

October 10, 2017

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

Re: **Notice of Exempt Modification – Facility Modification
29 Bogus Hill Road, New Fairfield, Connecticut**

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains twelve (12) antennas at the 120-foot level of the existing 149-foot tower at 29 Bogus Hill Road in New Fairfield, Connecticut (the “Property”). The Property is owned by the Girl Scouts of Connecticut. The tower is owned by SBA Towers IV LLC (“SBA”). Cellco’s use of this tower was approved by the Council in 2007. Cellco now intends to modify its facility by replacing six (6) of its existing antennas with three (3) model SBNHH-1D65B, 700/1900 MHz antennas and three (3) model SBNHH-1D65B, 2100 MHz antennas, all at the same level on the tower. Cellco also intends to install three (3) remote radio heads (“RRHs”) behind its 2100 MHz antennas. Included in Attachment 1 are specifications for Cellco’s replacement antennas and RRHs.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Susan Chapman, First Selectman for the Town of New Fairfield; Evan White, New Fairfield’s Zoning Enforcement Officer; the Girl Scouts of Connecticut, the owner of the Property; and SBA, the tower owner.

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

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco’s replacement antennas and RRHs will be installed on Cellco’s existing platform at the 120-foot level on the 149-foot tower.

17159870-v1

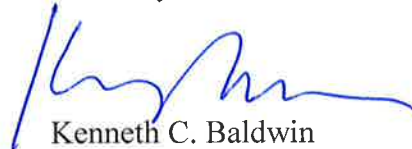
Melanie A. Bachman, Esq.
October 10, 2017
Page 2

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard A cumulative General Power Density table for Cellco's modified facility in Attachment 2.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation, with certain modifications, can support Cellco's proposed modifications. (See Structural Analysis Report included in Attachment 3).

A copy of the parcel map and property owner information is included in Attachment 4. A Certificate of Mailing verifying that this filing was sent to municipal officials and the owner of the Property is included in Attachment 5.

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

Sincerely,



Kenneth C. Baldwin

Enclosures

Copy to:

Susan Chapman, New Fairfield First Selectman
Evan White, New Fairfield Zoning Enforcement Officer
Girls Scouts of Connecticut
SBA
Tim Parks

ATTACHMENT 1



SBNHH-1D65B

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

- Interleaved dipole technology providing for attractive, low wind load mechanical package

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	14.9	14.7	17.7	18.2	18.6	18.6
Beamwidth, Horizontal, degrees	68	66	69	66	63	58
Beamwidth, Vertical, degrees	12.1	10.7	5.6	5.2	5.0	4.5
Beam Tilt, degrees	0–14	0–14	0–7	0–7	0–7	0–7
USLS (First Lobe), dB	14	13	15	15	15	13
Front-to-Back Ratio at 180°, dB	27	29	28	28	28	27
Isolation, dB	25	25	25	25	25	25
Isolation, Intersystem, dB	30	30	30	30	30	30
VSWR Return Loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350	350	350	300
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	14.5	14.3	17.4	17.9	18.2	18.3
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.8	±0.4	±0.3	±0.5	±0.3
	0° 14.6	0° 14.5	0° 17.4	0° 17.8	0° 18.1	0° 18.2
Gain by Beam Tilt, average, dBi	7° 14.6	7° 14.4	3° 17.5	3° 17.9	3° 18.3	3° 18.4
	14° 14.2	14° 13.6	7° 17.4	7° 17.9	7° 18.2	7° 18.4
Beamwidth, Horizontal Tolerance, degrees	±2.2	±3.4	±2	±4.6	±5.7	±4.3
Beamwidth, Vertical Tolerance, degrees	±0.8	±1	±0.3	±0.2	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	16	14	16	16	16	15
Front-to-Back Total Power at 180° ± 30°, dB	25	26	27	26	26	26
CPR at Boresight, dB	22	23	21	20	20	22
CPR at Sector, dB	13	11	16	12	11	4

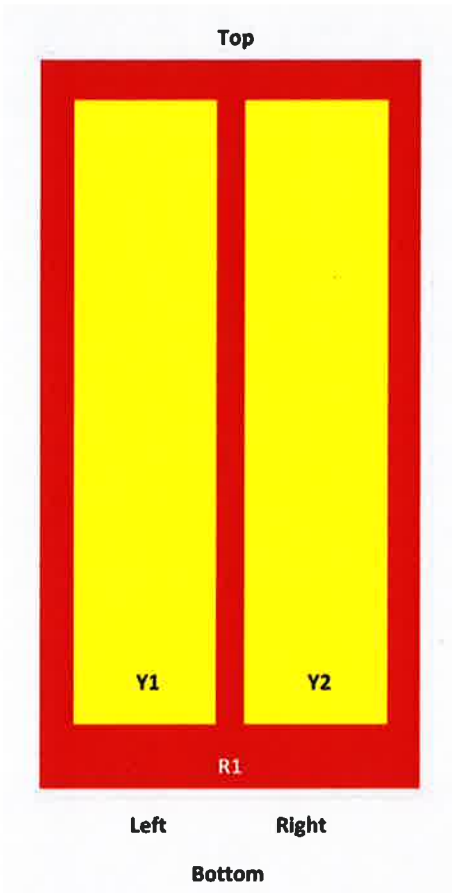
* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

Array Layout

SBNHH-1D65B

SBNHH 65

Array	Freq (MHz)	Conns	RET (MRET)	AISG RET UID
R1	698-896	1-2	1	ANXXXXXXXXXXXXXXXXX.1
Y1	1695-2360	3-4	2	ANXXXXXXXXXXXXXXXXX.2
Y2	1695-2360	5-6		



View from the front of the antenna
 (Sizes of colored boxes are not true depictions of array sizes)

General Specifications

Operating Frequency Band	1695 – 2360 MHz 698 – 896 MHz
Antenna Type	Sector
Band	Multiband
Performance Note	Outdoor usage

Mechanical Specifications

RF Connector Quantity, total	6
RF Connector Quantity, low band	2
RF Connector Quantity, high band	4
RF Connector Interface	7-16 DIN Female

SBNHH-1D65B

Color	Light gray
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Radiator Material	Aluminum Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	618.0 N @ 150 km/h 138.9 lbf @ 150 km/h
Wind Loading, lateral	197.0 N @ 150 km/h 44.3 lbf @ 150 km/h
Wind Loading, rear	728.0 N @ 150 km/h 163.7 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 150 mph

Dimensions

Length	1851.0 mm 72.9 in
Width	301.0 mm 11.9 in
Depth	180.0 mm 7.1 in
Net Weight, without mounting kit	18.4 kg 40.6 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Internal RET	High band (1) Low band (1)
Power Consumption, idle state, maximum	2.0 W
Power Consumption, normal conditions, maximum	13.0 W
Protocol	3GPP/AISG 2.0 (Multi-RET)
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male

Packed Dimensions

Length	2025.0 mm 79.7 in
Width	390.0 mm 15.4 in
Depth	296.0 mm 11.7 in
Shipping Weight	31.0 kg 68.3 lb

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
China RoHS SJ/T 11364-2006
ISO 9001:2008

Classification

Compliant by Exemption
Above Maximum Concentration Value (MCV)
Designed, manufactured and/or distributed under this quality management system



SBNHH-1D65B

Included Products

BSAMNT-1 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

ALCATEL-LUCENT B66A RRH4X45

The Alcatel-Lucent B66a Remote Radio Head 4x45 is the newest addition of Remote Radio Head to the extended product line of Alcatel-Lucent's distributed Base Station solutions, aimed at facilitating smooth RF site acquisition and related civil engineering. Its operational range covers beyond that of B4 (AWS) and B10 (AWS+).

Supporting 2Tx/4Tx MIMO and 2-way/4-way Rx diversity, the Alcatel-Lucent B66a RRH4x45 allows operators to have a compact radio solution to deploy LTE in the 2100 band (3GPP band 4, 10, and 66), providing them with the means to achieve high capacity, high quality, high reliability, large instantaneous bandwidth, and high coverage with minimum site requirements.

The Alcatel-Lucent B66a RRH4x45 product has four transmit RF paths, offering the possibility to **select, via software only, 2Tx or 4Tx MIMO configurations** with either 2x90W or 4x45W RF output power. It also supports 4-way Rx diversity at the 70 MHz instantaneous bandwidth.



The Alcatel-Lucent B66a RRH4x45 is a compact (near zero-footprint) solution and operates noise free, simplifying negotiations with site property owners and minimizing environmental impacts.

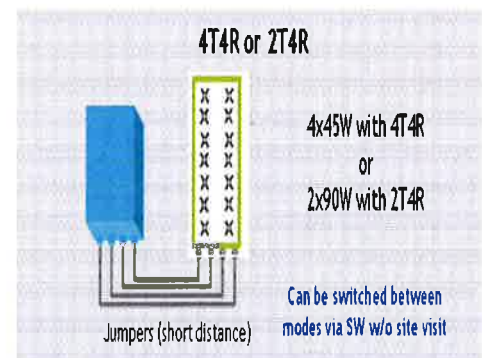
Its compactness and slim design makes the Alcatel-Lucent B66a RRH4x45 easy to install close to the antenna: operators can therefore locate this Remote Radio Head where RF design conditions are deemed ideal, minimizing trade-offs between available sites and RF optimum sites, together with reducing the RF feeder needs and installation costs.

FEATURES

- Supporting LTE in 2110 - 2180 MHz band/DL, 1710-1780MHz/UL (3GPP band 4, 10, and 66a)
- LTE 2Tx or 4Tx MIMO (SW selectable)
- Configuration: 2T2R/2T4R/4T4R
- Output power: Up to 2x90W or 4x45W (SW configurable)
- 70MHz LTE carrier with 4Rx Diversity
- Convection-cooled (fan-less)
- Supports AISG 2.0 ALD devices (RET, TMA) through RS485 or RF ports

BENEFITS

- Compact to reduce additional footprint when adding LTE in AWS 1-3 band
- Selection of MIMO configuration (2Tx or 4Tx) by software only
- Improves downlink spectral efficiency through 4Tx MIMO
- Increases LTE coverage thanks to 4Rx diversity capability and best in class Rx sensitivity
- Flexible mounting options: Pole or Wall



TECHNICAL SPECIFICATIONS

Features & Performance	
Number of TX/RX paths	4 duplexed (either 4T4R or 2T4R selectable by SW)
Frequency band	AWS 1-3, B4/B66a DL: 2110-2180 MHz / UL: 1710-1780 MHz
Instantaneous bandwidth - #carriers	70 MHz – 4 LTE MIMO carriers (in 70 MHz occupied bandwidth)
LTE carrier bandwidth	5, 10, 15, 20 MHz
RF output power	2x90W or 4x45W (selectable by SW)
Noise figure – RX Diversity scheme Receiver Sensivity (FRC A1-3)	2 dB typical (<2.5 dB max) – 2 or 4 way Rx diversity -104.5 dBm maximum
Sizes (HxWxD) in mm (in.) Volume in Liters Weight in kg (lb) (w/o mounting HW)	655x299x182 (25.8x11.8x7.2) (with solar shield) 640x290x160 (25.2x11.4x6.3) (without solar shield) 35.5 (with solar shield) 29.7 (without solar shield) 25.8kg (56.8lb) (with solar shield)
DC voltage range	Nominal: -48V, -40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption
DC power consumption	750W typical @100% RF load (in 2Tx or 4Tx mode); Add 58W for 2A*29V for AISG
Environmental conditions Wind load (@150km/h or 93mph)	-40°C (-40°F) / +55°C (+131°F) UL50E Type 4 Enclosure 250N (56lb) Frontal/150N (34lb) Lateral
Antenna ports	4 ports 4.3-10 female (50 ohms) VSWR < 1.5
CPRI ports	2 CPRI ports (HW ready for Rate 7, 9.8 Gbps) SFP: SMDF (HW supports also SMSF and MMDF)
AISG interfaces	1 AISG 2.0 output (RS485) Integrated Smart Bias Tees (x2)
Misc. Interfaces	4 external alarms (1 connector) 1 DC connector (2 pins)
Installation conditions	Pole and wall mounting
Regulatory compliance	3GPP 36.141 / 3GPP 36.113 / GR-487 / GR-1089-CORE / GR-3108-CORE / UL 60950-1 / FCC Part 27 / FCC Part 15 / GR-3178-CORE

www.alcatel-lucent.com Alcatel, Lucent, Alcatel-Lucent and the Alcatel-Lucent logo are trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. The information presented is subject to change without notice. Alcatel-Lucent assumes no responsibility for inaccuracies contained herein. Copyright © 2016 Alcatel-Lucent. All Rights Reserved

ATTACHMENT 2

		General		Power		Density							
Site Name: Bogus Hill (New Fairfield)													
Tower Height: Verizon @ 120ft													
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total					
*Cingular	6	296	140	0.0326	880	0.5867	5.55%						
*Cingular	3	427	140	0.0235	1930	1.0000	2.35%						
*CL&P	4	10	100	0.0014	220	0.2000	0.72%						
*CL&P	1	100	98	0.0037	37.48	0.2000	1.87%						
*CL&P	1	100	98	0.0037	44.34	0.2000	1.87%						
*T-Mobile	8	122	150	0.0156	1945	1.0000	1.56%						
Verizon PCS	7	288	120	0.0503	1970	1.0000	5.03%						
Verizon Cellular	9	276	120	0.0620	869	0.5793	10.71%						
Verizon AWS	1	719	120	0.0180	2145	1.0000	1.80%						
Verizon 700	1	811	120	0.0203	698	0.4653	4.35%						
								35.81%					
* Source: Siting Council													

ATTACHMENT 3



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
8445 Freepoint Parkway, Suite 375, Irving, Texas 75063

Structural Analysis Report

Existing 149 ft. SABRE Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT13061-A

Customer Site Name: New Fairfield

Carrier Name: Verizon

Carrier Site ID / Name: 180627 / Bogus Hill CT

Site Location: 29 Bogus Hill Road

New Fairfield, Connecticut

Fairfield County

Latitude: 41.511833

Longitude: -73.450528

Analysis Result:

Max Structural Usage: 70.2% [Pass]

Max Foundation Usage: 71.0% [Pass]

Report Prepared By : Delu Zhou



8/9/17

Introduction

The purpose of this report is to summarize the analysis results on the 149 ft. SABRE 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	Original structural design report & tower section data prepared by Sabre Communications Corporation. Dated 11-07-2006. Drawing No 07-11088-PE. Job No 07-11088. Previous structural report prepared by FDH Engineering, Inc. Dated 03-12-2015. Project No 15BFZD1400.
Foundation Drawing	Original foundation design prepared by Sabre Communications Corporation. Dated 11-07-2006. Job No 07-11088.
Geotechnical Report	Geotechnical report prepared by JGI Eastern, Inc. Dated 10-12-2006. Project No 06645G.
Modification Drawings	N/A

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 $V_{ult} = 115.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 89.0$ 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 / 2012 IBC / 2016 Connecticut State Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft.
Seismic Parameters:	$S_s = 0.206$, $S_1 = 0.066$

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	151.3	1	RFS BA1010 - Whip	(1) Standoff Mount	(1) 7/8" ¹	Town Of New Fairfield
2	150.0	3	Commscope LNX-6515DS-VTM - Panel	Low Profile Platform	(18) 1 5/8"	T-Mobile
3		3	RFS APXV18-209014 - Panel			
4		3	RFS APXV18-206517S-A20 - Panel			
5		3	Ericsson KRY 112 489/2			
6		3	Kathrein 782 11056			
7	141.0	9	Powerwave 7770 - Panel	Low Profile Platform	(12) 1 5/8" (1) 1/2" Fiber (2) 3/4" DC	AT&T
8		3	CCI HPA-65R-BUU-H6 - Panel			
9		9	Powerwave LGP21401			
10		3	Powerwave TT19-08BP-111-001			
11		3	Ericsson RRUS-11			
12		3	Ericsson RRUS-12			
13		3	Ericsson RRUS-A2			
14		6	Powerwave LGP21901			
15		1	Raycap DC6-48-60-18-8F			
16	3	Powerwave 1001983				
17	134.8	1	RFS BA40-01 - Whip	(1) Standoff Mount	(1) 7/8"	Town Of New Fairfield
-	121.1	3	Andrew SBNHH-1D65B - Panel	Low Profile Platform	(12) 1 5/8" (2) Hybrid Fiber	Verizon
-	120.0	3	ALU 2x60 700U			
-		3	ALU 2x90 AWS			
-		6	Antel LPA-80080-4CF-EDIN-0 - Panel			
-	119.5	3	Andrew SBNHH-1D65B - Panel			
-		6	RFS FD9R6004/2C-3L Diplexer			
-		2	Andrew RC2DC-3315-PF-48			
23	100.0	1	Sinclair SD210-SF3P2LDF – 16' Whip	(1) Single Arm Mount	(1) 7/8"	Town Of New Fairfield
24	99.5	2	RFS 1142- 13' Whip	(2) Single Arm Mount	(2) 7/8"	

¹ The (1) 7/8" feed line is installed on the outside of the pole's shaft from 94.0' to the mount elevation.

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
18	121.1	3	Andrew SBNHH-1D65B - Panel	Low Profile Platform	(10) 1 5/8" (2) Hybrid Fiber	Verizon
19	120.0	3	ALU 2x90 AWS - RRH			
20	119.5	6	Antel LPA-80080-4CF-EDIN-0 - Panel			
21		3	Andrew SBNHH-1D65B - Panel			
22		1	Andrew RC2DC-3315-PF-48 - RET			

The proposed transmission lines are considered running inside of the pole shafts.

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	70.2%	67.4%	48.9%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Original Design Reactions	3340.0	29.9	43.9
Analysis Reactions	2589.5	24.1	58.8

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

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 1.3225 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 70.17% at 0.0ft

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)

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

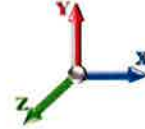
8/9/2017



Page: 1

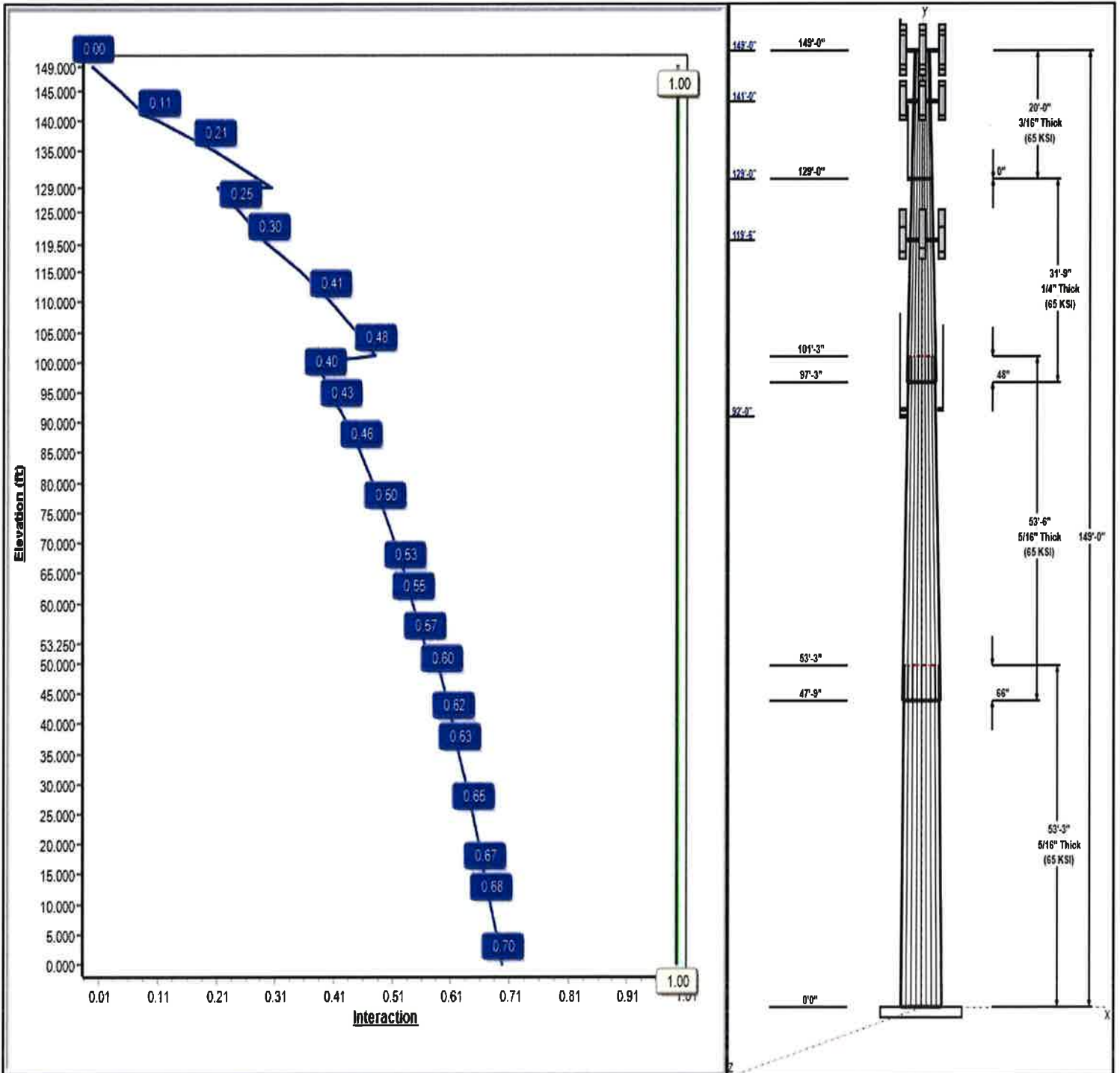
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 89 mph Wind



Iterations: 25

Copyright © 2017 by Tower Engineering Solutions, LLC. All rights reserved.



Structure: CT13061-A-SBA

Type: Tapered
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.25534

8/9/2017

Page: 2



Shaft Properties

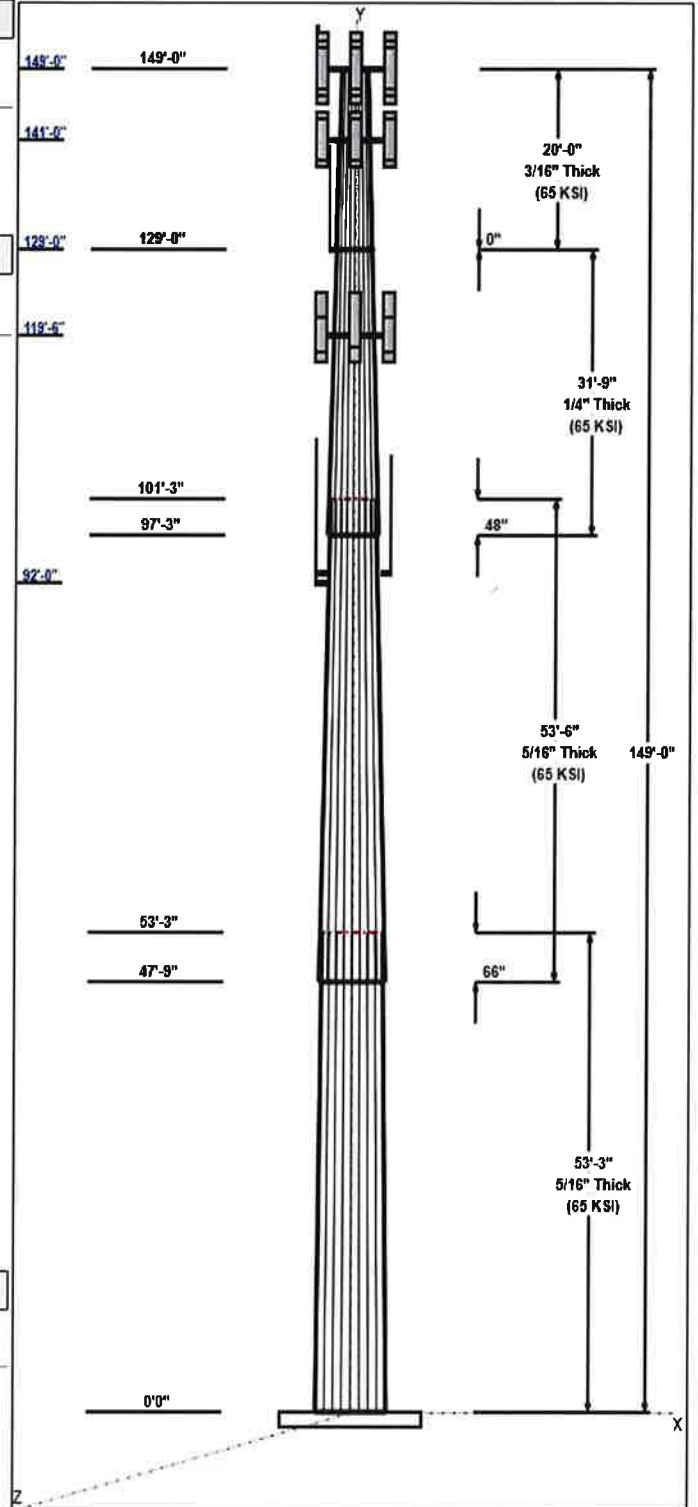
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.25	42.32	55.92	0.313		0.25534	65
2	53.50	30.69	44.35	0.313	Slip	0.25534	65
3	31.75	24.11	32.21	0.250	Slip	0.25534	65
4	20.00	19.00	24.11	0.188	Butt	0.25534	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
149.00	152.50	1	Lightning Rod	---
149.00	151.35	1	RFS BA1010	T. Of New Fairfield
149.00	149.00	3	Commscope	T-Mobile
149.00	149.00	3	RFS APXV18-209014	T-Mobile
149.00	149.00	3	RFS	T-Mobile
149.00	149.00	3	Ericsson KRY 112 489/2	T-Mobile
149.00	149.00	3	Kathrein 782 11056	T-Mobile
149.00	149.00	1	Low Profile Platform	T-Mobile
149.00	149.00	1	Standoff Mount	T. Of New Fairfield
141.00	141.00	9	Powerwave 7770	AT&T
141.00	141.00	3	CCI HPA-65R-BUU-H6	AT&T
141.00	141.00	9	Powerwave LGP21401	AT&T
141.00	141.00	3	Powerwave	AT&T
141.00	141.00	3	Ericsson RRUS-11	AT&T
141.00	141.00	3	Ericsson RRUS-12	AT&T
141.00	141.00	3	Ericsson RRUS-A2	AT&T
141.00	141.00	6	Powerwave LGP21901	AT&T
141.00	141.00	1	Raycap DC6-48-60-18-8F	AT&T
141.00	141.00	3	Powerwave 1001983	AT&T
141.00	141.00	1	Low Profile Platform	AT&T
129.00	134.75	1	RFS BA40-01	T. Of New Fairfield
129.00	129.00	1	Standoff Mount	T. Of New Fairfield
119.50	119.50	6	Antel	Verizon
119.50	121.10	3	Andrew SBNHH-1D65B	Verizon
119.50	120.00	3	ALU 2x90 AWS	Verizon
119.50	119.50	1	Andrew	Verizon
119.50	119.50	3	Andrew SBNHH-1D65B	Verizon
119.50	119.50	1	Low Profile Platform	Verizon
93.00	99.50	2	RFS 1142	T. Of New Fairfield
93.00	93.00	2	Single Arm Mount	T. Of New Fairfield
92.00	100.00	1	Sinclair SD210-SF3P2LDF	T. Of New Fairfield
92.00	92.00	1	Single Arm Mount	T. Of New Fairfield

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
3.00	149.00	Inside	1 5/8" Coax	T-Mobile
3.00	149.00	Inside	7/8" Coax	T. Of New Fairfield
94.00	149.00	Outside	7/8" Coax	T. Of New Fairfield
3.00	141.00	Inside	1 5/8" Coax	AT&T
3.00	141.00	Inside	1/2" Fiber	AT&T
3.00	141.00	Inside	3/4" DC	AT&T
3.00	129.00	Inside	7/8" Coax	T. Of New Fairfield
3.00	119.50	Inside	1 5/8" Coax	Verizon
3.00	119.50	Inside	Hybrid Fiber	Verizon
3.00	93.00	Inside	7/8" Coax	T. Of New Fairfield



Structure: CT13061-A-SBA

Type: Tapered
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.25534

8/9/2017

Page: 3



3.00 92.00 Inside 7/8" Coax T. Of New Fairfield

Anchor Bolts

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

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.7500	59.8	60.0	Clipped

Reactions

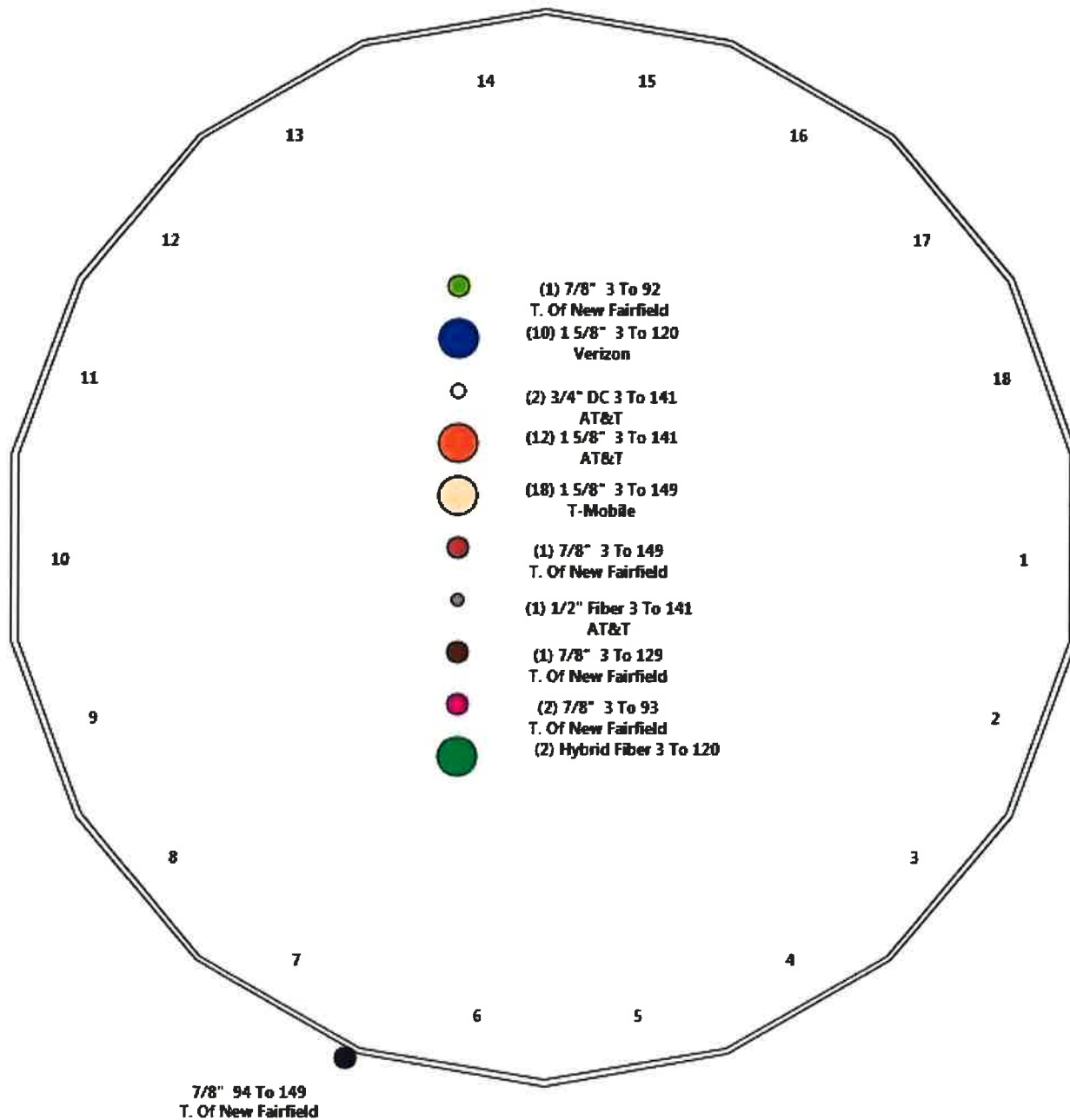
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 89 mph Wind	2589.5	24.1	38.3
0.9D + 1.6W 89 mph Wind	2562.1	24.1	28.7
1.2D + 1.0Di + 1.0Wi 50 mph Wind	903.1	8.5	58.8
1.2D + 1.0E	126.4	1.1	38.3
0.9D + 1.0E	125.0	1.1	28.7
1.0D + 1.0W 60 mph Wind	731.0	6.8	31.9

Structure: CT13061-A-SBA - Coax Line Placement

Type: Monopole
Site Name: New Fairfield
Height: 149.00 (ft)

8/9/2017

Page: 4



Shaft Properties

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
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	18	53.250	0.3125	65		0.00	8,772
2	18	53.500	0.3125	65	Slip	66.00	6,719
3	18	31.750	0.2500	65	Slip	48.00	2,393
4	18	20.000	0.1875	65	Flange	0.00	865
Total Shaft Weight:							18,749

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	55.92	0.00	55.15	21547.38	30.14	178.94	42.32	53.25	41.67	9291.37	22.47	135.4	0.255336
2	44.35	47.75	43.68	10703.92	23.62	141.93	30.69	101.25	30.13	3513.56	15.91	98.22	0.255336
3	32.21	97.25	25.36	3273.80	21.31	128.85	24.11	129.00	18.93	1361.18	15.59	96.43	0.255336
4	24.11	129.0	14.23	1028.93	21.26	128.57	19.00	149.00	11.20	500.59	16.46	101.3	0.255336

Load Summary

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
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	149.00	Lightning Rod	1	35.00	1.05	1.00	66.41	3.424	1.00	0.00	3.50
2	149.00	RFS BA1010	1	8.80	1.24	1.00	73.68	2.274	1.00	0.00	2.35
3	149.00	Commscope LNX-6515DS-VTM	3	49.80	11.45	0.84	279.70	14.695	0.84	0.00	0.00
4	149.00	RFS APXV18-209014	3	18.70	3.51	0.79	105.99	4.447	0.79	0.00	0.00
5	149.00	RFS APXV18-206517S-A20	3	26.50	5.17	0.79	129.30	7.299	0.79	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	11.00	0.56	0.67	21.78	1.209	0.67	0.00	0.00
7	149.00	Kathrein 782 11056	3	2.60	0.15	0.67	9.13	0.365	0.67	0.00	0.00
8	149.00	Low Profile Platform	1	1500.00	22.00	1.00	2808.91	39.662	1.00	0.00	0.00
9	149.00	Standoff Mount	1	60.00	1.80	1.00	180.42	5.885	1.00	0.00	0.00
10	141.00	Powerwave 7770	9	35.00	5.51	0.77	169.27	6.559	0.77	0.00	0.00
11	141.00	CCI HPA-65R-BUU-H6	3	50.70	9.66	0.83	297.23	11.018	0.83	0.00	0.00
12	141.00	Powerwave LGP21401	9	14.10	1.05	0.67	38.96	1.726	0.67	0.00	0.00
13	141.00	Powerwave TT19-08BP-111-001	3	16.00	0.55	0.67	36.13	1.057	0.67	0.00	0.00
14	141.00	Ericsson RRUS-11	3	55.00	2.52	0.67	121.06	3.150	0.67	0.00	0.00
15	141.00	Ericsson RRUS-12	3	50.00	3.15	0.67	111.58	4.399	0.67	0.00	0.00
16	141.00	Ericsson RRUS-A2	3	15.00	1.57	0.67	40.41	2.388	0.67	0.00	0.00
17	141.00	Powerwave LGP21901	6	2.20	0.23	0.67	5.26	0.596	0.67	0.00	0.00
18	141.00	Raycap DC6-48-60-18-8F	1	32.80	2.20	0.67	118.86	3.345	0.67	0.00	0.00
19	141.00	Powerwave 1001983	3	2.90	0.11	0.67	6.55	0.298	0.67	0.00	0.00
20	141.00	Low Profile Platform	1	1500.00	22.00	1.00	2801.76	39.565	1.00	0.00	0.00
21	129.00	RFS BA40-01	1	32.00	3.45	1.00	96.87	10.079	1.00	0.00	5.75
22	129.00	Standoff Mount	1	60.00	1.80	1.00	178.71	5.827	1.00	0.00	0.00
23	119.50	Antel LPA-80080-4CF-EDIN-0	6	12.00	5.40	0.74	125.12	7.218	0.74	0.00	0.00
24	119.50	Andrew SBNHH-1D65B (121.1)	3	40.00	8.16	0.83	237.91	9.430	0.83	0.00	1.60
25	119.50	ALU 2x90 AWS	3	64.00	2.47	0.67	156.14	3.599	0.67	0.00	0.50
26	119.50	Andrew RC2DC-3315-PF-48	1	32.00	3.79	0.67	144.22	4.724	0.67	0.00	0.00
27	119.50	Andrew SBNHH-1D65B (119.5)	3	40.00	8.16	0.83	237.91	9.430	0.83	0.00	0.00
28	119.50	Low Profile Platform	1	1500.00	22.00	1.00	2780.56	39.279	1.00	0.00	0.00
29	93.00	RFS 1142	2	10.00	3.90	1.00	29.15	12.347	1.00	0.00	6.50
30	93.00	Single Arm Mount	2	60.00	1.80	1.00	174.92	5.699	1.00	0.00	0.00
31	92.00	Sinclair SD210-SF3P2LDF	1	18.50	4.80	1.00	75.64	11.543	1.00	0.00	8.00
32	92.00	Single Arm Mount	1	60.00	1.80	1.00	174.80	5.694	1.00	0.00	0.00
Totals:			88	6,832.80			17,937.79				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
3.00	149.00	(18) 1 5/8" Coax	0.00	Inside
3.00	149.00	(1) 7/8" Coax	0.00	Inside
94.00	149.00	(1) 7/8" Coax	1.00	Outside
3.00	141.00	(12) 1 5/8" Coax	0.00	Inside
3.00	141.00	(1) 1/2" Fiber	0.00	Inside
3.00	141.00	(2) 3/4" DC	0.00	Inside
3.00	129.00	(1) 7/8" Coax	0.00	Inside
3.00	119.50	(10) 1 5/8" Coax	0.00	Inside
3.00	119.50	(2) Hybrid Fiber	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
3.00	93.00	(2) 7/8" Coax		0.00							
3.00	92.00	(1) 7/8" Coax		0.00							

Shaft Section Properties

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 8

Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.3125	55.920	55.154	21547.4	30.14	178.94	65.9	758.9	0.0
5.00		0.3125	54.643	53.887	20097.1	29.42	174.86	66.8	724.4	927.6
10.00		0.3125	53.367	52.621	18713.4	28.70	170.77	67.6	690.7	906.1
15.00		0.3125	52.090	51.355	17394.7	27.98	166.69	68.5	657.7	884.5
20.00		0.3125	50.813	50.089	16139.5	27.26	162.60	69.3	625.6	863.0
25.00		0.3125	49.537	48.822	14946.1	26.54	158.52	70.2	594.3	841.4
30.00		0.3125	48.260	47.556	13813.1	25.82	154.43	71.0	563.7	819.9
35.00		0.3125	46.983	46.290	12738.8	25.10	150.35	71.9	534.0	798.3
40.00		0.3125	45.707	45.024	11721.7	24.38	146.26	72.7	505.1	776.8
45.00		0.3125	44.430	43.757	10760.3	23.66	142.18	73.6	477.0	755.3
47.75	Bot - Section 2	0.3125	43.728	43.061	10254.6	23.26	139.93	74.0	461.9	406.2
50.00		0.3125	43.153	42.491	9852.9	22.94	138.09	74.4	449.7	659.8
53.25	Top - Section 1	0.3125	42.948	42.288	9712.3	22.82	137.43	0.0	0.0	937.6
55.00		0.3125	42.502	41.845	9410.1	22.57	136.00	74.9	436.1	250.5
60.00		0.3125	41.225	40.578	8581.4	21.85	131.92	75.7	410.0	701.2
65.00		0.3125	39.948	39.312	7802.9	21.13	127.83	76.5	384.7	679.6
70.00		0.3125	38.672	38.046	7072.9	20.41	123.75	77.4	360.2	658.1
75.00		0.3125	37.395	36.780	6389.9	19.69	119.66	78.2	336.6	636.5
80.00		0.3125	36.118	35.513	5752.4	18.97	115.58	79.1	313.7	615.0
85.00		0.3125	34.841	34.247	5158.8	18.25	111.49	79.9	291.6	593.4
90.00		0.3125	33.565	32.981	4607.4	17.53	107.41	80.8	270.4	571.9
92.00		0.3125	33.054	32.474	4398.4	17.24	105.77	81.1	262.1	222.7
93.00		0.3125	32.799	32.221	4296.3	17.10	104.96	81.3	258.0	110.1
95.00		0.3125	32.288	31.715	4096.9	16.81	103.32	81.6	249.9	217.6
97.25	Bot - Section 3	0.3125	31.714	31.145	3880.0	16.48	101.48	82.0	241.0	240.6
100.00		0.3125	31.011	30.448	3625.5	16.09	99.24	82.5	230.3	522.9
101.25	Top - Section 2	0.2500	31.192	24.552	2969.9	20.59	124.77	0.0	0.0	233.8
105.00		0.2500	30.235	23.792	2702.6	19.91	120.94	78.0	176.1	308.4
110.00		0.2500	28.958	22.779	2371.9	19.01	115.83	79.0	161.3	396.2
115.00		0.2500	27.681	21.766	2069.3	18.11	110.73	80.1	147.2	378.9
119.50		0.2500	26.532	20.854	1820.0	17.30	106.13	81.0	135.1	326.3
120.00		0.2500	26.405	20.753	1793.6	17.21	105.62	81.2	133.8	35.4
125.00		0.2500	25.128	19.740	1543.6	16.31	100.51	82.2	121.0	344.5
129.00	Top - Section 3	0.2500	24.107	18.930	1361.2	15.59	96.43	82.5	111.2	263.2
129.00	Bot - Section 4	0.1875	24.107	14.234	1028.9	20.79	128.57	76.4	84.1	
130.00		0.1875	23.851	14.082	996.3	21.02	127.21	76.7	82.3	48.2
135.00		0.1875	22.575	13.323	843.6	19.82	120.40	78.1	73.6	233.1
140.00		0.1875	21.298	12.563	707.4	18.62	113.59	79.5	65.4	220.2
141.00		0.1875	21.043	12.411	682.0	18.38	112.23	79.8	63.8	42.5
145.00		0.1875	20.021	11.803	586.6	17.42	106.78	80.9	57.7	164.8
149.00		0.1875	19.000	11.195	500.6	16.46	101.33	82.0	51.9	156.5

18748.6

Wind Loading - Shaft

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017

Page: 9



Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	16.374	18.01	388.27	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	16.374	18.01	379.41	0.650	0.000	5.00	23.389	15.20	438.1	0.0	1113.1
10.00		1.00	0.85	16.374	18.01	370.54	0.650	0.000	5.00	22.849	14.85	428.0	0.0	1087.3
15.00		1.00	0.86	16.576	18.23	363.90	0.650	0.000	5.00	22.309	14.50	423.1	0.0	1061.4
20.00		1.00	0.91	17.553	19.31	365.29	0.650	0.000	5.00	21.769	14.15	437.1	0.0	1035.6
25.00		1.00	0.95	18.360	20.20	364.21	0.650	0.000	5.00	21.229	13.80	445.9	0.0	1009.7
30.00		1.00	0.99	19.053	20.96	361.46	0.650	0.000	5.00	20.689	13.45	450.9	0.0	983.9
35.00		1.00	1.02	19.662	21.63	357.48	0.650	0.000	5.00	20.148	13.10	453.2	0.0	958.0
40.00		1.00	1.05	20.208	22.23	352.56	0.650	0.000	5.00	19.608	12.75	453.3	0.0	932.2
45.00		1.00	1.07	20.704	22.77	346.88	0.650	0.000	5.00	19.068	12.39	451.6	0.0	906.3
47.75	Bot - Section 2	1.00	1.09	20.958	23.05	343.50	0.650	0.000	2.75	10.257	6.67	245.9	0.0	487.4
50.00		1.00	1.10	21.158	23.27	340.60	0.650	0.000	2.25	8.390	5.45	203.1	0.0	791.7
53.25	Top - Section 1	1.00	1.11	21.435	23.58	336.23	0.650	0.000	3.25	11.925	7.75	292.4	0.0	1125.1
55.00		1.00	1.12	21.579	23.74	338.77	0.650	0.000	1.75	6.327	4.11	156.2	0.0	300.6
60.00		1.00	1.14	21.971	24.17	331.57	0.650	0.000	5.00	17.712	11.51	445.2	0.0	841.4
65.00		1.00	1.16	22.339	24.57	323.97	0.650	0.000	5.00	17.172	11.16	438.8	0.0	815.6
70.00		1.00	1.18	22.685	24.95	316.04	0.650	0.000	5.00	16.632	10.81	431.6	0.0	789.7
75.00		1.00	1.19	23.012	25.31	307.80	0.650	0.000	5.00	16.092	10.46	423.6	0.0	763.8
80.00		1.00	1.21	23.323	25.66	299.30	0.650	0.000	5.00	15.551	10.11	414.9	0.0	738.0
85.00		1.00	1.23	23.619	25.98	290.54	0.650	0.000	5.00	15.011	9.76	405.6	0.0	712.1
90.00		1.00	1.24	23.901	26.29	281.57	0.650	0.000	5.00	14.471	9.41	395.7	0.0	686.3
92.00	Appurtenance(s)	1.00	1.25	24.011	26.41	277.92	0.650	0.000	2.00	5.637	3.66	154.8	0.0	267.3
93.00	Appurtenance(s)	1.00	1.25	24.065	26.47	276.08	0.650	0.000	1.00	2.786	1.81	76.7	0.0	132.1
95.00		1.00	1.25	24.172	26.59	272.39	0.650	0.000	2.00	5.508	3.58	152.3	0.0	261.1
97.25	Bot - Section 3	1.00	1.26	24.290	26.72	268.19	0.650	0.000	2.25	6.093	3.96	169.3	0.0	288.8
100.00		1.00	1.27	24.432	26.88	263.02	0.650	0.000	2.75	7.414	4.82	207.2	0.0	627.5
101.25	Top - Section 2	1.00	1.27	24.495	26.94	260.65	0.650	0.000	1.25	3.316	2.16	92.9	0.0	280.6
105.00		1.00	1.28	24.682	27.15	257.74	0.650	0.000	3.75	9.746	6.33	275.2	0.0	370.1
110.00		1.00	1.29	24.922	27.41	248.06	0.650	0.000	5.00	12.522	8.14	357.0	0.0	475.4
115.00		1.00	1.31	25.155	27.67	238.22	0.650	0.000	5.00	11.982	7.79	344.8	0.0	454.7
119.50	Appurtenance(s)	1.00	1.32	25.357	27.89	229.25	0.650	0.000	4.50	10.322	6.71	299.4	0.0	391.6
120.00		1.00	1.32	25.379	27.92	228.25	0.650	0.000	0.50	1.120	0.73	32.5	0.0	42.5
125.00		1.00	1.33	25.596	28.16	218.14	0.650	0.000	5.00	10.902	7.09	319.2	0.0	413.4
129.00	Top - Section 3	1.00	1.34	25.765	28.34	209.96	0.650	0.000	4.00	8.332	5.42	245.6	0.0	315.8
130.00		1.00	1.34	25.807	28.39	207.91	0.650	0.000	1.00	2.029	1.32	59.9	0.0	57.8
135.00		1.00	1.35	26.011	28.61	197.55	0.650	0.000	5.00	9.821	6.38	292.3	0.0	279.8
140.00		1.00	1.36	26.210	28.83	187.09	0.650	0.000	5.00	9.281	6.03	278.3	0.0	264.2
141.00	Appurtenance(s)	1.00	1.36	26.249	28.87	184.99	0.650	0.000	1.00	1.791	1.16	53.8	0.0	51.0
145.00		1.00	1.37	26.403	29.04	176.52	0.650	0.000	4.00	6.950	4.52	209.9	0.0	197.7
149.00	Appurtenance(s)	1.00	1.38	26.553	29.21	168.00	0.650	0.000	4.00	6.604	4.29	200.6	0.0	187.8
Totals:									149.00			11,656.3		22,498.3

Discrete Appurtenance Forces

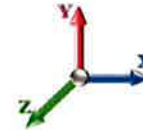
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 10

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

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	149.00	RFS APXV18-209014	3	26.553	29.209	0.79	1.00	8.32	67.32	0.000	0.000	388.76	0.00	0.00
2	149.00	Lightning Rod	1	26.683	29.351	1.00	1.00	1.05	42.00	0.000	3.500	49.31	0.00	172.58
3	149.00	RFS BA1010	1	26.640	29.304	1.00	1.00	1.24	10.56	0.000	2.350	58.14	0.00	136.63
4	149.00	Commscope	3	26.553	29.209	0.84	1.00	28.85	179.28	0.000	0.000	1348.46	0.00	0.00
5	149.00	Standoff Mount	1	26.553	29.209	1.00	1.00	1.80	72.00	0.000	0.000	84.12	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	26.553	29.209	0.60	0.90	1.01	39.60	0.000	0.000	47.34	0.00	0.00
7	149.00	Kathrein 782 11056	3	26.553	29.209	0.60	0.90	0.27	9.36	0.000	0.000	12.68	0.00	0.00
8	149.00	Low Profile Platform	1	26.553	29.209	1.00	1.00	22.00	1800.00	0.000	0.000	1028.14	0.00	0.00
9	149.00	RFS	3	26.553	29.209	0.79	1.00	12.25	95.40	0.000	0.000	572.62	0.00	0.00
10	141.00	Ericsson RRUS-A2	3	26.249	28.874	0.54	0.80	2.52	54.00	0.000	0.000	116.63	0.00	0.00
11	141.00	Ericsson RRUS-11	3	26.249	28.874	0.54	0.80	4.05	198.00	0.000	0.000	187.20	0.00	0.00
12	141.00	Ericsson RRUS-12	3	26.249	28.874	0.54	0.80	5.07	180.00	0.000	0.000	234.00	0.00	0.00
13	141.00	Powerwave 1001983	3	26.249	28.874	0.54	0.80	0.18	10.44	0.000	0.000	8.17	0.00	0.00
14	141.00	Powerwave LGP21901	6	26.249	28.874	0.54	0.80	0.74	15.84	0.000	0.000	34.17	0.00	0.00
15	141.00	Raycap DC6-48-60-18-8F	1	26.249	28.874	0.54	0.80	1.18	39.36	0.000	0.000	54.48	0.00	0.00
16	141.00	Low Profile Platform	1	26.249	28.874	1.00	1.00	22.00	1800.00	0.000	0.000	1016.35	0.00	0.00
17	141.00	Powerwave	3	26.249	28.874	0.54	0.80	0.88	57.60	0.000	0.000	40.86	0.00	0.00
18	141.00	CCI HPA-65R-BUU-H6	3	26.249	28.874	0.66	0.80	19.24	182.52	0.000	0.000	888.97	0.00	0.00
19	141.00	Powerwave 7770	9	26.249	28.874	0.62	0.80	30.55	378.00	0.000	0.000	1411.22	0.00	0.00
20	141.00	Powerwave LGP21401	9	26.249	28.874	0.54	0.80	5.07	152.28	0.000	0.000	234.00	0.00	0.00
21	129.00	Standoff Mount	1	25.765	28.342	1.00	1.00	1.80	72.00	0.000	0.000	81.62	0.00	0.00
22	129.00	RFS BA40-01	1	26.001	28.601	1.00	1.00	3.45	38.40	0.000	5.750	157.88	0.00	907.80
23	119.50	Andrew SBNHH-1D65B	3	25.427	27.970	0.66	0.80	16.25	144.00	0.000	1.600	727.44	0.00	1163.90
24	119.50	Antel	6	25.357	27.893	0.59	0.80	19.18	86.40	0.000	0.000	856.00	0.00	0.00
25	119.50	Low Profile Platform	1	25.357	27.893	1.00	1.00	22.00	1800.00	0.000	0.000	981.82	0.00	0.00
26	119.50	ALU 2x90 AWS	3	25.379	27.917	0.54	0.80	3.97	230.40	0.000	0.500	177.41	0.00	88.70
27	119.50	Andrew	1	25.357	27.893	0.54	0.80	2.03	38.40	0.000	0.000	90.66	0.00	0.00
28	119.50	Andrew SBNHH-1D65B	3	25.357	27.893	0.66	0.80	16.25	144.00	0.000	0.000	725.42	0.00	0.00
29	93.00	Single Arm Mount	2	24.065	26.472	1.00	1.00	3.60	144.00	0.000	0.000	152.48	0.00	0.00
30	93.00	RFS 1142	2	24.406	26.847	1.00	1.00	7.80	24.00	0.000	6.500	335.05	0.00	2177.83
31	92.00	Single Arm Mount	1	24.011	26.412	1.00	1.00	1.80	72.00	0.000	0.000	76.07	0.00	0.00
32	92.00	Sinclair	1	24.432	26.875	1.00	1.00	4.80	22.20	0.000	8.000	206.40	0.00	1651.20
Totals:								8,199.36				12,383.87		

Total Applied Force Summary

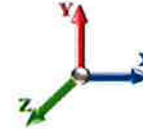
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 11

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		438.13	1226.79	0.00	0.00
10.00		428.02	1371.44	0.00	0.00
15.00		423.06	1345.58	0.00	0.00
20.00		437.14	1319.73	0.00	0.00
25.00		445.90	1293.88	0.00	0.00
30.00		450.94	1268.02	0.00	0.00
35.00		453.21	1242.17	0.00	0.00
40.00		453.31	1216.32	0.00	0.00
45.00		451.63	1190.47	0.00	0.00
47.75		245.93	643.74	0.00	0.00
50.00		203.08	919.58	0.00	0.00
53.25		292.44	1309.79	0.00	0.00
55.00		156.19	400.06	0.00	0.00
60.00		445.19	1125.56	0.00	0.00
65.00		438.83	1099.71	0.00	0.00
70.00		431.62	1073.86	0.00	0.00
75.00		423.62	1048.01	0.00	0.00
80.00		414.93	1022.15	0.00	0.00
85.00		405.60	996.30	0.00	0.00
90.00		395.69	970.45	0.00	0.00
92.00	(2) attachments	437.31	475.14	0.00	1651.20
93.00	(4) attachments	564.23	356.29	0.00	2177.83
95.00		152.30	370.99	0.00	0.00
97.25		169.31	412.42	0.00	0.00
100.00		207.23	778.63	0.00	0.00
101.25		92.93	349.27	0.00	0.00
105.00		275.19	576.23	0.00	0.00
110.00		357.02	750.21	0.00	0.00
115.00		344.80	729.53	0.00	0.00
119.50	(17) attachments	3858.16	3082.09	0.00	1252.60
120.00		32.51	62.39	0.00	0.00
125.00		319.22	612.57	0.00	0.00
129.00	(2) attachments	485.10	585.56	0.00	907.80
130.00		59.90	97.03	0.00	0.00
135.00		292.25	475.84	0.00	0.00
140.00		278.28	460.33	0.00	0.00
141.00	(44) attachments	4279.84	3158.24	0.00	0.00
145.00		209.91	290.10	0.00	0.00
149.00	(19) attachments	3790.19	2595.69	0.00	309.21
	Totals:	24,040.16	38,302.18	0.00	6,298.64

Linear Appurtenance Segment Forces (Factored)

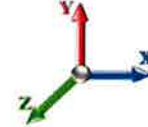
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 12

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

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)
95.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.017	0.000	24.172	0.00	0.00
97.25	7/8" Coax	Yes	2.25	0.000	1.11	0.21	0.00	0.034	0.000	24.290	0.00	0.00
100.00	7/8" Coax	Yes	2.75	0.000	1.11	0.25	0.00	0.035	0.000	24.432	0.00	0.00
101.25	7/8" Coax	Yes	1.25	0.000	1.11	0.12	0.00	0.035	0.000	24.495	0.00	0.00
105.00	7/8" Coax	Yes	3.75	0.000	1.11	0.35	0.00	0.036	0.000	24.682	0.00	0.00
110.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.037	0.000	24.922	0.00	0.00
115.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.039	0.000	25.155	0.00	0.00
119.50	7/8" Coax	Yes	4.50	0.000	1.11	0.42	0.00	0.040	0.000	25.357	0.00	0.00
120.00	7/8" Coax	Yes	0.50	0.000	1.11	0.05	0.00	0.041	0.000	25.379	0.00	0.00
125.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.042	0.000	25.596	0.00	0.00
129.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.044	0.000	25.765	0.00	0.00
130.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.046	0.000	25.807	0.00	0.00
135.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.047	0.000	26.011	0.00	0.00
140.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.050	0.000	26.210	0.00	0.00
141.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.052	0.000	26.249	0.00	0.00
145.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.053	0.000	26.403	0.00	0.00
149.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.056	0.000	26.553	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017
 Page: 13



Load Case: 1.2D + 1.6W 89 mph Wind

Iterations 25

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	-38.27	-24.10	0.00	-2589.4	0.00	2589.48	3273.57	1636.79	7496.53	3753.83	0.00	0.000	0.000	0.702
5.00	-36.97	-23.77	0.00	-2468.9	0.00	2468.99	3239.51	1619.75	7247.24	3629.01	0.09	-0.167	0.000	0.692
10.00	-35.53	-23.44	0.00	-2350.1	0.00	2350.16	3203.51	1601.76	6997.34	3503.87	0.36	-0.338	0.000	0.682
15.00	-34.12	-23.11	0.00	-2232.9	0.00	2232.97	3165.58	1582.79	6747.13	3378.58	0.80	-0.512	0.000	0.672
20.00	-32.73	-22.76	0.00	-2117.4	0.00	2117.42	3125.72	1562.86	6496.92	3253.29	1.44	-0.690	0.000	0.662
25.00	-31.37	-22.40	0.00	-2003.6	0.00	2003.61	3083.93	1541.97	6247.01	3128.15	2.26	-0.871	0.000	0.651
30.00	-30.04	-22.03	0.00	-1891.6	0.00	1891.61	3040.21	1520.10	5997.71	3003.31	3.27	-1.057	0.000	0.640
35.00	-28.73	-21.64	0.00	-1781.4	0.00	1781.48	2994.56	1497.28	5749.33	2878.94	4.48	-1.246	0.000	0.629
40.00	-27.46	-21.26	0.00	-1673.2	0.00	1673.27	2946.97	1473.49	5502.17	2755.17	5.88	-1.439	0.000	0.617
45.00	-26.22	-20.84	0.00	-1566.9	0.00	1566.99	2897.46	1448.73	5256.53	2632.17	7.50	-1.635	0.000	0.605
47.75	-25.55	-20.62	0.00	-1509.6	0.00	1509.67	2869.40	1434.70	5122.20	2564.91	8.47	-1.747	0.000	0.598
50.00	-24.60	-20.44	0.00	-1463.2	0.00	1463.27	2846.01	1423.00	5012.74	2510.09	9.32	-1.840	0.000	0.592
53.25	-23.26	-20.15	0.00	-1396.8	0.00	1396.84	2837.57	1418.79	4973.81	2490.60	10.62	-1.974	0.000	0.569
55.00	-22.82	-20.03	0.00	-1361.5	0.00	1361.59	2819.00	1409.50	4889.10	2448.18	11.35	-2.048	0.000	0.564
60.00	-21.64	-19.62	0.00	-1261.4	0.00	1261.43	2764.64	1382.32	4648.65	2327.78	13.61	-2.246	0.000	0.550
65.00	-20.49	-19.21	0.00	-1163.3	0.00	1163.34	2708.35	1354.17	4410.81	2208.68	16.07	-2.447	0.000	0.534
70.00	-19.37	-18.80	0.00	-1067.3	0.00	1067.30	2650.12	1325.06	4175.87	2091.04	18.74	-2.651	0.000	0.518
75.00	-18.28	-18.39	0.00	-973.31	0.00	973.31	2589.96	1294.98	3944.16	1975.01	21.62	-2.856	0.000	0.500
80.00	-17.22	-17.99	0.00	-881.35	0.00	881.35	2527.88	1263.94	3715.96	1860.74	24.72	-3.062	0.000	0.481
85.00	-16.18	-17.58	0.00	-791.42	0.00	791.42	2463.86	1231.93	3491.60	1748.39	28.04	-3.269	0.000	0.459
90.00	-15.19	-17.17	0.00	-703.50	0.00	703.50	2397.91	1198.95	3271.37	1638.12	31.58	-3.475	0.000	0.436
92.00	-14.73	-16.72	0.00	-667.51	0.00	667.51	2370.99	1185.49	3184.51	1594.62	33.05	-3.560	0.000	0.425
93.00	-14.39	-16.15	0.00	-648.61	0.00	648.61	2357.41	1178.70	3141.35	1573.01	33.80	-3.603	0.000	0.419
95.00	-14.00	-16.00	0.00	-616.31	0.00	616.31	2330.03	1165.01	3055.58	1530.06	35.33	-3.686	0.000	0.409
97.25	-13.57	-15.83	0.00	-580.31	0.00	580.31	2298.85	1149.42	2960.01	1482.20	37.08	-3.780	0.000	0.398
100.00	-12.79	-15.59	0.00	-536.79	0.00	536.79	2260.21	1130.11	2844.54	1424.39	39.29	-3.892	0.000	0.383
101.25	-12.42	-15.49	0.00	-517.31	0.00	517.31	1705.50	852.75	2167.94	1085.58	40.32	-3.944	0.000	0.484
105.00	-11.81	-15.22	0.00	-459.22	0.00	459.22	1669.73	834.87	2056.27	1029.66	43.48	-4.092	0.000	0.453
110.00	-11.04	-14.85	0.00	-383.14	0.00	383.14	1620.35	810.17	1909.79	956.31	47.88	-4.314	0.000	0.408
115.00	-10.29	-14.48	0.00	-308.92	0.00	308.92	1569.04	784.52	1766.36	884.49	52.51	-4.522	0.000	0.356
119.50	-7.51	-10.40	0.00	-242.51	0.00	242.51	1521.21	760.60	1640.13	821.29	56.85	-4.693	0.000	0.300
120.00	-7.43	-10.37	0.00	-237.31	0.00	237.31	1515.79	757.90	1626.29	814.35	57.34	-4.711	0.000	0.296
125.00	-6.82	-10.02	0.00	-185.44	0.00	185.44	1460.62	730.31	1489.87	746.04	62.36	-4.879	0.000	0.253
129.00	-6.27	-9.50	0.00	-144.45	0.00	144.45	1406.38	703.19	1375.06	688.55	66.50	-5.001	0.000	0.214
129.00	-6.27	-9.50	0.00	-144.45	0.00	144.45	978.70	489.35	961.93	481.68	66.50	-5.001	0.000	0.307
130.00	-6.16	-9.44	0.00	-134.96	0.00	134.96	971.83	485.92	944.91	473.15	67.55	-5.030	0.000	0.292
135.00	-5.69	-9.12	0.00	-87.77	0.00	87.77	936.33	468.17	860.89	431.08	72.90	-5.189	0.000	0.210
140.00	-5.25	-8.80	0.00	-42.18	0.00	42.18	898.90	449.45	778.95	390.05	78.40	-5.299	0.000	0.114
141.00	-2.50	-4.25	0.00	-33.38	0.00	33.38	891.19	445.59	762.84	381.99	79.51	-5.314	0.000	0.090
145.00	-2.23	-4.02	0.00	-16.37	0.00	16.37	859.54	429.77	699.40	350.22	83.97	-5.355	0.000	0.049
149.00	0.00	-3.79	0.00	-0.31	0.00	0.31	826.66	413.33	637.68	319.32	88.46	-5.372	0.000	0.001

Wind Loading - Shaft

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017
 Page: 14



Load Case: 0.9D + 1.6W 89 mph Wind

Iterations 24

Dead Load Factor 0.90
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		1.00	0.85	16.374	18.01	388.27	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	16.374	18.01	379.41	0.650	0.000	5.00	23.389	15.20	438.1	0.0	834.8
10.00		1.00	0.85	16.374	18.01	370.54	0.650	0.000	5.00	22.849	14.85	428.0	0.0	815.5
15.00		1.00	0.86	16.576	18.23	363.90	0.650	0.000	5.00	22.309	14.50	423.1	0.0	796.1
20.00		1.00	0.91	17.553	19.31	365.29	0.650	0.000	5.00	21.769	14.15	437.1	0.0	776.7
25.00		1.00	0.95	18.360	20.20	364.21	0.650	0.000	5.00	21.229	13.80	445.9	0.0	757.3
30.00		1.00	0.99	19.053	20.96	361.46	0.650	0.000	5.00	20.689	13.45	450.9	0.0	737.9
35.00		1.00	1.02	19.662	21.63	357.48	0.650	0.000	5.00	20.148	13.10	453.2	0.0	718.5
40.00		1.00	1.05	20.208	22.23	352.56	0.650	0.000	5.00	19.608	12.75	453.3	0.0	699.1
45.00		1.00	1.07	20.704	22.77	346.88	0.650	0.000	5.00	19.068	12.39	451.6	0.0	679.7
47.75	Bot - Section 2	1.00	1.09	20.958	23.05	343.50	0.650	0.000	2.75	10.257	6.67	245.9	0.0	365.6
50.00		1.00	1.10	21.158	23.27	340.60	0.650	0.000	2.25	8.390	5.45	203.1	0.0	593.8
53.25	Top - Section 1	1.00	1.11	21.435	23.58	336.23	0.650	0.000	3.25	11.925	7.75	292.4	0.0	843.8
55.00		1.00	1.12	21.579	23.74	338.77	0.650	0.000	1.75	6.327	4.11	156.2	0.0	225.4
60.00		1.00	1.14	21.971	24.17	331.57	0.650	0.000	5.00	17.712	11.51	445.2	0.0	631.1
65.00		1.00	1.16	22.339	24.57	323.97	0.650	0.000	5.00	17.172	11.16	438.8	0.0	611.7
70.00		1.00	1.18	22.685	24.95	316.04	0.650	0.000	5.00	16.632	10.81	431.6	0.0	592.3
75.00		1.00	1.19	23.012	25.31	307.80	0.650	0.000	5.00	16.092	10.46	423.6	0.0	572.9
80.00		1.00	1.21	23.323	25.66	299.30	0.650	0.000	5.00	15.551	10.11	414.9	0.0	553.5
85.00		1.00	1.23	23.619	25.98	290.54	0.650	0.000	5.00	15.011	9.76	405.6	0.0	534.1
90.00		1.00	1.24	23.901	26.29	281.57	0.650	0.000	5.00	14.471	9.41	395.7	0.0	514.7
92.00	Appurtenance(s)	1.00	1.25	24.011	26.41	277.92	0.650	0.000	2.00	5.637	3.66	154.8	0.0	200.5
93.00	Appurtenance(s)	1.00	1.25	24.065	26.47	276.08	0.650	0.000	1.00	2.786	1.81	76.7	0.0	99.1
95.00		1.00	1.25	24.172	26.59	272.39	0.650	0.000	2.00	5.508	3.58	152.3	0.0	195.8
97.25	Bot - Section 3	1.00	1.26	24.290	26.72	268.19	0.650	0.000	2.25	6.093	3.96	169.3	0.0	216.6
100.00		1.00	1.27	24.432	26.88	263.02	0.650	0.000	2.75	7.414	4.82	207.2	0.0	470.6
101.25	Top - Section 2	1.00	1.27	24.495	26.94	260.65	0.650	0.000	1.25	3.316	2.16	92.9	0.0	210.4
105.00		1.00	1.28	24.682	27.15	257.74	0.650	0.000	3.75	9.746	6.33	275.2	0.0	277.6
110.00		1.00	1.29	24.922	27.41	248.06	0.650	0.000	5.00	12.522	8.14	357.0	0.0	356.6
115.00		1.00	1.31	25.155	27.67	238.22	0.650	0.000	5.00	11.982	7.79	344.8	0.0	341.0
119.50	Appurtenance(s)	1.00	1.32	25.357	27.89	229.25	0.650	0.000	4.50	10.322	6.71	299.4	0.0	293.7
120.00		1.00	1.32	25.379	27.92	228.25	0.650	0.000	0.50	1.120	0.73	32.5	0.0	31.9
125.00		1.00	1.33	25.596	28.16	218.14	0.650	0.000	5.00	10.902	7.09	319.2	0.0	310.0
129.00	Top - Section 3	1.00	1.34	25.765	28.34	209.96	0.650	0.000	4.00	8.332	5.42	245.6	0.0	236.9
130.00		1.00	1.34	25.807	28.39	207.91	0.650	0.000	1.00	2.029	1.32	59.9	0.0	43.4
135.00		1.00	1.35	26.011	28.61	197.55	0.650	0.000	5.00	9.821	6.38	292.3	0.0	209.8
140.00		1.00	1.36	26.210	28.83	187.09	0.650	0.000	5.00	9.281	6.03	278.3	0.0	198.2
141.00	Appurtenance(s)	1.00	1.36	26.249	28.87	184.99	0.650	0.000	1.00	1.791	1.16	53.8	0.0	38.2
145.00		1.00	1.37	26.403	29.04	176.52	0.650	0.000	4.00	6.950	4.52	209.9	0.0	148.3
149.00	Appurtenance(s)	1.00	1.38	26.553	29.21	168.00	0.650	0.000	4.00	6.604	4.29	200.6	0.0	140.9
Totals:									149.00			11,656.3	16,873.8	

Discrete Appurtenance Forces

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

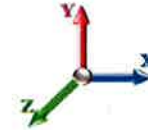
8/9/2017
 Page: 15



Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60

Iterations 24



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	149.00	RFS APXV18-209014	3	26.553	29.209	0.79	1.00	8.32	50.49	0.000	0.000	388.76	0.00	0.00
2	149.00	Lightning Rod	1	26.683	29.351	1.00	1.00	1.05	31.50	0.000	3.500	49.31	0.00	172.58
3	149.00	RFS BA1010	1	26.640	29.304	1.00	1.00	1.24	7.92	0.000	2.350	58.14	0.00	136.63
4	149.00	Commscope	3	26.553	29.209	0.84	1.00	28.85	134.46	0.000	0.000	1348.46	0.00	0.00
5	149.00	Standoff Mount	1	26.553	29.209	1.00	1.00	1.80	54.00	0.000	0.000	84.12	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	26.553	29.209	0.60	0.90	1.01	29.70	0.000	0.000	47.34	0.00	0.00
7	149.00	Kathrein 782 11056	3	26.553	29.209	0.60	0.90	0.27	7.02	0.000	0.000	12.68	0.00	0.00
8	149.00	Low Profile Platform	1	26.553	29.209	1.00	1.00	22.00	1350.00	0.000	0.000	1028.14	0.00	0.00
9	149.00	RFS	3	26.553	29.209	0.79	1.00	12.25	71.55	0.000	0.000	572.62	0.00	0.00
10	141.00	Ericsson RRUS-A2	3	26.249	28.874	0.54	0.80	2.52	40.50	0.000	0.000	116.63	0.00	0.00
11	141.00	Ericsson RRUS-11	3	26.249	28.874	0.54	0.80	4.05	148.50	0.000	0.000	187.20	0.00	0.00
12	141.00	Ericsson RRUS-12	3	26.249	28.874	0.54	0.80	5.07	135.00	0.000	0.000	234.00	0.00	0.00
13	141.00	Powerwave 1001983	3	26.249	28.874	0.54	0.80	0.18	7.83	0.000	0.000	8.17	0.00	0.00
14	141.00	Powerwave LGP21901	6	26.249	28.874	0.54	0.80	0.74	11.88	0.000	0.000	34.17	0.00	0.00
15	141.00	Raycap DC6-48-60-18-8F	1	26.249	28.874	0.54	0.80	1.18	29.52	0.000	0.000	54.48	0.00	0.00
16	141.00	Low Profile Platform	1	26.249	28.874	1.00	1.00	22.00	1350.00	0.000	0.000	1016.35	0.00	0.00
17	141.00	Powerwave	3	26.249	28.874	0.54	0.80	0.88	43.20	0.000	0.000	40.86	0.00	0.00
18	141.00	CCI HPA-65R-BUU-H6	3	26.249	28.874	0.66	0.80	19.24	136.89	0.000	0.000	888.97	0.00	0.00
19	141.00	Powerwave 7770	9	26.249	28.874	0.62	0.80	30.55	283.50	0.000	0.000	1411.22	0.00	0.00
20	141.00	Powerwave LGP21401	9	26.249	28.874	0.54	0.80	5.07	114.21	0.000	0.000	234.00	0.00	0.00
21	129.00	Standoff Mount	1	25.765	28.342	1.00	1.00	1.80	54.00	0.000	0.000	81.62	0.00	0.00
22	129.00	RFS BA40-01	1	26.001	28.601	1.00	1.00	3.45	28.80	0.000	5.750	157.88	0.00	907.80
23	119.50	Andrew SBNHH-1D65B	3	25.427	27.970	0.66	0.80	16.25	108.00	0.000	1.600	727.44	0.00	1163.90
24	119.50	Antel	6	25.357	27.893	0.59	0.80	19.18	64.80	0.000	0.000	856.00	0.00	0.00
25	119.50	Low Profile Platform	1	25.357	27.893	1.00	1.00	22.00	1350.00	0.000	0.000	981.82	0.00	0.00
26	119.50	ALU 2x90 AWS	3	25.379	27.917	0.54	0.80	3.97	172.80	0.000	0.500	177.41	0.00	88.70
27	119.50	Andrew	1	25.357	27.893	0.54	0.80	2.03	28.80	0.000	0.000	90.66	0.00	0.00
28	119.50	Andrew SBNHH-1D65B	3	25.357	27.893	0.66	0.80	16.25	108.00	0.000	0.000	725.42	0.00	0.00
29	93.00	Single Arm Mount	2	24.065	26.472	1.00	1.00	3.60	108.00	0.000	0.000	152.48	0.00	0.00
30	93.00	RFS 1142	2	24.406	26.847	1.00	1.00	7.80	18.00	0.000	6.500	335.05	0.00	2177.83
31	92.00	Single Arm Mount	1	24.011	26.412	1.00	1.00	1.80	54.00	0.000	0.000	76.07	0.00	0.00
32	92.00	Sinclair	1	24.432	26.875	1.00	1.00	4.80	16.65	0.000	8.000	206.40	0.00	1651.20
Totals:								6,149.52				12,383.87		

Total Applied Force Summary

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 16

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		438.13	920.09	0.00	0.00
10.00		428.02	1028.58	0.00	0.00
15.00		423.06	1009.19	0.00	0.00
20.00		437.14	989.80	0.00	0.00
25.00		445.90	970.41	0.00	0.00
30.00		450.94	951.02	0.00	0.00
35.00		453.21	931.63	0.00	0.00
40.00		453.31	912.24	0.00	0.00
45.00		451.63	892.85	0.00	0.00
47.75		245.93	482.80	0.00	0.00
50.00		203.08	689.68	0.00	0.00
53.25		292.44	982.34	0.00	0.00
55.00		156.19	300.04	0.00	0.00
60.00		445.19	844.17	0.00	0.00
65.00		438.83	824.78	0.00	0.00
70.00		431.62	805.39	0.00	0.00
75.00		423.62	786.00	0.00	0.00
80.00		414.93	766.61	0.00	0.00
85.00		405.60	747.22	0.00	0.00
90.00		395.69	727.84	0.00	0.00
92.00	(2) attachments	437.31	356.36	0.00	1651.20
93.00	(4) attachments	564.23	267.22	0.00	2177.83
95.00		152.30	278.24	0.00	0.00
97.25		169.31	309.32	0.00	0.00
100.00		207.23	583.97	0.00	0.00
101.25		92.93	261.95	0.00	0.00
105.00		275.19	432.17	0.00	0.00
110.00		357.02	562.66	0.00	0.00
115.00		344.80	547.15	0.00	0.00
119.50	(17) attachments	3858.16	2311.57	0.00	1252.60
120.00		32.51	46.80	0.00	0.00
125.00		319.22	459.42	0.00	0.00
129.00	(2) attachments	485.10	439.17	0.00	907.80
130.00		59.90	72.77	0.00	0.00
135.00		292.25	356.88	0.00	0.00
140.00		278.28	345.25	0.00	0.00
141.00	(44) attachments	4279.84	2368.68	0.00	0.00
145.00		209.91	217.58	0.00	0.00
149.00	(19) attachments	3790.19	1946.77	0.00	309.21
	Totals:	24,040.16	28,726.63	0.00	6,298.64

Linear Appurtenance Segment Forces (Factored)

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Page: 17
	Struct Class: II	



Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

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)
95.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.017	0.000	24.172	0.00	0.00
97.25	7/8" Coax	Yes	2.25	0.000	1.11	0.21	0.00	0.034	0.000	24.290	0.00	0.00
100.00	7/8" Coax	Yes	2.75	0.000	1.11	0.25	0.00	0.035	0.000	24.432	0.00	0.00
101.25	7/8" Coax	Yes	1.25	0.000	1.11	0.12	0.00	0.035	0.000	24.495	0.00	0.00
105.00	7/8" Coax	Yes	3.75	0.000	1.11	0.35	0.00	0.036	0.000	24.682	0.00	0.00
110.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.037	0.000	24.922	0.00	0.00
115.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.039	0.000	25.155	0.00	0.00
119.50	7/8" Coax	Yes	4.50	0.000	1.11	0.42	0.00	0.040	0.000	25.357	0.00	0.00
120.00	7/8" Coax	Yes	0.50	0.000	1.11	0.05	0.00	0.041	0.000	25.379	0.00	0.00
125.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.042	0.000	25.596	0.00	0.00
129.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.044	0.000	25.765	0.00	0.00
130.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.046	0.000	25.807	0.00	0.00
135.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.047	0.000	26.011	0.00	0.00
140.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.050	0.000	26.210	0.00	0.00
141.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.052	0.000	26.249	0.00	0.00
145.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.053	0.000	26.403	0.00	0.00
149.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.056	0.000	26.553	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

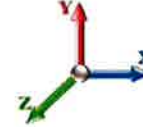
Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017
 Page: 18



Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 24

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-28.69	-24.08	0.00	-2562.0	0.00	2562.09	3273.57	1636.79	7496.53	3753.83	0.00	0.000	0.000	0.692
5.00	-27.70	-23.72	0.00	-2441.6	0.00	2441.68	3239.51	1619.75	7247.24	3629.01	0.09	-0.165	0.000	0.682
10.00	-26.61	-23.37	0.00	-2323.0	0.00	2323.07	3203.51	1601.76	6997.34	3503.87	0.35	-0.334	0.000	0.672
15.00	-25.53	-23.02	0.00	-2206.2	0.00	2206.23	3165.58	1582.79	6747.13	3378.58	0.80	-0.506	0.000	0.661
20.00	-24.48	-22.65	0.00	-2091.1	0.00	2091.14	3125.72	1562.86	6496.92	3253.29	1.42	-0.682	0.000	0.651
25.00	-23.44	-22.26	0.00	-1977.9	0.00	1977.92	3083.93	1541.97	6247.01	3128.15	2.23	-0.861	0.000	0.640
30.00	-22.43	-21.87	0.00	-1866.6	0.00	1866.62	3040.21	1520.10	5997.71	3003.31	3.23	-1.044	0.000	0.629
35.00	-21.43	-21.47	0.00	-1757.2	0.00	1757.29	2994.56	1497.28	5749.33	2878.94	4.42	-1.231	0.000	0.618
40.00	-20.46	-21.06	0.00	-1649.9	0.00	1649.97	2946.97	1473.49	5502.17	2755.17	5.81	-1.421	0.000	0.606
45.00	-19.53	-20.64	0.00	-1544.6	0.00	1544.67	2897.46	1448.73	5256.53	2632.17	7.41	-1.615	0.000	0.594
47.75	-19.02	-20.41	0.00	-1487.9	0.00	1487.92	2869.40	1434.70	5122.20	2564.91	8.37	-1.725	0.000	0.587
50.00	-18.29	-20.22	0.00	-1442.0	0.00	1442.00	2846.01	1423.00	5012.74	2510.09	9.21	-1.816	0.000	0.581
53.25	-17.29	-19.93	0.00	-1376.2	0.00	1376.28	2837.57	1418.79	4973.81	2490.60	10.49	-1.949	0.000	0.559
55.00	-16.94	-19.80	0.00	-1341.4	0.00	1341.41	2819.00	1409.50	4889.10	2448.18	11.22	-2.021	0.000	0.554
60.00	-16.05	-19.38	0.00	-1242.4	0.00	1242.41	2764.64	1382.32	4648.65	2327.78	13.44	-2.217	0.000	0.540
65.00	-15.18	-18.96	0.00	-1145.5	0.00	1145.51	2708.35	1354.17	4410.81	2208.68	15.87	-2.415	0.000	0.524
70.00	-14.33	-18.55	0.00	-1050.7	0.00	1050.70	2650.12	1325.06	4175.87	2091.04	18.50	-2.615	0.000	0.508
75.00	-13.50	-18.13	0.00	-957.98	0.00	957.98	2589.96	1294.98	3944.16	1975.01	21.35	-2.817	0.000	0.490
80.00	-12.69	-17.72	0.00	-867.32	0.00	867.32	2527.88	1263.94	3715.96	1860.74	24.41	-3.020	0.000	0.471
85.00	-11.91	-17.32	0.00	-778.70	0.00	778.70	2463.86	1231.93	3491.60	1748.39	27.68	-3.223	0.000	0.450
90.00	-11.16	-16.91	0.00	-692.09	0.00	692.09	2397.91	1198.95	3271.37	1638.12	31.16	-3.426	0.000	0.427
92.00	-10.81	-16.47	0.00	-656.62	0.00	656.62	2370.99	1185.49	3184.51	1594.62	32.61	-3.510	0.000	0.417
93.00	-10.56	-15.90	0.00	-637.98	0.00	637.98	2357.41	1178.70	3141.35	1573.01	33.35	-3.552	0.000	0.410
95.00	-10.27	-15.74	0.00	-606.18	0.00	606.18	2330.03	1165.01	3055.58	1530.06	34.86	-3.634	0.000	0.401
97.25	-9.95	-15.57	0.00	-570.76	0.00	570.76	2298.85	1149.42	2960.01	1482.20	36.59	-3.726	0.000	0.390
100.00	-9.36	-15.34	0.00	-527.94	0.00	527.94	2260.21	1130.11	2844.54	1424.39	38.77	-3.837	0.000	0.375
101.25	-9.07	-15.25	0.00	-508.77	0.00	508.77	1705.50	852.75	2167.94	1085.58	39.78	-3.888	0.000	0.474
105.00	-8.61	-14.97	0.00	-451.60	0.00	451.60	1669.73	834.87	2056.27	1029.66	42.89	-4.033	0.000	0.444
110.00	-8.03	-14.60	0.00	-376.75	0.00	376.75	1620.35	810.17	1909.79	956.31	47.23	-4.251	0.000	0.399
115.00	-7.46	-14.24	0.00	-303.75	0.00	303.75	1569.04	784.52	1766.36	884.49	51.79	-4.455	0.000	0.348
119.50	-5.45	-10.22	0.00	-238.41	0.00	238.41	1521.21	760.60	1640.13	821.29	56.07	-4.624	0.000	0.294
120.00	-5.38	-10.19	0.00	-233.30	0.00	233.30	1515.79	757.90	1626.29	814.35	56.56	-4.642	0.000	0.290
125.00	-4.93	-9.85	0.00	-182.34	0.00	182.34	1460.62	730.31	1489.87	746.04	61.50	-4.807	0.000	0.248
129.00	-4.52	-9.33	0.00	-142.03	0.00	142.03	1406.38	703.19	1375.06	688.55	65.58	-4.927	0.000	0.210
129.00	-4.52	-9.33	0.00	-142.03	0.00	142.03	978.70	489.35	961.93	481.68	65.58	-4.927	0.000	0.300
130.00	-4.44	-9.28	0.00	-132.70	0.00	132.70	971.83	485.92	944.91	473.15	66.61	-4.955	0.000	0.285
135.00	-4.09	-8.96	0.00	-86.32	0.00	86.32	936.33	468.17	860.89	431.08	71.89	-5.112	0.000	0.205
140.00	-3.76	-8.66	0.00	-41.51	0.00	41.51	898.90	449.45	778.95	390.05	77.30	-5.220	0.000	0.111
141.00	-1.79	-4.18	0.00	-32.85	0.00	32.85	891.19	445.59	762.84	381.99	78.39	-5.234	0.000	0.088
145.00	-1.59	-3.95	0.00	-16.12	0.00	16.12	859.54	429.77	699.40	350.22	82.79	-5.275	0.000	0.048
149.00	0.00	-3.79	0.00	-0.31	0.00	0.31	826.66	413.33	637.68	319.32	87.21	-5.291	0.000	0.001

Wind Loading - Shaft

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017

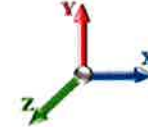
Page: 19



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

Iterations 24

Dead Load Factor 1.20
Wind Load Factor 1.00



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 (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.168	5.68	0.00	1.200	1.057	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.265	5.00	24.443	29.33	166.7	443.0	1556.1
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.344	5.00	23.969	28.76	163.5	460.6	1547.9
15.00		1.00	0.86	5.232	5.76	0.00	1.200	1.395	5.00	23.472	28.17	162.1	467.5	1528.9
20.00		1.00	0.91	5.540	6.09	0.00	1.200	1.434	5.00	22.964	27.56	167.9	469.2	1504.8
25.00		1.00	0.95	5.795	6.37	0.00	1.200	1.465	5.00	22.449	26.94	171.7	467.9	1477.6
30.00		1.00	0.99	6.013	6.61	0.00	1.200	1.491	5.00	21.931	26.32	174.1	464.5	1448.4
35.00		1.00	1.02	6.206	6.83	0.00	1.200	1.513	5.00	21.409	25.69	175.4	459.6	1417.6
40.00		1.00	1.05	6.378	7.02	0.00	1.200	1.533	5.00	20.886	25.06	175.8	453.6	1385.7
45.00		1.00	1.07	6.534	7.19	0.00	1.200	1.551	5.00	20.360	24.43	175.6	446.6	1352.9
47.75 Bot - Section 2		1.00	1.09	6.615	7.28	0.00	1.200	1.560	2.75	10.972	13.17	95.8	243.3	730.8
50.00		1.00	1.10	6.678	7.35	0.00	1.200	1.567	2.25	8.977	10.77	79.1	200.2	991.9
53.25 Top - Section 1		1.00	1.11	6.765	7.44	0.00	1.200	1.576	3.25	12.779	15.34	114.1	285.8	1410.8
55.00		1.00	1.12	6.811	7.49	0.00	1.200	1.581	1.75	6.788	8.15	61.0	152.8	453.4
60.00		1.00	1.14	6.934	7.63	0.00	1.200	1.595	5.00	19.041	22.85	174.3	427.8	1269.2
65.00		1.00	1.16	7.050	7.76	0.00	1.200	1.608	5.00	18.512	22.21	172.3	418.4	1234.0
70.00		1.00	1.18	7.160	7.88	0.00	1.200	1.619	5.00	17.981	21.58	169.9	408.6	1198.3
75.00		1.00	1.19	7.263	7.99	0.00	1.200	1.631	5.00	17.450	20.94	167.3	398.5	1162.3
80.00		1.00	1.21	7.361	8.10	0.00	1.200	1.641	5.00	16.919	20.30	164.4	388.0	1126.0
85.00		1.00	1.23	7.454	8.20	0.00	1.200	1.651	5.00	16.387	19.66	161.2	377.2	1089.4
90.00		1.00	1.24	7.544	8.30	0.00	1.200	1.660	5.00	15.855	19.03	157.9	366.2	1052.5
92.00 Appurtenance(s)		1.00	1.25	7.578	8.34	0.00	1.200	1.664	2.00	6.192	7.43	61.9	144.7	412.0
93.00 Appurtenance(s)		1.00	1.25	7.595	8.35	0.00	1.200	1.666	1.00	3.064	3.68	30.7	71.9	204.0
95.00		1.00	1.25	7.629	8.39	0.00	1.200	1.669	2.00	6.064	7.28	61.1	142.0	403.0
97.25 Bot - Section 3		1.00	1.26	7.666	8.43	0.00	1.200	1.673	2.25	6.720	8.06	68.0	157.4	446.1
100.00		1.00	1.27	7.711	8.48	0.00	1.200	1.678	2.75	8.183	9.82	83.3	191.7	819.2
101.25 Top - Section 2		1.00	1.27	7.731	8.50	0.00	1.200	1.680	1.25	3.666	4.40	37.4	86.4	367.0
105.00		1.00	1.28	7.790	8.57	0.00	1.200	1.686	3.75	10.800	12.96	111.0	252.7	622.8
110.00		1.00	1.29	7.866	8.65	0.00	1.200	1.693	5.00	13.933	16.72	144.7	325.0	800.4
115.00		1.00	1.31	7.939	8.73	0.00	1.200	1.701	5.00	13.399	16.08	140.4	312.9	767.6
119.50 Appurtenance(s)		1.00	1.32	8.003	8.80	0.00	1.200	1.707	4.50	11.602	13.92	122.6	271.7	663.3
120.00		1.00	1.32	8.010	8.81	0.00	1.200	1.708	0.50	1.262	1.51	13.3	30.1	72.5
125.00		1.00	1.33	8.079	8.89	0.00	1.200	1.715	5.00	12.331	14.80	131.5	288.2	701.6
129.00 Top - Section 3		1.00	1.34	8.132	8.95	0.00	1.200	1.720	4.00	9.479	11.38	101.8	222.5	538.3
130.00		1.00	1.34	8.145	8.96	0.00	1.200	1.722	1.00	2.316	2.78	24.9	55.1	112.9
135.00		1.00	1.35	8.210	9.03	0.00	1.200	1.728	5.00	11.261	13.51	122.0	262.9	542.7
140.00		1.00	1.36	8.272	9.10	0.00	1.200	1.734	5.00	10.727	12.87	117.1	250.1	514.3
141.00 Appurtenance(s)		1.00	1.36	8.285	9.11	0.00	1.200	1.736	1.00	2.081	2.50	22.8	49.5	100.5
145.00		1.00	1.37	8.333	9.17	0.00	1.200	1.741	4.00	8.110	9.73	89.2	189.7	387.4
149.00 Appurtenance(s)		1.00	1.38	8.381	9.22	0.00	1.200	1.745	4.00	7.767	9.32	85.9	181.3	369.1
Totals:									149.00			4,620.0	33,783.6	

Discrete Appurtenance Forces

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017

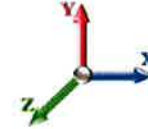
Page: 20



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

Iterations 24

Dead Load Factor 1.20
Wind Load Factor 1.00



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	149.00	RFS APXV18-209014	3	8.381	9.219	0.79	1.00	10.54	329.20	0.000	0.000	97.16	0.00	0.00
2	149.00	Lightning Rod	1	8.421	9.264	1.00	1.00	3.42	64.41	0.000	3.500	31.71	0.00	111.00
3	149.00	RFS BA1010	1	8.408	9.249	1.00	1.00	2.27	75.44	0.000	2.350	21.03	0.00	49.43
4	149.00	Commscope	3	8.381	9.219	0.84	1.00	37.03	671.28	0.000	0.000	341.39	0.00	0.00
5	149.00	Standoff Mount	1	8.381	9.219	1.00	1.00	5.88	189.42	0.000	0.000	54.25	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	8.381	9.219	0.60	0.90	2.19	62.64	0.000	0.000	20.16	0.00	0.00
7	149.00	Kathrein 782 11056	3	8.381	9.219	0.60	0.90	0.66	23.26	0.000	0.000	6.09	0.00	0.00
8	149.00	Low Profile Platform	1	8.381	9.219	1.00	1.00	39.66	2808.91	0.000	0.000	365.63	0.00	0.00
9	149.00	RFS	3	8.381	9.219	0.79	1.00	17.30	315.60	0.000	0.000	159.48	0.00	0.00
10	141.00	Ericsson RRUS-A2	3	8.285	9.113	0.54	0.80	3.84	81.03	0.000	0.000	34.99	0.00	0.00
11	141.00	Ericsson RRUS-11	3	8.285	9.113	0.54	0.80	5.06	352.38	0.000	0.000	46.16	0.00	0.00
12	141.00	Ericsson RRUS-12	3	8.285	9.113	0.54	0.80	7.07	271.15	0.000	0.000	64.46	0.00	0.00
13	141.00	Powerwave 1001983	3	8.285	9.113	0.54	0.80	0.48	12.38	0.000	0.000	4.37	0.00	0.00
14	141.00	Powerwave LGP21901	6	8.285	9.113	0.54	0.80	1.92	1.20	0.000	0.000	17.47	0.00	0.00
15	141.00	Raycap DC6-48-60-18-8F	1	8.285	9.113	0.54	0.80	1.79	123.12	0.000	0.000	16.34	0.00	0.00
16	141.00	Low Profile Platform	1	8.285	9.113	1.00	1.00	39.57	2801.76	0.000	0.000	360.55	0.00	0.00
17	141.00	Powerwave	3	8.285	9.113	0.54	0.80	1.70	100.58	0.000	0.000	15.48	0.00	0.00
18	141.00	CCI HPA-65R-BUU-H6	3	8.285	9.113	0.66	0.80	21.95	922.10	0.000	0.000	200.02	0.00	0.00
19	141.00	Powerwave 7770	9	8.285	9.113	0.62	0.80	36.36	1586.41	0.000	0.000	331.37	0.00	0.00
20	141.00	Powerwave LGP21401	9	8.285	9.113	0.54	0.80	8.33	312.16	0.000	0.000	75.90	0.00	0.00
21	129.00	Standoff Mount	1	8.132	8.945	1.00	1.00	5.83	187.71	0.000	0.000	52.12	0.00	0.00
22	129.00	RFS BA40-01	1	8.206	9.027	1.00	1.00	10.08	27.27	0.000	5.750	90.98	0.00	523.14
23	119.50	Andrew SBNHH-1D65B	3	8.025	8.828	0.66	0.80	18.78	737.73	0.000	1.600	165.83	0.00	265.32
24	119.50	Antel	6	8.003	8.803	0.59	0.80	25.64	566.49	0.000	0.000	225.71	0.00	0.00
25	119.50	Low Profile Platform	1	8.003	8.803	1.00	1.00	39.28	2780.56	0.000	0.000	345.79	0.00	0.00
26	119.50	ALU 2x90 AWS	3	8.010	8.811	0.54	0.80	5.79	485.52	0.000	0.500	50.98	0.00	25.49
27	119.50	Andrew	1	8.003	8.803	0.54	0.80	2.53	125.62	0.000	0.000	22.29	0.00	0.00
28	119.50	Andrew SBNHH-1D65B	3	8.003	8.803	0.66	0.80	18.78	737.73	0.000	0.000	165.37	0.00	0.00
29	93.00	Single Arm Mount	2	7.595	8.355	1.00	1.00	11.40	367.84	0.000	0.000	95.22	0.00	0.00
30	93.00	RFS 1142	2	7.703	8.473	1.00	1.00	24.69	-260.62	0.000	6.500	209.23	0.00	1360.02
31	92.00	Single Arm Mount	1	7.578	8.336	1.00	1.00	5.69	183.80	0.000	0.000	47.47	0.00	0.00
32	92.00	Sinclair	1	7.711	8.482	1.00	1.00	11.54	62.24	0.000	8.000	97.91	0.00	783.31
Totals:								17,106.32				3,832.92		

Total Applied Force Summary

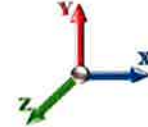
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 21

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		166.75	1669.81	0.00	0.00
10.00		163.51	1832.04	0.00	0.00
15.00		162.10	1813.05	0.00	0.00
20.00		167.93	1788.95	0.00	0.00
25.00		171.72	1761.79	0.00	0.00
30.00		174.08	1732.55	0.00	0.00
35.00		175.38	1701.80	0.00	0.00
40.00		175.84	1669.89	0.00	0.00
45.00		175.62	1637.05	0.00	0.00
47.75		95.80	887.06	0.00	0.00
50.00		79.13	1119.81	0.00	0.00
53.25		114.12	1595.55	0.00	0.00
55.00		61.03	552.88	0.00	0.00
60.00		174.29	1553.33	0.00	0.00
65.00		172.28	1518.13	0.00	0.00
70.00		169.94	1482.50	0.00	0.00
75.00		167.30	1446.50	0.00	0.00
80.00		164.39	1410.18	0.00	0.00
85.00		161.25	1373.55	0.00	0.00
90.00		157.87	1336.65	0.00	0.00
92.00	(2) attachments	207.32	771.66	0.00	783.31
93.00	(4) attachments	335.17	367.40	0.00	1360.02
95.00		61.07	517.90	0.00	0.00
97.25		68.00	580.98	0.00	0.00
100.00		83.30	984.10	0.00	0.00
101.25		37.41	441.95	0.00	0.00
105.00		111.05	847.78	0.00	0.00
110.00		144.67	1100.56	0.00	0.00
115.00		140.42	1067.97	0.00	0.00
119.50	(17) attachments	1098.53	6367.36	0.00	290.81
120.00		13.35	95.03	0.00	0.00
125.00		131.49	926.67	0.00	0.00
129.00	(2) attachments	244.86	933.50	0.00	523.14
130.00		24.90	157.37	0.00	0.00
135.00		122.04	764.98	0.00	0.00
140.00		117.13	736.77	0.00	0.00
141.00	(44) attachments	1189.86	6709.24	0.00	0.00
145.00		89.21	500.98	0.00	0.00
149.00	(19) attachments	1182.83	5022.94	0.00	160.43
	Totals:	8,452.93	58,778.21	0.00	3,117.71

Linear Appurtenance Segment Forces (Factored)

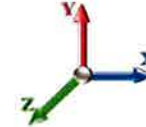
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 22

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

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)
95.00	7/8" Coax	Yes	1.00	0.000	1.11	0.37	0.00	0.017	0.000	7.629	0.00	4.95
97.25	7/8" Coax	Yes	2.25	0.000	1.11	0.84	0.00	0.034	0.000	7.666	0.00	11.17
100.00	7/8" Coax	Yes	2.75	0.000	1.11	1.02	0.00	0.035	0.000	7.711	0.00	13.72
101.25	7/8" Coax	Yes	1.25	0.000	1.11	0.47	0.00	0.035	0.000	7.731	0.00	6.25
105.00	7/8" Coax	Yes	3.75	0.000	1.11	1.40	0.00	0.036	0.000	7.790	0.00	18.86
110.00	7/8" Coax	Yes	5.00	0.000	1.11	1.87	0.00	0.037	0.000	7.866	0.00	25.34
115.00	7/8" Coax	Yes	5.00	0.000	1.11	1.88	0.00	0.039	0.000	7.939	0.00	25.53
119.50	7/8" Coax	Yes	4.50	0.000	1.11	1.70	0.00	0.040	0.000	8.003	0.00	23.12
120.00	7/8" Coax	Yes	0.50	0.000	1.11	0.19	0.00	0.041	0.000	8.010	0.00	2.57
125.00	7/8" Coax	Yes	5.00	0.000	1.11	1.89	0.00	0.042	0.000	8.079	0.00	25.89
129.00	7/8" Coax	Yes	4.00	0.000	1.11	1.52	0.00	0.044	0.000	8.132	0.00	20.82
130.00	7/8" Coax	Yes	1.00	0.000	1.11	0.38	0.00	0.046	0.000	8.145	0.00	5.21
135.00	7/8" Coax	Yes	5.00	0.000	1.11	1.90	0.00	0.047	0.000	8.210	0.00	26.22
140.00	7/8" Coax	Yes	5.00	0.000	1.11	1.91	0.00	0.050	0.000	8.272	0.00	26.38
141.00	7/8" Coax	Yes	1.00	0.000	1.11	0.38	0.00	0.052	0.000	8.285	0.00	5.28
145.00	7/8" Coax	Yes	4.00	0.000	1.11	1.53	0.00	0.053	0.000	8.333	0.00	21.23
149.00	7/8" Coax	Yes	4.00	0.000	1.11	1.53	0.00	0.056	0.000	8.381	0.00	21.32
Totals:											0.0	283.9

Calculated Forces

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

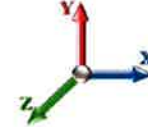
8/9/2017
 Page: 23



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

Iterations 24

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	-58.77	-8.48	0.00	-903.15	0.00	903.15	3273.57	1636.79	7496.53	3753.83	0.00	0.000	0.000	0.259
5.00	-57.10	-8.37	0.00	-860.73	0.00	860.73	3239.51	1619.75	7247.24	3629.01	0.03	-0.058	0.000	0.255
10.00	-55.26	-8.27	0.00	-818.87	0.00	818.87	3203.51	1601.76	6997.34	3503.87	0.12	-0.118	0.000	0.251
15.00	-53.43	-8.16	0.00	-777.54	0.00	777.54	3165.58	1582.79	6747.13	3378.58	0.28	-0.178	0.000	0.247
20.00	-51.64	-8.04	0.00	-736.76	0.00	736.76	3125.72	1562.86	6496.92	3253.29	0.50	-0.240	0.000	0.243
25.00	-49.87	-7.91	0.00	-696.57	0.00	696.57	3083.93	1541.97	6247.01	3128.15	0.79	-0.303	0.000	0.239
30.00	-48.13	-7.78	0.00	-657.01	0.00	657.01	3040.21	1520.10	5997.71	3003.31	1.14	-0.368	0.000	0.235
35.00	-46.42	-7.65	0.00	-618.09	0.00	618.09	2994.56	1497.28	5749.33	2878.94	1.56	-0.433	0.000	0.230
40.00	-44.74	-7.51	0.00	-579.84	0.00	579.84	2946.97	1473.49	5502.17	2755.17	2.05	-0.500	0.000	0.226
45.00	-43.10	-7.36	0.00	-542.27	0.00	542.27	2897.46	1448.73	5256.53	2632.17	2.61	-0.568	0.000	0.221
47.75	-42.21	-7.28	0.00	-522.03	0.00	522.03	2869.40	1434.70	5122.20	2564.91	2.95	-0.607	0.000	0.218
50.00	-41.08	-7.22	0.00	-505.64	0.00	505.64	2846.01	1423.00	5012.74	2510.09	3.24	-0.639	0.000	0.216
53.25	-39.49	-7.11	0.00	-482.17	0.00	482.17	2837.57	1418.79	4973.81	2490.60	3.69	-0.686	0.000	0.208
55.00	-38.93	-7.08	0.00	-469.72	0.00	469.72	2819.00	1409.50	4889.10	2448.18	3.95	-0.711	0.000	0.206
60.00	-37.37	-6.93	0.00	-434.34	0.00	434.34	2764.64	1382.32	4648.65	2327.78	4.73	-0.779	0.000	0.200
65.00	-35.84	-6.78	0.00	-399.70	0.00	399.70	2708.35	1354.17	4410.81	2208.68	5.59	-0.849	0.000	0.194
70.00	-34.36	-6.63	0.00	-365.82	0.00	365.82	2650.12	1325.06	4175.87	2091.04	6.51	-0.918	0.000	0.188
75.00	-32.90	-6.48	0.00	-332.69	0.00	332.69	2589.96	1294.98	3944.16	1975.01	7.51	-0.989	0.000	0.181
80.00	-31.49	-6.32	0.00	-300.31	0.00	300.31	2527.88	1263.94	3715.96	1860.74	8.58	-1.059	0.000	0.174
85.00	-30.11	-6.17	0.00	-268.69	0.00	268.69	2463.86	1231.93	3491.60	1748.39	9.73	-1.129	0.000	0.166
90.00	-28.77	-6.01	0.00	-237.82	0.00	237.82	2397.91	1198.95	3271.37	1638.12	10.95	-1.199	0.000	0.157
92.00	-28.00	-5.80	0.00	-225.02	0.00	225.02	2370.99	1185.49	3184.51	1594.62	11.46	-1.228	0.000	0.153
93.00	-27.64	-5.47	0.00	-217.86	0.00	217.86	2357.41	1178.70	3141.35	1573.01	11.72	-1.242	0.000	0.150
95.00	-27.12	-5.41	0.00	-206.92	0.00	206.92	2330.03	1165.01	3055.58	1530.06	12.25	-1.270	0.000	0.147
97.25	-26.54	-5.34	0.00	-194.75	0.00	194.75	2298.85	1149.42	2960.01	1482.20	12.85	-1.302	0.000	0.143
100.00	-25.56	-5.25	0.00	-180.05	0.00	180.05	2260.21	1130.11	2844.54	1424.39	13.61	-1.340	0.000	0.138
101.25	-25.11	-5.22	0.00	-173.49	0.00	173.49	1705.50	852.75	2167.94	1085.58	13.97	-1.357	0.000	0.175
105.00	-24.26	-5.11	0.00	-153.93	0.00	153.93	1669.73	834.87	2056.27	1029.66	15.05	-1.407	0.000	0.164
110.00	-23.16	-4.97	0.00	-128.36	0.00	128.36	1620.35	810.17	1909.79	956.31	16.57	-1.481	0.000	0.149
115.00	-22.09	-4.83	0.00	-103.52	0.00	103.52	1569.04	784.52	1766.36	884.49	18.16	-1.550	0.000	0.131
119.50	-15.75	-3.56	0.00	-81.51	0.00	81.51	1521.21	760.60	1640.13	821.29	19.65	-1.608	0.000	0.110
120.00	-15.66	-3.55	0.00	-79.73	0.00	79.73	1515.79	757.90	1626.29	814.35	19.81	-1.614	0.000	0.108
125.00	-14.73	-3.41	0.00	-61.97	0.00	61.97	1460.62	730.31	1489.87	746.04	21.54	-1.670	0.000	0.093
129.00	-13.80	-3.14	0.00	-47.82	0.00	47.82	1406.38	703.19	1375.06	688.55	22.95	-1.711	0.000	0.079
129.00	-13.80	-3.14	0.00	-47.82	0.00	47.82	978.70	489.35	961.93	481.68	22.95	-1.711	0.000	0.113
130.00	-13.65	-3.12	0.00	-44.68	0.00	44.68	971.83	485.92	944.91	473.15	23.31	-1.721	0.000	0.109
135.00	-12.88	-2.98	0.00	-29.09	0.00	29.09	936.33	468.17	860.89	431.08	25.14	-1.773	0.000	0.081
140.00	-12.15	-2.85	0.00	-14.17	0.00	14.17	898.90	449.45	778.95	390.05	27.02	-1.810	0.000	0.050
141.00	-5.48	-1.45	0.00	-11.32	0.00	11.32	891.19	445.59	762.84	381.99	27.40	-1.815	0.000	0.036
145.00	-4.98	-1.34	0.00	-5.53	0.00	5.53	859.54	429.77	699.40	350.22	28.93	-1.829	0.000	0.022
149.00	0.00	-1.18	0.00	-0.16	0.00	0.16	826.66	413.33	637.68	319.32	30.47	-1.834	0.000	0.001

Seismic Segment Forces (Factored)

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017

Page: 24



Load Case: 1.2D + 1.0E

Iterations 22

Gust Response Factor 1.10

Sds 0.14

Ss 0.21

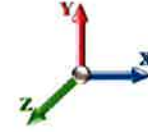
Dead Load Factor 1.20 **Seismic Load Factor** 1.00

Sd1 0.04

S1 0.07

Wind Load Factor 0.00 **Structure Frequency** 0.38

SA 0.02 **Seismic Importance Factor** 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.01	0.00	0.00	
5.00		927.61	0.00	0.04	0.02	16.77	
10.00		906.06	0.01	0.06	0.03	21.15	
15.00		884.52	0.02	0.06	0.04	22.83	
20.00		862.97	0.04	0.07	0.04	23.35	
25.00		841.43	0.06	0.07	0.04	23.42	
30.00		819.89	0.08	0.07	0.04	23.38	
35.00		798.34	0.11	0.07	0.04	23.35	
40.00		776.80	0.14	0.07	0.03	23.32	
45.00		755.26	0.18	0.07	0.03	23.14	
47.75	Bot - Section 2	406.21	0.20	0.06	0.02	12.51	
50.00		659.75	0.22	0.06	0.02	20.27	
53.25	Top - Section 1	937.57	0.25	0.06	0.02	28.32	
55.00		250.50	0.26	0.05	0.02	7.43	
60.00		701.17	0.31	0.04	0.01	18.64	
65.00		679.63	0.37	0.03	0.01	13.92	
70.00		658.08	0.42	0.01	0.01	7.02	
75.00		636.54	0.49	-0.01	0.01	-1.37	
80.00		614.99	0.55	-0.03	0.01	-9.47	
85.00		593.45	0.62	-0.06	0.02	-15.50	
90.00		571.91	0.70	-0.09	0.03	-18.71	
92.00	Appurtenance(s)	301.23	0.73	-0.09	0.04	-10.28	
93.00	Appurtenance(s)	250.07	0.74	-0.10	0.04	-8.64	
95.00		217.56	0.77	-0.11	0.05	-7.61	
97.25	Bot - Section 3	240.63	0.81	-0.11	0.06	-8.34	
100.00		522.91	0.86	-0.12	0.07	-17.37	
101.25	Top - Section 2	233.81	0.88	-0.12	0.08	-7.53	
105.00		308.44	0.94	-0.12	0.11	-8.57	
110.00		396.18	1.03	-0.10	0.15	-7.50	
115.00		378.94	1.13	-0.05	0.21	-2.52	
119.50	Appurtenance(s)	2362.3	1.22	0.02	0.27	17.22	
120.00		35.40	1.23	0.03	0.28	0.32	
125.00		344.47	1.33	0.17	0.37	9.69	
129.00	Top - Section 3	355.17	1.42	0.32	0.45	16.33	
130.00		48.18	1.44	0.37	0.48	2.45	
135.00		233.13	1.55	0.64	0.61	17.98	
140.00		220.21	1.67	1.01	0.77	23.61	
141.00	Appurtenance(s)	2599.1	1.69	1.10	0.81	295.46	
145.00		164.79	1.79	1.50	0.96	23.26	
149.00	Appurtenance(s)	2086.1	1.89	1.98	1.14	356.94	
Totals:		25,581.4				948.7	Total Wind: 24,040.2

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

Calculated Forces

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017
 Page: 25



Load Case: 1.2D + 1.0E

Gust Response Factor 1.10

Sds 0.14

Iterations 22

Dead Load Factor 1.20 **Seismic Load Factor** 1.00

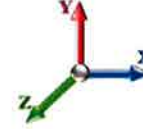
Sd1 0.04

Ss 0.21

S1 0.07

Wind Load Factor 0.00 **Structure Frequency** 0.38

SA 0.02 **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	-38.30	-1.07	0.00	-126.42	0.00	126.42	3273.57	1636.79	7496.53	3753.83	0.00	0.00	0.00	0.045
5.00	-37.08	-1.06	0.00	-121.04	0.00	121.04	3239.51	1619.75	7247.24	3629.01	0.00	-0.01	0.045	
10.00	-35.70	-1.05	0.00	-115.73	0.00	115.73	3203.51	1601.76	6997.34	3503.87	0.02	-0.02	0.044	
15.00	-34.36	-1.03	0.00	-110.50	0.00	110.50	3165.58	1582.79	6747.13	3378.58	0.04	-0.03	0.044	
20.00	-33.04	-1.01	0.00	-105.36	0.00	105.36	3125.72	1562.86	6496.92	3253.29	0.07	-0.03	0.043	
25.00	-31.74	-0.99	0.00	-100.31	0.00	100.31	3083.93	1541.97	6247.01	3128.15	0.11	-0.04	0.042	
30.00	-30.48	-0.97	0.00	-95.36	0.00	95.36	3040.21	1520.10	5997.71	3003.31	0.16	-0.05	0.042	
35.00	-29.23	-0.95	0.00	-90.50	0.00	90.50	2994.56	1497.28	5749.33	2878.94	0.22	-0.06	0.041	
40.00	-28.02	-0.93	0.00	-85.75	0.00	85.75	2946.97	1473.49	5502.17	2755.17	0.29	-0.07	0.041	
45.00	-26.83	-0.91	0.00	-81.09	0.00	81.09	2897.46	1448.73	5256.53	2632.17	0.37	-0.08	0.040	
47.75	-26.18	-0.90	0.00	-78.59	0.00	78.59	2869.40	1434.70	5122.20	2564.91	0.42	-0.09	0.040	
50.00	-25.26	-0.88	0.00	-76.56	0.00	76.56	2846.01	1423.00	5012.74	2510.09	0.46	-0.09	0.039	
53.25	-23.95	-0.85	0.00	-73.70	0.00	73.70	2837.57	1418.79	4973.81	2490.60	0.53	-0.10	0.038	
55.00	-23.55	-0.85	0.00	-72.21	0.00	72.21	2819.00	1409.50	4889.10	2448.18	0.57	-0.10	0.038	
60.00	-22.43	-0.83	0.00	-67.98	0.00	67.98	2764.64	1382.32	4648.65	2327.78	0.68	-0.11	0.037	
65.00	-21.33	-0.82	0.00	-63.83	0.00	63.83	2708.35	1354.17	4410.81	2208.68	0.81	-0.13	0.037	
70.00	-20.25	-0.81	0.00	-59.74	0.00	59.74	2650.12	1325.06	4175.87	2091.04	0.94	-0.14	0.036	
75.00	-19.21	-0.81	0.00	-55.67	0.00	55.67	2589.96	1294.98	3944.16	1975.01	1.09	-0.15	0.036	
80.00	-18.18	-0.82	0.00	-51.60	0.00	51.60	2527.88	1263.94	3715.96	1860.74	1.25	-0.16	0.035	
85.00	-17.19	-0.82	0.00	-47.52	0.00	47.52	2463.86	1231.93	3491.60	1748.39	1.43	-0.17	0.034	
90.00	-16.22	-0.82	0.00	-43.44	0.00	43.44	2397.91	1198.95	3271.37	1638.12	1.61	-0.18	0.033	
92.00	-15.74	-0.82	0.00	-41.81	0.00	41.81	2370.99	1185.49	3184.51	1594.62	1.69	-0.19	0.033	
93.00	-15.38	-0.82	0.00	-41.00	0.00	41.00	2357.41	1178.70	3141.35	1573.01	1.73	-0.19	0.033	
95.00	-15.01	-0.82	0.00	-39.37	0.00	39.37	2330.03	1165.01	3055.58	1530.06	1.81	-0.20	0.032	
97.25	-14.60	-0.82	0.00	-37.53	0.00	37.53	2298.85	1149.42	2960.01	1482.20	1.91	-0.20	0.032	
100.00	-13.82	-0.81	0.00	-35.29	0.00	35.29	2260.21	1130.11	2844.54	1424.39	2.03	-0.21	0.031	
101.25	-13.47	-0.81	0.00	-34.27	0.00	34.27	1705.50	852.75	2167.94	1085.58	2.08	-0.21	0.039	
105.00	-12.90	-0.82	0.00	-31.22	0.00	31.22	1669.73	834.87	2056.27	1029.66	2.26	-0.22	0.038	
110.00	-12.15	-0.82	0.00	-27.14	0.00	27.14	1620.35	810.17	1909.79	956.31	2.50	-0.24	0.036	
115.00	-11.42	-0.82	0.00	-23.06	0.00	23.06	1569.04	784.52	1766.36	884.49	2.76	-0.25	0.033	
119.50	-8.33	-0.78	0.00	-19.40	0.00	19.40	1521.21	760.60	1640.13	821.29	3.01	-0.27	0.029	
120.00	-8.27	-0.79	0.00	-19.00	0.00	19.00	1515.79	757.90	1626.29	814.35	3.03	-0.27	0.029	
125.00	-7.66	-0.77	0.00	-15.08	0.00	15.08	1460.62	730.31	1489.87	746.04	3.32	-0.28	0.025	
129.00	-7.07	-0.76	0.00	-11.98	0.00	11.98	1406.38	703.19	1375.06	688.55	3.57	-0.29	0.022	
129.00	-7.07	-0.76	0.00	-11.98	0.00	11.98	978.70	489.35	961.93	481.68	3.57	-0.29	0.032	
130.00	-6.98	-0.75	0.00	-11.22	0.00	11.22	971.83	485.92	944.91	473.15	3.63	-0.30	0.031	
135.00	-6.50	-0.73	0.00	-7.45	0.00	7.45	936.33	468.17	860.89	431.08	3.94	-0.31	0.024	
140.00	-6.04	-0.71	0.00	-3.78	0.00	3.78	898.90	449.45	778.95	390.05	4.27	-0.32	0.016	
141.00	-2.88	-0.40	0.00	-3.07	0.00	3.07	891.19	445.59	762.84	381.99	4.34	-0.32	0.011	
145.00	-2.59	-0.37	0.00	-1.49	0.00	1.49	859.54	429.77	699.40	350.22	4.61	-0.32	0.007	
149.00	0.00	-0.36	0.00	0.00	0.00	0.00	826.66	413.33	637.68	319.32	4.88	-0.32	0.000	

Seismic Segment Forces (Factored)

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017

Page: 26



Load Case: 0.9D + 1.0E

Iterations 22

Gust Response Factor 1.10

Sds 0.14

Ss 0.21

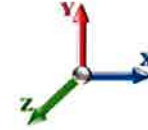
Dead Load Factor 0.90 **Seismic Load Factor** 1.00

Sd1 0.04

S1 0.07

Wind Load Factor 0.00 **Structure Frequency** 0.38

SA 0.02 **Seismic Importance Factor** 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.01	0.00	0.00	
5.00		927.61	0.00	0.04	0.02	16.77	
10.00		906.06	0.01	0.06	0.03	21.15	
15.00		884.52	0.02	0.06	0.04	22.83	
20.00		862.97	0.04	0.07	0.04	23.35	
25.00		841.43	0.06	0.07	0.04	23.42	
30.00		819.89	0.08	0.07	0.04	23.38	
35.00		798.34	0.11	0.07	0.04	23.35	
40.00		776.80	0.14	0.07	0.03	23.32	
45.00		755.26	0.18	0.07	0.03	23.14	
47.75	Bot - Section 2	406.21	0.20	0.06	0.02	12.51	
50.00		659.75	0.22	0.06	0.02	20.27	
53.25	Top - Section 1	937.57	0.25	0.06	0.02	28.32	
55.00		250.50	0.26	0.05	0.02	7.43	
60.00		701.17	0.31	0.04	0.01	18.64	
65.00		679.63	0.37	0.03	0.01	13.92	
70.00		658.08	0.42	0.01	0.01	7.02	
75.00		636.54	0.49	-0.01	0.01	-1.37	
80.00		614.99	0.55	-0.03	0.01	-9.47	
85.00		593.45	0.62	-0.06	0.02	-15.50	
90.00		571.91	0.70	-0.09	0.03	-18.71	
92.00	Appurtenance(s)	301.23	0.73	-0.09	0.04	-10.28	
93.00	Appurtenance(s)	250.07	0.74	-0.10	0.04	-8.64	
95.00		217.56	0.77	-0.11	0.05	-7.61	
97.25	Bot - Section 3	240.63	0.81	-0.11	0.06	-8.34	
100.00		522.91	0.86	-0.12	0.07	-17.37	
101.25	Top - Section 2	233.81	0.88	-0.12	0.08	-7.53	
105.00		308.44	0.94	-0.12	0.11	-8.57	
110.00		396.18	1.03	-0.10	0.15	-7.50	
115.00		378.94	1.13	-0.05	0.21	-2.52	
119.50	Appurtenance(s)	2362.3	1.22	0.02	0.27	17.22	
120.00		35.40	1.23	0.03	0.28	0.32	
125.00		344.47	1.33	0.17	0.37	9.69	
129.00	Top - Section 3	355.17	1.42	0.32	0.45	16.33	
130.00		48.18	1.44	0.37	0.48	2.45	
135.00		233.13	1.55	0.64	0.61	17.98	
140.00		220.21	1.67	1.01	0.77	23.61	
141.00	Appurtenance(s)	2599.1	1.69	1.10	0.81	295.46	
145.00		164.79	1.79	1.50	0.96	23.26	
149.00	Appurtenance(s)	2086.1	1.89	1.98	1.14	356.94	
Totals:		25,581.4				948.7	Total Wind: 24,040.2

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

Calculated Forces

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017
 Page: 27



Load Case: 0.9D + 1.0E

Gust Response Factor 1.10

Sds 0.14

Iterations 22

Dead Load Factor 0.90

Seismic Load Factor 1.00

Sd1 0.04

Ss 0.21

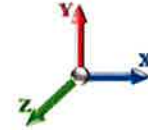
S1 0.07

Wind Load Factor 0.00

Structure Frequency 0.38

SA 0.02

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	-28.73	-1.07	0.00	-124.96	0.00	124.96	3273.57	1636.79	7496.53	3753.83	0.00	0.00	0.00	0.042
5.00	-27.81	-1.06	0.00	-119.60	0.00	119.60	3239.51	1619.75	7247.24	3629.01	0.00	-0.01	0.042	
10.00	-26.78	-1.04	0.00	-114.29	0.00	114.29	3203.51	1601.76	6997.34	3503.87	0.02	-0.02	0.041	
15.00	-25.77	-1.02	0.00	-109.08	0.00	109.08	3165.58	1582.79	6747.13	3378.58	0.04	-0.02	0.040	
20.00	-24.78	-1.00	0.00	-103.96	0.00	103.96	3125.72	1562.86	6496.92	3253.29	0.07	-0.03	0.040	
25.00	-23.81	-0.98	0.00	-98.94	0.00	98.94	3083.93	1541.97	6247.01	3128.15	0.11	-0.04	0.039	
30.00	-22.86	-0.96	0.00	-94.02	0.00	94.02	3040.21	1520.10	5997.71	3003.31	0.16	-0.05	0.039	
35.00	-21.92	-0.94	0.00	-89.21	0.00	89.21	2994.56	1497.28	5749.33	2878.94	0.22	-0.06	0.038	
40.00	-21.01	-0.92	0.00	-84.50	0.00	84.50	2946.97	1473.49	5502.17	2755.17	0.29	-0.07	0.038	
45.00	-20.12	-0.90	0.00	-79.89	0.00	79.89	2897.46	1448.73	5256.53	2632.17	0.37	-0.08	0.037	
47.75	-19.64	-0.89	0.00	-77.41	0.00	77.41	2869.40	1434.70	5122.20	2564.91	0.42	-0.09	0.037	
50.00	-18.95	-0.87	0.00	-75.41	0.00	75.41	2846.01	1423.00	5012.74	2510.09	0.46	-0.09	0.037	
53.25	-17.96	-0.84	0.00	-72.59	0.00	72.59	2837.57	1418.79	4973.81	2490.60	0.52	-0.10	0.035	
55.00	-17.66	-0.84	0.00	-71.12	0.00	71.12	2819.00	1409.50	4889.10	2448.18	0.56	-0.10	0.035	
60.00	-16.82	-0.82	0.00	-66.94	0.00	66.94	2764.64	1382.32	4648.65	2327.78	0.67	-0.11	0.035	
65.00	-16.00	-0.81	0.00	-62.85	0.00	62.85	2708.35	1354.17	4410.81	2208.68	0.79	-0.12	0.034	
70.00	-15.19	-0.80	0.00	-58.82	0.00	58.82	2650.12	1325.06	4175.87	2091.04	0.93	-0.13	0.034	
75.00	-14.40	-0.80	0.00	-54.82	0.00	54.82	2589.96	1294.98	3944.16	1975.01	1.08	-0.15	0.033	
80.00	-13.64	-0.80	0.00	-50.82	0.00	50.82	2527.88	1263.94	3715.96	1860.74	1.24	-0.16	0.033	
85.00	-12.89	-0.80	0.00	-46.81	0.00	46.81	2463.86	1231.93	3491.60	1748.39	1.41	-0.17	0.032	
90.00	-12.16	-0.80	0.00	-42.80	0.00	42.80	2397.91	1198.95	3271.37	1638.12	1.59	-0.18	0.031	
92.00	-11.80	-0.80	0.00	-41.19	0.00	41.19	2370.99	1185.49	3184.51	1594.62	1.67	-0.19	0.031	
93.00	-11.54	-0.80	0.00	-40.39	0.00	40.39	2357.41	1178.70	3141.35	1573.01	1.71	-0.19	0.031	
95.00	-11.26	-0.80	0.00	-38.79	0.00	38.79	2330.03	1165.01	3055.58	1530.06	1.79	-0.20	0.030	
97.25	-10.95	-0.80	0.00	-36.99	0.00	36.99	2298.85	1149.42	2960.01	1482.20	1.88	-0.20	0.030	
100.00	-10.37	-0.80	0.00	-34.78	0.00	34.78	2260.21	1130.11	2844.54	1424.39	2.00	-0.21	0.029	
101.25	-10.10	-0.80	0.00	-33.78	0.00	33.78	1705.50	852.75	2167.94	1085.58	2.05	-0.21	0.037	
105.00	-9.67	-0.80	0.00	-30.78	0.00	30.78	1669.73	834.87	2056.27	1029.66	2.22	-0.22	0.036	
110.00	-9.11	-0.80	0.00	-26.77	0.00	26.77	1620.35	810.17	1909.79	956.31	2.46	-0.24	0.034	
115.00	-8.56	-0.80	0.00	-22.76	0.00	22.76	1569.04	784.52	1766.36	884.49	2.72	-0.25	0.031	
119.50	-6.25	-0.77	0.00	-19.15	0.00	19.15	1521.21	760.60	1640.13	821.29	2.96	-0.26	0.027	
120.00	-6.20	-0.77	0.00	-18.77	0.00	18.77	1515.79	757.90	1626.29	814.35	2.99	-0.27	0.027	
125.00	-5.74	-0.76	0.00	-14.89	0.00	14.89	1460.62	730.31	1489.87	746.04	3.28	-0.28	0.024	
129.00	-5.30	-0.75	0.00	-11.84	0.00	11.84	1406.38	703.19	1375.06	688.55	3.52	-0.29	0.021	
129.00	-5.30	-0.75	0.00	-11.84	0.00	11.84	978.70	489.35	961.93	481.68	3.52	-0.29	0.030	
130.00	-5.23	-0.74	0.00	-11.09	0.00	11.09	971.83	485.92	944.91	473.15	3.58	-0.29	0.029	
135.00	-4.87	-0.73	0.00	-7.37	0.00	7.37	936.33	468.17	860.89	431.08	3.89	-0.30	0.022	
140.00	-4.53	-0.70	0.00	-3.74	0.00	3.74	898.90	449.45	778.95	390.05	4.21	-0.31	0.015	
141.00	-2.16	-0.39	0.00	-3.04	0.00	3.04	891.19	445.59	762.84	381.99	4.28	-0.32	0.010	
145.00	-1.94	-0.37	0.00	-1.47	0.00	1.47	859.54	429.77	699.40	350.22	4.55	-0.32	0.006	
149.00	0.00	-0.36	0.00	0.00	0.00	0.00	826.66	413.33	637.68	319.32	4.81	-0.32	0.000	

Wind Loading - Shaft

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

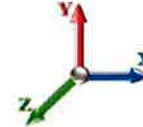
8/9/2017

Page: 28



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 23

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	7.442	8.19	261.76	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	255.78	0.650	0.000	5.00	23.389	15.20	124.5	0.0	927.6
10.00		1.00	0.85	7.442	8.19	249.80	0.650	0.000	5.00	22.849	14.85	121.6	0.0	906.1
15.00		1.00	0.86	7.534	8.29	245.33	0.650	0.000	5.00	22.309	14.50	120.2	0.0	884.5
20.00		1.00	0.91	7.978	8.78	246.26	0.650	0.000	5.00	21.769	14.15	124.2	0.0	863.0
25.00		1.00	0.95	8.345	9.18	245.54	0.650	0.000	5.00	21.229	13.80	126.7	0.0	841.4
30.00		1.00	0.99	8.659	9.53	243.68	0.650	0.000	5.00	20.689	13.45	128.1	0.0	819.9
35.00		1.00	1.02	8.936	9.83	241.00	0.650	0.000	5.00	20.148	13.10	128.7	0.0	798.3
40.00		1.00	1.05	9.184	10.10	237.68	0.650	0.000	5.00	19.608	12.75	128.8	0.0	776.8
45.00		1.00	1.07	9.410	10.35	233.85	0.650	0.000	5.00	19.068	12.39	128.3	0.0	755.3
47.75 Bot - Section 2		1.00	1.09	9.525	10.48	231.57	0.650	0.000	2.75	10.257	6.67	69.9	0.0	406.2
50.00		1.00	1.10	9.616	10.58	229.62	0.650	0.000	2.25	8.390	5.45	57.7	0.0	659.8
53.25 Top - Section 1		1.00	1.11	9.742	10.72	226.67	0.650	0.000	3.25	11.925	7.75	83.1	0.0	937.6
55.00		1.00	1.12	9.807	10.79	228.39	0.650	0.000	1.75	6.327	4.11	44.4	0.0	250.5
60.00		1.00	1.14	9.986	10.98	223.53	0.650	0.000	5.00	17.712	11.51	126.5	0.0	701.2
65.00		1.00	1.16	10.153	11.17	218.41	0.650	0.000	5.00	17.172	11.16	124.7	0.0	679.6
70.00		1.00	1.18	10.310	11.34	213.06	0.650	0.000	5.00	16.632	10.81	122.6	0.0	658.1
75.00		1.00	1.19	10.459	11.50	207.51	0.650	0.000	5.00	16.092	10.46	120.3	0.0	636.5
80.00		1.00	1.21	10.600	11.66	201.77	0.650	0.000	5.00	15.551	10.11	117.9	0.0	615.0
85.00		1.00	1.23	10.734	11.81	195.87	0.650	0.000	5.00	15.011	9.76	115.2	0.0	593.4
90.00		1.00	1.24	10.863	11.95	189.82	0.650	0.000	5.00	14.471	9.41	112.4	0.0	571.9
92.00 Appurtenance(s)		1.00	1.25	10.913	12.00	187.36	0.650	0.000	2.00	5.637	3.66	44.0	0.0	222.7
93.00 Appurtenance(s)		1.00	1.25	10.937	12.03	186.12	0.650	0.000	1.00	2.786	1.81	21.8	0.0	110.1
95.00		1.00	1.25	10.986	12.08	183.63	0.650	0.000	2.00	5.508	3.58	43.3	0.0	217.6
97.25 Bot - Section 3		1.00	1.26	11.040	12.14	180.80	0.650	0.000	2.25	6.093	3.96	48.1	0.0	240.6
100.00		1.00	1.27	11.104	12.21	177.32	0.650	0.000	2.75	7.414	4.82	58.9	0.0	522.9
101.25 Top - Section 2		1.00	1.27	11.133	12.25	175.72	0.650	0.000	1.25	3.316	2.16	26.4	0.0	233.8
105.00		1.00	1.28	11.218	12.34	173.76	0.650	0.000	3.75	9.746	6.33	78.2	0.0	308.4
110.00		1.00	1.29	11.327	12.46	167.23	0.650	0.000	5.00	12.522	8.14	101.4	0.0	396.2
115.00		1.00	1.31	11.432	12.58	160.60	0.650	0.000	5.00	11.982	7.79	97.9	0.0	378.9
119.50 Appurtenance(s)		1.00	1.32	11.524	12.68	154.55	0.650	0.000	4.50	10.322	6.71	85.1	0.0	326.3
120.00		1.00	1.32	11.534	12.69	153.87	0.650	0.000	0.50	1.120	0.73	9.2	0.0	35.4
125.00		1.00	1.33	11.633	12.80	147.06	0.650	0.000	5.00	10.902	7.09	90.7	0.0	344.5
129.00 Top - Section 3		1.00	1.34	11.710	12.88	141.55	0.650	0.000	4.00	8.332	5.42	69.8	0.0	263.2
130.00		1.00	1.34	11.729	12.90	140.16	0.650	0.000	1.00	2.029	1.32	17.0	0.0	48.2
135.00		1.00	1.35	11.822	13.00	133.18	0.650	0.000	5.00	9.821	6.38	83.0	0.0	233.1
140.00		1.00	1.36	11.912	13.10	126.13	0.650	0.000	5.00	9.281	6.03	79.0	0.0	220.2
141.00 Appurtenance(s)		1.00	1.36	11.930	13.12	124.71	0.650	0.000	1.00	1.791	1.16	15.3	0.0	42.5
145.00		1.00	1.37	12.000	13.20	119.00	0.650	0.000	4.00	6.950	4.52	59.6	0.0	164.8
149.00 Appurtenance(s)		1.00	1.38	12.068	13.27	113.26	0.650	0.000	4.00	6.604	4.29	57.0	0.0	156.5
Totals:									149.00			3,311.0		18,748.6

Discrete Appurtenance Forces

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

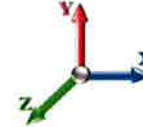
Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: B - Competent Rock
Struct Class: II

8/9/2017
 Page: 29



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 23

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	RFS APXV18-209014	3	12.068	13.275	0.79	1.00	8.32	56.10	0.000	0.000	110.43	0.00	0.00
2	149.00	Lightning Rod	1	12.127	13.340	1.00	1.00	1.05	35.00	0.000	3.500	14.01	0.00	49.02
3	149.00	RFS BA1010	1	12.108	13.318	1.00	1.00	1.24	8.80	0.000	2.350	16.51	0.00	38.81
4	149.00	Commscope	3	12.068	13.275	0.84	1.00	28.85	149.40	0.000	0.000	383.04	0.00	0.00
5	149.00	Standoff Mount	1	12.068	13.275	1.00	1.00	1.80	60.00	0.000	0.000	23.89	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	12.068	13.275	0.60	0.90	1.01	33.00	0.000	0.000	13.45	0.00	0.00
7	149.00	Kathrein 782 11056	3	12.068	13.275	0.60	0.90	0.27	7.80	0.000	0.000	3.60	0.00	0.00
8	149.00	Low Profile Platform	1	12.068	13.275	1.00	1.00	22.00	1500.00	0.000	0.000	292.05	0.00	0.00
9	149.00	RFS	3	12.068	13.275	0.79	1.00	12.25	79.50	0.000	0.000	162.66	0.00	0.00
10	141.00	Ericsson RRUS-A2	3	11.930	13.123	0.54	0.80	2.52	45.00	0.000	0.000	33.13	0.00	0.00
11	141.00	Ericsson RRUS-11	3	11.930	13.123	0.54	0.80	4.05	165.00	0.000	0.000	53.18	0.00	0.00
12	141.00	Ericsson RRUS-12	3	11.930	13.123	0.54	0.80	5.07	150.00	0.000	0.000	66.47	0.00	0.00
13	141.00	Powerwave 1001983	3	11.930	13.123	0.54	0.80	0.18	8.70	0.000	0.000	2.32	0.00	0.00
14	141.00	Powerwave LGP21901	6	11.930	13.123	0.54	0.80	0.74	13.20	0.000	0.000	9.71	0.00	0.00
15	141.00	Raycap DC6-48-60-18-8F	1	11.930	13.123	0.54	0.80	1.18	32.80	0.000	0.000	15.47	0.00	0.00
16	141.00	Low Profile Platform	1	11.930	13.123	1.00	1.00	22.00	1500.00	0.000	0.000	288.70	0.00	0.00
17	141.00	Powerwave	3	11.930	13.123	0.54	0.80	0.88	48.00	0.000	0.000	11.61	0.00	0.00
18	141.00	CCI HPA-65R-BUU-H6	3	11.930	13.123	0.66	0.80	19.24	152.10	0.000	0.000	252.52	0.00	0.00
19	141.00	Powerwave 7770	9	11.930	13.123	0.62	0.80	30.55	315.00	0.000	0.000	400.86	0.00	0.00
20	141.00	Powerwave LGP21401	9	11.930	13.123	0.54	0.80	5.07	126.90	0.000	0.000	66.47	0.00	0.00
21	129.00	Standoff Mount	1	11.710	12.881	1.00	1.00	1.80	60.00	0.000	0.000	23.19	0.00	0.00
22	129.00	RFS BA40-01	1	11.817	12.999	1.00	1.00	3.45	32.00	0.000	5.750	44.85	0.00	257.87
23	119.50	Andrew SBNHH-1D65B	3	11.556	12.712	0.66	0.80	16.25	120.00	0.000	1.600	206.63	0.00	330.61
24	119.50	Antel	6	11.524	12.677	0.59	0.80	19.18	72.00	0.000	0.000	243.15	0.00	0.00
25	119.50	Low Profile Platform	1	11.524	12.677	1.00	1.00	22.00	1500.00	0.000	0.000	278.89	0.00	0.00
26	119.50	ALU 2x90 AWS	3	11.534	12.688	0.54	0.80	3.97	192.00	0.000	0.500	50.39	0.00	25.20
27	119.50	Andrew	1	11.524	12.677	0.54	0.80	2.03	32.00	0.000	0.000	25.75	0.00	0.00
28	119.50	Andrew SBNHH-1D65B	3	11.524	12.677	0.66	0.80	16.25	120.00	0.000	0.000	206.06	0.00	0.00
29	93.00	Single Arm Mount	2	10.937	12.031	1.00	1.00	3.60	120.00	0.000	0.000	43.31	0.00	0.00
30	93.00	RFS 1142	2	11.092	12.202	1.00	1.00	7.80	20.00	0.000	6.500	95.17	0.00	618.62
31	92.00	Single Arm Mount	1	10.913	12.004	1.00	1.00	1.80	60.00	0.000	0.000	21.61	0.00	0.00
32	92.00	Sinclair	1	11.104	12.214	1.00	1.00	4.80	18.50	0.000	8.000	58.63	0.00	469.03
Totals:								6,832.80				3,517.70		

Total Applied Force Summary

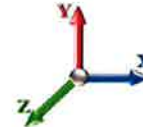
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 30

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 23

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		124.45	1022.33	0.00	0.00
10.00		121.58	1142.86	0.00	0.00
15.00		120.17	1121.32	0.00	0.00
20.00		124.17	1099.77	0.00	0.00
25.00		126.66	1078.23	0.00	0.00
30.00		128.09	1056.69	0.00	0.00
35.00		128.74	1035.14	0.00	0.00
40.00		128.76	1013.60	0.00	0.00
45.00		128.29	992.06	0.00	0.00
47.75		69.86	536.45	0.00	0.00
50.00		57.68	766.31	0.00	0.00
53.25		83.07	1091.49	0.00	0.00
55.00		44.37	333.38	0.00	0.00
60.00		126.46	937.97	0.00	0.00
65.00		124.65	916.43	0.00	0.00
70.00		122.60	894.88	0.00	0.00
75.00		120.33	873.34	0.00	0.00
80.00		117.86	851.79	0.00	0.00
85.00		115.21	830.25	0.00	0.00
90.00		112.40	808.71	0.00	0.00
92.00	(2) attachments	124.22	395.95	0.00	469.03
93.00	(4) attachments	160.27	296.91	0.00	618.62
95.00		43.26	309.16	0.00	0.00
97.25		48.09	343.68	0.00	0.00
100.00		58.87	648.86	0.00	0.00
101.25		26.40	291.06	0.00	0.00
105.00		78.17	480.19	0.00	0.00
110.00		101.41	625.18	0.00	0.00
115.00		97.94	607.94	0.00	0.00
119.50	(17) attachments	1095.93	2568.41	0.00	355.81
120.00		9.24	52.00	0.00	0.00
125.00		90.68	510.47	0.00	0.00
129.00	(2) attachments	137.80	487.97	0.00	257.87
130.00		17.02	80.86	0.00	0.00
135.00		83.02	396.53	0.00	0.00
140.00		79.05	383.61	0.00	0.00
141.00	(44) attachments	1215.71	2631.87	0.00	0.00
145.00		59.63	241.75	0.00	0.00
149.00	(19) attachments	1076.62	2163.08	0.00	87.83
	Totals:	6,828.73	31,918.48	0.00	1,789.16

Linear Appurtenance Segment Forces (Factored)

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Page: 31
	Struct Class: II	



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
95.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.017	0.000	10.986	0.00	0.00
97.25	7/8" Coax	Yes	2.25	0.000	1.11	0.21	0.00	0.034	0.000	11.040	0.00	0.00
100.00	7/8" Coax	Yes	2.75	0.000	1.11	0.25	0.00	0.035	0.000	11.104	0.00	0.00
101.25	7/8" Coax	Yes	1.25	0.000	1.11	0.12	0.00	0.035	0.000	11.133	0.00	0.00
105.00	7/8" Coax	Yes	3.75	0.000	1.11	0.35	0.00	0.036	0.000	11.218	0.00	0.00
110.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.037	0.000	11.327	0.00	0.00
115.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.039	0.000	11.432	0.00	0.00
119.50	7/8" Coax	Yes	4.50	0.000	1.11	0.42	0.00	0.040	0.000	11.524	0.00	0.00
120.00	7/8" Coax	Yes	0.50	0.000	1.11	0.05	0.00	0.041	0.000	11.534	0.00	0.00
125.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.042	0.000	11.633	0.00	0.00
129.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.044	0.000	11.710	0.00	0.00
130.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.046	0.000	11.729	0.00	0.00
135.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.047	0.000	11.822	0.00	0.00
140.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.050	0.000	11.912	0.00	0.00
141.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.052	0.000	11.930	0.00	0.00
145.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.053	0.000	12.000	0.00	0.00
149.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.056	0.000	12.068	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT13061-A-SBA

Site Name: New Fairfield

Height: 149.00 (ft)

Base Elev: 1.000 (ft)

Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G

Exposure: C

Crest Height: 0.00

Site Class: B - Competent Rock

Struct Class: II

8/9/2017

Page: 32

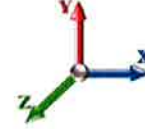


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 23

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	-31.92	-6.84	0.00	-731.05	0.00	731.05	3273.57	1636.79	7496.53	3753.83	0.00	0.000	0.000	0.205
5.00	-30.89	-6.74	0.00	-696.84	0.00	696.84	3239.51	1619.75	7247.24	3629.01	0.03	-0.047	0.000	0.202
10.00	-29.74	-6.64	0.00	-663.13	0.00	663.13	3203.51	1601.76	6997.34	3503.87	0.10	-0.095	0.000	0.199
15.00	-28.61	-6.55	0.00	-629.91	0.00	629.91	3165.58	1582.79	6747.13	3378.58	0.23	-0.144	0.000	0.195
20.00	-27.51	-6.44	0.00	-597.18	0.00	597.18	3125.72	1562.86	6496.92	3253.29	0.41	-0.195	0.000	0.192
25.00	-26.42	-6.34	0.00	-564.97	0.00	564.97	3083.93	1541.97	6247.01	3128.15	0.64	-0.246	0.000	0.189
30.00	-25.36	-6.23	0.00	-533.28	0.00	533.28	3040.21	1520.10	5997.71	3003.31	0.92	-0.298	0.000	0.186
35.00	-24.32	-6.11	0.00	-502.15	0.00	502.15	2994.56	1497.28	5749.33	2878.94	1.26	-0.351	0.000	0.183
40.00	-23.30	-6.00	0.00	-471.58	0.00	471.58	2946.97	1473.49	5502.17	2755.17	1.66	-0.406	0.000	0.179
45.00	-22.31	-5.88	0.00	-441.57	0.00	441.57	2897.46	1448.73	5256.53	2632.17	2.11	-0.461	0.000	0.175
47.75	-21.77	-5.82	0.00	-425.39	0.00	425.39	2869.40	1434.70	5122.20	2564.91	2.39	-0.493	0.000	0.173
50.00	-21.00	-5.77	0.00	-412.30	0.00	412.30	2846.01	1423.00	5012.74	2510.09	2.63	-0.519	0.000	0.172
53.25	-19.91	-5.68	0.00	-393.56	0.00	393.56	2837.57	1418.79	4973.81	2490.60	3.00	-0.557	0.000	0.165
55.00	-19.57	-5.65	0.00	-383.61	0.00	383.61	2819.00	1409.50	4889.10	2448.18	3.20	-0.577	0.000	0.164
60.00	-18.63	-5.53	0.00	-355.37	0.00	355.37	2764.64	1382.32	4648.65	2327.78	3.84	-0.633	0.000	0.159
65.00	-17.71	-5.41	0.00	-327.71	0.00	327.71	2708.35	1354.17	4410.81	2208.68	4.53	-0.690	0.000	0.155
70.00	-16.81	-5.30	0.00	-300.65	0.00	300.65	2650.12	1325.06	4175.87	2091.04	5.29	-0.747	0.000	0.150
75.00	-15.93	-5.18	0.00	-274.16	0.00	274.16	2589.96	1294.98	3944.16	1975.01	6.10	-0.805	0.000	0.145
80.00	-15.08	-5.07	0.00	-248.26	0.00	248.26	2527.88	1263.94	3715.96	1860.74	6.97	-0.863	0.000	0.139
85.00	-14.24	-4.95	0.00	-222.93	0.00	222.93	2463.86	1231.93	3491.60	1748.39	7.91	-0.921	0.000	0.133
90.00	-13.43	-4.84	0.00	-198.17	0.00	198.17	2397.91	1198.95	3271.37	1638.12	8.91	-0.979	0.000	0.127
92.00	-13.04	-4.71	0.00	-188.03	0.00	188.03	2370.99	1185.49	3184.51	1594.62	9.32	-1.003	0.000	0.123
93.00	-12.74	-4.55	0.00	-182.71	0.00	182.71	2357.41	1178.70	3141.35	1573.01	9.53	-1.015	0.000	0.122
95.00	-12.43	-4.50	0.00	-173.61	0.00	173.61	2330.03	1165.01	3055.58	1530.06	9.96	-1.039	0.000	0.119
97.25	-12.09	-4.46	0.00	-163.48	0.00	163.48	2298.85	1149.42	2960.01	1482.20	10.46	-1.065	0.000	0.116
100.00	-11.44	-4.39	0.00	-151.23	0.00	151.23	2260.21	1130.11	2844.54	1424.39	11.08	-1.097	0.000	0.111
101.25	-11.15	-4.36	0.00	-145.74	0.00	145.74	1705.50	852.75	2167.94	1085.58	11.37	-1.112	0.000	0.141
105.00	-10.66	-4.28	0.00	-129.38	0.00	129.38	1669.73	834.87	2056.27	1029.66	12.26	-1.153	0.000	0.132
110.00	-10.04	-4.18	0.00	-107.95	0.00	107.95	1620.35	810.17	1909.79	956.31	13.50	-1.216	0.000	0.119
115.00	-9.43	-4.08	0.00	-87.05	0.00	87.05	1569.04	784.52	1766.36	884.49	14.81	-1.274	0.000	0.104
119.50	-6.88	-2.93	0.00	-68.34	0.00	68.34	1521.21	760.60	1640.13	821.29	16.03	-1.322	0.000	0.088
120.00	-6.83	-2.92	0.00	-66.87	0.00	66.87	1515.79	757.90	1626.29	814.35	16.17	-1.328	0.000	0.087
125.00	-6.32	-2.82	0.00	-52.27	0.00	52.27	1460.62	730.31	1489.87	746.04	17.59	-1.375	0.000	0.074
129.00	-5.83	-2.68	0.00	-40.72	0.00	40.72	1406.38	703.19	1375.06	688.55	18.76	-1.409	0.000	0.063
129.00	-5.83	-2.68	0.00	-40.72	0.00	40.72	978.70	489.35	961.93	481.68	18.76	-1.409	0.000	0.091
130.00	-5.75	-2.66	0.00	-38.04	0.00	38.04	971.83	485.92	944.91	473.15	19.05	-1.418	0.000	0.086
135.00	-5.36	-2.57	0.00	-24.75	0.00	24.75	936.33	468.17	860.89	431.08	20.56	-1.462	0.000	0.063
140.00	-4.97	-2.48	0.00	-11.90	0.00	11.90	898.90	449.45	778.95	390.05	22.11	-1.493	0.000	0.036
141.00	-2.37	-1.20	0.00	-9.42	0.00	9.42	891.19	445.59	762.84	381.99	22.43	-1.498	0.000	0.027
145.00	-2.13	-1.13	0.00	-4.62	0.00	4.62	859.54	429.77	699.40	350.22	23.69	-1.509	0.000	0.016
149.00	0.00	-1.08	0.00	-0.09	0.00	0.09	826.66	413.33	637.68	319.32	24.95	-1.514	0.000	0.000

Final Analysis Summary

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 33

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 89 mph Wind	24.1	0.00	38.27	0.00	0.00	2589.48
0.9D + 1.6W 89 mph Wind	24.1	0.00	28.69	0.00	0.00	2562.09
1.2D + 1.0Di + 1.0Wi 50 mph Wind	8.5	0.00	58.77	0.00	0.00	903.15
1.2D + 1.0E	1.1	0.00	38.30	0.00	0.00	126.42
0.9D + 1.0E	1.1	0.00	28.73	0.00	0.00	124.96
1.0D + 1.0W 60 mph Wind	6.8	0.00	31.92	0.00	0.00	731.05

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 89 mph Wind	-38.27	-24.10	0.00	-2589.4	0.00	-2589.4	3273.57	1636.7	7496.53	3753.83	0.00	0.702
0.9D + 1.6W 89 mph Wind	-28.69	-24.08	0.00	-2562.0	0.00	-2562.0	3273.57	1636.7	7496.53	3753.83	0.00	0.692
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-58.77	-8.48	0.00	-903.15	0.00	-903.15	3273.57	1636.7	7496.53	3753.83	0.00	0.259
1.2D + 1.0E	-38.30	-1.07	0.00	-126.42	0.00	-126.42	3273.57	1636.7	7496.53	3753.83	0.00	0.045
0.9D + 1.0E	-28.73	-1.07	0.00	-124.96	0.00	-124.96	3273.57	1636.7	7496.53	3753.83	0.00	0.042
1.0D + 1.0W 60 mph Wind	-31.92	-6.84	0.00	-731.05	0.00	-731.05	3273.57	1636.7	7496.53	3753.83	0.00	0.205

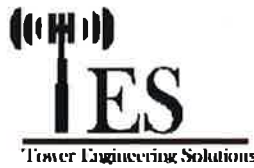
Base Plate Summary

Structure: CT13061-A-SB	Code: EIA/TIA-222-G	8/9/2017
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 34

Reactions	Base Plate	Anchor Bolts
Original Design	Yield (ksi): 60.00	Bolt Circle: 62.25
Moment (kip-ft): 3340.00	Width (in): 59.75	Number Bolts: 12.00
Axial (kip): 43.90	Style: Clipped	Bolt Type: 2.25" 18J
Shear (kip): 29.90	Polygon Sides: 0.00	Bolt Diameter (in): 2.25
Analysis	Clip Length (in): 11.00	Yield (ksi): 75.00
Moment (kip-ft): 2589.48	Effective Len (in): 10.85	Ultimate (ksi): 100.00
Axial (kip): 58.77	Moment (kip-in): 542.13	Arrangement: Clustered
Shear (kip): 24.10	Allow Stress (ksi): 81.00	Cluster Dist (in): 6.00
	Applied Stress (ksi): 0.00	Start Angle (deg): 45.00
Moment Design %: 77.53	Stress Ratio: 0.49	Compression
		Force (kip): 171.29
		Allowable (kip): 260.00
		Ratio: 0.67
		Tension
		Force (kip): 161.49
		Allowable (kip): 260.00
		Ratio: 0.64



Monopole Mat Foundation Design

Date
8/9/2017

Customer Name:	Verizon	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	149
Site Number:	CT13061-A-SBA	Engineer Name:	D. Zhou
Engr. Number:	36991	Engineer Login ID:	

Foundation Info Obtained from:

Structure Type:

Drawings/Calculations

Monopole

Analysis or Design?

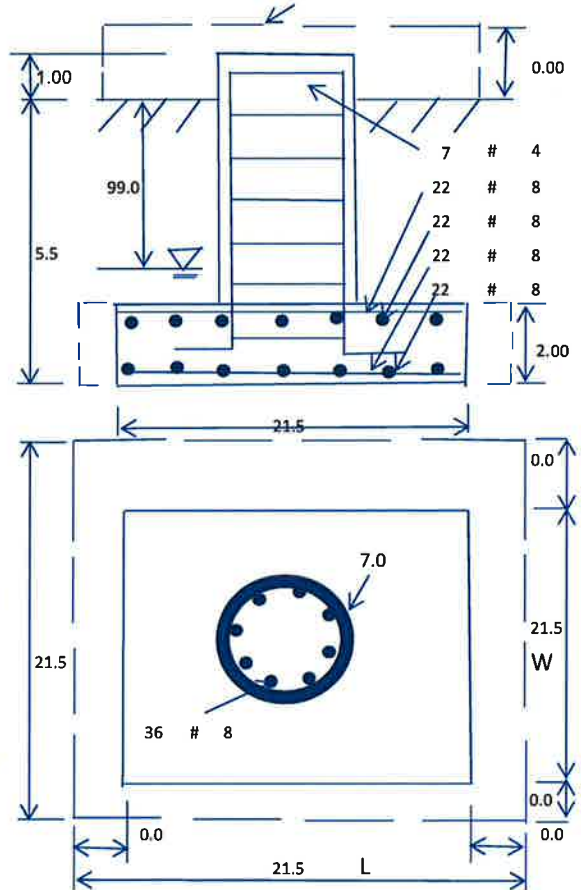
Analysis

Base Reactions (Factored):

Axial Load (Kips):	38.3	Shear Force (Kips):	24.1
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2589.5

Foundation Geometries:

Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	5.5	Mods required -Yes/No ?:	No
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	2.00		
Length of Pad (ft.):	21.5	Width of Pad (ft.):	21.5		
Final Length of pad (ft)	21.5	Final width of pad (ft):	21.5		
Control Value for Cell D18:	0	Control Value for Cell F18:	0		



Material Properties and Rebar Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	36	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	22	Qty. of Rebar in Pad (W):	22	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	22	Qty. of Rebar in Pad (W):	22	

Soil Design Parameters:

Soil Unit Weight (pcf):	120.0	Soil Buoyant Weight:	57.6	Pcf
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf
Ultimate Bearing Pressure (psf):	24000	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.:	Yes	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.):	1483.18	Total Dry Soil Weight (Kips):	177.98
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	177.98	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1097.68	Total Dry Concrete Weight (Kips):	164.65
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	164.65	Total Vertical Load on Base (Kips):	380.93

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	3089	<	Allowable Factored Soil Bearing (psf):	18000	0.17	OKI
Allowable Foundation Overturning Resistance (kips-ft.):	3726.7	>	Design Factored Momont (kips-ft):	2662	0.71	OKI
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.40					OKI

Load/
Capacity
Ratio

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

(1) Concrete Pier:

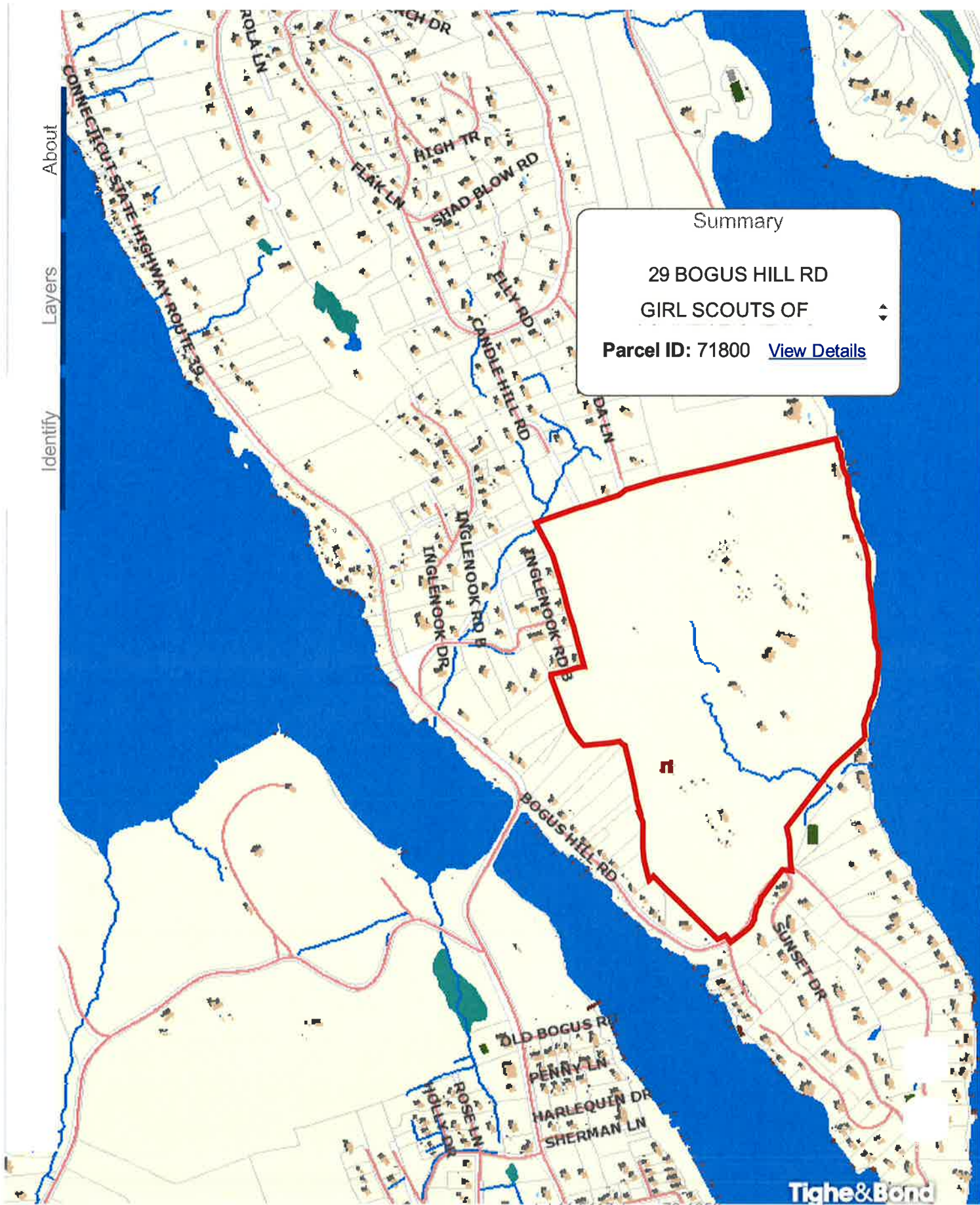
				Load/ Capacity Ratio	
Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	4845.7	> Design Factored Moment (Mu, Kips-Ft)	2698.0	0.56	OK!
Calculated Shear Capacity (Kips):	660.1	> Design Factored Shear (Kips):	24.1	0.04	OK!
Calculated Tension Capacity (Tn, Kips):	1535.8	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	9747.6	> Design Factored Axial Load (Pu Kips):	38.3	0.00	OK!
Moment & Axial Strength Combination:	0.56	OK! Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.005	Reinforcement Ratio is satisfied per ACI			

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	501.8	> One-Way Factored Shear (L-D. Kips):	185.8	0.37	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	501.8	> One-Way Factored Shear (W-D., Kips):	185.8	0.37	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	546.2	> One-Way Factored Shear (C-C, Kips):	191.4	0.35	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0033	OK! Lower Steel Pad Reinf. Ratio (W-Direct	0.0033		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	1556.8	> Moment at Bottom (L-Direct. K-Ft):	515.0	0.33	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	1556.8	> Moment at Bottom (W-Direct. K-Ft):	515.0	0.33	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	2182.0	> Moment at Bottom (C-C Dir. K-Ft):	728.2	0.33	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0033	OK! Upper Steel Reinf. Ratio (W-Direct.):	0.0033		
Upper Steel Pad Moment Capacity (L-Direction. Kips-ft):	1556.8	> Moment at the top (L-Dir Kips-Ft):	69.8	0.04	OK!
Upper Steel Pad Moment Capacity (W-Direction. Kips-ft):	1556.8	> Moment at the top (W-Dir Kips-Ft):	69.8	0.04	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	2182.0	> Moment at the top (C-C Direc. K-Ft):	274.8	0.13	OK!

ATTACHMENT 4

29 bogus hill



About

Layers

Identify

Email Map Link

lat:41.5117, long:-73.4653

29 BOGUS HILL RD

Location 29 BOGUS HILL RD

Mblu 6/ 4/ 84/ /

Acct# 00071800

Owner GIRL SCOUTS OF CONNECTICUT INC

Assessment \$1,974,900

Appraisal \$2,821,000

PID 722

Building Count 5

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$784,000	\$2,037,000	\$2,821,000

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$549,000	\$1,425,900	\$1,974,900

Owner of Record

Owner GIRL SCOUTS OF CONNECTICUT INC
Co-Owner
Address 340 WASHINGTON ST
HARTFORD, CT 06106

Sale Price \$0
Certificate
Book & Page 444/ 653
Sale Date 04/11/2008
Instrument 06

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
GIRL SCOUTS OF CONNECTICUT INC	\$0		444/ 653	06	04/11/2008
SOUTHWESTERN CONN GIRL SCOUT COUNCIL	\$0		53/ 587		01/01/1900

Building Information

Building 1 : Section 1

Year Built: 1988
Living Area: 1,388
Replacement Cost: \$151,644
Building Percent 76
Good:
Replacement Cost
Less Depreciation: \$115,200

Building Attributes

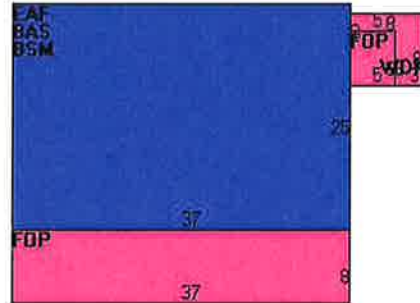
Field	Description
Style	Cape Cod
Model	Residential
Grade:	C
Stories:	1.25
Occupancy	1 Family
Exterior Wall 1	Logs
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asphalt Shngl.
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	3 Bedrooms
Full Bathrms:	1
Half Baths:	0
Total Rooms:	6
Bath Style	Average
Kitchen Style	Average
Fireplaces	
Bsmt Garage	
Fin Bsmt Area	
Fin Bsmt Qual	
Func Code	
Eco Code	

Building Photo



(<http://images.vgsi.com/photos/NewFairfieldCTPhotos//default.j>)

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	925	925
EAF	Expansion Attic Finished	925	463
BSM	Basement	925	0
FOP	Open Porch	326	0
WDK	Wood Deck	34	0
		3,135	1,388

Building 2 : Section 1

Year Built: 1988
Living Area: 1,013
Replacement Cost: \$32,750
Building Percent 80
Good:
Replacement Cost
Less Depreciation: \$26,200

Building Attributes : Bldg 2 of 5

Field	Description
-------	-------------

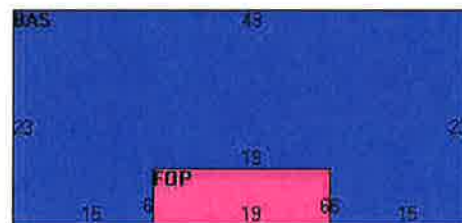
STYLE	Rec/Camp Bldg
MODEL	Commercial
Grade	C
Stories:	1
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asphalt Shngl.
Interior Wall 1	Cust Wd Panel
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	Office
1st Floor Use:	950
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	LIGHT
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	0

Building Photo



(<http://images.vgsi.com/photos/NewFairfieldCTPhotos//default.j>)

Building Layout



Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	1,013	1,013
FOP	Open Porch	114	0
		1,127	1,013

Building 3 : Section 1

Year Built: 1987
Living Area: 4,394
Replacement Cost: \$393,335
Building Percent Good: 88
Replacement Cost Less Depreciation: \$346,100

Building Attributes : Bldg 3 of 5	
Field	Description
STYLE	Clubs/Lodges
MODEL	Commercial
Grade	C

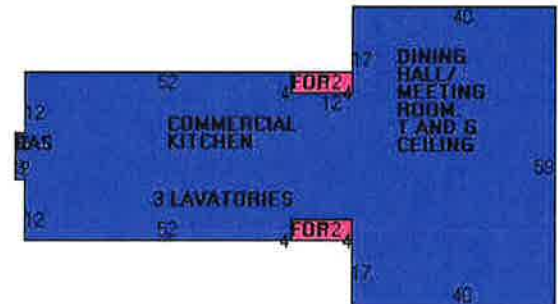
Stories:	1
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asphalt Shngl.
Interior Wall 1	Wall Brd/Wood
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Commercial
1st Floor Use:	950
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	NONE
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	0

Building Photo



(<http://images.vgsi.com/photos/NewFairfieldCTPhotos//default.j>)

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	4,394	4,394
FOP	Open Porch	96	0
		4,490	4,394

Building 4 : Section 1

Year Built: 2008
Living Area: 1,296
Replacement Cost: \$149,504
Building Percent Good: 89
Replacement Cost Less Depreciation: \$133,100

Building Attributes : Bldg 4 of 5	
Field	Description
Style	Ranch
Model	Residential
Grade:	C

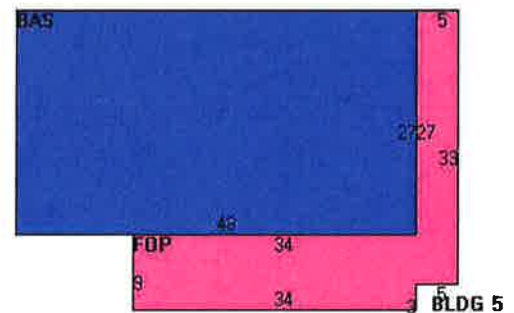
Stories:	1
Occupancy	1 Family
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asphalt Shngl.
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Gas
Heat Type:	Forced Air-Duc
AC Type:	Central
Total Bedrooms:	2 Bedrooms
Full Bathrms:	2
Half Baths:	
Total Rooms:	4
Bath Style	
Kitchen Style	
Fireplaces	1
Bsmt Garage	
Fin Bsmt Area	
Fin Bsmt Qual	
Func Code	
Eco Code	

Building Photo



(<http://images.vgsi.com/photos/NewFairfieldCTPhotos//default.j>)

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	1,296	1,296
FOP	Open Porch	471	0
		1,767	1,296

Building 5 : Section 1

Year Built: 1988
Living Area: 648
Replacement Cost: \$22,220
Building Percent Good: 71
Replacement Cost Less Depreciation: \$15,800

Building Attributes : Bldg 5 of 5	
Field	Description
Style	Cottage
Model	Residential
Grade:	D-

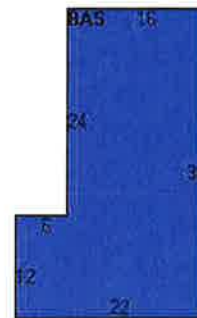
Stories:	1
Occupancy	1 Family
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asphalt Shngl.
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Flr 1	Average
Interior Flr 2	
Heat Fuel	Electric
Heat Type:	Electr Basebrd
AC Type:	None
Total Bedrooms:	None
Full Bathrms:	
Half Baths:	0
Total Rooms:	1
Bath Style	
Kitchen Style	
Fireplaces	
Bsmt Garage	
Fin Bsmt Area	
Fin Bsmt Qual	
Func Code	
Eco Code	

Building Photo



(<http://images.vgsi.com/photos/NewFairfieldCTPhotos//default.j>)

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	648	648
		648	648

Extra Features

Extra Features				Legend
Code	Description	Size	Value	Bldg #
EK1	ARMORY FIN	264 S.F.	\$12,500	3
EK1	ARMORY FIN	310 S.F.	\$12,700	1
EK1	ARMORY FIN	612 S.F.	\$26,400	2
EK1	ARMORY FIN	120 S.F.	\$5,200	2

Land

Land Use

Land Line Valuation

Use Code 101
Description Single Family
Zone 1
Neighborhood L65
Alt Land Appr No
Category

Size (Acres) 86.9
Depth
Assessed Value \$1,425,900
Appraised Value \$2,037,000

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CNP2	CANOPY-GOOD			792 S.F.	\$9,900	3
FGR1	Garage	U	No Fin Area	816 S.F.	\$12,200	1
CNP2	CANOPY-GOOD			1400 S.F.	\$17,500	1
CNP1	CANOPY-AVG			168 S.F.	\$1,400	3
CNP2	CANOPY-GOOD			960 S.F.	\$12,000	2
BTH2	Comm Boathouse			1575 S.F.	\$25,200	2
CNP1	CANOPY-AVG			168 S.F.	\$1,400	1
CNP1	CANOPY-AVG			528 S.F.	\$4,500	3
BTH2	Comm Boathouse			112 S.F.	\$1,800	2
SHD2	Shed w/ Elec			390 S.F.	\$3,500	1
CNP1	CANOPY-AVG			168 S.F.	\$1,400	2

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$784,000	\$2,037,000	\$2,821,000
2014	\$784,000	\$2,037,000	\$2,821,000
2013	\$838,000	\$1,971,400	\$2,809,400

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$549,000	\$1,425,900	\$1,974,900
2014	\$549,000	\$1,425,900	\$1,974,900
2013	\$586,900	\$1,380,000	\$1,966,900

ATTACHMENT 5



Certificate of Mailing — Firm

Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103		TOTAL NO. of Pieces Listed by Sender 3	TOTAL NO. of Pieces Received at Post Office™ 3	Affix Stamp Here Postmark with Date of Receipt. meepostus 10/10/2017 US POSTAGE \$002.38 ZIP 06103 041L1220331
Postmaster, per (name of receiving employee) DP				

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Susan Chapman, First Selectman Town of New Fairfield 4 Brush Hill Road New Fairfield, CT 06812				
2.	Evan White, Zoning Enforcement Officer Town of New Fairfield 4 Brush Hill Road New Fairfield, CT 06812				
3.	Girl Scouts of Connecticut 340 Washington Street Hartford, CT 06106				
4.					
5.					
6.					

