Robinson+Cole

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May 31, 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**
16 Titicus Mountain Road, New Fairfield, Connecticut

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) antennas at the 146-foot level of an existing 187.5-foot tower at 16 Titicus Mountain Road in New Fairfield, Connecticut (the "Property"). The tower and property are owned by American Tower Corporation ("ATC"). The Council approved Cellco's use of this tower in 2001. Cellco now intends to replace six (6) of its existing antennas with three (3) model SBNHH-1D65B, 700 MHz antennas and three (3) model SBNHH-1D65B, 2100 MHz antennas, and install six (6) new remote radio heads ("RRHs") behind its new 700 MHz and 2100 MHz antennas, all at the same level on the tower. Cellco also intends to install two (2) HYBRIFLEX™ fiber optic antenna cables. Included in Attachment 1 are specifications for Cellco's replacement antennas, RRHs and HYBRIFLEX™ cables.

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 of the Town of New Fairfield; Evan White, New Fairfield Zoning Enforcement Officer; and ATC, the Property and 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 structure. Cellco's replacement antennas and RRHs will be attached to the existing sector frames at the 146-foot level of the tower.

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

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

4. The installation of new antennas and RRHs 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 is included 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 can support Cellco's proposed modifications. (*See* Structural Analysis Report included in Attachment 3).

A copy of the New Fairfield parcel map and property owner information is included in Attachment 4.

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, Town of New Fairfield First Selectman
Evan White, New Fairfield Zoning Enforcement Officer
ATC
Tim Parks

ATTACHMENT 1

Product Specifications

COMMSCOPE®

SBNHH-1D65B

Multiband Antenna, 698–896 and 2x 1695–2360 MHz, 65° horizontal beamwidth, internal 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

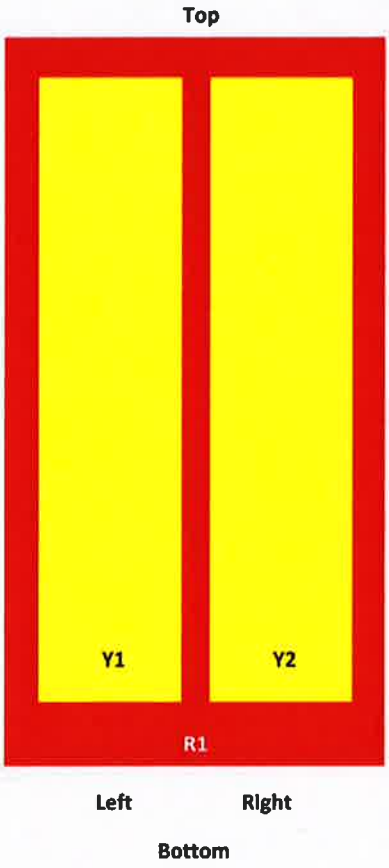
* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, download the whitepaper Time to Raise the Bar on BSAs.

Array Layout

Product Specifications

SBNHH-1D65B

SBNHH 6S



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

Product Specifications

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	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

Product Specifications

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 B13 RRH4X30-4R

Alcatel-Lucent B13 Remote Radio Head 4x30-4R 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.

Supporting 2Tx/4Tx MIMO and 4-way Rx diversity, Alcatel-Lucent B13 RRH4x30-4R allows operators to have a compact radio solution to deploy LTE in the 700U band (700 MHz, 3GPP band 13), providing them with the means to achieve high capacity, high quality and high coverage with minimum site requirements.

The Alcatel-Lucent B13 RRH4x30-4R product has four transmit RF paths, offering the possibility to **select, via software only, 2Tx or 4Tx MIMO configurations** with either 2x60 W or 4x30 W RF output power. It supports also 4-way Rx diversity and up to 10MHz instantaneous bandwidth.

The Alcatel-Lucent B13 RRH4x30-4R is a near zero-footprint solution and operates noise free, simplifying negotiations with site property owners and minimizing environmental impacts.

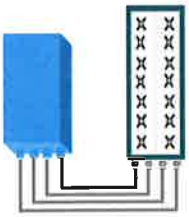
Its compactness and slim design makes the Alcatel-Lucent B13 RRH4x30-4R easy to install close to the antenna: operators can therefore locate this Remote Radio Head where RF design conditions are deemed ideal, minimizing trade-offs between available sites and RF optimum sites, together with reducing the RF feeder needs and installation costs.

FEATURES

- Supporting LTE in 700 MHz band (700U, 3GPP band 13)
- LTE 2Tx or 4Tx MIMO (SW switchable)
- Output power: Up to 2x60W or 4x30W
- 10MHz 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 700U band
- MIMO scheme operation selection (2Tx or 4Tx) by software only
- Improves downlink spectral efficiency through MIMO4
- Increases LTE coverage thanks to 4Rx diversity capability and best in class Rx sensitivity
- Flexible mounting options: Pole or Wall



4x30W with 4T4R
or
2x60W with 2T4R

Can be switched between modes via SW w/o site visit

Alcatel·Lucent

TECHNICAL SPECIFICATIONS

Features & performance	
Number of TX/RX paths	4 duplexed (either 4T4R or 2T4R by SW)
Frequency band	U700 (C) (3GPP bands 13): DL: 746 - 756 MHz / UL: 777 - 787 MHz
Instantaneous bandwidth - #carriers	10MHz – 1 LTE carrier (in 10MHz occupied bandwidth)
LTE carrier bandwidth	10 MHz
RF output power	2x60W or 4x30W (by SW)
Noise figure – RX Diversity scheme	2 dB typ. (<2.5 dB max) – 2 or 4 way Rx diversity
Sizes (HxWxD) in mm (in.) **Volume in L** **Weight in kg (lb) (w/o mounting HW)**	550 x 305 x 230 (21.6" x 12.0" x 9") (with solar shield) 38 (with solar shield) 26 (57.2) (with solar shield)
DC voltage range **DC power consumption**	-40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption 550W typical @100% RF load (in 2Tx or 4TX mode)
Environmental conditions **Wind load (@150km/h or 93mph)**	-40°C (-40°F) /+55°C (+131°F) IP65 Frontal:<200N / Lateral :<150N
Antenna ports	4 ports 7/16 DIN female (50 ohms) VSWR < 1.5
CPRI ports	2 CPRI ports (HW ready for Rate7, 9.8 Gbps) SFP single mode dual fiber
AISG interfaces	1 AISG2.0 output (RS485) Integrated Smart Bias Tees (x2)
Misc. Interfaces	4 external alarms (1 connector) – 4 RF Tx & 4 RF Rx monitor ports - 1 DC connector (2 pins)
Installation conditions	Pole and wall mounting
Regulatory compliance	3GPP 36.141 / 3GPP 36.113 / GR-1089-CORE / GR-3108-CORE / UL 60950-1 / FCC Part 27

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.

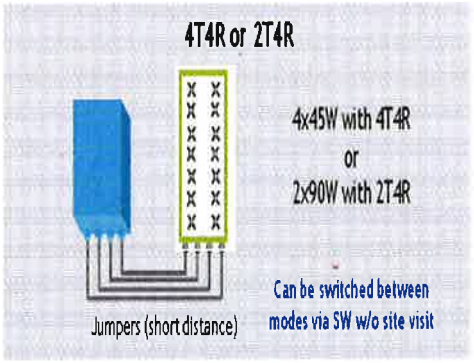
The Alcatel-Lucent B66a RRH4x45 product has four transmit RF paths, offering the possibility to **select, via software only, 2Tx or 4Tx MIMO configurations** with either 2x90W or 4x45W RF output power. It also supports 4-way Rx diversity at the 70 MHz instantaneous bandwidth.

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

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 **DC power consumption**	Nominal: -48V, -40.5 to -57V at full performance, -38 to -57V with relaxation on 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

Product Data Sheet HB158-1-08U8-S8J18

HYBRIFLEX™ RRH Hybrid Feeder Cabling Solution, 1-5/8", Single-Mode Fiber

Product Description

RFS' HYBRIFLEX Remote Radio Head (RRH) hybrid feeder cabling solution combines optical fiber and DC power for RRHs in a single lightweight aluminum corrugated cable, making it the world's most innovative solution for RRH deployments.

It was developed to reduce installation complexity and costs at Cellular sites. HYBRIFLEX allows mobile operators deploying an RRH architecture to standardize the RRH installation process and eliminate the need for and cost of cable grounding. HYBRIFLEX combines optical fiber (multi-mode or single-mode) and power in a single corrugated cable. It eliminates the need for junction boxes and can connect multiple RRHs with a single feeder. Standard RFS CELLFLEX® accessories can be used with HYBRIFLEX cable. Both pre-connectorized and on-site options are available.

Figure 1: HYBRIFLEX Series

Features/Benefits

- Aluminum corrugated armor with outstanding bending characteristics – minimizes installation time and enables mechanical protection and shielding
- Same accessories as 1 5/8" coaxial cable
- Outer conductor grounding – Eliminates typical grounding requirements and saves on installation costs
- Lightweight solution and compact design – Decreases tower loading
- Robust cabling – Eliminates need for expensive cable trays and ducts
- Installation of tight bundled fiber optic cable pairs directly to the RRH – Reduces CAPEX and wind load by eliminating need for interconnection
- Optical fiber and power cables housed in single corrugated cable – Saves CAPEX by standardizing RRH cable installation and reducing installation requirements
- Outdoor polyethylene jacket – Ensures long-lasting cable protection

Technical Specifications

Outer Conductor Armor	Corrugated Aluminum	[mm (in)]	46.5 (1.83)
Jacket	Polyethylene, PE	[mm (in)]	50.3 (1.98)
UV-Protection	Individual and External Jacket		Yes
Weight, Approximate		[kg/m (lb/ft)]	1.9 (1.30)
Minimum Bending Radius, Single Bending		[mm (in)]	200 (8)
Minimum Bending Radius, Repeated Bending		[mm (in)]	500 (20)
Recommended/Maximum Clamp Spacing		[m (ft)]	1.0 / 1.2 (3.25 / 4.0)
DC-Resistance Outer Conductor Armor		[Ω/km (Ω/1000ft)]	068 (0.205)
DC-Resistance Power Cable, 8.4mm² (8AWG)		[Ω/km (Ω/1000ft)]	2.1 (0.307)
Version			Single-mode OM3
Quantity, Fiber Count			16 (8 pairs)
Core/Clad		[µm]	50/125
Primary Coating (Acrylate)		[µm]	245
Buffer Diameter, Nominal		[µm]	900
Secondary Protection, Jacket, Nominal		[mm (in)]	2.0 (0.08)
Minimum Bending Radius		[mm (in)]	104 (4.1)
Insertion Loss @ wavelength 850nm		dB/km	3.0
Insertion Loss @ wavelength 1310nm		dB/km	1.0
Standards (Meets or exceeds)			UL94-V0, UL1666 RoHS Compliant
Size (Power)		[mm² (AWG)]	8.4 (8)
Quantity, Wire Count (Power)			16 (8 pairs)
Size (Alarm)		[mm² (AWG)]	0.8 (18)
Quantity, Wire Count (Alarm)			4 (2 pairs)
Type			UV protected
Strands			19
Primary Jacket Diameter, Nominal		[mm (in)]	6.8 (0.27)
Standards (Meets or exceeds)			NFPA 130, ICEA S-99-689 UL Type XHHW-2, UL 44 UL-LS Limited Smoke, UL VW-1 IEEE-383 (1974), IEEE1202/FT4 RoHS Compliant
Installation Temperature		[°C (°F)]	-40 to +65 (-40 to149)
Operation Temperature		[°C (°F)]	-40 to +65 (-40 to149)

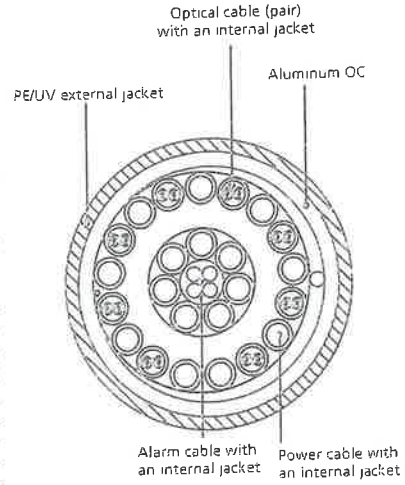


Figure 2: Construction Detail

* This data is provisional and subject to change

ATTACHMENT 2

	General	Power	Density					
Site Name: New Fairfield								
Tower Height: 187.5ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*Sprint	3	693	167	1900	0.0288	1.0000	0.29%	
*Sprint	1	390	167	850	0.0054	0.5667	0.10%	
*Sprint	2	693	167	2500	0.0192	1.0000	0.19%	
*Clearwire	2	153	185	2469	0.0034	1.0000	0.03%	
*Clearwire	1	211	185	11 GHz	0.0024	1.0000	0.02%	
*T-Mobile	2	2334	193	2100	0.0480	1.0000	0.48%	
*T-Mobile	1	865	193	700	0.0089	0.4667	0.19%	
*T-Mobile	2	1167	193	1900	0.0240	1.0000	0.24%	
*T-Mobile	2	1167	193	2100	0.0240	1.0000	0.24%	
*AT&T	2	414	160	850	0.0126	0.5667	0.22%	
*AT&T	2	656	160	1900	0.0199	1.0000	0.20%	
*AT&T	2	414	160	850	0.0126	0.5667	0.22%	
*AT&T	2	940	160	700	0.0285	0.4667	0.61%	
*AT&T	2	1791	160	1900	0.0543	1.0000	0.54%	
*Dept Homeland Security -	1	438	80	160	0.0288	0.2000	1.44%	
Verizon PCS	**0**	**1637**	**146**	**0.0000**	**1970**	**1.0000**	**0.00%**	
Verizon Cellular	**9**	**399**	**146**	**0.0606**	**869**	**0.5793**	**10.46%**	
Verizon AWS	**1**	**7332**	**146**	**0.1237**	**2145**	**1.0000**	**12.37%**	
Verizon 700	**1**	**2184**	**146**	**0.0368**	**746**	**0.4973**	**7.41%**	
								35.25%
* Source: Siting Council								

ATTACHMENT 3

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

TOWER
ENGINEERING
PROFESSIONALS

Structural Analysis Report

Structure	:	**187.5 ft Self Supported Tower**
ATC Site Name	:	**New Fairfield, CT**
ATC Site Number	:	**88014**
Engineering Number	:	**OAA696177_C3_01**
Proposed Carrier	:	**Verizon**
Carrier Site Name	:	**New Fairfield**
Carrier Site Number	:	**N/A**
Site Location	:	**22 Titicus Mtn Road** **New Fairfield, CT 06812-2565** **41.450700,-73.516000**
County	:	**Fairfield**
Date	:	**February 24, 2017**
Max Usage	:	**91%**
Result	:	**Pass**

Prepared By:
Rhett T. Park, E.I.

Reviewed By:

STATE OF CONNECTICUT
GRAHAM C. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

2/24/17

COA: PEC.0001553

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Calculations ..... Attached

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 187.5 ft self supported tower to reflect the change in loading by Verizon.

Supporting Documents

Tower Drawings	Analysis by CSEI, ATC Eng. #26464321, dated August 21, 2006.
Foundation Drawing	Mapping By Geotel Report #E08-291-F, dated May 19, 2008
Geotechnical Report	Geotel Report #E08-291-G, dated May 19, 2008

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	90 mph (3-Second Gust, Vasd) / 115 mph (3-Second Gust, Vult)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Spectral Response:	Ss = 0.22, S_1 = 0.07
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
187.5	193.0	3	Ericsson RRUS 11 B12	Platform	(12) 1 5/8" Coax (1) 1 5/8" Fiber	T-Mobile
		3	Ericsson AIR 21, 1.3 M, B2A B4P			
		3	Ericsson AIR 21, 1.3M, B4A B2P			
		3	Ericsson KRY 112 144/1			
	191.0	3	Commscope LNX-6515DS-VTM			
185.0	185.0	1	DragonWave A-ANT-23G-2.5-C	Side Arms	(6) 5/16" Coax (2) 1/2" Coax (1) 2" Conduit	Clearwire
		3	Argus LLPX310R			
		2	DragonWave Horizon Compact			
		1	DragonWave A-ANT-11G-4-C			
		3	NextNet BTS-2500			
170.3	170.3	-	-	Catwalk	-	-
164.0	167.0	3	RFS APXVSPP18-C-A20	Sector Frames	(3) 1 1/4" Hybriflex (1) 1 1/4" Fiber	Sprint Nextel
		3	RFS APXV9TM14-ALU-I20			
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	Alcatel-Lucent 4x40W RRH			
		3	Alcatel-Lucent 2X50W RRH w/o Filter			
159.0	159.0	3	Ericsson RRUS 32 B2	Sector Frames	(2) 0.74" 8 AWG 7 (6) 1 5/8" Coax (1) 3" Conduit (1) 0.29" Fiber	AT&T Mobility
		3	CCI HPA-65R-BUU-H6			
		3	Allgon 7770.00			
		3	Ericsson RRUS 11 (Band 12) (55 lb)			
		1	Raycap DC6-48-60-18-8F			
		6	Powerwave LGP21401			
146.0	147.0	4	Antel LPA-80063/4CF	Sector Frames	(12) 1 5/8" Coax	Verizon
		2	Antel LPA-80080/4CF__			
		6	RFS FD9R6004/2C-3L			
137.5	137.5	1	Dielectric TLP-16A-1E	Rest Platform	-	Qualcomm
112.5	112.5	1	Dielectric TLP-16A-1E	Side Arm	(1) 3 1/8" HL	
100.0	100.0	-	-	Platform	-	-
87.5	87.5	-	-	Rest Platform	-	
70.0	80.0	1	Andrew DB616E-BC	Side Arm	(1) 7/8" Coax	US Dept Of Homeland Security
50.0	50.0	-	-	Rest Platform	-	-
33.3	-	-	-	-	(4) Coax Cage	

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
146.0	146.0	3	Antel BXA-70063/6CF_	-	(6) 1 5/8" Coax	Verizon
		3	Antel BXA-171085-8BF-EDIN-X			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
146.0	146.0	6	Commscope SBNHH-1D65B	Sector Frames	(2) 1 5/8" Fiber	Verizon
		2	Andrew RC2DC-3315-PF-48			
		3	Alcatel-Lucent B66 RRH4x45			
		3	Alcatel-Lucent B13 RRH4x30-4R 700U			

[1]Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax stacked on top of existing Verizon coax.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	55%	Pass
Diagonals	91%	Pass
Horizontals	44%	Pass
Anchor Bolts	27%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	162.0	60%
Axial (Kips)	219.9	26%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
185.0	DragonWave A-ANT-23G-2.5-C	Clearwire	0.107	0.254	0.169
	DragonWave A-ANT-11G-4-C				
146.0	Alcatel-Lucent B13 RRH4x30-4R 700U	Verizon	0.074	0.138	0.051
	Alcatel-Lucent B66 RRH4x45				
	Andrew RC2DC-3315-PF-48				
	Commscope SBNHH-1D65B				

***Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G**

Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

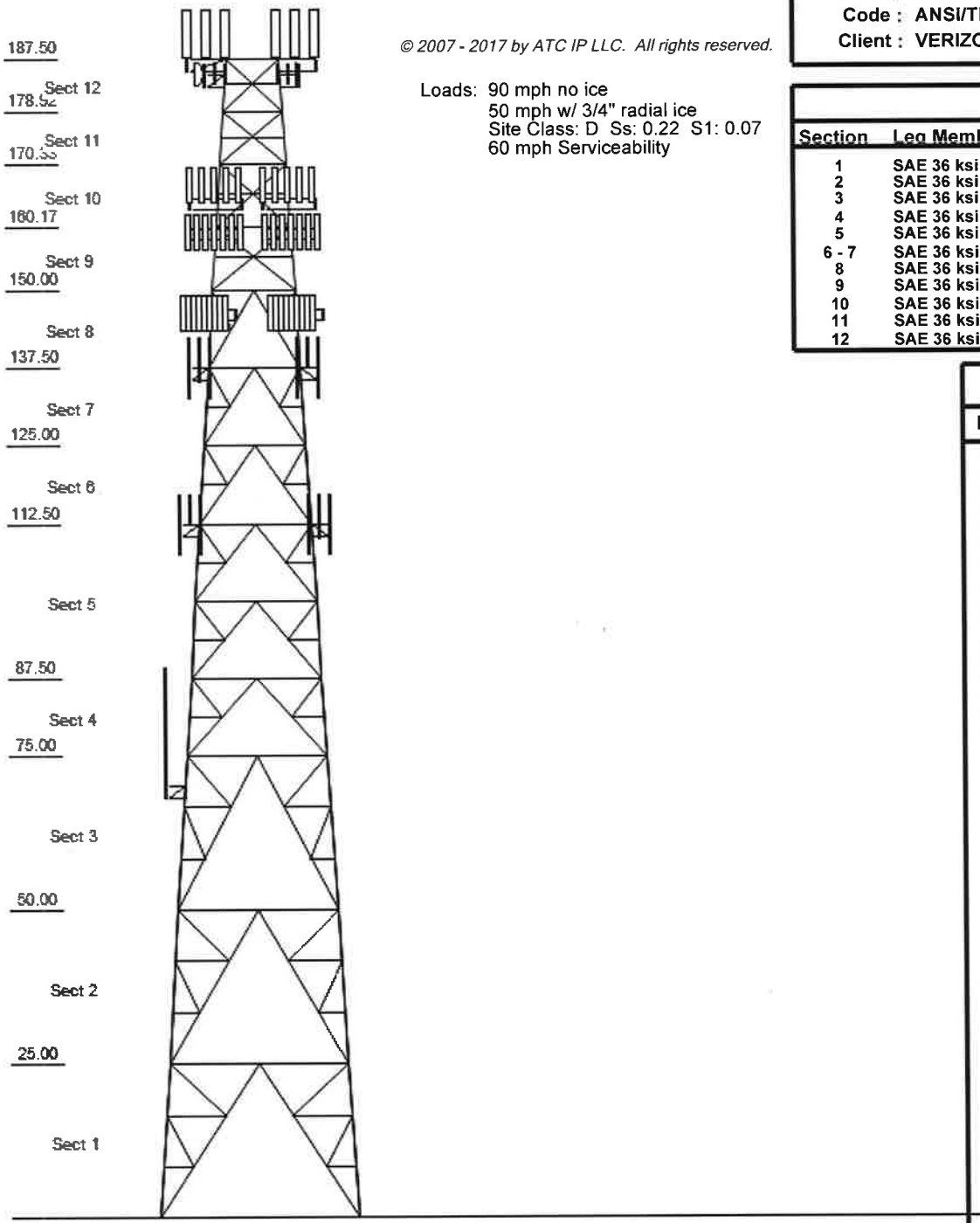
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Loads: 90 mph no ice
50 mph w/ 3/4" radial ice
Site Class: D Ss: 0.22 S1: 0.07
60 mph Serviceability

Job Information

Tower :	88014	Location :	New Fairfield, CT
Code :	ANSI/TIA-222-G	Shape :	Square
Client :	VERIZON WIRELESS		

Base Width : 32.45 ft
Top Width : 9.00 ft

Sections Properties

Section	Leg Members		Diagonal Members	Horizontal Members
1	SAE 36 ksi	8X8X0.875	DAS 36 ksi 3.5X3X0.25	DAL 36 ksi 3X2.5X0.3125
2	SAE 36 ksi	8X8X0.75	DAS 36 ksi 3X2.5X0.25	DAL 36 ksi 3X2.5X0.25
3	SAE 36 ksi	8X8X0.75	DAS 36 ksi 3X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
4	SAE 36 ksi	6X6X0.875	DAE 36 ksi 2.5X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
5	SAE 36 ksi	6X6X0.75	DAE 36 ksi 2.5X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
6 - 7	SAE 36 ksi	6X6X0.5625	DAL 36 ksi 2.5X2X0.25	DAE 36 ksi 2.5X2.5X0.25
8	SAE 36 ksi	6X6X0.4375	DAL 36 ksi 2.5X2X0.25	DAE 36 ksi 2.5X2.5X0.25
9	SAE 36 ksi	5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25	SAU 36 ksi 3X2.5X0.25
10	SAE 36 ksi	5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25	DAL 36 ksi 3X2.5X0.25
11	SAE 36 ksi	5X5X0.3125	SAE 36 ksi 3X3X0.25	SAU 36 ksi 3X2.5X0.25
12	SAE 36 ksi	5X5X0.3125	SAE 36 ksi 3X3X0.25	CHN 36 ksi C8 x 11.5

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
187.50	Panel	3	Commscope LNX-6515DS-VTM
187.50	Panel	3	Ericsson RRUS 11 B12
187.50	Panel	3	Ericsson AIR 21, 1.3 M, B2A B4
187.50	Panel	3	Ericsson AIR 21, 1.3M, B4A B2P
187.50	Panel	3	Ericsson KRY 112 144/1
187.50	Straight Arm	6	Pipe Mount
187.50	Platform	1	Platform
185.00	Dish	1	DragonWave A-ANT-23G-2.5-C
185.00	Straight Arm	3	Round Side Arm
185.00	Panel	3	Argus LLPX310R
185.00	Panel	2	DragonWave Horizon Compact
185.00	Dish	1	DragonWave A-ANT-11G-4-C
185.00	Panel	3	NextNet BTS-2500
170.33	Platform	1	Catwalk
164.00	Mounting Frame	3	Flat Light Sector Frames
164.00	Panel	3	RFS APXVSPP18-C-A20
164.00	Panel	3	RFS APXV9TM14-ALU-I20
164.00	Panel	3	Alcatel-Lucent TD-RRH8x20-25 w
164.00	Panel	3	Alcatel-Lucent 4x40W RRH
164.00	Panel	3	Alcatel-Lucent 2X50W RRH w/o F
159.00	Panel	3	Ericsson RRUS 32 B2
159.00	Panel	3	CCI HPA-65R-BUU-H6
159.00	Mounting Frame	3	Flat Light Sector Frames
159.00	Panel	3	Allgon 7770.00
159.00	Panel	3	Ericsson RRUS 11 (Band 12) (55
159.00	Panel	1	Raycap DC6-48-60-18-8F
159.00	Panel	6	Powerwave LGP21401
146.00	Mounting Frame	3	Flat Light Sector Frames
146.00	Panel	6	Commscope SBNHH-1D65B
146.00	Panel	4	Antel LPA-80063/4CF
146.00	Panel	2	Antel LPA-80080/4CF
146.00	Panel	2	Andrew RC2DC-3315-PF-48
146.00	Panel	3	Alcatel-Lucent B66 RRH4x45
146.00	Panel	3	Alcatel-Lucent B13 RRH4x30-4R
146.00	Panel	6	RFS FD9R6004/2C-3L
137.50	Whip	1	Dielectric TLP-16A-1E
137.50	Whip	1	Dielectric TLP-16A-1E
137.50	Whip	1	Dielectric TLP-16A-1E
137.50	Whip	1	Dielectric TLP-16A-1E
137.50	Whip	1	Dielectric TLP-16A-1E
137.50	Straight Arm	1	Flat Side Arm
137.50	Mounting Frame	1	Rest Platform
112.50	Whip	1	Dielectric TLP-16A-1E
112.50	Whip	1	Dielectric TLP-16A-1E
112.50	Whip	1	Dielectric TLP-16A-1E
112.50	Whip	1	Dielectric TLP-16A-1E
112.50	Whip	1	Dielectric TLP-16A-1E

Job Information

Tower :	88014	Location :	New Fairfield, CT		
Code :	ANSI/TIA-222-G	Shape :	Square	Base Width :	32.45 ft
Client :	VERIZON WIRELESS			Top Width :	9.00 ft

112.50	Straight Arm	1	Flat Side Arm
100.00	Platform	1	Platform
87.50	Mounting Frame	1	Rest Platform
70.00	Whip	1	Andrew DB616E-BC
70.00	Straight Arm	1	Flat Side Arm
50.00	Mounting Frame	1	Rest Platform

Linear Appurtenance

Elev (ft) From	To	Qty	Description
5.00	187.50	1	Wave Guide
5.00	187.50	1	Climbing Ladder
5.00	187.50	1	1 5/8" Fiber
5.00	187.50	6	1 5/8" Coax
5.00	187.50	6	1 5/8" Coax
5.00	185.00	6	5/16" Coax
5.00	185.00	1	2" Conduit
5.00	185.00	2	1/2" Coax
5.00	182.00	1	Wave Guide
5.00	164.00	3	1 1/4" Hybriflex Cab
5.00	164.00	1	1 1/4" Fiber
5.00	159.00	1	Wave Guide
5.00	159.00	1	3" Conduit
5.00	159.00	6	1 5/8" Coax
5.00	159.00	2	0.74" 8 AWG 7
5.00	159.00	1	0.29" Fiber
5.00	146.00	1	Wave Guide
5.00	146.00	2	1 5/8" Fiber
5.00	146.00	12	1 5/8" Coax
5.00	112.50	1	3 1/8" Hard Line
0.00	70.00	1	7/8" Coax
8.33	33.33	4	Coax Cage

Global Base Foundation Design Loads

Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	8,575.80	131.92	75.46
DL + WL + IL	3,110.37	311.66	28.15

Individual Base Foundation Design Loads

Vertical (kip)	Uplift (kip)	Horizontal (kip)
219.88	162.04	30.43

Site Number:	88014	Code:	ANSI/TIA-222-G	
Site Name:	New Fairfield, CT	Engineering Number:	OAA696177_C3_01	2/24/2017 10:23:54 AM
Customer:	VERIZON WIRELESS			

Analysis Parameters

Location:	FAIRFIELD County, CT	Height (ft):	187.5
Code:	ANSI/TIA-222-G	Base Elevation (ft):	0.00
Shape:	Square	Bottom Face Width (ft):	32.45
Tower Manufacturer:	AT&T TAG	Top Face Width (ft):	9.00
Tower Type:	Self Support		

Ice & Wind Parameters

Structure Class:	II	Design Windspeed Without Ice:	90 mph
Exposure Category:	B	Design Windspeed With Ice:	50 mph
Topographic Category:	1	Operational Windspeed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	0.75 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	0.66				
T_L (sec):	6	p:	1.3	C_S:	0.054
S_S :	0.215	S_1 :	0.067	C_S, Max:	0.054
F_a :	1.600	F_V :	2.400	C_S, Min:	0.030
S_{ds} :	0.229	S_{d1} :	0.107		

Load Cases

1.2D + 1.6W Normal	90 mph Normal to Face with No Ice
1.2D + 1.6W 45 deg	90 mph 45 degree with No Ice
1.2D + 1.6W 90 deg	90 mph 90 degree with No Ice
1.2D + 1.6W 135 deg	90 mph 135 degree with No Ice
1.2D + 1.6W 180 deg	90 mph 180 degree with No Ice
1.2D + 1.6W 225 deg	90 mph 225 degree with No Ice
1.2D + 1.6W 270 deg	90 mph 270 degree with No Ice
1.2D + 1.6W 315 deg	90 mph 315 degree with No Ice
0.9D + 1.6W Normal	90 mph Normal to Face with No Ice (Reduced DL)
0.9D + 1.6W 45 deg	90 mph 45 deg with No Ice (Reduced DL)
0.9D + 1.6W 90 deg	90 mph 90 deg with No Ice (Reduced DL)
0.9D + 1.6W 135 deg	90 mph 135 deg with No Ice (Reduced DL)
0.9D + 1.6W 180 deg	90 mph 180 deg with No Ice (Reduced DL)
0.9D + 1.6W 225 deg	90 mph 225 deg with No Ice (Reduced DL)
0.9D + 1.6W 270 deg	90 mph 270 deg with No Ice (Reduced DL)
0.9D + 1.6W 315 deg	90 mph 315 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 45 deg	50 mph 45 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 135 deg	50 mph 135 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 180 deg	50 mph 180 deg with 0.75 in Radial Ice

Analysis Parameters

1.2D + 1.0Di + 1.0Wi 225 deg	50 mph 225 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 270 deg	50 mph 270 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 315 deg	50 mph 315 deg with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal
(1.2 + 0.2Sds) * DL + E 45 deg	Seismic 45 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 deg
(1.2 + 0.2Sds) * DL + E 135 deg	Seismic 135 deg
(1.2 + 0.2Sds) * DL + E 180 deg	Seismic 180 deg
(1.2 + 0.2Sds) * DL + E 225 deg	Seismic 225 deg
(1.2 + 0.2Sds) * DL + E 270 deg	Seismic 270 deg
(1.2 + 0.2Sds) * DL + E 315 deg	Seismic 315 deg
(0.9 - 0.2Sds) * DL + E Normal	Seismic (Reduced DL) Normal
(0.9 - 0.2Sds) * DL + E 45 deg	Seismic (Reduced DL) 45 deg
(0.9 - 0.2Sds) * DL + E 90 deg	Seismic (Reduced DL) 90 deg
(0.9 - 0.2Sds) * DL + E 135 deg	Seismic (Reduced DL) 135 deg
(0.9 - 0.2Sds) * DL + E 180 deg	Seismic (Reduced DL) 180 deg
(0.9 - 0.2Sds) * DL + E 225 deg	Seismic (Reduced DL) 225 deg
(0.9 - 0.2Sds) * DL + E 270 deg	Seismic (Reduced DL) 270 deg
(0.9 - 0.2Sds) * DL + E 315 deg	Seismic (Reduced DL) 315 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 45 deg	Serviceability - 60 mph Wind 45 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg
1.0D + 1.0W Service 135 deg	Serviceability - 60 mph Wind 135 deg
1.0D + 1.0W Service 180 deg	Serviceability - 60 mph Wind 180 deg
1.0D + 1.0W Service 225 deg	Serviceability - 60 mph Wind 225 deg
1.0D + 1.0W Service 270 deg	Serviceability - 60 mph Wind 270 deg
1.0D + 1.0W Service 315 deg	Serviceability - 60 mph Wind 315 deg

Site Number: 88014 | Code: ANSI/TIA-222-G |

Site Name: New Fairfield, CT | Engineering Number: OAA696177_C3_01 | 2/24/2017 10:23:54 AM

Customer: VERIZON WIRELESS

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
187.5	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	5.5	96.7	21.02	18	48
187.5	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	881.6	21.02	160	219
187.5	Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	1691.6	20.94	564	1296
187.5	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	5.5	2025.9	21.02	368	359
187.5	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	5.5	2010.6	21.02	366	352
187.5	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	3.5	2398.4	20.96	685	217
187.5	Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.85	1984	11520
185.0	DragonWave	2	11	0.4	0.4	9.3	9.3	0.80	0.50	0.0	0.0	20.77	10	31
185.0	NextNet BTS-2500	3	35	1.8	1.6	11.3	5.1	0.80	0.50	0.0	0.0	20.77	62	151
185.0	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	20.77	183	124
185.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	20.77	295	648
185.0	DragonWave A-ANT-	1	48	8.4	2.9	35.0	0.0	0.80	1.00	0.0	0.0	20.77	190	69
185.0	DragonWave A-ANT-	1	121	17.8	4.2	50.8	0.0	0.80	1.00	0.0	0.0	20.77	401	174
170.3	Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.28	1517	9360
164.0	Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	3.0	272.6	20.17	91	229
164.0	Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	3.0	435.3	20.17	145	393
164.0	Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	3.0	535.8	20.17	179	302
164.0	RFS APXV9TM14-	3	55	6.3	4.7	12.6	6.3	0.80	0.66	3.0	826.3	20.17	275	238
164.0	RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	3.0	1092.8	20.17	364	246
164.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	20.06	824	1728
159.0	Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	19.89	71	122
159.0	Raycap DC6-48-60-	1	20	1.1	2.0	11.0	11.0	0.80	1.00	0.0	0.0	19.89	24	29
159.0	Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	19.89	110	238
159.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	19.89	119	229
159.0	Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	19.89	232	151
159.0	CCI HPA-65R-BUU-H6	3	51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	19.89	433	220
159.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.89	817	1728
146.0	RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	1.0	23.5	19.44	23	22
146.0	Alcatel-Lucent B13	3	57	2.2	1.8	12.0	9.0	0.80	0.67	0.0	0.0	19.41	92	247
146.0	Alcatel-Lucent B66	3	67	2.6	2.2	12.0	7.3	0.80	0.67	0.0	0.0	19.41	109	289
146.0	Andrew RC2DC-	2	32	3.8	2.4	15.7	10.3	0.80	0.67	0.0	0.0	19.41	107	92
146.0	Antel LPA-	2	12	5.4	3.9	13.2	5.5	0.80	0.64	1.0	146.2	19.44	146	35
146.0	Antel LPA-80063/4CF	4	20	6.1	4.0	15.2	13.2	0.80	0.76	1.0	394.9	19.44	395	115
146.0	Commscope SBNHH-	6	51	8.2	6.1	11.9	7.1	0.80	0.69	0.0	0.0	19.41	714	438
146.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.41	797	1728
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	10.0	1254.7	19.46	125	84
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	5.0	621.2	19.27	124	84
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	0.0	0.0	19.08	123	84
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-5.0	608.4	18.88	122	84
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-10.0	1203.6	18.67	120	84
137.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	163	216
137.5	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	389	720
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	10.0	1189.9	18.46	119	84
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	5.0	587.9	18.24	118	84
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	0.0	0.0	18.01	116	84
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-5.0	573.1	17.78	115	84
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-10.0	1130.8	17.54	113	84
112.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.01	154	216
100.0	Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	17.42	1066	7920
87.50	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.77	342	720
70.00	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	15.73	135	216
70.00	Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	1495.8	16.34	150	73
50.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	14.29	291	720

Site Number: 88014 | Code: ANSI/TIA-222-G |

Site Name: New Fairfield, CT | Engineering Number: OAA696177_C3_01 | 2/24/2017 10:23:54 AM

Customer: VERIZON WIRELESS

Tower Loading

Totals	123	31266	859.0

Discrete Appurtenance Properties 0.9D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
187.5	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	5.5	96.7	21.02	18	27
187.5	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	881.6	21.02	160	123
187.5	Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	1691.6	20.94	564	729
187.5	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	5.5	2025.9	21.02	368	202
187.5	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	5.5	2010.6	21.02	366	198
187.5	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	3.5	2398.4	20.96	685	122
187.5	Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.85	1984	6480
185.0	DragonWave	2	11	0.4	0.4	9.3	9.3	0.80	0.50	0.0	0.0	20.77	10	17
185.0	NextNet BTS-2500	3	35	1.8	1.6	11.3	5.1	0.80	0.50	0.0	0.0	20.77	62	85
185.0	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	20.77	183	69
185.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	20.77	295	365
185.0	DragonWave A-ANT-	1	48	8.4	2.9	35.0	0.0	0.80	1.00	0.0	0.0	20.77	190	39
185.0	DragonWave A-ANT-	1	121	17.8	4.2	50.8	0.0	0.80	1.00	0.0	0.0	20.77	401	98
170.3	Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.28	1517	5265
164.0	Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	3.0	272.6	20.17	91	129
164.0	Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	3.0	435.3	20.17	145	221
164.0	Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	3.0	535.8	20.17	179	170
164.0	RFS APXV9TM14-	3	55	6.3	4.7	12.6	6.3	0.80	0.66	3.0	826.3	20.17	275	134
164.0	RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	3.0	1092.8	20.17	364	139
164.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	20.06	824	972
159.0	Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	19.89	71	69
159.0	Raycap DC6-48-60-	1	20	1.1	2.0	11.0	11.0	0.80	1.00	0.0	0.0	19.89	24	16
159.0	Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	19.89	110	134
159.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	19.89	119	129
159.0	Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	19.89	232	85
159.0	CCI HPA-65R-BUU-H6	3	51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	19.89	433	124
159.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.89	817	972
146.0	RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	1.0	23.5	19.44	23	13
146.0	Alcatel-Lucent B13	3	57	2.2	1.8	12.0	9.0	0.80	0.67	0.0	0.0	19.41	92	139
146.0	Alcatel-Lucent B66	3	67	2.6	2.2	12.0	7.3	0.80	0.67	0.0	0.0	19.41	109	163
146.0	Andrew RC2DC-	2	32	3.8	2.4	15.7	10.3	0.80	0.67	0.0	0.0	19.41	107	52
146.0	Antel LPA-	2	12	5.4	3.9	13.2	5.5	0.80	0.64	1.0	146.2	19.44	146	19
146.0	Antel LPA-80063/4CF	4	20	6.1	4.0	15.2	13.2	0.80	0.76	1.0	394.9	19.44	395	65
146.0	Commscope SBNHH-	6	51	8.2	6.1	11.9	7.1	0.80	0.69	0.0	0.0	19.41	714	246
146.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.41	797	972
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	10.0	1254.7	19.46	125	47
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	5.0	621.2	19.27	124	47
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	0.0	0.0	19.08	123	47
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-5.0	608.4	18.88	122	47
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-10.0	1203.6	18.67	120	47
137.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	163	122
137.5	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	389	405
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	10.0	1189.9	18.46	119	47
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	5.0	587.9	18.24	118	47
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	0.0	0.0	18.01	116	47
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-5.0	573.1	17.78	115	47
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-10.0	1130.8	17.54	113	47
112.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.01	154	122
100.0	Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	17.42	1066	4455
87.50	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.77	342	405

Site Number: 88014 | Code: ANSI/TIA-222-G |

Site Name: New Fairfield, CT | Engineering Number: OAA696177_C3_01 | 2/24/2017 10:23:54 AM

Customer: VERIZON WIRELESS

Tower Loading

70.00	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	15.73	135	122
70.00	Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	1495.8	16.34	150	41
50.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	14.29	291	405
	Totals	123	31266	859.0										

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
187.5	Ericsson KRY 112	3	28	0.6	0.6	6.1	2.7	1.00	0.50	5.5	29.2	6.49	5	108
187.5	Ericsson RRUS 11	3	139	3.5	1.6	17.0	7.2	1.00	0.67	5.5	212.4	6.49	39	538
187.5	Pipe Mount	6	417	5.7	6.0	6.0	6.0	1.00	1.00	3.0	558.7	6.46	186	3219
187.5	Ericsson AIR 21, 1.3	3	256	7.2	4.7	12.0	8.0	1.00	0.71	5.5	463.3	6.49	84	982
187.5	Ericsson AIR 21,	3	255	7.2	4.7	12.1	7.9	1.00	0.70	5.5	459.6	6.49	84	975
187.5	Commscope LNX-	3	320	13.1	8.0	11.9	7.1	1.00	0.70	3.5	530.8	6.47	152	1189
187.5	Platform	1	13868	101.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.43	555	18562
185.0	DragonWave	2	42	0.7	0.4	9.3	9.3	0.80	0.50	0.0	0.0	6.41	3	105
185.0	NextNet BTS-2500	3	94	2.4	1.6	11.3	5.1	0.80	0.50	0.0	0.0	6.41	16	365
185.0	Argus LLPX310R	3	139	5.2	3.5	11.8	4.5	0.80	0.63	0.0	0.0	6.41	43	522
185.0	Round Side Arm	3	225	8.0	0.0	0.0	0.0	1.00	0.67	0.0	0.0	6.41	87	917
185.0	DragonWave A-ANT-	1	223	10.8	2.9	35.0	0.0	0.80	1.00	0.0	0.0	6.41	47	279
185.0	DragonWave A-ANT-	1	566	22.7	4.2	50.8	0.0	0.80	1.00	0.0	0.0	6.41	99	709
170.3	Catwalk	1	11173	82.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.26	439	14968
164.0	Alcatel-Lucent	3	183	4.2	2.6	13.0	12.2	0.80	0.67	3.0	106.2	6.22	35	698
164.0	Alcatel-Lucent	3	217	3.1	1.9	13.0	17.3	0.80	0.67	3.0	80.1	6.22	27	848
164.0	Alcatel-Lucent TD-	3	165	5.4	2.2	18.6	6.7	0.80	0.67	3.0	137.5	6.22	46	644
164.0	RFS APXV9TM14-	3	194	8.5	4.7	12.6	6.3	0.80	0.66	3.0	214.4	6.22	71	736
164.0	RFS APXVSPP18-C-	3	257	9.3	6.0	11.8	7.0	0.80	0.69	3.0	244.9	6.22	82	968
164.0	Flat Light Sector	3	703	33.1	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.19	294	2817
159.0	Powerwave	6	48	1.6	1.2	9.2	2.6	0.80	0.50	0.0	0.0	6.14	20	365
159.0	Raycap DC6-48-60-	1	113	2.9	2.0	11.0	11.0	0.80	1.00	0.0	0.0	6.14	12	141
159.0	Ericsson RRUS 11	3	136	3.2	1.5	17.0	7.2	0.80	0.67	0.0	0.0	6.14	27	528
159.0	Ericsson RRUS 32 B2	3	141	3.5	2.3	12.1	7.0	0.80	0.67	0.0	0.0	6.14	29	547
159.0	Allgon 7770.00	3	171	6.6	4.6	11.0	5.0	0.80	0.65	0.0	0.0	6.14	53	639
159.0	CCI HPA-65R-BUU-H6	3	300	11.0	6.0	14.8	9.0	0.80	0.69	0.0	0.0	6.14	95	1117
159.0	Flat Light Sector	3	703	33.1	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.14	291	2817
146.0	RFS FD9R6004/2C-3L	6	16	0.6	0.5	6.5	1.5	0.80	0.50	1.0	7.1	6.00	7	117
146.0	Alcatel-Lucent B13	3	139	2.8	1.8	12.0	9.0	0.80	0.67	0.0	0.0	5.99	23	541
146.0	Alcatel-Lucent B66	3	152	3.3	2.2	12.0	7.3	0.80	0.67	0.0	0.0	5.99	27	595
146.0	Andrew RC2DC-	2	158	4.6	2.4	15.7	10.3	0.80	0.67	0.0	0.0	5.99	25	394
146.0	Antel LPA-	2	147	6.4	3.9	13.2	5.5	0.80	0.64	1.0	33.4	6.00	33	358
146.0	Antel LPA-80063/4CF	4	225	7.2	4.0	15.2	13.2	0.80	0.76	1.0	89.1	6.00	89	1101
146.0	Commscope SBNHH-	6	253	9.5	6.1	11.9	7.1	0.80	0.69	0.0	0.0	5.99	160	1895
146.0	Flat Light Sector	3	700	33.0	0.0	0.0	0.0	0.75	0.75	0.0	0.0	5.99	283	2809
137.5	Dielectric TLP-16A-	1	232	4.3	4.9	10.0	10.0	1.00	1.00	10.0	221.8	6.01	22	292
137.5	Dielectric TLP-16A-	1	232	4.3	4.9	10.0	10.0	1.00	1.00	5.0	109.8	5.95	22	292
137.5	Dielectric TLP-16A-	1	232	4.3	4.9	10.0	10.0	1.00	1.00	0.0	0.0	5.89	22	292
137.5	Dielectric TLP-16A-	1	232	4.3	4.9	10.0	10.0	1.00	1.00	-5.0	107.5	5.83	22	292
137.5	Dielectric TLP-16A-	1	232	4.3	4.9	10.0	10.0	1.00	1.00	-10.0	212.7	5.76	21	292
137.5	Flat Side Arm	1	222	8.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.89	44	303
137.5	Rest Platform	1	872	27.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.89	138	1166
112.5	Dielectric TLP-16A-	1	227	4.3	4.9	10.0	10.0	1.00	1.00	10.0	208.7	5.70	21	286
112.5	Dielectric TLP-16A-	1	227	4.3	4.9	10.0	10.0	1.00	1.00	5.0	103.1	5.63	21	286
112.5	Dielectric TLP-16A-	1	227	4.3	4.9	10.0	10.0	1.00	1.00	0.0	0.0	5.56	20	286
112.5	Dielectric TLP-16A-	1	227	4.3	4.9	10.0	10.0	1.00	1.00	-5.0	100.5	5.49	20	286
112.5	Dielectric TLP-16A-	1	227	4.3	4.9	10.0	10.0	1.00	1.00	-10.0	198.3	5.41	20	286

Tower Loading

112.5	Flat Side Arm	1	220	8.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.56	41	300
100.0	Platform	1	9261	66.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.38	304	12433
87.50	Rest Platform	1	855	26.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.17	118	1145
70.00	Flat Side Arm	1	217	8.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.86	35	297
70.00	Andrew DB616E-BC	1	300	13.1	19.3	3.5	3.5	1.00	1.00	10.0	560.4	5.04	56	372
50.00	Rest Platform	1	828	26.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.41	98	1114
	Totals	123	63860	1226.7										

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
187.5	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	5.5	26.9	9.34	5	33
187.5	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	244.9	9.34	45	152
187.5	Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	469.9	9.31	157	900
187.5	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	5.5	562.8	9.34	102	249
187.5	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	5.5	558.5	9.34	102	245
187.5	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	3.5	666.2	9.31	190	151
187.5	Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.26	551	8000
185.0	DragonWave	2	11	0.4	0.4	9.3	9.3	0.80	0.50	0.0	0.0	9.23	3	21
185.0	NextNet BTS-2500	3	35	1.8	1.6	11.3	5.1	0.80	0.50	0.0	0.0	9.23	17	105
185.0	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	9.23	51	86
185.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	9.23	82	450
185.0	DragonWave A-ANT-	1	48	8.4	2.9	35.0	0.0	0.80	1.00	0.0	0.0	9.23	53	48
185.0	DragonWave A-ANT-	1	121	17.8	4.2	50.8	0.0	0.80	1.00	0.0	0.0	9.23	111	121
170.3	Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.01	421	6500
164.0	Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	3.0	75.7	8.96	25	159
164.0	Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	3.0	120.9	8.96	40	273
164.0	Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	3.0	148.8	8.96	50	210
164.0	RFS APXV9TM14-	3	55	6.3	4.7	12.6	6.3	0.80	0.66	3.0	229.5	8.96	77	165
164.0	RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	3.0	303.5	8.96	101	171
164.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.92	229	1200
159.0	Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	8.84	20	85
159.0	Raycap DC6-48-60-	1	20	1.1	2.0	11.0	11.0	0.80	1.00	0.0	0.0	8.84	7	20
159.0	Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	8.84	30	165
159.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	8.84	33	159
159.0	Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	8.84	65	105
159.0	CCI HPA-65R-BUU-H6	3	51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	8.84	120	153
159.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.84	227	1200
146.0	RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	1.0	6.5	8.64	7	16
146.0	Alcatel-Lucent B13	3	57	2.2	1.8	12.0	9.0	0.80	0.67	0.0	0.0	8.63	26	172
146.0	Alcatel-Lucent B66	3	67	2.6	2.2	12.0	7.3	0.80	0.67	0.0	0.0	8.63	30	201
146.0	Andrew RC2DC-	2	32	3.8	2.4	15.7	10.3	0.80	0.67	0.0	0.0	8.63	30	64
146.0	Antel LPA-	2	12	5.4	3.9	13.2	5.5	0.80	0.64	1.0	40.6	8.64	41	24
146.0	Antel LPA-80063/4CF	4	20	6.1	4.0	15.2	13.2	0.80	0.76	1.0	109.7	8.64	110	80
146.0	Commscope SBNHH-	6	51	8.2	6.1	11.9	7.1	0.80	0.69	0.0	0.0	8.63	198	304
146.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.63	221	1200
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	10.0	348.5	8.65	35	58
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	5.0	172.6	8.57	35	58
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	0.0	0.0	8.48	34	58
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-5.0	169.0	8.39	34	58
137.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-10.0	334.3	8.30	33	58
137.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.48	45	150
137.5	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.48	108	500
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	10.0	330.5	8.20	33	58
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	5.0	163.3	8.11	33	58

Tower Loading

112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	0.0	0.0	8.01	32	58
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-5.0	159.2	7.90	32	58
112.5	Dielectric TLP-16A-	1	58	4.7	4.9	10.0	10.0	1.00	1.00	-10.0	314.1	7.80	31	58
112.5	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.01	43	150
100.0	Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.74	296	5500
87.50	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.45	95	500
70.00	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.99	37	150
70.00	Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	415.5	7.26	42	51
50.00	Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.35	81	500
	Totals	123	31266	859.0										

Site Number: 88014
Site Name: New Fairfield, CT
Customer: VERIZON WIRELESS

Code: ANSI/TIA-222-G
Engineering Number: OAA696177_C3_01

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Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
5.00	187.5	1 5/8" Coax	6	1.98	0.82	50	3	Block	0.00	N	1.00	1.00	0.00
5.00	187.5	1 5/8" Coax	6	1.98	0.82	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	1 5/8" Fiber	1	1.63	1.61	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	Climbing Ladder	1	2.00	6.90	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	1/2" Coax	2	0.63	0.15	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	2" Conduit	1	2.38	3.65	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	5/16" Coax	6	0.31	0.05	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
5.00	182.0	Wave Guide	1	2.00	6.00	0	4	Individual	0.00	N	1.00	1.00	0.00
5.00	164.0	1 1/4" Fiber	1	1.25	1.05	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	164.0	1 1/4" Hybriflex	3	1.54	1.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	159.0	0.29" Fiber	1	0.29	0.08	0	Lin App	Individual	0.00	N	1.00	0.00	0.01
5.00	159.0	0.74" 8 AWG 7	2	0.74	0.49	0	Lin App	Individual	0.00	N	1.00	0.00	0.01
5.00	159.0	1 5/8" Coax	6	1.98	0.82	0	3	Individual	0.00	N	0.00	1.00	0.00
5.00	159.0	3" Conduit	1	3.50	7.58	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	159.0	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	146.0	1 5/8" Coax	12	1.98	0.82	0	1	Individual	0.00	N	1.00	1.00	0.00
5.00	146.0	1 5/8" Fiber	2	1.63	1.61	0	1	Individual	0.00	N	1.00	1.00	0.01
5.00	146.0	Wave Guide	1	2.00	6.00	0	1	Individual	0.00	N	1.00	1.00	0.00
5.00	112.5	3 1/8" Hard Line	1	3.13	3.04	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
0.00	70.00	7/8" Coax	1	1.09	0.33	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
8.33	33.33	Coax Cage	4	12.0	25.0	0	2,4	Individual	0.00	N	1.00	1.00	0.00

Site Number: 88014
Site Name: New Fairfield, CT
Customer: VERIZON WIRELESS

Code: ANSI/TIA-222-G
Engineering Number: OAA696177_C3_01

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Force/Stress Summary

Section: 1 1 — Bot Elev (ft): 0.00 — Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 8X8X0.875	-193.50	1.2D + 1.6W 45	25.10	33	33	33	63.3	36.0	347.12	0	0	0.00	0.00	55	Member Z
HORIZDAL - 3X2.5X0.3125	-9.73	0.9D + 1.6W	14.66	100	100	17	171.7	36.0	24.84	0	0	0.00	0.00	39	Member X
DIAG DAS - 3.5X3X0.25	-20.31	1.2D + 1.6W	29.84	33	66	8	145.0	36.0	33.61	0	0	0.00	0.00	60	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 8X8X0.875	140.75	0.9D + 1.6W 45	36	58	428.65	0	0	0.00	0.00		32	Member
HORIZ DAL - 3X2.5X0.3125	10.30	1.2D + 1.6W	36	58	104.98	0	0	0.00	0.00	0.00	9	Member
DIAG DAS - 3.5X3X0.25	18.50	1.2D + 1.6W	36	58	101.41	0	0	0.00	0.00	0.00	18	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	139.86	0.9D + 1.6W 45	0.00	0	0	
Top Compression	192.54	1.2D + 1.6W 45	0.00	0		
Bot Tension	164.66	0.9D + 1.6W 45	602.76	27	4	2 1/4 A36
Bot Compression	220.14	1.2D + 1.6W 45	0.00	0		

Section: 2 2 — Bot Elev (ft): 25.00 — Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 8X8X0.75	-163.29	1.2D + 1.6W 45	25.10	33	33	33	62.9	36.0	300.96	0	0	0.00	0.00	54	Member Z
HORIZDAL - 3X2.5X0.25	-9.42	1.2D + 1.6W	13.09	100	100	17	155.3	36.0	24.63	0	0	0.00	0.00	38	Member X
DIAG DAS - 3X2.5X0.25	-22.05	1.2D + 1.6W 90	29.02	33	65	8	156.7	36.0	24.19	0	0	0.00	0.00	91	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 8X8X0.75	116.57	0.9D + 1.6W 45	36	58	370.66	0	0	0.00	0.00		31	Member
HORIZ DAL - 3X2.5X0.25	9.85	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	0.00	11	Member
DIAG DAS - 3X2.5X0.25	19.77	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	0.00	23	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	115.70	0.9D + 1.6W 45	0.00	0	0	
Top Compression	162.37	1.2D + 1.6W 45	0.00	0		
Bot Tension	139.86	0.9D + 1.6W 45	0.00	0		
Bot Compression	192.54	1.2D + 1.6W 45	0.00	0		

Force/Stress Summary

Section: 3 3 Bot Elev (ft): 50.00 Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 8X8X0.75	-131.57	1.2D + 1.6W 45	25.10	33	33	33	62.9	36.0	300.96	0	0	0.00	0.00	43	Member Z
HORIZ DAE - 2.5X2.5X0.25	-8.62	1.2D + 1.6W 90	11.53	100	100	17	165.7	36.0	19.57	0	0	0.00	0.00	44	Member X
DIAG DAS - 3X2.5X0.25	-22.18	1.2D + 1.6W	28.26	33	66	8	155.0	36.0	24.73	0	0	0.00	0.00	89	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 8X8X0.75	91.45	0.9D + 1.6W 45	36	58	370.66	0	0	0.00	0.00		24	Member
HORIZ DAE - 2.5X2.5X0.25	9.15	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	11	Member
DIAG DAS - 3X2.5X0.25	20.51	0.9D + 1.6W	36	58	85.21	0	0	0.00	0.00	0.00	24	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	90.65	0.9D + 1.6W 45	0.00	0	0	
Top Compression	130.72	1.2D + 1.6W 45	0.00	0		
Bot Tension	115.70	0.9D + 1.6W 45	0.00	0		
Bot Compression	162.37	1.2D + 1.6W 45	0.00	0		

Section: 4 4 Bot Elev (ft): 75.00 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.875	-115.30	1.2D + 1.6W 45	12.55	50	50	50	64.4	36.0	253.50	0	0	0.00	0.00	45	Member Z
HORIZ DAE - 2.5X2.5X0.25	-7.71	1.2D + 1.6W	10.75	100	100	20	156.5	36.0	21.97	0	0	0.00	0.00	35	Member X
DIAG DAE - 2.5X2.5X0.25	-13.09	1.2D + 1.6W	17.02	50	100	12	167.1	36.0	19.26	0	0	0.00	0.00	67	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.875	79.84	0.9D + 1.6W 45	36	58	315.25	0	0	0.00	0.00		25	Member
HORIZ DAE - 2.5X2.5X0.25	8.22	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	10	Member
DIAG DAE - 2.5X2.5X0.25	11.85	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	15	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	79.13	0.9D + 1.6W 45	0.00	0	0	
Top Compression	114.53	1.2D + 1.6W 45	0.00	0		
Bot Tension	90.65	0.9D + 1.6W 45	0.00	0		
Bot Compression	130.72	1.2D + 1.6W 45	0.00	0		

Site Number: 88014
Site Name: New Fairfield, CT
Customer: VERIZON WIRELESS

Code: ANSI/TIA-222-G
Engineering Number: OAA696177_C3_01

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Force/Stress Summary

Section: 5 5 Bot Elev (ft): 87.50 Height (ft): 25.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.75	-99.63	1.2D + 1.6W 45	12.55	50	50	50	64.4	36.0	219.89	0	0	0.00	0.00	45	Member Z
HORIZDAE - 2.5X2.5X0.25	-7.30	1.2D + 1.6W	9.971	100	100	20	147.2	36.0	24.83	0	0	0.00	0.00	29	Member X
DIAG DAE - 2.5X2.5X0.25	-12.82	1.2D + 1.6W 90	16.50	50	100	12	162.8	36.0	20.29	0	0	0.00	0.00	63	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.75	67.51	0.9D + 1.6W 45	36	58	273.46	0	0	0.00	0.00		24	Member
HORIZ DAE - 2.5X2.5X0.25	7.58	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	9	Member
DIAG DAE - 2.5X2.5X0.25	11.64	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	15	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	55.83	0.9D + 1.6W 45	0.00	0	0	
Top Compression	82.07	1.2D + 1.6W 45	0.00	0		
Bot Tension	79.13	0.9D + 1.6W 45	0.00	0		
Bot Compression	114.53	1.2D + 1.6W 45	0.00	0		

Section: 6 6 Bot Elev (ft): 112.5 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	-67.51	1.2D + 1.6W 45	12.55	50	50	50	63.8	36.0	168.14	0	0	0.00	0.00	40	Member Z
HORIZDAE - 2.5X2.5X0.25	-5.98	1.2D + 1.6W	8.408	100	100	25	128.6	36.0	32.30	0	0	0.00	0.00	18	Member X
DIAG DAL - 2.5X2X0.25	-11.75	1.2D + 1.6W 90	15.53	50	100	12	188.1	36.0	13.60	0	0	0.00	0.00	86	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	44.21	0.9D + 1.6W 45	36	58	208.33	0	0	0.00	0.00		21	Member
HORIZ DAE - 2.5X2.5X0.25	6.30	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	8	Member
DIAG DAL - 2.5X2X0.25	10.78	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	0.00	15	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	43.66	0.9D + 1.6W 45	0.00	0	0	
Top Compression	66.93	1.2D + 1.6W 45	0.00	0		
Bot Tension	55.83	0.9D + 1.6W 45	0.00	0		
Bot Compression	82.07	1.2D + 1.6W 45	0.00	0		

Force/Stress Summary

Section: 7 6 Bot Elev (ft): 125.0 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	-52.27	1.2D + 1.6W 45	12.55	50	50	50	63.8	36.0	168.14	0	0	0.00	0.00	31	Member Z
HORIZ DAE - 2.5X2.5X0.25	-5.62	1.2D + 1.6W	7.626	100	120	25	119.0	36.0	36.59	0	0	0.00	0.00	15	Member X
DIAG DAL - 2.5X2X0.25	-11.67	1.2D + 1.6W 90	15.08	50	100	12	183.4	36.0	14.30	0	0	0.00	0.00	81	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.5625	31.46	0.9D + 1.6W 45	36	58	208.33	0	0	0.00	0.00		15	Member
HORIZ DAE - 2.5X2.5X0.25	5.83	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	7	Member
DIAG DAL - 2.5X2X0.25	10.75	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	0.00	15	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	30.94	0.9D + 1.6W 45	0.00	0	0	
Top Compression	51.73	1.2D + 1.6W 45	0.00	0		
Bot Tension	43.66	0.9D + 1.6W 45	0.00	0		
Bot Compression	66.93	1.2D + 1.6W 45	0.00	0		

Section: 8 7 Bot Elev (ft): 137.5 Height (ft): 12.500

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 6X6X0.4375	-37.20	1.2D + 1.6W 45	12.55	50	50	50	63.3	36.0	132.79	0	0	0.00	0.00	28	Member Z
HORIZ DAE - 2.5X2.5X0.25	-4.45	1.2D + 1.6W	6.845	100	107	25	106.8	36.0	42.29	0	0	0.00	0.00	10	Member X
DIAG DAL - 2.5X2X0.25	-11.03	1.2D + 1.6W 90	14.66	50	100	12	179.1	36.0	15.01	0	0	0.00	0.00	73	Member Y

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.4375	19.20	0.9D + 1.6W 45	36	58	163.94	0	0	0.00	0.00		11	Member
HORIZ DAE - 2.5X2.5X0.25	5.56	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	7	Member
DIAG DAL - 2.5X2X0.25	10.38	0.9D + 1.6W 90	36	58	69.01	0	0	0.00	0.00	0.00	15	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	18.70	0.9D + 1.6W 45	0.00	0	0	
Top Compression	36.58	1.2D + 1.6W 45	0.00	0		
Bot Tension	30.94	0.9D + 1.6W 45	0.00	0		
Bot Compression	51.73	1.2D + 1.6W 45	0.00	0		

Force/Stress Summary

Section: 9 8 - lower Bot Elev (ft): 150.0 Height (ft): 10.167

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	-28.87	1.2D + 1.6W 45	10.21	50	50	50	62.1	36.0	110.54	0	0	0.00	0.00	26	Member Z
HORIZSAU - 3X2.5X0.25	-1.16	0.9D + 1.6W	12.41	50	100	50	167.9	36.0	10.50	0	0	0.00	0.00	11	Member Y
DIAG SAE - 3.5X3.5X0.25	-6.16	1.2D + 1.6W	16.55	50	50	50	138.6	36.0	19.86	0	0	0.00	0.00	31	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	14.87	0.9D + 1.6W 45	36	58	135.43	0	0	0.00	0.00		10	Member
HORIZ SAU - 3X2.5X0.25	2.29	1.2D + 1.6W	36	58	42.44	0	0	0.00	0.00	0.00	5	Member
DIAG SAE - 3.5X3.5X0.25	4.47	1.2D + 1.6W	36	58	54.76	0	0	0.00	0.00	0.00	8	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	10.06	0.9D + 1.6W 45	0.00	0	0	
Top Compression	25.78	1.2D + 1.6W 45	0.00	0		
Bot Tension	18.70	0.9D + 1.6W 45	0.00	0		
Bot Compression	36.58	1.2D + 1.6W 45	0.00	0		

Section: 10 8 - upper Bot Elev (ft): 160.1 Height (ft): 10.167

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	-18.88	1.2D + 1.6W 45	10.21	50	50	50	62.1	36.0	110.54	0	0	0.00	0.00	17	Member Z
HORIZDAL - 3X2.5X0.25	-0.70	0.9D + 1.6W	11.14	50	100	50	172.4	36.0	19.99	0	0	0.00	0.00	3	Member Y
DIAG SAE - 3.5X3.5X0.25	-4.56	1.2D + 1.6W	15.57	50	50	50	132.1	36.0	21.85	0	0	0.00	0.00	20	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.4375	8.24	0.9D + 1.6W 45	36	58	135.43	0	0	0.00	0.00		6	Member
HORIZ DAL - 3X2.5X0.25	1.49	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	0.00	1	Member
DIAG SAE - 3.5X3.5X0.25	3.09	1.2D + 1.6W	36	58	54.76	0	0	0.00	0.00	0.00	5	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	4.25	0.9D + 1.6W 45	0.00	0	0	
Top Compression	17.28	1.2D + 1.0Di +	0.00	0		
Bot Tension	10.06	0.9D + 1.6W 45	0.00	0		
Bot Compression	25.78	1.2D + 1.6W 45	0.00	0		

Force/Stress Summary

Section: 11 9 - lower Bot Elev (ft): 170.3 Height (ft): 8.583

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	-10.46	1.2D + 1.6W 45	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	12	Member Z
HORIZ SAU - 3X2.5X0.25	-0.17	1.2D + 1.6W	10.07	50	100	50	144.9	36.0	14.09	0	0	0.00	0.00	1	Member Y
DIAG SAE - 3X3X0.25	-3.34	1.2D + 1.6W 90	13.65	50	50	50	134.1	36.0	18.10	0	0	0.00	0.00	18	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	4.00	0.9D + 1.6W 45	36	58	98.17	0	0	0.00	0.00		4	Member
HORIZ SAU - 3X2.5X0.25	1.02	1.2D + 1.6W	36	58	42.44	0	0	0.00	0.00	0.00	2	Member
DIAG SAE - 3X3X0.25	2.38	1.2D + 1.6W 90	36	58	46.66	0	0	0.00	0.00	0.00	5	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	1.34	0.9D + 1.6W 135	0.00	0	0	
Top Compression	10.43	1.2D + 1.0Di +	0.00	0		
Bot Tension	4.25	0.9D + 1.6W 45	0.00	0		
Bot Compression	17.28	1.2D + 1.0Di +	0.00	0		

Section: 12 9 - upper Bot Elev (ft): 178.9 Height (ft): 8.583

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SAE - 5X5X0.3125	-6.88	1.2D + 1.0Di +	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	8	Member Z
HORIZ CHN - C8 x 11.5	-0.04	1.2D + 1.6W	9.001	100	100	100	160.3	36.0	29.72	0	0	0.00	0.00	0	Member Y
DIAG SAE - 3X3X0.25	-3.34	1.2D + 1.6W	12.84	50	50	50	127.8	36.0	19.75	0	0	0.00	0.00	16	Member Z

Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	0.00		0	0	0.00	0	0	0.00	0.00		0	
HORIZ CHN - C8 x 11.5	0.10	1.2D + 1.6W	36	58	109.51	0	0	0.00	0.00	0.00	0	Member
DIAG SAE - 3X3X0.25	2.42	0.9D + 1.6W	36	58	46.66	0	0	0.00	0.00	0.00	5	Member

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0	0	
Top Compression	7.76	1.2D + 1.0Di +	0.00	0		
Bot Tension	1.34	0.9D + 1.6W 135	0.00	0		
Bot Compression	10.43	1.2D + 1.0Di +	0.00	0		

Detailed Reactions

Load Case	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.2D + 1.6W Normal	1	-10.30	159.20	-20.36	
	1a	5.47	-93.24	-15.66	
	1b	-5.47	-93.24	-15.66	
	1c	10.30	159.20	-20.36	
1.2D + 1.6W 45 deg	1	-21.53	219.88	-21.51	
	1a	-9.91	32.66	-5.09	
	1b	-16.85	-153.91	-16.83	
	1c	-5.08	33.30	-9.93	
1.2D + 1.6W 90 deg	1	-20.36	158.75	-10.27	
	1a	-20.36	158.75	10.27	
	1b	-15.66	-92.79	-5.44	
	1c	-15.66	-92.79	5.44	
1.2D + 1.6W 135 deg	1	-9.91	32.66	5.09	
	1a	-21.53	219.88	21.51	
	1b	-5.08	33.30	9.93	
	1c	-16.85	-153.91	16.83	
1.2D + 1.6W 180 deg	1	5.47	-93.24	15.66	
	1a	-10.30	159.20	20.36	
	1b	10.30	159.20	20.36	
	1c	-5.47	-93.24	15.66	
1.2D + 1.6W 225 deg	1	16.85	-153.91	16.83	
	1a	5.08	33.30	9.93	
	1b	21.53	219.88	21.51	
	1c	9.91	32.66	5.09	
1.2D + 1.6W 270 deg	1	15.66	-92.79	5.44	
	1a	15.66	-92.79	-5.44	
	1b	20.36	158.75	10.27	
	1c	20.36	158.75	-10.27	
1.2D + 1.6W 315 deg	1	5.08	33.30	-9.93	
	1a	16.85	-153.91	-16.83	
	1b	9.91	32.66	-5.09	
	1c	21.53	219.88	-21.51	
0.9D + 1.6W Normal	1	-9.69	150.87	-19.75	
	1a	6.07	-101.40	-16.26	
	1b	-6.07	-101.40	-16.26	
	1c	9.69	150.87	-19.75	
0.9D + 1.6W 45 deg	1	-20.92	211.51	-20.90	
	1a	-9.31	24.42	-5.70	
	1b	-17.45	-162.04	-17.43	
	1c	-5.68	25.05	-9.33	
0.9D + 1.6W 90 deg	1	-19.75	150.43	-9.66	
	1a	-19.75	150.43	9.66	
	1b	-16.26	-100.96	-6.04	
	1c	-16.26	-100.96	6.04	
0.9D + 1.6W 135 deg	1	-9.31	24.42	5.70	
	1a	-20.92	211.51	20.90	
	1b	-5.68	25.05	9.33	
	1c	-17.45	-162.04	17.43	

0.9D + 1.6W 180 deg	1	6.07	-101.40	16.26
	1a	-9.69	150.87	19.75
	1b	9.69	150.87	19.75
	1c	-6.07	-101.40	16.26
0.9D + 1.6W 225 deg	1	17.45	-162.04	17.43
	1a	5.68	25.05	9.33
	1b	20.92	211.51	20.90
	1c	9.31	24.42	5.70
0.9D + 1.6W 270 deg	1	16.26	-100.96	6.04
	1a	16.26	-100.96	-6.04
	1b	19.75	150.43	9.66
	1c	19.75	150.43	-9.66
0.9D + 1.6W 315 deg	1	5.68	25.05	-9.33
	1a	17.45	-162.04	-17.43
	1b	9.31	24.42	-5.70
	1c	20.92	211.51	-20.90
1.2D + 1.0Di + 1.0Wi Normal	1	-8.42	123.29	-12.24
	1a	-2.74	32.53	-1.10
	1b	2.74	32.53	-1.10
	1c	8.42	123.29	-12.24
1.2D + 1.0Di + 1.0Wi 45 deg	1	-12.67	145.70	-12.66
	1a	-8.43	77.83	2.72
	1b	-1.53	10.13	-1.52
	1c	2.73	78.00	-8.44
1.2D + 1.0Di + 1.0Wi 90 deg	1	-12.24	123.18	-8.41
	1a	-12.24	123.18	8.41
	1b	-1.10	32.65	2.75
	1c	-1.10	32.65	-2.75
1.2D + 1.0Di + 1.0Wi 135 deg	1	-8.43	77.83	-2.72
	1a	-12.67	145.70	12.66
	1b	2.73	78.00	8.44
	1c	-1.53	10.13	1.52
1.2D + 1.0Di + 1.0Wi 180 deg	1	-2.74	32.53	1.10
	1a	-8.42	123.29	12.24
	1b	8.42	123.29	12.24
	1c	2.74	32.53	1.10
1.2D + 1.0Di + 1.0Wi 225 deg	1	1.53	10.13	1.52
	1a	-2.73	78.00	8.44
	1b	12.67	145.70	12.66
	1c	8.43	77.83	-2.72
1.2D + 1.0Di + 1.0Wi 270 deg	1	1.10	32.65	-2.75
	1a	1.10	32.65	2.75
	1b	12.24	123.18	8.41
	1c	12.24	123.18	-8.41
1.2D + 1.0Di + 1.0Wi 315 deg	1	-2.73	78.00	-8.44
	1a	1.53	10.13	-1.52
	1b	8.43	77.83	2.72
	1c	12.67	145.70	-12.66
(1.2 + 0.2Sds) * DL + E Normal M1	1	-3.55	49.40	-4.41
	1a	-1.46	15.93	0.59
	1b	1.46	15.93	0.59
	1c	3.55	49.40	-4.41

(1.2 + 0.2Sds) * DL + E Normal M2	1	-3.56	49.51	-4.23
	1a	-1.45	15.83	0.77
	1b	1.45	15.83	0.77
	1c	3.56	49.51	-4.23
(1.2 + 0.2Sds) * DL + E 45 deg M1	1	-4.59	56.33	-4.59
	1a	-3.12	32.67	1.89
	1b	0.41	9.00	0.41
	1c	1.89	32.67	-3.12
(1.2 + 0.2Sds) * DL + E 45 deg M2	1	-4.47	56.48	-4.47
	1a	-2.98	32.67	2.03
	1b	0.54	8.85	0.54
	1c	2.03	32.67	-2.98
(1.2 + 0.2Sds) * DL + E 90 deg M1	1	-4.41	49.40	-3.55
	1a	-4.41	49.40	3.55
	1b	0.59	15.93	1.46
	1c	0.59	15.93	-1.46
(1.2 + 0.2Sds) * DL + E 90 deg M2	1	-4.23	49.51	-3.56
	1a	-4.23	49.51	3.56
	1b	0.77	15.83	1.45
	1c	0.77	15.83	-1.45
(1.2 + 0.2Sds) * DL + E 135 deg M1	1	-3.12	32.67	-1.89
	1a	-4.59	56.33	4.59
	1b	1.89	32.67	3.12
	1c	0.41	9.00	-0.41
(1.2 + 0.2Sds) * DL + E 135 deg M2	1	-2.98	32.67	-2.03
	1a	-4.47	56.48	4.47
	1b	2.03	32.67	2.98
	1c	0.54	8.85	-0.54
(1.2 + 0.2Sds) * DL + E 180 deg M1	1	-1.46	15.93	-0.59
	1a	-3.55	49.40	4.41
	1b	3.55	49.40	4.41
	1c	1.46	15.93	-0.59
(1.2 + 0.2Sds) * DL + E 180 deg M2	1	-1.45	15.83	-0.77
	1a	-3.56	49.51	4.23
	1b	3.56	49.51	4.23
	1c	1.45	15.83	-0.77
(1.2 + 0.2Sds) * DL + E 225 deg M1	1	-0.41	9.00	-0.41
	1a	-1.89	32.67	3.12
	1b	4.59	56.33	4.59
	1c	3.12	32.67	-1.89
(1.2 + 0.2Sds) * DL + E 225 deg M2	1	-0.54	8.85	-0.54
	1a	-2.03	32.67	2.98
	1b	4.47	56.48	4.47
	1c	2.98	32.67	-2.03
(1.2 + 0.2Sds) * DL + E 270 deg M1	1	-0.59	15.93	-1.46
	1a	-0.59	15.93	1.46
	1b	4.41	49.40	3.55
	1c	4.41	49.40	-3.55
(1.2 + 0.2Sds) * DL + E 270 deg M2	1	-0.77	15.83	-1.45
	1a	-0.77	15.83	1.45
	1b	4.23	49.51	3.56
	1c	4.23	49.51	-3.56
(1.2 + 0.2Sds) * DL + E 315 deg M1	1	-1.89	32.67	-3.12

	1a	-0.41	9.00	0.41
	1b	3.12	32.67	1.89
	1c	4.59	56.33	-4.59
(1.2 + 0.2Sds) * DL + E 315 deg M2	1	-2.03	32.67	-2.98
	1a	-0.54	8.85	0.54
	1b	2.98	32.67	2.03
	1c	4.47	56.48	-4.47
(0.9 - 0.2Sds) * DL + E Normal M1	1	-2.76	39.11	-3.63
	1a	-0.67	5.68	-0.20
	1b	0.67	5.68	-0.20
	1c	2.76	39.11	-3.63
(0.9 - 0.2Sds) * DL + E Normal M2	1	-2.77	39.22	-3.45
	1a	-0.66	5.57	-0.01
	1b	0.66	5.57	-0.01
	1c	2.77	39.22	-3.45
(0.9 - 0.2Sds) * DL + E 45 deg M1	1	-3.81	46.04	-3.81
	1a	-2.33	22.40	1.10
	1b	-0.37	-1.25	-0.37
	1c	1.10	22.40	-2.33
(0.9 - 0.2Sds) * DL + E 45 deg M2	1	-3.68	46.19	-3.68
	1a	-2.20	22.40	1.24
	1b	-0.25	-1.40	-0.25
	1c	1.24	22.40	-2.20
(0.9 - 0.2Sds) * DL + E 90 deg M1	1	-3.63	39.11	-2.76
	1a	-3.63	39.11	2.76
	1b	-0.20	5.68	0.67
	1c	-0.20	5.68	-0.67
(0.9 - 0.2Sds) * DL + E 90 deg M2	1	-3.45	39.22	-2.77
	1a	-3.45	39.22	2.77
	1b	-0.01	5.57	0.66
	1c	-0.01	5.57	-0.66
(0.9 - 0.2Sds) * DL + E 135 deg M1	1	-2.33	22.40	-1.10
	1a	-3.81	46.04	3.81
	1b	1.10	22.40	2.33
	1c	-0.37	-1.25	0.37
(0.9 - 0.2Sds) * DL + E 135 deg M2	1	-2.20	22.40	-1.24
	1a	-3.68	46.19	3.68
	1b	1.24	22.40	2.20
	1c	-0.25	-1.40	0.25
(0.9 - 0.2Sds) * DL + E 180 deg M1	1	-0.67	5.68	0.20
	1a	-2.76	39.11	3.63
	1b	2.76	39.11	3.63
	1c	0.67	5.68	0.20
(0.9 - 0.2Sds) * DL + E 180 deg M2	1	-0.66	5.57	0.01
	1a	-2.77	39.22	3.45
	1b	2.77	39.22	3.45
	1c	0.66	5.57	0.01
(0.9 - 0.2Sds) * DL + E 225 deg M1	1	0.37	-1.25	0.37
	1a	-1.10	22.40	2.33
	1b	3.81	46.04	3.81
	1c	2.33	22.40	-1.10
(0.9 - 0.2Sds) * DL + E 225 deg M2	1	0.25	-1.40	0.25
	1a	-1.24	22.40	2.20

	1b	3.68	46.19	3.68
	1c	2.20	22.40	-1.24
(0.9 - 0.2Sds) * DL + E 270 deg M1	1	0.20	5.68	-0.67
	1a	0.20	5.68	0.67
	1b	3.63	39.11	2.76
	1c	3.63	39.11	-2.76
(0.9 - 0.2Sds) * DL + E 270 deg M2	1	0.01	5.57	-0.66
	1a	0.01	5.57	0.66
	1b	3.45	39.22	2.77
	1c	3.45	39.22	-2.77
(0.9 - 0.2Sds) * DL + E 315 deg M1	1	-1.10	22.40	-2.33
	1a	0.37	-1.25	-0.37
	1b	2.33	22.40	1.10
	1c	3.81	46.04	-3.81
(0.9 - 0.2Sds) * DL + E 315 deg M2	1	-1.24	22.40	-2.20
	1a	0.25	-1.40	-0.25
	1b	2.20	22.40	1.24
	1c	3.68	46.19	-3.68
1.0D + 1.0W Service Normal	1	-4.20	62.56	-7.03
	1a	0.18	-7.59	-3.01
	1b	-0.18	-7.59	-3.01
	1c	4.20	62.56	-7.03
1.0D + 1.0W Service 45 deg	1	-7.35	79.42	-7.34
	1a	-4.10	27.40	-0.09
	1b	-3.34	-24.45	-3.33
	1c	-0.08	27.57	-4.11
1.0D + 1.0W Service 90 deg	1	-7.03	62.43	-4.19
	1a	-7.03	62.43	4.19
	1b	-3.01	-7.47	-0.17
	1c	-3.01	-7.47	0.17
1.0D + 1.0W Service 135 deg	1	-4.10	27.40	0.09
	1a	-7.35	79.42	7.34
	1b	-0.08	27.57	4.11
	1c	-3.34	-24.45	3.33
1.0D + 1.0W Service 180 deg	1	0.18	-7.59	3.01
	1a	-4.20	62.56	7.03
	1b	4.20	62.56	7.03
	1c	-0.18	-7.59	3.01
1.0D + 1.0W Service 225 deg	1	3.34	-24.45	3.33
	1a	0.08	27.57	4.11
	1b	7.35	79.42	7.34
	1c	4.10	27.40	0.09
1.0D + 1.0W Service 270 deg	1	3.01	-7.47	0.17
	1a	3.01	-7.47	-0.17
	1b	7.03	62.43	4.19
	1c	7.03	62.43	-4.19
1.0D + 1.0W Service 315 deg	1	0.08	27.57	-4.11
	1a	3.34	-24.45	-3.33
	1b	4.10	27.40	-0.09
	1c	7.35	79.42	-7.34

Site Number:	**88014**	**Code:**	**ANSI/TIA-222-G**		
Site Name:	**New Fairfield, CT**	**Engineering Number:**	**OAA696177_C3_01**	2/24/2017 10:23:55 AM	
Customer:	**VERIZON WIRELESS**				

Max Uplift:	**162.04 (kip)**	**Moment Ice:**	**3,110.37 (kip-ft)**	**Moment:**	**8,575.80 (kip-ft)**	**1.2D + 1.6W 45 deg**
Max Down:	**219.88 (kip)**	**Total Down Ice:**	**311.66 (kip)**	**Total Down:**	**131.92 (kip)**	
Max Shear:	**30.43 (kip)**	**Total Shear Ice:**	**28.15 (kip)**	**Total Shear:**	**75.46 (kip)**	

Pyramidal Pad & Pier

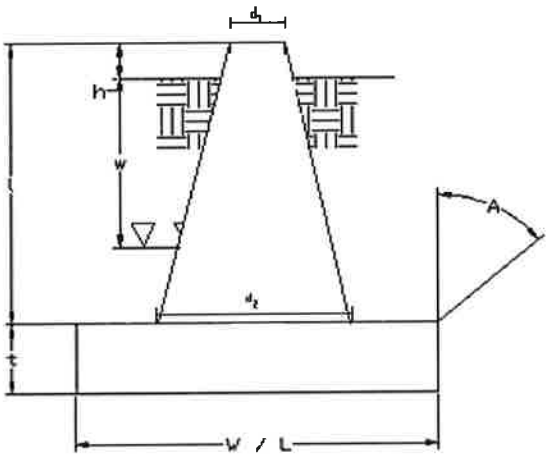
last updated: 01/24/12

Site No.:	88014
Engineer:	RTP
Date:	02/24/17
Carrier:	T-Mobile

Design Loads (Factored)

Compression/Leg:	219.88	k
Uplift/Leg:	162.04	k

Face Width @ Top of Pier (d_1):	3.58	ft
Face Width @ Bottom of Pier (d_2):	6.00	ft
Total Length of Pier (l):	6.50	ft
Height of Pedestal Above Ground (h):	0.63	ft
Width of Pad (W):	16.00	ft
Length of Pad (L):	16.00	ft
Thickness of Pad (t):	3.00	ft
Water Table Depth (w):	99.00	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	120.0	pcf
Unit Weight of Soil (Below Water Table):	57.6	pcf
Friction Angle of Uplift (A):	22	°
Ultimate Compressive Bearing Pressure:	4500	psf



Volume Pier:	152.40	ft³
Volume Pad:	768.00	ft³
Volume Soil:	1841.06	ft³
Volume Pier (Buoyant):	0.00	ft³
Volume Pad (Buoyant):	0.00	ft³
Volume Soil (Buoyant):	0.00	ft³
Weight Pier:	22.86	k
Weight Pad:	115.20	k
Weight Soil:	220.93	k

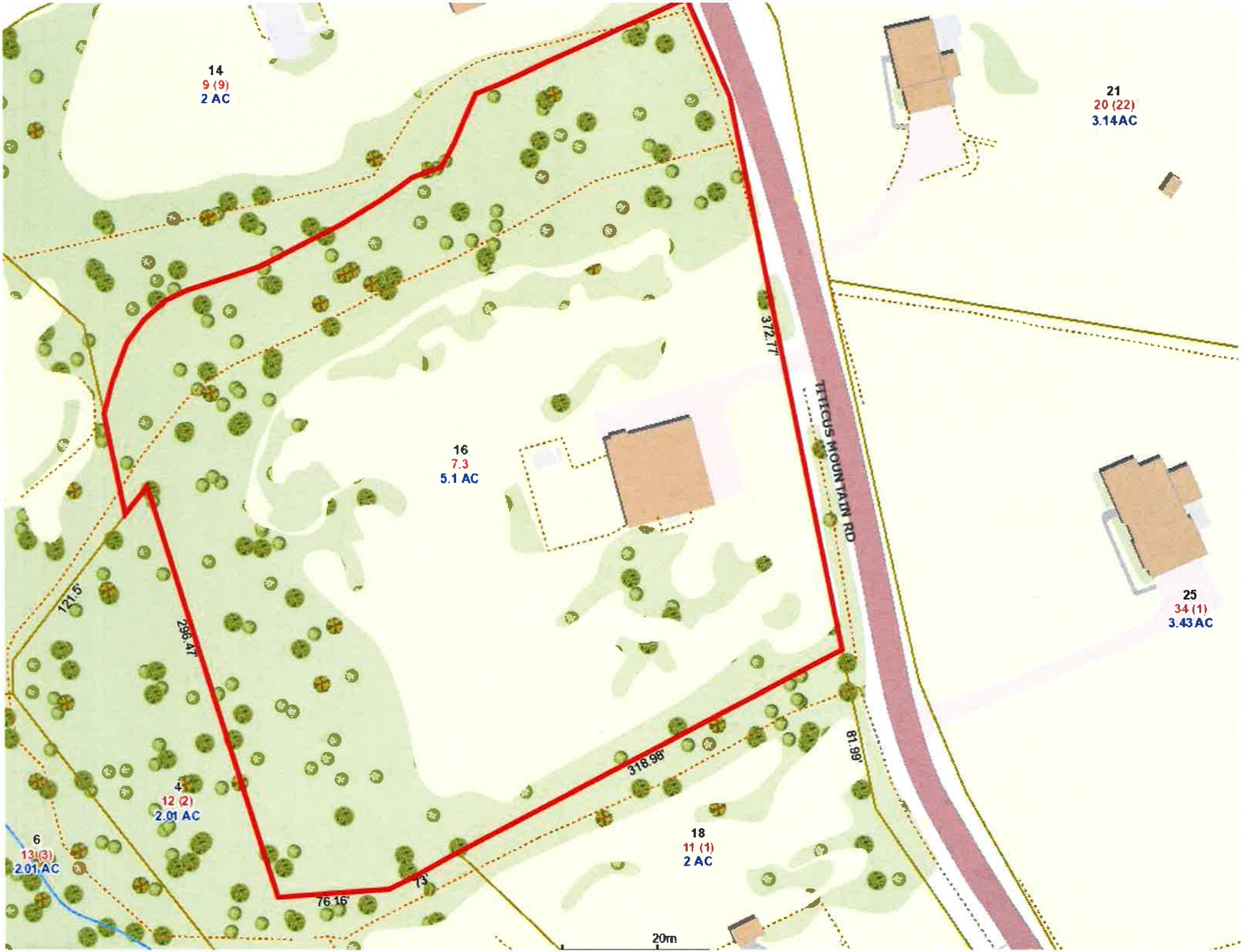
Uplift Check

ϕs Uplift Resistance (k)	Ratio	Result
269.24	0.60	OK

Axial Check

ϕs Axial Resistance (k)	Ratio	Result
864.00	0.26	OK

ATTACHMENT 4


14
9 (9)
2 AC
21
20 (22)
3.14AC
16
7.3
5.1 AC
372.77'
TITCUS MOUNTAIN RD
25
34 (1)
3.43AC
121.5'
296.47'
318.98'
81.99'
4
12 (2)
2.01 AC
6
13 (3)
2.01 AC
18
11 (1)
2 AC
76.16'
73'
20m

16 TITICUS MTN RD

Location	16 TITICUS MTN RD	**Mblu**	27/ 2/ 7.3/ /
Acct#	00580500	**Owner**	AMERICAN TOWERS INC
Assessment	$764,600	**Appraisal**	$1,092,300
PID	5837	**Building Count**	1

Assessing Distri...

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$835,100	$257,200	$1,092,300

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$584,600	$180,000	$764,600

Owner of Record

Owner	AMERICAN TOWERS INC	**Sale Price**	$359,641
Co-Owner	C/O AMERICAN TOWER CORPORATION	**Certificate**	
Address	PO BOX 723597 ATLANTA, GA 31139	**Book & Page**	301/ 274
		Sale Date	02/17/2000

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
AMERICAN TOWERS INC	$359,641		301/ 274	02/17/2000

Building Information

Building 1 : Section 1

Year Built:	1967
Living Area:	3,249
Replacement Cost:	$332,990
Building Percent Good:	38
Replacement Cost Less Depreciation:	$126,500

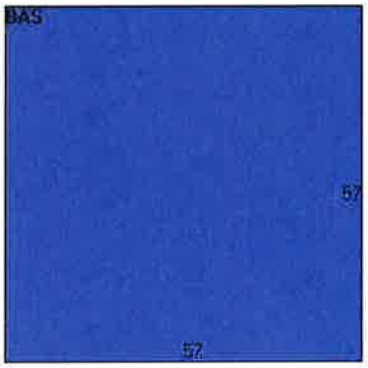
Building Attributes

Field	Description
STYLE	Tower support
MODEL	Commercial
Grade	C
Stories:	1
Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Typical
Heating Type	None
AC Type	Central
Bldg Use	Pub. Utility
1st Floor Use:	504
Heat/AC	HEAT/AC SPLIT
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	SUSP-CEIL ONLY
Rooms/Prtns	AVERAGE
Wall Height	14
% Comn Wall	

Building Photo

(http://images.vgsi.com/photos/NewFairfieldCTPhotos//\00\00\

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	3,249	3,249
		3,249	3,249

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	400
Description	Pub. Utility
Zone	2
Neighborhood	D

Land Line Valuation

Size (Acres)	5.1
Depth	
Assessed Value	$180,000
Appraised Value	$257,200

Alt Land Appr Category No

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
PAV1	PAVING-ASPHALT			3200 S.F.	$1,700	1
SHD1	Shed			100 S.F.	$1,300	1
CELL	Cell Tenant			4 UNITS	$705,600	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$835,100	$257,200	$1,092,300
2014	$835,100	$257,200	$1,092,300
2013	$828,700	$257,200	$1,085,900

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$584,600	$180,000	$764,600
2014	$584,600	$180,000	$764,600
2013	$580,100	$180,000	$760,100