Alex Murshteyn, Site Acquisition Consultant
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

February 16, 2018

RECEIVED
FEB 20 2018
Connecticut Siting Council

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

RE: Notice of Exempt Modification // Site: Brookfield CT (ATC: 283426)
37 Carmen Hill Road, Brookfield, CT 06804
N 41.4929 // W 73.4273

ORIGINAL

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains 12 antennas at the 79-foot and 71-foot mounts on the existing 80-foot self-supporting lattice tower, located at 37 Carmen Hill Road, Brookfield, CT. The tower and property are owned by American Tower. The Council approved Verizon Wireless use of this tower in 1995. Verizon Wireless now intends remove 6 of its antennas on the 71-foot level plus all 3 of its antennas on the 79-foot level to replace with 6 new ones on the 79-foot level only, and install them on side-by-side mounts for its LTE (700/850/1900/2100 MHz) replacements as a part of its PCS/AWS/LTE upgrade. Additionally, Verizon Wireless will install 9 new remote radio head units (RRUs), including 3 replacements, to bring the total RRU count to 12, as well as 1 replacement over voltage protector (OVP) surge arrestor box, and 1 new hybrid fiber cable; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Stephen C. Dunn, First Selectman for the Town of Brookfield, its Land Use Director Alice Dew, including for the Planning and Zoning Commissions and to American Tower Corporation for American Towers LLC, which is the tower and ground 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). Enclosed to accommodate this filing are construction drawings dated February 12, 2018 by ATC Tower Services, LLC, a structural analysis dated

February 8, 2018 by A.T. Engineering Service, PLLC and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

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

2. The proposed modifications will not require the extension of the site boundary.

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

4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by A.T. Engineering Service, PLLC, dated February 8, 2018.

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

Sincerely,

Alex Murshteyn, Site Acquisition Consultant
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

Attachments

cc: Stephen C. Dunn, First Selectman - as elected official - 1Z9Y45030337370698
Alice Dew, Land Use Director - as P&Z official - 1Z9Y45030339287301
American Tower Corporation - as tower & property owner - 1Z9Y45030332796916

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Structural Analysis Report

Structure	:	**80 ft Self Supported Tower**
ATC Site Name	:	**Brookfield CT, CT**
ATC Site Number	:	**283426**
Engineering Number	:	**OAA722914_C3_01**
Proposed Carrier	:	**Verizon**
Carrier Site Name	:	**Brookfield CT**
Carrier Site Number	:	**PSLC# 468123**
Site Location	:	**37 Carmen Hill Road Brookfield, CT 06804-1004 41.492900,-73.427300**
County	:	**Fairfield**
Date	:	**February 8, 2018**
Max Usage	:	**94%**
Result	:	**Pass**

Prepared By:
Trevor Ridilla
Structural Engineer I

Reviewed By:

STATE OF CONNECTICUT
ESHA KAUSHAL MODI
32593
LICENSED
PROFESSIONAL ENGINEER

Feb 8 2018 5:31 PM cosign

COA: PEC.0001553

Eng. Number OAA722914_C3_01
February 8, 2018

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 80 ft self supported tower to reflect the change in loading by Verizon.

Supporting Documents

Tower Drawings	HTS Mapping Site #KGI11464, dated February 21, 2008
Foundation Drawing	ETS Mapping Job #173310, dated November 30, 2017
Geotechnical Report	FDH mapping Project #17QQWL1600, dated November 30, 2017

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:	93 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:	3
Crest Height:	116 ft
Spectral Response:	$S_s = 0.21$, $S_1 = 0.07$
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) Mount	Elevation[1] (ft) RAD	Qty	Antenna	Mount Type	Lines	Carrier
79.0	79.0	6	Commscope JAHH-65B-R3B	Sector Frames	-	Verizon
		3	Alcatel-Lucent B66A RRH4x45-4R w/o Solar Shield			
		3	Nokia Band 5 AHCA RRH4x40			
71.0	71.0	2	Antel BXA-80063-6CF-EDIN-X	Sector Frames	(12) 1 5/8" Coax	
		1	Antel BXA-80063-4CF-EDIN-X			

Equipment to be Removed

Elevation[1] (ft) Mount	Elevation[1] (ft) RAD	Qty	Antenna	Mount Type	Lines	Carrier
70.0	70.0	1	RFS DB-B1-6C-12AB-0Z	-	(1) 1 5/8" Hybriflex	Verizon
		3	Alcatel-Lucent RRH2x60 700			
		1	Antel BXA-70063/6CF_			

Proposed Equipment

Elevation[1] (ft) Mount	Elevation[1] (ft) RAD	Qty	Antenna	Mount Type	Lines	Carrier
79.0	79.0	1	RFS DB-B1-6C-12AB-0Z	Sector Frames	(1) 1 5/8" Hybriflex	Verizon
		3	Alcatel-Lucent RRH2x60 700			
		3	Alcatel-Lucent B25 RRH4x30			

[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 alongside existing Verizon coax.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	84%	Pass
Diagonals	94%	Pass
Horizontals	10%	Pass
Anchor Bolts	82%	Pass
Leg Bolts	55%	Pass

Foundations

Reaction Component	Analysis Reactions
Uplift (Kips)	55.7
Axial (Kips)	62.8
Shear (Kips)	6.5

The structure foundation piers are directly embedded into shallow rock and are assumed to be designed to withstand the analysis reactions.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
79.0	Alcatel-Lucent B25 RRH4x30	Verizon	0.122	0.002	0.172
	Alcatel-Lucent RRH2x60 700				
	RFS DB-B1-6C-12AB-0Z				

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

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Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading

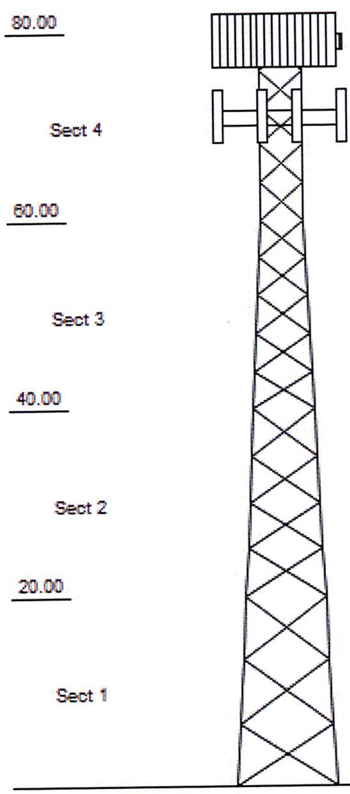
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

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.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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 supplied herein.



Loads: 93 mph no ice
50 mph w/ 3/4" radial ice
Site Class: D Ss: 0.21 S1: 0.07
60 mph Serviceability

Job Information

Tower : 283426
Location : BROOKFIELD CT,
Client : VERIZON WIRELESS
Code : ANSI/TIA-222-G
Base Width : 10.58 ft
Top Width : 4.50 ft
Tower Ht : 80.00 ft
Shape : Triangle

Sections Properties

Section	Leg Members	Diagonal Members	Horizontal Members
1	PXX 50 ksi 2-1/2" DIA PIPE	SAE 36 ksi 1.75X1.75X0.125	
2	PST 50 ksi 2-1/2" DIA PIPE	SAE 36 ksi 1.5X1.5X0.1563	
3	PX 50 ksi 2" DIA PIPE	SAE 36 ksi 1.5X1.5X0.1563	
4	PST 50 ksi 2" DIA PIPE	SAE 36 ksi 1.5X1.5X0.1563	SAE 36 ksi 1.5X1.5X0.25

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
79.00	Panel	1	RFS DB-B1-6C-12AB-0Z
79.00	Panel	3	Alcatel-Lucent RRH2x60 700
79.00	Panel	3	Alcatel-Lucent B25 RRH4x30
79.00	Mounting Frame	2	Round Sector Frame
79.00	Panel	6	Commscope JAHH-65B-R3B
79.00	Panel	3	Alcatel-Lucent B66A RRH4x45-4R
79.00	Panel	3	Nokia Band 5 AHCA RRH4x40
71.00	Mounting Frame	2	Round Sector Frame
71.00	Panel	2	Amphenol Antel BXA-80063-6CF-E
71.00	Panel	1	Amphenol Antel BXA-80063-4CF-E

Linear Appurtenance

Elev (ft) From	To	Qty	Description
10.00	79.00	1	1 5/8" Hybriflex
0.00	79.00	1	Waveguide
10.00	71.00	12	1 5/8" Coax

Global Base Foundation Design Loads

Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	551.84	7.62	10.92
DL + WL + IL	175.59	22.79	3.48

Individual Base Foundation Design Loads

Vertical (kip)	Uplift (kip)	Horizontal (kip)
62.75	55.71	6.51

Analysis Parameters

Location:	FAIRFIELD County, CT	Height (ft):	80
Code:	ANSI/TIA-222-G	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	10.58
Tower Manufacturer:		Top Face Width (ft):	4.50
Tower Type:	Self Support	Anchor Bolt Detail Type	c
Kd:			
Ke:			

Ice & Wind Parameters

Structure Class:	II	Design Windspeed Without Ice:	93 mph
Exposure Category:	B	Design Windspeed With Ice:	50 mph
Topographic Category:	3	Operational Windspeed:	60 mph
Crest Height:	116 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): 0.54

T_L (sec):	6	p:	1.3	C_S:	0.065
S_S :	0.208	S_1 :	0.066	C_S, Max:	0.065
F_a :	1.600	F_V :	2.400	C_S, Min:	0.030
S_{ds} :	0.222	S_{d1} :	0.106		

Load Cases

1.2D + 1.6W Normal	93 mph Normal to Face with No Ice
1.2D + 1.6W 60 deg	93 mph 60 degree with No Ice
1.2D + 1.6W 90 deg	93 mph 90 degree with No Ice
1.2D + 1.6W 120 deg	93 mph 120 degree with No Ice
1.2D + 1.6W 180 deg	93 mph 180 degree with No Ice
1.2D + 1.6W 210 deg	93 mph 210 degree with No Ice
1.2D + 1.6W 240 deg	93 mph 240 degree with No Ice
1.2D + 1.6W 300 deg	93 mph 300 degree with No Ice
1.2D + 1.6W 330 deg	93 mph 330 degree with No Ice
0.9D + 1.6W Normal	93 mph Normal to Face with No Ice (Reduced DL)
0.9D + 1.6W 60 deg	93 mph 60 deg with No Ice (Reduced DL)
0.9D + 1.6W 90 deg	93 mph 90 deg with No Ice (Reduced DL)
0.9D + 1.6W 120 deg	93 mph 120 deg with No Ice (Reduced DL)
0.9D + 1.6W 180 deg	93 mph 180 deg with No Ice (Reduced DL)
0.9D + 1.6W 210 deg	93 mph 210 deg with No Ice (Reduced DL)
0.9D + 1.6W 240 deg	93 mph 240 deg with No Ice (Reduced DL)
0.9D + 1.6W 300 deg	93 mph 300 deg with No Ice (Reduced DL)
0.9D + 1.6W 330 deg	93 mph 330 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 0.75 in Radial Ice

Analysis Parameters

1.2D + 1.0Di + 1.0Wi 60 deg	50 mph 60 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 120 deg	50 mph 120 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
1.2D + 1.0Di + 1.0Wi 210 deg	50 mph 210 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 240 deg	50 mph 240 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 300 deg	50 mph 300 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 330 deg	50 mph 330 deg with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal
(1.2 + 0.2Sds) * DL + E 60 deg	Seismic 60 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 deg
(1.2 + 0.2Sds) * DL + E 120 deg	Seismic 120 deg
(1.2 + 0.2Sds) * DL + E 180 deg	Seismic 180 deg
(1.2 + 0.2Sds) * DL + E 210 deg	Seismic 210 deg
(1.2 + 0.2Sds) * DL + E 240 deg	Seismic 240 deg
(1.2 + 0.2Sds) * DL + E 300 deg	Seismic 300 deg
(1.2 + 0.2Sds) * DL + E 330 deg	Seismic 330 deg
(0.9 - 0.2Sds) * DL + E Normal	Seismic (Reduced DL) Normal
(0.9 - 0.2Sds) * DL + E 60 deg	Seismic (Reduced DL) 60 deg
(0.9 - 0.2Sds) * DL + E 90 deg	Seismic (Reduced DL) 90 deg
(0.9 - 0.2Sds) * DL + E 120 deg	Seismic (Reduced DL) 120 deg
(0.9 - 0.2Sds) * DL + E 180 deg	Seismic (Reduced DL) 180 deg
(0.9 - 0.2Sds) * DL + E 210 deg	Seismic (Reduced DL) 210 deg
(0.9 - 0.2Sds) * DL + E 240 deg	Seismic (Reduced DL) 240 deg
(0.9 - 0.2Sds) * DL + E 300 deg	Seismic (Reduced DL) 300 deg
(0.9 - 0.2Sds) * DL + E 330 deg	Seismic (Reduced DL) 330 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg
1.0D + 1.0W Service 120 deg	Serviceability - 60 mph Wind 120 deg
1.0D + 1.0W Service 180 deg	Serviceability - 60 mph Wind 180 deg
1.0D + 1.0W Service 210 deg	Serviceability - 60 mph Wind 210 deg
1.0D + 1.0W Service 240 deg	Serviceability - 60 mph Wind 240 deg
1.0D + 1.0W Service 300 deg	Serviceability - 60 mph Wind 300 deg
1.0D + 1.0W Service 330 deg	Serviceability - 60 mph Wind 330 deg

Site Number:	283426	Code:	ANSI/TIA-222-G	
Site Name:	BROOKFIELD CT, CT	Engineering Number:	OAA722914_C3_01	2/8/2018 10:30:39 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)
79.00	Nokia Band 5 AHCA	3	40	1.3	1.1	12.1	6.9	0.90	0.50	0.0	0.0	21.90	53	143
79.00	Alcatel-Lucent B25	3	53	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	21.90	85	191
79.00	Alcatel-Lucent	3	57	2.2	1.8	12.0	9.0	0.90	0.50	0.0	0.0	21.90	86	204
79.00	Alcatel-Lucent B66A	3	57	2.4	2.1	11.4	6.3	0.90	0.50	0.0	0.0	21.90	96	204
79.00	RFS DB-B1-6C-12AB-	1	21	2.5	1.6	15.7	10.3	0.90	0.67	0.0	0.0	21.90	45	26
79.00	Commscope JAHH-	6	61	9.1	6.0	13.8	8.2	0.90	0.77	0.0	0.0	21.90	1128	436
79.00	Round Sector Frame	2	300	14.4	0.0	0.0	0.0	0.90	0.90	0.0	0.0	21.90	695	720
71.00	Amphenol Antel BXA-	1	10	4.7	4.0	11.2	5.2	0.90	0.74	0.0	0.0	21.93	94	12
71.00	Amphenol Antel BXA-	2	17	7.5	5.9	11.0	5.2	0.90	0.75	0.0	0.0	21.93	300	41
71.00	Round Sector Frame	2	300	14.4	0.0	0.0	0.0	0.90	0.90	0.0	0.0	21.93	696	720
	Totals	26	2247	158.3									3278	2697

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)
79.00	Nokia Band 5 AHCA	3	40	1.3	1.1	12.1	6.9	0.90	0.50	0.0	0.0	21.90	53	107
79.00	Alcatel-Lucent B25	3	53	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	21.90	85	143
79.00	Alcatel-Lucent	3	57	2.2	1.8	12.0	9.0	0.90	0.50	0.0	0.0	21.90	86	153
79.00	Alcatel-Lucent B66A	3	57	2.4	2.1	11.4	6.3	0.90	0.50	0.0	0.0	21.90	96	153
79.00	RFS DB-B1-6C-12AB-	1	21	2.5	1.6	15.7	10.3	0.90	0.67	0.0	0.0	21.90	45	19
79.00	Commscope JAHH-	6	61	9.1	6.0	13.8	8.2	0.90	0.77	0.0	0.0	21.90	1128	327
79.00	Round Sector Frame	2	300	14.4	0.0	0.0	0.0	0.90	0.90	0.0	0.0	21.90	695	540
71.00	Amphenol Antel BXA-	1	10	4.7	4.0	11.2	5.2	0.90	0.74	0.0	0.0	21.93	94	9
71.00	Amphenol Antel BXA-	2	17	7.5	5.9	11.0	5.2	0.90	0.75	0.0	0.0	21.93	300	31
71.00	Round Sector Frame	2	300	14.4	0.0	0.0	0.0	0.90	0.90	0.0	0.0	21.93	696	540
	Totals	26	2247	158.3									3278	2023

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)
79.00	Nokia Band 5 AHCA	3	82	2.1	1.1	12.1	6.9	0.90	0.50	0.0	0.0	6.33	15	269
79.00	Alcatel-Lucent B25	3	115	3.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	6.33	23	376
79.00	Alcatel-Lucent	3	126	3.2	1.8	12.0	9.0	0.90	0.50	0.0	0.0	6.33	23	412
79.00	Alcatel-Lucent B66A	3	121	3.5	2.1	11.4	6.3	0.90	0.50	0.0	0.0	6.33	25	398
79.00	RFS DB-B1-6C-12AB-	1	103	3.6	1.6	15.7	10.3	0.90	0.67	0.0	0.0	6.33	12	107
79.00	Commscope JAHH-	6	267	11.9	6.0	13.8	8.2	0.90	0.77	0.0	0.0	6.33	267	1673
79.00	Round Sector Frame	2	675	31.3	0.0	0.0	0.0	0.90	0.90	0.0	0.0	6.33	273	1470
71.00	Amphenol Antel BXA-	1	114	6.6	4.0	11.2	5.2	0.90	0.74	0.0	0.0	6.34	24	116
71.00	Amphenol Antel BXA-	2	168	10.2	5.9	11.0	5.2	0.90	0.75	0.0	0.0	6.34	74	343
71.00	Round Sector Frame	2	675	31.3	0.0	0.0	0.0	0.90	0.90	0.0	0.0	6.34	273	1470
	Totals	26	6184	263.0									1008	6633

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)

Tower Loading

79.00	Nokia Band 5 AHCA	3	40	1.3	1.1	12.1	6.9	0.90	0.50	0.0	0.0	9.11	14	119
79.00	Alcatel-Lucent B25	3	53	2.1	1.8	12.0	7.2	0.90	0.50	0.0	0.0	9.11	22	159
79.00	Alcatel-Lucent	3	57	2.2	1.8	12.0	9.0	0.90	0.50	0.0	0.0	9.11	22	170
79.00	Alcatel-Lucent B66A	3	57	2.4	2.1	11.4	6.3	0.90	0.50	0.0	0.0	9.11	25	170
79.00	RFS DB-B1-6C-12AB-	1	21	2.5	1.6	15.7	10.3	0.90	0.67	0.0	0.0	9.11	12	21
79.00	Commscope JAHH-	6	61	9.1	6.0	13.8	8.2	0.90	0.77	0.0	0.0	9.11	293	364
79.00	Round Sector Frame	2	300	14.4	0.0	0.0	0.0	0.90	0.90	0.0	0.0	9.11	181	600
71.00	Amphenol Antel BXA-	1	10	4.7	4.0	11.2	5.2	0.90	0.74	0.0	0.0	9.13	24	10
71.00	Amphenol Antel BXA-	2	17	7.5	5.9	11.0	5.2	0.90	0.75	0.0	0.0	9.13	78	34
71.00	Round Sector Frame	2	300	14.4	0.0	0.0	0.0	0.90	0.90	0.0	0.0	9.13	181	600
	Totals	26	2247	158.3									853	2247

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
0.00	79.00	Waveguide	1	2.00	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	79.00	1 5/8" Hybriflex	1	1.98	1.30	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	71.00	1 5/8" Coax	12	1.98	0.82	50	Lin App	Block	0.00	N	0.50	1.00	0.00

Equivalent Lateral Force Method

(Based on ASCE7-10 Chapters 11, 12 & 15)

Spectral Response Acceleration for Short Period (S_s):	0.21
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.07
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.22
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.11
Seismic Response Coefficient (C_s):	0.07
Upper Limit C_s:	0.07
Lower Limit C_s:	0.03
Period based on Rayleigh Method (sec):	0.54
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.02
Total Unfactored Dead Load:	6.35 k
Seismic Base Shear (E):	0.54 k

LoadCase (1.2 + 0.2Sds) * DL + E — Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
4	70.00	773	58,937	0.170	92	962
3	50.00	956	51,709	0.149	80	1,189
2	30.00	1,021	32,813	0.095	51	1,271
1	10.00	1,357	14,213	0.041	22	1,688
Nokia Band 5 AHCA RRH4x40	79.00	119	10,278	0.030	16	148
Alcatel-Lucent B25 RRH4x30	79.00	159	13,721	0.040	21	198
Alcatel-Lucent RRH2x60 700	79.00	170	14,678	0.042	23	212
Alcatel-Lucent B66A RRH4x45-4R w/o	79.00	170	14,704	0.043	23	212
RFS DB-B1-6C-12AB-0Z	79.00	21	1,847	0.005	3	27
Commscope JAHH-65B-R3B	79.00	364	31,376	0.091	49	452
Round Sector Frame	79.00	600	51,776	0.150	81	747
Amphenol Antel BXA-80063-4CF-EDIN-X	71.00	10	766	0.002	1	12
Amphenol Antel BXA-80063-6CF-EDIN-X	71.00	34	2,631	0.008	4	42
Round Sector Frame	71.00	600	46,433	0.134	72	747
		6,354	345,882	1.000	538	7,906

LoadCase (0.9 - 0.2Sds) * DL + E — Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
4	70.00	773	58,937	0.170	92	661
3	50.00	956	51,709	0.149	80	818

Equivalent Lateral Force Method

2	30.00	1,021	32,813	0.095	51	874
1	10.00	1,357	14,213	0.041	22	1,161
Nokia Band 5 AHCA RRH4x40	79.00	119	10,278	0.030	16	102
Alcatel-Lucent B25 RRH4x30	79.00	159	13,721	0.040	21	136
Alcatel-Lucent RRH2x60 700	79.00	170	14,678	0.042	23	146
Alcatel-Lucent B66A RRH4x45-4R w/o	79.00	170	14,704	0.043	23	146
RFS DB-B1-6C-12AB-0Z	79.00	21	1,847	0.005	3	18
Commscope JAHH-65B-R3B	79.00	364	31,376	0.091	49	311
Round Sector Frame	79.00	600	51,776	0.150	81	513
Amphenol Antel BXA-80063-4CF-EDIN-X	71.00	10	766	0.002	1	8
Amphenol Antel BXA-80063-6CF-EDIN-X	71.00	34	2,631	0.008	4	29
Round Sector Frame	71.00	600	46,433	0.134	72	513
		6,354	345,882	1.000	538	5,436

Equivalent Modal Analysis Method

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.21
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.07
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.22
Desing Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.11
Period Based on Rayleigh Method (sec):	0.54
Redundancy Factor (p):	1.30

LoadCase (1.2 + 0.2Sds) * DL + E — Seismic

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S_{az}	Horizontal Force (lb)	Vertical Force (lb)
4	70.00	773	1.447	0.379	0.482	0.297	99	962
3	50.00	956	0.738	-0.098	0.038	0.117	48	1,189
2	30.00	1,021	0.266	0.052	0.015	0.064	29	1,271
1	10.00	1,357	0.030	0.068	0.040	0.022	13	1,688
Nokia Band 5 AHCA RRH4x40	79.00	119	1.843	1.741	1.053	0.520	27	148
Alcatel-Lucent B25 RRH4x30	79.00	159	1.843	1.741	1.053	0.520	36	198
Alcatel-Lucent RRH2x60 700	79.00	170	1.843	1.741	1.053	0.520	38	212
Alcatel-Lucent B66A RRH4x45-4R	79.00	170	1.843	1.741	1.053	0.520	38	212
RFS DB-B1-6C-12AB-0Z	79.00	21	1.843	1.741	1.053	0.520	5	27
Commscope JAHH-65B-R3B	79.00	364	1.843	1.741	1.053	0.520	82	452
Round Sector Frame	79.00	600	1.843	1.741	1.053	0.520	135	747
Amphenol Antel BXA-80063-4CF-	71.00	10	1.489	0.474	0.529	0.316	1	12
Amphenol Antel BXA-80063-6CF-	71.00	34	1.489	0.474	0.529	0.316	5	42
Round Sector Frame	71.00	600	1.489	0.474	0.529	0.316	82	747
		6,354	19.848	14.012	9.536	5.091	639	7,906

LoadCase (0.9 - 0.2Sds) * DL + E — Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S_{az}	Horizontal Force (lb)	Vertical Force (lb)
4	70.00	773	1.447	0.379	0.482	0.297	99	661
3	50.00	956	0.738	-0.098	0.038	0.117	48	818
2	30.00	1,021	0.266	0.052	0.015	0.064	29	874
1	10.00	1,357	0.030	0.068	0.040	0.022	13	1,161
Nokia Band 5 AHCA RRH4x40	79.00	119	1.843	1.741	1.053	0.520	27	102
Alcatel-Lucent B25 RRH4x30	79.00	159	1.843	1.741	1.053	0.520	36	136
Alcatel-Lucent RRH2x60 700	79.00	170	1.843	1.741	1.053	0.520	38	146
Alcatel-Lucent B66A RRH4x45-4R	79.00	170	1.843	1.741	1.053	0.520	38	146
RFS DB-B1-6C-12AB-0Z	79.00	21	1.843	1.741	1.053	0.520	5	18
Commscope JAHH-65B-R3B	79.00	364	1.843	1.741	1.053	0.520	82	311
Round Sector Frame	79.00	600	1.843	1.741	1.053	0.520	135	513
Amphenol Antel BXA-80063-4CF-	71.00	10	1.489	0.474	0.529	0.316	1	8
Amphenol Antel BXA-80063-6CF-	71.00	34	1.489	0.474	0.529	0.316	5	29
Round Sector Frame	71.00	600	1.489	0.474	0.529	0.316	82	513
		6,354	19.848	14.012	9.536	5.091	639	5,436

Equivalent Modal Analysis Method

Site Number: 283426 | Code: ANSI/TIA-222-G |

Site Name: BROOKFIELD CT, CT | Engineering Number: OAA722914_C3_01 | 2/8/2018 10:30:39 AM

Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 1 - Bot Elev (ft): 0.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Bracing % Y	Bracing % Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PXX - 2-1/2" DIA PIP	-60.64	1.2D + 1.6W	6.68	100	100	100	94.9	50.0	93.81	0	0	0.00	0.00	64	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 1.75X1.75X0.12	-2.00	1.2D + 1.6W 90	12.22	50	50	50	211.4	36.0	2.12	1	1	7.95	6.96	94	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 PXX - 2-1/2" DIA PIP	53.46	1.2D + 1.6W 60	50	65	181.35	0	0	0.00	0.00		29	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG SAE - 1.75X1.75X0.12	1.95	1.2D + 1.6W 90	36	58	11.15	1	1	7.95	4.13	3.81	51	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	44.50	0.9D + 1.6W 180	0.00	0	0	
Top Compression	50.02	1.2D + 1.6W	0.00	0		
Bot Tension	56.06	0.9D + 1.6W 180	81.36	82	4	5/8 A325
Bot Compression	62.88	1.2D + 1.6W 120	0.00	0		

Section: 2 - Bot Elev (ft): 20.00 Height (ft): 20.000

Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bracing % X	Bracing % Y	Bracing % Z	KL/R	F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG PST - 2-1/2" DIA PIP	-48.33	1.2D + 1.6W	5.01	100	100	100	63.5	50.0	57.12	0	0	0.00	0.00	84	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 1.5X1.5X0.1563	-1.78	1.2D + 1.6W 90	9.692	50	50	50	197.1	36.0	2.56	1	1	7.95	8.70	69	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 PST - 2-1/2" DIA PIP	43.18	0.9D + 1.6W 60	50	65	76.68	0	0	0.00	0.00		56	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG SAE - 1.5X1.5X0.1563	1.73	1.2D + 1.6W 90	36	58	11.17	1	1	7.95	5.17	3.91	44	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	32.15	0.9D + 1.6W 180	0.00	0	0	
Top Compression	36.15	1.2D + 1.6W	0.00	0		
Bot Tension	44.50	0.9D + 1.6W 180	81.36	55	4	5/8 A325
Bot Compression	50.02	1.2D + 1.6W	0.00	0		

Site Number: 283426 | Code: ANSI/TIA-222-G |

Site Name: BROOKFIELD CT, CT | Engineering Number: OAA722914_C3_01 | 2/8/2018 10:30:39 AM

Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 3 - Bot Elev (ft): 40.00 Height (ft): 20.000

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 PX - 2" DIA PIPE	-34.72	1.2D + 1.6W	4.01	100	100	100	62.8	50.0	49.93	0	0	0.00	0.00	69	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 1.5X1.5X0.1563	-1.47	1.2D + 1.6W 90	7.485	50	50	50	152.2	36.0	4.29	1	1	7.95	8.70	34	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 PX - 2" DIA PIPE	30.65	1.2D + 1.6W 60	50	65	66.60	0	0	0.00	0.00		46	Member
HORIZ	0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG SAE - 1.5X1.5X0.1563	1.43	1.2D + 1.6W 90	36	58	11.17	1	1	7.95	5.17	3.91	36	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	17.98	0.9D + 1.6W 180	0.00	0	0	
Top Compression	20.63	1.2D + 1.6W	0.00	0		
Bot Tension	32.15	0.9D + 1.6W 180	81.36	40	4	5/8 A325
Bot Compression	36.15	1.2D + 1.6W	0.00	0		

Section: 4 - Bot Elev (ft): 60.00 Height (ft): 20.000

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 PST - 2" DIA PIPE	-17.87	1.2D + 1.6W	4.00	100	100	100	61.0	50.0	36.68	0	0	0.00	0.00	48	Member X
HORIZSAE - 1.5X1.5X0.25	-0.46	1.2D + 1.6W 60	4.500	100	100	100	184.9	36.0	4.56	1	1	7.95	13.92	10	Member Z
DIAG SAE - 1.5X1.5X0.1563	-2.16	1.2D + 1.6W 90	6.021	50	50	50	122.5	36.0	6.47	1	1	7.95	8.70	33	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 PST - 2" DIA PIPE	15.52	0.9D + 1.6W 60	50	65	48.15	0	0	0.00	0.00		32	Member
HORIZ SAE - 1.5X1.5X0.25	0.51	1.2D + 1.6W	36	58	17.41	1	1	7.95	8.27	6.25	8	Blk Shear
DIAG SAE - 1.5X1.5X0.1563	2.08	1.2D + 1.6W 90	36	58	11.17	1	1	7.95	5.17	3.91	53	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0	0	
Top Compression	1.80	1.2D + 1.0Di +	0.00	0		
Bot Tension	17.98	0.9D + 1.6W 180	81.36	22	4	5/8 A325
Bot Compression	20.63	1.2D + 1.6W	0.00	0		

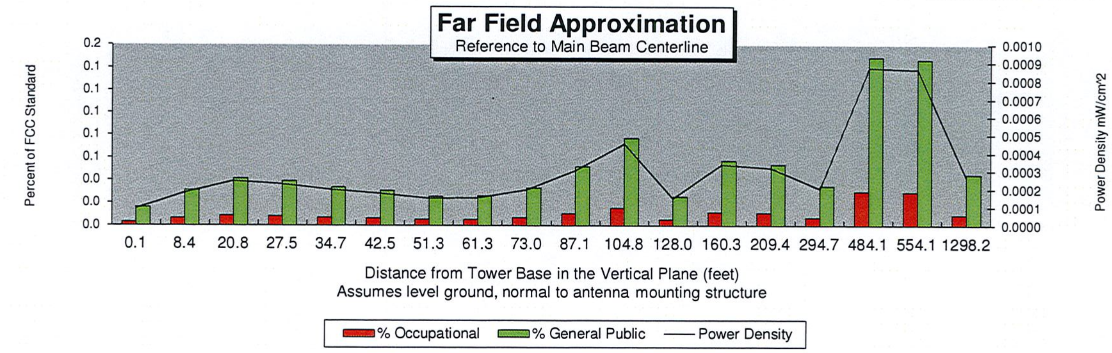
Far Field Approximation
with downtilt variation

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	BROOKFIELD CT
Site #:	2-107
Date:	11/06/17
Name:	Maria Montrose
File Name:	p:\rl\rf_safe\2cel0107.xls

Operating Freq. (MHz	880.0
Antenna Height (ft):	71.0
Antenna Gain (dBi):	16.6
Antenna Size (in.):	72.0
Downtilt (degrees):	3.0
Feedline Loss (dB):	1.2
Power @ J4 (w):	60.0
Number of Channels	3



This approximation is only valid in the far field, which begins at: 64.4 Feet

																			Enter Main Beam Distance in feet below:
Distance from Antenna Structure Base in Horizontal plane	0.1	8.4	20.8	27.5	34.7	42.5	51.3	61.3	73.0	87.1	104.8	128.0	160.3	209.4	294.7	484.1	554.1	1298.2	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	0	0
dB down from centerline (referenced to centerline)	30.3	27.3	25.7	25.7	26	26	26.2	25.5	23.7	20.9	18.1	21.6	16.5	14.7	13.9	3.4	2.3	0.1	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.0001	0.000	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.000	0.0003	0.0005	0.0002	0.0003	0.0003	0.000	0.0009	0.0009	0.00	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#NUM!
Percent of General Population Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	#NUM!

Antenna Type BXA-80063/6CF - CDMA SERVICE

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Power (in
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Estimated Radiated Emission

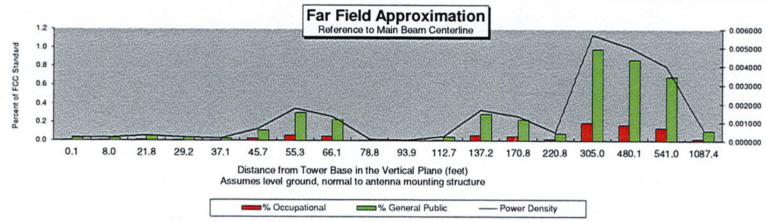
Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

verizon wireless

Location:	BROOKFIELD CT
Site #:	2-107
Date:	11/06/17
Name:	Maria Montrose
File Name:	p:\rf\rf_safe\2cel0107.xls

Operating Freq. (MHz	869.0
Antenna Height (ft):	79.0
Antenna Gain (dBi):	15.8
Antenna Size (in.):	72.0
Downtilt (degrees):	4.0
Feedline Loss (dB):	0.5
Power @ J4 (w):	160.0
Number of Channels	1



This approximation is only valid in the far field, which begins at: 64.4 Feet

Enter Main Beam Distance in feet below:

Distance from Antenna Structure Base in Horizontal plane	0.1	8.0	21.8	29.2	37.1	45.7	55.3	66.1	78.8	93.9	112.7	137.2	170.8	220.8	305.0	480.1	541.0	1087.4	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	0	0
dB down from centerline (referenced to centerline)	30.95	30.95	28.32	29.77	30.74	23.68	18.85	19.45	30.54	32.54	24.36	14.58	14.05	16.78	3.25	0	0	2.01	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.000165	0.000164	0.000280	0.000189	0.000140	0.000648	0.001755	0.001330	0.000088	0.000045	0.000236	0.001684	0.001339	0.000458	0.005697	0.005034	0.003985	0.000630	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.1	0.0	#NUM!
Percent of General Population Standard	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.0	0.0	0.0	0.3	0.2	0.1	1.0	0.9	0.7	0.1	#NUM!

Antenna Type JAHH-65B-R3B

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Power (in
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

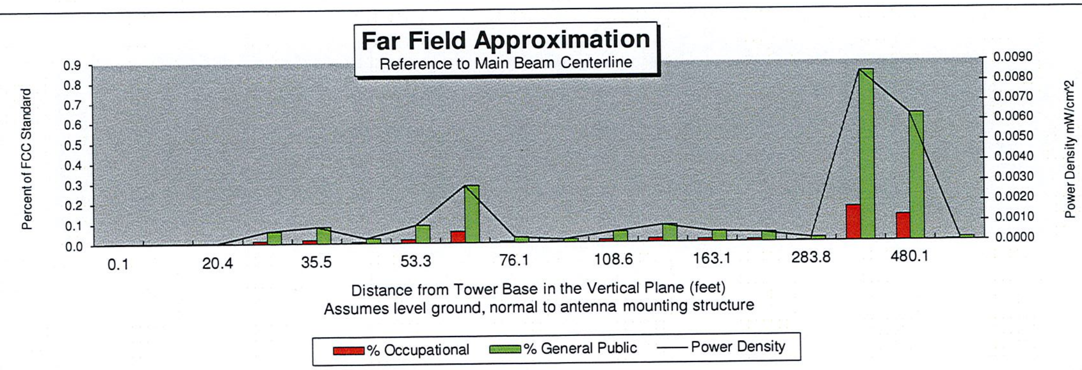
Far Field Approximation
with downtilt variation

Estimated Radiated Emission
Single Emitter Far Field Model
Dipole / Wire/ Yagi Antenna Types

verizonwireless

Location:	BROOKFIELD CT
Site #:	2-107
Date:	11/06/17
Name:	Maria Montrose
File Name:	p:\rl\rf_safe\2cel0107.xls

Operating Freq. (MHz	1970.0
Antenna Height (ft):	79.0
Antenna Gain (dBi):	18.4
Antenna Size (in.):	72.0
Downtilt (degrees):	5.0
Feedline Loss (dB):	0.5
Power @ J4 (w):	120.0
Number of Channels	1



This approximation is only valid in the far field, which begins at: 64.4 Feet

Enter Main Beam Distance in feet below:

Distance from Antenna Structure Base in Horizontal plane	0.1	6.7	20.4	27.7	35.5	43.9	53.3	63.8	76.1	90.6	108.6	131.7	163.1	208.9	283.8	431.2	480.1	869.1	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	0	0
dB down from centerline (referenced to centerline)	41.35	39.38	39.56	26.24	24.59	29.64	23.35	17.65	27.36	29.37	22.63	19.24	20.03	18.66	20.62	0	0.36	11.92	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.0000	0.0000	0.0000	0.0006	0.0008	0.0002	0.0009	0.0028	0.0003	0.0001	0.0005	0.0008	0.0005	0.0004	0.0002	0.0085	0.0063	0.0001	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	#NUM!
Percent of General Population Standard	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.8	0.6	0.0	#NUM!

Antenna Type JAHH-65B-R3B

Instructions:
1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Power (in
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

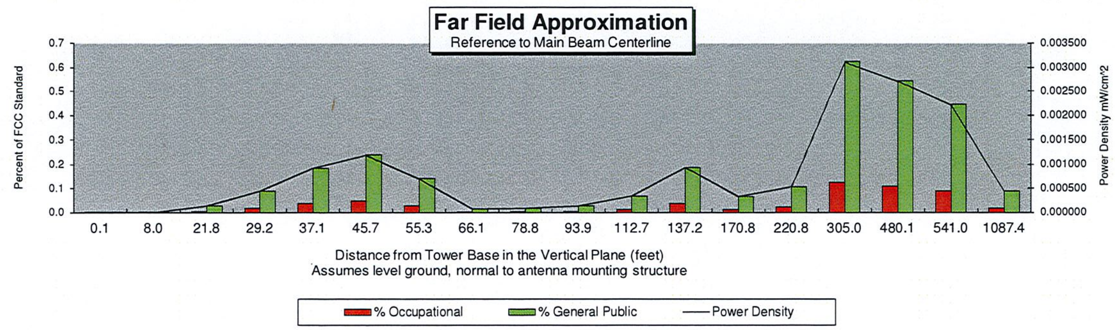
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	BROOKFIELD CT
Site #:	2-107
Date:	11/06/17
Name:	Maria Montrose
File Name:	p:\rf\rf_safe\2cel0107.xls

Operating Freq. (MHz	746.0
Antenna Height (ft):	79.0
Antenna Gain (dBi):	14.5
Antenna Size (in.):	72.0
Downtilt (degrees):	4.0
Feedline Loss (dB):	0.5
Power @ J4 (w):	120.0
Number of Channels	1



This approximation is only valid in the far field, which begins at: 64.4 Feet

Enter Main Beam Distance in feet below:

Distance from Antenna Structure Base in Horizontal plane	0.1	8.0	21.8	29.2	37.1	45.7	55.3	66.1	78.8	93.9	112.7	137.2	170.8	220.8	305.0	480.1	541.0	1087.4	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	0	0
dB down from centerline (referenced to centerline)	40.83	46.24	28.82	23.55	20	18.48	20.29	29.51	27.84	25.22	20.29	14.61	17.69	13.6	3.33	0.14	0	1.01	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.000009	0.000003	0.000139	0.000440	0.000924	0.001193	0.000700	0.000073	0.000091	0.000136	0.000335	0.000930	0.000322	0.000529	0.003110	0.002710	0.002215	0.000441	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	#NUM!
Percent of General Population Standard	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.6	0.5	0.4	0.1	#NUM!

Antenna Type JAHH-65B-R3B

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Power (in
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

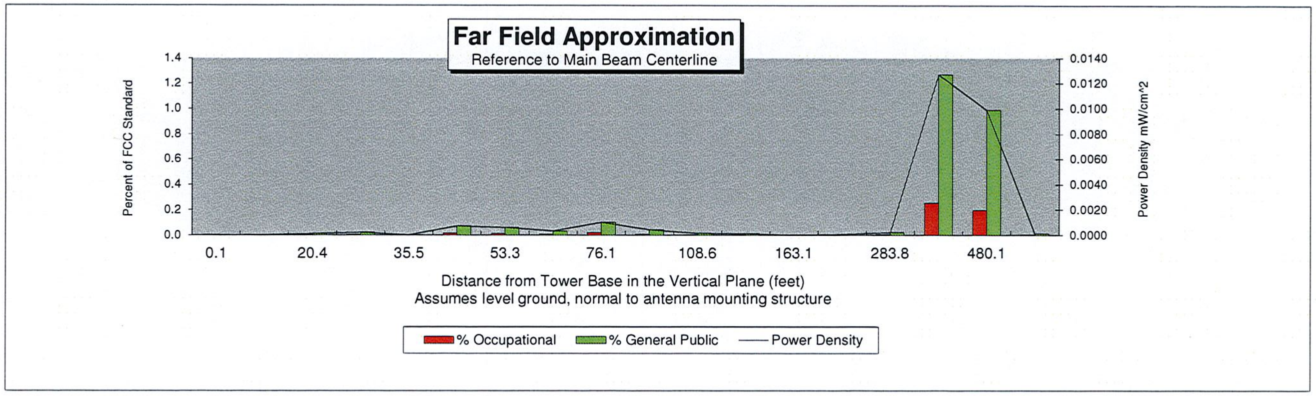
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	BROOKFIELD CT
Site #:	2-107
Date:	11/06/17
Name:	Maria Montrose
File Name:	p:\rl\rf_safe\2cel0107.xls

Operating Freq. (MHz	2145.0
Antenna Height (ft):	79.0
Antenna Gain (dBi):	18.4
Antenna Size (in.):	72.0
Downtilt (degrees):	5.0
Feedline Loss (dB):	0.5
Power @ J4 (w):	180.0
Number of Channels	1



This approximation is only valid in the far field, which begins at: 64.4 Feet

Enter Main Beam Distance in feet below:

Distance from Antenna Structure Base in Horizontal plane	0.1	6.7	20.4	27.7	35.5	43.9	53.3	63.8	76.1	90.6	108.6	131.7	163.1	208.9	283.8	431.2	480.1	869.1	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	0	0
dB down from centerline (referenced to centerline)	49.65	42.23	34.82	32.08	41.15	26.37	26.69	28.41	23.15	25.97	29.72	28.99	35.7	28.11	20.84	0	0.19	14.07	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.0000	0.0000	0.0001	0.0002	0.0000	0.0007	0.0006	0.0004	0.0010	0.0004	0.0001	0.0001	0.0000	0.0001	0.0002	0.0127	0.0099	0.0001	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	#NUM!
Percent of General Population Standard	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.0	0.0	#NUM!

Antenna Type JAHH-65B-R3B

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Power (in
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

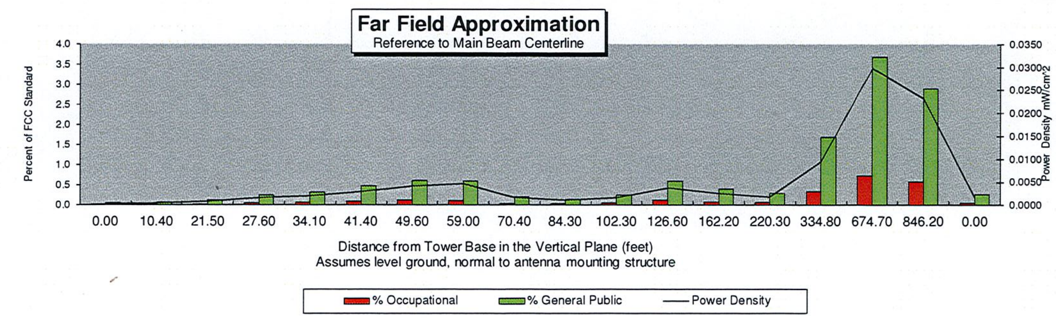
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	BROOKFIELD CT
Site #:	2-107
Date:	11/06/17
Name:	Maria Montrose
File Name:	p:\rf\rf_safe\2cel0107.xls

Operating Freq. (MHz	
Antenna Height (ft):	
Antenna Gain (dBi):	
Antenna Size (in.):	
Downtilt (degrees):	
Feedline Loss (dB):	
Power @ J4 (w):	
Number of Channels	ALL



This approximation is only valid in the far field, which begins at: 0.0 Feet

Enter Main Beam Distance in feet below:

Distance from Antenna Structure Base in Horizontal plan	0.0	10.4	21.5	27.6	34.1	41.4	49.6	59.0	70.4	84.3	102.3	126.6	162.2	220.3	334.8	674.7	846.2	#DIV/0!	29.8
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	0	0
dB down from centerline (referenced to centerline)	30	29	34	31	26	25	27	32	24	32	19	30	1	0	15	4	2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.0003	0.0004	0.0008	0.0017	0.0021	0.0030	0.0041	0.0047	0.0017	0.0011	0.0017	0.0037	0.0025	0.0018	0.0094	0.0298	0.0233	0.0016	0.00
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.3	0.7	0.6	0.1	0.0
Percent of General Population Standard	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.6	0.2	0.1	0.3	0.6	0.4	0.3	1.7	3.7	2.9	0.3	0.0

Cumulative All Antennas

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Power (in
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

PD																		
8C	9.21E-05	0.000181	0.000243	0.000228	0.000197	0.000178	0.000151	0.000154	0.000196	0.000304	0.000453	0.00015	0.000337	0.000319	0.000203	0.000873	0.000862	0.000264
8L	0.000165	0.000164	0.00028	0.000189	0.00014	0.000648	0.001755	0.00133	8.77E-05	4.54E-05	0.000236	0.001684	0.001339	0.000458	0.005697	0.005034	0.003985	0.00063
P	2.06E-05	3.22E-05	2.9E-05	0.00059	0.000802	0.000229	0.000871	0.002831	0.000258	0.000134	0.000504	0.000836	0.000498	0.000447	0.000163	0.008466	0.006324	0.000137
7	9.46E-06	2.69E-06	0.000139	0.00044	0.000924	0.001193	0.0007	7.29E-05	9.08E-05	0.000136	0.000335	0.00093	0.000322	0.000529	0.00311	0.00271	0.002215	0.000441
A	4.57E-06	2.5E-05	0.00013	0.00023	2.66E-05	0.000729	0.000606	0.000356	0.00102	0.00044	0.000148	0.000133	2.02E-05	7.61E-05	0.000233	0.012699	0.009865	0.000125
TL	0.000292	0.000405	0.00082	0.001678	0.00209	0.002977	0.004084	0.004744	0.001652	0.00106	0.001675	0.003734	0.002517	0.001829	0.009405	0.029783	0.023251	0.001598
GP																		
8C	0.015702	0.030859	0.041398	0.038912	0.033533	0.030376	0.025725	0.026168	0.033356	0.051793	0.077231	0.025632	0.057452	0.054388	0.03465	0.148811	0.146999	0.044991
8L	0.028562	0.028245	0.04834	0.03265	0.024203	0.111852	0.302969	0.229624	0.015135	0.007837	0.040693	0.290753	0.231205	0.079003	0.983339	0.868986	0.687793	0.108771
P	0.00206	0.003217	0.002901	0.058959	0.080185	0.022886	0.087138	0.283113	0.025787	0.013414	0.050417	0.083621	0.049803	0.044715	0.016306	0.846601	0.632416	0.013707
7	0.001902	0.000541	0.027903	0.088558	0.185869	0.239875	0.140845	0.014668	0.018252	0.027384	0.067276	0.187011	0.064765	0.106411	0.625238	0.544948	0.445451	0.088686
A	0.000457	0.002503	0.01296	0.023048	0.002656	0.072889	0.060576	0.035649	0.101974	0.044018	0.01478	0.013286	0.002025	0.007613	0.02325	1.269902	0.986492	0.012532
TL	0.048682	0.065365	0.133501	0.242127	0.326446	0.477877	0.617252	0.589222	0.194504	0.144446	0.250396	0.600303	0.405249	0.29213	1.682784	3.679248	2.89915	0.268687
OCC																		
8C	0.00314	0.006172	0.00828	0.007782	0.006707	0.006075	0.005145	0.005234	0.006671	0.010359	0.015446	0.005126	0.01149	0.010878	0.00693	0.029762	0.0294	0.008998
8L	0.005712	0.005649	0.009668	0.00653	0.004841	0.02237	0.060594	0.045925	0.003027	0.001567	0.008139	0.058151	0.046241	0.015801	0.196668	0.173797	0.137559	0.021754
P	0.000412	0.000643	0.00058	0.011792	0.016037	0.004577	0.017428	0.056623	0.005157	0.002683	0.010083	0.016724	0.009961	0.008943	0.003261	0.16932	0.126483	0.002741
7	0.00038	0.000108	0.005581	0.017712	0.037174	0.047975	0.028169	0.002934	0.00365	0.005477	0.013455	0.037402	0.012953	0.021282	0.125048	0.10899	0.08909	0.017737
A	9.14E-05	0.000501	0.002592	0.00461	0.000531	0.014578	0.012115	0.00713	0.020395	0.008804	0.002956	0.002657	0.000405	0.001523	0.00465	0.25398	0.197298	0.002506
TL	0.009736	0.013073	0.0267	0.048425	0.065289	0.095575	0.12345	0.117844	0.038901	0.028889	0.050079	0.120061	0.08105	0.058426	0.336557	0.73585	0.57983	0.053737

	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	0
BXA-80063/6CF (CDMA)	30.3	27.3	25.7	25.7	26	26	26.2	25.5	23.7	20.9	18.1	21.6	16.5	14.7	13.9	3.4	2.3	0.1
JAHH-65B-R3B-4DT(700)	40.83	46.24	28.82	23.55	20	18.48	20.29	29.51	27.84	25.22	20.29	14.61	17.69	13.6	3.33	0.14	0	1.01
JAHH-65B-R3B-4DT(850)	30.95	30.95	28.32	29.77	30.74	23.68	18.85	19.45	30.54	32.54	24.36	14.58	14.05	16.78	3.25	0	0	2.01
JAHH-65B-R3B-5DT(AWS)	49.65	42.23	34.82	32.08	41.15	26.37	26.69	28.41	23.15	25.97	29.72	28.99	35.7	28.11	20.84	0	0.19	14.07
JAHH-65B-R3B-5DT(PCS)	41.35	39.38	39.56	26.24	24.59	29.64	23.35	17.65	27.36	29.37	22.63	19.24	20.03	18.66	20.62	0	0.36	11.92

Town of Brookfield, CT

Property Listing Report

Map Block Lot	B05010	Account	02704000

Property Information

Property Location	37 CARMEN HILL RD
Owner	AMERICAN TOWERS LLC
Co-Owner	C/O PROPERTY TAX DEPT
Mailing Address	PO BOX 723597 ATLANTA GA 31139
Land Use	435 Cell Site Vac Lnd
Land Class	I
Zoning Code	R100
Census Tract	205100010600

Neighborhood	
Acreage	4
Utilities	
Lot Setting/Desc	Level
Town Clerk Map # 1 Town Clerk Map # 2	

Photo

Sketch

Primary Construction Details

Year Built		Bedrooms		Exterior Walls	
Stories		Full Bathrooms		Interior Walls	
Building Style		Half Bathrooms		Heating Type	
Building Use		Bath Style		Heating Fuel	
Building Condition		Kitchen Style		AC Type	
Floors		Roof Style		Gross Bldg Area	
Total Rooms		Roof Cover		Total Living Area	

Report Created On 2/9/2018

Town of Brookfield, CT

Property Listing Report | Map Block Lot: B05010 | Account: 02704000

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	0	0
Extras	0	0
Improvements	16030	11220
Outbuildings	16030	11220
Land	490010	343010
Total	506040	354230

Outbuilding and Extra Items

Type	Description
Comm Shed	240.00 S.F.
Guyed Tower	80.00 L.F.

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area		0

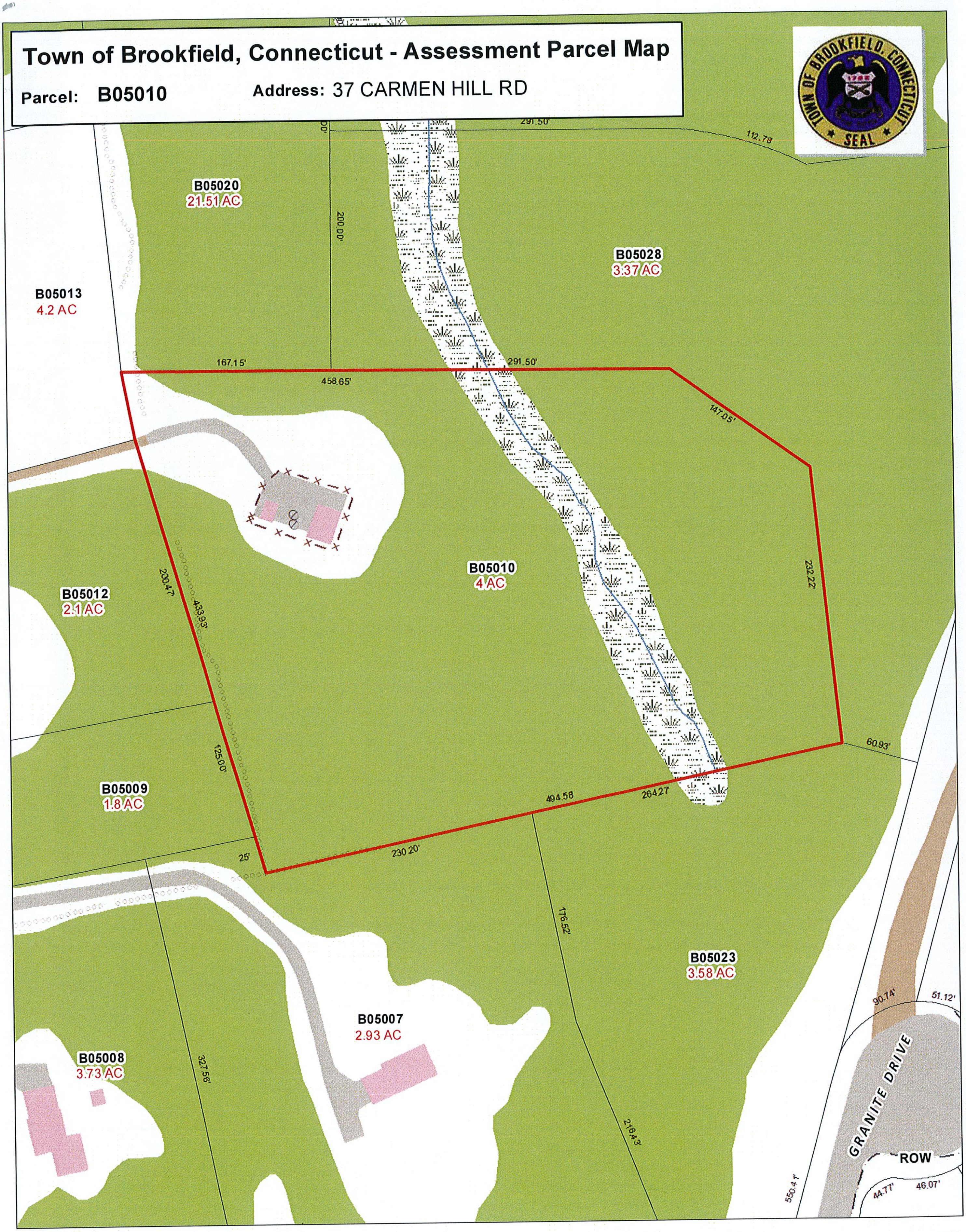
Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
CHARTER COMMUNICATIONS ENTERTAINMENT 1LP	313/ 836	11/1/1996	37800
FLORIDA TOWER PARTNERS LLC	683/ 643	4/10/2014	525000
AMERICAN TOWERS LLC	692/ 597	11/20/2014	352340

Report Created On 2/9/2018

Town of Brookfield, Connecticut - Assessment Parcel Map

Parcel: B05010 **Address:** 37 CARMEN HILL RD

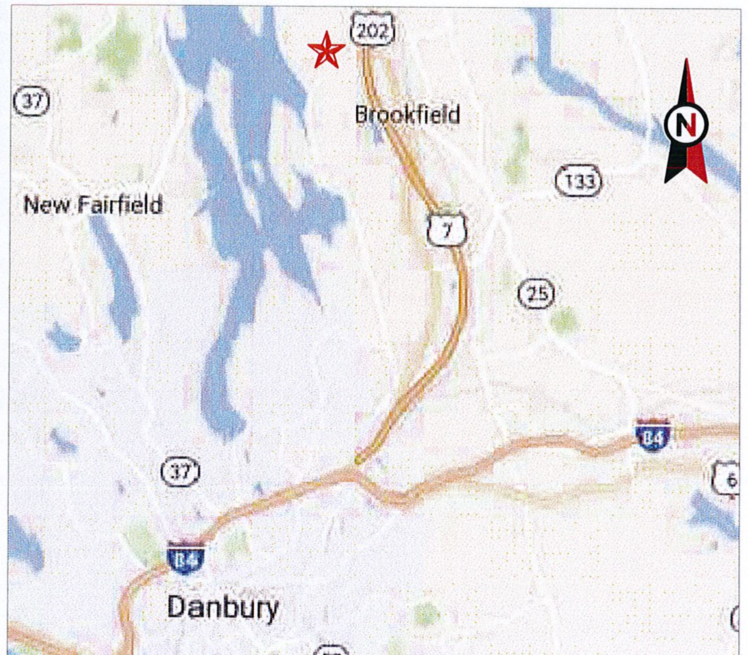


Map Produced Aug 2017

N W E S

Approximate Scale: 1 inch = 100 feet

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Brookfield and its mapping contractors assume no legal responsibility for the information contained herein.



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: BROOKFIELD CT
ATC SITE NUMBER: 283426
VERIZON SITE NAME: BROOKFIELD CT
SITE ADDRESS: 37 CARMEN HILL ROAD
BROOKFIELD, CT 06804

LOCATION MAP

VERIZON WIRELESS
ANTENNA AMENDMENT DRAWINGS

COMPLIANCE CODE

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

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

PROJECT SUMMARY

SITE ADDRESS:

37 CARMEN HILL ROAD
BROOKFIELD, CT 06804
COUNTY: FAIRFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.49294
LONGITUDE: -73.42733
GROUND ELEVATION: 728' AMSL

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

REMOVE (8) PANELS, (6) RRUs, AND AND (1) OVPs

INSTALL (6) NEW PANELS, (12) RRUs, (1) 1 5/8" HYBRID CABLES, AND (1) OVP

EXISTING (3) PANELS AND (12) 1-5/8" COAX CABLES TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	COVER SHEET	1	02/12/18	KL
G-002	GENERAL NOTES	0	02/07/18	NW
C-101	DETAILED SITE PLAN AND TOWER ELEVATION	1	02/12/18	KL
C-501	RF SCHEDULE AND ANTENNA INSTALLATION	1	02/12/18	KL
C-502	RF SCHEDULE AND ANTENNA INSTALLATION	1	02/12/18	KL
C-503	CONSTRUCTION DETAILS	0	02/07/18	NW

UTILITY COMPANIES

POWER COMPANY: EVERSOURCE
PHONE: (877) 659-6326

TELEPHONE COMPANY: FRONTIER COMMUNICATIONS
PHONE: (800) 376-6843

811 Know what's **below.** **Call** before you dig.

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER:

ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

AMERICAN TOWER
116 HUNTINGTON AVE
BOSTON, MA 02116

APPLICANT:

VERIZON WIRELESS
99 EAST RIVER DRIVE, 9TH FLOOR
EAST HARTFORD, CT 06108

PROJECT LOCATION DIRECTIONS

FROM DANBURY, CT:

START OUT GOING NORTHEAST ON FEDERAL RD TOWARD SWANSON AVE. TAKE THE 2ND RIGHT ONTO WHITE TURKEY RD. MERGE ONTO US-7 N. TAKE THE US-202 EXIT, EXIT 12, TOWARD BROOKFIELD. TURN RIGHT ONTO FEDERAL RD/US-202 E. TAKE THE 1ST LEFT ONTO LAUREL HILL RD. TAKE THE 2ND LEFT ONTO N MOUNTAIN RD. TAKE THE 1ST RIGHT ONTO CARMEN HILL RD.

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NW	02/07/18
1	MATCH APPLICATION	KL	02/12/18

ATC SITE NUMBER:
283426

ATC SITE NAME:
BROOKFIELD CT

SITE ADDRESS:
37 CARMEN HILL ROAD
BROOKFIELD, CT 06804

SEAL:

STATE OF CONNECTICUT
PATRICK P. BARRY
28959
LICENSED
PROFESSIONAL ENGINEER

Feb 13 2018 12:52 AM cosign

verizon✓

DRAWN BY:	NW
APPROVED BY:	PPB
DATE DRAWN:	02/07/18
ATC JOB NO:	12155848
CUSTOMER ID:	BROOKFIELD CT
CUSTOMER #:	2561290

COVER SHEET

SHEET NUMBER:	REVISION:
G-001	1

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON WIRELESS REP PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON WIRELESS REP IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH VERIZON WIRELESS WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY VERIZON WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON WIRELESS REP. ANY WORK FOUND BY THE VERIZON WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
   A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
   B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
   C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
   D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
   E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
   A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
   B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
   C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
   D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
   E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
   F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
   G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NW	02/07/18

ATC SITE NUMBER:
283426

ATC SITE NAME:
BROOKFIELD CT

SITE ADDRESS:
37 CARMEN HILL ROAD
BROOKFIELD, CT 06804

SEAL:

STATE OF CONNECTICUT
PATRICK P. BARRY
28959
LICENSED
PROFESSIONAL ENGINEER

Feb 13 2018 12:52 AM cosign

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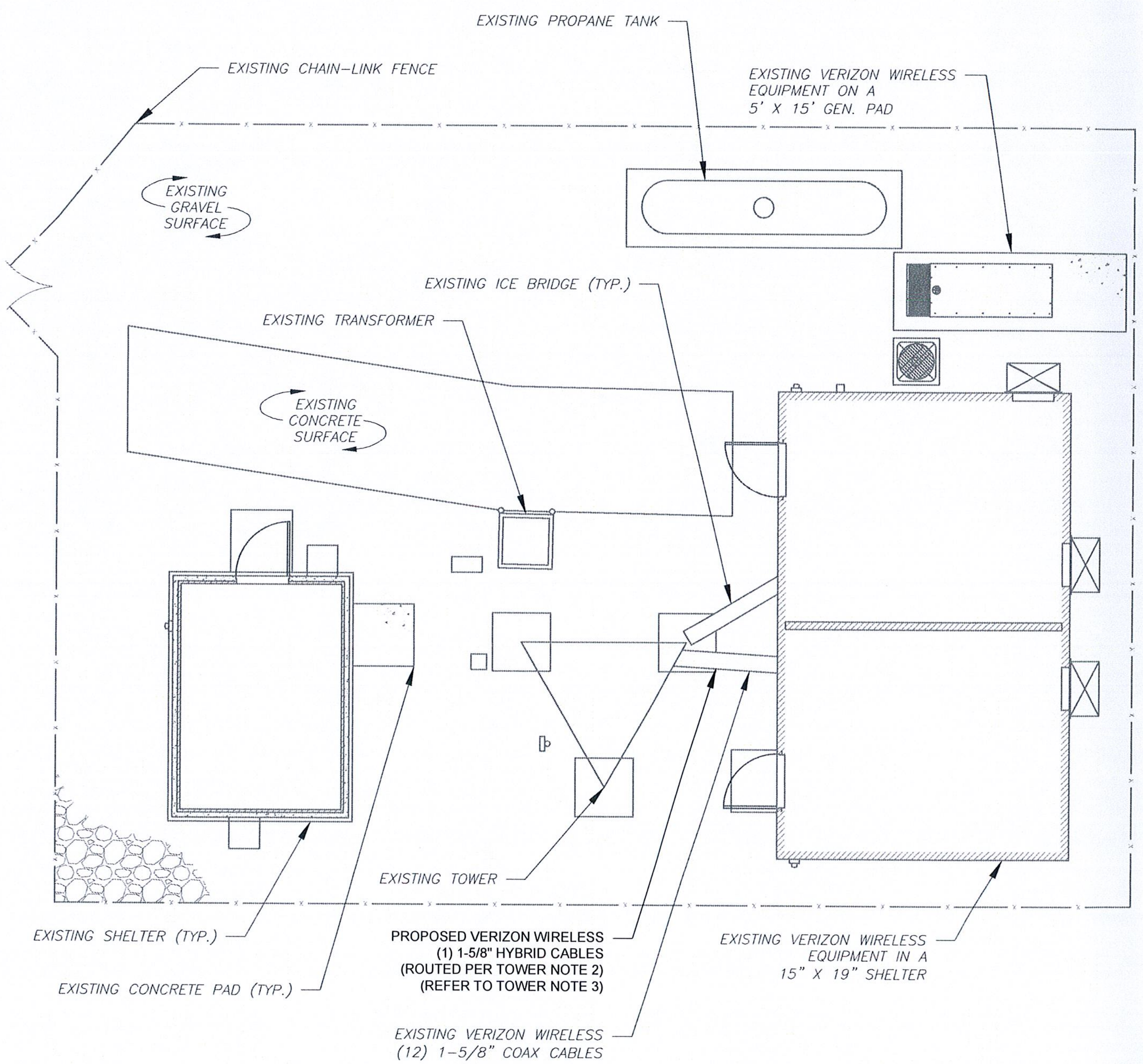
DRAWN BY:	NW
APPROVED BY:	PPB
DATE DRAWN:	02/07/18
ATC JOB NO:	12155848
CUSTOMER ID:	BROOKFIELD CT
CUSTOMER #:	2561290

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, CABLE SUPPORTS, AND CABLES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE INSTALLING NEW CABLE SUPPORT STRUCTURES, COAX PORTS, OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE ATC CONSTRUCTION MANAGER AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.



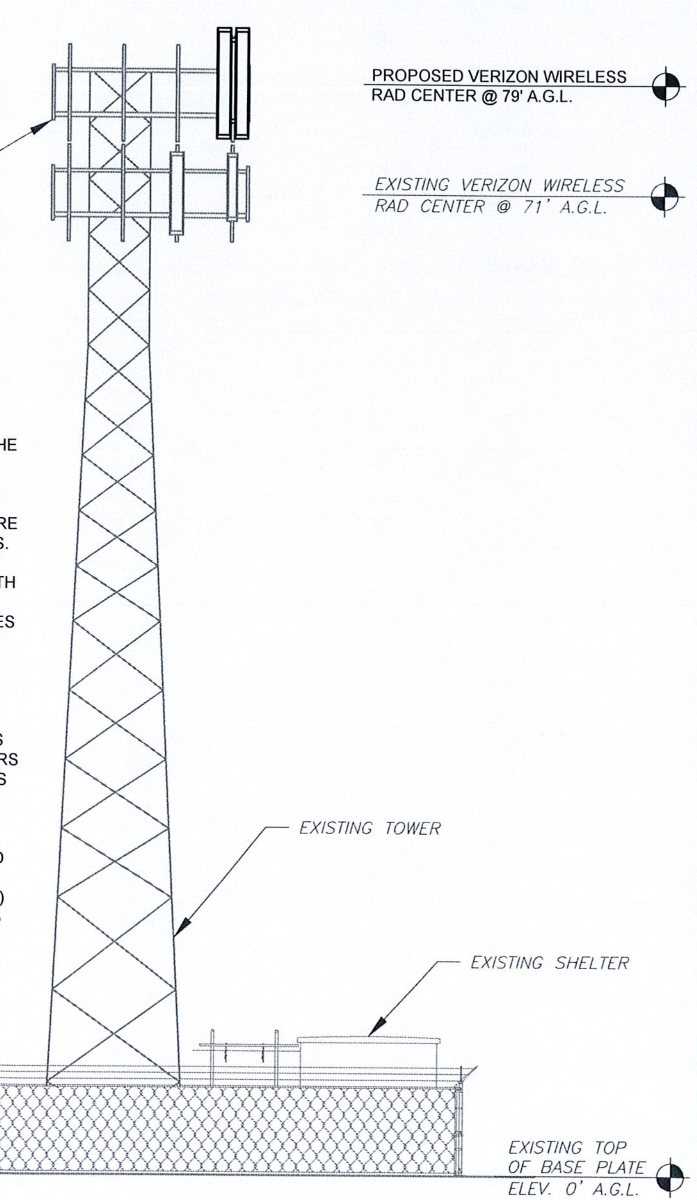
1 DETAILED SITE PLAN

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).
3. ESTIMATED LENGTH OF PROPOSED CABLE IS 108'. ESTIMATED LENGTH OF CABLE IS CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES).
4. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA HEIGHTS, ANTENNA AZIMUTHS AND MOUNT CONFIGURATIONS.



2 TOWER ELEVATION

SCALE: NOT TO SCALE

AMERICAN TOWER®

ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

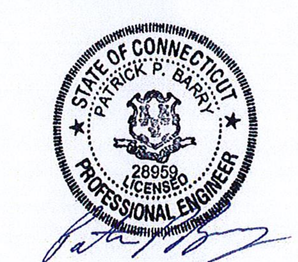
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NW	02/07/18
1	MATCH APPLICATION	KL	02/12/18

ATC SITE NUMBER:
283426

ATC SITE NAME:
BROOKFIELD CT

SITE ADDRESS:
37 CARMEN HILL ROAD
BROOKFIELD, CT 06804

SEAL:



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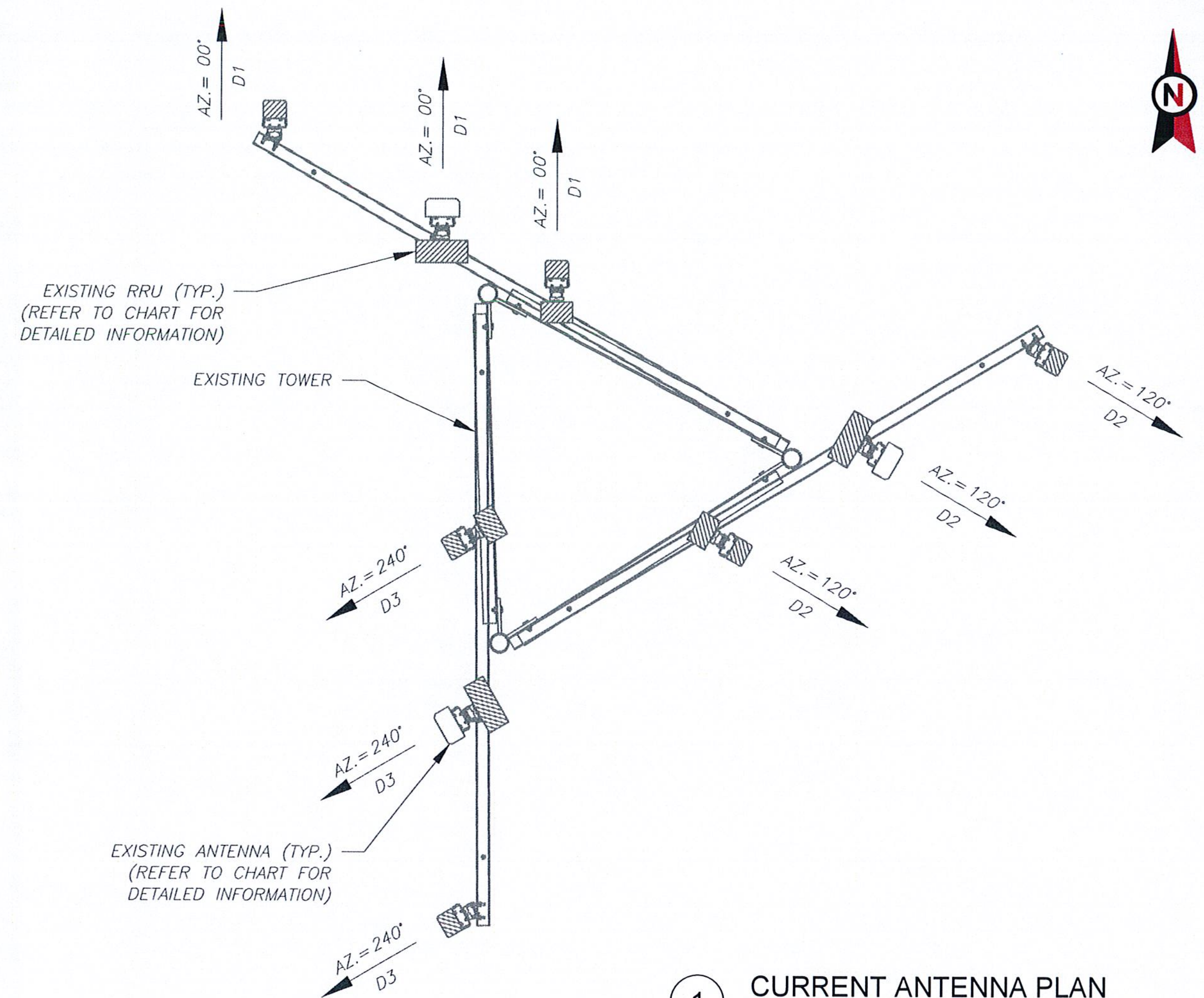
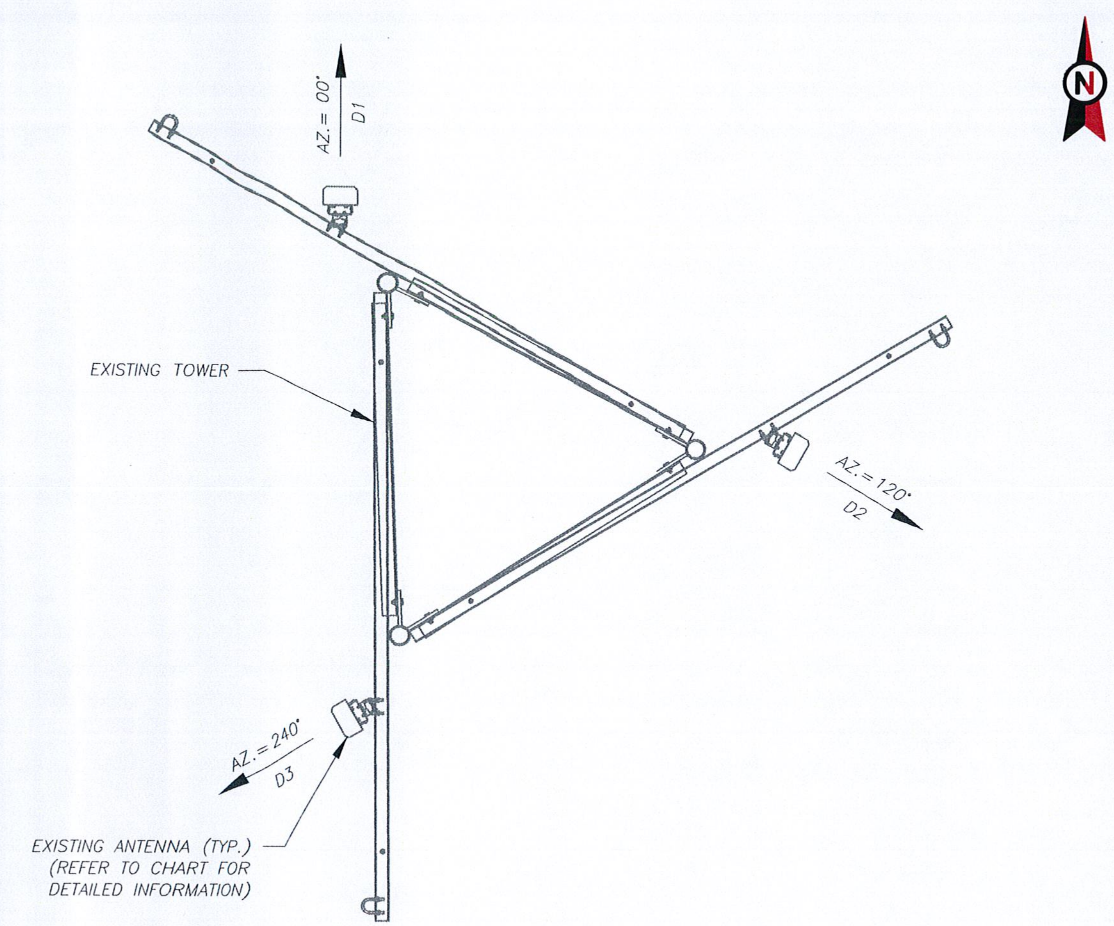
DRAWN BY:	NW
APPROVED BY:	PPB
DATE DRAWN:	02/07/18
ATC JOB NO:	12155848
CUSTOMER ID:	BROOKFIELD CT
CUSTOMER #:	2561290

DETAILED SITE PLAN AND TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-101	1



① CURRENT ANTENNA PLAN



② PROPOSED ANTENNA PLAN

CURRENT ANTENNA AND RF EQUIPMENT SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	BAND	MODEL NUMBER	STATUS	POS	MODEL NUMBER	STATUS
D1	71'	0°	1	–	BXA–171063–8BF–EDIN	RMV	1	–	–
			2	700 LTE	BXA–70063/6CF_	RMN	2	FD9R6004/2C–3L	RMV
			3	2100 LTE	BXA–171063–12CF	RMV	3	9442 RRH2x40–AWS	RMV
			4	–	–	–	4	–	–
			–	–	–	–	–	–	–
D2	71'	120°	1	–	BXA–171063–8BF–EDIN	RMV	1	–	–
			2	700 LTE	BXA–70063/6CF_	RMN	2	FD9R6004/2C–3L	RMV
			3	2100 LTE	BXA–171063–12CF	RMV	3	9442 RRH2x40–AWS	RMV
			4	–	–	–	4	–	–
			–	–	–	–	–	–	–
D3	71'	240°	1	–	BXA–171063–8BF–EDIN	RMV	1	–	–
			2	700 LTE	BXA–70063–4CF–EDIN–X	RMN	2	FD9R6004/2C–3L	RMV
			3	2100 LTE	BXA–171063–12CF	RMV	3	9442 RRH2x40–AWS	RMV
			4	–	–	–	4	–	–
			–	–	–	–	–	–	–

CURRENT FIBER DISTRIBUTION / OVP BOX					CURRENT CABLING SUMMARY		
LOCATION	POS	BAND	MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
TOWER	–	–	DB–T1–6Z–8AB–0Z	RMV	–	–	–
–	–	–	–	–	–	–	–

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
DSC: TO BE DISCONNECTED AND TO REMAIN

NOTES

1. BASED ON APPROVED ATC APPLICATION OAA713711 , DATED 09/27/17. CONFIRM WITH VERIZON WIRELESS REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS.
2. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION. CONTRACTOR TO VERIFY MOUNT CONFIGURATION HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (I.E. CLEARANCES, MOUNT PIPE OR SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.
3. ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.
4. CONFIRM SPACING OF PROPOSED EQUIPMENT DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
5. POSITIONS START WITH FIRST PIPE ON THE LEFT SIDE (AS VIEWED FROM BEHIND THE MOUNT).

CURRENT ANTENNA AND RF EQUIPMENT SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	BAND	MODEL NUMBER	STATUS	POS	MODEL NUMBER	STATUS
D1	71'	0°	1	-	-	-	1	-	-
			2	700 LTE	BXA–70063/6CF_	RMN	2	-	-
			3	-	-	-	3	-	-
			4	-	-	-	4	-	-
			-	-	-	-	-	-	-
D2	71'	120°	1	-	-	-	1	-	-
			2	700 LTE	BXA–70063/6CF_	RMN	2	-	-
			3	-	-	-	3	-	-
			4	-	-	-	4	-	-
			-	-	-	-	-	-	-
D3	71'	240°	1	-	-	-	1	-	-
			2	700 LTE	BXA–70063–4CF–EDIN–X	RMN	2	-	-
			3	-	-	-	3	-	-
			4	-	-	-	4	-	-
			-	-	-	-	-	-	-

CURRENT FIBER DISTRIBUTION / OVP BOX					CURRENT CABLING SUMMARY		
LOCATION	POS	BAND	MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

③ ANTENNA AND RF EQUIPMENT SCHEDULES

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
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PHONE: (919) 468-0112
COA: 6260F

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SEAL:

STATE OF CONNECTICUT
PATRICK P. BARRY
28959
LICENSED
PROFESSIONAL ENGINEER

Feb 13 2018 12:52 AM cosign

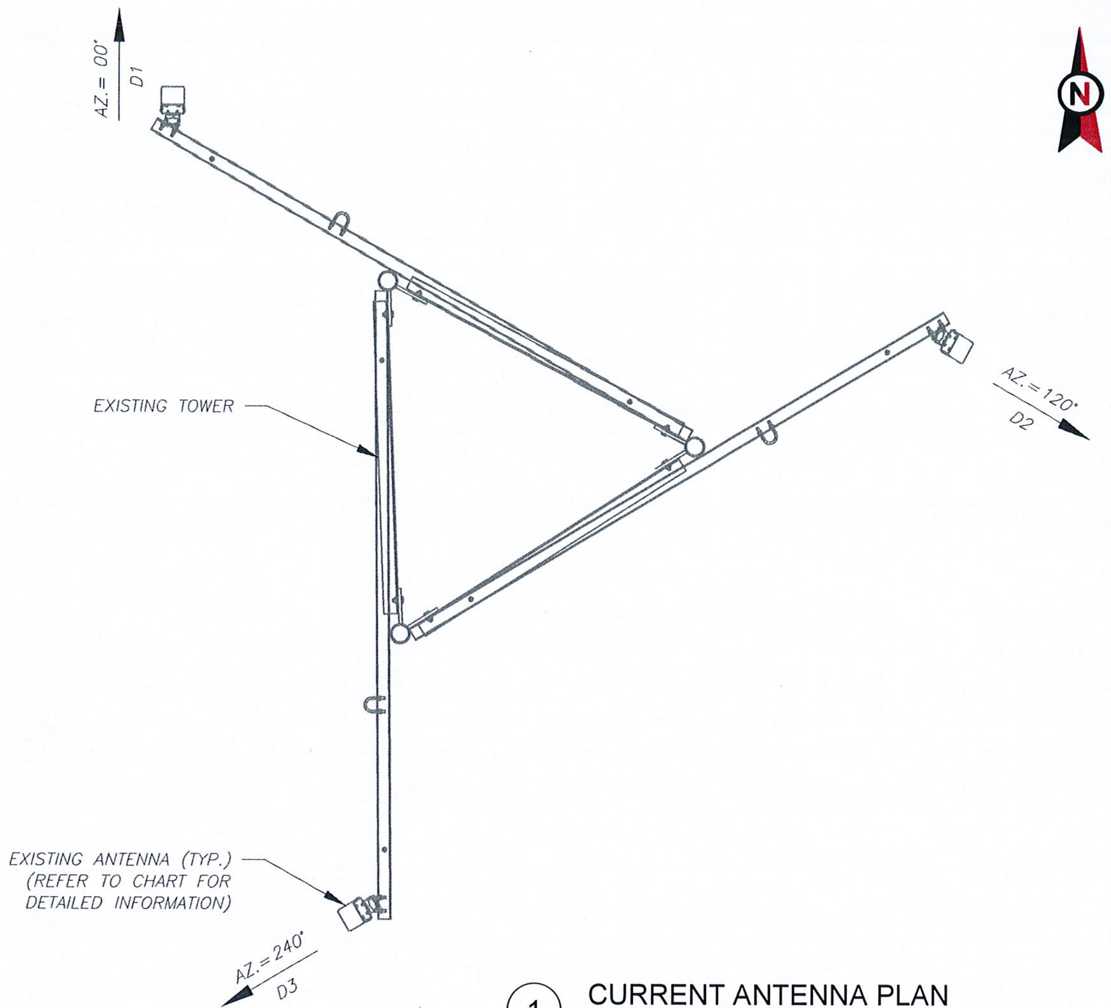
verizon

DRAWN BY:	NW
APPROVED BY:	PPB
DATE DRAWN:	02/07/18
ATC JOB NO:	12155848
CUSTOMER ID:	BROOKFIELD CT
CUSTOMER #:	2561290

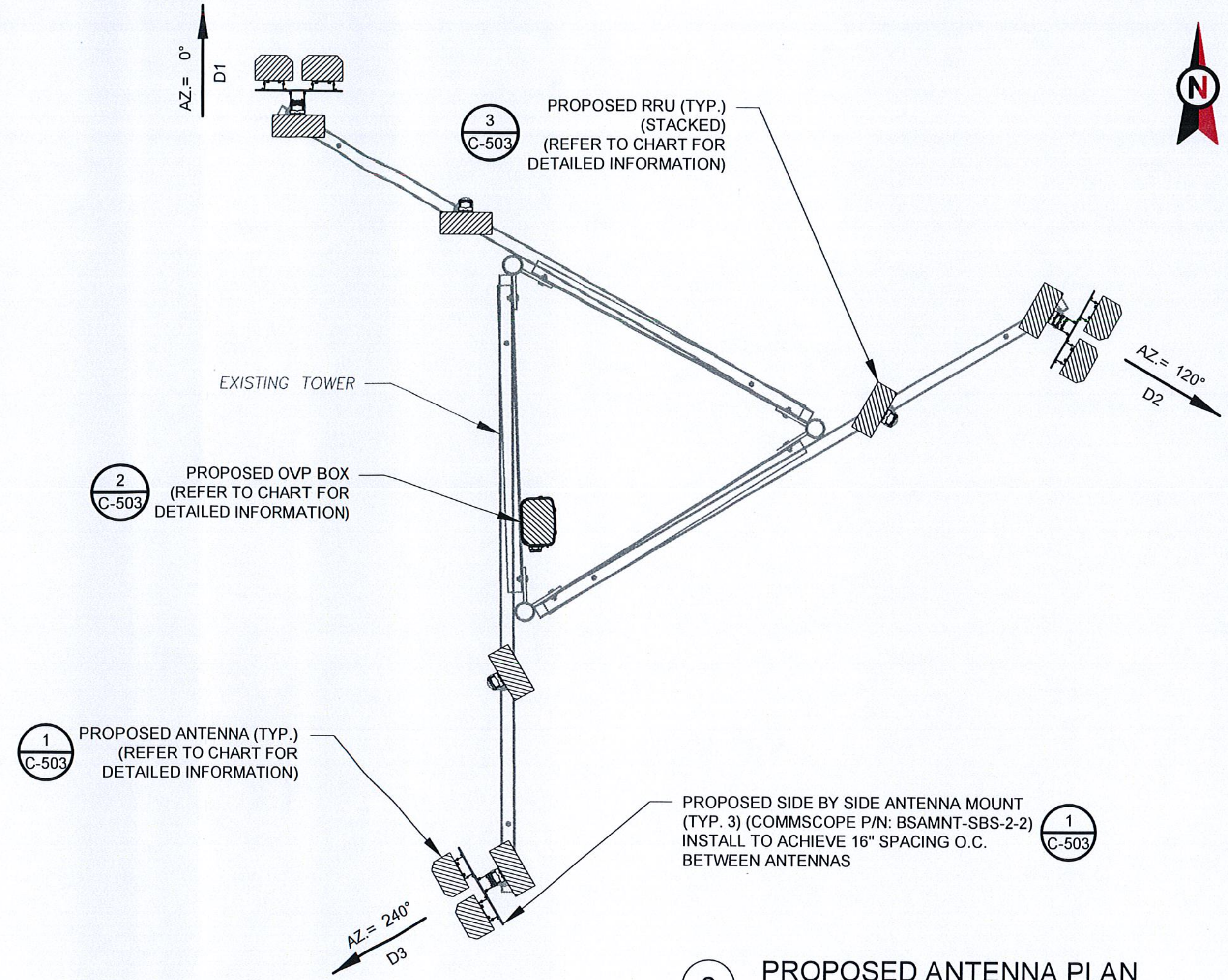
RF SCHEDULE AND ANTENNA INSTALLATION

SHEET NUMBER: C-501

REVISION: 1



1 CURRENT ANTENNA PLAN



2 PROPOSED ANTENNA PLAN

CURRENT ANTENNA AND RF EQUIPMENT SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	BAND	MODEL NUMBER	STATUS	POS	MODEL NUMBER	STATUS
D1	79'	0°	1	2100 LTE	BXA-171063-12CF	RMV	1	–	–
			2	–	–	–	2	–	–
			3	–	–	–	3	–	–
			4	–	–	–	4	–	–
			–	–	–	–	–	–	–
D2	79'	120°	1	2100 LTE	BXA-171063-12CF	RMV	1	–	–
			2	–	–	–	2	–	–
			3	–	–	–	3	–	–
			4	–	–	–	4	–	–
			–	–	–	–	–	–	–
D3	79'	240°	1	2100 LTE	BXA-171063-12CF	RMV	1	–	–
			2	–	–	–	2	–	–
			3	–	–	–	3	–	–
			4	–	–	–	4	–	–
			–	–	–	–	–	–	–

CURRENT FIBER DISTRIBUTION / OVP BOX					CURRENT CABLING SUMMARY		
LOCATION	POS	BAND	MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
DSC: TO BE DISCONNECTED AND TO REMAIN

NOTES

1. BASED ON APPROVED ATC APPLICATION OAA713711 , DATED 09/27/17. CONFIRM WITH VERIZON WIRELESS REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS.
2. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION. CONTRACTOR TO VERIFY MOUNT CONFIGURATION HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (I.E. CLEARANCES, MOUNT PIPE OR SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.
3. ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.
4. CONFIRM SPACING OF PROPOSED EQUIPMENT DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
5. POSITIONS START WITH FIRST PIPE ON THE LEFT SIDE (AS VIEWED FROM BEHIND THE MOUNT).

CURRENT ANTENNA AND RF EQUIPMENT SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	BAND	MODEL NUMBER	STATUS	POS	MODEL NUMBER	STATUS
D1	79'	0°	1	700/850/1900/2100 LTE	(2) JAHH-65B-R3B	ADD	1	B66A RRH4X45-4R	ADD
			2	-	-	-		RRH2X60 700	ADD
			3	-	-	-	2	BAND 5 AHCA RRH4X40	ADD
			4	-	-	-		B25 RRH4X30	ADD
			-	-	-	-	-	-	-
D2	79'	120°	1	700/850/1900/2100 LTE	(2) JAHH-65B-R3B	ADD	1	B66A RRH4X45-4R	ADD
			2	-	-	-		RRH2X60 700	ADD
			3	-	-	-	2	BAND 5 AHCA RRH4X40	ADD
			4	-	-	-		B25 RRH4X30	ADD
			-	-	-	-	-	-	-
D3	79'	240°	1	700/850/1900/2100 LTE	(2) JAHH-65B-R3B	ADD	1	B66A RRH4X45-4R	ADD
			2	-	-	-		RRH2X60 700	ADD
			3	-	-	-	2	BAND 5 AHCA RRH4X40	ADD
			4	-	-	-		B25 RRH4X30	ADD
			-	-	-	-	-	-	-

CURRENT FIBER DISTRIBUTION / OVP BOX					CURRENT CABLING SUMMARY		
LOCATION	POS	BAND	MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
TOWER	-	-	DB-B1-6C-12AB-0Z	ADD	-	1 5/8"	ADD
-	-	-	-	-	-	-	-

3 ANTENNA AND RF EQUIPMENT SCHEDULES

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NW	02/07/18
1	MATCH APPLICATION	KL	02/12/18

ATC SITE NUMBER:
283426

ATC SITE NAME:
BROOKFIELD CT

SITE ADDRESS:
37 CARMEN HILL ROAD
BROOKFIELD, CT 06804

SEAL:

STATE OF CONNECTICUT
PATRICK P. BARRY
28959
LICENSED
PROFESSIONAL ENGINEER

Feb 13 2018 12:52 AM cosign

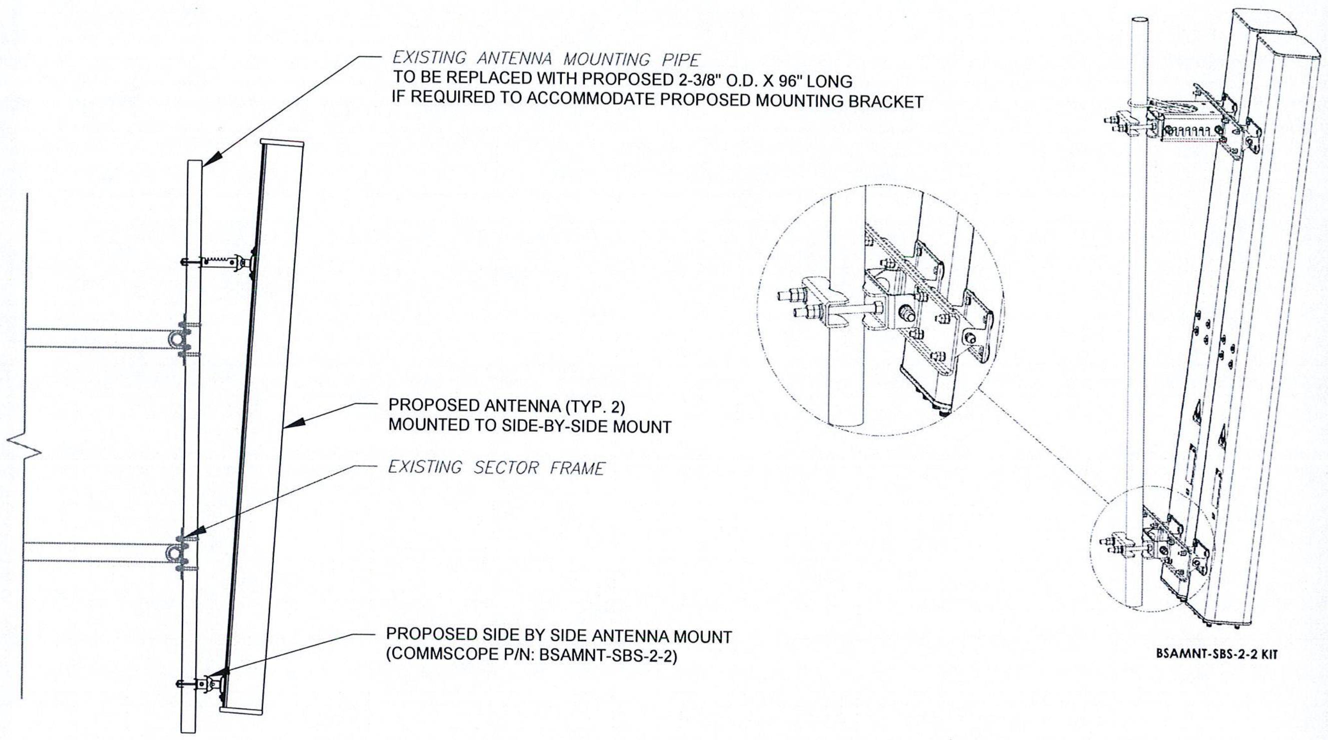
verizon

DRAWN BY:	NW
APPROVED BY:	PPB
DATE DRAWN:	02/07/18
ATC JOB NO:	12155848
CUSTOMER ID:	BROOKFIELD CT
CUSTOMER #:	2561290

RF SCHEDULE AND ANTENNA INSTALLATION

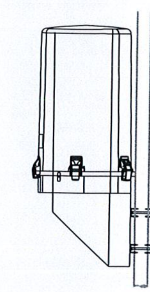
SHEET NUMBER: C-502

REVISION: 1



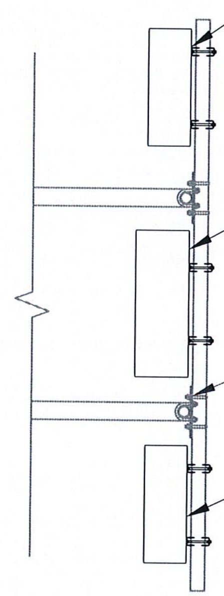
1 PROPOSED SIDE-BY-SIDE MOUNT

SCALE: NOT TO SCALE



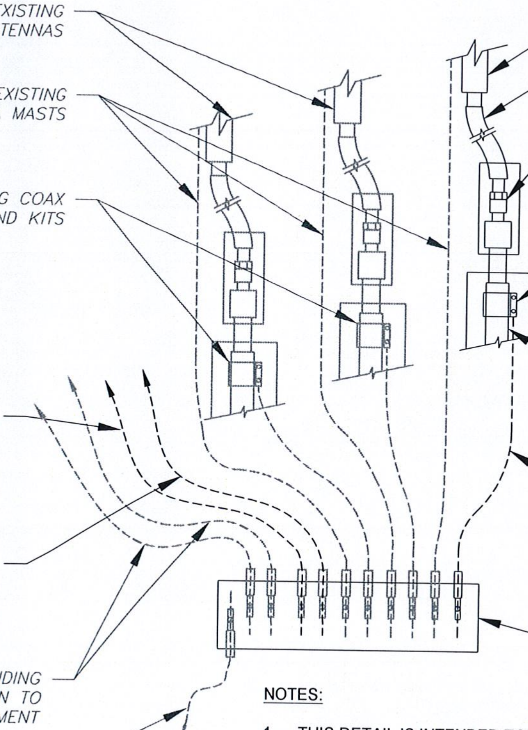
2 PROPOSED OVP MOUNTING

SCALE: NOT TO SCALE



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: NOT TO SCALE



NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.

2. SITE GROUNDING SHALL COMPLY WITH VERIZON WIRELESS GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON WIRELESS GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

4 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: NOT TO SCALE

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	NW	02/07/18

ATC SITE NUMBER:

283426

ATC SITE NAME:

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SITE ADDRESS:

37 CARMEN HILL ROAD
BROOKFIELD, CT 06804

SEAL:

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DRAWN BY:	NW
APPROVED BY:	PPB
DATE DRAWN:	02/07/18
ATC JOB NO:	12155848
CUSTOMER ID:	BROOKFIELD CT
CUSTOMER #:	2561290

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-503	0