Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

October 23, 2018

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

RE: **Notice of Exempt Modification for Verizon DO Macro:**
876324 Verizon Site ID: NAD83
1358 New Britain Ave. West Hartford, CT 06117
Latitude: 41° 43' 50.7"/ Longitude: 72° 45' 13.2"

Dear Ms. Bachman:

Verizon currently maintains six (6) antennas at the 105-foot level of the existing 130-foot monopole tower at 1358 New Britain Ave. West Hartford, CT 06117. The tower is owned by Crown Castle. The property is owned by West Hartford Methodist Church. Verizon intends to remove nine (9) RRHs, install six (6) new RRHs, and install three (3) side by side mounting brackets.

This facility was approved by the Connecticut Siting Council on July 11th 2001. This approval was given without conditions.

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.S.C.A. § 16-50j-73, a copy of this letter is being sent to Mayor Shari Cantor, Town of West Hartford, Building official Tim Mikloiche, Town of West Hartford, as well as the property owner, and Crown Castle is the tower owner.

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

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

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

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication 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.

For the foregoing reasons, Sprint respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Jeffrey Barbadora.

Sincerely,

Jeffrey Barbadora
Real Estate Specialist
12 Gill Street, Suite 5800, Woburn, MA 01801
781-729-0053
Jeff.Barbadora@crowncastle.com

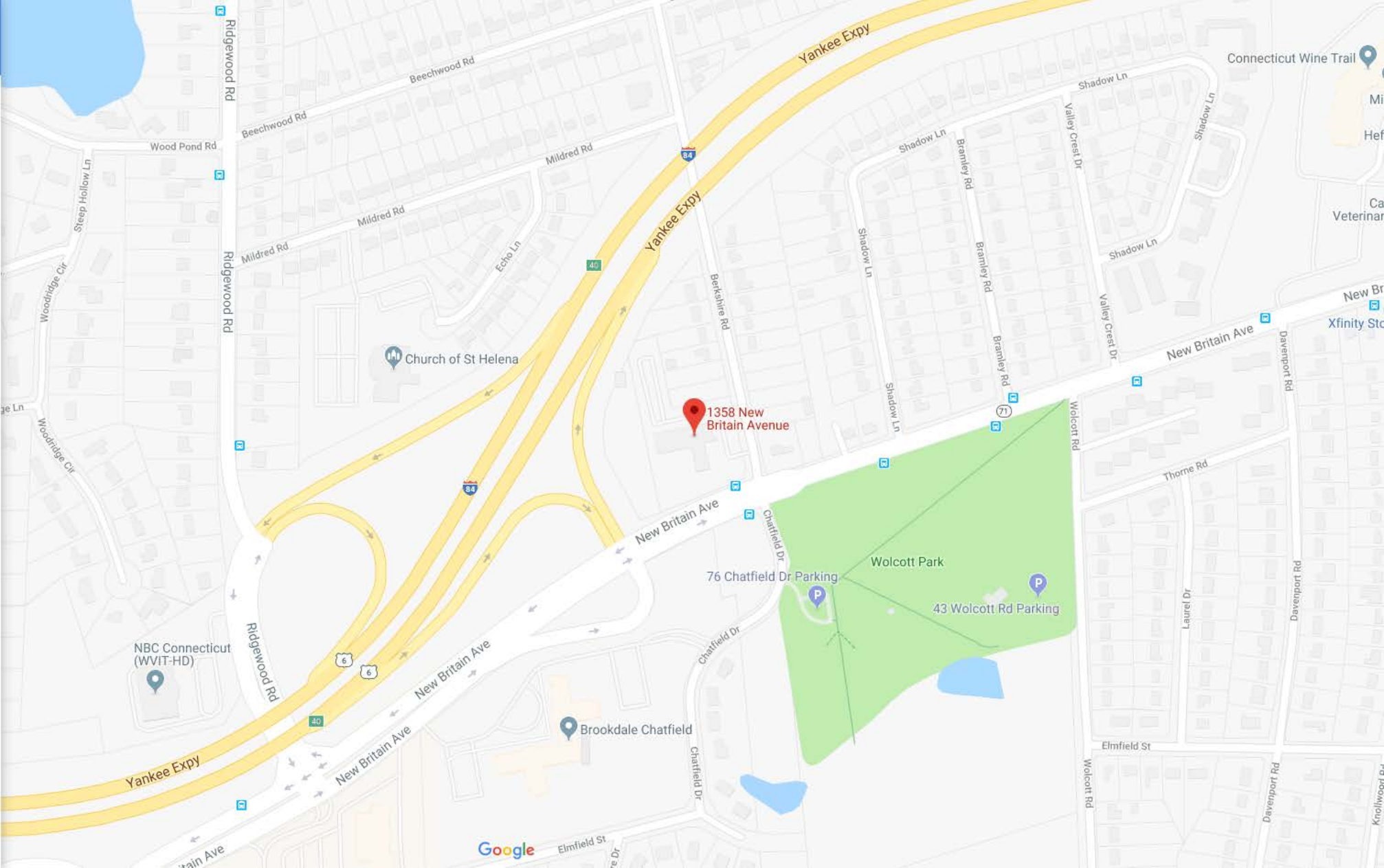
Attachments:

Tab 1: Exhibit-1: Compound plan and elevation depicting the planned changes
Tab 2: Exhibit-2: Structural Modification Report
Tab 3: Exhibit-3: General Power Density Table Report (RF Emissions Analysis Report)

cc: The Honorable Shari Cantor
50 South Main St.
West Hartford, CT 06107

Building Official Tim Mikloiche
50 South Main St.
West Hartford, CT 06107

West Hartford Methodist Church
1358 New Britain Ave.
West Hartford, CT 06110


Yankee Expy
Ridgewood Rd
Beechwood Rd
Wood Pond Rd
Mildred Rd
Steep Hollow Ln
Woodridge Cir
Echo Ln
Church of St Helena
1358 New Britain Avenue
Berkshire Rd
Shadow Ln
Bramley Rd
Valley Crest Dr
New Britain Ave
Davenport Rd
Wolcott Rd
Thorne Rd
Chatfield Dr
Wolcott Park
76 Chatfield Dr Parking
43 Wolcott Rd Parking
Laurel Dr
Elmfield St
Brookdale Chatfield
NBC Connecticut (WVIT-HD)
Connecticut Wine Trail
Xfinity Sto
Google

1358 NEW BRITAIN AVENUE

Location	1358 NEW BRITAIN AVENUE	**Mblu**	E15/ 3771/ 1358/ /
Parcel ID	3771 2 1358 0002	**Owner**	WEST HARTFORD METHODIST CHURCH
Assessment	$161,070	**Appraisal**	$235,300
Vision Id #	18679	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$55,100	$180,200	$235,300
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$34,930	$126,140	$161,070

Owner of Record

Owner	WEST HARTFORD METHODIST CHURCH
Co-Owner	C/O CROWN CASTLE (SITE 876324)
Address	PMB 331 4017 WASHINGTON ROAD MCMURRAY, PA 15317

Sale Price	$0
Certificate	1
Book & Page	515/ 149
Sale Date	07/16/1973
Instrument	U

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
WEST HARTFORD METHODIST CHURCH	$0	1	515/ 149	U	07/16/1973
	$0	1	298/ 256	U	

Building Information

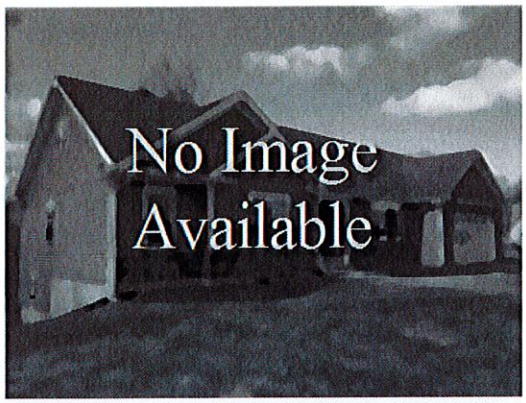
Building 1 : Section 1

Year Built:	1998
Living Area:	200
Replacement Cost:	$40,602
Building Percent Good:	82
Replacement Cost Less Depreciation:	$33,300

Building Photo

Building Attributes	
Field	**Description**

STYLE	Equipment Shed
MODEL	Comm/Ind
Grade	C 1.50
Stories:	1
Occupancy	
Exterior Wall 1	Brick w/Frame
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Built Up
Interior Wall 1	Typical
Interior Wall 2	
Floor Type	Reinf Concrete
Floor Cover	Vinyl
Heating Fuel	Typical
Heating Type	Complete HVAC
AC Type	Complete HVAC
As Built Use	ESHD
Bldg Use	Commercial
# of Bedrooms	
Total Baths	
Type	00
Wet Sprinkler	
Dry Sprinkler	
1st Floor Use:	
Class	Class C
Frame Type	Rigid Steel
Plumbing	LIGHT
Ceiling	Not Applicable
Group	COM
Wall Height	10
Adjustment	



(http://images.vgsi.com/photos/WestHartfordCTPhotos//default.j

Building Layout

TEL[200]

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
TEL	TELEPHONE BUILDING	200	200
		200	200

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	201
Description	Commercial
Zone	R-6

Land Line Valuation

Size (Acres)	0.01
Frontage	
Depth	

Neighborhood		**Assessed Value**	$126,140
Alt Land Appr	No	**Appraised Value**	$180,200
Category			

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
CP18	Chn Link Fence 8' hght			800 LF	$13,800	1
CFC5	Shed - Concrete Block			135 SF	$8,000	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$55,100	$180,200	$235,300
2016	$55,100	$180,200	$235,300
2015	$38,400	$150,300	$188,700

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$34,930	$126,140	$161,070
2016	$34,930	$126,140	$161,070
2015	$26,880	$105,210	$132,090

verizon

CORBINS CORNER CT
1358 NEW BRITAIN AVE
WEST HARTFORD, CT 06117

PROJECT SUMMARY

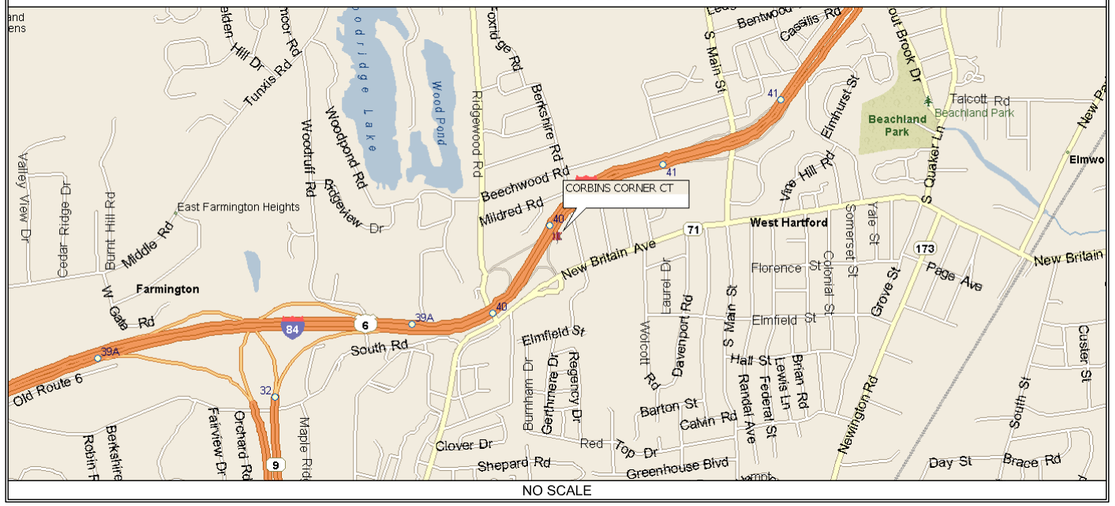
SITE NAME:	CORBINS CORNER CT
SITE ADDRESS:	1358 NEW BRITAIN AVE WEST HARTFORD, CT 06117
TOWER OWNER:	CROWN CASTLE 2000 CORPORATE DR CANONSBURG, PA 15317
BU NUMBER:	876324
MAP NUMBER:	E15
LOT NUMBER:	7
CUSTOMER/APPLICANT:	VERIZON WIRELESS 400 FRIEBERG PARKWAY WESTBOROUGH, MA 01581
CONTACT:	DAN MYZYRI (617) 945-7288
NAD83	
LATITUDE:	41° 43' 50.7" N
LONGITUDE:	72° 45' 13.2" W
ELEVATION:	169'
CURRENT ZONING:	R-6
A&E FIRM:	B+T GROUP 1717 S. BOULDER, SUITE 300 TULSA, OK 74119 STEVE THORNHILL (918) 587-4630
OCCUPANCY TYPE:	UNMANNED
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING	IBC 2012
STRUCTURAL	IBC 2012
MECHANICAL	IMC 2012
ELECTRICAL	NEC 2014

LOCATION MAP



NO SCALE

DRIVING DIRECTIONS

DEPART FROM BRADLEY INTERNATIONAL AIRPORT: HEAD NORTH TOWARD BRADLEY INTERNATIONAL AIRPORT. KEEP RIGHT TO CONTINUE ON BRADLEY INTERNATIONAL AIRPORT. KEEP RIGHT TO CONTINUE TOWARD SCHOEPHOESTER RD. SLIGHT RIGHT ONTO SCHOEPHOESTER RD. CONTINUE ONTO BRADLEY INTERNATIONAL AIRPORT CON. CONTINUE ONTO CT-20 E/BRADLEY INTERNATIONAL AIRPORT CON. TAKE THE EXIT ONTO I-91 S TOWARD HARTFORD. TAKE EXIT 32A-32B FOR I-84 W TOWARD WATERBURY. MERGE ONTO I-84. KEEP LEFT TO STAY ON I-84. TAKE EXIT 41 FOR SOUTH MAIN STREET. TURN RIGHT ONTO S MAIN ST. TURN LEFT ONTO BEECHWOOD RD. TURN LEFT ONTO BERKSHIRE RD. TURN RIGHT ONTO ACCESS ROAD AND ARRIVE AT CORBINS CORNER CT.

DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T-1	TITLE SHEET	0
A-1	COMPOUND PLAN AND TOWER ELEVATION	0
A-2	EQUIPMENT DETAILS	0

A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
OWNER:		
R.F. ENGINEER:		
CONSTRUCTION MGR.:		
LEASING & ZONING:		
VERIZON WIRELESS:		

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

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11x17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL CONNECTICUT ONE CALL
(800) 922-4455
CALL 3 WORKING DAYS
BEFORE YOU DIG!

811

B+T GRP

verizon
400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

CORBINS CORNER CT
1358 NEW BRITAIN AVE
WEST HARTFORD, CT 06117
EXISTING MONOPOLE

PROJECT NO:	127816.001.01
CHECKED BY:	RPS

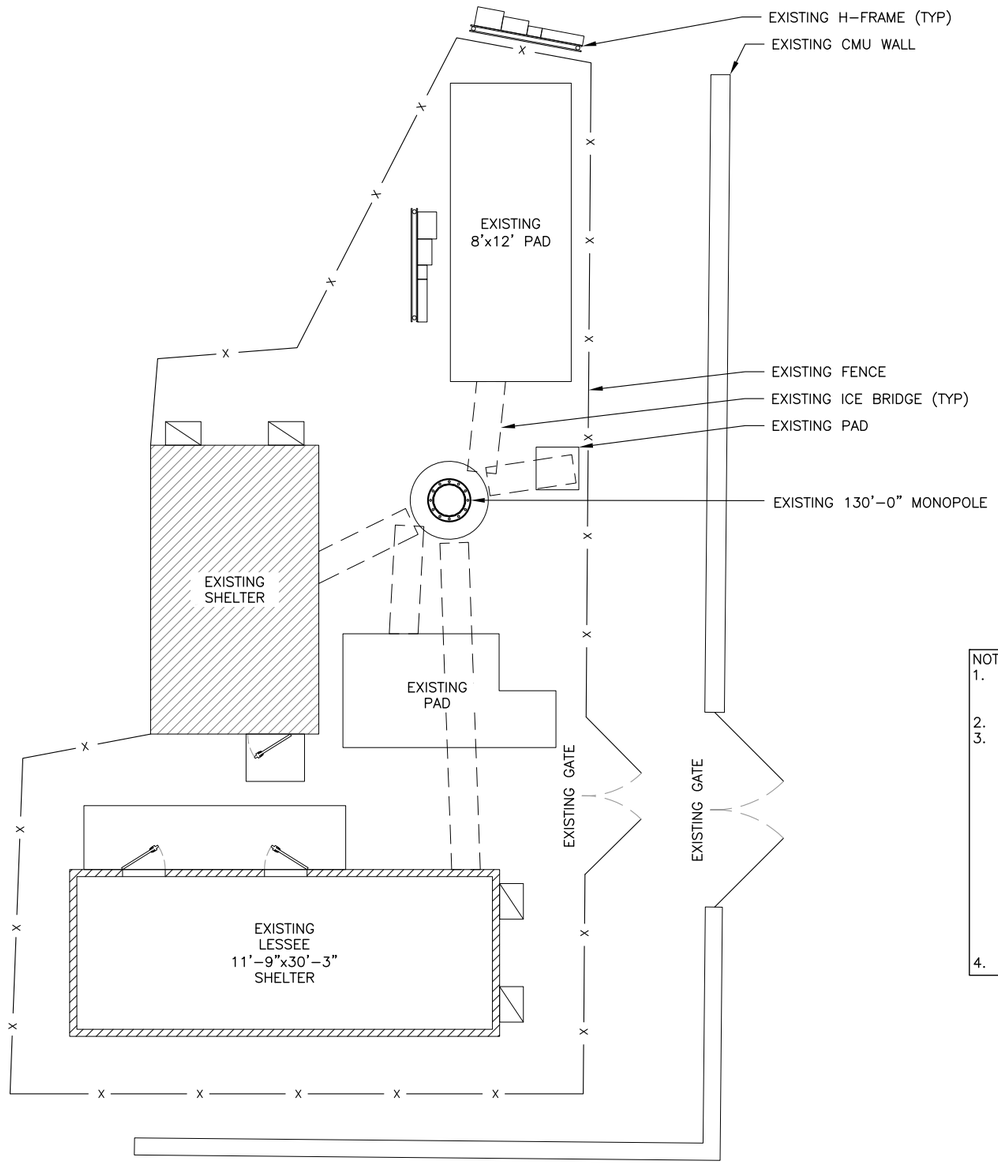
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	8/21/18	JJD	PRELIMINARY REVIEW
0	10/15/18	JJD	CONSTRUCTION

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/19

STATE OF CONNECTICUT
31627
LICENSED PROFESSIONAL ENGINEER
10/15/18

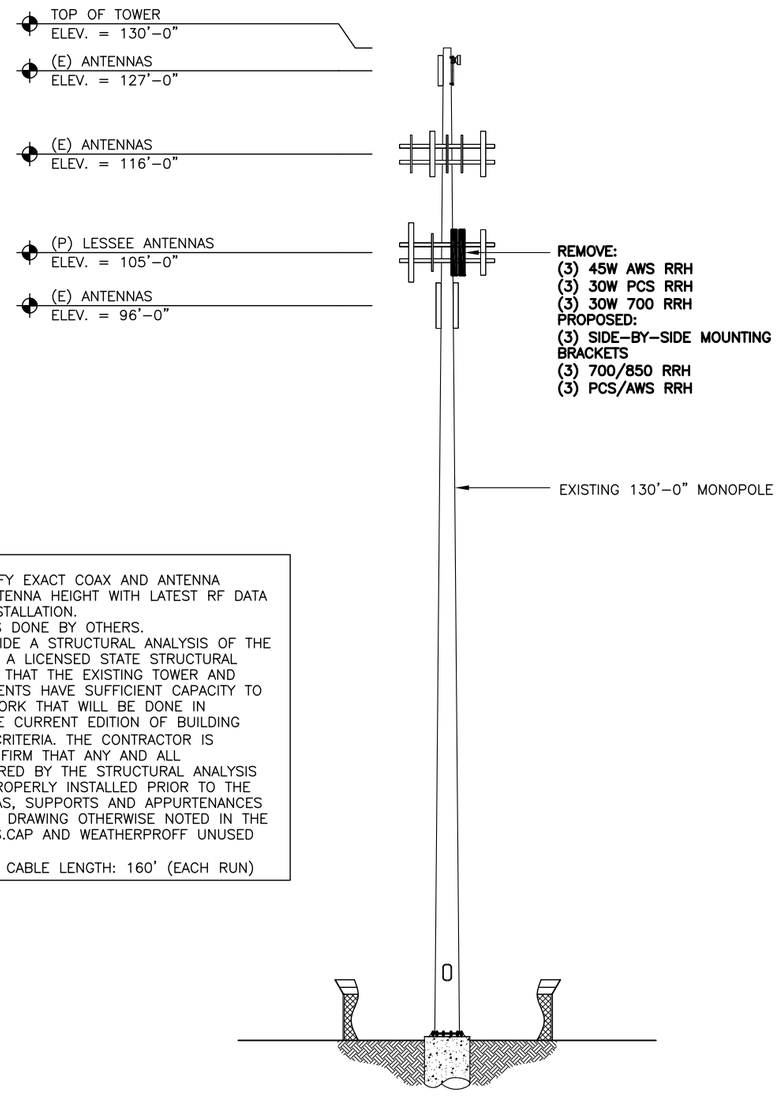
SHEET NUMBER:	REVISION:
T-1	0



1 COMPOUND PLAN

SCALE: 0' 4' 8' 16' 32'

N



2 FINAL TOWER ELEVATION

SCALE: 0' 10' 20' 30' 40' 1"=20'

NOTES:
1. CONTRACTOR TO VERIFY EXACT COAX AND ANTENNA INSTALLATION AND ANTENNA HEIGHT WITH LATEST RF DATA SHEETS PRIOR TO INSTALLATION.
2. STRUCTURAL ANALYSIS DONE BY OTHERS.
3. VERIZON SHALL PROVIDE A STRUCTURAL ANALYSIS OF THE TOWER PREPARED BY A LICENSED STATE STRUCTURAL ENGINEER CERTIFYING THAT THE EXISTING TOWER AND PROPOSED IMPROVEMENTS HAVE SUFFICIENT CAPACITY TO SUPPORT ALL NEW WORK THAT WILL BE DONE IN COMPLIANCE WITH THE CURRENT EDITION OF BUILDING CODES AND EIA/TIA CRITERIA. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM THAT ANY AND ALL IMPROVEMENTS REQUIRED BY THE STRUCTURAL ANALYSIS CERTIFICATION ARE PROPERLY INSTALLED PRIOR TO THE ADDITION OF ANTENNAS, SUPPORTS AND APPURTENANCES PROPOSED ON THESE DRAWING OTHERWISE NOTED IN THE STRUCTURAL ANALYSIS.CAP AND WEATHERPROFF UNUSED ANTENNA PORTS.
4. ESTIMATED HYBRIFLEX CABLE LENGTH: 160' (EACH RUN)

B+T GRP

verizon

400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

CORBINS CORNER CT

1358 NEW BRITAIN AVE
WEST HARTFORD, CT 06117

EXISTING MONOPOLE

PROJECT NO: 127816.001.01

CHECKED BY: RPS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	8/21/18	JJD	PRELIMINARY REVIEW
0	10/15/18	JJD	CONSTRUCTION

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/19

STATE OF CONNECTICUT 31627 LICENSED PROFESSIONAL ENGINEER

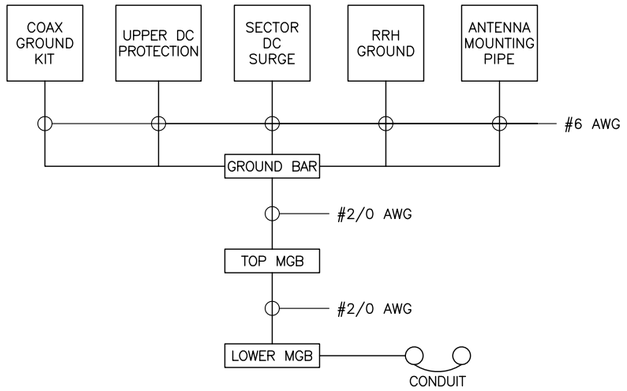
10/15/18

SHEET NUMBER: A-1

REVISION: 0

NOT AVAILABLE AT TIME OF ISSUE

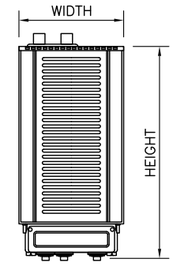
NOTE:
1. INSTALL ALL EQUIPMENT, MOUNTING BRACKETS AND HARDWARE ACCORDING WITH MANUFACTURE'S RECOMMENDATIONS.
2. GROUND DISTRIBUTION BOXES, MOUNTING PIPES AND RRHs IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
3. INSTALLED EQUIPMENT AND MOUNTING BRACKETS SHALL NOT INTERFERE WITH CLIMBING ACCESS NOR ANT INSTALLED SAFETY DEVICES.
4. EQUIPMENT TO BE INSTALLED AT VERIZON'S RAD. CENTER IN ACCORDANCE WITH TOWER STRUCTURAL ANALYSIS (ANALYSIS BY OTHERS).



NOTE:
1. BOND ANTENNA GROUNDING KIT CABLES TO TOP CIBE.
2. BOND ANTENNA GROUNDING KIT CABLE TO BOTTOM CIBE.
3. TYPICAL FOR ALL SECTORS.

REMOTE RADIO HEAD DIMENSIONS (INCHES)

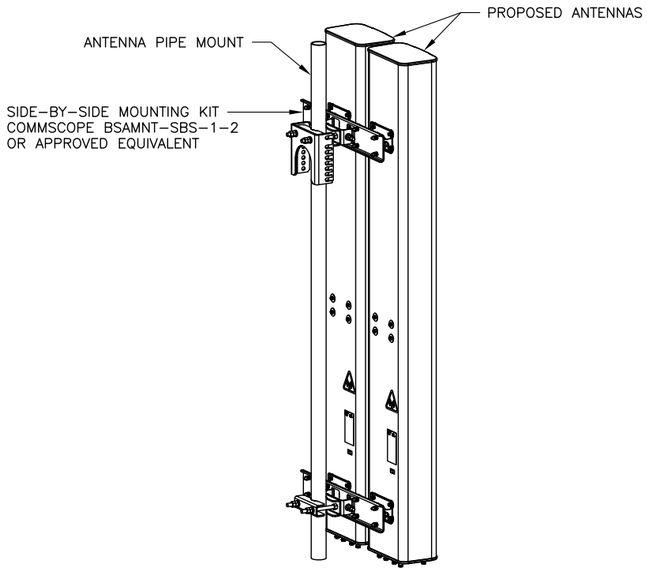
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
RFV01U-D1A	15.0"	15.0"	10.0"	84.40 LBS
RFV01U-D2A	15.0"	15.0"	8.10"	70.30 LBS



1 ANTENNA SYSTEM LAYOUT
SCALE: N.T.S.

2 GROUNDING SCHEMATIC DIAGRAM
SCALE: N.T.S.

3 RRH SPECIFICATIONS
SCALE: N.T.S.



4 ANTENNA MOUNTING DETAIL
SCALE: N.T.S.

B+T GRP

verizon

400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

CORBINS CORNER CT

1358 NEW BRITAIN AVE
WEST HARTFORD, CT 06117

EXISTING MONOPOLE

PROJECT NO:	127816.001.01
CHECKED BY:	RPS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	8/21/18	JJD	PRELIMINARY REVIEW
0	10/15/18	JJD	CONSTRUCTION

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/19

SHEET NUMBER:	REVISION:
A-2	0

CT-257
08

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

July 13, 2001

Ronald C. Clark
~~Manager, Real Estate~~ Operations
Nextel Communications
100 Corporate Park
Rocky Hill, CT 06067

RE: **TS-NEXTEL-155-010531** - Nextel Communications, Inc. request for an order to approve tower sharing at an existing telecommunications facility located at 1358 New Britain Avenue, West Hartford, Connecticut.

Dear Mr. Clark:

At a public meeting held July 11, 2001, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures, with the condition for placement of an architectural wall façade with a brick veneer consistent the adjacent church building and vegetative landscaping, and that these plans be submitted to the West Hartford Town Planner for review. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

* The proposed shared use is to be implemented as specified in your letters dated May 31, 2001, June 11, 2001, and July 9, 2001.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKP/laf

c: Barry M. Feldman, Town Manager, Town of West Hartford
Donald Foster, Town Planner, Town of West Hartford
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC
Christopher B. Fisher, Esq., Cuddy & Feder & Worby LLP
Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene & MacRae

Date: **October 8, 2018**

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Charles McGuirt
Crown Castle
3530 Toringdon Way Suite 300,
Charlotte, NC 28277
(704) 405-6607

Tectonic
1279 Route 300
Newburgh, NY 12550
(845) -567-6656

Subject:	**Mount Analysis Report**	
Carrier Designation:	**Verizon Wireless Equipment Change-Out**	
	Carrier Site Number:	4482
	Carrier Site Name:	Corbins corner CT
Crown Castle Designation:	**Crown Castle BU Number:**	876324
	Crown Castle Site Name:	West Hartford United Methodist
	Crown Castle JDE Job Number:	518916
	Crown Castle Order Number:	450297 Rev 0
Engineering Firm Designation:	**Tectonic Project Number:**	9500.876324
Site Data:	**1358 New Britain Avenue, West Hartford, Hartford County, CT 06110** **Latitude 41° 43' 50.37" Longitude -72° 45' 13.17"**	
Structure Information:	**Tower Height & Type:**	**130 ft MP**
	Mount Elevation:	**105 ft**
	Mount Type:	**12.5 ft Platform**

Dear Charles,

Tectonic Engineering & Surveying Consultants P.C. (Tectonic) is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of Verizon Wireless's antenna mounting system with the proposed appurtenance and equipment addition on the above mentioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore, is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform **Sufficient**

This analysis has been performed in accordance with the 2016 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph per section 1609.3.1 as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category C with a maximum topographic factor, Kzt, of 1.00 and Risk Category II were used in this analysis.

Mount structural analysis prepared by: Saurabh M. \ KZ

Respectfully Submitted by:

Antonia A. Gualtieri, P.E.
Sr. Vice President

10/8/18.

TABLE OF CONTENTS

1) INTRODUCTION

This is an existing 12.5 ft platform mount mapped by Engineered Tower Solutions, PLLC (ETS). The mounts are installed at the 105 ft elevation of the 130 ft existing Monopole tower.

2) ANALYSIS CRITERIA

Building Code: 2016 Connecticut State Building
TIA-222 Revision: TIA-222-G
Risk Category: II
Wind Speed: 97 mph
Exposure Category: C
Topographic Category at Base: 1
Topographic Category at Mount: 1
Ice Thickness: 1.00 in
Wind Speed with Ice: 50 mph
Live Loading Wind Speed: 30 mph
Live Loading at Mid/End-Points: 250 lbs
Man Live Loading at Mount Pipes: 500 lbs

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
105	107	3	Antel	BXA-70063/4CF	Platform mount
		3	Antel	BXA-80063-4CF-EDIN-2	
		6	Commscope	SBNHH-1D65B	
		1	Raycap	RRFDC-3315- PF-48	
		1	RFS/Celwave	DBT1-6Z-8AB-0Z	
		3	Samsung telecommunications	RFV01U-D1A	
		3	Samsung telecommunications	RFV01U-D2A	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
4-TOWER STRUCTURAL ANALYSIS REPORTS	Paul J. Ford & Company	7732875	CCISITES
4-MOUNT MAPPING	Engineered Tower Solutions, PLLC	7886494	CCISITES

3.1) Analysis Method

RISA-3D (17.0.0), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

Proprietary excel sheets were used to calculate appurtenance and member loading for various load cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle ENG-SOW-10208 Tower Mount Analysis (Revision B).

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Tables 1 and the referenced drawings.
3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
4) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
Pipe ASTM	A53 (GR 35)
Connection Bolts	ASTM A325

This analysis may be affected if any assumptions are not valid or have been made in error. Tectonic should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Platform)

Notes	Component	Critical Member	Mount Centerline (ft)	% Capacity	Pass / Fail
1	Horizontal	79	105	30	Pass
	Top Rail	44		47	Pass
	Face vertical	47		28	Pass
	Bracing	66C		12	Pass
	Standoff	51		66	Pass
	Corner Angle	64		12	Pass
	Mount Pipe	64B		28	Pass

Structure Rating (max from all components) =	66%

Notes:

1) See additional documentation in "Appendix C - Analysis Output" for calculations supporting the % capacity consumed.
2) Based on the stress ratios in the platform members, it is believed that the existing connections to the tower are adequate to support the proposed upgrade.

4.1) Recommendations

The existing mount has sufficient capacity to support the proposed loading configuration. No modifications are required at this time.

PAUL J. FORD & COMPANY

Date: **August 15, 2018**

Denice Nicholson
Crown Castle
3 Corporate Park Drive Suite 101
Clifton Park, NY 12065

Paul J. Ford and Company
250 East Broad st., Suite 600
Columbus, OH 43215
(614) 221-6679

Subject: **Structural Analysis Report**

Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Carrier Site Number:	4482
	Carrier Site Name:	Corbins Corner CT
Crown Castle Designation:	**Crown Castle BU Number:**	876324
	Crown Castle Site Name:	WEST HARTFORD UNITED METHODIST
	Crown Castle JDE Job Number:	518916
	Crown Castle Work Order Number:	1606906
	Crown Castle Order Number:	450297 Rev. 0
Engineering Firm Designation:	**Paul J. Ford and Company Project Number:**	37518-2834.002.7805
Site Data:	**1358 New Britain Avenue, WEST HARTFORD, Hartford County, CT**	
	Latitude *41° 43' 50.37"*, Longitude *-72° 45' 13.17"*	
	130 Foot - Monopole Tower	

Dear Denice Nicholson,

Paul J. Ford and Company is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 1236260, in accordance with order 450297, revision 0.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC5: Existing + Proposed Equipment **Sufficient Capacity**
Note: See Table I and Table II for the proposed and existing loading, respectively.

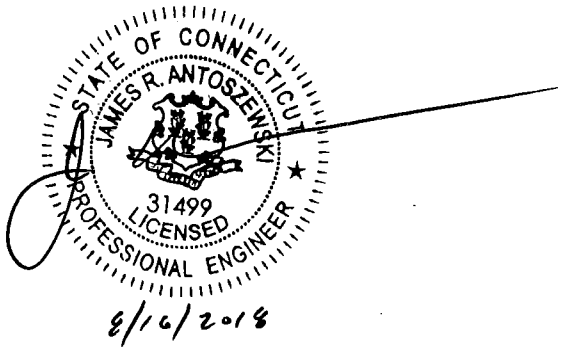
This analysis has been performed in accordance with the 2016 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph per Section 1609.3 and Appendix N as required for use in the ANSI/TIA-222-G-2005 Standard, "Structural Standard for Antenna Supporting Structures and Antennas", with ANSI/TIA-222-G-1-2007 and ANSI/TIA-222-G-2-2009 Addenda per Exception #5 of Section 1609.1.1. Risk Category II, Exposure Category C and Topographic Category 1 with a maximum Topographic Factor, Kzt, of 1 were used in this analysis.

We at *Paul J. Ford and Company* appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted by:

Gowtham

Gowtham Penumatsa
Structural Designer



PAUL J. FORD & COMPANY

Date: **August 15, 2018**

Denice Nicholson
Crown Castle
3 Corporate Park Drive Suite 101
Clifton Park, NY 12065

Paul J. Ford and Company
250 East Broad st., Suite 600
Columbus, OH 43215
(614) 221-6679

Subject: **Structural Analysis Report**

Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Carrier Site Number:	4482
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Respectfully submitted by:

Gowtham Penumatsa
Structural Designer

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 130 ft Monopole tower designed by ROHN in January of 1997. The tower was originally designed for a wind speed of 85 mph per TIA/EIA-222-E.

2) ANALYSIS CRITERIA

This analysis has been performed in accordance with the 2016 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph per Section 1609.3 and Appendix N as required for use in the ANSI/TIA-222-G-2005 Standard, “Structural Standard for Antenna Supporting Structures and Antennas”, with ANSI/TIA-222-G-1-2007 and ANSI/TIA-222-G-2-2009 Addenda per Exception #5 of Section 1609.1.1. Risk Category II, Exposure Category C and Topographic Category 1 with a maximum Topographic Factor, Kzt, of 1 were used in this analysis.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
105.0	107.0	3	samsung telecommunications	RFV01U-D1A	-	-	-
		3	samsung telecommunications	RFV01U-D2A			

Table 2 - Existing Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
127.0	128.0	1	andrew	VHLP2-18	3 3 3 2	1/4 5/16 1/2 2” Cond	1
	127.0	3	argus technologies	LLPX310R w/ Mount Pipe			
		2	dragonwave	A-ANT-18G-2-C			
		1	raycap	DC6-48-60-18-8F			
		3	samsung telecommunications	RRH-2WB			
		1	tower mounts	Side Arm Mount [SO 102-3]			
117.0	117.0	3	alcatel lucent	800MHz 2X50W RRH W/FILTER	-	-	1
		1	tower mounts	Side Arm Mount [SO 102-3]			
	115.0	3	alcatel lucent	PCS 1900MHz 4x45W-65MHz			
116.0	116.0	3	alcatel lucent	TD-RRH8x20-25	1 3	3/4 1-1/4	1
		3	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe			
		3	rfs celwave	APXVTM14-C-120 w/ Mount Pipe			
		1	tower mounts	Platform Mount [LP 502-1]			
105.0	107.0	3	antel	BXA-70063/4CF w/ Mount Pipe	6 2	7/8 1-5/8	1
		3	antel	BXA-80063-4CF-EDIN-2 w/ Mount Pipe			
		6	commscope	SBNHH-1D65B w/ Mount Pipe			
		1	raycap	RRFDC-3315-PF-48			
		1	rfs celwave	DB-T1-6Z-8AB-0Z			
		3	alcatel lucent	RRH2X60-PCS	-	-	2
		3	alcatel lucent	RRH4X45-AWS4 B66			
	106.0	3	alcatel lucent	RRH2X60-700			
	105.0	1	tower mounts	Platform Mount [LP 502-1]	-	-	1
96.0	96.0	3	rfs/celwave	APXV18-209015-C-A20	6	1-5/8	1
		1	tower mounts	Pipe Mount [PM 601-3]			
60.0	60.0	2	tower mounts	Side Arm Mount [SO 701-1]	-	-	1
50.0	50.0	1	lucent	KS24019-L112A	1	1/2	1
		1	tower mounts	Side Arm Mount [SO 701-1]			

Notes:
1) Existing Equipment
2) Equipment To Be Removed

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	SEA Consultants, 12/4/1996	1529734	CCISITES
4-POST-MODIFICATION INSPECTION	Vertical Solutions, 080497.15, 11/25/2008	2364340	CCISITES
4-POST-MODIFICATION INSPECTION	Sabre, 11-05047, 11/3/2010	2745780	CCISITES
4-POST-MODIFICATION INSPECTION	CCI, 1356927, 05/31/2017	6894104	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Rohn, 34738SW, 1/13/1997	1615437	CCISITES
4-TOWER MANUFACTURER DRAWINGS	Roh, 34738SW, 1/13/1997	1771422	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.2.1), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
4) Monopole has been reinforced in conformance with the referenced modification drawings.
5) The existing top plate at 120' flange has been estimated as .75" thick from pictures on CCISITES. The grade has been assumed as A36 (36 ksi).

This analysis may be affected if any assumptions are not valid or have been made in error. Paul J. Ford and Company should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
130 - 125	Pole	TP16x16x0.1875	Pole	3.6%	Pass
125 - 120	Pole	TP16x16x0.1875	Pole	11.7%	Pass
120 - 115	Pole	TP24x24x0.25	Pole	9.0%	Pass
115 - 110	Pole	TP24x24x0.25	Pole	19.2%	Pass
110 - 105	Pole	TP24x24x0.25	Pole	30.0%	Pass
105 - 100	Pole	TP24x24x0.25	Pole	50.5%	Pass
100 - 95	Pole	TP24x24x0.25	Pole	69.6%	Pass
95 - 90	Pole	TP24x24x0.25	Pole	90.1%	Pass
90 - 85	Pole	TP24x24x0.375	Pole	70.6%	Pass
85 - 83.5	Pole	TP24x24x0.375	Pole	74.7%	Pass
83.5 - 83.25	Pole + Reinf.	TP24x24x0.6	Reinf. 13 Tension Rupture	54.0%	Pass
83.25 - 78.25	Pole + Reinf.	TP24x24x0.6	Reinf. 13 Tension Rupture	63.8%	Pass
78.25 - 75	Pole + Reinf.	TP24x24x0.6	Reinf. 13 Tension Rupture	70.4%	Pass
75 - 74.75	Pole + Reinf.	TP24x24x0.6	Reinf. 5 Compression	71.6%	Pass
74.75 - 69.75	Pole + Reinf.	TP24x24x0.6	Reinf. 5 Compression	82.0%	Pass
69.75 - 64.75	Pole + Reinf.	TP24x24x0.6	Reinf. 5 Compression	92.6%	Pass
64.75 - 62	Pole + Reinf.	TP24x24x0.6	Reinf. 5 Compression	98.6%	Pass
62 - 61.75	Pole + Reinf.	TP24x24x1.225	Reinf. 4 Connection	79.5%	Pass
61.75 - 60	Pole + Reinf.	TP24x24x1.225	Reinf. 4 Connection	82.6%	Pass
60 - 59.75	Pole + Reinf.	TP30x30x0.5438	Reinf. 3 Compression	71.0%	Pass
59.75 - 54.75	Pole + Reinf.	TP30x30x0.5438	Reinf. 3 Compression	79.1%	Pass
54.75 - 49.75	Pole + Reinf.	TP30x30x0.5438	Reinf. 3 Compression	87.4%	Pass
49.75 - 48.5	Pole + Reinf.	TP30x30x0.5438	Reinf. 3 Compression	89.5%	Pass
48.5 - 48.25	Pole + Reinf.	TP30x30x0.7375	Reinf. 3 Compression	66.4%	Pass
48.25 - 43.25	Pole + Reinf.	TP30x30x0.7375	Reinf. 3 Compression	72.7%	Pass
43.25 - 38.25	Pole + Reinf.	TP30x30x0.7375	Reinf. 3 Compression	79.2%	Pass
38.25 - 33.25	Pole + Reinf.	TP30x30x0.7375	Reinf. 3 Compression	85.9%	Pass
33.25 - 30	Pole + Reinf.	TP30x30x0.7375	Reinf. 3 Compression	90.3%	Pass
30 - 29.75	Pole + Reinf.	TP36x36x0.55	Pole	81.1%	Pass
29.75 - 24.75	Pole + Reinf.	TP36x36x0.55	Pole	87.6%	Pass
24.75 - 20.75	Pole + Reinf.	TP36x36x0.55	Pole	92.8%	Pass
20.75 - 20.5	Pole + Reinf.	TP36x36x0.6875	Reinf. 2 Tension Rupture	89.1%	Pass
20.5 - 17.75	Pole + Reinf.	TP36x36x0.6875	Reinf. 2 Tension Rupture	92.6%	Pass
17.75 - 17.5	Pole + Reinf.	TP36x36x0.7	Reinf. 2 Tension Rupture	91.1%	Pass
17.5 - 13	Pole + Reinf.	TP36x36x0.7	Reinf. 2 Tension Rupture	96.7%	Pass
13 - 12.75	Pole + Reinf.	TP36x36x0.8	Reinf. 2 Tension Rupture	80.4%	Pass
12.75 - 12.5	Pole + Reinf.	TP36x36x0.8	Reinf. 2 Tension Rupture	80.7%	Pass
12.5 - 12.25	Pole + Reinf.	TP36x36x0.775	Reinf. 2 Tension Rupture	87.0%	Pass
12.25 - 7.25	Pole + Reinf.	TP36x36x0.775	Reinf. 2 Tension Rupture	92.7%	Pass
7.25 - 7	Pole + Reinf.	TP36x36x0.775	Reinf. 2 Tension Rupture	93.0%	Pass
7 - 6.75	Pole + Reinf.	TP36x36x0.8	Reinf. 2 Tension Rupture	86.8%	Pass
6.75 - 2.75	Pole + Reinf.	TP36x36x0.8	Reinf. 2 Tension Rupture	91.1%	Pass
2.75 - 2.5	Pole + Reinf.	TP36x36x1.025	Reinf. 10 Connection	92.6%	Pass
2.5 - 2	Pole + Reinf.	TP36x36x1.025	Reinf. 10 Connection	93.2%	Pass
2 - 1.75	Pole + Reinf.	TP36x36x0.6875	Reinf. 1 Compression	96.1%	Pass
1.75 - 0	Pole + Reinf.	TP36x36x0.6875	Reinf. 1 Compression	98.1%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
				Summary	
			Pole	97.7%	Pass
			Reinforcement	98.6%	Pass
			Overall	98.6%	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	86.9	Pass
1	Base Plate	0	88.1	Pass
1	Base Foundation Structural Steel	0	98.7	Pass
1	Base Foundation Soil Interaction	0	33.4	Pass
1	Flange Connection	30	79.6	Pass
1	Flange Connection	60	91.4	Pass
1	Flange Connection	90	62.0	Pass
1	Flange Connection	120	10.2	Pass

Structure Rating (max from all components) =	98.7%

Notes:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.

4.1) Recommendations

The monopole and its foundation have sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

Site Name: Corbins Corner, CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	1	6700	6700	105	0.2185	1.0	21.85%
VZW Cellular LTE	869	1	3450	3450	105	0.1125	0.579333333	19.42%
VZW Cellular	869	3	412	1236	105	0.0403	0.579333333	6.96%
VZW AWS	2145	1	6490	6490	105	0.2117	1.0	21.17%
VZW 700	746	1	2930	2930	105	0.0956	0.497333333	19.22%

Total Percentage of Maximum Permissible Exposure 88.62%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used, including the following assumptions:
1. closest accessible point is distance from antenna to base of pole;
2. continuous transmission from all available channels at full power for indefinite time period; and,
3. all RF energy is assumed to be directed solely to the base of the pole.

-1992

October 25,2018

Dear Customer:

The following is the proof-of-delivery for tracking number **773546471677**.

Delivery Information:

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Special Handling:	Deliver Weekday		

Shipping Information:

Tracking number:	773546471677	**Ship date:**	Oct 23, 2018
		Weight:	0.5 lbs/0.2 kg

Recipient:
Tim Mikloiche
Town of West Hartford
50 South Main St.
WEST HARTFORD, CT 06107 US

Shipper:
Kristian McKay
3530 Toringdon Way
STE 300
CHARLOTTE, NC 28277 US

Reference 1766.6680

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October 25,2018

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Special Handling:	Deliver Weekday		

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Tracking number:	773546457765	**Ship date:**	Oct 23, 2018
		Weight:	0.5 lbs/0.2 kg

Recipient:
Shari Cantor
Town of West Hartford
50 South Main St.
WEST HARTFORD, CT 06107 US

Shipper:
Kristian McKay
3530 Toringdon Way
STE 300
CHARLOTTE, NC 28277 US

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October 25,2018

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Delivery Information:

Status:	Delivered	**Delivered to:**	Receptionist/Front Desk
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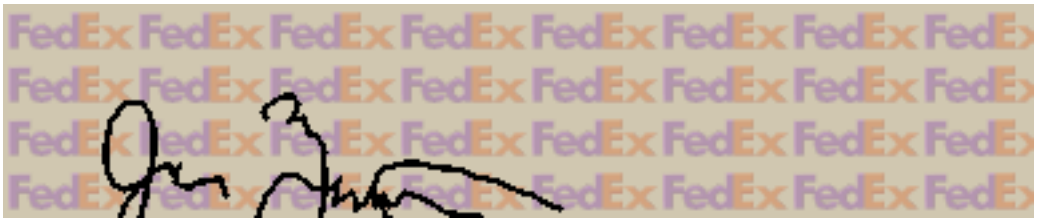
Service type:	FedEx Standard Overnight	**Delivery date:**	Oct 24, 2018 15:17
Special Handling:	Deliver Weekday		



Shipping Information:

Tracking number:	773546492697	**Ship date:**	Oct 23, 2018
		Weight:	0.5 lbs/0.2 kg

Recipient:
Admin
West Hartford Methodist Church
1358 New Britain Ave.
WEST HARTFORD, CT 06110 US

Shipper:
Kristian McKay
3530 Toringdon Way
STE 300
CHARLOTTE, NC 28277 US

Reference 1766.6680

Thank you for choosing FedEx.