	239.5	0.0	322.3
40.00	Appurtenance(s)	1.00	0.76	17.405	19.15	316.49	1.049 *	0.000	2.00	7.516	7.89	241.6	0.0	319.4
42.00		1.00	0.77	17.649	19.41	315.86	1.052 *	0.000	2.00	7.449	7.84	243.5	0.0	316.5
44.00		1.00	0.78	17.885	19.67	315.09	1.056 *	0.000	2.00	7.382	7.79	245.3	0.0	313.6
45.16	RB6	1.00	0.79	18.019	19.82	314.59	1.058 *	0.000	1.16	4.251	4.50	142.6	0.0	180.6
46.00	RT5	1.00	0.79	18.114	19.93	314.21	1.060 *	0.000	0.84	3.064	3.25	103.5	0.0	130.2
48.00		1.00	0.80	18.335	20.17	313.22	1.062 *	0.000	2.00	7.248	7.70	248.4	0.0	307.9
50.00	Bot - Section 3	1.00	0.81	18.551	20.41	312.13	1.066 *	0.000	2.00	7.181	7.65	249.8	0.0	305.0
52.00		1.00	0.82	18.760	20.64	310.94	1.069 *	0.000	2.00	7.244	7.74	255.7	0.0	609.9
54.00		1.00	0.83	18.963	20.86	309.67	1.072 *	0.000	2.00	7.177	7.70	256.9	0.0	604.1
56.00	Top - Section 2	1.00	0.84	19.161	21.08	308.31	1.076 *	0.000	2.00	7.110	7.65	258.0	0.0	598.4
58.00	RT6 RB7	1.00	0.85	19.354	21.29	312.65	1.073 *	0.000	2.00	7.043	7.55	257.3	0.0	299.1
60.00		1.00	0.85	19.543	21.50	311.16	1.076 *	0.000	2.00	6.976	7.51	258.2	0.0	296.2
62.00		1.00	0.86	19.726	21.70	309.61	1.080 *	0.000	2.00	6.909	7.46	259.0	0.0	293.4
64.00		1.00	0.87	19.906	21.90	307.99	1.084 *	0.000	2.00	6.842	7.41	259.8	0.0	290.5
66.00		1.00	0.88	20.082	22.09	306.30	1.087 *	0.000	2.00	6.775	7.37	260.4	0.0	287.6
68.00		1.00	0.89	20.254	22.28	304.56	1.091 *	0.000	2.00	6.708	7.32	261.0	0.0	284.8
70.00		1.00	0.89	20.422	22.46	302.75	1.095 *	0.000	2.00	6.641	7.27	261.4	0.0	281.9
72.00		1.00	0.90	20.587	22.65	300.89	1.099 *	0.000	2.00	6.574	7.23	261.9	0.0	279.0
74.00		1.00	0.91	20.749	22.82	298.98	1.103 *	0.000	2.00	6.507	7.18	262.2	0.0	276.1
76.00		1.00	0.91	20.908	23.00	297.02	1.108 *	0.000	2.00	6.440	7.13	262.5	0.0	273.3
78.00	RT7 RB8	1.00	0.92	21.064	23.17	295.01	1.112 *	0.000	2.00	6.373	7.09	262.7	0.0	270.4
80.00	Top - Section 3	1.00	0.93	21.217	23.34	292.95	1.116 *	0.000	2.00	6.306	7.04	262.9	0.0	267.5
82.00		1.00	0.93	21.367	23.50	290.85	1.121 *	0.000	2.00	6.239	6.99	263.0	0.0	220.9

Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00	1.00	0.94	21.514	23.67	288.70	1.125 *	0.000	2.00	6.172	6.95	263.0	0.0	218.6		
86.00	1.00	0.95	21.660	23.83	286.52	1.130 *	0.000	2.00	6.106	6.90	263.0	0.0	216.2		
88.00	1.00	0.95	21.802	23.98	284.29	1.135 *	0.000	2.00	6.039	6.85	262.9	0.0	213.8		
90.00	1.00	0.96	21.943	24.14	282.02	1.140 *	0.000	2.00	5.972	6.81	262.8	0.0	211.4		
92.00	1.00	0.96	22.081	24.29	279.72	1.145 *	0.000	2.00	5.905	6.76	262.6	0.0	209.0		
94.00	1.00	0.97	22.217	24.44	277.38	1.150 *	0.000	2.00	5.838	6.71	262.4	0.0	206.6		
95.00 Bot - Section 5	1.00	0.97	22.284	24.51	276.20	1.154 *	0.000	1.00	2.894	3.34	130.9	0.0	102.4		
95.58 RT8	1.00	0.98	22.323	24.56	275.51	1.156 *	0.000	0.58	1.702	1.97	77.3	0.0	119.4		
96.00	1.00	0.98	22.351	24.59	275.01	1.157 *	0.000	0.42	1.229	1.42	55.9	0.0	86.2		
98.00	1.00	0.98	22.483	24.73	272.60	1.160 *	0.000	2.00	5.812	6.74	266.8	0.0	407.5		
100.00 Top - Section 4	1.00	0.99	22.613	24.87	270.16	1.055 *	0.000	2.00	5.745	6.06	241.2	0.0	402.7		
102.00	1.00	0.99	22.742	25.02	272.91	1.052 *	0.000	2.00	5.678	5.97	239.1	0.0	200.9		
104.00	1.00	1.00	22.868	25.16	270.42	1.056 *	0.000	2.00	5.611	5.93	238.6	0.0	198.5		
106.00	1.00	1.00	22.993	25.29	267.90	1.061 *	0.000	2.00	5.544	5.88	238.0	0.0	196.1		
108.00	1.00	1.01	23.116	25.43	265.35	1.065 *	0.000	2.00	5.477	5.83	237.3	0.0	193.7		
110.00 Appurtenance(s)	1.00	1.02	23.238	25.56	262.78	1.070 *	0.000	2.00	5.410	5.79	236.7	0.0	191.3		
112.00	1.00	1.02	23.358	25.69	260.17	1.074 *	0.000	2.00	5.343	5.74	236.0	0.0	188.9		
114.00	1.00	1.03	23.476	25.82	257.54	1.079 *	0.000	2.00	5.276	5.69	235.2	0.0	186.5		
115.00 Top - Section 5	1.00	1.03	23.535	25.89	256.22	1.083 *	0.000	1.00	2.613	2.83	117.2	0.0	92.4		
116.00	1.00	1.03	23.593	25.95	254.89	1.085 *	0.000	1.00	2.596	2.82	117.0	0.0	73.6		
118.00	1.00	1.04	23.708	26.08	252.21	1.089 *	0.000	2.00	5.142	5.60	233.7	0.0	145.7		
120.00	1.00	1.04	23.823	26.20	249.50	1.094 *	0.000	2.00	5.075	5.55	232.8	0.0	143.8		
122.00	1.00	1.05	23.935	26.33	246.77	1.099 *	0.000	2.00	5.008	5.51	231.9	0.0	141.9		
124.00	1.00	1.05	24.047	26.45	244.01	1.105 *	0.000	2.00	4.941	5.46	231.0	0.0	140.0		
126.00	1.00	1.06	24.157	26.57	241.24	1.110 *	0.000	2.00	4.874	5.41	230.1	0.0	138.1		
128.00	1.00	1.06	24.266	26.69	238.43	1.116 *	0.000	2.00	4.807	5.37	229.1	0.0	136.1		
130.00	1.00	1.07	24.374	26.81	235.61	1.122 *	0.000	2.00	4.741	5.32	228.1	0.0	134.2		
132.00	1.00	1.07	24.480	26.93	232.77	1.128 *	0.000	2.00	4.674	5.27	227.1	0.0	132.3		
133.00 Appurtenance(s)	1.00	1.07	24.533	26.99	231.34	1.133 *	0.000	1.00	2.312	2.62	113.0	0.0	65.4		
134.00	1.00	1.07	24.586	27.04	229.90	1.136 *	0.000	1.00	2.295	2.61	112.8	0.0	65.0		
136.00	1.00	1.08	24.690	27.16	227.02	1.141 *	0.000	2.00	4.540	5.18	225.0	0.0	128.5		
138.00	1.00	1.08	24.793	27.27	224.11	1.147 *	0.000	2.00	4.473	5.13	223.9	0.0	126.6		
140.00	1.00	1.09	24.895	27.38	221.19	1.154 *	0.000	2.00	4.406	5.08	222.8	0.0	124.7		
142.00	1.00	1.09	24.996	27.50	218.24	1.161 *	0.000	2.00	4.339	5.04	221.6	0.0	122.8		
142.90 Appurtenance(s)	1.00	1.09	25.042	27.55	216.91	1.166 *	0.000	0.90	1.931	2.25	99.2	0.0	54.6		
144.00	1.00	1.10	25.096	27.61	215.28	1.000	0.000	1.10	2.341	2.34	103.4	0.0	66.2		
145.00 Top - Section 6	1.00	1.10	25.146	27.66	213.79	1.000	0.000	1.00	2.111	2.11	93.4	0.0	59.7		
146.00	1.00	1.10	25.196	27.72	205.10	0.600	0.000	1.00	2.023	1.21	53.8	0.0	57.8		
148.00	1.00	1.11	25.294	27.82	202.21	0.600	0.000	2.00	3.998	2.40	106.8	0.0	114.2		
148.30 Appurtenance(s)	1.00	1.11	25.308	27.84	201.77	0.600	0.000	0.30	0.594	0.36	15.9	0.0	17.0		
150.00 Top - Section 7	1.00	1.11	25.391	27.93	199.29	0.600	0.000	1.70	3.339	2.00	89.5	0.0	95.4		
152.00	1.00	1.11	25.487	28.04	136.50	0.645 *	0.000	2.00	2.667	1.72	77.2	0.0	75.8		
154.00	1.00	1.12	25.582	28.14	136.75	0.645 *	0.000	2.00	2.667	1.72	77.4	0.0	75.8		
156.00	1.00	1.12	25.677	28.24	137.00	0.645 *	0.000	2.00	2.667	1.72	77.7	0.0	75.8		
158.00	1.00	1.13	25.771	28.35	137.25	0.645 *	0.000	2.00	2.667	1.72	78.0	0.0	75.8		
160.00 Appurtenance(s)	1.00	1.13	25.863	28.45	137.50	0.645 *	0.000	2.00	2.667	1.72	78.3	0.0	75.8		
Totals:								160.00				18,859.1	21,407.5		

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

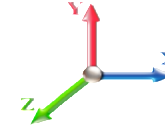
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 30

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	DB-T1-6Z-8AB-0Z	1	25.955	28.551	1.00	1.00	4.80	39.60	0.000	2.000	219.27	0.00	438.54
2	160.00	SBNHH-1D65B	9	25.955	28.551	0.81	1.00	59.49	324.00	0.000	2.000	2717.42	0.00	5434.85
3	160.00	6' Lightning rod	1	25.955	28.551	1.00	1.00	0.38	5.85	0.000	2.000	17.36	0.00	34.72
4	160.00	Low Profile Platform	1	25.955	28.551	1.00	1.00	22.00	1080.00	0.000	2.000	1004.99	0.00	2009.98
5	160.00	DB846F65ZAXY	6	25.955	28.551	0.93	1.00	39.34	113.40	0.000	2.000	1797.06	0.00	3594.12
6	160.00	DB222	1	25.955	28.551	1.00	1.00	2.25	14.40	0.000	2.000	102.78	0.00	205.57
7	160.00	RRH2x90-AWS	3	25.955	28.551	0.67	1.00	5.35	118.80	0.000	2.000	244.24	0.00	488.48
8	148.30	APXVTM14-C-120	3	25.391	27.930	0.61	0.80	11.59	151.20	0.000	1.700	518.14	0.00	880.83
9	148.30	1900MHz RRH	3	25.487	28.036	0.54	0.80	6.11	118.80	0.000	3.700	274.10	0.00	1014.16
10	148.30	800 MHz RRH	3	25.487	28.036	0.54	0.80	4.00	143.10	0.000	3.700	179.61	0.00	664.54
11	148.30	APXVSPP18-C-A20	3	25.487	28.036	0.66	0.80	15.98	153.90	0.000	3.700	716.63	0.00	2651.55
12	148.30	ACU-A20-N	4	25.487	28.036	0.54	0.80	0.30	3.60	0.000	3.700	13.46	0.00	49.82
13	148.30	ALU 800MHz External	3	25.487	28.036	0.54	0.80	1.25	23.76	0.000	3.700	56.26	0.00	208.17
14	148.30	TD-RRH8x20-25	3	25.391	27.930	0.54	0.80	6.51	189.00	0.000	1.700	291.03	0.00	494.74
15	148.30	Low Profile Platform	1	25.308	27.839	1.00	1.00	17.50	1080.00	0.000	0.000	779.50	0.00	0.00
16	142.90	Commscope	3	25.042	27.546	0.60	0.75	20.65	135.81	0.000	0.000	909.93	0.00	0.00
17	142.90	Platform w/ HR & Bracing	1	25.042	27.546	1.00	1.00	51.70	2021.40	0.000	0.000	2278.58	0.00	0.00
18	142.90	Ericsson RRUS11B12 -	1	25.042	27.546	0.50	0.75	1.29	45.90	0.000	0.000	56.92	0.00	0.00
19	142.90	Ericsson RUS01 B12 -	3	25.042	27.546	0.50	0.75	3.80	137.70	0.000	0.000	167.43	0.00	0.00
20	142.90	Ericsson AIR 3246 B66	3	25.042	27.546	0.62	0.75	14.83	486.00	0.000	0.000	653.51	0.00	0.00
21	142.90	Ericsson AIR 21 B4A	1	25.042	27.546	0.67	0.75	7.70	113.40	0.000	0.000	339.49	0.00	0.00
22	142.90	Ericsson AIR 32 B4A/B2P	1	25.042	27.546	0.65	0.75	4.25	95.22	0.000	0.000	187.21	0.00	0.00
23	142.90	Ericsson KRY 112 144/1	3	25.076	27.584	0.52	0.75	0.65	29.70	0.000	0.700	28.50	0.00	19.95
24	142.90	Ericsson AIR 21 B2A/B4P	3	25.042	27.546	0.65	0.75	11.78	247.05	0.000	0.000	519.36	0.00	0.00
25	133.00	800 10798	3	24.533	26.986	0.60	0.80	15.56	219.78	0.000	0.000	671.74	0.00	0.00
26	133.00	RRUS 12	3	24.533	26.986	0.54	0.80	4.52	156.60	0.000	0.000	195.10	0.00	0.00
27	133.00	RRUS 32	3	24.533	26.986	0.54	0.80	4.26	207.90	0.000	0.000	183.99	0.00	0.00
28	133.00	DC6-48-60-18-8F	2	24.533	26.986	0.68	0.90	1.98	59.04	0.000	0.000	85.69	0.00	0.00
29	133.00	800 10121	3	24.533	26.986	0.63	0.80	9.76	125.01	0.000	0.000	421.61	0.00	0.00
30	133.00	DTMABP7819VG12A	3	24.533	26.986	0.54	0.80	1.83	51.30	0.000	0.000	79.15	0.00	0.00
31	133.00	RRUS 11	3	24.533	26.986	0.54	0.80	4.05	136.89	0.000	0.000	174.96	0.00	0.00
32	133.00	RRUS A2 Module	3	24.533	26.986	0.54	0.80	2.99	57.24	0.000	0.000	129.14	0.00	0.00
33	133.00	Low Profile Platform	1	24.533	26.986	1.00	1.00	22.00	1215.00	0.000	0.000	949.92	0.00	0.00
34	110.00	3 ft Standoff	1	23.238	25.561	1.00	1.00	2.63	36.00	0.000	0.000	107.56	0.00	0.00
35	110.00	DB222	1	23.552	25.907	1.00	1.00	2.65	14.40	0.000	5.292	109.85	0.00	581.27
36	40.00	GPS	1	17.405	19.145	1.00	1.00	1.00	9.00	0.000	0.000	30.63	0.00	0.00

Totals: 9,159.75

17,212.13

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

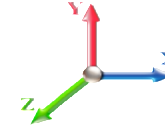


Page: 31

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 28

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		280.11	460.53	0.00	0.00
4.00		278.79	457.66	0.00	0.00
6.00		277.47	454.79	0.00	0.00
8.00		276.15	451.92	0.00	0.00
10.00		274.83	449.05	0.00	0.00
12.00		273.50	446.18	0.00	0.00
14.00		272.18	443.31	0.00	0.00
16.00		270.86	440.44	0.00	0.00
16.25		34.30	98.88	0.00	0.00
18.00		239.53	689.64	0.00	0.00
19.50		204.52	587.63	0.00	0.00
20.00		68.01	195.16	0.00	0.00
22.00		271.22	777.05	0.00	0.00
24.00		268.13	434.51	0.00	0.00
26.00		266.81	431.64	0.00	0.00
28.00		265.49	428.77	0.00	0.00
30.00		264.39	425.90	0.00	0.00
31.00		132.94	211.87	0.00	0.00
32.00		133.81	211.16	0.00	0.00
34.00		234.72	420.16	0.00	0.00
35.50		177.32	313.24	0.00	0.00
36.00		59.17	104.05	0.00	0.00
38.00		239.47	414.42	0.00	0.00
40.00	(1) attachments	272.20	420.55	0.00	0.00
42.00		243.51	408.40	0.00	0.00
44.00		245.29	405.53	0.00	0.00
45.16		142.65	233.89	0.00	0.00
46.00		103.53	168.77	0.00	0.00
48.00		248.44	399.79	0.00	0.00
50.00		249.82	396.92	0.00	0.00
52.00		255.66	701.76	0.00	0.00
54.00		256.88	696.02	0.00	0.00
56.00		258.00	690.28	0.00	0.00
58.00		257.35	390.99	0.00	0.00
60.00		258.24	388.12	0.00	0.00
62.00		259.04	385.25	0.00	0.00
64.00		259.76	382.38	0.00	0.00
66.00		260.40	379.51	0.00	0.00
68.00		260.96	376.64	0.00	0.00
70.00		261.45	373.77	0.00	0.00
72.00		261.86	370.90	0.00	0.00
74.00		262.21	368.03	0.00	0.00
76.00		262.49	365.16	0.00	0.00
78.00		262.71	362.29	0.00	0.00
80.00		262.86	359.42	0.00	0.00
82.00		262.96	312.82	0.00	0.00

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00		263.00	310.43	0.00	0.00
86.00		262.99	308.04	0.00	0.00
88.00		262.93	305.65	0.00	0.00
90.00		262.81	303.26	0.00	0.00
92.00		262.64	300.87	0.00	0.00
94.00		262.43	298.48	0.00	0.00
95.00		130.92	148.34	0.00	0.00
95.58		77.28	146.00	0.00	0.00
96.00		55.93	105.47	0.00	0.00
98.00		266.82	499.36	0.00	0.00
100.00		241.17	494.58	0.00	0.00
102.00		239.13	292.76	0.00	0.00
104.00		238.57	290.37	0.00	0.00
106.00		237.98	287.98	0.00	0.00
108.00		237.35	285.59	0.00	0.00
110.00	(2) attachments	454.09	333.60	0.00	581.27
112.00		235.97	279.87	0.00	0.00
114.00		235.23	277.48	0.00	0.00
115.00		117.18	137.84	0.00	0.00
116.00		116.99	119.04	0.00	0.00
118.00		233.65	236.65	0.00	0.00
120.00		232.81	234.74	0.00	0.00
122.00		231.94	232.83	0.00	0.00
124.00		231.04	230.91	0.00	0.00
126.00		230.10	229.00	0.00	0.00
128.00		229.14	227.09	0.00	0.00
130.00		228.15	225.17	0.00	0.00
132.00		227.12	223.26	0.00	0.00
133.00	(24) attachments	3004.35	2339.67	0.00	0.00
134.00		112.78	99.71	0.00	0.00
136.00		225.00	197.98	0.00	0.00
138.00		223.89	196.07	0.00	0.00
140.00		222.76	194.15	0.00	0.00
142.00		221.60	192.24	0.00	0.00
142.90	(19) attachments	5240.17	3398.06	0.00	19.95
144.00		103.41	90.14	0.00	0.00
145.00		93.42	81.44	0.00	0.00
146.00		53.83	79.53	0.00	0.00
148.00		106.78	157.67	0.00	0.00
148.30	(23) attachments	2844.60	1886.85	0.00	5963.81
150.00		89.53	126.47	0.00	0.00
152.00		77.15	112.38	0.00	0.00
154.00		77.44	112.38	0.00	0.00
156.00		77.73	112.38	0.00	0.00
158.00		78.01	112.38	0.00	0.00
160.00	(22) attachments	6181.42	1808.43	0.00	12206.26
Totals:		36,071.25	37,347.73	0.00	18,771.28

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.148	16.018	0.00	1.98
2.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	0.94
2.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.148	16.018	0.00	1.98
2.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	3.43
2.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	16.018	0.00	0.94
2.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.149	1.148	16.018	0.00	0.00
2.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.149	1.148	16.018	0.00	0.00
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	16.018	0.00	1.98
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	0.94
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	16.018	0.00	1.98
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	3.43
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	16.018	0.00	0.94
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	16.018	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	16.018	0.00	0.00
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	16.018	0.00	1.98
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	0.94
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	16.018	0.00	1.98
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	3.43
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	16.018	0.00	0.94
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	16.018	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	16.018	0.00	0.00
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	16.018	0.00	1.98
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	0.94
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	16.018	0.00	1.98
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	3.43
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	16.018	0.00	0.94
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	16.018	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	16.018	0.00	0.00
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	16.018	0.00	1.98
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	0.94
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	16.018	0.00	1.98
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	3.43
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	16.018	0.00	0.94
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	16.018	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	16.018	0.00	0.00
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	16.018	0.00	1.98
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	0.94
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	16.018	0.00	1.98
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	3.43
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	16.018	0.00	0.94
12.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.155	1.166	16.018	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	16.018	0.00	0.00
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	16.018	0.00	1.98
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	0.94
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	16.018	0.00	1.98
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	3.43
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	16.018	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 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)
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	16.018	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	16.018	0.00	0.00
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	16.018	0.00	1.98
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	0.94
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	16.018	0.00	1.98
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	3.43
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	16.018	0.00	0.94
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	16.018	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	16.018	0.00	0.00
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	16.018	0.00	0.25
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.12
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	16.018	0.00	0.25
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.43
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	16.018	0.00	0.12
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	16.018	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	16.018	0.00	0.00
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	16.018	0.00	1.73
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	0.82
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	16.018	0.00	1.73
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	3.01
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	16.018	0.00	0.82
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	16.018	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	16.018	0.00	0.00
19.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.160	1.181	16.018	0.00	1.49
19.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.70
19.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.160	1.181	16.018	0.00	1.49
19.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	2.58
19.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.70
19.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.160	1.181	16.018	0.00	0.00
19.50	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.160	1.181	16.018	0.00	0.00
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	16.018	0.00	0.50
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.23
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	16.018	0.00	0.50
20.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.86
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	16.018	0.00	0.23
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	16.018	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	16.018	0.00	0.00
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	1.98
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	0.94
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	1.98
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	3.43
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	0.94
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	16.018	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	16.018	0.00	0.00
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	16.018	0.00	1.98
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.94
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	16.018	0.00	1.98

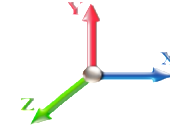
Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 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)
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	3.43
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	16.018	0.00	0.94
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	16.018	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	16.018	0.00	0.00
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	1.98
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	0.94
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	16.018	0.00	1.98
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	3.43
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	16.018	0.00	0.94
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	16.018	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	16.018	0.00	0.00
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	16.018	0.00	1.98
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	0.94
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	16.018	0.00	1.98
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	3.43
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	16.018	0.00	0.94
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	16.018	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	16.018	0.00	0.00
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	16.031	0.00	1.98
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	0.94
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	16.031	0.00	1.98
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	3.43
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	16.031	0.00	0.94
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	16.031	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	16.031	0.00	0.00
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	16.182	0.00	0.99
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	0.47
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	16.182	0.00	0.99
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	1.72
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	16.182	0.00	0.47
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	16.182	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	16.182	0.00	0.00
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	16.330	0.00	0.99
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	0.47
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	16.330	0.00	0.99
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	1.72
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	16.330	0.00	0.47
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	16.330	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	16.330	0.00	0.00
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	16.615	0.00	1.98
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	0.94
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	16.615	0.00	1.98
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	3.43
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	16.615	0.00	0.94
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	16.615	0.00	0.00
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	16.821	0.00	1.49
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	0.70

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	16.821	0.00	1.49
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	2.58
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	16.821	0.00	0.70
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	16.821	0.00	0.00
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	16.889	0.00	0.50
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.23
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	16.889	0.00	0.50
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.86
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	16.889	0.00	0.23
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	16.889	0.00	0.00
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	17.152	0.00	1.98
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	0.94
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	17.152	0.00	1.98
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	3.43
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	17.152	0.00	0.94
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	17.152	0.00	0.00
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	17.405	0.00	1.98
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	0.94
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	17.405	0.00	1.98
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	3.43
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	17.405	0.00	0.94
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	17.405	0.00	0.00
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	17.649	0.00	1.98
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	0.94
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	17.649	0.00	1.98
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	3.43
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	17.649	0.00	0.94
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	17.649	0.00	0.00
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	17.885	0.00	1.98
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	0.94
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	17.885	0.00	1.98
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	3.43
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	17.885	0.00	0.94
44.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.119	1.056	17.885	0.00	0.00
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	18.019	0.00	1.15
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	0.54
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	18.019	0.00	1.15
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	1.99
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	18.019	0.00	0.54
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	18.019	0.00	0.00
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	18.114	0.00	0.83
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	0.39
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	18.114	0.00	0.83
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	1.44
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	18.114	0.00	0.39
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	18.114	0.00	0.00
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	18.335	0.00	1.98

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	0.94
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	18.335	0.00	1.98
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	3.43
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	18.335	0.00	0.94
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	18.335	0.00	0.00
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	18.551	0.00	1.98
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	0.94
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	18.551	0.00	1.98
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	3.43
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	18.551	0.00	0.94
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	18.551	0.00	0.00
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	18.760	0.00	1.98
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	0.94
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	18.760	0.00	1.98
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	3.43
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	18.760	0.00	0.94
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	18.760	0.00	0.00
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	18.963	0.00	1.98
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	0.94
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	18.963	0.00	1.98
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	3.43
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	18.963	0.00	0.94
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	18.963	0.00	0.00
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.161	0.00	1.98
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	0.94
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.161	0.00	1.98
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	3.43
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.161	0.00	0.94
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	19.161	0.00	0.00
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	19.354	0.00	1.98
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	0.94
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	19.354	0.00	1.98
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	3.43
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	19.354	0.00	0.94
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	19.354	0.00	0.00
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.543	0.00	1.98
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	0.94
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	19.543	0.00	1.98
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	3.43
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	19.543	0.00	0.94
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	19.543	0.00	0.00
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	19.726	0.00	1.98
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	0.94
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	19.726	0.00	1.98
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	3.43
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	19.726	0.00	0.94
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	19.726	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	19.906	0.00	1.98
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	0.94
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	19.906	0.00	1.98
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	3.43
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	19.906	0.00	0.94
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	19.906	0.00	0.00
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	20.082	0.00	1.98
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	0.94
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	20.082	0.00	1.98
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	3.43
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	20.082	0.00	0.94
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	20.082	0.00	0.00
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	20.254	0.00	1.98
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	0.94
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	20.254	0.00	1.98
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	3.43
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	20.254	0.00	0.94
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	20.254	0.00	0.00
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	20.422	0.00	1.98
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	0.94
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	20.422	0.00	1.98
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	3.43
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	20.422	0.00	0.94
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	20.422	0.00	0.00
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	20.587	0.00	1.98
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	0.94
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	20.587	0.00	1.98
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	3.43
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	20.587	0.00	0.94
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	20.587	0.00	0.00
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	20.749	0.00	1.98
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	0.94
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	20.749	0.00	1.98
74.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	3.43
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	20.749	0.00	0.94
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	20.749	0.00	0.00
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	20.908	0.00	1.98
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	0.94
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	20.908	0.00	1.98
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	3.43
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	20.908	0.00	0.94
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	20.908	0.00	0.00
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	21.064	0.00	1.98
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	0.94
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	21.064	0.00	1.98
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	3.43
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	21.064	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 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)
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	21.064	0.00	0.00
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	21.217	0.00	1.98
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	0.94
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	21.217	0.00	1.98
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	3.43
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	21.217	0.00	0.94
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	21.217	0.00	0.00
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	21.367	0.00	1.98
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	0.94
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	21.367	0.00	1.98
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	3.43
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	21.367	0.00	0.94
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	21.367	0.00	0.00
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	21.514	0.00	1.98
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	0.94
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	21.514	0.00	1.98
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	3.43
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	21.514	0.00	0.94
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	21.514	0.00	0.00
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	21.660	0.00	1.98
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	0.94
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	21.660	0.00	1.98
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	3.43
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	21.660	0.00	0.94
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	21.660	0.00	0.00
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	21.802	0.00	1.98
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	0.94
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	21.802	0.00	1.98
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	3.43
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	21.802	0.00	0.94
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	21.802	0.00	0.00
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	21.943	0.00	1.98
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	0.94
90.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	21.943	0.00	1.98
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	3.43
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	21.943	0.00	0.94
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	21.943	0.00	0.00
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	22.081	0.00	1.98
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	0.94
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	22.081	0.00	1.98
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	3.43
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	22.081	0.00	0.94
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	22.081	0.00	0.00
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	22.217	0.00	1.98
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	0.94
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	22.217	0.00	1.98
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	3.43

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	22.217	0.00	0.94
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	22.217	0.00	0.00
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	22.284	0.00	0.99
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	0.47
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	22.284	0.00	0.99
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	1.72
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	22.284	0.00	0.47
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	22.284	0.00	0.00
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	22.323	0.00	0.57
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	0.27
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	22.323	0.00	0.57
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	1.00
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	22.323	0.00	0.27
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	22.323	0.00	0.00
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	22.351	0.00	0.42
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.20
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	22.351	0.00	0.42
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.72
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	22.351	0.00	0.20
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	22.351	0.00	0.00
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	22.483	0.00	1.98
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	0.94
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	22.483	0.00	1.98
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	3.43
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	22.483	0.00	0.94
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	22.483	0.00	0.00
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	22.613	0.00	1.98
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	0.94
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	22.613	0.00	1.98
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	3.43
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	22.613	0.00	0.94
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	22.742	0.00	1.98
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	0.94
102.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	22.742	0.00	1.98
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	3.43
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	22.742	0.00	0.94
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	22.868	0.00	1.98
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	0.94
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	22.868	0.00	1.98
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	3.43
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	22.868	0.00	0.94
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	22.993	0.00	1.98
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	0.94
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	22.993	0.00	1.98
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	3.43
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	22.993	0.00	0.94
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	23.116	0.00	1.98

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	0.94
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	23.116	0.00	1.98
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	3.43
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	23.116	0.00	0.94
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	23.238	0.00	1.98
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	0.94
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	23.238	0.00	1.98
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	3.43
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	23.238	0.00	0.94
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	23.358	0.00	1.98
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	23.358	0.00	0.94
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	23.358	0.00	1.98
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	23.358	0.00	3.43
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	23.476	0.00	1.98
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	23.476	0.00	0.94
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	23.476	0.00	1.98
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	23.476	0.00	3.43
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	23.535	0.00	0.99
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	23.535	0.00	0.47
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	23.535	0.00	0.99
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	23.535	0.00	1.72
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	23.593	0.00	0.99
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	23.593	0.00	0.47
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	23.593	0.00	0.99
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	23.593	0.00	1.72
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	23.708	0.00	1.98
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	23.708	0.00	0.94
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	23.708	0.00	1.98
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	23.708	0.00	3.43
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	23.823	0.00	1.98
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	23.823	0.00	0.94
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	23.823	0.00	1.98
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	23.823	0.00	3.43
122.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	23.935	0.00	1.98
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	23.935	0.00	0.94
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	23.935	0.00	1.98
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	23.935	0.00	3.43
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	24.047	0.00	1.98
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	24.047	0.00	0.94
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	24.047	0.00	1.98
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	24.047	0.00	3.43
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	24.157	0.00	1.98
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	24.157	0.00	0.94
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	24.157	0.00	1.98
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	24.157	0.00	3.43
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	24.266	0.00	1.98
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	24.266	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	24.266	0.00	1.98
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	24.266	0.00	3.43
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	24.374	0.00	1.98
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	24.374	0.00	0.94
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	24.374	0.00	1.98
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	24.374	0.00	3.43
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	24.480	0.00	1.98
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	24.480	0.00	0.94
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	24.480	0.00	1.98
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	24.480	0.00	3.43
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	24.533	0.00	0.99
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	24.533	0.00	0.47
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	24.533	0.00	0.99
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	24.533	0.00	1.72
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	24.586	0.00	0.99
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	24.586	0.00	0.47
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	24.586	0.00	0.99
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	24.586	0.00	1.72
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	24.690	0.00	1.98
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	24.690	0.00	0.94
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	24.690	0.00	1.98
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	24.690	0.00	3.43
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	24.793	0.00	1.98
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	24.793	0.00	0.94
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	24.793	0.00	1.98
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	24.793	0.00	3.43
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	24.895	0.00	1.98
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	24.895	0.00	0.94
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	24.895	0.00	1.98
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	24.895	0.00	3.43
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	24.996	0.00	1.98
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	24.996	0.00	0.94
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	24.996	0.00	1.98
142.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	24.996	0.00	3.43
142.90	1 5/8" Hybrid	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	25.042	0.00	0.89
142.90	7/8" Coax	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	25.042	0.00	0.42
142.90	1 5/8" Fiber	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	25.042	0.00	0.89
142.90	1-1/4" Fiber	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	25.042	0.00	1.55
144.00	1 5/8" Hybrid	Yes	1.10	0.000	2.00	0.18	0.00	0.078	0.000	25.096	0.00	1.09
144.00	7/8" Coax	Yes	1.10	0.000	0.00	0.00	0.00	0.078	0.000	25.096	0.00	0.51
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	25.146	0.00	0.99
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	25.146	0.00	0.47
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	25.196	0.00	0.99
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	25.196	0.00	0.47
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	25.294	0.00	1.98
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	25.294	0.00	0.94
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.05	0.00	0.084	0.000	25.308	0.00	0.30

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

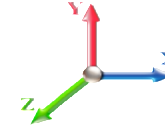


Page: 43

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	25.308	0.00	0.14
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.28	0.00	0.085	0.000	25.391	0.00	1.68
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	25.391	0.00	0.80
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.487	0.00	1.98
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.487	0.00	0.94
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.582	0.00	1.98
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.582	0.00	0.94
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.677	0.00	1.98
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.677	0.00	0.94
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.771	0.00	1.98
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.771	0.00	0.94
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	25.863	0.00	1.98
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	25.863	0.00	0.94
Totals:											0.0	671.6

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

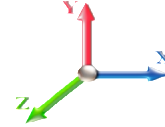


Page: 44

Load Case: 0.9D + 1.6W 97 mph Wind

Iterations 28

Dead Load Factor 0.90
Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-37.32	-36.10	0.00	-4078.8	0.00	4078.86	3683.82	1841.91	7606.69	3756.66	0.00	0.000	0.000	0.743
2.00	-36.81	-35.87	0.00	-4006.6	0.00	4006.66	3671.54	1835.77	7522.06	3714.86	0.02	-0.081	0.000	0.736
4.00	-36.30	-35.64	0.00	-3934.9	0.00	3934.92	3659.00	1829.50	7437.30	3673.00	0.07	-0.162	0.000	0.729
6.00	-35.80	-35.41	0.00	-3863.6	0.00	3863.64	3646.20	1823.10	7352.44	3631.09	0.15	-0.243	0.000	0.722
8.00	-35.30	-35.18	0.00	-3792.8	0.00	3792.82	3633.16	1816.58	7267.48	3589.13	0.27	-0.325	0.000	0.715
10.00	-34.80	-34.96	0.00	-3722.4	0.00	3722.45	3619.85	1809.93	7182.43	3547.13	0.43	-0.407	0.000	0.708
12.00	-34.31	-34.73	0.00	-3652.5	0.00	3652.54	3606.29	1803.15	7097.31	3505.10	0.62	-0.489	0.000	0.701
14.00	-33.82	-34.50	0.00	-3583.0	0.00	3583.08	3592.48	1796.24	7012.13	3463.03	0.84	-0.571	0.000	0.694
16.00	-33.35	-34.25	0.00	-3514.0	0.00	3514.08	3578.41	1789.21	6926.91	3420.94	1.10	-0.653	0.000	0.687
16.25	-33.22	-34.25	0.00	-3505.5	0.00	3505.52	3576.63	1788.32	6916.25	3415.68	1.13	-0.664	0.000	0.809
18.00	-32.49	-34.04	0.00	-3445.5	0.00	3445.59	3564.09	1782.04	6841.65	3378.83	1.39	-0.749	0.000	0.744
19.50	-31.88	-33.85	0.00	-3394.5	0.00	3394.53	3553.18	1776.59	6777.69	3347.24	1.64	-0.817	0.000	0.627
20.00	-31.66	-33.81	0.00	-3377.6	0.00	3377.60	3549.51	1774.75	6756.36	3336.71	1.72	-0.836	0.000	0.625
22.00	-30.84	-33.57	0.00	-3309.9	0.00	3309.99	3563.12	1781.56	6835.93	3376.01	2.09	-0.913	0.000	0.633
24.00	-30.37	-33.33	0.00	-3242.8	0.00	3242.86	3548.52	1774.26	6750.65	3333.89	2.49	-0.990	0.000	0.608
26.00	-29.90	-33.10	0.00	-3176.1	0.00	3176.19	3533.67	1766.84	6665.35	3291.77	2.92	-1.065	0.000	0.601
28.00	-29.43	-32.86	0.00	-3110.0	0.00	3110.00	3518.56	1759.28	6580.06	3249.64	3.38	-1.140	0.000	0.593
30.00	-28.98	-32.61	0.00	-3044.2	0.00	3044.28	3503.20	1751.60	6494.78	3207.53	3.88	-1.215	0.000	0.462
31.00	-28.75	-32.49	0.00	-3011.6	0.00	3011.67	3495.43	1747.71	6452.15	3186.48	4.14	-1.245	0.000	0.533
32.00	-28.52	-32.38	0.00	-2979.1	0.00	2979.18	3487.59	1743.79	6409.53	3165.43	4.40	-1.279	0.000	0.530
34.00	-28.06	-32.17	0.00	-2914.4	0.00	2914.42	3471.72	1735.86	6324.32	3123.35	4.95	-1.348	0.000	0.650
35.50	-27.73	-32.00	0.00	-2866.1	0.00	2866.17	3459.65	1729.82	6260.45	3091.80	5.38	-1.412	0.000	0.645
36.00	-27.60	-31.97	0.00	-2850.1	0.00	2850.16	3455.59	1727.80	6239.16	3081.29	5.53	-1.434	0.000	0.643
38.00	-27.14	-31.76	0.00	-2786.2	0.00	2786.23	3439.21	1719.61	6154.07	3039.26	6.15	-1.519	0.000	0.636
40.00	-26.68	-31.52	0.00	-2722.7	0.00	2722.71	3422.57	1711.29	6069.05	2997.28	6.81	-1.605	0.000	0.628
42.00	-26.24	-31.30	0.00	-2659.6	0.00	2659.68	3405.68	1702.84	5984.13	2955.34	7.50	-1.690	0.000	0.620
44.00	-25.80	-31.07	0.00	-2597.0	0.00	2597.08	3388.54	1694.27	5899.30	2913.44	8.23	-1.776	0.000	0.612
45.16	-25.55	-30.94	0.00	-2561.0	0.00	2561.04	3378.48	1689.24	5850.15	2889.17	8.66	-1.826	0.000	0.442
46.00	-25.36	-30.85	0.00	-2535.0	0.00	2535.05	3371.14	1685.57	5814.59	2871.61	8.99	-1.852	0.000	0.573
48.00	-24.92	-30.63	0.00	-2473.3	0.00	2473.34	3353.48	1676.74	5730.00	2829.83	9.78	-1.934	0.000	0.566
50.00	-24.49	-30.40	0.00	-2412.0	0.00	2412.09	3335.57	1667.79	5645.55	2788.13	10.61	-2.015	0.000	0.558
52.00	-23.76	-30.15	0.00	-2351.2	0.00	2351.29	3317.41	1658.70	5561.26	2746.50	11.47	-2.096	0.000	0.543
54.00	-23.03	-29.90	0.00	-2290.9	0.00	2290.98	3298.98	1649.49	5477.12	2704.94	12.37	-2.176	0.000	0.535
56.00	-22.31	-29.65	0.00	-2231.1	0.00	2231.18	3316.18	1658.09	5555.61	2743.71	13.29	-2.256	0.000	0.541
58.00	-21.88	-29.41	0.00	-2171.8	0.00	2171.88	3297.74	1648.87	5471.49	2702.16	14.26	-2.336	0.000	0.558
60.00	-21.47	-29.16	0.00	-2113.0	0.00	2113.07	3279.05	1639.52	5387.54	2660.71	15.25	-2.419	0.000	0.550
62.00	-21.05	-28.92	0.00	-2054.7	0.00	2054.74	3260.10	1630.05	5303.79	2619.34	16.28	-2.503	0.000	0.541
64.00	-20.64	-28.67	0.00	-1996.9	0.00	1996.90	3240.90	1620.45	5220.23	2578.08	17.35	-2.586	0.000	0.533
66.00	-20.23	-28.42	0.00	-1939.5	0.00	1939.56	3221.44	1610.72	5136.89	2536.92	18.45	-2.669	0.000	0.524
68.00	-19.82	-28.17	0.00	-1882.7	0.00	1882.71	3201.73	1600.86	5053.77	2495.87	19.59	-2.752	0.000	0.515
70.00	-19.42	-27.92	0.00	-1826.3	0.00	1826.36	3181.76	1590.88	4970.89	2454.94	20.76	-2.834	0.000	0.506
72.00	-19.03	-27.67	0.00	-1770.5	0.00	1770.52	3161.54	1580.77	4888.26	2414.13	21.96	-2.916	0.000	0.497
74.00	-18.63	-27.42	0.00	-1715.1	0.00	1715.17	3141.06	1570.53	4805.90	2373.45	23.20	-2.998	0.000	0.488
76.00	-18.25	-27.16	0.00	-1660.3	0.00	1660.34	3120.33	1560.16	4723.81	2332.91	24.47	-3.079	0.000	0.479
78.00	-17.86	-26.90	0.00	-1606.0	0.00	1606.02	3099.34	1549.67	4642.00	2292.51	25.78	-3.160	0.000	0.470
80.00	-17.48	-26.65	0.00	-1552.2	0.00	1552.22	3078.09	1539.05	4560.50	2252.26	27.12	-3.241	0.000	0.460
80.00	-17.48	-26.65	0.00	-1552.2	0.00	1552.22	2384.58	1192.29	3545.27	1750.88	27.12	-3.241	0.000	0.496
82.00	-17.14	-26.39	0.00	-1498.9	0.00	1498.92	2370.62	1185.31	3486.26	1721.73	28.50	-3.321	0.000	0.543

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00	-16.81	-26.14	0.00	-1446.1	0.00	1446.14	2356.42	1178.21	3427.33	1692.63	29.90	-3.410	0.000	0.531
86.00	-16.48	-25.88	0.00	-1393.8	0.00	1393.87	2341.95	1170.98	3368.48	1663.57	31.35	-3.498	0.000	0.518
88.00	-16.15	-25.62	0.00	-1342.1	0.00	1342.11	2327.23	1163.62	3309.75	1634.56	32.84	-3.585	0.000	0.505
90.00	-15.82	-25.37	0.00	-1290.8	0.00	1290.87	2312.26	1156.13	3251.12	1605.61	34.35	-3.672	0.000	0.492
92.00	-15.50	-25.11	0.00	-1240.1	0.00	1240.14	2297.03	1148.52	3192.63	1576.72	35.91	-3.758	0.000	0.479
94.00	-15.20	-24.84	0.00	-1189.9	0.00	1189.92	2281.55	1140.77	3134.28	1547.90	37.50	-3.842	0.000	0.466
95.00	-15.04	-24.71	0.00	-1165.0	0.00	1165.08	2273.71	1136.85	3105.16	1533.52	38.31	-3.885	0.000	0.459
95.58	-14.89	-24.63	0.00	-1150.7	0.00	1150.75	2269.13	1134.57	3088.29	1525.19	38.78	-3.909	0.000	0.449
95.58	-14.89	-24.63	0.00	-1150.7	0.00	1150.75	2269.13	1134.57	3088.29	1525.19	38.78	-3.909	0.000	0.449
96.00	-14.76	-24.59	0.00	-1140.4	0.00	1140.40	2265.81	1132.90	3076.09	1519.16	39.13	-3.927	0.000	0.758
98.00	-14.22	-24.32	0.00	-1091.2	0.00	1091.23	2249.81	1124.91	3018.05	1490.50	40.80	-4.065	0.000	0.739
100.00	-13.69	-24.08	0.00	-1042.5	0.00	1042.59	2259.61	1129.81	3053.48	1508.00	42.53	-4.202	0.000	0.698
102.00	-13.36	-23.85	0.00	-994.44	0.00	994.44	2243.52	1121.76	2995.52	1479.37	44.32	-4.338	0.000	0.679
104.00	-13.03	-23.61	0.00	-946.75	0.00	946.75	2227.17	1113.59	2937.74	1450.84	46.17	-4.464	0.000	0.659
106.00	-12.72	-23.38	0.00	-899.52	0.00	899.52	2210.57	1105.28	2880.15	1422.40	48.06	-4.589	0.000	0.639
108.00	-12.40	-23.15	0.00	-852.76	0.00	852.76	2193.71	1096.86	2822.78	1394.06	50.01	-4.712	0.000	0.618
110.00	-12.06	-22.69	0.00	-805.88	0.00	805.88	2176.60	1088.30	2765.62	1365.84	52.01	-4.832	0.000	0.596
112.00	-11.75	-22.46	0.00	-760.49	0.00	760.49	2159.23	1079.61	2708.70	1337.73	54.05	-4.950	0.000	0.574
114.00	-11.47	-22.22	0.00	-715.57	0.00	715.57	2141.61	1070.80	2652.02	1309.73	56.15	-5.066	0.000	0.552
115.00	-11.32	-22.10	0.00	-693.35	0.00	693.35	2132.70	1066.35	2623.78	1295.79	57.22	-5.123	0.000	0.541
115.00	-11.32	-22.10	0.00	-693.35	0.00	693.35	1556.62	778.31	1923.08	949.74	57.22	-5.123	0.000	0.738
116.00	-11.17	-21.99	0.00	-671.25	0.00	671.25	1551.43	775.71	1904.13	940.38	58.30	-5.180	0.000	0.722
118.00	-10.91	-21.76	0.00	-627.27	0.00	627.27	1540.84	770.42	1866.26	921.68	60.49	-5.317	0.000	0.688
120.00	-10.65	-21.53	0.00	-583.74	0.00	583.74	1529.99	765.00	1828.43	902.99	62.75	-5.449	0.000	0.654
122.00	-10.39	-21.30	0.00	-540.68	0.00	540.68	1518.89	759.45	1790.65	884.33	65.05	-5.577	0.000	0.619
124.00	-10.14	-21.07	0.00	-498.07	0.00	498.07	1507.54	753.77	1752.93	865.70	67.41	-5.700	0.000	0.583
126.00	-9.89	-20.84	0.00	-455.93	0.00	455.93	1495.93	747.96	1715.28	847.11	69.82	-5.818	0.000	0.546
128.00	-9.65	-20.61	0.00	-414.25	0.00	414.25	1484.06	742.03	1677.72	828.56	72.28	-5.930	0.000	0.507
130.00	-9.41	-20.37	0.00	-373.03	0.00	373.03	1471.95	735.97	1640.26	810.06	74.79	-6.036	0.000	0.468
132.00	-9.19	-20.14	0.00	-332.28	0.00	332.28	1459.57	729.79	1602.91	791.62	77.33	-6.135	0.000	0.427
133.00	-7.17	-16.90	0.00	-312.15	0.00	312.15	1453.29	726.64	1584.28	782.42	78.62	-6.182	0.000	0.404
134.00	-7.07	-16.79	0.00	-295.24	0.00	295.24	1446.94	723.47	1565.68	773.23	79.92	-6.228	0.000	0.387
136.00	-6.87	-16.55	0.00	-261.67	0.00	261.67	1434.06	717.03	1528.59	754.91	82.54	-6.313	0.000	0.352
138.00	-6.68	-16.32	0.00	-228.56	0.00	228.56	1420.92	710.46	1491.65	736.67	85.20	-6.391	0.000	0.315
140.00	-6.49	-16.08	0.00	-195.92	0.00	195.92	1407.52	703.76	1454.87	718.50	87.89	-6.462	0.000	0.278
142.00	-6.31	-15.85	0.00	-163.76	0.00	163.76	1393.87	696.94	1418.26	700.42	90.60	-6.525	0.000	0.239
142.90	-3.53	-10.25	0.00	-149.48	0.00	149.48	1387.65	693.82	1401.84	692.32	91.83	-6.551	0.000	0.219
144.00	-3.45	-10.14	0.00	-138.20	0.00	138.20	1379.97	689.99	1381.83	682.44	93.34	-6.581	0.000	0.205
145.00	-3.37	-10.04	0.00	-128.06	0.00	128.06	1372.92	686.46	1363.70	673.48	94.72	-6.607	0.000	0.193
145.00	-3.37	-10.04	0.00	-128.06	0.00	128.06	931.20	465.60	925.89	604.09	94.72	-6.607	0.000	0.216
146.00	-3.29	-9.98	0.00	-118.01	0.00	118.01	925.24	462.62	912.49	594.77	96.10	-6.631	0.000	0.202
148.00	-3.15	-9.86	0.00	-98.05	0.00	98.05	913.32	456.66	885.99	576.36	98.89	-6.677	0.000	0.174
148.30	-1.60	-6.81	0.00	-89.13	0.00	89.13	911.53	455.77	882.04	573.63	99.30	-6.683	0.000	0.157
150.00	-1.48	-6.71	0.00	-77.55	0.00	77.55	901.40	450.70	859.86	558.24	101.69	-6.715	0.000	0.141
150.00	-1.48	-6.71	0.00	-77.55	0.00	77.55	556.65	278.33	359.38	213.69	101.69	-6.715	0.000	0.366
152.00	-1.37	-6.62	0.00	-64.12	0.00	64.12	556.65	278.33	359.38	213.69	104.50	-6.748	0.000	0.303
154.00	-1.26	-6.53	0.00	-50.88	0.00	50.88	556.65	278.33	359.38	213.69	107.34	-6.833	0.000	0.241
156.00	-1.15	-6.45	0.00	-37.81	0.00	37.81	556.65	278.33	359.38	213.69	110.21	-6.899	0.000	0.180
158.00	-1.05	-6.36	0.00	-24.92	0.00	24.92	556.65	278.33	359.38	213.69	113.10	-6.945	0.000	0.119
160.00	0.00	-6.18	0.00	-12.21	0.00	12.21	556.65	278.33	359.38	213.69	116.01	-6.973	0.000	0.058

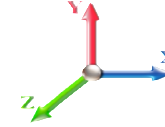
Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.70	4.256	4.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	4.256	4.68	0.00	1.377 *	1.133	2.00	9.036	12.44	58.3	146.4	637.6
4.00		1.00	0.70	4.256	4.68	0.00	1.381 *	1.215	2.00	8.996	12.43	58.2	156.0	643.3
6.00		1.00	0.70	4.256	4.68	0.00	1.385 *	1.265	2.00	8.946	12.39	58.0	161.4	644.9
8.00		1.00	0.70	4.256	4.68	0.00	1.390 *	1.302	2.00	8.892	12.36	57.9	164.9	644.6
10.00		1.00	0.70	4.256	4.68	0.00	1.394 *	1.331	2.00	8.834	12.32	57.7	167.4	643.3
12.00		1.00	0.70	4.256	4.68	0.00	1.399 *	1.356	2.00	8.776	12.27	57.5	169.3	641.3
14.00		1.00	0.70	4.256	4.68	0.00	1.403 *	1.377	2.00	8.716	12.23	57.3	170.6	638.8
16.00	Bot - Section 2	1.00	0.70	4.256	4.68	0.00	1.408 *	1.395	2.00	8.655	12.18	57.0	171.6	636.0
16.25	RT1 RB2	1.00	0.70	4.256	4.68	0.00	1.410 *	1.397	0.25	1.093	1.54	7.2	21.8	138.3
18.00	RB3	1.00	0.70	4.256	4.68	0.00	1.413 *	1.412	1.75	7.629	10.78	50.5	153.1	965.1
19.50	RB4	1.00	0.70	4.256	4.68	0.00	1.417 *	1.423	1.50	6.501	9.21	43.1	131.5	822.9
20.00		1.00	0.70	4.256	4.68	0.00	1.419 *	1.427	0.50	2.159	3.06	14.3	43.9	273.4
22.00	Top - Section 1	1.00	0.70	4.256	4.68	0.00	1.422 *	1.440	2.00	8.599	12.23	57.2	175.8	1089.0
24.00		1.00	0.70	4.256	4.68	0.00	1.418 *	1.453	2.00	8.536	12.10	56.6	176.0	632.4
26.00		1.00	0.70	4.256	4.68	0.00	1.422 *	1.465	2.00	8.473	12.05	56.4	176.0	628.6
28.00		1.00	0.70	4.256	4.68	0.00	1.427 *	1.476	2.00	8.409	12.00	56.2	175.9	624.7
30.00	RB5	1.00	0.70	4.260	4.69	0.00	1.432 *	1.486	2.00	8.346	11.95	56.0	175.7	620.7
31.00	RT2	1.00	0.71	4.300	4.73	0.00	1.436 *	1.491	1.00	4.149	5.96	28.2	87.8	308.8
32.00		1.00	0.71	4.339	4.77	0.00	1.439 *	1.495	1.00	4.133	5.95	28.4	87.7	307.8
34.00	RT3	1.00	0.73	4.415	4.86	0.00	1.248 *	1.504	2.00	8.218	10.26	49.8	175.0	612.3
35.50	RT4	1.00	0.74	4.469	4.92	0.00	1.251 *	1.511	1.50	6.121	7.66	37.7	131.0	456.5
36.00		1.00	0.74	4.487	4.94	0.00	1.253 *	1.513	0.50	2.032	2.55	12.6	43.6	151.7
38.00		1.00	0.75	4.557	5.01	0.00	1.255 *	1.521	2.00	8.090	10.16	50.9	174.0	603.7
40.00	Appurtenance(s)	1.00	0.76	4.625	5.09	0.00	1.259 *	1.529	2.00	8.026	10.11	51.4	173.5	599.3
42.00		1.00	0.77	4.689	5.16	0.00	1.263 *	1.537	2.00	7.961	10.05	51.9	172.8	594.8
44.00		1.00	0.78	4.752	5.23	0.00	1.267 *	1.544	2.00	7.897	10.00	52.3	172.1	590.3
45.16	RB6	1.00	0.79	4.788	5.27	0.00	1.270 *	1.548	1.16	4.550	5.78	30.4	99.6	340.4
46.00	RT5	1.00	0.79	4.813	5.29	0.00	1.272 *	1.551	0.84	3.281	4.17	22.1	72.0	245.6
48.00		1.00	0.80	4.872	5.36	0.00	1.275 *	1.557	2.00	7.767	9.90	53.1	170.6	581.2
50.00	Bot - Section 3	1.00	0.81	4.929	5.42	0.00	1.279 *	1.564	2.00	7.702	9.85	53.4	169.8	576.5
52.00		1.00	0.82	4.984	5.48	0.00	1.283 *	1.570	2.00	7.767	9.96	54.6	172.0	985.1
54.00		1.00	0.83	5.039	5.54	0.00	1.287 *	1.576	2.00	7.702	9.91	54.9	171.1	976.6
56.00	Top - Section 2	1.00	0.84	5.091	5.60	0.00	1.291 *	1.581	2.00	7.637	9.86	55.2	170.2	968.1
58.00	RT6 RB7	1.00	0.85	5.142	5.66	0.00	1.287 *	1.587	2.00	7.572	9.75	55.1	169.2	568.0
60.00		1.00	0.85	5.193	5.71	0.00	1.292 *	1.592	2.00	7.507	9.70	55.4	168.3	563.3
62.00		1.00	0.86	5.241	5.77	0.00	1.296 *	1.598	2.00	7.441	9.64	55.6	167.3	558.4
64.00		1.00	0.87	5.289	5.82	0.00	1.300 *	1.603	2.00	7.376	9.59	55.8	166.3	553.6
66.00		1.00	0.88	5.336	5.87	0.00	1.305 *	1.608	2.00	7.311	9.54	56.0	165.2	548.7
68.00		1.00	0.89	5.382	5.92	0.00	1.310 *	1.612	2.00	7.246	9.49	56.2	164.1	543.8
70.00		1.00	0.89	5.426	5.97	0.00	1.314 *	1.617	2.00	7.180	9.44	56.3	163.0	538.9
72.00		1.00	0.90	5.470	6.02	0.00	1.319 *	1.622	2.00	7.115	9.39	56.5	161.9	534.0
74.00		1.00	0.91	5.513	6.06	0.00	1.324 *	1.626	2.00	7.049	9.33	56.6	160.8	529.0
76.00		1.00	0.91	5.555	6.11	0.00	1.329 *	1.631	2.00	6.984	9.28	56.7	159.6	524.0
78.00	RT7 RB8	1.00	0.92	5.597	6.16	0.00	1.334 *	1.635	2.00	6.918	9.23	56.8	158.5	519.0
80.00	Top - Section 3	1.00	0.93	5.637	6.20	0.00	1.339 *	1.639	2.00	6.853	9.18	56.9	157.3	514.0
82.00		1.00	0.93	5.677	6.24	0.00	1.345 *	1.643	2.00	6.787	9.13	57.0	156.1	450.7

Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00	1.00	0.94	5.716	6.29	0.00	1.350 *	1.647	2.00	6.721	9.08	57.1	154.9	446.3
86.00	1.00	0.95	5.755	6.33	0.00	1.356 *	1.651	2.00	6.656	9.02	57.1	153.6	441.8
88.00	1.00	0.95	5.793	6.37	0.00	1.362 *	1.655	2.00	6.590	8.97	57.2	152.4	437.4
90.00	1.00	0.96	5.830	6.41	0.00	1.367 *	1.658	2.00	6.524	8.92	57.2	151.1	432.9
92.00	1.00	0.96	5.867	6.45	0.00	1.373 *	1.662	2.00	6.459	8.87	57.2	149.8	428.5
94.00	1.00	0.97	5.903	6.49	0.00	1.380 *	1.666	2.00	6.393	8.82	57.3	148.5	424.0
95.00 Bot - Section 5	1.00	0.97	5.921	6.51	0.00	1.384 *	1.667	1.00	3.172	4.39	28.6	73.9	210.5
95.58 RT8	1.00	0.98	5.931	6.52	0.00	1.387 *	1.668	0.58	1.863	2.58	16.9	43.5	202.7
96.00	1.00	0.98	5.939	6.53	0.00	1.388 *	1.669	0.42	1.346	1.87	12.2	31.5	146.4
98.00	1.00	0.98	5.974	6.57	0.00	1.392 *	1.672	2.00	6.369	8.87	58.3	148.5	691.8
100.00 Top - Section 4	1.00	0.99	6.008	6.61	0.00	1.266 *	1.676	2.00	6.303	7.98	52.7	147.2	684.1
102.00	1.00	0.99	6.043	6.65	0.00	1.263 *	1.679	2.00	6.238	7.88	52.4	145.8	413.7
104.00	1.00	1.00	6.076	6.68	0.00	1.268 *	1.682	2.00	6.172	7.82	52.3	144.5	409.1
106.00	1.00	1.00	6.109	6.72	0.00	1.273 *	1.686	2.00	6.106	7.77	52.2	143.1	404.6
108.00	1.00	1.01	6.142	6.76	0.00	1.278 *	1.689	2.00	6.040	7.72	52.2	141.7	400.0
110.00 Appurtenance(s)	1.00	1.02	6.174	6.79	0.00	1.284 *	1.692	2.00	5.974	7.67	52.1	140.4	395.4
112.00	1.00	1.02	6.206	6.83	0.00	1.289 *	1.695	2.00	5.908	7.62	52.0	139.0	390.9
114.00	1.00	1.03	6.238	6.86	0.00	1.295 *	1.698	2.00	5.842	7.56	51.9	137.6	386.3
115.00 Top - Section 5	1.00	1.03	6.253	6.88	0.00	1.299 *	1.699	1.00	2.896	3.76	25.9	68.4	191.6
116.00	1.00	1.03	6.269	6.90	0.00	1.302 *	1.701	1.00	2.880	3.75	25.9	68.1	166.2
118.00	1.00	1.04	6.299	6.93	0.00	1.307 *	1.704	2.00	5.710	7.46	51.7	134.7	329.0
120.00	1.00	1.04	6.330	6.96	0.00	1.313 *	1.707	2.00	5.644	7.41	51.6	133.3	325.0
122.00	1.00	1.05	6.360	7.00	0.00	1.319 *	1.710	2.00	5.578	7.36	51.5	131.8	321.0
124.00	1.00	1.05	6.389	7.03	0.00	1.326 *	1.712	2.00	5.512	7.31	51.4	130.4	317.0
126.00	1.00	1.06	6.419	7.06	0.00	1.332 *	1.715	2.00	5.446	7.26	51.2	128.9	313.0
128.00	1.00	1.06	6.448	7.09	0.00	1.339 *	1.718	2.00	5.380	7.21	51.1	127.4	309.0
130.00	1.00	1.07	6.476	7.12	0.00	1.346 *	1.720	2.00	5.314	7.15	51.0	126.0	304.9
132.00	1.00	1.07	6.504	7.15	0.00	1.354 *	1.723	2.00	5.248	7.10	50.8	124.5	300.9
133.00 Appurtenance(s)	1.00	1.07	6.519	7.17	0.00	1.359 *	1.724	1.00	2.599	3.53	25.3	61.9	149.1
134.00	1.00	1.07	6.532	7.19	0.00	1.363 *	1.726	1.00	2.583	3.52	25.3	61.5	148.1
136.00	1.00	1.08	6.560	7.22	0.00	1.369 *	1.728	2.00	5.116	7.00	50.5	121.5	292.8
138.00	1.00	1.08	6.588	7.25	0.00	1.377 *	1.731	2.00	5.050	6.95	50.4	120.0	288.7
140.00	1.00	1.09	6.615	7.28	0.00	1.385 *	1.733	2.00	4.984	6.90	50.2	118.4	284.7
142.00	1.00	1.09	6.642	7.31	0.00	1.393 *	1.736	2.00	4.917	6.85	50.0	116.9	280.6
142.90 Appurtenance(s)	1.00	1.09	6.654	7.32	0.00	1.399 *	1.737	0.90	2.191	3.07	22.4	52.3	125.1
144.00	1.00	1.10	6.668	7.34	0.00	1.200	1.738	1.10	2.660	3.19	23.4	63.5	151.8
145.00 Top - Section 6	1.00	1.10	6.681	7.35	0.00	1.200	1.739	1.00	2.401	2.88	21.2	57.3	136.9
146.00	1.00	1.10	6.695	7.36	0.00	1.200	1.741	1.00	2.313	2.78	20.4	55.1	132.2
148.00	1.00	1.11	6.721	7.39	0.00	1.200	1.743	2.00	4.579	5.49	40.6	108.7	261.0
148.30 Appurtenance(s)	1.00	1.11	6.724	7.40	0.00	1.200	1.743	0.30	0.681	0.82	6.0	16.3	38.9
150.00 Top - Section 7	1.00	1.11	6.746	7.42	0.00	1.200	1.745	1.70	3.834	4.60	34.1	91.2	218.3
152.00	1.00	1.11	6.772	7.45	0.00	1.290 *	1.748	2.00	3.249	4.19	31.2	75.8	176.8
154.00	1.00	1.12	6.797	7.48	0.00	1.290 *	1.750	2.00	3.250	4.19	31.3	75.9	176.9
156.00	1.00	1.12	6.822	7.50	0.00	1.290 *	1.752	2.00	3.251	4.19	31.5	76.0	177.0
158.00	1.00	1.13	6.847	7.53	0.00	1.290 *	1.754	2.00	3.251	4.19	31.6	76.1	177.1
160.00 Appurtenance(s)	1.00	1.13	6.872	7.56	0.00	1.290 *	1.757	2.00	3.252	4.20	31.7	76.2	177.2

* Cf Adjusted by Linear Load Ra Effect

Totals:	160.00	4,193.4	40,385.9
----------------	---------------	----------------	-----------------

Discrete Appurtenance Forces

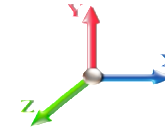
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 48

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	DB-T1-6Z-8AB-0Z	1	6.896	7.586	1.00	1.00	5.68	197.63	0.000	2.000	43.09	0.00	86.17
2	160.00	SBNHH-1D65B	9	6.896	7.586	0.81	1.00	69.03	2274.32	0.000	2.000	523.66	0.00	1047.32
3	160.00	6' Lightning rod	1	6.896	7.586	1.00	1.00	1.47	39.04	0.000	2.000	11.19	0.00	22.37
4	160.00	Low Profile Platform	1	6.896	7.586	1.00	1.00	39.78	1893.91	0.000	2.000	301.74	0.00	603.49
5	160.00	DB846F65ZAXY	6	6.896	7.586	0.93	1.00	46.26	1344.74	0.000	2.000	350.91	0.00	701.81
6	160.00	DB222	1	6.896	7.586	1.00	1.00	8.35	69.05	0.000	2.000	63.35	0.00	126.70
7	160.00	RRH2x90-AWS	3	6.896	7.586	0.67	1.00	7.96	289.55	0.000	2.000	60.37	0.00	120.73
8	148.30	APXVTM14-C-120	3	6.746	7.421	0.61	0.80	13.70	682.17	0.000	1.700	101.67	0.00	172.83
9	148.30	1900MHz RRH	3	6.772	7.449	0.54	0.80	8.34	391.92	0.000	3.700	62.15	0.00	229.95
10	148.30	800 MHz RRH	3	6.772	7.449	0.54	0.80	5.84	349.13	0.000	3.700	43.51	0.00	160.99
11	148.30	APXVSPP18-C-A20	3	6.772	7.449	0.66	0.80	21.53	574.66	0.000	3.700	160.42	0.00	593.54
12	148.30	ACU-A20-N	4	6.772	7.449	0.54	0.80	0.94	16.76	0.000	3.700	6.97	0.00	25.79
13	148.30	ALU 800MHz External	3	6.772	7.449	0.54	0.80	2.29	69.55	0.000	3.700	17.08	0.00	63.21
14	148.30	TD-RRH8x20-25	3	6.746	7.421	0.54	0.80	7.82	582.93	0.000	1.700	58.02	0.00	98.64
15	148.30	Low Profile Platform	1	6.724	7.397	1.00	1.00	31.53	1885.94	0.000	0.000	233.25	0.00	0.00
16	142.90	Commscope	3	6.654	7.319	0.60	0.75	26.50	677.38	0.000	0.000	193.94	0.00	0.00
17	142.90	Platform w/ HR & Bracing	1	6.654	7.319	1.00	1.00	89.77	4811.83	0.000	0.000	657.03	0.00	0.00
18	142.90	Ericsson RRUS11B12 -	1	6.654	7.319	0.50	0.75	1.61	113.60	0.000	0.000	11.82	0.00	0.00
19	142.90	Ericsson RUS01 B12 -	3	6.654	7.319	0.50	0.75	5.30	441.57	0.000	0.000	38.80	0.00	0.00
20	142.90	Ericsson AIR 3246 B66	3	6.654	7.319	0.62	0.75	17.02	1103.63	0.000	0.000	124.58	0.00	0.00
21	142.90	Ericsson AIR 21 B4A	1	6.654	7.319	0.67	0.75	8.80	434.86	0.000	0.000	64.44	0.00	0.00
22	142.90	Ericsson AIR 32 B4A/B2P	1	6.654	7.319	0.65	0.75	5.01	310.28	0.000	0.000	36.70	0.00	0.00
23	142.90	Ericsson KRY 112 144/1	3	6.663	7.329	0.52	0.75	1.39	62.49	0.000	0.700	10.19	0.00	7.13
24	142.90	Ericsson AIR 21 B2A/B4P	3	6.654	7.319	0.65	0.75	13.90	833.14	0.000	0.000	101.71	0.00	0.00
25	133.00	800 10798	3	6.519	7.170	0.60	0.80	20.94	1611.20	0.000	0.000	150.12	0.00	0.00
26	133.00	RRUS 12	3	6.519	7.170	0.54	0.80	5.59	466.39	0.000	0.000	40.11	0.00	0.00
27	133.00	RRUS 32	3	6.519	7.170	0.54	0.80	3.57	420.36	0.000	0.000	25.62	0.00	0.00
28	133.00	DC6-48-60-18-8F	2	6.519	7.170	0.68	0.90	2.92	157.63	0.000	0.000	20.92	0.00	0.00
29	133.00	800 10121	3	6.519	7.170	0.65	0.80	14.06	408.47	0.000	0.000	100.80	0.00	0.00
30	133.00	DTMABP7819VG12A	3	6.519	7.170	0.54	0.80	3.06	120.76	0.000	0.000	21.91	0.00	0.00
31	133.00	RRUS 11	3	6.519	7.170	0.54	0.80	5.09	446.19	0.000	0.000	36.47	0.00	0.00
32	133.00	RRUS A2 Module	3	6.519	7.170	0.54	0.80	4.54	152.76	0.000	0.000	32.54	0.00	0.00
33	133.00	Low Profile Platform	1	6.519	7.170	1.00	1.00	39.45	2333.94	0.000	0.000	282.87	0.00	0.00
34	110.00	3 ft Standoff	1	6.174	6.792	1.00	1.00	8.42	102.83	0.000	0.000	57.16	0.00	0.00
35	110.00	DB222	1	6.258	6.884	1.00	1.00	9.57	66.49	0.000	5.292	65.88	0.00	348.62
36	40.00	GPS	1	4.625	5.087	1.00	1.00	1.62	29.69	0.000	0.000	8.26	0.00	0.00

Totals: 25,766.79

4,119.24

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		58.25	814.88	0.00	0.00
4.00		58.17	825.93	0.00	0.00
6.00		58.03	830.87	0.00	0.00
8.00		57.85	833.15	0.00	0.00
10.00		57.66	833.90	0.00	0.00
12.00		57.46	833.65	0.00	0.00
14.00		57.25	832.68	0.00	0.00
16.00		57.04	831.19	0.00	0.00
16.25		7.22	162.69	0.00	0.00
18.00		50.46	1136.99	0.00	0.00
19.50		43.12	970.82	0.00	0.00
20.00		14.34	322.74	0.00	0.00
22.00		57.24	1287.53	0.00	0.00
24.00		56.65	831.91	0.00	0.00
26.00		56.42	828.98	0.00	0.00
28.00		56.19	825.87	0.00	0.00
30.00		56.01	822.62	0.00	0.00
31.00		28.18	409.99	0.00	0.00
32.00		28.38	409.14	0.00	0.00
34.00		49.81	800.64	0.00	0.00
35.50		37.66	598.03	0.00	0.00
36.00		12.57	198.87	0.00	0.00
38.00		50.91	793.09	0.00	0.00
40.00	(1) attachments	59.67	818.88	0.00	0.00
42.00		51.86	784.83	0.00	0.00
44.00		52.29	780.78	0.00	0.00
45.16		30.43	451.01	0.00	0.00
46.00		22.09	325.74	0.00	0.00
48.00		53.05	772.50	0.00	0.00
50.00		53.40	768.28	0.00	0.00
52.00		54.63	1177.27	0.00	0.00
54.00		54.94	1169.13	0.00	0.00
56.00		55.23	1160.95	0.00	0.00
58.00		55.14	761.31	0.00	0.00
60.00		55.38	756.88	0.00	0.00
62.00		55.60	752.40	0.00	0.00
64.00		55.81	747.89	0.00	0.00
66.00		56.00	743.35	0.00	0.00
68.00		56.17	738.77	0.00	0.00
70.00		56.33	734.17	0.00	0.00
72.00		56.47	729.53	0.00	0.00
74.00		56.60	724.87	0.00	0.00
76.00		56.72	720.18	0.00	0.00
78.00		56.83	715.47	0.00	0.00
80.00		56.92	710.73	0.00	0.00
82.00		57.00	647.67	0.00	0.00

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00		57.07	643.52	0.00	0.00
86.00		57.13	639.36	0.00	0.00
88.00		57.18	635.17	0.00	0.00
90.00		57.22	630.97	0.00	0.00
92.00		57.25	626.74	0.00	0.00
94.00		57.27	622.50	0.00	0.00
95.00		28.60	309.79	0.00	0.00
95.58		16.86	260.30	0.00	0.00
96.00		12.21	188.11	0.00	0.00
98.00		58.27	890.83	0.00	0.00
100.00		52.73	865.93	0.00	0.00
102.00		52.35	595.69	0.00	0.00
104.00		52.29	591.32	0.00	0.00
106.00		52.23	586.94	0.00	0.00
108.00		52.16	582.55	0.00	0.00
110.00	(2) attachments	175.12	747.46	0.00	348.62
112.00		52.00	562.33	0.00	0.00
114.00		51.91	557.87	0.00	0.00
115.00		25.88	277.42	0.00	0.00
116.00		25.86	252.03	0.00	0.00
118.00		51.70	500.85	0.00	0.00
120.00		51.59	496.99	0.00	0.00
122.00		51.48	493.12	0.00	0.00
124.00		51.36	489.25	0.00	0.00
126.00		51.23	485.36	0.00	0.00
128.00		51.10	481.46	0.00	0.00
130.00		50.96	477.55	0.00	0.00
132.00		50.82	473.63	0.00	0.00
133.00	(24) attachments	736.70	6353.21	0.00	0.00
134.00		25.29	220.23	0.00	0.00
136.00		50.53	437.15	0.00	0.00
138.00		50.37	433.21	0.00	0.00
140.00		50.21	429.25	0.00	0.00
142.00		50.05	425.29	0.00	0.00
142.90	(19) attachments	1261.65	8979.04	0.00	7.13
144.00		23.41	196.87	0.00	0.00
145.00		21.17	177.93	0.00	0.00
146.00		20.44	173.22	0.00	0.00
148.00		40.62	343.12	0.00	0.00
148.30	(23) attachments	689.11	4604.29	0.00	1344.94
150.00		34.14	280.37	0.00	0.00
152.00		31.22	249.87	0.00	0.00
154.00		31.35	250.03	0.00	0.00
156.00		31.47	250.19	0.00	0.00
158.00		31.59	250.34	0.00	0.00
160.00	(22) attachments	1386.01	6358.74	0.00	2708.59
Totals:		8,312.62	80,106.13	0.00	4,409.29

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
2.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.71	0.00	0.149	1.148	4.256	0.00	9.97
2.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	4.256	0.00	6.55
2.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.71	0.00	0.149	1.148	4.256	0.00	9.97
2.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	4.256	0.00	12.65
2.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	4.256	0.00	6.55
2.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.59	0.00	0.149	1.148	4.256	0.00	10.53
2.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.79	0.00	0.149	1.148	4.256	0.00	10.53
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.74	0.00	0.150	1.151	4.256	0.00	10.69
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.256	0.00	7.16
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.74	0.00	0.150	1.151	4.256	0.00	10.69
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.256	0.00	13.43
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	4.256	0.00	7.16
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.61	0.00	0.150	1.151	4.256	0.00	11.47
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.82	0.00	0.150	1.151	4.256	0.00	11.47
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.75	0.00	0.152	1.155	4.256	0.00	11.15
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.256	0.00	7.55
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.75	0.00	0.152	1.155	4.256	0.00	11.15
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.256	0.00	13.93
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	4.256	0.00	7.55
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.63	0.00	0.152	1.155	4.256	0.00	12.07
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.84	0.00	0.152	1.155	4.256	0.00	12.07
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.77	0.00	0.153	1.158	4.256	0.00	11.50
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.256	0.00	7.84
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.77	0.00	0.153	1.158	4.256	0.00	11.50
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.256	0.00	14.30
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	4.256	0.00	7.84
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.64	0.00	0.153	1.158	4.256	0.00	12.52
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.85	0.00	0.153	1.158	4.256	0.00	12.52
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.78	0.00	0.154	1.162	4.256	0.00	11.78
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.256	0.00	8.08
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.78	0.00	0.154	1.162	4.256	0.00	11.78
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.256	0.00	14.61
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	4.256	0.00	8.08
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.65	0.00	0.154	1.162	4.256	0.00	12.88
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.86	0.00	0.154	1.162	4.256	0.00	12.88
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.79	0.00	0.155	1.166	4.256	0.00	12.02
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.256	0.00	8.29
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.79	0.00	0.155	1.166	4.256	0.00	12.02
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.256	0.00	14.86
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	4.256	0.00	8.29
12.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.66	0.00	0.155	1.166	4.256	0.00	13.18
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.87	0.00	0.155	1.166	4.256	0.00	13.18
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.79	0.00	0.156	1.169	4.256	0.00	12.22
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.256	0.00	8.46
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.79	0.00	0.156	1.169	4.256	0.00	12.22
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.256	0.00	15.09
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	4.256	0.00	8.46

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.67	0.00	0.156	1.169	4.256	0.00	13.44
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.88	0.00	0.156	1.169	4.256	0.00	13.44
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.80	0.00	0.158	1.173	4.256	0.00	12.41
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.256	0.00	8.62
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.80	0.00	0.158	1.173	4.256	0.00	12.41
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.256	0.00	15.28
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	4.256	0.00	8.62
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.67	0.00	0.158	1.173	4.256	0.00	13.68
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.88	0.00	0.158	1.173	4.256	0.00	13.68
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.10	0.00	0.158	1.175	4.256	0.00	1.55
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.256	0.00	1.08
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.10	0.00	0.158	1.175	4.256	0.00	1.55
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.256	0.00	1.91
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	4.256	0.00	1.08
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.08	0.00	0.158	1.175	4.256	0.00	1.71
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.11	0.00	0.158	1.175	4.256	0.00	1.71
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.70	0.00	0.159	1.177	4.256	0.00	11.00
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.256	0.00	7.67
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.70	0.00	0.159	1.177	4.256	0.00	11.00
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.256	0.00	13.53
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	4.256	0.00	7.67
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.59	0.00	0.159	1.177	4.256	0.00	12.15
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.78	0.00	0.159	1.177	4.256	0.00	12.15
19.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.61	0.00	0.160	1.181	4.256	0.00	9.51
19.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	6.64
19.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.61	0.00	0.160	1.181	4.256	0.00	9.51
19.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	11.69
19.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	6.64
19.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.51	0.00	0.160	1.181	4.256	0.00	10.52
19.50	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.67	0.00	0.160	1.181	4.256	0.00	10.52
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.20	0.00	0.161	1.183	4.256	0.00	3.18
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	4.256	0.00	2.22
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.20	0.00	0.161	1.183	4.256	0.00	3.18
20.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	4.256	0.00	3.91
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	4.256	0.00	2.22
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.17	0.00	0.161	1.183	4.256	0.00	3.52
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.22	0.00	0.161	1.183	4.256	0.00	3.52
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.81	0.00	0.162	1.185	4.256	0.00	12.86
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	9.01
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.81	0.00	0.162	1.185	4.256	0.00	12.86
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	15.77
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	9.01
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.69	0.00	0.162	1.185	4.256	0.00	14.25
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.90	0.00	0.162	1.185	4.256	0.00	14.25
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.82	0.00	0.160	1.181	4.256	0.00	12.99
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	9.12
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.82	0.00	0.160	1.181	4.256	0.00	12.99

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	15.91
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	4.256	0.00	9.12
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.69	0.00	0.160	1.181	4.256	0.00	14.42
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.90	0.00	0.160	1.181	4.256	0.00	14.42
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.82	0.00	0.162	1.185	4.256	0.00	13.11
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	9.22
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.82	0.00	0.162	1.185	4.256	0.00	13.11
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	16.04
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	4.256	0.00	9.22
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.70	0.00	0.162	1.185	4.256	0.00	14.57
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.90	0.00	0.162	1.185	4.256	0.00	14.57
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.83	0.00	0.163	1.189	4.256	0.00	13.22
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.256	0.00	9.32
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.83	0.00	0.163	1.189	4.256	0.00	13.22
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.256	0.00	16.16
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	4.256	0.00	9.32
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.70	0.00	0.163	1.189	4.256	0.00	14.71
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.91	0.00	0.163	1.189	4.256	0.00	14.71
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.83	0.00	0.165	1.194	4.260	0.00	13.32
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.260	0.00	9.41
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.83	0.00	0.165	1.194	4.260	0.00	13.32
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.260	0.00	16.27
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	4.260	0.00	9.41
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.70	0.00	0.165	1.194	4.260	0.00	14.84
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.91	0.00	0.165	1.194	4.260	0.00	14.84
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.42	0.00	0.166	1.197	4.300	0.00	6.69
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.300	0.00	4.73
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.42	0.00	0.166	1.197	4.300	0.00	6.69
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.300	0.00	8.16
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	4.300	0.00	4.73
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.35	0.00	0.166	1.197	4.300	0.00	7.45
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.46	0.00	0.166	1.197	4.300	0.00	7.45
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.42	0.00	0.166	1.199	4.339	0.00	6.71
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	4.339	0.00	4.75
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.42	0.00	0.166	1.199	4.339	0.00	6.71
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	4.339	0.00	8.19
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	4.339	0.00	4.75
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.35	0.00	0.166	1.199	4.339	0.00	7.48
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.46	0.00	0.166	1.199	4.339	0.00	7.48
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.83	0.00	0.113	1.040	4.415	0.00	13.52
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.415	0.00	9.58
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.83	0.00	0.113	1.040	4.415	0.00	13.52
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.415	0.00	16.48
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	4.415	0.00	9.58
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.71	0.00	0.113	1.040	4.415	0.00	15.09
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.63	0.00	0.114	1.043	4.469	0.00	10.19
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.469	0.00	7.23

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.63	0.00	0.114	1.043	4.469	0.00	10.19
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.469	0.00	12.42
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	4.469	0.00	7.23
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.53	0.00	0.114	1.043	4.469	0.00	11.38
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.21	0.00	0.115	1.044	4.487	0.00	3.40
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.487	0.00	2.42
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.21	0.00	0.115	1.044	4.487	0.00	3.40
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.487	0.00	4.14
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	4.487	0.00	2.42
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.18	0.00	0.115	1.044	4.487	0.00	3.80
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.84	0.00	0.115	1.046	4.557	0.00	13.70
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.557	0.00	9.74
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.84	0.00	0.115	1.046	4.557	0.00	13.70
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.557	0.00	16.67
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	4.557	0.00	9.74
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.72	0.00	0.115	1.046	4.557	0.00	15.31
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.84	0.00	0.116	1.049	4.625	0.00	13.78
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.625	0.00	9.81
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.84	0.00	0.116	1.049	4.625	0.00	13.78
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.625	0.00	16.76
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	4.625	0.00	9.81
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.72	0.00	0.116	1.049	4.625	0.00	15.42
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.85	0.00	0.117	1.052	4.689	0.00	13.86
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.689	0.00	9.88
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.85	0.00	0.117	1.052	4.689	0.00	13.86
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.689	0.00	16.85
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	4.689	0.00	9.88
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.72	0.00	0.117	1.052	4.689	0.00	15.52
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.85	0.00	0.119	1.056	4.752	0.00	13.93
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.752	0.00	9.94
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.85	0.00	0.119	1.056	4.752	0.00	13.93
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.752	0.00	16.93
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	4.752	0.00	9.94
44.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.72	0.00	0.119	1.056	4.752	0.00	15.61
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.49	0.00	0.119	1.058	4.788	0.00	8.11
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.788	0.00	5.79
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.49	0.00	0.119	1.058	4.788	0.00	8.11
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.788	0.00	9.84
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	4.788	0.00	5.79
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.42	0.00	0.119	1.058	4.788	0.00	9.09
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.36	0.00	0.120	1.060	4.813	0.00	5.88
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.813	0.00	4.20
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.36	0.00	0.120	1.060	4.813	0.00	5.88
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.813	0.00	7.14
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	4.813	0.00	4.20
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.30	0.00	0.120	1.060	4.813	0.00	6.60
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.85	0.00	0.121	1.062	4.872	0.00	14.08

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.872	0.00	10.07
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.85	0.00	0.121	1.062	4.872	0.00	14.08
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.872	0.00	17.08
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	4.872	0.00	10.07
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.73	0.00	0.121	1.062	4.872	0.00	15.79
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.85	0.00	0.122	1.066	4.929	0.00	14.15
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.929	0.00	10.13
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.85	0.00	0.122	1.066	4.929	0.00	14.15
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.929	0.00	17.16
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	4.929	0.00	10.13
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.73	0.00	0.122	1.066	4.929	0.00	15.88
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.123	1.069	4.984	0.00	14.21
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.984	0.00	10.19
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.123	1.069	4.984	0.00	14.21
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.984	0.00	17.23
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	4.984	0.00	10.19
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.73	0.00	0.123	1.069	4.984	0.00	15.96
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.124	1.072	5.039	0.00	14.28
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	5.039	0.00	10.24
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.124	1.072	5.039	0.00	14.28
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	5.039	0.00	17.30
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	5.039	0.00	10.24
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.73	0.00	0.124	1.072	5.039	0.00	16.04
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.125	1.076	5.091	0.00	14.34
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.091	0.00	10.30
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.125	1.076	5.091	0.00	14.34
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.091	0.00	17.36
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.091	0.00	10.30
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.125	1.076	5.091	0.00	16.12
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.124	1.073	5.142	0.00	14.40
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	5.142	0.00	10.35
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.124	1.073	5.142	0.00	14.40
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	5.142	0.00	17.43
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	5.142	0.00	10.35
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.124	1.073	5.142	0.00	16.19
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.86	0.00	0.125	1.076	5.193	0.00	14.46
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.193	0.00	10.40
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.86	0.00	0.125	1.076	5.193	0.00	14.46
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.193	0.00	17.49
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	5.193	0.00	10.40
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.125	1.076	5.193	0.00	16.27
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.127	1.080	5.241	0.00	14.51
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.241	0.00	10.45
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.127	1.080	5.241	0.00	14.51
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.241	0.00	17.55
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	5.241	0.00	10.45
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.127	1.080	5.241	0.00	16.34

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.128	1.084	5.289	0.00	14.57
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.289	0.00	10.50
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.128	1.084	5.289	0.00	14.57
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.289	0.00	17.61
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	5.289	0.00	10.50
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.128	1.084	5.289	0.00	16.41
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.129	1.087	5.336	0.00	14.62
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.336	0.00	10.54
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.129	1.087	5.336	0.00	14.62
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.336	0.00	17.67
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	5.336	0.00	10.54
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.74	0.00	0.129	1.087	5.336	0.00	16.48
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.130	1.091	5.382	0.00	14.68
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.382	0.00	10.59
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.130	1.091	5.382	0.00	14.68
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.382	0.00	17.72
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	5.382	0.00	10.59
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.130	1.091	5.382	0.00	16.54
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.132	1.095	5.426	0.00	14.73
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.426	0.00	10.64
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.132	1.095	5.426	0.00	14.73
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.426	0.00	17.78
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	5.426	0.00	10.64
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.132	1.095	5.426	0.00	16.61
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.87	0.00	0.133	1.099	5.470	0.00	14.78
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.470	0.00	10.68
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.87	0.00	0.133	1.099	5.470	0.00	14.78
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.470	0.00	17.83
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	5.470	0.00	10.68
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.133	1.099	5.470	0.00	16.67
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.134	1.103	5.513	0.00	14.83
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	5.513	0.00	10.72
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.134	1.103	5.513	0.00	14.83
74.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	5.513	0.00	17.89
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	5.513	0.00	10.72
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.134	1.103	5.513	0.00	16.73
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.136	1.108	5.555	0.00	14.88
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.555	0.00	10.77
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.136	1.108	5.555	0.00	14.88
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.555	0.00	17.94
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	5.555	0.00	10.77
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.136	1.108	5.555	0.00	16.79
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.137	1.112	5.597	0.00	14.92
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.597	0.00	10.81
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.137	1.112	5.597	0.00	14.92
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.597	0.00	17.99
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	5.597	0.00	10.81

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.137	1.112	5.597	0.00	16.85
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.139	1.116	5.637	0.00	14.97
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.637	0.00	10.85
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.139	1.116	5.637	0.00	14.97
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.637	0.00	18.04
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	5.637	0.00	10.85
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.75	0.00	0.139	1.116	5.637	0.00	16.91
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.140	1.121	5.677	0.00	15.01
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.677	0.00	10.89
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.140	1.121	5.677	0.00	15.01
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.677	0.00	18.09
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	5.677	0.00	10.89
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.140	1.121	5.677	0.00	16.96
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.142	1.125	5.716	0.00	15.06
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.716	0.00	10.92
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.142	1.125	5.716	0.00	15.06
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.716	0.00	18.13
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	5.716	0.00	10.92
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.142	1.125	5.716	0.00	17.02
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.143	1.130	5.755	0.00	15.10
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.755	0.00	10.96
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.143	1.130	5.755	0.00	15.10
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.755	0.00	18.18
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	5.755	0.00	10.96
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.143	1.130	5.755	0.00	17.07
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.88	0.00	0.145	1.135	5.793	0.00	15.14
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.793	0.00	11.00
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.88	0.00	0.145	1.135	5.793	0.00	15.14
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.793	0.00	18.22
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	5.793	0.00	11.00
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.145	1.135	5.793	0.00	17.12
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.147	1.140	5.830	0.00	15.19
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.830	0.00	11.04
90.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.147	1.140	5.830	0.00	15.19
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.830	0.00	18.27
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	5.830	0.00	11.04
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.147	1.140	5.830	0.00	17.18
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.148	1.145	5.867	0.00	15.23
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.867	0.00	11.07
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.148	1.145	5.867	0.00	15.23
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.867	0.00	18.31
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	5.867	0.00	11.07
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.148	1.145	5.867	0.00	17.23
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.150	1.150	5.903	0.00	15.27
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.903	0.00	11.11
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.150	1.150	5.903	0.00	15.27
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.903	0.00	18.36

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	5.903	0.00	11.11
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.76	0.00	0.150	1.150	5.903	0.00	17.28
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.44	0.00	0.151	1.154	5.921	0.00	7.64
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.921	0.00	5.56
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.44	0.00	0.151	1.154	5.921	0.00	7.64
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.921	0.00	9.19
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	5.921	0.00	5.56
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.38	0.00	0.151	1.154	5.921	0.00	8.65
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.26	0.00	0.152	1.156	5.931	0.00	4.44
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.931	0.00	3.23
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.26	0.00	0.152	1.156	5.931	0.00	4.44
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.931	0.00	5.33
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	5.931	0.00	3.23
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.22	0.00	0.152	1.156	5.931	0.00	5.02
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.19	0.00	0.152	1.157	5.939	0.00	3.21
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.939	0.00	2.34
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.19	0.00	0.152	1.157	5.939	0.00	3.21
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.939	0.00	3.86
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	5.939	0.00	2.34
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.16	0.00	0.152	1.157	5.939	0.00	3.64
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.153	1.160	5.974	0.00	15.35
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.974	0.00	11.18
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.153	1.160	5.974	0.00	15.35
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.974	0.00	18.44
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	5.974	0.00	11.18
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.77	0.00	0.153	1.160	5.974	0.00	17.37
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.118	1.055	6.008	0.00	15.38
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	6.008	0.00	11.21
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.118	1.055	6.008	0.00	15.38
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	6.008	0.00	18.48
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	6.008	0.00	11.21
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.117	1.052	6.043	0.00	15.42
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.043	0.00	11.24
102.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.117	1.052	6.043	0.00	15.42
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.043	0.00	18.52
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.043	0.00	11.24
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.89	0.00	0.119	1.056	6.076	0.00	15.46
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.076	0.00	11.28
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.89	0.00	0.119	1.056	6.076	0.00	15.46
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.076	0.00	18.56
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.076	0.00	11.28
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.120	1.061	6.109	0.00	15.49
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	6.109	0.00	11.31
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.120	1.061	6.109	0.00	15.49
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	6.109	0.00	18.60
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	6.109	0.00	11.31
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.122	1.065	6.142	0.00	15.53

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 27

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)
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.142	0.00	11.34
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.122	1.065	6.142	0.00	15.53
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.142	0.00	18.64
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	6.142	0.00	11.34
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.123	1.070	6.174	0.00	15.57
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.174	0.00	11.37
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.123	1.070	6.174	0.00	15.57
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.174	0.00	18.68
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	6.174	0.00	11.37
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.125	1.074	6.206	0.00	15.60
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	6.206	0.00	11.40
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.125	1.074	6.206	0.00	15.60
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	6.206	0.00	18.71
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.126	1.079	6.238	0.00	15.63
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	6.238	0.00	11.43
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.126	1.079	6.238	0.00	15.63
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	6.238	0.00	18.75
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.45	0.00	0.128	1.083	6.253	0.00	7.83
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	6.253	0.00	5.72
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.45	0.00	0.128	1.083	6.253	0.00	7.83
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	6.253	0.00	9.38
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.45	0.00	0.128	1.085	6.269	0.00	7.83
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	6.269	0.00	5.73
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.45	0.00	0.128	1.085	6.269	0.00	7.83
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	6.269	0.00	9.39
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.130	1.089	6.299	0.00	15.70
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	6.299	0.00	11.49
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.130	1.089	6.299	0.00	15.70
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	6.299	0.00	18.82
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.131	1.094	6.330	0.00	15.73
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	6.330	0.00	11.52
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.131	1.094	6.330	0.00	15.73
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	6.330	0.00	18.86
122.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.133	1.099	6.360	0.00	15.77
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.360	0.00	11.55
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.133	1.099	6.360	0.00	15.77
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	6.360	0.00	18.89
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.90	0.00	0.135	1.105	6.389	0.00	15.80
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	6.389	0.00	11.57
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.90	0.00	0.135	1.105	6.389	0.00	15.80
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	6.389	0.00	18.92
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.137	1.110	6.419	0.00	15.83
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	6.419	0.00	11.60
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.137	1.110	6.419	0.00	15.83
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	6.419	0.00	18.96
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.139	1.116	6.448	0.00	15.86
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	6.448	0.00	11.63

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.139	1.116	6.448	0.00	15.86
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	6.448	0.00	18.99
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.141	1.122	6.476	0.00	15.89
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	6.476	0.00	11.66
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.141	1.122	6.476	0.00	15.89
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	6.476	0.00	19.02
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.143	1.128	6.504	0.00	15.92
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	6.504	0.00	11.68
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.143	1.128	6.504	0.00	15.92
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	6.504	0.00	19.06
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.45	0.00	0.144	1.133	6.519	0.00	7.97
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	6.519	0.00	5.85
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.45	0.00	0.144	1.133	6.519	0.00	7.97
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	6.519	0.00	9.54
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.45	0.00	0.145	1.136	6.532	0.00	7.98
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	6.532	0.00	5.85
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.45	0.00	0.145	1.136	6.532	0.00	7.98
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	6.532	0.00	9.54
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.147	1.141	6.560	0.00	15.98
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	6.560	0.00	11.74
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.147	1.141	6.560	0.00	15.98
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	6.560	0.00	19.12
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.149	1.147	6.588	0.00	16.01
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	6.588	0.00	11.76
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.149	1.147	6.588	0.00	16.01
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	6.588	0.00	19.15
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.151	1.154	6.615	0.00	16.04
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	6.615	0.00	11.79
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.151	1.154	6.615	0.00	16.04
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	6.615	0.00	19.18
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.154	1.161	6.642	0.00	16.07
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	6.642	0.00	11.81
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.91	0.00	0.154	1.161	6.642	0.00	16.07
142.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	6.642	0.00	19.21
142.90	1 5/8" Hybrid	Yes	0.90	0.000	2.00	0.41	0.00	0.155	1.166	6.654	0.00	7.24
142.90	7/8" Coax	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	6.654	0.00	5.32
142.90	1 5/8" Fiber	Yes	0.90	0.000	2.00	0.41	0.00	0.155	1.166	6.654	0.00	7.24
142.90	1-1/4" Fiber	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	6.654	0.00	8.65
144.00	1 5/8" Hybrid	Yes	1.10	0.000	2.00	0.50	0.00	0.078	0.000	6.668	0.00	8.85
144.00	7/8" Coax	Yes	1.10	0.000	0.00	0.00	0.00	0.078	0.000	6.668	0.00	6.51
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.46	0.00	0.079	0.000	6.681	0.00	8.06
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	6.681	0.00	5.92
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.46	0.00	0.082	0.000	6.695	0.00	8.06
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	6.695	0.00	5.93
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.91	0.00	0.083	0.000	6.721	0.00	16.15
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	6.721	0.00	11.89
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.14	0.00	0.084	0.000	6.724	0.00	2.42

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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 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)
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	6.724	0.00	1.78
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.78	0.00	0.085	0.000	6.746	0.00	13.75
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	6.746	0.00	10.12
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.772	0.00	16.21
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.772	0.00	11.93
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.797	0.00	16.23
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.797	0.00	11.96
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.822	0.00	16.26
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.822	0.00	11.98
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.847	0.00	16.29
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.847	0.00	12.00
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.92	0.00	0.125	1.075	6.872	0.00	16.31
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	6.872	0.00	12.03
Totals:											0.0	5,808.2

Calculated Forces

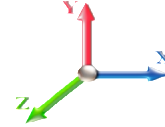
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 27

Dead Load Factor 1.20
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-80.10	-8.33	0.00	-1014.9	0.00	1014.98	3683.82	1841.91	7606.69	3756.66	0.00	0.000	0.000	0.198
2.00	-79.29	-8.30	0.00	-998.32	0.00	998.32	3671.54	1835.77	7522.06	3714.86	0.00	-0.020	0.000	0.197
4.00	-78.46	-8.26	0.00	-981.73	0.00	981.73	3659.00	1829.50	7437.30	3673.00	0.02	-0.040	0.000	0.195
6.00	-77.62	-8.23	0.00	-965.21	0.00	965.21	3646.20	1823.10	7352.44	3631.09	0.04	-0.061	0.000	0.193
8.00	-76.79	-8.20	0.00	-948.74	0.00	948.74	3633.16	1816.58	7267.48	3589.13	0.07	-0.081	0.000	0.192
10.00	-75.95	-8.17	0.00	-932.34	0.00	932.34	3619.85	1809.93	7182.43	3547.13	0.11	-0.102	0.000	0.190
12.00	-75.12	-8.14	0.00	-916.00	0.00	916.00	3606.29	1803.15	7097.31	3505.10	0.15	-0.122	0.000	0.188
14.00	-74.28	-8.11	0.00	-899.72	0.00	899.72	3592.48	1796.24	7012.13	3463.03	0.21	-0.143	0.000	0.187
16.00	-73.45	-8.06	0.00	-883.51	0.00	883.51	3578.41	1789.21	6926.91	3420.94	0.27	-0.163	0.000	0.185
16.25	-73.28	-8.07	0.00	-881.50	0.00	881.50	3576.63	1788.32	6916.25	3415.68	0.28	-0.166	0.000	0.218
18.00	-72.14	-8.04	0.00	-867.38	0.00	867.38	3564.09	1782.04	6841.65	3378.83	0.35	-0.187	0.000	0.200
19.50	-71.17	-8.01	0.00	-855.32	0.00	855.32	3553.18	1776.59	6777.69	3347.24	0.41	-0.205	0.000	0.169
20.00	-70.85	-8.01	0.00	-851.31	0.00	851.31	3549.51	1774.75	6756.36	3336.71	0.43	-0.209	0.000	0.169
22.00	-69.56	-7.97	0.00	-835.30	0.00	835.30	3563.12	1781.56	6835.93	3376.01	0.52	-0.229	0.000	0.171
24.00	-68.72	-7.93	0.00	-819.37	0.00	819.37	3548.52	1774.26	6750.65	3333.89	0.62	-0.248	0.000	0.164
26.00	-67.89	-7.89	0.00	-803.51	0.00	803.51	3533.67	1766.84	6665.35	3291.77	0.73	-0.267	0.000	0.163
28.00	-67.06	-7.85	0.00	-787.72	0.00	787.72	3518.56	1759.28	6580.06	3249.64	0.85	-0.286	0.000	0.161
30.00	-66.24	-7.81	0.00	-772.01	0.00	772.01	3503.20	1751.60	6494.78	3207.53	0.97	-0.305	0.000	0.126
31.00	-65.83	-7.79	0.00	-764.21	0.00	764.21	3495.43	1747.71	6452.15	3186.48	1.04	-0.313	0.000	0.145
32.00	-65.42	-7.77	0.00	-756.42	0.00	756.42	3487.59	1743.79	6409.53	3165.43	1.10	-0.322	0.000	0.144
34.00	-64.61	-7.74	0.00	-740.87	0.00	740.87	3471.72	1735.86	6324.32	3123.35	1.24	-0.339	0.000	0.176
35.50	-64.01	-7.71	0.00	-729.27	0.00	729.27	3459.65	1729.82	6260.45	3091.80	1.35	-0.355	0.000	0.176
36.00	-63.81	-7.71	0.00	-725.41	0.00	725.41	3455.59	1727.80	6239.16	3081.29	1.39	-0.361	0.000	0.175
38.00	-63.02	-7.68	0.00	-709.99	0.00	709.99	3439.21	1719.61	6154.07	3039.26	1.54	-0.383	0.000	0.173
40.00	-62.20	-7.64	0.00	-694.64	0.00	694.64	3422.57	1711.29	6069.05	2997.28	1.71	-0.404	0.000	0.171
42.00	-61.41	-7.60	0.00	-679.36	0.00	679.36	3405.68	1702.84	5984.13	2955.34	1.88	-0.426	0.000	0.170
44.00	-60.63	-7.56	0.00	-664.16	0.00	664.16	3388.54	1694.27	5899.30	2913.44	2.07	-0.448	0.000	0.168
45.16	-60.18	-7.54	0.00	-655.39	0.00	655.39	3378.48	1689.24	5850.15	2889.17	2.18	-0.461	0.000	0.121
46.00	-59.85	-7.53	0.00	-649.06	0.00	649.06	3371.14	1685.57	5814.59	2871.61	2.26	-0.468	0.000	0.157
48.00	-59.07	-7.49	0.00	-634.00	0.00	634.00	3353.48	1676.74	5730.00	2829.83	2.46	-0.488	0.000	0.155
50.00	-58.30	-7.45	0.00	-619.02	0.00	619.02	3335.57	1667.79	5645.55	2788.13	2.67	-0.509	0.000	0.153
52.00	-57.12	-7.41	0.00	-604.12	0.00	604.12	3317.41	1658.70	5561.26	2746.50	2.89	-0.530	0.000	0.149
54.00	-55.95	-7.36	0.00	-589.31	0.00	589.31	3298.98	1649.49	5477.12	2704.94	3.11	-0.551	0.000	0.147
56.00	-54.79	-7.31	0.00	-574.59	0.00	574.59	3316.18	1658.09	5555.61	2743.71	3.35	-0.571	0.000	0.149
58.00	-54.03	-7.27	0.00	-559.96	0.00	559.96	3297.74	1648.87	5471.49	2702.16	3.59	-0.592	0.000	0.154
60.00	-53.27	-7.23	0.00	-545.42	0.00	545.42	3279.05	1639.52	5387.54	2660.71	3.84	-0.613	0.000	0.152
62.00	-52.51	-7.18	0.00	-530.96	0.00	530.96	3260.10	1630.05	5303.79	2619.34	4.11	-0.635	0.000	0.150
64.00	-51.76	-7.14	0.00	-516.60	0.00	516.60	3240.90	1620.45	5220.23	2578.08	4.38	-0.656	0.000	0.148
66.00	-51.02	-7.09	0.00	-502.32	0.00	502.32	3221.44	1610.72	5136.89	2536.92	4.66	-0.678	0.000	0.145
68.00	-50.28	-7.05	0.00	-488.13	0.00	488.13	3201.73	1600.86	5053.77	2495.87	4.94	-0.699	0.000	0.143
70.00	-49.54	-7.00	0.00	-474.04	0.00	474.04	3181.76	1590.88	4970.89	2454.94	5.24	-0.721	0.000	0.141
72.00	-48.81	-6.95	0.00	-460.04	0.00	460.04	3161.54	1580.77	4888.26	2414.13	5.55	-0.742	0.000	0.139
74.00	-48.08	-6.90	0.00	-446.14	0.00	446.14	3141.06	1570.53	4805.90	2373.45	5.86	-0.763	0.000	0.136
76.00	-47.36	-6.86	0.00	-432.33	0.00	432.33	3120.33	1560.16	4723.81	2332.91	6.19	-0.785	0.000	0.134
78.00	-46.64	-6.81	0.00	-418.62	0.00	418.62	3099.34	1549.67	4642.00	2292.51	6.52	-0.806	0.000	0.132
80.00	-45.93	-6.76	0.00	-405.01	0.00	405.01	3078.09	1539.05	4560.50	2252.26	6.86	-0.827	0.000	0.129
80.00	-45.93	-6.76	0.00	-405.01	0.00	405.01	2384.58	1192.29	3545.27	1750.88	6.86	-0.827	0.000	0.139
82.00	-45.28	-6.71	0.00	-391.50	0.00	391.50	2370.62	1185.31	3486.26	1721.73	7.21	-0.847	0.000	0.153

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00	-44.64	-6.66	0.00	-378.09	0.00	378.09	2356.42	1178.21	3427.33	1692.63	7.57	-0.871	0.000	0.149
86.00	-44.00	-6.61	0.00	-364.77	0.00	364.77	2341.95	1170.98	3368.48	1663.57	7.94	-0.894	0.000	0.146
88.00	-43.36	-6.56	0.00	-351.56	0.00	351.56	2327.23	1163.62	3309.75	1634.56	8.32	-0.917	0.000	0.143
90.00	-42.73	-6.51	0.00	-338.44	0.00	338.44	2312.26	1156.13	3251.12	1605.61	8.71	-0.939	0.000	0.139
92.00	-42.10	-6.46	0.00	-325.43	0.00	325.43	2297.03	1148.52	3192.63	1576.72	9.11	-0.962	0.000	0.136
94.00	-41.47	-6.40	0.00	-312.51	0.00	312.51	2281.55	1140.77	3134.28	1547.90	9.52	-0.984	0.000	0.132
95.00	-41.16	-6.37	0.00	-306.11	0.00	306.11	2273.71	1136.85	3105.16	1533.52	9.73	-0.995	0.000	0.131
95.58	-40.90	-6.36	0.00	-302.42	0.00	302.42	2269.13	1134.57	3088.29	1525.19	9.85	-1.002	0.000	0.128
95.58	-40.90	-6.36	0.00	-302.42	0.00	302.42	2269.13	1134.57	3088.29	1525.19	9.85	-1.002	0.000	0.128
96.00	-40.71	-6.35	0.00	-299.75	0.00	299.75	2265.81	1132.90	3076.09	1519.16	9.94	-1.006	0.000	0.215
98.00	-39.82	-6.31	0.00	-287.04	0.00	287.04	2249.81	1124.91	3018.05	1490.50	10.37	-1.043	0.000	0.210
100.00	-38.95	-6.26	0.00	-274.43	0.00	274.43	2259.61	1129.81	3053.48	1508.00	10.81	-1.079	0.000	0.199
102.00	-38.35	-6.22	0.00	-261.91	0.00	261.91	2243.52	1121.76	2995.52	1479.37	11.27	-1.114	0.000	0.194
104.00	-37.76	-6.18	0.00	-249.46	0.00	249.46	2227.17	1113.59	2937.74	1450.84	11.74	-1.148	0.000	0.189
106.00	-37.17	-6.14	0.00	-237.11	0.00	237.11	2210.57	1105.28	2880.15	1422.40	12.23	-1.181	0.000	0.184
108.00	-36.59	-6.09	0.00	-224.84	0.00	224.84	2193.71	1096.86	2822.78	1394.06	12.73	-1.213	0.000	0.178
110.00	-35.84	-5.92	0.00	-212.30	0.00	212.30	2176.60	1088.30	2765.62	1365.84	13.25	-1.245	0.000	0.172
112.00	-35.27	-5.88	0.00	-200.46	0.00	200.46	2159.23	1079.61	2708.70	1337.73	13.78	-1.276	0.000	0.166
114.00	-34.72	-5.82	0.00	-188.71	0.00	188.71	2141.61	1070.80	2652.02	1309.73	14.32	-1.306	0.000	0.160
115.00	-34.44	-5.80	0.00	-182.89	0.00	182.89	2132.70	1066.35	2623.78	1295.79	14.59	-1.322	0.000	0.157
115.00	-34.44	-5.80	0.00	-182.89	0.00	182.89	1556.62	778.31	1923.08	949.74	14.59	-1.322	0.000	0.215
116.00	-34.18	-5.79	0.00	-177.09	0.00	177.09	1551.43	775.71	1904.13	940.38	14.87	-1.336	0.000	0.210
118.00	-33.68	-5.74	0.00	-165.52	0.00	165.52	1540.84	770.42	1866.26	921.68	15.44	-1.373	0.000	0.201
120.00	-33.18	-5.70	0.00	-154.03	0.00	154.03	1529.99	765.00	1828.43	902.99	16.02	-1.407	0.000	0.192
122.00	-32.69	-5.65	0.00	-142.64	0.00	142.64	1518.89	759.45	1790.65	884.33	16.62	-1.441	0.000	0.183
124.00	-32.20	-5.61	0.00	-131.33	0.00	131.33	1507.54	753.77	1752.93	865.70	17.23	-1.474	0.000	0.173
126.00	-31.71	-5.56	0.00	-120.11	0.00	120.11	1495.93	747.96	1715.28	847.11	17.85	-1.505	0.000	0.163
128.00	-31.23	-5.51	0.00	-108.99	0.00	108.99	1484.06	742.03	1677.72	828.56	18.49	-1.534	0.000	0.153
130.00	-30.75	-5.46	0.00	-97.97	0.00	97.97	1471.95	735.97	1640.26	810.06	19.14	-1.562	0.000	0.142
132.00	-30.27	-5.41	0.00	-87.04	0.00	87.04	1459.57	729.79	1602.91	791.62	19.80	-1.588	0.000	0.131
133.00	-23.94	-4.50	0.00	-81.63	0.00	81.63	1453.29	726.64	1584.28	782.42	20.13	-1.600	0.000	0.121
134.00	-23.72	-4.48	0.00	-77.13	0.00	77.13	1446.94	723.47	1565.68	773.23	20.47	-1.612	0.000	0.116
136.00	-23.28	-4.42	0.00	-68.18	0.00	68.18	1434.06	717.03	1528.59	754.91	21.15	-1.635	0.000	0.107
138.00	-22.85	-4.37	0.00	-59.33	0.00	59.33	1420.92	710.46	1491.65	736.67	21.84	-1.655	0.000	0.097
140.00	-22.42	-4.31	0.00	-50.60	0.00	50.60	1407.52	703.76	1454.87	718.50	22.54	-1.673	0.000	0.086
142.00	-22.00	-4.25	0.00	-41.97	0.00	41.97	1393.87	696.94	1418.26	700.42	23.24	-1.690	0.000	0.076
142.90	-13.06	-2.73	0.00	-38.14	0.00	38.14	1387.65	693.82	1401.84	692.32	23.56	-1.696	0.000	0.065
144.00	-12.86	-2.70	0.00	-35.14	0.00	35.14	1379.97	689.99	1381.83	682.44	23.95	-1.704	0.000	0.061
145.00	-12.69	-2.68	0.00	-32.44	0.00	32.44	1372.92	686.46	1363.70	673.48	24.31	-1.710	0.000	0.057
145.00	-12.69	-2.68	0.00	-32.44	0.00	32.44	931.20	465.60	925.89	604.09	24.31	-1.710	0.000	0.067
146.00	-12.51	-2.65	0.00	-29.76	0.00	29.76	925.24	462.62	912.49	594.77	24.67	-1.716	0.000	0.064
148.00	-12.17	-2.60	0.00	-24.45	0.00	24.45	913.32	456.66	885.99	576.36	25.39	-1.728	0.000	0.056
148.30	-7.59	-1.78	0.00	-22.33	0.00	22.33	911.53	455.77	882.04	573.63	25.50	-1.729	0.000	0.047
150.00	-7.31	-1.73	0.00	-19.31	0.00	19.31	901.40	450.70	859.86	558.24	26.12	-1.737	0.000	0.043
150.00	-7.31	-1.73	0.00	-19.31	0.00	19.31	556.65	278.33	359.38	213.69	26.12	-1.737	0.000	0.104
152.00	-7.06	-1.70	0.00	-15.84	0.00	15.84	556.65	278.33	359.38	213.69	26.85	-1.746	0.000	0.087
154.00	-6.81	-1.66	0.00	-12.45	0.00	12.45	556.65	278.33	359.38	213.69	27.58	-1.767	0.000	0.071
156.00	-6.56	-1.62	0.00	-9.12	0.00	9.12	556.65	278.33	359.38	213.69	28.33	-1.783	0.000	0.055
158.00	-6.31	-1.58	0.00	-5.88	0.00	5.88	556.65	278.33	359.38	213.69	29.08	-1.794	0.000	0.039
160.00	0.00	-1.39	0.00	-2.71	0.00	2.71	556.65	278.33	359.38	213.69	29.83	-1.800	0.000	0.013

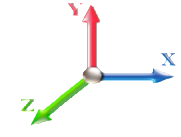
Seismic Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 1.2D + 1.0E					Iterations 25
Gust Response Factor	1.10			Sds 0.20	Ss 0.19
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1 0.10	S1 0.06
Wind Load Factor	0.00	Structure Frequency	0.27	SA 0.03	Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1	0.00	0.00	0.00	0.00	0.00	
2.00		409.29	0.00	0.01	0.01	4.85	
4.00		406.10	0.00	0.03	0.01	7.92	
6.00		402.91	0.00	0.04	0.02	10.02	
8.00		399.73	0.00	0.04	0.02	11.50	
10.00		396.54	0.01	0.05	0.03	12.56	
12.00		393.35	0.01	0.06	0.03	13.32	
14.00		390.16	0.01	0.06	0.04	13.85	
16.00	Bot - Section 2	386.97	0.02	0.06	0.04	14.23	
16.25	RT1 RB2	97.07	0.02	0.06	0.04	3.58	
18.00	RB3	676.67	0.02	0.07	0.04	25.54	
19.50	RB4	576.11	0.03	0.07	0.04	22.09	
20.00		191.24	0.03	0.07	0.04	7.36	
22.00	Top - Section 1	760.98	0.04	0.07	0.04	29.77	
24.00		380.38	0.04	0.07	0.04	15.07	
26.00		377.19	0.05	0.07	0.04	15.11	
28.00		374.00	0.06	0.07	0.04	15.12	
30.00	RB5	370.82	0.07	0.07	0.04	15.13	
31.00	RT2	184.21	0.07	0.07	0.04	7.55	
32.00		183.42	0.08	0.07	0.04	7.55	
34.00	RT3	364.44	0.09	0.07	0.04	15.14	
35.50	RT4	271.24	0.09	0.07	0.04	11.35	
36.00		90.01	0.10	0.07	0.04	3.78	
38.00		358.06	0.11	0.07	0.04	15.16	
40.00	Appurtenance(s)	364.87	0.12	0.07	0.03	15.60	
42.00		351.69	0.13	0.07	0.03	15.17	
44.00		348.50	0.14	0.07	0.03	15.17	
45.16	RB6	200.67	0.15	0.07	0.03	8.78	
46.00	RT5	144.64	0.16	0.07	0.03	6.35	
48.00		342.12	0.17	0.07	0.03	15.11	
50.00	Bot - Section 3	338.93	0.18	0.06	0.03	15.03	
52.00		677.65	0.20	0.06	0.02	30.10	
54.00		671.27	0.22	0.06	0.02	29.74	
56.00	Top - Section 2	664.89	0.23	0.06	0.02	29.24	
58.00	RT6 RB7	332.34	0.25	0.06	0.02	14.42	
60.00		329.15	0.27	0.05	0.02	13.97	
62.00		325.96	0.28	0.05	0.01	13.40	
64.00		322.78	0.30	0.04	0.01	12.68	
66.00		319.59	0.32	0.04	0.01	11.80	
68.00		316.40	0.34	0.04	0.01	10.75	
70.00		313.21	0.36	0.03	0.01	9.50	
72.00		310.02	0.38	0.02	0.01	8.06	
74.00		306.83	0.40	0.02	0.01	6.43	
76.00		303.64	0.43	0.01	0.01	4.62	
78.00	RT7 RB8	300.46	0.45	0.00	0.01	2.68	
80.00	Top - Section 3	297.27	0.47	-0.01	0.01	0.65	

Seismic Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

82.00		245.49	0.50	-0.01	0.01	-1.17
84.00		242.84	0.52	-0.02	0.01	-2.87
86.00		240.18	0.55	-0.03	0.01	-4.48
88.00		237.52	0.57	-0.04	0.01	-5.95
90.00		234.87	0.60	-0.05	0.01	-7.26
92.00		232.21	0.62	-0.06	0.02	-8.38
94.00		229.55	0.65	-0.07	0.02	-9.28
95.00	Bot - Section 5	113.78	0.67	-0.08	0.02	-4.81
95.58	RT8	132.62	0.67	-0.08	0.03	-5.74
96.00		95.75	0.68	-0.08	0.03	-4.21
98.00		452.75	0.71	-0.09	0.03	-21.07
100.00	Top - Section 4	447.44	0.74	-0.10	0.04	-21.61
102.00		223.20	0.77	-0.11	0.05	-10.98
104.00		220.55	0.80	-0.11	0.05	-10.86
106.00		217.89	0.83	-0.12	0.06	-10.57
108.00		215.23	0.86	-0.12	0.07	-10.10
110.00	Appurtenance(s)	268.57	0.89	-0.12	0.08	-11.98
112.00		209.92	0.93	-0.12	0.10	-8.72
114.00		207.26	0.96	-0.12	0.11	-7.82
115.00	Top - Section 5	102.63	0.98	-0.12	0.12	-3.65
116.00		81.75	0.99	-0.11	0.13	-2.71
118.00		161.90	1.03	-0.10	0.15	-4.51
120.00		159.77	1.06	-0.09	0.17	-3.49
122.00		157.65	1.10	-0.07	0.19	-2.38
124.00		155.52	1.14	-0.05	0.21	-1.19
126.00		153.40	1.17	-0.02	0.23	0.08
128.00		151.27	1.21	0.01	0.26	1.42
130.00		149.15	1.25	0.05	0.29	2.84
132.00		147.02	1.29	0.10	0.32	4.32
133.00	Appurtenance(s)	2549.1	1.31	0.13	0.34	88.83
134.00		72.18	1.33	0.16	0.36	2.92
136.00		142.77	1.37	0.22	0.40	7.47
138.00		140.64	1.41	0.30	0.44	9.13
140.00		138.52	1.45	0.38	0.48	10.85
142.00		136.39	1.49	0.47	0.53	12.61
142.90	Appurtenance(s)	3740.8	1.51	0.52	0.55	370.60
144.00		73.58	1.53	0.58	0.58	7.90
145.00	Top - Section 6	66.34	1.55	0.64	0.61	7.64
146.00		64.22	1.57	0.70	0.63	7.90
148.00		126.88	1.62	0.83	0.69	17.71
148.30	Appurtenance(s)	2089.2	1.62	0.85	0.70	296.88
150.00	Top - Section 7	105.95	1.66	0.98	0.76	16.62
152.00		84.18	1.71	1.14	0.82	14.73
154.00		84.18	1.75	1.32	0.90	16.32
156.00		84.18	1.80	1.52	0.97	17.98
158.00		84.18	1.84	1.74	1.05	19.72
160.00	Appurtenance(s)	1968.6	1.89	1.98	1.14	503.22
Totals:		33,963.6				1,838.7
						Total Wind: 36,071.3

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

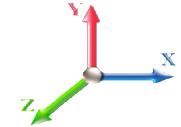
Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 1.2D + 1.0E						Iterations 25
Gust Response Factor	1.10		Sds	0.20		Ss 0.19
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.10	S1 0.06
Wind Load Factor	0.00	Structure Frequency	0.27	SA	0.03	Seismic Importance Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-49.80	-2.02	0.00	-249.43	0.00	249.43	3683.82	1841.91	7606.69	3756.66	0.00	0.00	0.00	0.054
2.00	-49.18	-2.02	0.00	-245.38	0.00	245.38	3671.54	1835.77	7522.06	3714.86	0.00	0.00	0.00	0.054
4.00	-48.57	-2.02	0.00	-241.33	0.00	241.33	3659.00	1829.50	7437.30	3673.00	0.00	0.00	-0.01	0.053
6.00	-47.97	-2.01	0.00	-237.29	0.00	237.29	3646.20	1823.10	7352.44	3631.09	0.01	0.01	-0.01	0.053
8.00	-47.36	-2.01	0.00	-233.27	0.00	233.27	3633.16	1816.58	7267.48	3589.13	0.02	0.02	-0.02	0.053
10.00	-46.76	-2.00	0.00	-229.25	0.00	229.25	3619.85	1809.93	7182.43	3547.13	0.03	0.03	-0.02	0.052
12.00	-46.17	-1.99	0.00	-225.25	0.00	225.25	3606.29	1803.15	7097.31	3505.10	0.04	0.04	-0.03	0.052
14.00	-45.58	-1.98	0.00	-221.28	0.00	221.28	3592.48	1796.24	7012.13	3463.03	0.05	0.05	-0.04	0.051
16.00	-44.99	-1.97	0.00	-217.32	0.00	217.32	3578.41	1789.21	6926.91	3420.94	0.07	0.07	-0.04	0.051
16.25	-44.86	-1.96	0.00	-216.83	0.00	216.83	3576.63	1788.32	6916.25	3415.68	0.07	0.07	-0.04	0.060
18.00	-43.94	-1.94	0.00	-213.39	0.00	213.39	3564.09	1782.04	6841.65	3378.83	0.09	0.09	-0.05	0.054
19.50	-43.16	-1.92	0.00	-210.48	0.00	210.48	3553.18	1776.59	6777.69	3347.24	0.10	0.10	-0.05	0.046
20.00	-42.89	-1.92	0.00	-209.52	0.00	209.52	3549.51	1774.75	6756.36	3336.71	0.11	0.11	-0.05	0.046
22.00	-41.86	-1.89	0.00	-205.68	0.00	205.68	3563.12	1781.56	6835.93	3376.01	0.13	0.13	-0.06	0.047
24.00	-41.28	-1.88	0.00	-201.91	0.00	201.91	3548.52	1774.26	6750.65	3333.89	0.15	0.15	-0.06	0.045
26.00	-40.70	-1.86	0.00	-198.15	0.00	198.15	3533.67	1766.84	6665.35	3291.77	0.18	0.18	-0.07	0.044
28.00	-40.13	-1.85	0.00	-194.42	0.00	194.42	3518.56	1759.28	6580.06	3249.64	0.21	0.21	-0.07	0.044
30.00	-39.56	-1.84	0.00	-190.72	0.00	190.72	3503.20	1751.60	6494.78	3207.53	0.24	0.24	-0.08	0.034
31.00	-39.28	-1.83	0.00	-188.88	0.00	188.88	3495.43	1747.71	6452.15	3186.48	0.25	0.25	-0.08	0.040
32.00	-39.00	-1.83	0.00	-187.05	0.00	187.05	3487.59	1743.79	6409.53	3165.43	0.27	0.27	-0.08	0.039
34.00	-38.44	-1.81	0.00	-183.40	0.00	183.40	3471.72	1735.86	6324.32	3123.35	0.31	0.31	-0.08	0.048
35.50	-38.02	-1.80	0.00	-180.68	0.00	180.68	3459.65	1729.82	6260.45	3091.80	0.33	0.33	-0.09	0.048
36.00	-37.88	-1.80	0.00	-179.78	0.00	179.78	3455.59	1727.80	6239.16	3081.29	0.34	0.34	-0.09	0.048
38.00	-37.33	-1.79	0.00	-176.18	0.00	176.18	3439.21	1719.61	6154.07	3039.26	0.38	0.38	-0.09	0.047
40.00	-36.77	-1.78	0.00	-172.60	0.00	172.60	3422.57	1711.29	6069.05	2997.28	0.42	0.42	-0.10	0.047
42.00	-36.22	-1.76	0.00	-169.05	0.00	169.05	3405.68	1702.84	5984.13	2955.34	0.46	0.46	-0.11	0.046
44.00	-35.68	-1.75	0.00	-165.53	0.00	165.53	3388.54	1694.27	5899.30	2913.44	0.51	0.51	-0.11	0.046
45.16	-35.37	-1.74	0.00	-163.50	0.00	163.50	3378.48	1689.24	5850.15	2889.17	0.54	0.54	-0.11	0.033
46.00	-35.15	-1.74	0.00	-162.03	0.00	162.03	3371.14	1685.57	5814.59	2871.61	0.56	0.56	-0.12	0.043
48.00	-34.61	-1.72	0.00	-158.56	0.00	158.56	3353.48	1676.74	5730.00	2829.83	0.61	0.61	-0.12	0.043
50.00	-34.08	-1.71	0.00	-155.11	0.00	155.11	3335.57	1667.79	5645.55	2788.13	0.66	0.66	-0.13	0.042
52.00	-33.15	-1.68	0.00	-151.69	0.00	151.69	3317.41	1658.70	5561.26	2746.50	0.71	0.71	-0.13	0.041
54.00	-32.22	-1.65	0.00	-148.33	0.00	148.33	3298.98	1649.49	5477.12	2704.94	0.77	0.77	-0.14	0.041
56.00	-31.30	-1.62	0.00	-145.03	0.00	145.03	3316.18	1658.09	5555.61	2743.71	0.83	0.83	-0.14	0.041
58.00	-30.78	-1.61	0.00	-141.78	0.00	141.78	3297.74	1648.87	5471.49	2702.16	0.89	0.89	-0.15	0.043
60.00	-30.26	-1.60	0.00	-138.56	0.00	138.56	3279.05	1639.52	5387.54	2660.71	0.95	0.95	-0.15	0.042
62.00	-29.75	-1.59	0.00	-135.36	0.00	135.36	3260.10	1630.05	5303.79	2619.34	1.01	1.01	-0.16	0.042
64.00	-29.24	-1.58	0.00	-132.19	0.00	132.19	3240.90	1620.45	5220.23	2578.08	1.08	1.08	-0.16	0.041
66.00	-28.73	-1.56	0.00	-129.04	0.00	129.04	3221.44	1610.72	5136.89	2536.92	1.15	1.15	-0.17	0.041
68.00	-28.23	-1.56	0.00	-125.91	0.00	125.91	3201.73	1600.86	5053.77	2495.87	1.22	1.22	-0.17	0.040
70.00	-27.73	-1.55	0.00	-122.80	0.00	122.80	3181.76	1590.88	4970.89	2454.94	1.30	1.30	-0.18	0.040
72.00	-27.24	-1.54	0.00	-119.71	0.00	119.71	3161.54	1580.77	4888.26	2414.13	1.37	1.37	-0.19	0.039
74.00	-26.74	-1.53	0.00	-116.63	0.00	116.63	3141.06	1570.53	4805.90	2373.45	1.45	1.45	-0.19	0.039
76.00	-26.26	-1.53	0.00	-113.56	0.00	113.56	3120.33	1560.16	4723.81	2332.91	1.53	1.53	-0.20	0.038
78.00	-25.77	-1.53	0.00	-110.50	0.00	110.50	3099.34	1549.67	4642.00	2292.51	1.62	1.62	-0.20	0.038
80.00	-25.30	-1.53	0.00	-107.44	0.00	107.44	3078.09	1539.05	4560.50	2252.26	1.70	1.70	-0.21	0.037
80.00	-25.30	-1.53	0.00	-107.44	0.00	107.44	2384.58	1192.29	3545.27	1750.88	1.70	1.70	-0.21	0.040

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

82.00	-24.88	-1.53	0.00	-104.38	0.00	104.38	2370.62	1185.31	3486.26	1721.73	1.79	-0.21	0.044
84.00	-24.46	-1.53	0.00	-101.32	0.00	101.32	2356.42	1178.21	3427.33	1692.63	1.88	-0.22	0.043
86.00	-24.05	-1.53	0.00	-98.26	0.00	98.26	2341.95	1170.98	3368.48	1663.57	1.97	-0.23	0.043
88.00	-23.65	-1.53	0.00	-95.20	0.00	95.20	2327.23	1163.62	3309.75	1634.56	2.07	-0.23	0.042
90.00	-23.24	-1.53	0.00	-92.13	0.00	92.13	2312.26	1156.13	3251.12	1605.61	2.17	-0.24	0.041
92.00	-22.84	-1.53	0.00	-89.06	0.00	89.06	2297.03	1148.52	3192.63	1576.72	2.27	-0.24	0.040
94.00	-22.44	-1.53	0.00	-86.00	0.00	86.00	2281.55	1140.77	3134.28	1547.90	2.37	-0.25	0.039
95.00	-22.24	-1.53	0.00	-84.46	0.00	84.46	2273.71	1136.85	3105.16	1533.52	2.42	-0.25	0.039
95.58	-22.05	-1.53	0.00	-83.57	0.00	83.57	2269.13	1134.57	3088.29	1525.19	2.45	-0.25	0.038
95.58	-22.05	-1.53	0.00	-83.57	0.00	83.57	2269.13	1134.57	3088.29	1525.19	2.45	-0.25	0.038
96.00	-21.91	-1.54	0.00	-82.93	0.00	82.93	2265.81	1132.90	3076.09	1519.16	2.48	-0.26	0.064
98.00	-21.24	-1.54	0.00	-79.85	0.00	79.85	2249.81	1124.91	3018.05	1490.50	2.59	-0.27	0.063
100.00	-20.58	-1.54	0.00	-76.78	0.00	76.78	2259.61	1129.81	3053.48	1508.00	2.70	-0.28	0.060
102.00	-20.19	-1.54	0.00	-73.71	0.00	73.71	2243.52	1121.76	2995.52	1479.37	2.82	-0.29	0.059
104.00	-19.80	-1.54	0.00	-70.63	0.00	70.63	2227.17	1113.59	2937.74	1450.84	2.94	-0.30	0.058
106.00	-19.42	-1.54	0.00	-67.55	0.00	67.55	2210.57	1105.28	2880.15	1422.40	3.07	-0.30	0.056
108.00	-19.04	-1.54	0.00	-64.46	0.00	64.46	2193.71	1096.86	2822.78	1394.06	3.20	-0.31	0.055
110.00	-18.59	-1.54	0.00	-61.38	0.00	61.38	2176.60	1088.30	2765.62	1365.84	3.33	-0.32	0.053
112.00	-18.22	-1.54	0.00	-58.29	0.00	58.29	2159.23	1079.61	2708.70	1337.73	3.47	-0.33	0.052
114.00	-17.85	-1.54	0.00	-55.21	0.00	55.21	2141.61	1070.80	2652.02	1309.73	3.61	-0.34	0.050
115.00	-17.67	-1.54	0.00	-53.66	0.00	53.66	2132.70	1066.35	2623.78	1295.79	3.68	-0.35	0.050
115.00	-17.67	-1.54	0.00	-53.66	0.00	53.66	1556.62	778.31	1923.08	949.74	3.68	-0.35	0.068
116.00	-17.51	-1.55	0.00	-52.12	0.00	52.12	1551.43	775.71	1904.13	940.38	3.75	-0.35	0.067
118.00	-17.19	-1.55	0.00	-49.03	0.00	49.03	1540.84	770.42	1866.26	921.68	3.90	-0.36	0.064
120.00	-16.88	-1.55	0.00	-45.94	0.00	45.94	1529.99	765.00	1828.43	902.99	4.06	-0.37	0.062
122.00	-16.57	-1.55	0.00	-42.84	0.00	42.84	1518.89	759.45	1790.65	884.33	4.21	-0.38	0.059
124.00	-16.26	-1.55	0.00	-39.75	0.00	39.75	1507.54	753.77	1752.93	865.70	4.38	-0.39	0.057
126.00	-15.95	-1.55	0.00	-36.65	0.00	36.65	1495.93	747.96	1715.28	847.11	4.54	-0.40	0.054
128.00	-15.65	-1.55	0.00	-33.55	0.00	33.55	1484.06	742.03	1677.72	828.56	4.71	-0.41	0.051
130.00	-15.35	-1.55	0.00	-30.45	0.00	30.45	1471.95	735.97	1640.26	810.06	4.88	-0.42	0.048
132.00	-15.05	-1.54	0.00	-27.36	0.00	27.36	1459.57	729.79	1602.91	791.62	5.06	-0.43	0.045
133.00	-11.93	-1.43	0.00	-25.82	0.00	25.82	1453.29	726.64	1584.28	782.42	5.15	-0.43	0.041
134.00	-11.80	-1.43	0.00	-24.39	0.00	24.39	1446.94	723.47	1565.68	773.23	5.24	-0.43	0.040
136.00	-11.54	-1.42	0.00	-21.54	0.00	21.54	1434.06	717.03	1528.59	754.91	5.42	-0.44	0.037
138.00	-11.28	-1.41	0.00	-18.70	0.00	18.70	1420.92	710.46	1491.65	736.67	5.61	-0.45	0.033
140.00	-11.02	-1.40	0.00	-15.88	0.00	15.88	1407.52	703.76	1454.87	718.50	5.80	-0.45	0.030
142.00	-10.76	-1.38	0.00	-13.09	0.00	13.09	1393.87	696.94	1418.26	700.42	5.99	-0.46	0.026
142.90	-6.23	-0.98	0.00	-11.85	0.00	11.85	1387.65	693.82	1401.84	692.32	6.08	-0.46	0.022
144.00	-6.11	-0.97	0.00	-10.77	0.00	10.77	1379.97	689.99	1381.83	682.44	6.18	-0.46	0.020
145.00	-6.00	-0.96	0.00	-9.80	0.00	9.80	1372.92	686.46	1363.70	673.48	6.28	-0.46	0.019
145.00	-6.00	-0.96	0.00	-9.80	0.00	9.80	931.20	465.60	925.89	604.09	6.28	-0.46	0.023
146.00	-5.90	-0.95	0.00	-8.84	0.00	8.84	925.24	462.62	912.49	594.77	6.38	-0.47	0.021
148.00	-5.69	-0.93	0.00	-6.94	0.00	6.94	913.32	456.66	885.99	576.36	6.57	-0.47	0.018
148.30	-3.17	-0.61	0.00	-6.66	0.00	6.66	911.53	455.77	882.04	573.63	6.60	-0.47	0.015
150.00	-3.01	-0.60	0.00	-5.62	0.00	5.62	901.40	450.70	859.86	558.24	6.77	-0.47	0.013
150.00	-3.01	-0.60	0.00	-5.62	0.00	5.62	556.65	278.33	359.38	213.69	6.77	-0.47	0.032
152.00	-2.86	-0.58	0.00	-4.43	0.00	4.43	556.65	278.33	359.38	213.69	6.97	-0.47	0.026
154.00	-2.71	-0.56	0.00	-3.26	0.00	3.26	556.65	278.33	359.38	213.69	7.17	-0.48	0.020
156.00	-2.56	-0.54	0.00	-2.14	0.00	2.14	556.65	278.33	359.38	213.69	7.37	-0.48	0.015
158.00	-2.41	-0.52	0.00	-1.05	0.00	1.05	556.65	278.33	359.38	213.69	7.58	-0.49	0.009
160.00	0.00	-0.50	0.00	0.00	0.00	0.00	556.65	278.33	359.38	213.69	7.78	-0.49	0.000

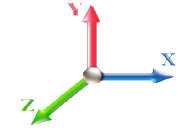
Seismic Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 0.9D + 1.0E				Iterations 25
Gust Response Factor	1.10	Sds	0.20	Ss 0.19
Dead Load Factor	0.90	Seismic Load Factor	1.00	S1 0.06
Wind Load Factor	0.00	Structure Frequency	0.27	SA 0.03
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1	0.00	0.00	0.00	0.00	0.00	
2.00		409.29	0.00	0.01	0.01	4.85	
4.00		406.10	0.00	0.03	0.01	7.92	
6.00		402.91	0.00	0.04	0.02	10.02	
8.00		399.73	0.00	0.04	0.02	11.50	
10.00		396.54	0.01	0.05	0.03	12.56	
12.00		393.35	0.01	0.06	0.03	13.32	
14.00		390.16	0.01	0.06	0.04	13.85	
16.00	Bot - Section 2	386.97	0.02	0.06	0.04	14.23	
16.25	RT1 RB2	97.07	0.02	0.06	0.04	3.58	
18.00	RB3	676.67	0.02	0.07	0.04	25.54	
19.50	RB4	576.11	0.03	0.07	0.04	22.09	
20.00		191.24	0.03	0.07	0.04	7.36	
22.00	Top - Section 1	760.98	0.04	0.07	0.04	29.77	
24.00		380.38	0.04	0.07	0.04	15.07	
26.00		377.19	0.05	0.07	0.04	15.11	
28.00		374.00	0.06	0.07	0.04	15.12	
30.00	RB5	370.82	0.07	0.07	0.04	15.13	
31.00	RT2	184.21	0.07	0.07	0.04	7.55	
32.00		183.42	0.08	0.07	0.04	7.55	
34.00	RT3	364.44	0.09	0.07	0.04	15.14	
35.50	RT4	271.24	0.09	0.07	0.04	11.35	
36.00		90.01	0.10	0.07	0.04	3.78	
38.00		358.06	0.11	0.07	0.04	15.16	
40.00	Appurtenance(s)	364.87	0.12	0.07	0.03	15.60	
42.00		351.69	0.13	0.07	0.03	15.17	
44.00		348.50	0.14	0.07	0.03	15.17	
45.16	RB6	200.67	0.15	0.07	0.03	8.78	
46.00	RT5	144.64	0.16	0.07	0.03	6.35	
48.00		342.12	0.17	0.07	0.03	15.11	
50.00	Bot - Section 3	338.93	0.18	0.06	0.03	15.03	
52.00		677.65	0.20	0.06	0.02	30.10	
54.00		671.27	0.22	0.06	0.02	29.74	
56.00	Top - Section 2	664.89	0.23	0.06	0.02	29.24	
58.00	RT6 RB7	332.34	0.25	0.06	0.02	14.42	
60.00		329.15	0.27	0.05	0.02	13.97	
62.00		325.96	0.28	0.05	0.01	13.40	
64.00		322.78	0.30	0.04	0.01	12.68	
66.00		319.59	0.32	0.04	0.01	11.80	
68.00		316.40	0.34	0.04	0.01	10.75	
70.00		313.21	0.36	0.03	0.01	9.50	
72.00		310.02	0.38	0.02	0.01	8.06	
74.00		306.83	0.40	0.02	0.01	6.43	
76.00		303.64	0.43	0.01	0.01	4.62	
78.00	RT7 RB8	300.46	0.45	0.00	0.01	2.68	
80.00	Top - Section 3	297.27	0.47	-0.01	0.01	0.65	

Seismic Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

82.00		245.49	0.50	-0.01	0.01	-1.17
84.00		242.84	0.52	-0.02	0.01	-2.87
86.00		240.18	0.55	-0.03	0.01	-4.48
88.00		237.52	0.57	-0.04	0.01	-5.95
90.00		234.87	0.60	-0.05	0.01	-7.26
92.00		232.21	0.62	-0.06	0.02	-8.38
94.00		229.55	0.65	-0.07	0.02	-9.28
95.00	Bot - Section 5	113.78	0.67	-0.08	0.02	-4.81
95.58	RT8	132.62	0.67	-0.08	0.03	-5.74
96.00		95.75	0.68	-0.08	0.03	-4.21
98.00		452.75	0.71	-0.09	0.03	-21.07
100.00	Top - Section 4	447.44	0.74	-0.10	0.04	-21.61
102.00		223.20	0.77	-0.11	0.05	-10.98
104.00		220.55	0.80	-0.11	0.05	-10.86
106.00		217.89	0.83	-0.12	0.06	-10.57
108.00		215.23	0.86	-0.12	0.07	-10.10
110.00	Appurtenance(s)	268.57	0.89	-0.12	0.08	-11.98
112.00		209.92	0.93	-0.12	0.10	-8.72
114.00		207.26	0.96	-0.12	0.11	-7.82
115.00	Top - Section 5	102.63	0.98	-0.12	0.12	-3.65
116.00		81.75	0.99	-0.11	0.13	-2.71
118.00		161.90	1.03	-0.10	0.15	-4.51
120.00		159.77	1.06	-0.09	0.17	-3.49
122.00		157.65	1.10	-0.07	0.19	-2.38
124.00		155.52	1.14	-0.05	0.21	-1.19
126.00		153.40	1.17	-0.02	0.23	0.08
128.00		151.27	1.21	0.01	0.26	1.42
130.00		149.15	1.25	0.05	0.29	2.84
132.00		147.02	1.29	0.10	0.32	4.32
133.00	Appurtenance(s)	2549.1	1.31	0.13	0.34	88.83
134.00		72.18	1.33	0.16	0.36	2.92
136.00		142.77	1.37	0.22	0.40	7.47
138.00		140.64	1.41	0.30	0.44	9.13
140.00		138.52	1.45	0.38	0.48	10.85
142.00		136.39	1.49	0.47	0.53	12.61
142.90	Appurtenance(s)	3740.8	1.51	0.52	0.55	370.60
144.00		73.58	1.53	0.58	0.58	7.90
145.00	Top - Section 6	66.34	1.55	0.64	0.61	7.64
146.00		64.22	1.57	0.70	0.63	7.90
148.00		126.88	1.62	0.83	0.69	17.71
148.30	Appurtenance(s)	2089.2	1.62	0.85	0.70	296.88
150.00	Top - Section 7	105.95	1.66	0.98	0.76	16.62
152.00		84.18	1.71	1.14	0.82	14.73
154.00		84.18	1.75	1.32	0.90	16.32
156.00		84.18	1.80	1.52	0.97	17.98
158.00		84.18	1.84	1.74	1.05	19.72
160.00	Appurtenance(s)	1968.6	1.89	1.98	1.14	503.22
Totals:		33,963.6				1,838.7
						Total Wind: 36,071.3

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

Calculated Forces

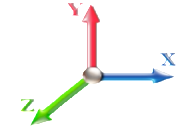
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0E

Iterations 25

Gust Response Factor 1.10	Sds 0.20	Ss 0.19
Dead Load Factor 0.90	Seismic Load Factor 1.00	Sd1 0.10
Wind Load Factor 0.00	Structure Frequency 0.27	SA 0.03
	Seismic Importance Factor 1.00	



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-37.35	-2.02	0.00	-246.42	0.00	246.42	3683.82	1841.91	7606.69	3756.66	0.00	0.00	0.00	0.052
2.00	-36.89	-2.02	0.00	-242.37	0.00	242.37	3671.54	1835.77	7522.06	3714.86	0.00	0.00	0.00	0.051
4.00	-36.43	-2.02	0.00	-238.32	0.00	238.32	3659.00	1829.50	7437.30	3673.00	0.00	0.00	-0.01	0.051
6.00	-35.97	-2.01	0.00	-234.29	0.00	234.29	3646.20	1823.10	7352.44	3631.09	0.01	0.01	-0.01	0.050
8.00	-35.52	-2.00	0.00	-230.27	0.00	230.27	3633.16	1816.58	7267.48	3589.13	0.02	0.02	-0.02	0.050
10.00	-35.07	-1.99	0.00	-226.26	0.00	226.26	3619.85	1809.93	7182.43	3547.13	0.03	0.03	-0.02	0.049
12.00	-34.63	-1.98	0.00	-222.28	0.00	222.28	3606.29	1803.15	7097.31	3505.10	0.04	0.04	-0.03	0.049
14.00	-34.18	-1.97	0.00	-218.31	0.00	218.31	3592.48	1796.24	7012.13	3463.03	0.05	0.05	-0.03	0.048
16.00	-33.74	-1.96	0.00	-214.37	0.00	214.37	3578.41	1789.21	6926.91	3420.94	0.07	0.07	-0.04	0.048
16.25	-33.64	-1.96	0.00	-213.88	0.00	213.88	3576.63	1788.32	6916.25	3415.68	0.07	0.07	-0.04	0.056
18.00	-32.95	-1.93	0.00	-210.46	0.00	210.46	3564.09	1782.04	6841.65	3378.83	0.08	0.08	-0.05	0.051
19.50	-32.37	-1.91	0.00	-207.56	0.00	207.56	3553.18	1776.59	6777.69	3347.24	0.10	0.10	-0.05	0.044
20.00	-32.17	-1.91	0.00	-206.60	0.00	206.60	3549.51	1774.75	6756.36	3336.71	0.10	0.10	-0.05	0.044
22.00	-31.39	-1.88	0.00	-202.79	0.00	202.79	3563.12	1781.56	6835.93	3376.01	0.13	0.13	-0.06	0.044
24.00	-30.96	-1.86	0.00	-199.04	0.00	199.04	3548.52	1774.26	6750.65	3333.89	0.15	0.15	-0.06	0.043
26.00	-30.53	-1.85	0.00	-195.31	0.00	195.31	3533.67	1766.84	6665.35	3291.77	0.18	0.18	-0.06	0.042
28.00	-30.10	-1.84	0.00	-191.60	0.00	191.60	3518.56	1759.28	6580.06	3249.64	0.21	0.21	-0.07	0.042
30.00	-29.67	-1.82	0.00	-187.93	0.00	187.93	3503.20	1751.60	6494.78	3207.53	0.24	0.24	-0.07	0.033
31.00	-29.46	-1.82	0.00	-186.10	0.00	186.10	3495.43	1747.71	6452.15	3186.48	0.25	0.25	-0.08	0.037
32.00	-29.25	-1.81	0.00	-184.28	0.00	184.28	3487.59	1743.79	6409.53	3165.43	0.27	0.27	-0.08	0.037
34.00	-28.83	-1.80	0.00	-180.66	0.00	180.66	3471.72	1735.86	6324.32	3123.35	0.30	0.30	-0.08	0.045
35.50	-28.52	-1.79	0.00	-177.96	0.00	177.96	3459.65	1729.82	6260.45	3091.80	0.33	0.33	-0.09	0.045
36.00	-28.41	-1.79	0.00	-177.07	0.00	177.07	3455.59	1727.80	6239.16	3081.29	0.34	0.34	-0.09	0.045
38.00	-28.00	-1.77	0.00	-173.50	0.00	173.50	3439.21	1719.61	6154.07	3039.26	0.37	0.37	-0.09	0.045
40.00	-27.58	-1.76	0.00	-169.96	0.00	169.96	3422.57	1711.29	6069.05	2997.28	0.41	0.41	-0.10	0.044
42.00	-27.17	-1.74	0.00	-166.44	0.00	166.44	3405.68	1702.84	5984.13	2955.34	0.46	0.46	-0.10	0.044
44.00	-26.76	-1.73	0.00	-162.95	0.00	162.95	3388.54	1694.27	5899.30	2913.44	0.50	0.50	-0.11	0.044
45.16	-26.53	-1.72	0.00	-160.94	0.00	160.94	3378.48	1689.24	5850.15	2889.17	0.53	0.53	-0.11	0.032
46.00	-26.36	-1.72	0.00	-159.49	0.00	159.49	3371.14	1685.57	5814.59	2871.61	0.55	0.55	-0.11	0.041
48.00	-25.96	-1.70	0.00	-156.06	0.00	156.06	3353.48	1676.74	5730.00	2829.83	0.60	0.60	-0.12	0.040
50.00	-25.56	-1.69	0.00	-152.65	0.00	152.65	3335.57	1667.79	5645.55	2788.13	0.65	0.65	-0.12	0.040
52.00	-24.86	-1.66	0.00	-149.27	0.00	149.27	3317.41	1658.70	5561.26	2746.50	0.70	0.70	-0.13	0.039
54.00	-24.16	-1.63	0.00	-145.95	0.00	145.95	3298.98	1649.49	5477.12	2704.94	0.76	0.76	-0.13	0.039
56.00	-23.47	-1.60	0.00	-142.68	0.00	142.68	3316.18	1658.09	5555.61	2743.71	0.81	0.81	-0.14	0.039
58.00	-23.08	-1.59	0.00	-139.48	0.00	139.48	3297.74	1648.87	5471.49	2702.16	0.87	0.87	-0.14	0.040
60.00	-22.69	-1.58	0.00	-136.30	0.00	136.30	3279.05	1639.52	5387.54	2660.71	0.94	0.94	-0.15	0.040
62.00	-22.31	-1.56	0.00	-133.14	0.00	133.14	3260.10	1630.05	5303.79	2619.34	1.00	1.00	-0.16	0.040
64.00	-21.93	-1.55	0.00	-130.01	0.00	130.01	3240.90	1620.45	5220.23	2578.08	1.07	1.07	-0.16	0.039
66.00	-21.55	-1.54	0.00	-126.91	0.00	126.91	3221.44	1610.72	5136.89	2536.92	1.13	1.13	-0.17	0.039
68.00	-21.17	-1.53	0.00	-123.82	0.00	123.82	3201.73	1600.86	5053.77	2495.87	1.20	1.20	-0.17	0.038
70.00	-20.80	-1.52	0.00	-120.76	0.00	120.76	3181.76	1590.88	4970.89	2454.94	1.28	1.28	-0.18	0.038
72.00	-20.43	-1.52	0.00	-117.71	0.00	117.71	3161.54	1580.77	4888.26	2414.13	1.35	1.35	-0.18	0.037
74.00	-20.06	-1.51	0.00	-114.68	0.00	114.68	3141.06	1570.53	4805.90	2373.45	1.43	1.43	-0.19	0.037
76.00	-19.69	-1.51	0.00	-111.66	0.00	111.66	3120.33	1560.16	4723.81	2332.91	1.51	1.51	-0.19	0.036
78.00	-19.33	-1.50	0.00	-108.64	0.00	108.64	3099.34	1549.67	4642.00	2292.51	1.59	1.59	-0.20	0.036
80.00	-18.97	-1.50	0.00	-105.63	0.00	105.63	3078.09	1539.05	4560.50	2252.26	1.68	1.68	-0.20	0.035
80.00	-18.97	-1.50	0.00	-105.63	0.00	105.63	2384.58	1192.29	3545.27	1750.88	1.68	1.68	-0.20	0.038

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

82.00	-18.66	-1.51	0.00	-102.62	0.00	102.62	2370.62	1185.31	3486.26	1721.73	1.76	-0.21	0.042
84.00	-18.35	-1.51	0.00	-99.61	0.00	99.61	2356.42	1178.21	3427.33	1692.63	1.85	-0.22	0.041
86.00	-18.04	-1.51	0.00	-96.60	0.00	96.60	2341.95	1170.98	3368.48	1663.57	1.94	-0.22	0.040
88.00	-17.73	-1.51	0.00	-93.59	0.00	93.59	2327.23	1163.62	3309.75	1634.56	2.04	-0.23	0.040
90.00	-17.43	-1.51	0.00	-90.57	0.00	90.57	2312.26	1156.13	3251.12	1605.61	2.14	-0.23	0.039
92.00	-17.13	-1.51	0.00	-87.55	0.00	87.55	2297.03	1148.52	3192.63	1576.72	2.24	-0.24	0.038
94.00	-16.83	-1.51	0.00	-84.54	0.00	84.54	2281.55	1140.77	3134.28	1547.90	2.34	-0.25	0.037
95.00	-16.68	-1.51	0.00	-83.03	0.00	83.03	2273.71	1136.85	3105.16	1533.52	2.39	-0.25	0.037
95.58	-16.54	-1.51	0.00	-82.15	0.00	82.15	2269.13	1134.57	3088.29	1525.19	2.42	-0.25	0.036
95.58	-16.54	-1.51	0.00	-82.15	0.00	82.15	2269.13	1134.57	3088.29	1525.19	2.42	-0.25	0.036
96.00	-16.43	-1.51	0.00	-81.52	0.00	81.52	2265.81	1132.90	3076.09	1519.16	2.44	-0.25	0.061
98.00	-15.93	-1.51	0.00	-78.50	0.00	78.50	2249.81	1124.91	3018.05	1490.50	2.55	-0.26	0.060
100.00	-15.43	-1.51	0.00	-75.48	0.00	75.48	2259.61	1129.81	3053.48	1508.00	2.66	-0.27	0.057
102.00	-15.14	-1.51	0.00	-72.45	0.00	72.45	2243.52	1121.76	2995.52	1479.37	2.78	-0.28	0.056
104.00	-14.85	-1.51	0.00	-69.43	0.00	69.43	2227.17	1113.59	2937.74	1450.84	2.90	-0.29	0.055
106.00	-14.56	-1.51	0.00	-66.40	0.00	66.40	2210.57	1105.28	2880.15	1422.40	3.02	-0.30	0.053
108.00	-14.28	-1.51	0.00	-63.38	0.00	63.38	2193.71	1096.86	2822.78	1394.06	3.15	-0.31	0.052
110.00	-13.94	-1.52	0.00	-60.35	0.00	60.35	2176.60	1088.30	2765.62	1365.84	3.28	-0.32	0.051
112.00	-13.66	-1.52	0.00	-57.32	0.00	57.32	2159.23	1079.61	2708.70	1337.73	3.42	-0.33	0.049
114.00	-13.39	-1.52	0.00	-54.29	0.00	54.29	2141.61	1070.80	2652.02	1309.73	3.55	-0.34	0.048
115.00	-13.25	-1.52	0.00	-52.77	0.00	52.77	2132.70	1066.35	2623.78	1295.79	3.63	-0.34	0.047
115.00	-13.25	-1.52	0.00	-52.77	0.00	52.77	1556.62	778.31	1923.08	949.74	3.63	-0.34	0.064
116.00	-13.13	-1.52	0.00	-51.25	0.00	51.25	1551.43	775.71	1904.13	940.38	3.70	-0.34	0.063
118.00	-12.89	-1.52	0.00	-48.22	0.00	48.22	1540.84	770.42	1866.26	921.68	3.84	-0.36	0.061
120.00	-12.66	-1.52	0.00	-45.19	0.00	45.19	1529.99	765.00	1828.43	902.99	3.99	-0.37	0.058
122.00	-12.42	-1.52	0.00	-42.15	0.00	42.15	1518.89	759.45	1790.65	884.33	4.15	-0.38	0.056
124.00	-12.19	-1.52	0.00	-39.11	0.00	39.11	1507.54	753.77	1752.93	865.70	4.31	-0.38	0.053
126.00	-11.96	-1.52	0.00	-36.07	0.00	36.07	1495.93	747.96	1715.28	847.11	4.47	-0.39	0.051
128.00	-11.74	-1.52	0.00	-33.03	0.00	33.03	1484.06	742.03	1677.72	828.56	4.64	-0.40	0.048
130.00	-11.51	-1.52	0.00	-29.99	0.00	29.99	1471.95	735.97	1640.26	810.06	4.81	-0.41	0.045
132.00	-11.29	-1.51	0.00	-26.96	0.00	26.96	1459.57	729.79	1602.91	791.62	4.98	-0.42	0.042
133.00	-8.95	-1.41	0.00	-25.45	0.00	25.45	1453.29	726.64	1584.28	782.42	5.07	-0.42	0.039
134.00	-8.85	-1.40	0.00	-24.04	0.00	24.04	1446.94	723.47	1565.68	773.23	5.16	-0.43	0.037
136.00	-8.65	-1.40	0.00	-21.24	0.00	21.24	1434.06	717.03	1528.59	754.91	5.34	-0.43	0.034
138.00	-8.45	-1.39	0.00	-18.45	0.00	18.45	1420.92	710.46	1491.65	736.67	5.53	-0.44	0.031
140.00	-8.26	-1.37	0.00	-15.68	0.00	15.68	1407.52	703.76	1454.87	718.50	5.71	-0.45	0.028
142.00	-8.07	-1.36	0.00	-12.93	0.00	12.93	1393.87	696.94	1418.26	700.42	5.90	-0.45	0.024
142.90	-4.67	-0.96	0.00	-11.71	0.00	11.71	1387.65	693.82	1401.84	692.32	5.98	-0.45	0.020
144.00	-4.58	-0.95	0.00	-10.65	0.00	10.65	1379.97	689.99	1381.83	682.44	6.09	-0.46	0.019
145.00	-4.50	-0.95	0.00	-9.69	0.00	9.69	1372.92	686.46	1363.70	673.48	6.18	-0.46	0.018
145.00	-4.50	-0.95	0.00	-9.69	0.00	9.69	931.20	465.60	925.89	604.09	6.18	-0.46	0.021
146.00	-4.42	-0.94	0.00	-8.74	0.00	8.74	925.24	462.62	912.49	594.77	6.28	-0.46	0.019
148.00	-4.26	-0.92	0.00	-6.87	0.00	6.87	913.32	456.66	885.99	576.36	6.47	-0.46	0.017
148.30	-2.38	-0.61	0.00	-6.59	0.00	6.59	911.53	455.77	882.04	573.63	6.50	-0.46	0.014
150.00	-2.25	-0.59	0.00	-5.56	0.00	5.56	901.40	450.70	859.86	558.24	6.67	-0.47	0.012
150.00	-2.25	-0.59	0.00	-5.56	0.00	5.56	556.65	278.33	359.38	213.69	6.67	-0.47	0.030
152.00	-2.14	-0.57	0.00	-4.38	0.00	4.38	556.65	278.33	359.38	213.69	6.86	-0.47	0.024
154.00	-2.03	-0.56	0.00	-3.23	0.00	3.23	556.65	278.33	359.38	213.69	7.06	-0.47	0.019
156.00	-1.92	-0.54	0.00	-2.11	0.00	2.11	556.65	278.33	359.38	213.69	7.26	-0.48	0.013
158.00	-1.80	-0.52	0.00	-1.04	0.00	1.04	556.65	278.33	359.38	213.69	7.46	-0.48	0.008
160.00	0.00	-0.50	0.00	0.00	0.00	0.00	556.65	278.33	359.38	213.69	7.66	-0.48	0.000

Wind Loading - Shaft

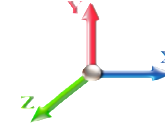
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 72

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	1.00	0.70	6.129	6.74	218.17	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	6.129	6.74	216.49	1.148 *	0.000	2.00	8.659	9.94	67.0	0.0	409.3
4.00		1.00	0.70	6.129	6.74	214.81	1.151 *	0.000	2.00	8.592	9.89	66.7	0.0	406.1
6.00		1.00	0.70	6.129	6.74	213.13	1.155 *	0.000	2.00	8.525	9.84	66.4	0.0	402.9
8.00		1.00	0.70	6.129	6.74	211.45	1.158 *	0.000	2.00	8.458	9.80	66.0	0.0	399.7
10.00		1.00	0.70	6.129	6.74	209.77	1.162 *	0.000	2.00	8.391	9.75	65.7	0.0	396.5
12.00		1.00	0.70	6.129	6.74	208.09	1.166 *	0.000	2.00	8.324	9.70	65.4	0.0	393.3
14.00		1.00	0.70	6.129	6.74	206.40	1.169 *	0.000	2.00	8.257	9.65	65.1	0.0	390.2
16.00	Bot - Section 2	1.00	0.70	6.129	6.74	204.72	1.173 *	0.000	2.00	8.190	9.61	64.8	0.0	387.0
16.25	RT1 RB2	1.00	0.70	6.129	6.74	204.51	1.175 *	0.000	0.25	1.035	1.22	8.2	0.0	97.1
18.00	RB3	1.00	0.70	6.129	6.74	203.04	1.177 *	0.000	1.75	7.217	8.50	57.3	0.0	676.7
19.50	RB4	1.00	0.70	6.129	6.74	201.78	1.181 *	0.000	1.50	6.145	7.25	48.9	0.0	576.1
20.00		1.00	0.70	6.129	6.74	201.36	1.183 *	0.000	0.50	2.040	2.41	16.3	0.0	191.2
22.00	Top - Section 1	1.00	0.70	6.129	6.74	199.68	1.185 *	0.000	2.00	8.118	9.62	64.9	0.0	761.0
24.00		1.00	0.70	6.129	6.74	201.25	1.181 *	0.000	2.00	8.052	9.51	64.1	0.0	380.4
26.00		1.00	0.70	6.129	6.74	199.57	1.185 *	0.000	2.00	7.985	9.46	63.8	0.0	377.2
28.00		1.00	0.70	6.129	6.74	197.89	1.189 *	0.000	2.00	7.918	9.42	63.5	0.0	374.0
30.00	RB5	1.00	0.70	6.134	6.75	196.29	1.194 *	0.000	2.00	7.851	9.37	63.2	0.0	370.8
31.00	RT2	1.00	0.71	6.192	6.81	196.37	1.197 *	0.000	1.00	3.900	4.67	31.8	0.0	184.2
32.00		1.00	0.71	6.248	6.87	196.41	1.199 *	0.000	1.00	3.883	4.66	32.0	0.0	183.4
34.00	RT3	1.00	0.73	6.357	6.99	196.41	1.040 *	0.000	2.00	7.717	8.03	56.1	0.0	364.4
35.50	RT4	1.00	0.74	6.436	7.08	196.34	1.043 *	0.000	1.50	5.744	5.99	42.4	0.0	271.2
36.00		1.00	0.74	6.462	7.11	196.30	1.044 *	0.000	0.50	1.906	1.99	14.1	0.0	90.0
38.00		1.00	0.75	6.562	7.22	196.08	1.046 *	0.000	2.00	7.583	7.93	57.3	0.0	358.1
40.00	Appurtenance(s)	1.00	0.76	6.659	7.33	195.77	1.049 *	0.000	2.00	7.516	7.89	57.8	0.0	354.9
42.00		1.00	0.77	6.753	7.43	195.38	1.052 *	0.000	2.00	7.449	7.84	58.2	0.0	351.7
44.00		1.00	0.78	6.843	7.53	194.90	1.056 *	0.000	2.00	7.382	7.79	58.7	0.0	348.5
45.16	RB6	1.00	0.79	6.894	7.58	194.59	1.058 *	0.000	1.16	4.251	4.50	34.1	0.0	200.7
46.00	RT5	1.00	0.79	6.931	7.62	194.36	1.060 *	0.000	0.84	3.064	3.25	24.8	0.0	144.6
48.00		1.00	0.80	7.015	7.72	193.74	1.062 *	0.000	2.00	7.248	7.70	59.4	0.0	342.1
50.00	Bot - Section 3	1.00	0.81	7.098	7.81	193.07	1.066 *	0.000	2.00	7.181	7.65	59.7	0.0	338.9
52.00		1.00	0.82	7.178	7.90	192.34	1.069 *	0.000	2.00	7.244	7.74	61.1	0.0	677.6
54.00		1.00	0.83	7.255	7.98	191.55	1.072 *	0.000	2.00	7.177	7.70	61.4	0.0	671.3
56.00	Top - Section 2	1.00	0.84	7.331	8.06	190.71	1.076 *	0.000	2.00	7.110	7.65	61.7	0.0	664.9
58.00	RT6 RB7	1.00	0.85	7.405	8.15	193.39	1.073 *	0.000	2.00	7.043	7.55	61.5	0.0	332.3
60.00		1.00	0.85	7.477	8.22	192.47	1.076 *	0.000	2.00	6.976	7.51	61.8	0.0	329.2
62.00		1.00	0.86	7.548	8.30	191.51	1.080 *	0.000	2.00	6.909	7.46	61.9	0.0	326.0
64.00		1.00	0.87	7.616	8.38	190.51	1.084 *	0.000	2.00	6.842	7.41	62.1	0.0	322.8
66.00		1.00	0.88	7.684	8.45	189.47	1.087 *	0.000	2.00	6.775	7.37	62.3	0.0	319.6
68.00		1.00	0.89	7.749	8.52	188.39	1.091 *	0.000	2.00	6.708	7.32	62.4	0.0	316.4
70.00		1.00	0.89	7.814	8.60	187.27	1.095 *	0.000	2.00	6.641	7.27	62.5	0.0	313.2
72.00		1.00	0.90	7.877	8.66	186.12	1.099 *	0.000	2.00	6.574	7.23	62.6	0.0	310.0
74.00		1.00	0.91	7.939	8.73	184.94	1.103 *	0.000	2.00	6.507	7.18	62.7	0.0	306.8
76.00		1.00	0.91	8.000	8.80	183.72	1.108 *	0.000	2.00	6.440	7.13	62.8	0.0	303.6
78.00	RT7 RB8	1.00	0.92	8.059	8.87	182.48	1.112 *	0.000	2.00	6.373	7.09	62.8	0.0	300.5
80.00	Top - Section 3	1.00	0.93	8.118	8.93	181.21	1.116 *	0.000	2.00	6.306	7.04	62.9	0.0	297.3
82.00		1.00	0.93	8.175	8.99	179.91	1.121 *	0.000	2.00	6.239	6.99	62.9	0.0	245.5

Wind Loading - Shaft

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00	1.00	0.94	8.232	9.05	178.58	1.125 *	0.000	2.00	6.172	6.95	62.9	0.0	242.8
86.00	1.00	0.95	8.287	9.12	177.23	1.130 *	0.000	2.00	6.106	6.90	62.9	0.0	240.2
88.00	1.00	0.95	8.342	9.18	175.85	1.135 *	0.000	2.00	6.039	6.85	62.9	0.0	237.5
90.00	1.00	0.96	8.396	9.24	174.45	1.140 *	0.000	2.00	5.972	6.81	62.8	0.0	234.9
92.00	1.00	0.96	8.448	9.29	173.02	1.145 *	0.000	2.00	5.905	6.76	62.8	0.0	232.2
94.00	1.00	0.97	8.501	9.35	171.58	1.150 *	0.000	2.00	5.838	6.71	62.8	0.0	229.6
95.00 Bot - Section 5	1.00	0.97	8.526	9.38	170.85	1.154 *	0.000	1.00	2.894	3.34	31.3	0.0	113.8
95.58 RT8	1.00	0.98	8.541	9.40	170.42	1.156 *	0.000	0.58	1.702	1.97	18.5	0.0	132.6
96.00	1.00	0.98	8.552	9.41	170.11	1.157 *	0.000	0.42	1.229	1.42	13.4	0.0	95.8
98.00	1.00	0.98	8.602	9.46	168.62	1.160 *	0.000	2.00	5.812	6.74	63.8	0.0	452.8
100.00 Top - Section 4	1.00	0.99	8.652	9.52	167.11	1.055 *	0.000	2.00	5.745	6.06	57.7	0.0	447.4
102.00	1.00	0.99	8.701	9.57	168.81	1.052 *	0.000	2.00	5.678	5.97	57.2	0.0	223.2
104.00	1.00	1.00	8.750	9.62	167.27	1.056 *	0.000	2.00	5.611	5.93	57.1	0.0	220.5
106.00	1.00	1.00	8.797	9.68	165.71	1.061 *	0.000	2.00	5.544	5.88	56.9	0.0	217.9
108.00	1.00	1.01	8.845	9.73	164.14	1.065 *	0.000	2.00	5.477	5.83	56.8	0.0	215.2
110.00 Appurtenance(s)	1.00	1.02	8.891	9.78	162.54	1.070 *	0.000	2.00	5.410	5.79	56.6	0.0	212.6
112.00	1.00	1.02	8.937	9.83	160.93	1.074 *	0.000	2.00	5.343	5.74	56.4	0.0	209.9
114.00	1.00	1.03	8.982	9.88	159.31	1.079 *	0.000	2.00	5.276	5.69	56.3	0.0	207.3
115.00 Top - Section 5	1.00	1.03	9.005	9.91	158.49	1.083 *	0.000	1.00	2.613	2.83	28.0	0.0	102.6
116.00	1.00	1.03	9.027	9.93	157.66	1.085 *	0.000	1.00	2.596	2.82	28.0	0.0	81.7
118.00	1.00	1.04	9.071	9.98	156.00	1.089 *	0.000	2.00	5.142	5.60	55.9	0.0	161.9
120.00	1.00	1.04	9.115	10.03	154.33	1.094 *	0.000	2.00	5.075	5.55	55.7	0.0	159.8
122.00	1.00	1.05	9.158	10.07	152.64	1.099 *	0.000	2.00	5.008	5.51	55.5	0.0	157.6
124.00	1.00	1.05	9.201	10.12	150.94	1.105 *	0.000	2.00	4.941	5.46	55.2	0.0	155.5
126.00	1.00	1.06	9.243	10.17	149.22	1.110 *	0.000	2.00	4.874	5.41	55.0	0.0	153.4
128.00	1.00	1.06	9.284	10.21	147.49	1.116 *	0.000	2.00	4.807	5.37	54.8	0.0	151.3
130.00	1.00	1.07	9.326	10.26	145.74	1.122 *	0.000	2.00	4.741	5.32	54.6	0.0	149.1
132.00	1.00	1.07	9.366	10.30	143.98	1.128 *	0.000	2.00	4.674	5.27	54.3	0.0	147.0
133.00 Appurtenance(s)	1.00	1.07	9.387	10.33	143.10	1.133 *	0.000	1.00	2.312	2.62	27.0	0.0	72.7
134.00	1.00	1.07	9.407	10.35	142.21	1.136 *	0.000	1.00	2.295	2.61	27.0	0.0	72.2
136.00	1.00	1.08	9.447	10.39	140.42	1.141 *	0.000	2.00	4.540	5.18	53.8	0.0	142.8
138.00	1.00	1.08	9.486	10.43	138.63	1.147 *	0.000	2.00	4.473	5.13	53.5	0.0	140.6
140.00	1.00	1.09	9.525	10.48	136.82	1.154 *	0.000	2.00	4.406	5.08	53.3	0.0	138.5
142.00	1.00	1.09	9.564	10.52	134.99	1.161 *	0.000	2.00	4.339	5.04	53.0	0.0	136.4
142.90 Appurtenance(s)	1.00	1.09	9.581	10.54	134.17	1.166 *	0.000	0.90	1.931	2.25	23.7	0.0	60.7
144.00	1.00	1.10	9.602	10.56	133.16	1.000	0.000	1.10	2.341	2.34	24.7	0.0	73.6
145.00 Top - Section 6	1.00	1.10	9.621	10.58	132.24	1.000	0.000	1.00	2.111	2.11	22.3	0.0	66.3
146.00	1.00	1.10	9.640	10.60	126.87	0.600	0.000	1.00	2.023	1.21	12.9	0.0	64.2
148.00	1.00	1.11	9.678	10.65	125.08	0.600	0.000	2.00	3.998	2.40	25.5	0.0	126.9
148.30 Appurtenance(s)	1.00	1.11	9.683	10.65	124.81	0.600	0.000	0.30	0.594	0.36	3.8	0.0	18.9
150.00 Top - Section 7	1.00	1.11	9.715	10.69	123.27	0.600	0.000	1.70	3.339	2.00	21.4	0.0	105.9
152.00	1.00	1.11	9.752	10.73	84.43	0.645 *	0.000	2.00	2.667	1.72	18.5	0.0	84.2
154.00	1.00	1.12	9.788	10.77	84.59	0.645 *	0.000	2.00	2.667	1.72	18.5	0.0	84.2
156.00	1.00	1.12	9.824	10.81	84.74	0.645 *	0.000	2.00	2.667	1.72	18.6	0.0	84.2
158.00	1.00	1.13	9.860	10.85	84.90	0.645 *	0.000	2.00	2.667	1.72	18.7	0.0	84.2
160.00 Appurtenance(s)	1.00	1.13	9.896	10.89	85.05	0.645 *	0.000	2.00	2.667	1.72	18.7	0.0	84.2

* Cf Adjusted by Linear Load Ra Effect

Totals:	160.00	4,509.8	23,786.1
----------------	---------------	----------------	-----------------

Discrete Appurtenance Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	160.00	DB-T1-6Z-8AB-OZ	1	9.931	10.924	1.00	1.00	4.80	44.00	0.000	2.000	52.43	0.00	104.87
2	160.00	SBNHH-1D65B	9	9.931	10.924	0.81	1.00	59.49	360.00	0.000	2.000	649.83	0.00	1299.65
3	160.00	6' Lightning rod	1	9.931	10.924	1.00	1.00	0.38	6.50	0.000	2.000	4.15	0.00	8.30
4	160.00	Low Profile Platform	1	9.931	10.924	1.00	1.00	22.00	1200.00	0.000	2.000	240.33	0.00	480.65
5	160.00	DB846F65ZAXY	6	9.931	10.924	0.93	1.00	39.34	126.00	0.000	2.000	429.74	0.00	859.47
6	160.00	DB222	1	9.931	10.924	1.00	1.00	2.25	16.00	0.000	2.000	24.58	0.00	49.16
7	160.00	RRH2x90-AWS	3	9.931	10.924	0.67	1.00	5.35	132.00	0.000	2.000	58.41	0.00	116.81
8	148.30	APXVTM14-C-120	3	9.715	10.686	0.61	0.80	11.59	168.00	0.000	1.700	123.90	0.00	210.64
9	148.30	1900MHz RRH	3	9.752	10.727	0.54	0.80	6.11	132.00	0.000	3.700	65.55	0.00	242.52
10	148.30	800 MHz RRH	3	9.752	10.727	0.54	0.80	4.00	159.00	0.000	3.700	42.95	0.00	158.91
11	148.30	APXVSPP18-C-A20	3	9.752	10.727	0.66	0.80	15.98	171.00	0.000	3.700	171.37	0.00	634.07
12	148.30	ACU-A20-N	4	9.752	10.727	0.54	0.80	0.30	4.00	0.000	3.700	3.22	0.00	11.91
13	148.30	ALU 800MHz External	3	9.752	10.727	0.54	0.80	1.25	26.40	0.000	3.700	13.45	0.00	49.78
14	148.30	TD-RRH8x20-25	3	9.715	10.686	0.54	0.80	6.51	210.00	0.000	1.700	69.59	0.00	118.31
15	148.30	Low Profile Platform	1	9.683	10.652	1.00	1.00	17.50	1200.00	0.000	0.000	186.40	0.00	0.00
16	142.90	Commscope	3	9.581	10.539	0.60	0.75	20.65	150.90	0.000	0.000	217.59	0.00	0.00
17	142.90	Platform w/ HR & Bracing	1	9.581	10.539	1.00	1.00	51.70	2246.00	0.000	0.000	544.88	0.00	0.00
18	142.90	Ericsson RRUS11B12 -	1	9.581	10.539	0.50	0.75	1.29	51.00	0.000	0.000	13.61	0.00	0.00
19	142.90	Ericsson RUS01 B12 -	3	9.581	10.539	0.50	0.75	3.80	153.00	0.000	0.000	40.04	0.00	0.00
20	142.90	Ericsson AIR 3246 B66	3	9.581	10.539	0.62	0.75	14.83	540.00	0.000	0.000	156.28	0.00	0.00
21	142.90	Ericsson AIR 21 B4A	1	9.581	10.539	0.67	0.75	7.70	126.00	0.000	0.000	81.18	0.00	0.00
22	142.90	Ericsson AIR 32 B4A/B2P	1	9.581	10.539	0.65	0.75	4.25	105.80	0.000	0.000	44.77	0.00	0.00
23	142.90	Ericsson KRY 112 144/1	3	9.595	10.554	0.52	0.75	0.65	33.00	0.000	0.700	6.82	0.00	4.77
24	142.90	Ericsson AIR 21 B2A/B4P	3	9.581	10.539	0.65	0.75	11.78	274.50	0.000	0.000	124.20	0.00	0.00
25	133.00	800 10798	3	9.387	10.325	0.60	0.80	15.56	244.20	0.000	0.000	160.63	0.00	0.00
26	133.00	RRUS 12	3	9.387	10.325	0.54	0.80	4.52	174.00	0.000	0.000	46.65	0.00	0.00
27	133.00	RRUS 32	3	9.387	10.325	0.54	0.80	4.26	231.00	0.000	0.000	44.00	0.00	0.00
28	133.00	DC6-48-60-18-8F	2	9.387	10.325	0.68	0.90	1.98	65.60	0.000	0.000	20.49	0.00	0.00
29	133.00	800 10121	3	9.387	10.325	0.63	0.80	9.76	138.90	0.000	0.000	100.82	0.00	0.00
30	133.00	DTMABP7819VG12A	3	9.387	10.325	0.54	0.80	1.83	57.00	0.000	0.000	18.93	0.00	0.00
31	133.00	RRUS 11	3	9.387	10.325	0.54	0.80	4.05	152.10	0.000	0.000	41.84	0.00	0.00
32	133.00	RRUS A2 Module	3	9.387	10.325	0.54	0.80	2.99	63.60	0.000	0.000	30.88	0.00	0.00
33	133.00	Low Profile Platform	1	9.387	10.325	1.00	1.00	22.00	1350.00	0.000	0.000	227.16	0.00	0.00
34	110.00	3 ft Standoff	1	8.891	9.780	1.00	1.00	2.63	40.00	0.000	0.000	25.72	0.00	0.00
35	110.00	DB222	1	9.011	9.912	1.00	1.00	2.65	16.00	0.000	5.292	26.27	0.00	139.00
36	40.00	GPS	1	6.659	7.325	1.00	1.00	1.00	10.00	0.000	0.000	7.33	0.00	0.00

Totals: 10,177.50

4,115.98

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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
2.00		66.98	511.70	0.00	0.00
4.00		66.67	508.51	0.00	0.00
6.00		66.35	505.32	0.00	0.00
8.00		66.04	502.13	0.00	0.00
10.00		65.72	498.95	0.00	0.00
12.00		65.40	495.76	0.00	0.00
14.00		65.09	492.57	0.00	0.00
16.00		64.77	489.38	0.00	0.00
16.25		8.20	109.87	0.00	0.00
18.00		57.28	766.27	0.00	0.00
19.50		48.91	652.92	0.00	0.00
20.00		16.26	216.84	0.00	0.00
22.00		64.86	863.38	0.00	0.00
24.00		64.12	482.79	0.00	0.00
26.00		63.80	479.60	0.00	0.00
28.00		63.49	476.41	0.00	0.00
30.00		63.22	473.22	0.00	0.00
31.00		31.79	235.42	0.00	0.00
32.00		32.00	234.62	0.00	0.00
34.00		56.13	466.85	0.00	0.00
35.50		42.40	348.04	0.00	0.00
36.00		14.15	115.62	0.00	0.00
38.00		57.27	460.47	0.00	0.00
40.00	(1) attachments	65.09	467.28	0.00	0.00
42.00		58.23	453.77	0.00	0.00
44.00		58.66	450.58	0.00	0.00
45.16		34.11	259.88	0.00	0.00
46.00		24.76	187.52	0.00	0.00
48.00		59.41	444.21	0.00	0.00
50.00		59.74	441.02	0.00	0.00
52.00		61.14	779.74	0.00	0.00
54.00		61.43	773.36	0.00	0.00
56.00		61.70	766.98	0.00	0.00
58.00		61.54	434.43	0.00	0.00
60.00		61.75	431.24	0.00	0.00
62.00		61.95	428.05	0.00	0.00
64.00		62.12	424.86	0.00	0.00
66.00		62.27	421.67	0.00	0.00
68.00		62.40	418.49	0.00	0.00
70.00		62.52	415.30	0.00	0.00
72.00		62.62	412.11	0.00	0.00
74.00		62.70	408.92	0.00	0.00
76.00		62.77	405.73	0.00	0.00
78.00		62.82	402.54	0.00	0.00
80.00		62.86	399.36	0.00	0.00
82.00		62.88	347.58	0.00	0.00

Total Applied Force Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00		62.89	344.92	0.00	0.00
86.00		62.89	342.27	0.00	0.00
88.00		62.87	339.61	0.00	0.00
90.00		62.85	336.95	0.00	0.00
92.00		62.81	334.30	0.00	0.00
94.00		62.76	331.64	0.00	0.00
95.00		31.31	164.82	0.00	0.00
95.58		18.48	162.22	0.00	0.00
96.00		13.38	117.19	0.00	0.00
98.00		63.80	554.84	0.00	0.00
100.00		57.67	549.53	0.00	0.00
102.00		57.18	325.29	0.00	0.00
104.00		57.05	322.63	0.00	0.00
106.00		56.91	319.98	0.00	0.00
108.00		56.76	317.32	0.00	0.00
110.00	(2) attachments	108.59	370.66	0.00	139.00
112.00		56.43	310.97	0.00	0.00
114.00		56.25	308.31	0.00	0.00
115.00		28.02	153.16	0.00	0.00
116.00		27.98	132.27	0.00	0.00
118.00		55.87	262.95	0.00	0.00
120.00		55.67	260.82	0.00	0.00
122.00		55.46	258.70	0.00	0.00
124.00		55.25	256.57	0.00	0.00
126.00		55.03	254.45	0.00	0.00
128.00		54.79	252.32	0.00	0.00
130.00		54.56	250.19	0.00	0.00
132.00		54.31	248.07	0.00	0.00
133.00	(24) attachments	718.44	2599.64	0.00	0.00
134.00		26.97	110.79	0.00	0.00
136.00		53.80	219.98	0.00	0.00
138.00		53.54	217.85	0.00	0.00
140.00		53.27	215.73	0.00	0.00
142.00		52.99	213.60	0.00	0.00
142.90	(19) attachments	1253.10	3775.63	0.00	4.77
144.00		24.73	100.16	0.00	0.00
145.00		22.34	90.49	0.00	0.00
146.00		12.87	88.37	0.00	0.00
148.00		25.54	175.19	0.00	0.00
148.30	(23) attachments	680.24	2096.50	0.00	1426.14
150.00		21.41	140.53	0.00	0.00
152.00		18.45	124.86	0.00	0.00
154.00		18.52	124.86	0.00	0.00
156.00		18.59	124.86	0.00	0.00
158.00		18.66	124.86	0.00	0.00
160.00	(22) attachments	1478.18	2009.36	0.00	2918.92
Totals:		8,625.82	41,497.48	0.00	4,488.83

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
2.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.148	6.129	0.00	2.20
2.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	6.129	0.00	1.04
2.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.148	6.129	0.00	2.20
2.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	6.129	0.00	3.82
2.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.148	6.129	0.00	1.04
2.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.149	1.148	6.129	0.00	0.00
2.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.149	1.148	6.129	0.00	0.00
4.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	6.129	0.00	2.20
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	6.129	0.00	1.04
4.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.151	6.129	0.00	2.20
4.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	6.129	0.00	3.82
4.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.151	6.129	0.00	1.04
4.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.151	6.129	0.00	0.00
4.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.150	1.151	6.129	0.00	0.00
6.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	6.129	0.00	2.20
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	6.129	0.00	1.04
6.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.152	1.155	6.129	0.00	2.20
6.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	6.129	0.00	3.82
6.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.152	1.155	6.129	0.00	1.04
6.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.152	1.155	6.129	0.00	0.00
6.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.152	1.155	6.129	0.00	0.00
8.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	6.129	0.00	2.20
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	6.129	0.00	1.04
8.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.158	6.129	0.00	2.20
8.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	6.129	0.00	3.82
8.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.158	6.129	0.00	1.04
8.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.158	6.129	0.00	0.00
8.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.153	1.158	6.129	0.00	0.00
10.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	6.129	0.00	2.20
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	6.129	0.00	1.04
10.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.162	6.129	0.00	2.20
10.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	6.129	0.00	3.82
10.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.162	6.129	0.00	1.04
10.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.154	1.162	6.129	0.00	0.00
10.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.154	1.162	6.129	0.00	0.00
12.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	6.129	0.00	2.20
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	6.129	0.00	1.04
12.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.155	1.166	6.129	0.00	2.20
12.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	6.129	0.00	3.82
12.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.155	1.166	6.129	0.00	1.04
12.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.155	1.166	6.129	0.00	0.00
12.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.155	1.166	6.129	0.00	0.00
14.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	6.129	0.00	2.20
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	6.129	0.00	1.04
14.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.156	1.169	6.129	0.00	2.20
14.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	6.129	0.00	3.82
14.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.156	1.169	6.129	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

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)
14.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.156	1.169	6.129	0.00	0.00
14.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.156	1.169	6.129	0.00	0.00
16.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	6.129	0.00	2.20
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	6.129	0.00	1.04
16.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.158	1.173	6.129	0.00	2.20
16.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	6.129	0.00	3.82
16.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.158	1.173	6.129	0.00	1.04
16.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.158	1.173	6.129	0.00	0.00
16.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.158	1.173	6.129	0.00	0.00
16.25	1 5/8" Hybrid	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	6.129	0.00	0.28
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	6.129	0.00	0.13
16.25	1 5/8" Fiber	Yes	0.25	0.000	2.00	0.04	0.00	0.158	1.175	6.129	0.00	0.28
16.25	1-1/4" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	6.129	0.00	0.48
16.25	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.158	1.175	6.129	0.00	0.13
16.25	1.25" Reinforcing	Yes	0.25	0.000	1.25	0.03	0.00	0.158	1.175	6.129	0.00	0.00
16.25	1.25" Reinforcing	Yes	0.25	0.000	2.50	0.05	0.00	0.158	1.175	6.129	0.00	0.00
18.00	1 5/8" Hybrid	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	6.129	0.00	1.93
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	6.129	0.00	0.91
18.00	1 5/8" Fiber	Yes	1.75	0.000	2.00	0.29	0.00	0.159	1.177	6.129	0.00	1.93
18.00	1-1/4" Fiber	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	6.129	0.00	3.34
18.00	7/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.159	1.177	6.129	0.00	0.91
18.00	1.25" Reinforcing	Yes	1.75	0.000	1.25	0.18	0.00	0.159	1.177	6.129	0.00	0.00
18.00	1.25" Reinforcing	Yes	1.75	0.000	2.50	0.36	0.00	0.159	1.177	6.129	0.00	0.00
19.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.160	1.181	6.129	0.00	1.65
19.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	0.78
19.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.160	1.181	6.129	0.00	1.65
19.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	2.86
19.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	0.78
19.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.160	1.181	6.129	0.00	0.00
19.50	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.160	1.181	6.129	0.00	0.00
20.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	6.129	0.00	0.55
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	6.129	0.00	0.26
20.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.161	1.183	6.129	0.00	0.55
20.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	6.129	0.00	0.95
20.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.161	1.183	6.129	0.00	0.26
20.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.161	1.183	6.129	0.00	0.00
20.00	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.161	1.183	6.129	0.00	0.00
22.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	6.129	0.00	2.20
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	1.04
22.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	6.129	0.00	2.20
22.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	3.82
22.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	1.04
22.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	6.129	0.00	0.00
22.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	6.129	0.00	0.00
24.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	6.129	0.00	2.20
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	1.04
24.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.160	1.181	6.129	0.00	2.20

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
24.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	3.82
24.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.160	1.181	6.129	0.00	1.04
24.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.160	1.181	6.129	0.00	0.00
24.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.160	1.181	6.129	0.00	0.00
26.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	6.129	0.00	2.20
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	1.04
26.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.162	1.185	6.129	0.00	2.20
26.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	3.82
26.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.162	1.185	6.129	0.00	1.04
26.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.162	1.185	6.129	0.00	0.00
26.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.162	1.185	6.129	0.00	0.00
28.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	6.129	0.00	2.20
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	6.129	0.00	1.04
28.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.163	1.189	6.129	0.00	2.20
28.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	6.129	0.00	3.82
28.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.163	1.189	6.129	0.00	1.04
28.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.163	1.189	6.129	0.00	0.00
28.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.163	1.189	6.129	0.00	0.00
30.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	6.134	0.00	2.20
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	6.134	0.00	1.04
30.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.165	1.194	6.134	0.00	2.20
30.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	6.134	0.00	3.82
30.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.165	1.194	6.134	0.00	1.04
30.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.165	1.194	6.134	0.00	0.00
30.00	1.25" Reinforcing	Yes	2.00	0.000	2.50	0.42	0.00	0.165	1.194	6.134	0.00	0.00
31.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	6.192	0.00	1.10
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	6.192	0.00	0.52
31.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.197	6.192	0.00	1.10
31.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	6.192	0.00	1.91
31.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.197	6.192	0.00	0.52
31.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.197	6.192	0.00	0.00
31.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.197	6.192	0.00	0.00
32.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	6.248	0.00	1.10
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	6.248	0.00	0.52
32.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.166	1.199	6.248	0.00	1.10
32.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	6.248	0.00	1.91
32.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.166	1.199	6.248	0.00	0.52
32.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.166	1.199	6.248	0.00	0.00
32.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.166	1.199	6.248	0.00	0.00
34.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	6.357	0.00	2.20
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	6.357	0.00	1.04
34.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.113	1.040	6.357	0.00	2.20
34.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	6.357	0.00	3.82
34.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.113	1.040	6.357	0.00	1.04
34.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.113	1.040	6.357	0.00	0.00
35.50	1 5/8" Hybrid	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	6.436	0.00	1.65
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	6.436	0.00	0.78

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
35.50	1 5/8" Fiber	Yes	1.50	0.000	2.00	0.25	0.00	0.114	1.043	6.436	0.00	1.65
35.50	1-1/4" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	6.436	0.00	2.86
35.50	7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.114	1.043	6.436	0.00	0.78
35.50	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.114	1.043	6.436	0.00	0.00
36.00	1 5/8" Hybrid	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	6.462	0.00	0.55
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	6.462	0.00	0.26
36.00	1 5/8" Fiber	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.044	6.462	0.00	0.55
36.00	1-1/4" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	6.462	0.00	0.95
36.00	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.044	6.462	0.00	0.26
36.00	1.25" Reinforcing	Yes	0.50	0.000	1.25	0.05	0.00	0.115	1.044	6.462	0.00	0.00
38.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	6.562	0.00	2.20
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	6.562	0.00	1.04
38.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.115	1.046	6.562	0.00	2.20
38.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	6.562	0.00	3.82
38.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.115	1.046	6.562	0.00	1.04
38.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.115	1.046	6.562	0.00	0.00
40.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	6.659	0.00	2.20
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	6.659	0.00	1.04
40.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.116	1.049	6.659	0.00	2.20
40.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	6.659	0.00	3.82
40.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.116	1.049	6.659	0.00	1.04
40.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.116	1.049	6.659	0.00	0.00
42.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	6.753	0.00	2.20
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.753	0.00	1.04
42.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	6.753	0.00	2.20
42.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.753	0.00	3.82
42.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	6.753	0.00	1.04
42.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.117	1.052	6.753	0.00	0.00
44.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	6.843	0.00	2.20
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.843	0.00	1.04
44.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	6.843	0.00	2.20
44.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.843	0.00	3.82
44.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	6.843	0.00	1.04
44.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.119	1.056	6.843	0.00	0.00
45.16	1 5/8" Hybrid	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	6.894	0.00	1.28
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.894	0.00	0.60
45.16	1 5/8" Fiber	Yes	1.16	0.000	2.00	0.19	0.00	0.119	1.058	6.894	0.00	1.28
45.16	1-1/4" Fiber	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.894	0.00	2.21
45.16	7/8" Coax	Yes	1.16	0.000	0.00	0.00	0.00	0.119	1.058	6.894	0.00	0.60
45.16	1.25" Reinforcing	Yes	1.16	0.000	1.25	0.12	0.00	0.119	1.058	6.894	0.00	0.00
46.00	1 5/8" Hybrid	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	6.931	0.00	0.92
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.931	0.00	0.44
46.00	1 5/8" Fiber	Yes	0.84	0.000	2.00	0.14	0.00	0.120	1.060	6.931	0.00	0.92
46.00	1-1/4" Fiber	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.931	0.00	1.60
46.00	7/8" Coax	Yes	0.84	0.000	0.00	0.00	0.00	0.120	1.060	6.931	0.00	0.44
46.00	1.25" Reinforcing	Yes	0.84	0.000	1.25	0.09	0.00	0.120	1.060	6.931	0.00	0.00
48.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	7.015	0.00	2.20

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	7.015	0.00	1.04
48.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.121	1.062	7.015	0.00	2.20
48.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	7.015	0.00	3.82
48.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.121	1.062	7.015	0.00	1.04
48.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.121	1.062	7.015	0.00	0.00
50.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	7.098	0.00	2.20
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	7.098	0.00	1.04
50.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	7.098	0.00	2.20
50.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	7.098	0.00	3.82
50.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	7.098	0.00	1.04
50.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.122	1.066	7.098	0.00	0.00
52.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	7.178	0.00	2.20
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	7.178	0.00	1.04
52.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.069	7.178	0.00	2.20
52.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	7.178	0.00	3.82
52.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.069	7.178	0.00	1.04
52.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.123	1.069	7.178	0.00	0.00
54.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	7.255	0.00	2.20
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	7.255	0.00	1.04
54.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.072	7.255	0.00	2.20
54.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	7.255	0.00	3.82
54.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.072	7.255	0.00	1.04
54.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.072	7.255	0.00	0.00
56.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	7.331	0.00	2.20
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.331	0.00	1.04
56.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	7.331	0.00	2.20
56.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.331	0.00	3.82
56.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.331	0.00	1.04
56.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	7.331	0.00	0.00
58.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	7.405	0.00	2.20
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	7.405	0.00	1.04
58.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.124	1.073	7.405	0.00	2.20
58.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	7.405	0.00	3.82
58.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.124	1.073	7.405	0.00	1.04
58.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.124	1.073	7.405	0.00	0.00
60.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	7.477	0.00	2.20
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.477	0.00	1.04
60.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.076	7.477	0.00	2.20
60.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.477	0.00	3.82
60.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.076	7.477	0.00	1.04
60.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.125	1.076	7.477	0.00	0.00
62.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	7.548	0.00	2.20
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	7.548	0.00	1.04
62.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	7.548	0.00	2.20
62.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	7.548	0.00	3.82
62.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	7.548	0.00	1.04
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.127	1.080	7.548	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
64.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	7.616	0.00	2.20
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	7.616	0.00	1.04
64.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.128	1.084	7.616	0.00	2.20
64.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	7.616	0.00	3.82
64.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.128	1.084	7.616	0.00	1.04
64.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.128	1.084	7.616	0.00	0.00
66.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	7.684	0.00	2.20
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	7.684	0.00	1.04
66.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.129	1.087	7.684	0.00	2.20
66.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	7.684	0.00	3.82
66.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.087	7.684	0.00	1.04
66.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.129	1.087	7.684	0.00	0.00
68.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	7.749	0.00	2.20
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	7.749	0.00	1.04
68.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.091	7.749	0.00	2.20
68.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	7.749	0.00	3.82
68.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.091	7.749	0.00	1.04
68.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.130	1.091	7.749	0.00	0.00
70.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	7.814	0.00	2.20
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	7.814	0.00	1.04
70.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.132	1.095	7.814	0.00	2.20
70.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	7.814	0.00	3.82
70.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.132	1.095	7.814	0.00	1.04
70.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.132	1.095	7.814	0.00	0.00
72.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	7.877	0.00	2.20
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	7.877	0.00	1.04
72.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	7.877	0.00	2.20
72.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	7.877	0.00	3.82
72.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	7.877	0.00	1.04
72.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.133	1.099	7.877	0.00	0.00
74.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	7.939	0.00	2.20
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	7.939	0.00	1.04
74.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.134	1.103	7.939	0.00	2.20
74.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	7.939	0.00	3.82
74.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.134	1.103	7.939	0.00	1.04
74.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.134	1.103	7.939	0.00	0.00
76.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	8.000	0.00	2.20
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	8.000	0.00	1.04
76.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.136	1.108	8.000	0.00	2.20
76.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	8.000	0.00	3.82
76.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.136	1.108	8.000	0.00	1.04
76.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.136	1.108	8.000	0.00	0.00
78.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	8.059	0.00	2.20
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	8.059	0.00	1.04
78.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.112	8.059	0.00	2.20
78.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	8.059	0.00	3.82
78.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.112	8.059	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
78.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.137	1.112	8.059	0.00	0.00
80.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	8.118	0.00	2.20
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	8.118	0.00	1.04
80.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	8.118	0.00	2.20
80.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	8.118	0.00	3.82
80.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	8.118	0.00	1.04
80.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.139	1.116	8.118	0.00	0.00
82.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	8.175	0.00	2.20
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	8.175	0.00	1.04
82.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.140	1.121	8.175	0.00	2.20
82.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	8.175	0.00	3.82
82.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.140	1.121	8.175	0.00	1.04
82.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.140	1.121	8.175	0.00	0.00
84.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	8.232	0.00	2.20
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	8.232	0.00	1.04
84.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.142	1.125	8.232	0.00	2.20
84.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	8.232	0.00	3.82
84.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.142	1.125	8.232	0.00	1.04
84.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.142	1.125	8.232	0.00	0.00
86.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	8.287	0.00	2.20
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	8.287	0.00	1.04
86.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.130	8.287	0.00	2.20
86.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	8.287	0.00	3.82
86.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.130	8.287	0.00	1.04
86.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.143	1.130	8.287	0.00	0.00
88.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	8.342	0.00	2.20
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	8.342	0.00	1.04
88.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.145	1.135	8.342	0.00	2.20
88.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	8.342	0.00	3.82
88.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.145	1.135	8.342	0.00	1.04
88.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.145	1.135	8.342	0.00	0.00
90.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	8.396	0.00	2.20
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	8.396	0.00	1.04
90.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.140	8.396	0.00	2.20
90.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	8.396	0.00	3.82
90.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.140	8.396	0.00	1.04
90.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.147	1.140	8.396	0.00	0.00
92.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	8.448	0.00	2.20
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	8.448	0.00	1.04
92.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.148	1.145	8.448	0.00	2.20
92.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	8.448	0.00	3.82
92.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.148	1.145	8.448	0.00	1.04
92.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.148	1.145	8.448	0.00	0.00
94.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	8.501	0.00	2.20
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	8.501	0.00	1.04
94.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.150	1.150	8.501	0.00	2.20
94.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	8.501	0.00	3.82

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
94.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.150	1.150	8.501	0.00	1.04
94.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.150	1.150	8.501	0.00	0.00
95.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	8.526	0.00	1.10
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	8.526	0.00	0.52
95.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.151	1.154	8.526	0.00	1.10
95.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	8.526	0.00	1.91
95.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.151	1.154	8.526	0.00	0.52
95.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.151	1.154	8.526	0.00	0.00
95.58	1 5/8" Hybrid	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	8.541	0.00	0.64
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	8.541	0.00	0.30
95.58	1 5/8" Fiber	Yes	0.58	0.000	2.00	0.10	0.00	0.152	1.156	8.541	0.00	0.64
95.58	1-1/4" Fiber	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	8.541	0.00	1.11
95.58	7/8" Coax	Yes	0.58	0.000	0.00	0.00	0.00	0.152	1.156	8.541	0.00	0.30
95.58	1.25" Reinforcing	Yes	0.58	0.000	1.25	0.06	0.00	0.152	1.156	8.541	0.00	0.00
96.00	1 5/8" Hybrid	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	8.552	0.00	0.46
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	8.552	0.00	0.22
96.00	1 5/8" Fiber	Yes	0.42	0.000	2.00	0.07	0.00	0.152	1.157	8.552	0.00	0.46
96.00	1-1/4" Fiber	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	8.552	0.00	0.80
96.00	7/8" Coax	Yes	0.42	0.000	0.00	0.00	0.00	0.152	1.157	8.552	0.00	0.22
96.00	1.25" Reinforcing	Yes	0.42	0.000	1.25	0.04	0.00	0.152	1.157	8.552	0.00	0.00
98.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	8.602	0.00	2.20
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	8.602	0.00	1.04
98.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.153	1.160	8.602	0.00	2.20
98.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	8.602	0.00	3.82
98.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.153	1.160	8.602	0.00	1.04
98.00	1.25" Reinforcing	Yes	2.00	0.000	1.25	0.21	0.00	0.153	1.160	8.602	0.00	0.00
100.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	8.652	0.00	2.20
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	8.652	0.00	1.04
100.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.055	8.652	0.00	2.20
100.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	8.652	0.00	3.82
100.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.055	8.652	0.00	1.04
102.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	8.701	0.00	2.20
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	8.701	0.00	1.04
102.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.117	1.052	8.701	0.00	2.20
102.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	8.701	0.00	3.82
102.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.117	1.052	8.701	0.00	1.04
104.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	8.750	0.00	2.20
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	8.750	0.00	1.04
104.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.119	1.056	8.750	0.00	2.20
104.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	8.750	0.00	3.82
104.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.119	1.056	8.750	0.00	1.04
106.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	8.797	0.00	2.20
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	8.797	0.00	1.04
106.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.120	1.061	8.797	0.00	2.20
106.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	8.797	0.00	3.82
106.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.120	1.061	8.797	0.00	1.04
108.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	8.845	0.00	2.20

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	8.845	0.00	1.04
108.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.065	8.845	0.00	2.20
108.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	8.845	0.00	3.82
108.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.065	8.845	0.00	1.04
110.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	8.891	0.00	2.20
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	8.891	0.00	1.04
110.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.123	1.070	8.891	0.00	2.20
110.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	8.891	0.00	3.82
110.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.123	1.070	8.891	0.00	1.04
112.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	8.937	0.00	2.20
112.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	8.937	0.00	1.04
112.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.074	8.937	0.00	2.20
112.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.074	8.937	0.00	3.82
114.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	8.982	0.00	2.20
114.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	8.982	0.00	1.04
114.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.126	1.079	8.982	0.00	2.20
114.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.079	8.982	0.00	3.82
115.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	9.005	0.00	1.10
115.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	9.005	0.00	0.52
115.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.083	9.005	0.00	1.10
115.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.083	9.005	0.00	1.91
116.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	9.027	0.00	1.10
116.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	9.027	0.00	0.52
116.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.128	1.085	9.027	0.00	1.10
116.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.085	9.027	0.00	1.91
118.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	9.071	0.00	2.20
118.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	9.071	0.00	1.04
118.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.130	1.089	9.071	0.00	2.20
118.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.130	1.089	9.071	0.00	3.82
120.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	9.115	0.00	2.20
120.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	9.115	0.00	1.04
120.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.131	1.094	9.115	0.00	2.20
120.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.131	1.094	9.115	0.00	3.82
122.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	9.158	0.00	2.20
122.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	9.158	0.00	1.04
122.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.133	1.099	9.158	0.00	2.20
122.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.133	1.099	9.158	0.00	3.82
124.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	9.201	0.00	2.20
124.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	9.201	0.00	1.04
124.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.135	1.105	9.201	0.00	2.20
124.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.135	1.105	9.201	0.00	3.82
126.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	9.243	0.00	2.20
126.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	9.243	0.00	1.04
126.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.137	1.110	9.243	0.00	2.20
126.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.137	1.110	9.243	0.00	3.82
128.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	9.284	0.00	2.20
128.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	9.284	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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)
128.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.139	1.116	9.284	0.00	2.20
128.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.139	1.116	9.284	0.00	3.82
130.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	9.326	0.00	2.20
130.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	9.326	0.00	1.04
130.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.141	1.122	9.326	0.00	2.20
130.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.141	1.122	9.326	0.00	3.82
132.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	9.366	0.00	2.20
132.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	9.366	0.00	1.04
132.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.143	1.128	9.366	0.00	2.20
132.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.143	1.128	9.366	0.00	3.82
133.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	9.387	0.00	1.10
133.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	9.387	0.00	0.52
133.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.144	1.133	9.387	0.00	1.10
133.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.144	1.133	9.387	0.00	1.91
134.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	9.407	0.00	1.10
134.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	9.407	0.00	0.52
134.00	1 5/8" Fiber	Yes	1.00	0.000	2.00	0.17	0.00	0.145	1.136	9.407	0.00	1.10
134.00	1-1/4" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.145	1.136	9.407	0.00	1.91
136.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	9.447	0.00	2.20
136.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	9.447	0.00	1.04
136.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.147	1.141	9.447	0.00	2.20
136.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.147	1.141	9.447	0.00	3.82
138.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	9.486	0.00	2.20
138.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	9.486	0.00	1.04
138.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.149	1.147	9.486	0.00	2.20
138.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.149	1.147	9.486	0.00	3.82
140.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	9.525	0.00	2.20
140.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	9.525	0.00	1.04
140.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.151	1.154	9.525	0.00	2.20
140.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.151	1.154	9.525	0.00	3.82
142.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	9.564	0.00	2.20
142.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	9.564	0.00	1.04
142.00	1 5/8" Fiber	Yes	2.00	0.000	2.00	0.33	0.00	0.154	1.161	9.564	0.00	2.20
142.00	1-1/4" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.154	1.161	9.564	0.00	3.82
142.90	1 5/8" Hybrid	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	9.581	0.00	0.99
142.90	7/8" Coax	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	9.581	0.00	0.47
142.90	1 5/8" Fiber	Yes	0.90	0.000	2.00	0.15	0.00	0.155	1.166	9.581	0.00	0.99
142.90	1-1/4" Fiber	Yes	0.90	0.000	0.00	0.00	0.00	0.155	1.166	9.581	0.00	1.72
144.00	1 5/8" Hybrid	Yes	1.10	0.000	2.00	0.18	0.00	0.078	0.000	9.602	0.00	1.21
144.00	7/8" Coax	Yes	1.10	0.000	0.00	0.00	0.00	0.078	0.000	9.602	0.00	0.57
145.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.079	0.000	9.621	0.00	1.10
145.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.079	0.000	9.621	0.00	0.52
146.00	1 5/8" Hybrid	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	9.640	0.00	1.10
146.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	9.640	0.00	0.52
148.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	9.678	0.00	2.20
148.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	9.678	0.00	1.04
148.30	1 5/8" Hybrid	Yes	0.30	0.000	2.00	0.05	0.00	0.084	0.000	9.683	0.00	0.33

Linear Appurtenance Segment Forces (Factored)

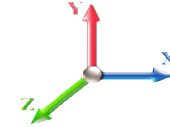
Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
Site Name: Beacon Falls	Exposure: B	
Height: 160.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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)
148.30	7/8" Coax	Yes	0.30	0.000	0.00	0.00	0.00	0.084	0.000	9.683	0.00	0.16
150.00	1 5/8" Hybrid	Yes	1.70	0.000	2.00	0.28	0.00	0.085	0.000	9.715	0.00	1.87
150.00	7/8" Coax	Yes	1.70	0.000	0.00	0.00	0.00	0.085	0.000	9.715	0.00	0.88
152.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.752	0.00	2.20
152.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.752	0.00	1.04
154.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.788	0.00	2.20
154.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.788	0.00	1.04
156.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.824	0.00	2.20
156.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.824	0.00	1.04
158.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.860	0.00	2.20
158.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.860	0.00	1.04
160.00	1 5/8" Hybrid	Yes	2.00	0.000	2.00	0.33	0.00	0.125	1.075	9.896	0.00	2.20
160.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.125	1.075	9.896	0.00	1.04
Totals:											0.0	746.2

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

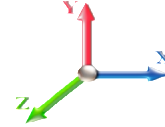


Page: 88

Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 26

Dead Load Factor 1.00
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-41.50	-8.63	0.00	-980.51	0.00	980.51	3683.82	1841.91	7606.69	3756.66	0.00	0.000	0.000	0.185
2.00	-40.98	-8.58	0.00	-963.25	0.00	963.25	3671.54	1835.77	7522.06	3714.86	0.00	-0.019	0.000	0.183
4.00	-40.47	-8.52	0.00	-946.09	0.00	946.09	3659.00	1829.50	7437.30	3673.00	0.02	-0.039	0.000	0.181
6.00	-39.96	-8.47	0.00	-929.04	0.00	929.04	3646.20	1823.10	7352.44	3631.09	0.04	-0.059	0.000	0.180
8.00	-39.46	-8.42	0.00	-912.10	0.00	912.10	3633.16	1816.58	7267.48	3589.13	0.07	-0.078	0.000	0.178
10.00	-38.96	-8.37	0.00	-895.27	0.00	895.27	3619.85	1809.93	7182.43	3547.13	0.10	-0.098	0.000	0.176
12.00	-38.46	-8.31	0.00	-878.54	0.00	878.54	3606.29	1803.15	7097.31	3505.10	0.15	-0.118	0.000	0.174
14.00	-37.96	-8.26	0.00	-861.91	0.00	861.91	3592.48	1796.24	7012.13	3463.03	0.20	-0.137	0.000	0.173
16.00	-37.47	-8.20	0.00	-845.40	0.00	845.40	3578.41	1789.21	6926.91	3420.94	0.26	-0.157	0.000	0.171
16.25	-37.36	-8.20	0.00	-843.35	0.00	843.35	3576.63	1788.32	6916.25	3415.68	0.27	-0.160	0.000	0.201
18.00	-36.59	-8.15	0.00	-829.00	0.00	829.00	3564.09	1782.04	6841.65	3378.83	0.33	-0.180	0.000	0.184
19.50	-35.94	-8.11	0.00	-816.77	0.00	816.77	3553.18	1776.59	6777.69	3347.24	0.39	-0.196	0.000	0.156
20.00	-35.72	-8.10	0.00	-812.72	0.00	812.72	3549.51	1774.75	6756.36	3336.71	0.41	-0.201	0.000	0.155
22.00	-34.85	-8.04	0.00	-796.52	0.00	796.52	3563.12	1781.56	6835.93	3376.01	0.50	-0.220	0.000	0.157
24.00	-34.37	-7.99	0.00	-780.44	0.00	780.44	3548.52	1774.26	6750.65	3333.89	0.60	-0.238	0.000	0.151
26.00	-33.89	-7.93	0.00	-764.47	0.00	764.47	3533.67	1766.84	6665.35	3291.77	0.70	-0.256	0.000	0.149
28.00	-33.41	-7.87	0.00	-748.61	0.00	748.61	3518.56	1759.28	6580.06	3249.64	0.81	-0.274	0.000	0.148
30.00	-32.93	-7.82	0.00	-732.86	0.00	732.86	3503.20	1751.60	6494.78	3207.53	0.93	-0.292	0.000	0.115
31.00	-32.70	-7.79	0.00	-725.05	0.00	725.05	3495.43	1747.71	6452.15	3186.48	0.99	-0.299	0.000	0.133
32.00	-32.46	-7.76	0.00	-717.26	0.00	717.26	3487.59	1743.79	6409.53	3165.43	1.06	-0.308	0.000	0.132
34.00	-31.99	-7.71	0.00	-701.74	0.00	701.74	3471.72	1735.86	6324.32	3123.35	1.19	-0.324	0.000	0.161
35.50	-31.64	-7.67	0.00	-690.17	0.00	690.17	3459.65	1729.82	6260.45	3091.80	1.30	-0.340	0.000	0.160
36.00	-31.52	-7.67	0.00	-686.33	0.00	686.33	3455.59	1727.80	6239.16	3081.29	1.33	-0.345	0.000	0.160
38.00	-31.06	-7.62	0.00	-671.00	0.00	671.00	3439.21	1719.61	6154.07	3039.26	1.48	-0.366	0.000	0.158
40.00	-30.59	-7.56	0.00	-655.77	0.00	655.77	3422.57	1711.29	6069.05	2997.28	1.64	-0.386	0.000	0.156
42.00	-30.14	-7.51	0.00	-640.65	0.00	640.65	3405.68	1702.84	5984.13	2955.34	1.80	-0.407	0.000	0.154
44.00	-29.68	-7.46	0.00	-625.63	0.00	625.63	3388.54	1694.27	5899.30	2913.44	1.98	-0.427	0.000	0.152
45.16	-29.42	-7.42	0.00	-616.98	0.00	616.98	3378.48	1689.24	5850.15	2889.17	2.08	-0.439	0.000	0.110
46.00	-29.23	-7.40	0.00	-610.75	0.00	610.75	3371.14	1685.57	5814.59	2871.61	2.16	-0.446	0.000	0.143
48.00	-28.79	-7.35	0.00	-595.94	0.00	595.94	3353.48	1676.74	5730.00	2829.83	2.35	-0.465	0.000	0.141
50.00	-28.34	-7.30	0.00	-581.24	0.00	581.24	3335.57	1667.79	5645.55	2788.13	2.55	-0.485	0.000	0.139
52.00	-27.56	-7.24	0.00	-566.64	0.00	566.64	3317.41	1658.70	5561.26	2746.50	2.76	-0.505	0.000	0.135
54.00	-26.79	-7.18	0.00	-552.16	0.00	552.16	3298.98	1649.49	5477.12	2704.94	2.98	-0.524	0.000	0.133
56.00	-26.02	-7.12	0.00	-537.80	0.00	537.80	3316.18	1658.09	5555.61	2743.71	3.20	-0.543	0.000	0.134
58.00	-25.58	-7.06	0.00	-523.56	0.00	523.56	3297.74	1648.87	5471.49	2702.16	3.43	-0.562	0.000	0.139
60.00	-25.15	-7.01	0.00	-509.44	0.00	509.44	3279.05	1639.52	5387.54	2660.71	3.67	-0.582	0.000	0.137
62.00	-24.72	-6.95	0.00	-495.43	0.00	495.43	3260.10	1630.05	5303.79	2619.34	3.92	-0.603	0.000	0.135
64.00	-24.29	-6.89	0.00	-481.53	0.00	481.53	3240.90	1620.45	5220.23	2578.08	4.18	-0.623	0.000	0.133
66.00	-23.87	-6.83	0.00	-467.75	0.00	467.75	3221.44	1610.72	5136.89	2536.92	4.44	-0.643	0.000	0.130
68.00	-23.45	-6.77	0.00	-454.09	0.00	454.09	3201.73	1600.86	5053.77	2495.87	4.71	-0.663	0.000	0.128
70.00	-23.03	-6.71	0.00	-440.55	0.00	440.55	3181.76	1590.88	4970.89	2454.94	5.00	-0.682	0.000	0.126
72.00	-22.62	-6.65	0.00	-427.12	0.00	427.12	3161.54	1580.77	4888.26	2414.13	5.29	-0.702	0.000	0.124
74.00	-22.21	-6.59	0.00	-413.81	0.00	413.81	3141.06	1570.53	4805.90	2373.45	5.58	-0.722	0.000	0.122
76.00	-21.80	-6.53	0.00	-400.63	0.00	400.63	3120.33	1560.16	4723.81	2332.91	5.89	-0.742	0.000	0.119
78.00	-21.40	-6.47	0.00	-387.56	0.00	387.56	3099.34	1549.67	4642.00	2292.51	6.21	-0.761	0.000	0.117
80.00	-21.00	-6.41	0.00	-374.62	0.00	374.62	3078.09	1539.05	4560.50	2252.26	6.53	-0.781	0.000	0.115
80.00	-21.00	-6.41	0.00	-374.62	0.00	374.62	2384.58	1192.29	3545.27	1750.88	6.53	-0.781	0.000	0.124
82.00	-20.65	-6.35	0.00	-361.80	0.00	361.80	2370.62	1185.31	3486.26	1721.73	6.86	-0.800	0.000	0.135

Calculated Forces

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

84.00	-20.30	-6.29	0.00	-349.10	0.00	349.10	2356.42	1178.21	3427.33	1692.63	7.20	-0.821	0.000	0.132
86.00	-19.96	-6.23	0.00	-336.52	0.00	336.52	2341.95	1170.98	3368.48	1663.57	7.55	-0.843	0.000	0.129
88.00	-19.62	-6.17	0.00	-324.06	0.00	324.06	2327.23	1163.62	3309.75	1634.56	7.91	-0.864	0.000	0.126
90.00	-19.28	-6.11	0.00	-311.72	0.00	311.72	2312.26	1156.13	3251.12	1605.61	8.27	-0.885	0.000	0.123
92.00	-18.94	-6.05	0.00	-299.51	0.00	299.51	2297.03	1148.52	3192.63	1576.72	8.65	-0.905	0.000	0.120
94.00	-18.61	-5.98	0.00	-287.41	0.00	287.41	2281.55	1140.77	3134.28	1547.90	9.03	-0.926	0.000	0.117
95.00	-18.45	-5.95	0.00	-281.43	0.00	281.43	2273.71	1136.85	3105.16	1533.52	9.23	-0.936	0.000	0.115
95.58	-18.28	-5.93	0.00	-277.98	0.00	277.98	2269.13	1134.57	3088.29	1525.19	9.34	-0.942	0.000	0.112
95.58	-18.28	-5.93	0.00	-277.98	0.00	277.98	2269.13	1134.57	3088.29	1525.19	9.34	-0.942	0.000	0.112
96.00	-18.17	-5.92	0.00	-275.49	0.00	275.49	2265.81	1132.90	3076.09	1519.16	9.42	-0.946	0.000	0.189
98.00	-17.61	-5.86	0.00	-263.64	0.00	263.64	2249.81	1124.91	3018.05	1490.50	9.83	-0.980	0.000	0.185
100.00	-17.06	-5.80	0.00	-251.92	0.00	251.92	2259.61	1129.81	3053.48	1508.00	10.25	-1.013	0.000	0.175
102.00	-16.73	-5.75	0.00	-240.31	0.00	240.31	2243.52	1121.76	2995.52	1479.37	10.68	-1.045	0.000	0.170
104.00	-16.40	-5.70	0.00	-228.81	0.00	228.81	2227.17	1113.59	2937.74	1450.84	11.12	-1.076	0.000	0.165
106.00	-16.08	-5.64	0.00	-217.42	0.00	217.42	2210.57	1105.28	2880.15	1422.40	11.58	-1.106	0.000	0.160
108.00	-15.76	-5.59	0.00	-206.14	0.00	206.14	2193.71	1096.86	2822.78	1394.06	12.05	-1.136	0.000	0.155
110.00	-15.39	-5.48	0.00	-194.83	0.00	194.83	2176.60	1088.30	2765.62	1365.84	12.53	-1.165	0.000	0.150
112.00	-15.08	-5.42	0.00	-183.88	0.00	183.88	2159.23	1079.61	2708.70	1337.73	13.03	-1.194	0.000	0.144
114.00	-14.77	-5.37	0.00	-173.03	0.00	173.03	2141.61	1070.80	2652.02	1309.73	13.53	-1.222	0.000	0.139
115.00	-14.62	-5.34	0.00	-167.67	0.00	167.67	2132.70	1066.35	2623.78	1295.79	13.79	-1.235	0.000	0.136
115.00	-14.62	-5.34	0.00	-167.67	0.00	167.67	1556.62	778.31	1923.08	949.74	13.79	-1.235	0.000	0.186
116.00	-14.48	-5.31	0.00	-162.33	0.00	162.33	1551.43	775.71	1904.13	940.38	14.05	-1.249	0.000	0.182
118.00	-14.22	-5.26	0.00	-151.70	0.00	151.70	1540.84	770.42	1866.26	921.68	14.58	-1.282	0.000	0.174
120.00	-13.96	-5.21	0.00	-141.19	0.00	141.19	1529.99	765.00	1828.43	902.99	15.12	-1.314	0.000	0.166
122.00	-13.70	-5.15	0.00	-130.78	0.00	130.78	1518.89	759.45	1790.65	884.33	15.68	-1.345	0.000	0.157
124.00	-13.44	-5.10	0.00	-120.48	0.00	120.48	1507.54	753.77	1752.93	865.70	16.25	-1.375	0.000	0.148
126.00	-13.18	-5.04	0.00	-110.28	0.00	110.28	1495.93	747.96	1715.28	847.11	16.83	-1.403	0.000	0.139
128.00	-12.93	-4.99	0.00	-100.20	0.00	100.20	1484.06	742.03	1677.72	828.56	17.43	-1.431	0.000	0.130
130.00	-12.68	-4.93	0.00	-90.23	0.00	90.23	1471.95	735.97	1640.26	810.06	18.03	-1.456	0.000	0.120
132.00	-12.43	-4.87	0.00	-80.36	0.00	80.36	1459.57	729.79	1602.91	791.62	18.65	-1.480	0.000	0.110
133.00	-9.85	-4.09	0.00	-75.49	0.00	75.49	1453.29	726.64	1584.28	782.42	18.96	-1.492	0.000	0.103
134.00	-9.74	-4.06	0.00	-71.40	0.00	71.40	1446.94	723.47	1565.68	773.23	19.27	-1.503	0.000	0.099
136.00	-9.52	-4.01	0.00	-63.27	0.00	63.27	1434.06	717.03	1528.59	754.91	19.91	-1.523	0.000	0.090
138.00	-9.30	-3.95	0.00	-55.26	0.00	55.26	1420.92	710.46	1491.65	736.67	20.55	-1.542	0.000	0.082
140.00	-9.09	-3.89	0.00	-47.35	0.00	47.35	1407.52	703.76	1454.87	718.50	21.20	-1.559	0.000	0.072
142.00	-8.87	-3.84	0.00	-39.56	0.00	39.56	1393.87	696.94	1418.26	700.42	21.86	-1.574	0.000	0.063
142.90	-5.13	-2.48	0.00	-36.11	0.00	36.11	1387.65	693.82	1401.84	692.32	22.15	-1.581	0.000	0.056
144.00	-5.03	-2.45	0.00	-33.38	0.00	33.38	1379.97	689.99	1381.83	682.44	22.52	-1.588	0.000	0.053
145.00	-4.94	-2.43	0.00	-30.92	0.00	30.92	1372.92	686.46	1363.70	673.48	22.85	-1.594	0.000	0.050
145.00	-4.94	-2.43	0.00	-30.92	0.00	30.92	931.20	465.60	925.89	604.09	22.85	-1.594	0.000	0.057
146.00	-4.86	-2.42	0.00	-28.49	0.00	28.49	925.24	462.62	912.49	594.77	23.19	-1.600	0.000	0.053
148.00	-4.68	-2.39	0.00	-23.66	0.00	23.66	913.32	456.66	885.99	576.36	23.86	-1.611	0.000	0.046
148.30	-2.60	-1.65	0.00	-21.52	0.00	21.52	911.53	455.77	882.04	573.63	23.96	-1.613	0.000	0.040
150.00	-2.46	-1.62	0.00	-18.72	0.00	18.72	901.40	450.70	859.86	558.24	24.54	-1.620	0.000	0.036
150.00	-2.46	-1.62	0.00	-18.72	0.00	18.72	556.65	278.33	359.38	213.69	24.54	-1.620	0.000	0.092
152.00	-2.34	-1.60	0.00	-15.47	0.00	15.47	556.65	278.33	359.38	213.69	25.22	-1.628	0.000	0.077
154.00	-2.21	-1.58	0.00	-12.27	0.00	12.27	556.65	278.33	359.38	213.69	25.90	-1.649	0.000	0.061
156.00	-2.09	-1.56	0.00	-9.11	0.00	9.11	556.65	278.33	359.38	213.69	26.60	-1.665	0.000	0.046
158.00	-1.97	-1.54	0.00	-5.99	0.00	5.99	556.65	278.33	359.38	213.69	27.30	-1.676	0.000	0.032
160.00	0.00	-1.48	0.00	-2.92	0.00	2.92	556.65	278.33	359.38	213.69	28.00	-1.682	0.000	0.014

Final Analysis Summary

Structure: CT02049-S-SBA	Code: EIA/TIA-222-G	10/25/2018
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

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 97 mph Wind	36.1	0.00	49.77	0.00	0.00	4125.65
0.9D + 1.6W 97 mph Wind	36.1	0.00	37.32	0.00	0.00	4078.86
1.2D + 1.0Di + 1.0Wi 50 mph Wind	8.3	0.00	80.10	0.00	0.00	1014.98
1.2D + 1.0E	2.0	0.00	49.80	0.00	0.00	249.43
0.9D + 1.0E	2.0	0.00	37.35	0.00	0.00	246.42
1.0D + 1.0W 60 mph Wind	8.6	0.00	41.50	0.00	0.00	980.51

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 97 mph Wind	-44.43	-34.39	0.00	-3551.1	0.00	-3551.1	3576.63	1788.3	6916.25	3415.68	16.25	0.822
0.9D + 1.6W 97 mph Wind	-33.22	-34.25	0.00	-3505.5	0.00	-3505.5	3576.63	1788.3	6916.25	3415.68	16.25	0.809
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-73.28	-8.07	0.00	-881.50	0.00	-881.50	3576.63	1788.3	6916.25	3415.68	16.25	0.218
1.2D + 1.0E	-17.67	-1.54	0.00	-53.66	0.00	-53.66	2132.70	1066.3	2623.78	1295.79	115.00	0.068
0.9D + 1.0E	-13.25	-1.52	0.00	-52.77	0.00	-52.77	2132.70	1066.3	2623.78	1295.79	115.00	0.064
1.0D + 1.0W 60 mph Wind	-37.36	-8.20	0.00	-843.35	0.00	-843.35	3576.63	1788.3	6916.25	3415.68	16.25	0.201

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
			VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Req'd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Req'd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
0.0	16.3	(3) PLT-C10x30(1.5" Hole)	-314.5	-6.29	37.1	403.7	37.1	11	0	389.7	37.1			403.71	505.1	468.64	0.861
16.3	31.0	(3) PLT-C10x15.3(1.5" Hole)	-314.5	-6.29	37.1	242.4	37.1			139.5	37.1	4	0	242.37	257.8	247.80	0.978
18.0	34.0	(2) LNP-LP6X100-G-20TT	200.3	4.81	25.3	242.4	25.3	10	10	202.9	25.3	9	10	242.39	297.8	292.50	0.829
19.5	35.5	(1) LNP-LP6X100-G-20TT	-200.3	-4.81	25.3	240.8	25.3	10	10	202.1	25.3	8	10	240.84	297.8	292.50	0.823
30.0	46.0	(3) PLT-6"X1-1/4"(1.25" Hole)	304.2	5.48	37.1	223.2	37.1	7	8	220.0	37.1	6	8	317.73	413.6	356.25	0.892
45.2	58.0	(3) PLT-7" x 1.25"(1.25"Hole)	-353.2	-4.24	37.1	257.8	37.1	7	13	306.0	37.1			335.00	498.6	431.25	0.777
58.0	78.0	(3) PLT-5.5"x1 1/4"(1.25"hol)	-343.6	-6.19	37.1	261.2	37.1			229.4	37.1			261.16	379.1	318.75	0.819
78.0	95.6	(3) PLT-5.5"x1 1/4"(1.25"hol)	-386.0	-6.95	37.1	229.4	37.1			216.9	37.1	6	10	248.59	379.1	318.75	0.780



Monopole Mat Foundation Design

Date

10/25/2018

Customer Name:	T-Mobile	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	160
Site Number:	CT02049-S-SBA	Engineer Name:	H. You
Engr. Number:	63672	Engineer Login ID:	

Foundation Info Obtained from:

Drawings/Calculations

Structure Type:

Monopole

Analysis or Design?

Analysis

Base Reactions (Factored):

Axial Load (Kips):	49.8	Shear Force (Kips):	36.1
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4125.6

Allowable overstress %: 5.0%

Foundation Geometries:

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

Material Properties and Rebar Info:

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

Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

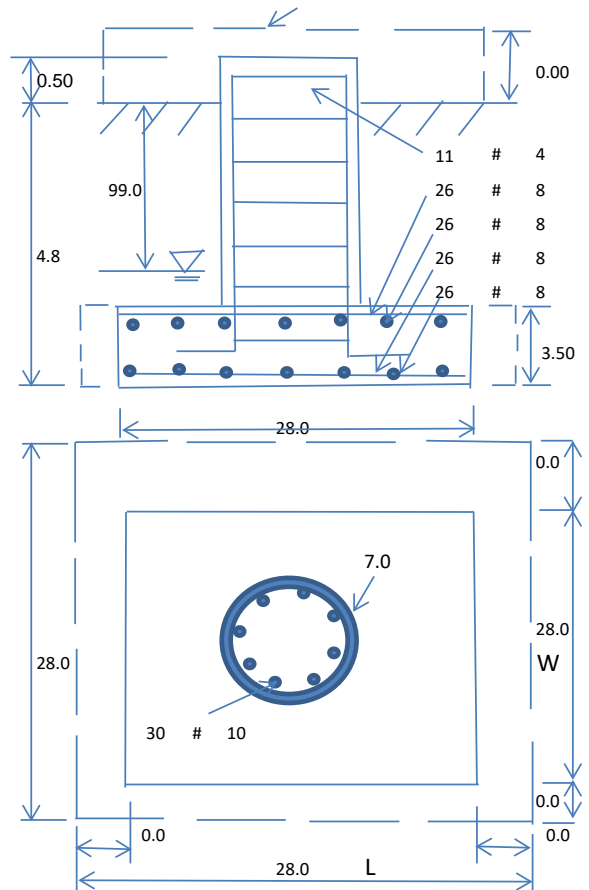
Soil Unit Weight (pcf):	115.0	Soil Buoyant Weight:	50.0	Pcf
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf
Ultimate Bearing Pressure (psf):	6000	Ultimate Skin Friction:	0	Psf
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No	
Consider soil hor. resist. for OTM.: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

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	969.17	Total Dry Soil Weight (Kips):	111.45
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	111.45	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2813.27	Total Dry Concrete Weight (Kips):	421.99
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	421.99	Total Vertical Load on Base (Kips):	583.22

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	2175	<	Allowable Factored Soil Bearing (psf):	4500	0.48	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7418.2	>	Design Factored Momont (kips-ft):	4317	0.58	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.72					OK!



Check the capacities of Reinforcing Concrete:

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

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

Vertical Steel Rebar Area (sq. in./each):	1.27	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	6154.8	> Design Factored Moment (Mu, Kips-Ft)	4190.6	0.68	OK!
Calculated Shear Capacity (Kips):	724.1	> Design Factored Shear (Kips):	36.1	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):	49.8	0.01	OK!
Moment & Axial Strength Combination:	0.68	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):	249.6	0.23	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1062.8	> One-Way Factored Shear (W-D., Kips)	249.6	0.23	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	993.8	> One-Way Factored Shear (C-C, Kips):	240.8	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):	1600.2	0.46	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	3492.1	> Moment at Bottom (W-Dir. K-Ft):	1600.2	0.46	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	4918.4	> Moment at Bottom (C-C Dir. K-Ft):	2263.1	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):	727.0	0.21	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3492.1	> Moment at the top (W-Dir K-Ft):	727.0	0.21	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	4918.4	> Moment at the top (C-C Dir. K-Ft):	679.8	0.14	OK!

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

Moment transferred by punching shear:	1650.2	k-ft.	Max. factored shear stress $v_{u,CD}$:	4.2	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!

SITE NAME: CTBEACON FALLS/RT 8

60 RICE LANE
 BEACON FALLS, CT 06403
 NEW HAVEN COUNTY

SITE NUMBER: CT11299D

SITE CONFIG: 4Sec-792DB

SPECIAL CONSTRUCTION NOTE:
 SPRINT TOWER TOP WORK IS CONTINGENT ON THE FOLLOWING:

- COMPLETION OF A GLOBAL STRUCTURAL ANALYSIS (PROVIDED BY TOWER OWNER).
- COMPLETION OF AN ANTENNA/RRH MOUNT STRUCTURAL ANALYSIS (PROVIDED BY A&E VENDOR).
- GC SHALL FURNISH, INSTALL AND COMPLETE ALL REQUIRED STRUCTURAL MODIFICATIONS AS INDICATED IN BEFORE-MENTIONED ANALYSIS AND ASSESSMENT.
- SBA COMMUNICATIONS CORPORATION SHALL PROVIDE WRITTEN ACCEPTANCE/APPROVAL FOR THE COMPLETION OF ALL TOWER/FOUNDATION STRUCTURAL MODIFICATIONS INCLUDING (AS NECESSARY) CONTROLLED CONSTRUCTION INSPECTIONS, SHOP DRAWING APPROVALS, MATERIALS TEST RESULTS, AND FINAL ENGINEER'S AFFIDAVIT.
- GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL MODIFICATIONS AT T-MOBILE'S RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS)

SITE INFORMATION

SBA SITE ID: CT02049-S
 SBA SITE NAME: BEACON FALLS
 STRUCTURE TYPE: 160' MONOPOLE
 COUNTY: NEW HAVEN
 COORDINATES: 41.4558° / -73.0393°
 (FOR NAVIGATION ONLY)
 PROPERTY OWNER: CHARLES EDWARDS
 30 LORRAINE DRIVE
 CT 06403
 TOWER OWNER: SBA PROPERTIES, LLC
 8501 CONGRESS AVENUE
 BOCA RATON, FL 33487
 SBA REGIONAL SITE MANAGER: STEVEN ROTH
 PHONE: 860.539.4920
 SROTH@SBASITE.COM

VICINITY MAP



APPROVALS

RF ENGINEER _____
 PROJECT MANAGER _____
 CONSTRUCTION MANAGER _____
 SITE ACQ. MANAGER _____
 TOWER OWNER _____
 OPERATIONS MANAGER _____

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

GENERAL NOTES

1. THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION:
 - A. ADA COMPLIANCE NOT REQUIRED
 - B. POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED
 - C. 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 CONTRACTOR'S EXPENSE.

CODE COMPLIANCE

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

- IBC (INTERNATIONAL BUILDING CODE) (2015 IBC) INCLUDING ALL LOCAL / STATE / COUNTY / CITY AMENDMENTS
- NEC (NATIONAL ELECTRIC CODE)
- ANSI/TIA-222-G (OR 222-H AS ADOPTED BY JURISDICTION)

PROJECT DESCRIPTION

REPLACEMENT OF ANTENNAS AND INSTALLATION OF NEW ANTENNAS W/ RRHs/TMAs AND ASSOCIATED GROUND LEVEL EQUIPMENT.

REMOVE:
 (3) ANTENNAS

INSTALL:
 (3) ANTENNAS

FINAL:
 (11) ANTENNAS
 (4) RRHs
 (3) TMAs
 (11) 1-5/8" COAX
 (1) 9X18 HYBRID FIBER
 (2) 6X12 HYBRID FIBER

THESE PLANS HAVE BEEN DEVELOPED FOR THE MODIFICATION OF AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY OWNED OR LEASED BY T-MOBILE IN ACCORDANCE WITH THE SCOPE OF WORK PROVIDED BY T-MOBILE. GEOSTRUCTURAL HAS INCORPORATED THIS SCOPE OF WORK IN THE PLANS. THESE PLANS ARE NOT FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS PREPARED BY A LICENSED PROFESSIONAL ENGINEER. STRUCTURAL ANALYSIS MUST INCLUDE BOTH TOWER AND MOUNT.

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET & PROJECT DATA
SP-1	GENERAL SPECIFICATIONS
A-1	SITE PLAN
A-2	TOWER ELEVATION & ANTENNA PLAN
RF-1	RF DATA
RF-2	RF DATA
E-1	ELECTRICAL AND GROUNDING

DIG LINE

THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES, AND/OR EXISTING UTILITIES BELIEVED TO BE IN THE WORKING AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITIES, PIPELINES AND OTHER STRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS.

ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AND ENGINEER AT THE CONTRACTOR'S EXPENSE.



CT = 1-800-922-4455
 MA, ME, NH, RI, VT = 1-888-344-7233

LOCAL SITE PHOTO



T-Mobile
 T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 P: 860.648.1116



134 FLANDERS RD, SUITE 125
 WESTBOROUGH, MA 01581
 P: 508.281.0720



PO BOX 2621, BOISE, ID 83701
 P: 530.539.4787
 E: CONTACT@GEOSTRUCTURAL.COM
 WWW.GEOSTRUCTURAL.COM

REVISIONS

REV	DATE	DESCRIPTION	INT
0	11/07/18	ISSUED FOR CONSTRUCTION	GGD

CHECKED BY: JAD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:

CT11299D
 CTBEACON FALLS/RT 8
 60 RICE LANE
 BEACON FALLS, CT 06403

SHEET TITLE:
TITLE SHEET & PROJECT DATA

SHEET NUMBER:

T-1

GROUNDING NOTES

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

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR - SBA COMMUNICATIONS CORP.
SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
OWNER - T-MOBILE
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
14. ANY NEW CONCRETE NEEDED FOR CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (FY = 36 KSI) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (FY = 35 KSI). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH UMTS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE: 2016 CONNECTICUT STATE BUILDING CODE WITH AMENDMENTS

ELECTRICAL CODE: 2014 NATIONAL ELECTRICAL CODE AND AMENDMENTS

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

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

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION;

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

ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

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

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BTCW	BARE TINNED SOLID COPPER WIRE	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BGR	BURIED GROUND RING	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BTS	BASE TRANSCEIVER STATION	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
EXISTING	EXISTING OR (E)	PROPOSED	NEW OR (P)	TYP	TYPICAL
EGB	EQUIPMENT GROUND BAR	N.T.S.	NOT TO SCALE	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	RAD	RADIATION CENTERLINE (ANTENNA)		
		REF	REFERENCE		



T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
P: 860.648.1116



134 FLANDERS RD, SUITE 125
WESTBOROUGH, MA 01581
P: 508.281.0720



GEOSTRUCTURAL

PO BOX 2621, BOISE, ID 83701
P: 530.539.4787
E: CONTACT@GEOSTRUCTURAL.COM
WWW.GEOSTRUCTURAL.COM

REVISIONS

REV	DATE	DESCRIPTION	INT
0	11/07/18	ISSUED FOR CONSTRUCTION	GGD

CHECKED BY: JAD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:

CT11299D
CTBEACON FALLS/RT 8

60 RICE LANE
BEACON FALLS, CT 06403

SHEET TITLE:

**GENERAL
SPECIFICATIONS**

SHEET NUMBER:

SP-1

UTILITY NOTE

THE UTILITIES AS SHOWN ON THIS SET OF DRAWINGS WERE DEVELOPED FROM RECORD INFORMATION. THE INFORMATION PROVIDED IS IMPLIED NOT INTENDED TO BE A COMPLETE INVENTORY OF THE UTILITIES IN THIS AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES.

EXISTING CONDITIONS

THESE DRAWINGS WERE PRODUCED WITH INFORMATION PROVIDED BY THE CLIENT. LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. GEOSTRUCTURAL DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINE, EASEMENTS AND SETBACKS.

STRUCTURE NOTES

CONTRACTOR TO COMPLY WITH ALL FCC AND FAA REGULATIONS ON THIS PROJECT.

REFER TO TOWER & MOUNT MAPPINGS FOR ALL EXISTING COMPONENTS AND APPURTENANCES.

PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY THAT A TOWER STRUCTURAL ANALYSIS AND A MOUNT ANALYSIS HAS BEEN PERFORMED AND SHOWS A "PASS" OR AN "ACCEPTABLE" RATING. UNDER NO CIRCUMSTANCE WHATSOEVER SHALL THE PROPOSED EQUIPMENT BE INSTALLED WITHOUT SAID STRUCTURAL ANALYSIS. IF SAID STRUCTURAL ANALYSIS REQUIRES THAT THE STRUCTURE AND/OR MOUNT BE MODIFIED, SUCH MODIFICATIONS SHALL BE COMPLETED PRIOR TO INSTALLATION OF THE PROPOSED EQUIPMENT.

FEEDLINE NOTES

LISTED FEEDLINE SIZE/QUANTITY BASED ON PROVIDED INFORMATION AND OBSERVATIONS. CONTRACTOR TO COORDINATE PROPOSED FINAL FEEDLINE SCHEDULE W/ FINAL RFDS, LEASE ENTITLEMENTS AND SITE CONDITIONS.

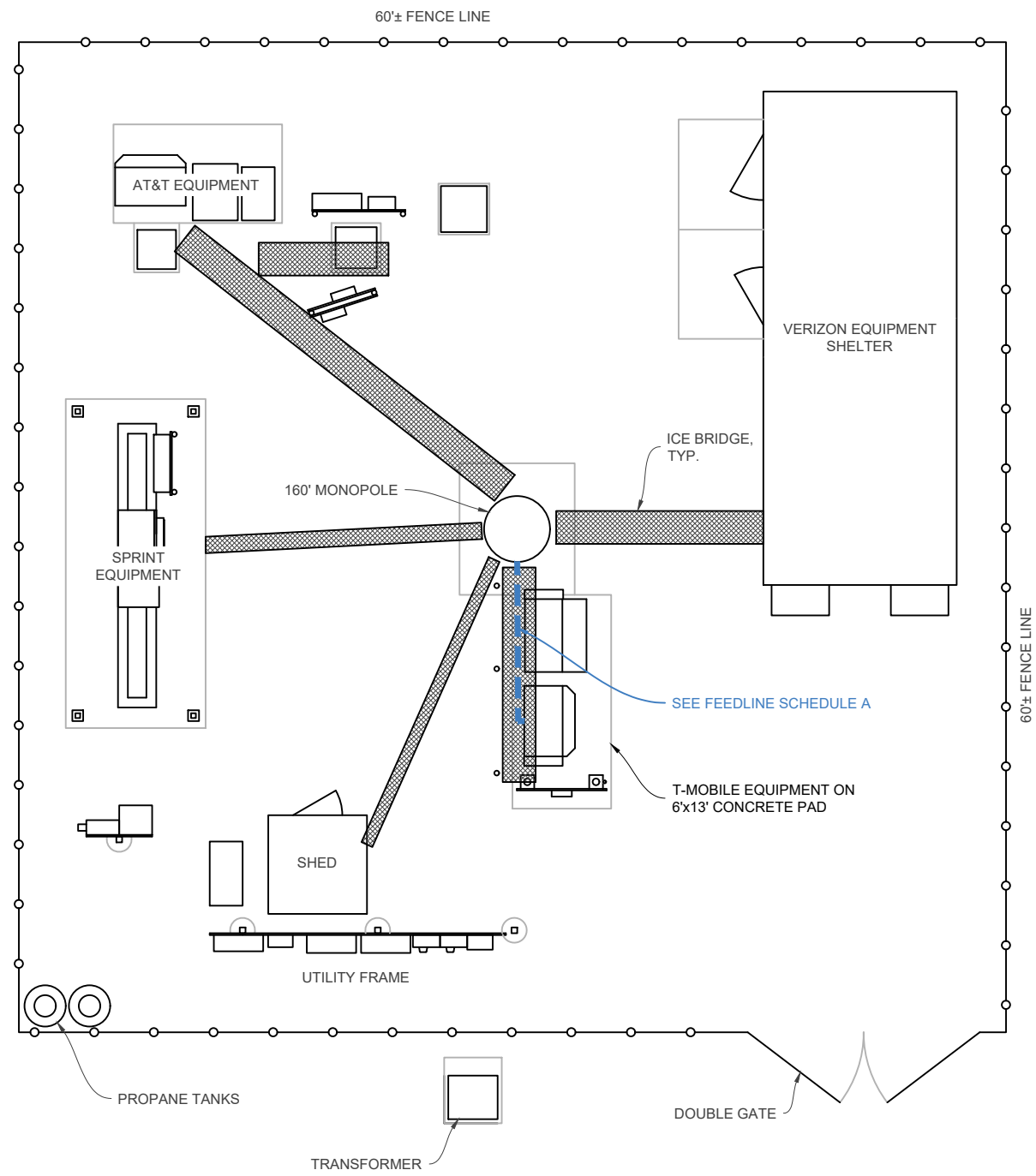
CONTRACTOR TO COORDINATE FINAL PLACEMENT OF PROPOSED FEEDLINES W/ APPROVED TOWER STRUCTURAL ANALYSIS.

FEEDLINE SCHEDULE

KEY	DESCRIPTION	ROUTING	
A	EXISTING TO REMAIN:	(11) 1-5/8" COAX (1) 9X18 HYBRID FIBER (1) 6X12 HYBRID FIBER	INTERNAL TO MONOPOLE SHAFT EXTERNAL TO MONOPOLE SHAFT EXTERNAL TO MONOPOLE SHAFT
	PROPOSED:	(1) 6X12 HYBRID FIBER	EXTERNAL TO MONOPOLE SHAFT; INSTALLED SIMILAR TO EXISTING

NOTE

EVERYTHING SHOWN IS EXISTING UNLESS NOTED OTHERWISE.



SITE PLAN
SCALE: 1" = 10'-0" (11x17)

EXISTING A/C BREAKER PANEL

EXISTING CABINET W/ PROPOSED RBS 6131 RAN EQUIPMENT MODIFICATIONS TO BE INSTALLED; SEE APPROVED RFDS



EQUIPMENT @ TOWER

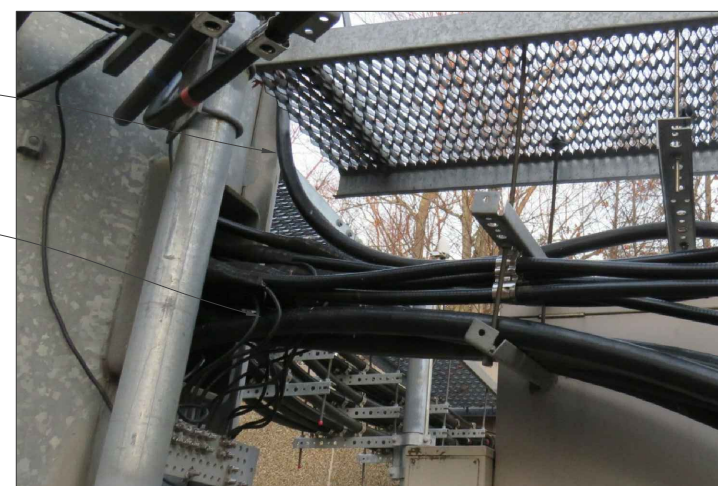
NEW (1) 6X12 HCS HYBRID CABLE TO BE INSTALLED EXTERNAL TO POLE; SEE SCHEDULE A



EQUIPMENT @ TOWER

EXISTING HCS HYBRID CABLES EXTERNAL TO POLE (TO REMAIN); SEE SCHEDULE A

EXISTING COAX INTERNAL TO POLE (TO REMAIN); SEE SCHEDULE A



FEEDLINES @ TOWER



T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
P: 860.648.1116



134 FLANDERS RD, SUITE 125
WESTBOROUGH, MA 01581
P: 508.281.0720



GEOSTRUCTURAL

PO BOX 2621, BOISE, ID 83701
P: 530.539.4787
E: CONTACT@GEOSTRUCTURAL.COM
WWW.GEOSTRUCTURAL.COM

REVISIONS

REV	DATE	DESCRIPTION	INT
0	11/07/18	ISSUED FOR CONSTRUCTION	GGD

CHECKED BY: JAD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:

CT11299D
CTBEACON FALLS/RT 8

60 RICE LANE
BEACON FALLS, CT 06403

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

A-1



TOWER ELEVATION PHOTO

SPECIAL TOWER EQUIPMENT INSTALLATION WORK NOTE (SAFETY CLIMB REQUIREMENTS):
 GENERAL CONTRACTOR SHALL ORIENT PROPOSED STRUCTURAL AUGMENT REINFORCEMENT KIT AND/ OR NEW EQUIPMENT SO THAT EXISTING SAFETY CLIMB CABLE IS NOT OBSTRUCTED / RE-ROUTED FROM VERTICAL ALIGNMENT AND IS NOT IN PHYSICAL CONTACT WITH MOUNT HARDWARE. GENERAL CONTRACTOR SHALL INSTALL NEW OR ADDITIONAL SAFETY-CLIMB CABLE GUIDES IF ADDITIONAL CLEARANCE IS REQUIRED. ADDITIONAL CABLE GUIDES SHALL BE ATTACHED SECURELY TO THE POLE USING MECHANICAL FASTENERS OR FIELD WELDED BY A CERTIFIED WELDING TECHNICIAN.

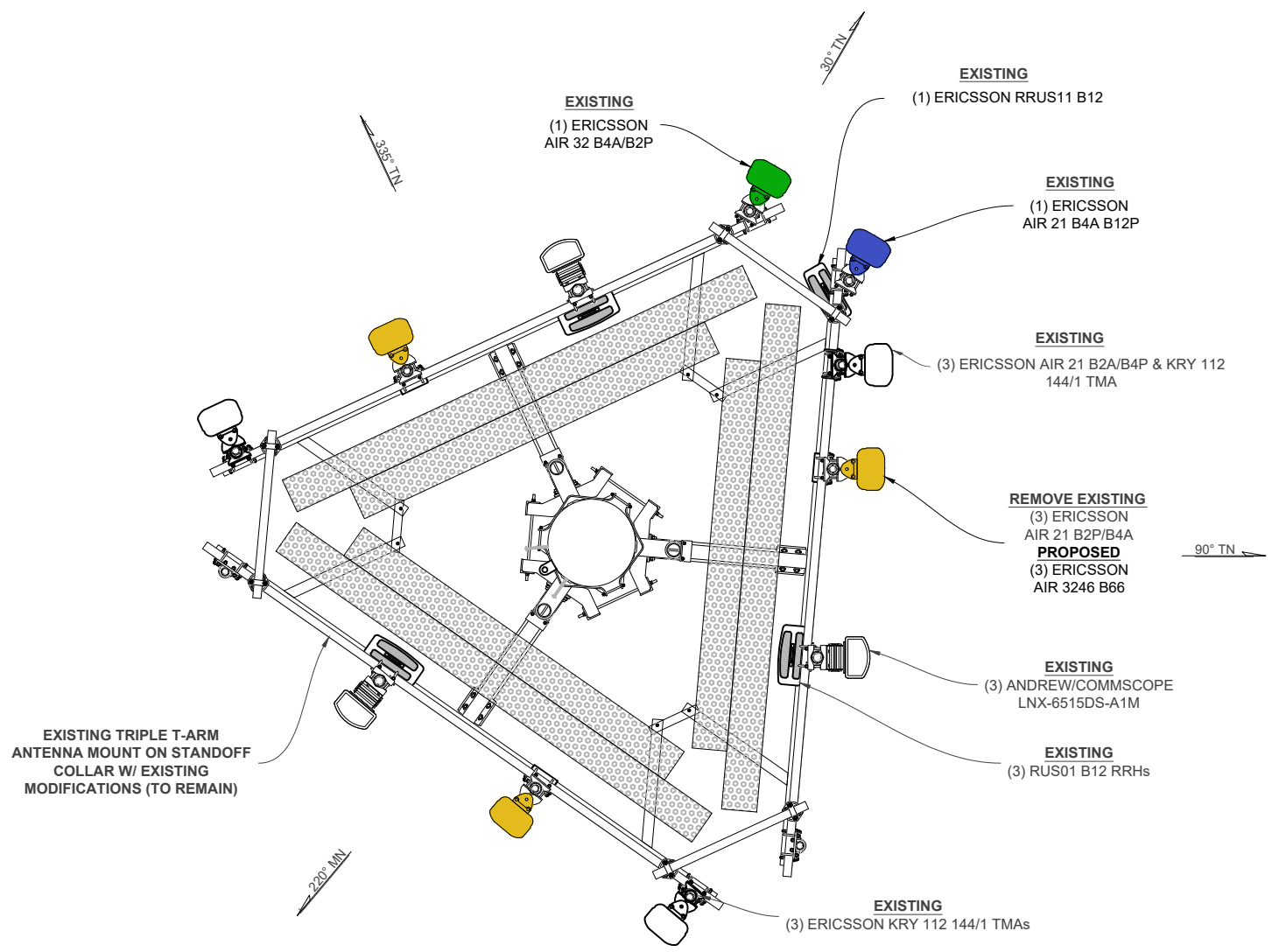
NOTE: VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION

CONSTRUCTION NOTES

- SCOPE OF WORK MUST BE COMPLETED AT WIND SPEEDS < 20 MPH.
- ALL DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHOULD FIELD-VERIFY ALL DIMENSIONS BEFORE ORDERING/FABRICATION OF STEEL AND COMMENCEMENT OF WORK.
- CONTRACTOR TO COORDINATE THE TEMPORARY REMOVAL/RELOCATION/REPLACEMENT OF ELEMENTS (E.G. COAX, CLIPS, TMAs, ETC.) CONNECTED TO, OR IN THE DIRECT PATH, OF NEW MOUNT MEMBERS.

INSTALLATION NOTES

- COORDINATE PLACEMENT OF NEW MOUNT MEMBERS WITH EXISTING TOWER AND CLIMBING FACILITY ELEMENTS (E.G. STEP PEGS, COAX PORTS, ETC.)
- REFER TO MOUNT STRUCTURAL ANALYSIS FOR APPROVED INSTALLATION LOCATIONS AND QUANTITIES OF APPURTENANCES. ANTENNAS AND EQUIPMENT SHALL BE INSTALLED CENTERED VERTICALLY ON THE MOUNT FRONT FACE RAILS (OR AS SPECIFICALLY DETAILED IN MOUNT ANALYSIS).



PROPOSED ANTENNA PLAN
 SCALE: N.T.S.



T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 P: 860.648.1116



134 FLANDERS RD, SUITE 125
 WESTBOROUGH, MA 01581
 P: 508.281.0720



GEOSTRUCTURAL

PO BOX 2621, BOISE, ID 83701
 P: 530.539.4787
 E: CONTACT@GEOSTRUCTURAL.COM
 WWW.GEOSTRUCTURAL.COM

REVISIONS

REV	DATE	DESCRIPTION	INT
0	11/07/18	ISSUED FOR CONSTRUCTION	GGD

CHECKED BY: JAD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:

CT11299D
 CTBEACON FALLS/RT 8

60 RICE LANE
 BEACON FALLS, CT 06403

SHEET TITLE:
TOWER ELEV. & ANTENNA PLAN

SHEET NUMBER:

A-2

Sector 1 (Proposed) view from behind									
Coverage Type	A - Outdoor Macro								
Antenna	1			2			3		
Antenna Model	Ericsson - AIR21 KRC118023-1_B2A_B4P (Quad)			Ericsson - AIR3246 B66 (Octo)			Andrew - LNX-6515DS-A1M (Dual)		
Azimuth	90			90			90		
M. Tilt									
Height	142			142			142		
Ports	P1		P2		P3	P4	P5	P6	P7
Active Tech.	U1900	G1900	U2100	L2100	L2100	L1900	L1900	L700	
Dark Tech.									
Restricted Tech.									
Decomm. Tech.									
E. Tilt	2		2		2		2		
Cables	1-5/8" Coax - 150 ft. (x2)								
TMA's	Generic Twin Style 1B - AWS (AtAntenna)								
Diplexers / Combiners									
Radio	RUS01 B12 (At Antenna)								
Sector Equipment									
Unconnected Equipment:									
Scope of Work:									

Sector 2 (Proposed) view from behind									
Coverage Type	A - Outdoor Macro								
Antenna	1			2			3		
Antenna Model	Ericsson - AIR21 KRC118023-1_B2A_B4P (Quad)			Ericsson - AIR3246 B66 (Octo)			Andrew - LNX-6515DS-A1M (Dual)		
Azimuth	220			220			220		
M. Tilt									
Height	142			142			142		
Ports	P1		P2		P3	P4	P5	P6	P7
Active Tech.	U1900	G1900	U2100	L2100	L2100	L1900	L1900	L700	
Dark Tech.									
Restricted Tech.									
Decomm. Tech.									
E. Tilt	2		2		2		2		
Cables	1-5/8" Coax - 150 ft. (x2)								
TMA's	Generic Twin Style 1B - AWS (AtAntenna)								
Diplexers / Combiners									
Radio	RUS01 B12 (At Antenna)								
Sector Equipment									
Unconnected Equipment:									
Scope of Work:									

Sector 3 (Proposed) view from behind									
Coverage Type	A - Outdoor Macro								
Antenna	1			2			3		
Antenna Model	Ericsson - AIR21 KRC118023-1_B2A_B4P (Quad)			Ericsson - AIR3246 B66 (Octo)			Andrew - LNX-6515DS-A1M (Dual)		
Azimuth	335			335			335		
M. Tilt									
Height	142			142			142		
Ports	P1		P2		P3	P4	P5	P6	P7
Active Tech.	U1900	G1900	U2100	L2100	L2100	L1900	L1900	L700	
Dark Tech.									
Restricted Tech.									
Decomm. Tech.									
E. Tilt	2		2		2		2		
Cables	1-5/8" Coax - 150 ft. (x2)								
TMA's	Generic Twin Style 1B - AWS (AtAntenna)								
Diplexers / Combiners									
Radio	RUS01 B12 (At Antenna)								
Sector Equipment									
Unconnected Equipment:									
Scope of Work:									

Sector 4 (Proposed) view from behind										
Coverage Type	A - Outdoor Macro									
Antenna	1					2				
Antenna Model	Ericsson - AIR32 B4A/B2P KRD901044-1_B4A_B2P (Octo)					Ericsson - AIR21 B4A/B12P 6ft (Quad)				
Azimuth	30					30				
M. Tilt	0					0				
Height	142					142				
Ports	P1		P2		P3	P4	P5		P6	
Active Tech.	L2100	L2100	L1900	L1900	U2100			L700		
Dark Tech.										
Restricted Tech.										
Decomm. Tech.										
E. Tilt	2				2		2		2	
Cables										
TMA's										
Diplexers / Combiners										
Radio	RRUS11 B12 (At Antenna)									
Sector Equipment										
Unconnected Equipment:										
Scope of Work:										



T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 P: 860.648.1116



134 FLANDERS RD, SUITE 125
 WESTBOROUGH, MA 01581
 P: 508.281.0720



GEOSTRUCTURAL

PO BOX 2621, BOISE, ID 83701
 P: 530.539.4787
 E: CONTACT@GEOSTRUCTURAL.COM
 WWW.GEOSTRUCTURAL.COM

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	11/07/18	ISSUED FOR CONSTRUCTION	GGD

CHECKED BY: JAD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



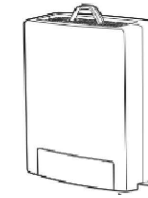
SITE INFORMATION:
 CT11299D
 CTBEACON FALLS/RT 8
 60 RICE LANE
 BEACON FALLS, CT 06403

SHEET TITLE:
 RF DATA

SHEET NUMBER:
 RF-1

ANTENNA SCHEDULE

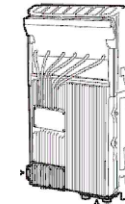
COR	SECTOR	MODEL	AZIMUTH	RRH/TMA/SBIAS	ELEC. TILT	MECH. TILT	FEEDLINE
142.9±	A	AIR21 B2A B4P	90°	0/1/0	2°	0°	(2) 1-5/8"
142.9±	A	AIR3246 B66	90°	0/0/0	2°	0°	HCS HYBRID FIBER
142.9±	A	LNx-6515DS-A1M	90°	1/0/0	2°	0°	HCS HYBRID FIBER
142.9±	B	AIR21 B2A B4P	220°	0/1/0	2°	0°	(2) 1-5/8"
142.9±	B	AIR3246 B66	220°	0/0/0	2°	0°	HCS HYBRID FIBER
142.9±	B	LNx-6515DS-A1M	220°	1/0/0	2°	0°	HCS HYBRID FIBER
142.9±	C	AIR21 B2A B4P	335°	0/1/0	2°	0°	(2) 1-5/8"
142.9±	C	AIR3246 B66	335°	0/0/0	2°	0°	HCS HYBRID FIBER
142.9±	C	LNx-6515DS-A1M	335°	1/0/0	2°	0°	HCS HYBRID FIBER
142.9±	D	AIR32 B4A B2P	30°	0/0/0	2°	0°	HCS HYBRID FIBER
142.9±	D	AIR21 B4A B12P	30°	1/0/0	2°	0°	HCS HYBRID FIBER



RRH DIMENSIONS	
MODEL	RRUS11 B12
MANUF	ERICSSON
HEIGHT	19.7"
WIDTH	17.0"
DEPTH	7.2"
WEIGHT	55 LBS



U2100 / L700 ANTENNA DIMENSIONS	
MODEL	AIR21 B4A B12P
MANUF	ERICSSON
HEIGHT	96"
WIDTH	12"
DEPTH	8.7"
WEIGHT	126 LBS



RRH DIMENSIONS	
MODEL	RUS01 B12
MANUF	ERICSSON
HEIGHT	25.0"
WIDTH	15.1"
DEPTH	6.7"
WEIGHT	44 LBS

T-Mobile
T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 P: 860.648.1116



134 FLANDERS RD, SUITE 125
 WESTBOROUGH, MA 01581
 P: 508.281.0720



GEOSTRUCTURAL
 PO BOX 2621, BOISE, ID 83701
 P: 530.539.4787
 E: CONTACT@GEOSTRUCTURAL.COM
 WWW.GEOSTRUCTURAL.COM

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	11/07/18	ISSUED FOR CONSTRUCTION	GGD

CHECKED BY: JAD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:
 CT11299D
 CTBEACON FALLS/RT 8
 60 RICE LANE
 BEACON FALLS, CT 06403

SHEET TITLE:
RF DATA

SHEET NUMBER:
RF-2



U1900 / G1900 / U2100 ANTENNA DIMENSIONS	
MODEL	AIR21 B2A B4P
MANUF	ERICSSON
HEIGHT	56"
WIDTH	12"
DEPTH	8"
WEIGHT	83 LBS



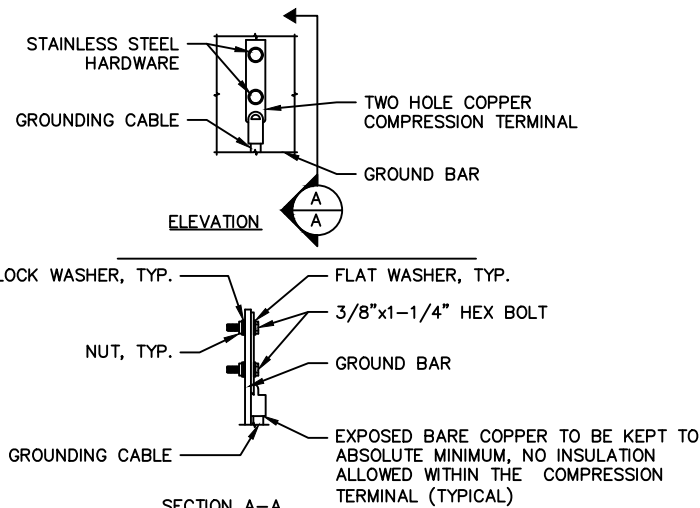
L2100 / L1900 ANTENNA DIMENSIONS	
MODEL	AIR3246 B66
MANUF	ERICSSON
HEIGHT	58.1"
WIDTH	15.7"
DEPTH	9.4"
WEIGHT	180 LBS



L700 ANTENNA DIMENSIONS	
MODEL	LNx-6515DS-A1M
MANUF	ANDREW/COMMScope
HEIGHT	96.4"
WIDTH	11.9"
DEPTH	7.1"
WEIGHT	50.3 LBS



L2100 / L1900 ANTENNA DIMENSIONS	
MODEL	AIR32 B4A B2P
MANUF	ERICSSON
HEIGHT	56.6"
WIDTH	12.9"
DEPTH	8.7"
WEIGHT	105.8 LBS

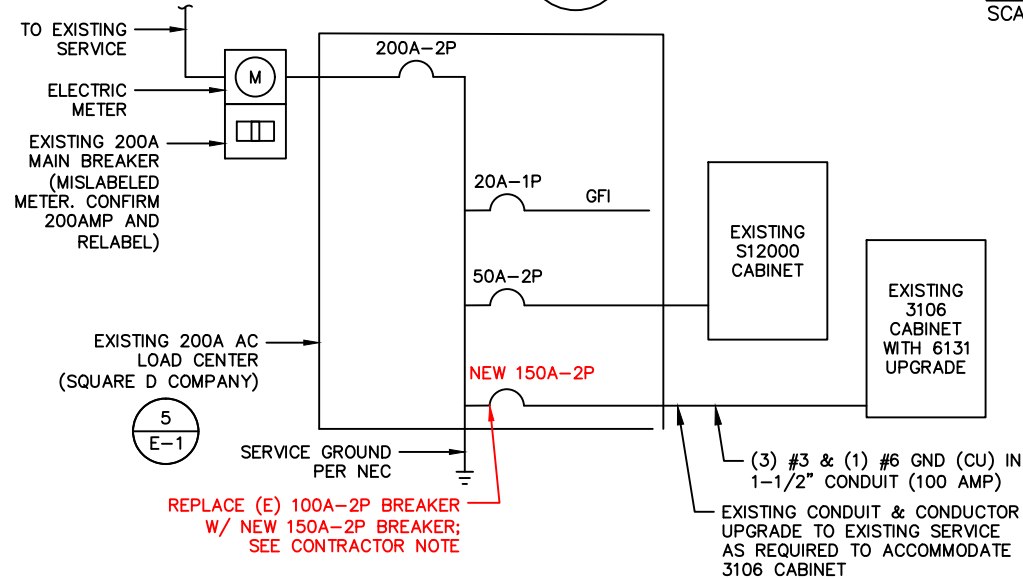


- NOTES:**
- "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
 - CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB.

TYPICAL GROUND BAR CONNECTION DETAIL

SCALE: N.T.S.

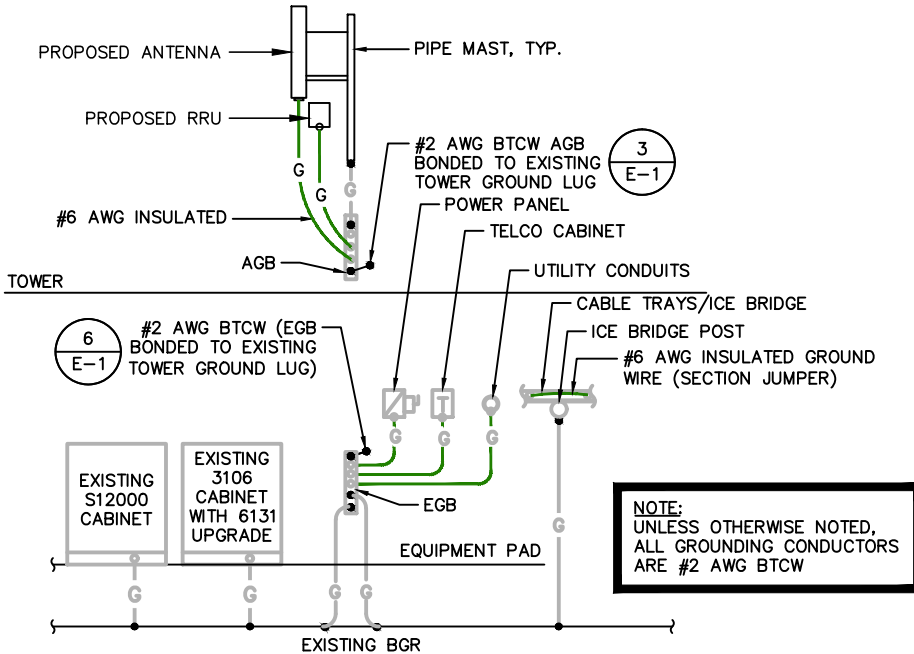
1
E-1



ONE LINE POWER SCHEMATIC

SCALE: N.T.S.

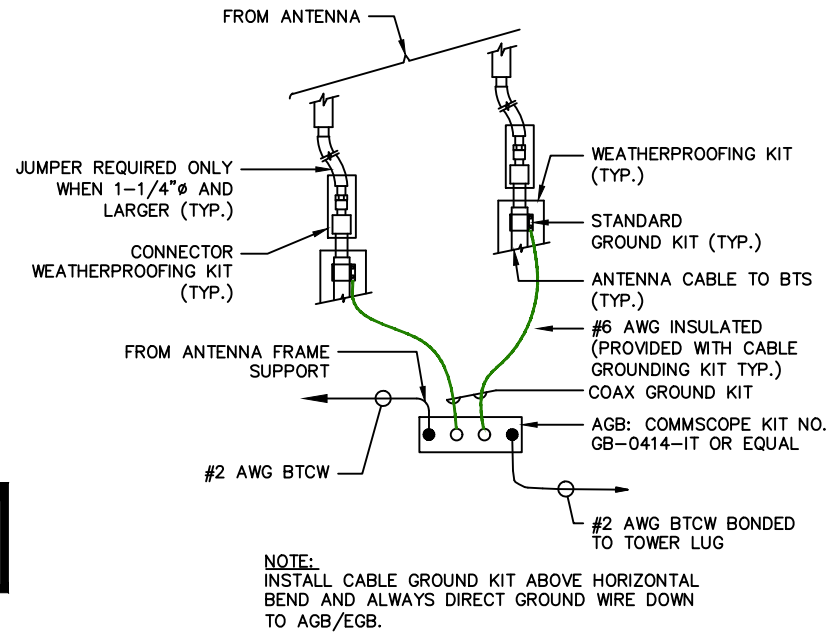
4
E-1



TYPICAL GROUNDING RISER DIAGRAM

SCALE: N.T.S.

2
E-1



TOWER TOP CABLE GROUNDING DETAIL

SCALE: N.T.S.

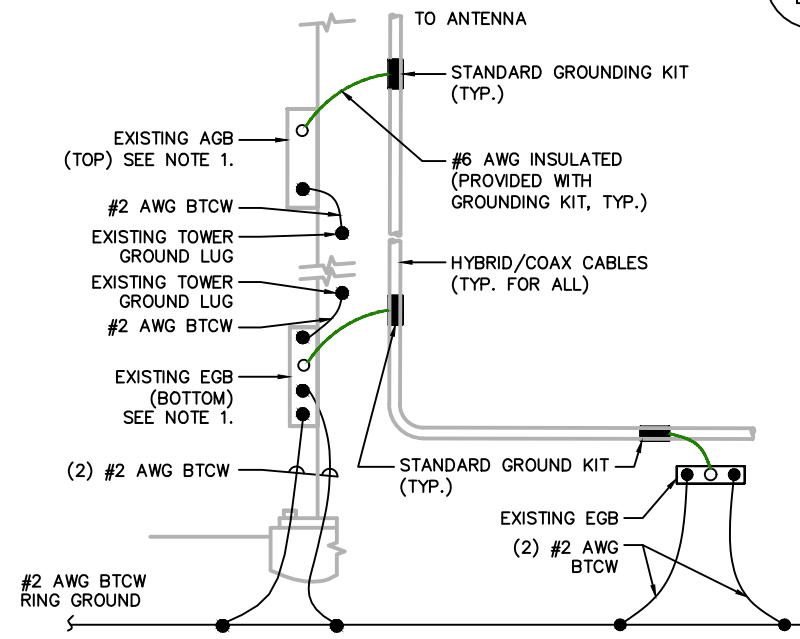
3
E-1



PHOTO DETAIL: PPC PANEL

SCALE: N.T.S.

5
E-1



- NOTE:**
- NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATION, AND CONNECTION ORIENTATION. PROVIDE ADDITIONAL AGB/EGB AS REQUIRED.
 - A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED

TOWER BOTTOM CABLE GROUNDING DETAIL

SCALE: N.T.S.

6
E-1

ELECTRICAL LEGEND

A	AMPERE	○ MECHANICAL CONNECTION
V	VOLT	● CADWELD CONNECTION
KWH	KILOWATT - HOUR	○ MECHANICAL CONNECTION (COMPRESSION TYPE)
c	CONDUIT	
GRC	GALVANIZED RIGID CONDUIT	
BTCW	BARE TINNED (SOLID) COPPER WIRE (#2 AWG, UNLESS NOTES OTHERWISE)	
g	GROUND	
⊥	GROUND	
MGB	MASTER GROUND BAR	
AGB/EGB	EQUIPMENT GROUND BAR/ANTENNA GROUND BAR	
—g—	GROUND COPPER WIRE, SIZE AS NOTED	
—g—	EXPOSED WIRING	
—g—	INSULATED GROUNDING CONDUCTOR (#6 AWG STRANDED, UNLESS NOTED OTHERWISE)	
⊙	5/8"x10" COPPER CLAD STAINLESS STEEL GROUND ROD	
⊙	EXOTHERMIC (CAD WELD) OR MECHANICAL CONNECTION	
PPC	POWER PROTECTION CABINET	
⊗	OMNI-DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALL	

CONTRACTOR NOTE:
G.C. TO VERIFY THAT THE EXISTING CONDUITS AND WIRE SIZES ARE ADEQUATE FOR THE PROPOSED LOADING IN ACCORDANCE WITH NEC AND INCLUDE ELECTRICAL UPGRADES IN THE SCOPE OF WORK AS REQUIRED.

ELECTRICAL & GROUNDING NOTES:

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATIONS INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- 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.
- RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THHN INSULATION AS REQUIRED BY NEC.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL ROOM AND PROPOSED CELL SITE POWER PEDESTAL AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROPOSED CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON DRAWING A-1. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- GROUNDING SHALL COMPLY WITH NEC ART. 250.
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- 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.
- 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.
- 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 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
- CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PANEL GROUND); (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING OBJECTS (EGB GROUND IN BTS UNIT).
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LYGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
- BOND ANTENNA EGB'S AND MGB TO WATER MAIN/GROUND RING.
- TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.
- BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
- VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION.

T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
P: 860.648.1116



134 FLANDERS RD, SUITE 125
WESTBOROUGH, MA 01581
P: 508.281.0720



GEOSTRUCTURAL

PO BOX 2621, BOISE, ID 83701
P: 530.539.4787
E: CONTACT@GEOSTRUCTURAL.COM
WWW.GEOSTRUCTURAL.COM

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	11/07/18	ISSUED FOR CONSTRUCTION	GGD

CHECKED BY: JAD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:
CT11299D
CTBEACON FALLS/RT 8

60 RICE LANE
BEACON FALLS, CT 06403

SHEET TITLE:
ELECTRICAL & GROUNDING

SHEET NUMBER:
E-1