

From: Scala, Mary Joy
Sent: Thursday, July 05, 2012 4:40 PM
To: 'Nathan Holland'
Cc: Stuart Squier (stuart.squier@gdnsites.com)
Subject: BAR ACTion June 2012 811 West Main Street

July 5, 2012

Verizon Wireless
3126 W Cary Street PMB#604
Richmond, VA 23221

Certificate of Appropriateness Application

BAR 12-06-05
811 West Main Street
Tax Map 31 Parcel 184.13
Stuart Squier for Verizon Wireless, Applicant
Norfolk Southern Railroad Co, Owner
Antenna addition to existing tower

Dear Applicant,

The above referenced project was discussed before a meeting of the City of Charlottesville Board of Architectural Review (BAR) on June 19, 2012.

The following actions were taken:

The BAR approved (7-0) the application as submitted, finding that the new antennas satisfy the BAR's criteria and are compatible with other properties in the district, and finding that they would not result in a substantial change in physical dimensions.

In accordance with Charlottesville City Code 34-285(b), this decision may be appealed to the City Council in writing within ten working days of the date of the decision. Written appeals, including the grounds for an appeal, the procedure(s) or standard(s) alleged to have been violated or misapplied by the BAR, and/or any additional information, factors or opinions the applicant deems relevant to the application, should be directed to Paige Barfield, Clerk of the City Council, PO Box 911, Charlottesville, VA 22902.

This certificate of appropriateness shall expire in 18 months (December 19, 2013), unless within that time period you have either: been issued a building permit for construction of the improvements if one is required, or if no building permit is required, commenced construction. You may request an extension of the certificate of appropriateness *before this approval expires* for one additional year for reasonable cause.

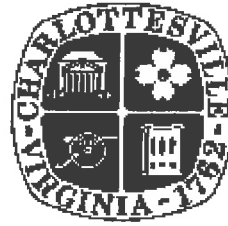
Upon completion of construction, please contact me for an inspection of the improvements included in this application.

If you have any questions, please contact me at 434-970-3130 or scala@charlottesville.org.

Sincerely yours,

Mary Joy Scala, AICP
Preservation and Design Planner

**CITY OF CHARLOTTESVILLE
BOARD OF ARCHITECTURAL REVIEW
STAFF REPORT
June 19, 2012**



Certificate of Appropriateness Application

BAR 12-06-05
811 West Main Street
Tax Map 31 Parcel 184.13
Stuart Squier for Verizon Wireless, Applicant
Norfolk Southern Railroad Co, Owner
Antenna addition to existing tower

Background

This property is located in the West Main Street ADC District. The radio tower is a non-conforming use. The zoning is Mixed Use – West Main North Corridor.

April 18, 2006 - The BAR approved (7-0) an Alltel emergency generator with diesel fuel tank next to the radio tower and within an existing chain link fence that marks the leased area. The application included approximately 55 feet of brown slat screening on a portion of the existing chain link fence.

November 28, 2006 - The BAR voted (9-0) to approve the request to install an 80" x 17" x 16" antenna on an existing Norfolk Southern tower and a 25 sq. ft. concrete pad to house a 31" x 30" x 84" cabinet with ice bridge above.

November 16, 2010 - The BAR voted (8-0) to add four new antennas at 185 feet, and adding cross bracing between 125-131 feet levels as submitted.

September 20, 2011 - The BAR approved (5-0) an application to install nine antennas and to expand the compound as submitted on the consent agenda.

Application

Verizon Wireless is seeking approval to place three additional antennas on the existing lattice tower. No new ground equipment is proposed.

The antennas are 47.4" x 11.2" and will be located on the existing 225' tower at the 185 ft. height, beside six existing antennas on the tower.

Criteria, Standards, and Guidelines

Review Criteria Generally

Sec. 34-284(b) of the City Code states that,

In considering a particular application the BAR shall approve the application unless it finds:

- (1) That the proposal does not meet specific standards set forth within this division or applicable provisions of the Design Guidelines established by the board pursuant to Sec.34-288(6); and*
- (2) The proposal is incompatible with the historic, cultural or architectural character of the district in which the property is located or the protected property that is the subject of the application.*

Pertinent Standards for Review of Construction and Alterations include:

- (1) Whether the material, texture, color, height, scale, mass and placement of the proposed addition, modification or construction are visually and architecturally compatible with the site and the applicable design control district;*
- (2) The harmony of the proposed change in terms of overall proportion and the size and placement of entrances, windows, awnings, exterior stairs and signs;*
- (3) The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)), as may be relevant;*
- (4) The effect of the proposed change on the historic district neighborhood;*
- (5) The impact of the proposed change on other protected features on the property, such as gardens, landscaping, fences, walls and walks;*
- (6) Whether the proposed method of construction, renovation or restoration could have an adverse impact on the structure or site, or adjacent buildings or structures;*
- (8) Any applicable provisions of the City's Design Guidelines.*

Pertinent Design Review Guidelines

Site Design and Elements

P. 2.7 Utilities and other Site Appurtenances

- 1. Place overhead wires, utility poles and meters, antennae, trash containers, and exterior heat exchangers in locations where they are least likely to detract from the character of the site.*
- 2. Encourage the installation of utility services underground.*
- 3. Screen utilities and other site elements with fences, walls or plantings.*
- 4. Antennae and communication dishes should be placed in inconspicuous rooftop locations.*
- 5. Screen all rooftop mechanical equipment with a wall of a material harmonious with the building or structure.*

Discussion and Recommendations

The pertinent zoning section on Telecommunication Facilities states:

Sec. 34-1073. Facilities by district.

(a) Within the city's historic and entrance corridor overlay districts:

(1) The following shall be permitted uses: *antennae or microcells mounted on existing communications towers established prior to February 20, 2001*; attached communications facilities utilizing utility poles or other electric transmission facilities as the attachment structure; and other attached communications facilities if such other attached communications facilities are not visible from any adjacent street or property.

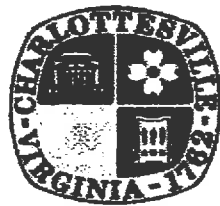
(2) The following shall be prohibited uses: attached communications facilities where such facilities are visible from any adjacent street or property, and communications facilities utilizing alternative tower, monopole tower, guyed tower, lattice tower and self-supporting tower support structures.

This is a permitted use; there are existing antennas in this location; and there is no way to screen the tower. Existing vegetation currently screens the fenced equipment area. Staff recommends approval.

Recent federal legislation may limit the BAR's review on this application. The City Attorney's office is reviewing the legislation.

Suggested Motion

Having considered the standards set forth within the City Code, including City Design Guidelines for Site Design and Elements, I move to find that the proposal to add new antennas satisfies the BAR's criteria and is compatible with other properties in this district, and that the BAR approves the application as submitted.



Board of Architectural Review (BAR)
Certificate of Appropriateness
 Please Return To: City of Charlottesville
 Department of Neighborhood Development Services
 P.O. Box 911, City Hall
 Charlottesville, Virginia 22902
 Telephone (434) 970-3130 Fax (434) 970-3359

Please submit ten (10) copies of application form and all attachments.
 For a new construction project, please include \$375 application fee. For all other projects requiring BAR approval, please include \$125 application fee. For projects that require only administrative approval, please include \$100 administrative fee. Make checks payable to the City of Charlottesville.
 The BAR meets the third Tuesday of the month.
 Deadline for submittals is Tuesday 3 weeks prior to next BAR meeting by 4 p.m.

Owner Name Norfolk Southern Rwy Co. Applicant Name Stuart Squier for Verizon Wireless
 Project Name/Description Collocation of antennas on existing tower Parcel Number 31 Tax map 184.15 parcel 1442
 Property Address 511 West Main Street, Charlottesville, VA 22901

Applicant Information
 Address: 3126 West Cary St PMB #604
Richmond, VA 23221
 Email: stuart.squier@ednsites.com
 Phone: (W) (804) 901-7433 (H) _____
 FAX: (888) 844-1702

Property Owner Information (if not applicant)
 Address: 1 Constitution Ave NE
Washington, D.C. 20002
 Email: _____
 Phone: (W) (434) 531-8282 (H) _____
 FAX: _____

Do you intend to apply for Federal or State Tax Credits for this project? No

Signature of Applicant
 I hereby attest that the information I have provided is, to the best of my knowledge, correct. (Signature also denotes commitment to pay invoice for required mail notices.)
[Signature] 5/29/2012
 Signature Date
Stuart Squier 5/29/2012
 Print Name Date

Property Owner Permission (if not applicant)
 I have read this application and hereby give my consent to its submission.

 Signature Date

 Print Name Date

Description of Proposed Work (attach separate narrative if necessary): Verizon Wireless is proposing to add three (3) antennas on existing pipe mounts at the 185 foot level of the existing tower. No other changes will be made to the tower or to the ground equipment within the facility compound.

List All Attachments (see reverse side for submittal requirements):
Tower elevation view drawing
Photo simulation of proposed modifications

For Office Use Only	Approved/Disapproved by: _____
Received by: <u>O. Subanti</u>	Date: _____
Fee paid: <u>\$125.00</u> Cash/Ck. # <u>Thc</u>	Conditions of approval: _____
Date Received: <u>5/29/12</u>	_____

TO: Mary Joy Scala
FROM: Richard M. Harris
RE: Application of Verizon Wireless to BAR
DATE: June 18, 2012

Mary Joy,

Following up on our conversation, I wanted to give you some more in-depth background on the cell tower application pending before the BAR, and the regulations surrounding it. The Federal Telecommunication Act of 1996 comprehensively addressed the then-emerging technology of cellular communications. Recognizing the public purpose served by the technology, Congress fashioned the Act in a way that provides for rapid yet orderly and controlled expansion of the necessary infrastructure. §704 of the Act, now codified at 47 USCS §332(c)(7)ⁱ, directly addresses the preservation of local zoning authority, despite the push to deploy technology. Location of new Personal Wireless Service Facilities (or “PWSFs”) are still regulated by §704 of the Telecommunications Act of 1996. Modifications to existing PWSFs, however, are now also governed by §6409 of the Middle Class Tax Relief Act, enacted in February, 2012 (the “2012 Act”). This section has the net effect of requiring a locality to approve co-location or replacement of PWSFs on existing towers or structures that do not substantially change the physical dimensions of the tower or structure.

Questions abound as to whether this section of the 2012 Act will be upheld upon challenge in court around the country— but for now, it is necessary to comply with it. I do not fully agree with the interpretation set forth by Verizon Wireless, and want to point out that there is leniency for a reviewing board that is not mentioned in their submission.

1. The BAR may make the determination as to whether the change is substantial. The suggestions of Verizon Wireless as to what constitutes “substantial changes”, while based upon relevant information, are not approved by the FCC or the Courts as the benchmarks to be used. Nonetheless, they do serve as reasonable guides, as they are incorporated into other federal rules (the “shot clock order”) affecting these types of applications. Until such time as any court decisions or FCC rulings clarify the topic, it is logical to utilize the benchmarks set forth in the shot clock order as a non-exclusive guide to analyzing whether a PWSF modification or colocation application constitutes a substantial change. As such, an application may constitute a substantial change if:

- There is an increase in height of more than 10%;
- There are additional equipment shelters installed; and/or
- A new antenna extends more than 20 feet from the tower.

If an application to modify an existing PWSF does not propose a substantial change in size to the facility, then approval is mandatory. If the BAR determines that the application is for a substantial change, then approval is NOT mandatory, and the normal review process applies.



RECEIVED

Board of Architectural Review (BAR) MAY 29 2012
Certificate of Appropriateness NEIGHBORHOOD DEVELOPMENT SERVICES
 Please Return To: City of Charlottesville
 Department of Neighborhood Development Services
 P.O. Box 911, City Hall
 Charlottesville, Virginia 22902
 Telephone (434) 970-3130 Fax (434) 970-3359

Please submit ten (10) copies of application form and all attachments.
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Owner Name Norfolk Southern Rwy Co. Applicant Name Stuart Squier for Verizon Wireless
 Project Name/Description Collocation of antennas on existing tower Parcel Number 31 Tax map 184.13 parcel 144.2
 Property Address 811 West Main Street, Charlottesville, VA 22911-22902

Applicant Information

Address: 3126 West Cary St PMB #604
Richmond, VA 23221
 Email: stuart.squier@gdn sites.com
 Phone: (W) (804) 901-7433 (H) _____
 FAX: (888) 844-1702

Signature of Applicant

I hereby attest that the information I have provided is, to the best of my knowledge, correct. (Signature also denotes commitment to pay invoice for required mail notices.)

[Signature] 5/29/2012
 Signature Date
Stuart Squier 5/29/2012
 Print Name Date

Property Owner Information (if not applicant)

Address: 1 Constitution Ave NE
Washington, D.C. 20002
 Email: _____
 Phone: (W) (434) 531-8282 (H) _____
 FAX: _____

Property Owner Permission (if not applicant)

I have read this application and hereby give my consent to its submission.

Do you intend to apply for Federal or State Tax Credits for this project? No

Signature _____ Date _____
 Print Name _____ Date _____

Description of Proposed Work (attach separate narrative if necessary): Verizon Wireless is proposing to add three (3) antennas on existing pipe mounts at the 185 foot level of the existing tower. No other changes will be made to the tower or to the ground equipment within the facility compound.

List All Attachments (see reverse side for submittal requirements):

Tower elevation view drawing
Photo simulation of proposed modifications

For Office Use Only	Approved/Disapproved by: _____
Received by: <u>D. Zubant</u>	Date: _____
Fee paid: <u>\$12500</u> Cash/Ck. # <u>MC</u>	Conditions of approval: _____
Date Received: <u>5/29/12</u>	_____



May 29, 2012

Mary Joy Scala
Preservation and Design Planner
City of Charlottesville
610 East Market Street
Charlottesville, VA 22902

RE: Architectural Review Board Application – Verizon Wireless Proposal – Downtown
Charlottesville Tower Modifications

Dear Ms. Scala,

Verizon Wireless (“Verizon”) is proposing the placement of three (3) additional antennas on the existing lattice tower located at 7-1/2 Street and West Main Street, located within the Norfolk Southern Railroad Right-of-Way. The property is identified by Tax Map #320144200. Verizon has entered into an agreement with the Norfolk Southern Railroad regarding the proposed new facilities to support integration of Verizon Wireless 4G Long Term Evolution (LTE) network. The proposed changes will provide upgraded service within the downtown area in the City of Charlottesville.

The 3 proposed new Anphenol Antel Model #: BXA-70063/4 CF panel antennas are 47.4” x 11.2” in size and they will be located on the existing 225’ self support tower at the 185’ level, beside six (6) existing antennas on the tower. Because there is adequate space on the mounting pipes beside the existing antennas, Verizon Wireless will not add any new mounting pipes. Additionally, no new ground equipment will be required to accommodate this modification.

Please see the attached construction drawings which show an elevation view of the tower as well as a cross section of the mounting pipes and proposed antenna locations.

Verizon Wireless respectfully requests the approval of the proposed Architectural Review Board Application. If further information is required for the review of the application, please feel free to contact me at (804) 901-7433 or by e-mail at stuart.squier@gdnsites.com

Sincerely,

Stuart Squier
GDNSites,
Consultants to Verizon Wireless

Ordinance Justification

Per Section 34-282 of the City of Charlottesville Zoning Ordinance the following information and exhibits are to be submitted along with each application to the Board of Architectural Review (BAR):

- (1) Detailed and clear descriptions of any proposed changes in the exterior features of the subject property, including but not limited to the following: the general design, arrangement, texture, materials, plantings and colors to be used, the type of windows, exterior doors, lights, landscaping, parking, signs, and other exterior fixtures and appurtenances. The relationship of the proposed change to surrounding properties will also be shown.
All work is to be performed on the tower and will consist of attaching the proposed antennas on existing mounting pipes. There will be no additional ground facilities, clearing or grading. Please see the attached elevation sketch identifying the proposed additions to Verizon Wireless' antennas on the tower.
- (2) Photographs of the subject property and photographs of the buildings on contiguous properties.
Please see attached photographs showing the existing tower and a simulation of proposed modifications.
- (3) Samples to show the nature, texture and color of materials proposed.
Please see attached antenna spec sheet, the color of the proposed antennas will be gray, similar to the existing ones
- (4) The history of an existing building or structure, if requested by the BAR or Staff.
The existing tower was built in the late 1960's for railroad communications. Since the mid-1990's the tower has also been used by wireless communications carriers including Verizon and nTelos to support their wireless telephone networks.
- (5) For new construction and projects proposing expansion of the footprint of an existing building: a three-dimensional model (in physical or digital form) depicting the site, and all buildings and structures to be located thereon, as it will appear upon completion of the work that is the subject of the application.
This project does not necessitate any expansion of the footprint of the existing tower compound or building square footage.
- (6) In the case of a demolition request where structural integrity is at issue the applicant shall provide a structural evaluation and cost estimates for rehabilitation, prepared by a professional engineer. The BAR may waive the requirement for a structural evaluation and cost estimates in the case of emergency, or if it determines that the building or structure proposed for



demolition is not historically, architecturally or culturally significant under the criteria set forth in Section 34-274.

This proposal does not require the demolition of any existing structures.

Chapter three (3), Section O (New Construction and Additions) of the Charlottesville Architectural Design Control Districts Design Guidelines suggests the following careful consideration be taken when additions are made in historic Districts:

1. Function and Size
2. Location
3. Design
4. Replication of Style
5. Materials and Features
6. Attachment to Existing Building

Section 34-1073(a) (Facilities by District) of the City of Charlottesville Zoning Ordinance permits antenna or microcells attached to existing structures within the city's historic and entrance corridor overlay districts. Section 34-1080(a) (Visibility and Placement) states that where such facilities are visible from adjacent properties or public rights of away, the communication facilities shall be located as to blend in with the existing structure to the maximum extent feasible, through measures such as screening or the use of neutral colors. Additionally, Section 34-1074(a) (Height) restricts the total height that a communication facility can extend above the original height of the existing attachment structure to twenty (20) feet. The design of the proposed communications facility complies with each of the above-mentioned requirements.

Verizon Wireless is confident that the proposed antenna upgrades are in compliance with the City of Charlottesville's Zoning Ordinance and Architectural Design Control Districts Design Guidelines to design a facility that is in accordance with the West Main Street District's guidelines for scale, size, design, screening, and color. The proposed antenna facility meets all of the requirements for the district and will not create a detrimental impact upon the district. This is because there will be no additional ground disturbance or construction and all work will be done on the existing tower without increasing its height.

BXA-70063-4CF-EDIN-X

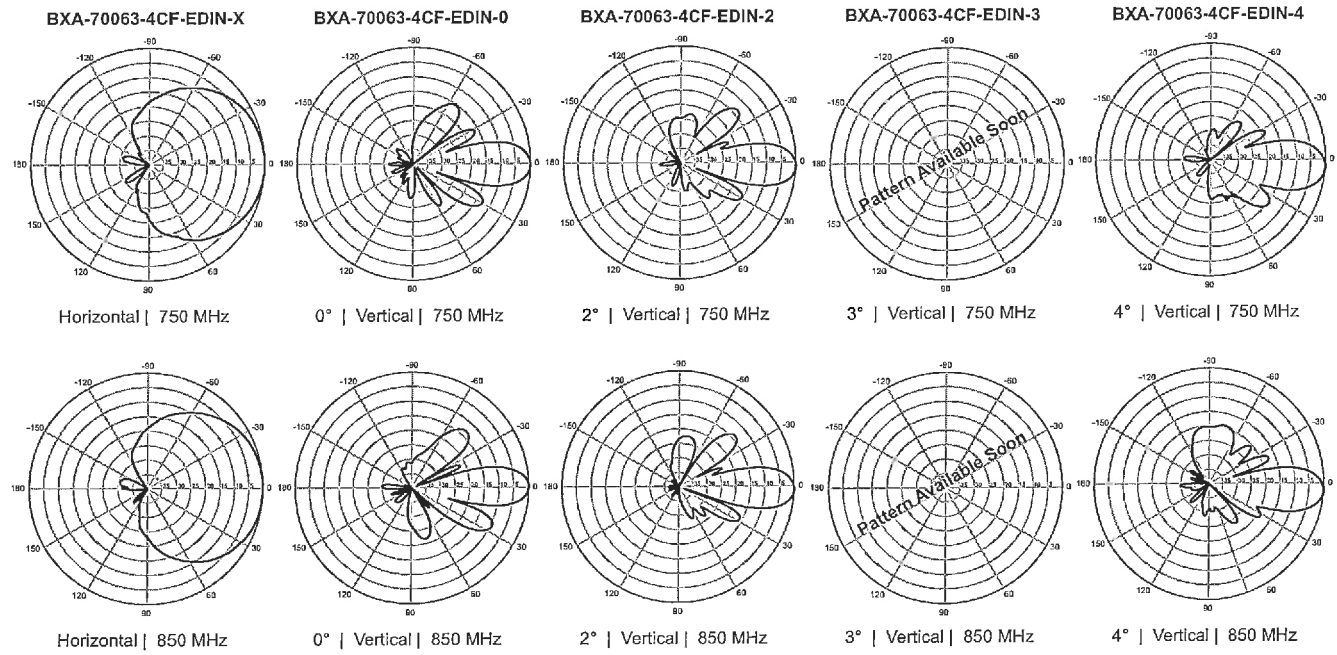
X-Pol | FET Panel | 63° | 13.0 dBd

Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s).
Replace "EDIN" with "NE" in the model number
when ordering.



Electrical Characteristics	696-900 MHz		
Frequency bands	696-806 MHz	806-900 MHz	
Polarization	±45°		
Horizontal beamwidth	65°	63°	
Vertical beamwidth	17°	15°	
Gain	12.5 dBd (14.6 dBi)	13.0 dBd (15.1 dBi)	
Electrical downtilt (X)	0, 2, 3, 4, 5, 6, 8, 9, 10, 12, 14		
Impedance	50Ω		
VSWR	≤1.35:1		
Upper sidelobe suppression (0°)	-16.3 dB	-22.1 dB	
Front-to-back ratio (+/-30°)	-36.1 dB	-34.9 dB	
Null fill	5% (-26.02 dB)		
Isolation between ports	< -30 dB		
Input power with EDIN connectors	500 W		
Input power with NE connectors	300 W		
Lightning protection	Direct Ground		
Connector(s)	2 Ports / EDIN or NE / Female / Center (Back)		
Mechanical Characteristics			
Dimensions Length x Width x Depth	1205 x 285 x 133 mm	47.4 x 11.2 x 5.2 in	
Depth with z-brackets	173 mm	6.8 in	
Weight without mounting brackets	4.5 kg	9.9 lbs	
Survival wind speed	> 201 km/hr	> 125 mph	
Wind area	Front: 0.34 m ² Side: 0.16 m ²	Front: 3.7 ft ² Side: 1.7 ft ²	
Wind load @ 161 km/hr (100 mph)	Front: 498 N Side: 260 N	Front: 111 lbf Side: 55 lbf	
Mounting Options	Part Number	Fits Pipe Diameter	Weight
2-Point Mounting Bracket Kit	36210002	50-160 mm 2.0-6.3 in	4.5 kg 10 lbs
2-Point Downtilt Bracket Kit (0-20°)	36114003	50-160 mm 2.0-6.3 in	4.9 kg 11 lbs
Downtilt Mounting Applications	A mounting bracket and downtilt bracket kit must be ordered for downtilt applications		
Concealment Configurations	For concealment configurations, order BXA-70063-4CF-EDIN-X-FP		



Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.



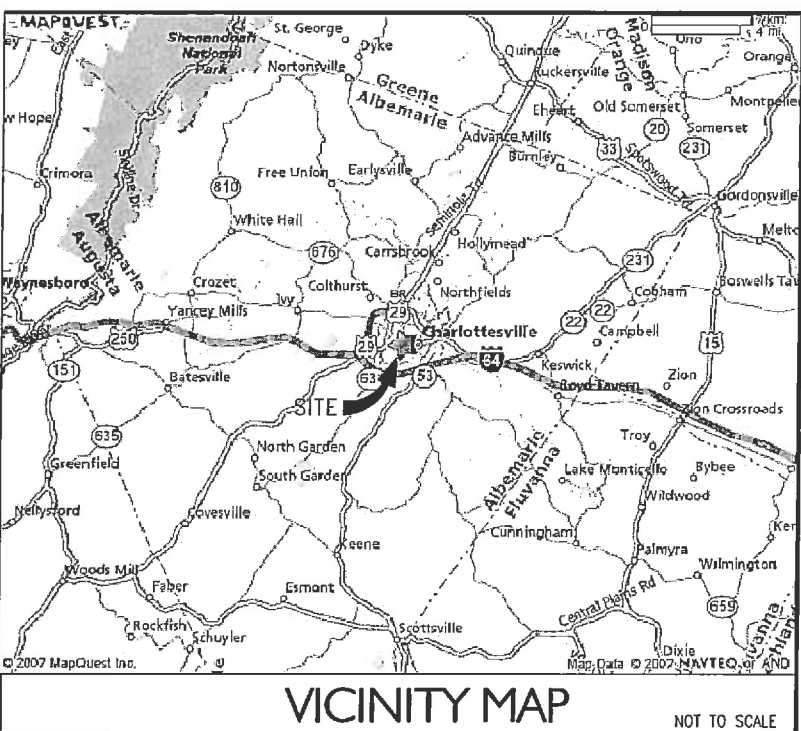
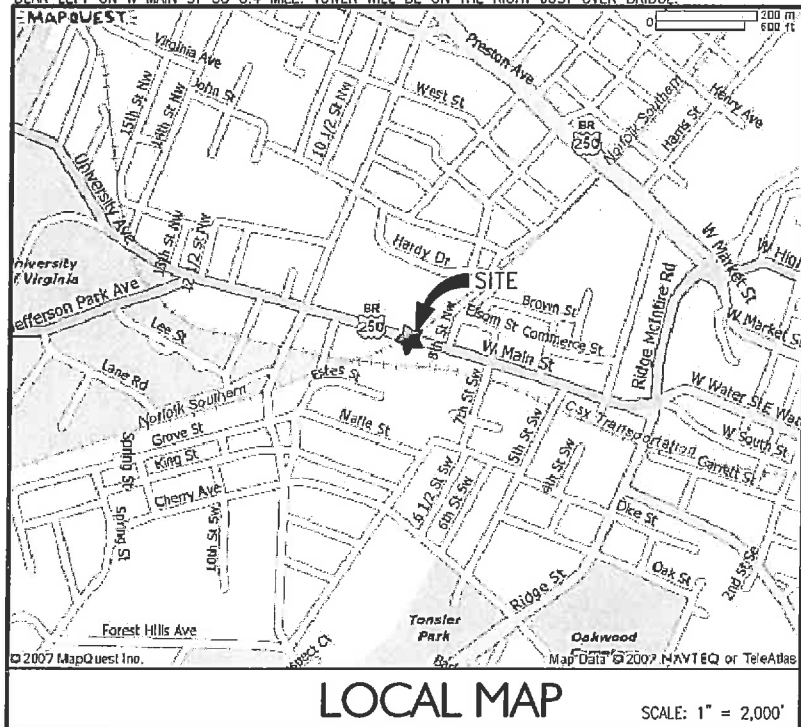
CLARK • NEXSEN
Architecture & Engineering

Downtown Charlottesville
Comm. # 3036.070



DIRECTIONS TO SITE:

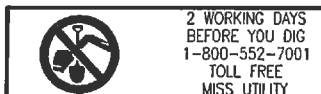
FROM RICHMOND:
 TAKE I-95 N TO I-64W MERGE ONTO I-64 W TOWARDS CHARLOTTESVILLE TAKE EXIT 121 TOWARDS CHARLOTTESVILLE/SCOTTSVILLE. TURN RIGHT ON VA-20 N. GO ±1 MILE CONTINUE ON MONTICELLO AVE. GO 0.3 MILE, TURN RIGHT ON 2ND ST. SE GO 0.2 MILES AND TURN LEFT ON WATER ST. GO 0.2 MILES AND BEAR LEFT ON W MAIN ST GO 0.4 MILE. TOWER WILL BE ON THE RIGHT JUST OVER BRIDGE.



DOWNTOWN CHARLOTTESVILLE

WEST MAIN STREET
 CHARLOTTESVILLE, VA 22911

PROJECT DESCRIPTION:
COLLOCATION OF ANTENNAS AND ASSOCIATED EQUIPMENT ON AN EXISTING SELF SUPPORT TOWER



APPROVAL			
ACQUISITION MANAGER:	SIGNATURE	PHONE NUMBER	DATE
CONSTRUCTION MANAGER:	SIGNATURE	PHONE NUMBER	DATE
RF ENGINEERING:	SIGNATURE	PHONE NUMBER	DATE
NETWORK OPS MANAGER:	SIGNATURE	PHONE NUMBER	DATE

REV. NO.	DESCRIPTION	BY	DATE	REV. NO.	DESCRIPTION	BY	DATE
1	REVIEW SET	SPP	5/14/12				

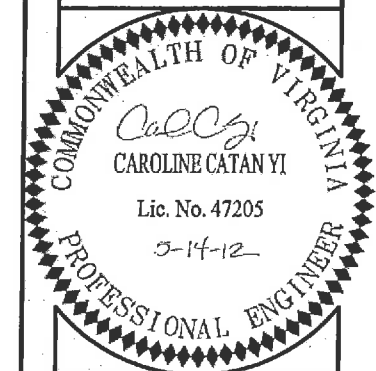
CONSULTING TEAM	
ARCHITECTURE AND ENGINEERING: CLARK NEXSEN 5510 CHEROKEE AVE, SUITE 110 ALEXANDRIA, VA 22312 PROJECT MANAGER: TELEPHONE: FAX NUMBER:	JUSTIN Y. YOON, PE (703) 256-3344 (703) 256-6622
SURVEY: CAUSEWAY CONSULTANTS, P.C. 1005 S. BATTLEFIELD BLVD. CHESAPEAKE, VA 23322 CONTACT: TELEPHONE: FAX NUMBER:	EDDIE R. WHITE (757) 482-0474 (757) 482-9870
SOIL ENGINEER: NONE	
STRUCTURAL ENGINEERING: CLARK NEXSEN 6160 KEMPSVILLE CIR, SUITE-200A NORFOLK, VA 23502 CONTACT: TELEPHONE: FAX NUMBER:	WILLIAM R MELGAARD, PE (757) 455-5800 (757) 455-5638
UTILITIES: POWER COMPANY: DOMINION VIRGINIA POWER CONTACT: TELEPHONE:	CUSTOMER SERVICE 1-888-667-3000
TELEPHONE COMPANY: VERIZON CONTACT: TELEPHONE:	CUSTOMER SERVICE 1-800-826-2355

PROJECT SUMMARY	
SITE INFORMATION: DOWNTOWN CHARLOTTESVILLE WEST MAIN STREET. CHARLOTTESVILLE, VA 22911 TOWER INFORMATION: NORFOLK SOUTHERN RAILROAD COMPANY CONTACT: TELEPHONE: FAX NUMBER:	PROPERTY OWNER: NORFOLK SOUTHERN RAILWAY COMPANY JIM LOVE 1-434-531-8282
APPLICANT INFORMATION: VERIZON WIRELESS 1831 RADY COURT RICHMOND, VA 23222 CONTACT: TELEPHONE: FAX NUMBER:	VINCENT CRUTE (804) 543-7580 (804) 321-0398
PROJECT DATA: ZONING JURISDICTION TAX MAP/PARCEL PARCEL ID # SITE TYPE TOWER TYPE TOWER HEIGHT ACREAGE LEASE AREA	WEST MAIN NORTH CORRIDOR CITY OF CHARLOTTESVILLE TAX MAP 32, PARCEL 144.2 320144200 COLLOCATION SELF SUPPORT TOWER 225' N/A 707 SF
GEOGRAPHIC COORDINATES: LATITUDE: LONGITUDE: GROUND ELEV (AMSL):	38° 01' 56.54" N 78° 29' 30.29" W 496.50'
ADA COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. SITE WILL NOT BE SERVED BY CITY SEWER OR WATER.	

SHEET INDEX		
SHEET:	DESCRIPTION:	
G-1	COVER SHEET	
C-1	ELEVATION VIEW	
SUBMITTALS		
SYM.	DESCRIPTION	DATE
△	REVIEW SET	05/14/12
△		
△		
△		
△		
△		
△		
SHEET NAME:		
COVER SHEET		
SHEET NO.:		
G-1		
SHEET TOTAL:		
2		

CLARK NEXSEN
 Architecture & Engineering
 5510 CHEROKEE AVENUE SUITE 110
 ALEXANDRIA, VIRGINIA 22312
 703-256-3344 FAX 703-256-6622
 WWW.CLARKNEXSEN.COM

verizon wireless
 1831 RADY COURT
 RICHMOND, VA 23222



SITE INFO:
DOWNTOWN CHARLOTTESVILLE
COLLOCATE SELF SUPPORT TOWER
 WEST MAIN STREET
 CHARLOTTESVILLE, VA 22911
 ALBEMARLE COUNTY

DESIGN:	SPP
DRAWN:	MSA
REVIEW:	SPP
TTY DATE:	07/19/07
COMM. NO.:	3026 07D

SYM.	DESCRIPTION	DATE
△	REVIEW SET	05/14/12
△		
△		
△		
△		
△		

SHEET NAME:
 COVER SHEET
 SHEET NO.:

SITE NOTES

1. NO SIGNS SHALL BE PERMITTED EXCEPT AS MAY BE REQUIRED FOR PUBLIC SAFETY PURPOSES, OR AS REQUIRED BY THE FAA OR FCC.
2. NO MATERIALS OR MARKINGS CONTAINING ANY ADVERTISING OR ADVERTISEMENT SHALL BE PERMITTED.
3. ALL STRUCTURES AND APPURTENANCES SHALL BE GALVANIZED FINISH OR PAINTED GRAY ABOVE THE SURROUNDING TREELINE.

CLARK NEXSEN

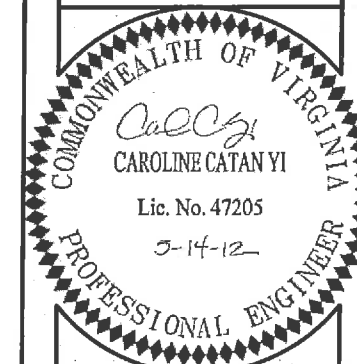
Architecture & Engineering

5510 CHEROKEE AVENUE SUITE 110
ALEXANDRIA, VIRGINIA 22312
703-256-3344 FAX 703-256-6622
WWW.CLARKNEXSEN.COM



verizon wireless

1831 RADY COURT
RICHMOND, VA 23222



SITE INFO:

**DOWNTOWN
CHARLOTTESVILLE**

**COLLOCATE
SELF SUPPORT
TOWER**

WEST MAIN STREET
CHARLOTTESVILLE, VA
22911
ALBEMARLE COUNTY

DESIGN:	SPP
DRAWN:	MSA
REVIEW:	SPP
TTV DATE:	07/19/07
COMM. NO.:	3036.070

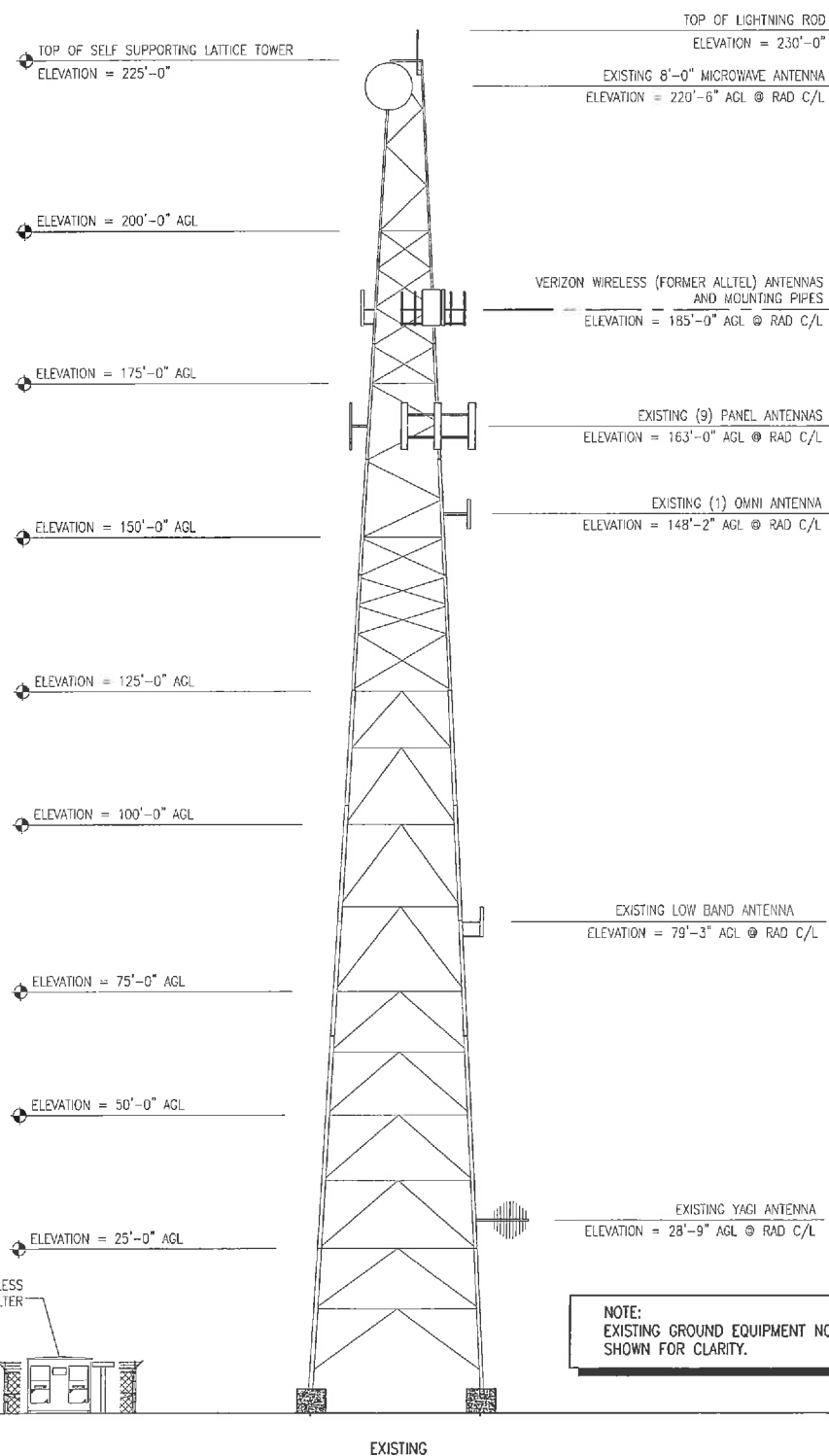
SUBMITTALS		
SYM	DESCRIPTION	DATE
△	REVIEW SET	05/14/12
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SHEET NAME:

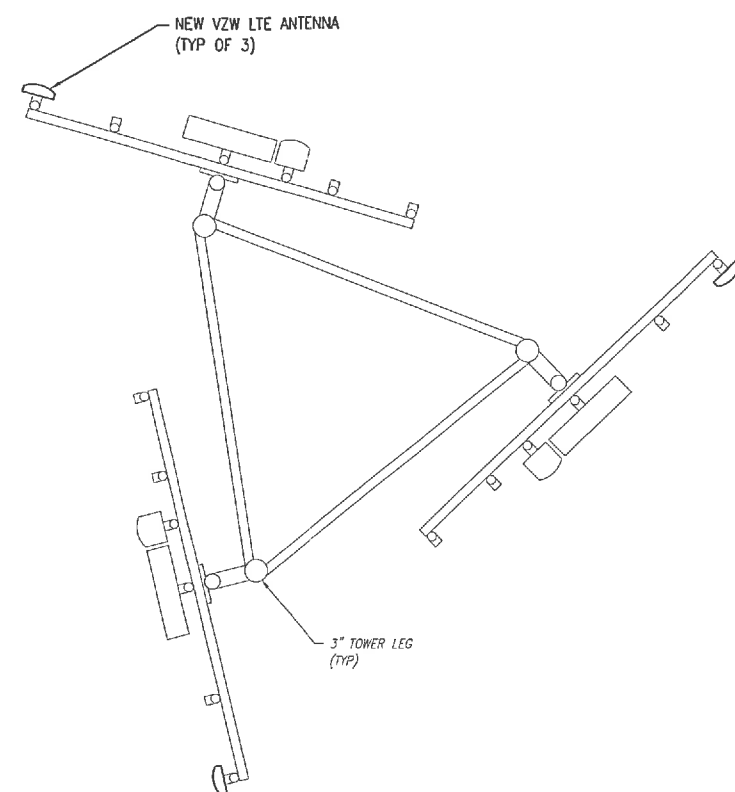
**ELEVATION
VIEW**

SHEET NO.:

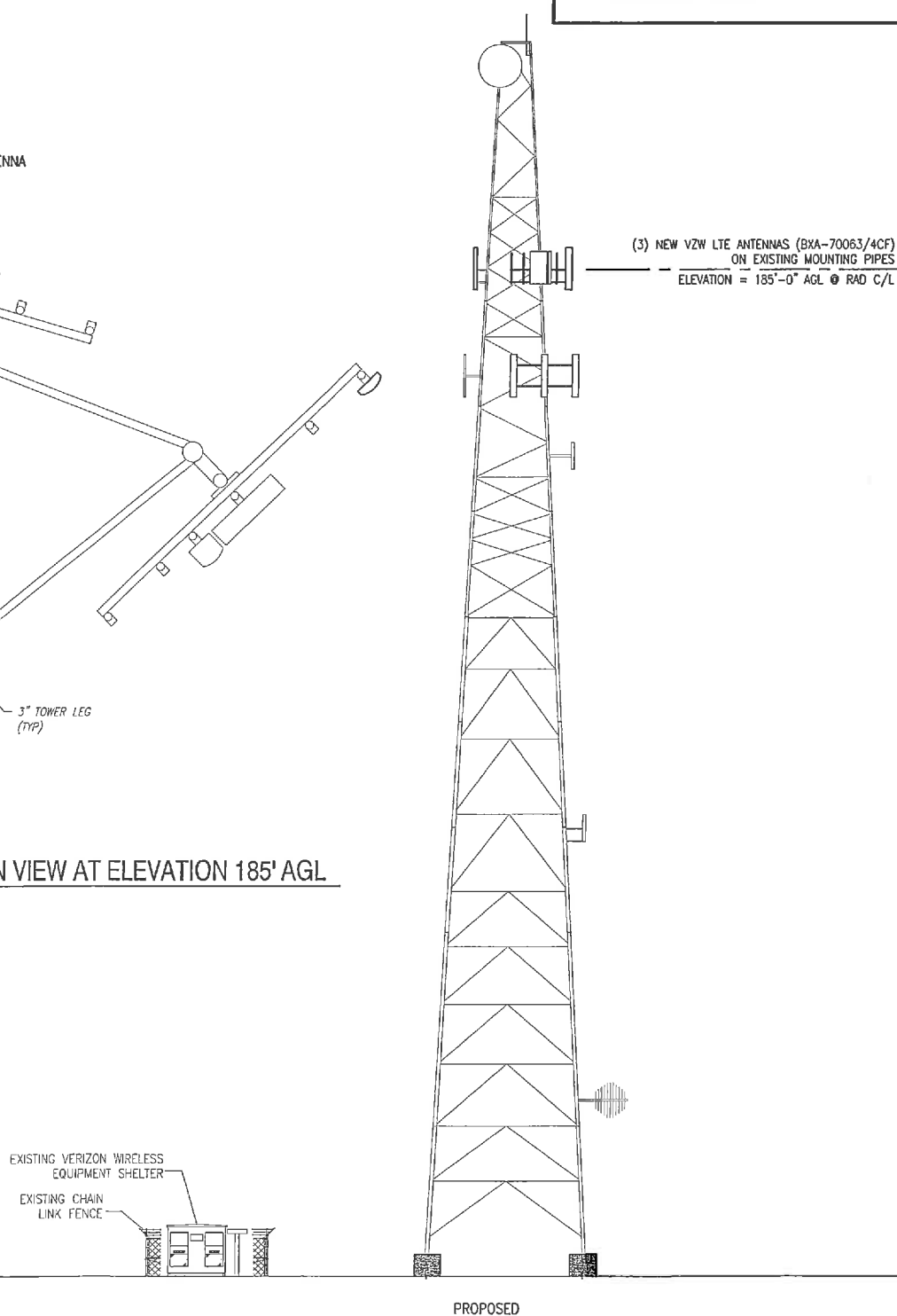
C-1



**NOTE:
EXISTING GROUND EQUIPMENT NOT
SHOWN FOR CLARITY.**



TOP DOWN SECTION VIEW AT ELEVATION 185' AGL
NO SCALE



ELEVATION VIEW
NO SCALE



June 14, 2012

VIA EMAIL AND U.S. MAIL

Mr. Jim Tolbert, Director
Neighborhood Development Services
City of Charlottesville
610 East Market Street
P.O. Box 911
Charlottesville, VA 22902

Re: City Zoning Approvals and Certificates of Appropriateness for Wireless Facilities;
Middle Class Tax Relief and Job Creation Act of 2012

Dear Mr. Tolbert:

Our firm represents Verizon Wireless in local zoning actions for wireless facilities. I was recently asked to assist in obtaining BAR approval for the addition of three new antennas on the lattice tower on West Main Street. Verizon Wireless' in-house counsel has asked me to bring to your attention recently enacted Federal law that pertains to the approval of this application. This letter briefly describes the federal law framework for localities' consideration of approval permits for personal wireless service facilities (PWSF's).

The Middle Class Tax Relief and Job Creation Act of 2012 essentially preempts the zoning authority of states and localities with respect to wireless facility modifications that do not involve substantial increases in the size of the facilities. In some localities, therefore, this legislation may call for immediate amendment to zoning ordinance provisions governing wireless facility application requirements and approval procedures for collocations and other affected modifications.

The Federal Law

The Telecommunications Act of 1996 is part of a framework of federal statutes and regulation governing most facets of telecommunications, including rates, ownership, environmental and historic resource impact review, and radiofrequency emissions. The zoning authority of states and local governments is preserved in 47 U.S.C. § 332(c)(7)(B) with certain limitations (Exhibit A). A locality's zoning regulations shall not discriminate among providers and shall not prohibit or have the effect of prohibiting wireless services. A locality must act on a zoning permit request

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Jim Tolbert
June 14, 2012
Page 2

within a “reasonable time”; any denial must be supported by substantial evidence in a written record; and no denial may be based on potential detrimental effects of radiofrequency emissions since regulation of such matters is preempted by federal law.

In 2008, The Wireless Association filed a petition with the FCC requesting clarification of three of these limitations, including the meaning of “reasonable time” for localities to review zoning applications and the meaning of discrimination among carriers. On November 18, 2009, the FCC adopted and released Declaratory Ruling 09-99 (the “Shot Clock” Ruling, Exhibit B), which provides, in brief, that the “reasonable” time limit for local zoning decisions on collocation requests is 90 days, and 150 days for new facilities; and that the denial of an application solely because another carrier serves the area proposed to be served by the applicant constitutes an unlawful prohibition of service.

On January 3, 2012, Congress passed the Middle Class Tax Relief and Job Creation Act of 2012 (the “Act,” Exhibit C). Section 6409 (“Wireless Facilities Deployment”) codifies the policy of the current administration to deploy high-speed internet to most Americans. The Act provides that, notwithstanding the section of Telecommunications Act that reserves zoning decisions to the localities, “a State or local government *may not deny, and shall approve* requests for collocation or replacement of transmission equipment on an existing wireless tower or base station (e.g. water tower, light pole) that *does not substantially change* the physical dimensions of such tower or base station” (italics and parenthetical added). Like the FCC’s Shot Clock Ruling, the Act preempts local ordinances and procedures.

The plain language of the Act is that all applications for new or replacement antennas that do not substantially increase the dimensions of the support structure must be approved. In fact, application requirements other than the information necessary to identify whether the request is subject to the Act are superfluous. Similarly, public hearings for such requests are unnecessary since the requests must be approved regardless of public opinion.

For further definition of the terms used in the Act, we look to existing federal law on the subject. The Shot Clock Ruling draws its definitions from the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas (2001) (Exhibit D). The NPA streamlines the required evaluation of PWSF applications for their potential effects on the environmental and historic and other protected resources when such applications propose collocations that do not involve the substantial increase in the size of the support structure. Drawing on the NPA, the Shot Clock Ruling provides that “an application is a request for a collocation if it does not involve a ‘substantial increase in the size of the tower’” (Shot Clock Ruling, Par. 46).

The NPA defines “substantial increase in the size of the tower” as to height, number of equipment cabinets, width, and site excavation. As to height, “substantial increase” means

Jim Tolbert
June 14, 2012
Page 3

increasing the existing height of the PWSF by more than 10%, or by the height of one additional antenna array with the separation from the nearest existing antenna not to exceed 20', whichever is greater, except that the mounting of the proposed antenna may exceed the size limits if necessary to avoid interference with the existing antennas.

As to width, "substantial increase" means adding an appurtenance to the body of the tower that would protrude from the edge of the tower more than 20', or more than the width of the tower structure at the level of the appurtenance, whichever is greater..."

Applications for City Approvals

These definitions encompass most PWSF modifications necessary for Verizon Wireless to add Long-Term Evolution (LTE) 4G technology to existing sites.

Verizon Wireless' position is as follows with respect to all applications for collocations and other modifications of existing PWSFs:

- No application information should be required other than that related to the Act requirements, and no application should be deemed incomplete because such additional information is not provided;
- Since approval is not discretionary under the Act, no public meeting should be required.
- If the locality does conduct public hearings for applications subject to the Act, the only information relevant to the decision by the hearing body is that required for approval under the Act. If such information is submitted, the approving authority must approve the application. In addition, the Shot Clock timeframe for collocation applies, requiring final approval within 90 days of the date the application was actually submitted.

Please let me know if I can provide any further information that might be helpful. Thank you for your consideration of these matters.

Very truly yours,



Lori H. Schweller

Enclosures

Jim Tolbert
June 14, 2012
Page 4

cc via email:

Craig Brown, City Attorney
Mary Joy Scala, Preservation and Design Planner
Karin Riecker, Esq., Verizon Wireless
Catherine Faulkner, Verizon Wireless
Stuart Squier, GDNSites, Consultants to Verizon Wireless
Stephen Romine, Esq.
Steven W. Blaine, Esq.



May 23, 2012

Mr. Cory Blake
Global Tower Partners
750 Park of Commerce Boulevard, Suite 300
Boca Raton, FL 33487
(561) 886-5888

RECEIVED

JUN 06 2012

NEIGHBORHOOD DEVELOPMENT SERVICES

Subject:

**Structural Analysis Report
Verizon Wireless Change-Out
Verizon Wireless Site Name: Downtown Charlottesville
Verizon Wireless Site Number: 301
Global Tower Partners Site Name: Charlottesville, VA
Global Tower Partners Site Number: VA-5156
Norfolk Southern Site Name: Charlottesville Downtown
Norfolk Southern Site Number: KLQ98
225' Self-Supporting Tower
Vertical Structures Job Number: 2012-225-015**

Dear Mr. Blake,

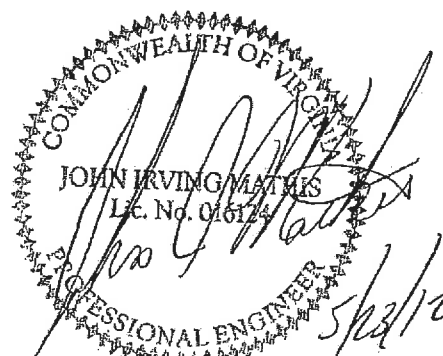
Vertical Structures is pleased to provide you with the results of the structural analysis performed on the 225' tall self-supporting tower at the Charlottesville site in Virginia. The purpose of the analysis was to determine the capacity of the tower upon considering the proposed equipment change-out listed in Table 1 at 183' for Verizon Wireless when combined with the existing and reserved equipment on the structure. This analysis has been performed in accordance with the TIA-222-G standard and local code requirements based upon a 90 MPH basic "3-second gust" wind speed with structure class 2, exposure category B, and topographic category 1.

Based on our analysis we have determined the tower superstructure and foundation are sufficient for the proposed loading, provided the discrepancies noted in Vertical Structures Post Modification Inspection Report Job No. 2012-225-008 are corrected.

Vertical Structures appreciates the opportunity to provide this report and our continuing professional services. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted,


Daryn Ward, P.E.
Project Engineer





May 23, 2012

Mr. Cory Blake
Global Tower Partners
750 Park of Commerce Boulevard, Suite 300
Boca Raton, FL 33487
(561) 886-5888

Subject: **Structural Analysis Report
Verizon Wireless Change-Out
Verizon Wireless Site Name: Downtown Charlottesville
Verizon Wireless Site Number: 301
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Respectfully submitted,

Daryn Ward, P.E.
Project Engineer

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INTRODUCTION

The subject tower is located in Charlottesville, Virginia. The 225' tall self-supporting tower is constructed of pipe legs with pipe k-bracing up to 125' and pipe z-bracing between 125' and 225'. The tower is founded on three (3) 8'-9" square by 2' thick individual spread footings bearing 14' below grade. The tower has been reworked multiple times to accommodate additional loading. However, part of the pre-2010 reinforcement was considered to be ineffective. For the purpose of this analysis, the discrepancies noted in Vertical Structures Post Modification Inspection Report Job No. 2012-225-008 are considered to be corrected.

ANALYSIS CRITERIA

The Charlottesville tower was analyzed in accordance with the current TIA-222-G publication, "Structural Standard for Antenna Supporting Structures and Antennas." The proposed, existing, and reserved antennas, feedlines and mounts considered in this analysis are listed in Table 1. Applied forces in this study were derived from a 90 MPH basic "3-second gust" wind speed with no ice and a reduced 30 MPH basic "3-second gust" wind speed with 0.75" of radial ice accumulation and with structure class 2, exposure category B, and topographic category 1. Twist and sway performance has been evaluated considering a 60 MPH basic "3-second gust" wind speed with no ice. The original design loads are not available. All feedlines are assumed to be routed in accordance with the drawing in Appendix B.

Table 1 – Proposed, Existing, and Reserved Loads

Mount Elevation	Carrier Name	Status	Antennas	Mounts	Feedlines
225'	Norfolk Southern	Reserved	(1) Decibel DB589-Y Omni	Leg Mounted	(1) 7/8" Coax
221'		Existing	(1) Andrew D8E-21 Dish	(1) Face Mount	(1) EW63 W/G
	Norfolk Southern	Reserved	(1) 8' H.P. Dish	(1) Face Mount	(1) WE65 W/G
195'	Norfolk Southern	Reserved	(1) Celwave PD340-1 Dipole	(1) 3' Sidearm	(1) 7/8" Coax
183'	Verizon Wireless	Proposed	(3) Antel BXA-70063/4CF Panels		(6) 1 5/8" Coax
		Remove	(3) Decibel DB846H90E-SX Panels		(3) 1 5/8" Coax (3) 7/8" Coax
		Existing	(3) Antel BXA-185063/8CFx2 Panels (3) Metawave TLT3-AZ30 Panels	(3) 15' T-Frames	(18) 1 5/8" Coax
173'	Virginia PCS Alliance	Existing	(3) Andrew HBX-6517DS-VTM Panels	(3) 6' Sidearms	(6) 1 5/8" Coax
159'		Existing	(9) Antel RWA-80015 Panels	(3) 11' Lightweight T-Frames	(9) 1 5/8" Coax
150'		Existing	(1) 5' Omni, w/ TMA	(1) 5' Sidearm	(1) 1 1/2" O.D. Cable Bundle

ANALYSIS PROCEDURE

Table 2 – Resources Utilized

Resource	Remarks
Proposed Loading	GTP Collocation Application Dated "04/09/2012"
Existing Loading	Vertical Structures 'June 2, 2010' Tower Audit
Tower Information	Vertical Structures 'June 2, 2010' Tower Audit
Foundation Information	Vertical Structures Job No. 2010-999-099
Geotechnical Report	WEI Project No. 2010-1211
Rework Drawings	Vertical Structures Job No. 2010-999-099
Rework Drawings	TEP Job No. 110011.086 Revision 1 Dated "11-21-11"
Post Modification Inspection Report	Vertical Structures Job No. 2012-225-008

Analysis Methods

tnxTower (Version 6.0.4.0), a commercially available software program, was used to create a three-dimensional model of the tower and calculate member stresses for various dead, live, wind, and ice load cases. All loads were computed in accordance with the TIA-222-G or the local building code requirements. Selected output from the analysis is included in Appendix A.

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 manufacturer's specifications.
3. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Table 1 and any referenced drawings.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and Vertical Structures should be allowed to review any new information to determine its effect on the structural integrity of the tower.

ANALYSIS RESULTS

The Charlottesville Downtown tower superstructure is found to be adequate for the intended loading at the wind and ice conditions considered, provided the discrepancies noted in Vertical Structures Post Modification Inspection Report Job No. 2012-225-008 are corrected. Calculated foundation reactions are within the calculated allowable limits. Table 3 summarizes the condition of the tower. Tower superstructure capacities up to 105% and foundation soil capacities up to 110% are considered acceptable based on the analysis procedures used. Table 4 summarizes the performance of the tower with respect to twist and sway.

Table 3 – Tower Component Capacities

Section Number	Elevation	Percent Capacity Used		
		Leg	Diagonal	Horizontal
1	225' – 200'	39.4	35.5	5.9
2	200' – 175'	49.9	83.3	4.5
3	175' – 150'	95.4	82.4	1.9
4 – 7	150' – 125'	66.7	98.5	4.4
8 – 9	125' – 100'	81.7	103.1	66.8
10 – 11	100' – 75'	93.1	82.0	84.1
12	75' – 50'	95.9	72.0	87.6
13 – 14	50' – 25'	104.7	84.9	70.7
15 – 16	25' – 0'	68.7	95.0	64.5
Anchor Bolts - Tension		64.1		
Foundation		106.0		

Table 4 – Twist and Sway Performance

Mount Elevation	Antennas	Twist	Sway
221'	(2) 8' H.P. Dishes	0.0145	0.1694

Required Modifications

- (A) Correct the discrepancies noted in Vertical Structures Post Modification Inspection Report Job No. 2012-225-008.