

IN THE MATTER OF	*	BEFORE THE CECIL COUNTY
THE APPLICATION OF	*	BOARD OF APPEALS
CELLCO PARTNERSHIP	*	CASE NO.: 3637
d/b/a Verizon Wireless	*	
(Special Exception – NAR)	*	
	*	
*   *   *   *   *   *   *   *   *   *   *   *		

**OPINION**

The Cecil County Board of Zoning Appeals (the “Board”) is now asked to consider the application of Cellco Partnership, d/b/a Verizon Wireless (the “Applicant”). Applicant seeks to construct a one hundred and fifty foot (150’) cellular communications monopole on property owned by Robin Marie Sherrard and Harry Magraw Jackson located at 35 Rolling Hills Lane, Port Deposit, Maryland 21904, designated as Parcel 226 on Tax Map 22, in the Seventh Election District of Cecil County (the “Property”), in an area zoned Northern Agricultural Residential (“NAR”) in accordance with Article V, Part V, Section 115 of the Cecil County Zoning Ordinance (the “Ordinance”).

Section 115 of the Ordinance provides:

Communication towers may be permitted as a Special Exception in the NAR, SAR, LDR, ST, UR, MH, RM, RMU, and EMU zones and shall be permitted in the BG, BI, M1 and M2 zones provided:

1. Except in the NAR & SAR zones, the proposed tower shall have a setback of one foot from all property lines for every foot of height of the tower and associated antennae. Upon a showing by the applicant that the proposed tower is structurally engineered in such a manner that a reduced fall zone is adequate, the Board of Appeals may reduce the setback to no less than one half (1/2) the height of the proposed tower. Such a showing must be based on the written testimony of a structural engineer or other qualified professional. In the NAR & SAR zones, the proposed tower shall have a setback of three times the height of the tower from the nearest principal roadway and a setback of one foot from all other property lines

for every foot of height of the tower. New towers shall be built at the lowest height possible that will still allow for co-location and will not necessitate the construction of additional towers to achieve the same service coverage objectives.

2. The applicant shall demonstrate that a diligent effort has been made to locate the proposed communication facility on an existing structure or in a non-residential zoning district, and that due to valid considerations, including physical constraints and economic or technical feasibility, no other appropriate location is available. An alternatives analysis prepared by the applicant shall address the following:

- a. all reasonably feasible alternative locations or facilities that would provide the proposed communication service;
- b. an analysis indicating whether an existing facility can be structurally modified to accommodate the applicant's proposed use and coverage;
- c. the potential for co-location at an existing or a new site and the potential to locate facilities as close as possible to the intended service area;
- d. the rationale for the selection of the proposed site in view of relative merits of any feasible alternatives;
- e. a system design plan that shall include:
  - i. radio frequency parameters;
  - ii. tower height;
  - iii. number of antennas that the proposed tower can accommodate at capacity;
  - iv. radio frequency output; and
  - v. effective radiated power and azimuth antenna type.
- f. demonstration of a good faith effort to co-locate with other carriers including a survey of all existing structures that may be reasonable for co-location and contacts with other service providers in the County.

The information submitted by the applicant shall include a map of the area to be served by the tower, its relationship to other antenna sites in the applicant's network, an evaluation of existing structures taller than 50 feet, and communication towers, electrical transmission towers, and water towers within a one-half mile radius of the proposed tower, aerial and ground photographs of the site and surrounding areas, elevation drawings of all equipment and storage buildings on the property, and the color and building materials to be used on the proposed telecommunication facility.

3. New communication towers shall be designed to accommodate antennas for more than one user, unless the applicant demonstrates why such design is not feasible for economic, technical, or physical reasons.

Unless co-location has been determined to be infeasible, the Plan shall delineate an area near the base of the tower to be used for the placement of additional equipment buildings for other users.

4. Where feasible, the tower shall be situated within or adjacent to mature tree growth and understory vegetation that provides an effective year round visual buffer and should only be considered elsewhere on the property when technical or aesthetic reasons indicate there are no other preferable locations. Ground level equipment and buildings and the tower base shall be screened from public streets and residentially zoned properties. Ground level equipment buildings shall be constructed of either masonry or wood with either wood, vinyl, reinforced concrete, or other good quality siding material.

5. Communication Towers shall be gray or a similar color that minimizes visibility, unless a different color is required by the Federal Communications Commission or the Federal Aviation Administration.

6. No signals or lights shall be permitted on a tower unless required by the Federal Communications Commission or the Federal Aviation Administration.

7. A Communication Tower that is no longer in use shall be removed from the site within six (6) months of the date that the uses cease.

In determining whether to grant an application for a Special Exception the Board must consider Section 311 of the Ordinance, which states:

No special exception shall be approved by the Board of Appeals after considering all facts in the case unless such Board shall find:

1. Such use or any operations thereto will not be detrimental to or endanger the public health, safety, or general welfare.
2. The use will not be unduly injurious to the peaceful use and enjoyment of other property in the neighborhood, nor substantially diminish or impair property values in the neighborhood.
3. The establishment of the use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the zone.
4. The use will not, with respect to existing development in the area and development permitted under existing zoning, overburden existing public

facilities, including schools, police and fire protection, water and sewer, public road, storm drainage, and other public improvements.

5. The use shall not adversely affect critical natural areas or areas of ecological importance.

6. The use shall, in all other respects, conform to the applicable regulations of the zone in which it is located.

7. That the particular use proposed at the particular location proposed, would not have any adverse effect above and beyond those inherently associated with such special exception use irrespective of its location in the zone. *Schultz v. Pritts*, 291 Md.1 (1981).

8. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

9. That the proposed special exception is not contrary to the objectives of the current Comprehensive Plan for the County.

Article XVII, Part II, Section 311, Cecil County Zoning Ordinance.

Appearing on behalf of the Applicant was John Tracy, Esq., of Young, Conoway, Stargatt & Taylor LLP. In a letter submitted to the Board along with the application, counsel for the Applicant set forth facts demonstrating the proposed cellular tower's compliance with Section 115 of the Ordinance. Addressing the requirements of § 115.1, the letter provides that the proposed 150' tower is over 1000 feet from Rock Run Road, over 680 feet from the nearest property line for a property unaffiliated with the application, and is 150 feet from any internal property lines. Counsel's letter addresses § 115.2 and establishes that a diligent search for an alternative parcel upon which to locate the tower was undertaken; however, given the rural character of the Property, the population the tower is designed to serve, and the lack of available structures on other properties available for modification or colocation, this Property is the most suitable for the proposed use.

The proposed tower is available for colocation of future service providers, in accordance with § 115.3 and is to be located in a heavily wooded area that will provide an effective year round visual buffer as required by § 115.4. The only light on the tower would be small security light over the entrance to the tower complex.

No further witnesses testified in favor or in opposition to the application.

Clifford Houston of the Cecil County Department of Planning and Zoning testified that the Planning Commission recommended approval.

Pursuant to Section 311 of the Ordinance, the Board finds as follows:

1. The existing special exception is not detrimental or an endangerment to the public health, safety, or general welfare. The proposed tower satisfies all necessary setback requirements and is sufficiently shielded from the public so as not to constitute a danger to the public health, safety, or general welfare.

2. The use will not be unduly injurious to the peaceful use and enjoyment of other property in the neighborhood, or substantially diminish or impair property values in the neighborhood. As noted, the proposed site is in a sparsely populated, rural area and surrounded by heavy woods. No light, sound, or smell emits from the tower.

3. The use will not impede the normal and orderly development and improvement of the surrounding properties for uses permitted in the zone. The Board does not find that the construction and maintenance of a cellular tower is an impediment to the preservation of the agricultural character of the area or to the reasonable and orderly residential development permissible within the zone.

4. The proposed cellular tower will not overburden existing public facilities, including schools, police and fire protection, water and sewer, public road, storm

drainage, and other public improvements.

5. The continued use will not adversely affect critical natural areas or areas of ecological importance. The Property is not located in a Critical Area District.

6. The continued use will, in all other respects, conform to the applicable regulations of the zone in which it is located. The Board finds that this portion of the NAR is used largely for purposes related to agricultural and residential use. Based upon the evidence presented, the Board finds that the construction and maintenance of Applicant's proposed cellular tower is not inconsistent with these neighboring uses.

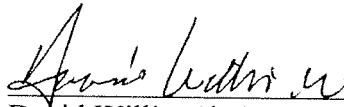
7. The particular use proposed at the particular location proposed will not have any adverse effects above those inherently associated with such special exception use irrespective of its location in the zone. *Schultz v. Pritz*, 291, Md. 1 (1981). The Board finds that, because of the residential density of the zone and the nature of the activities undertaken in the area, the impact of Applicant's proposed cellular tower in this particular area of the NAR is no different than the impact of the proposed use in other areas of the NAR.

8. Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets. No evidence was presented evincing issues related to traffic and parking. The Applicant anticipates on average one visit per month to the Property using the existing entrance.

9. Construction and maintenance of the proposed cellular tower on the Property is not contrary to the objectives of the Comprehensive Plan for the County and will in fact serve the objectives of the Comprehensive Plan by providing better broadband services to rural parts of the County.

For the reasons stated above, by unanimous vote, the Board is satisfied that the requirements of Article XVII, Part II, Section 311, of the Ordinance have been met and the application for renewal of the special exception under Section 115 is therefore **APPROVED.**

6/25/2013  
Date

  
David Willis, Chairperson

**BOARD OF APPEALS APPLICATION**  
**CECIL COUNTY, MARYLAND**

MEET. MONTH: May 2013  
FILE NO. 3637

**THIS REQUEST IS FOR:**

- SPECIAL EXCEPTION RENEWAL
- SPECIAL EXCEPTION
- VARIANCE
- APPEAL

APR 9 2013

DATE FILED: 4-3-13  
AMOUNT PD: \$250.00  
ACCEPTED BY: G. Dempsey

CK# 149896

**A. APPLICANT INFORMATION**

Mail TO

Cellco Partnership d/b/a Verizon Wireless Young Conway  
APPLICANT NAME - PLEASE PRINT CLEARLY  
46 John Tracey, Esq. 1000 N. King Street Wilmington DE 19801  
ADDRESS CITY STATE ZIP CODE  
[Signature] 302-571-6740  
APPLICANT SIGNATURE PHONE NUMBER

Staggett  
Taylor  
LHC

**B. PROPERTY OWNER INFORMATION**

Mail TO

Robin Marie Sherrard + Harry Magraw Jackson  
PROPERTY OWNER NAME - PLEASE PRINT CLEARLY  
57 Rolling Hills Ranch Lane Port Deposit MD 21904  
ADDRESS CITY STATE ZIP CODE  
Abbyn Sherrard 410-378-2562  
PROPERTY OWNER SIGNATURE PHONE NUMBER

↑  
Mail TO

**C. PROPERTY INFORMATION**

35 Rolling Hills Ranch Lane Port Deposit MD 07 044569  
PROPERTY ADDRESS ELECTION DIST. ACCT. NUMBER  
0022 0017 0226 N/A 6 NAR  
TAX MAP # BLOCK PARCEL LOT# #ACRES ZONE

**D. PURPOSE OF APPLICATION** - Indicate reasons why this application should be granted. (attach separate sheet if necessary)

To construct a 150' tall cellular communications monopole. Please see attached correspondence, plans + reports.

**E. On an attached sheet, PLEASE submit a sketch of the property indicating the proposed project. Show distances from the front, side and rear property lines and the dimensions of the project.**

**F. LAND USE DESIGNATION**

- Is property in the Critical Area?  YES  NO
- If yes, Pertinent provision of the Chesapeake Bay Critical Area Program:  YES  NO
- Is property in the 100 year Floodplain?  YES  NO
- Is property an Agricultural Preservation District?  YES  NO

If property is located in the Critical Area, all provisions and requirements must be met as outlined in Article XVII, Part I, II & III of the Zoning Ordinance.

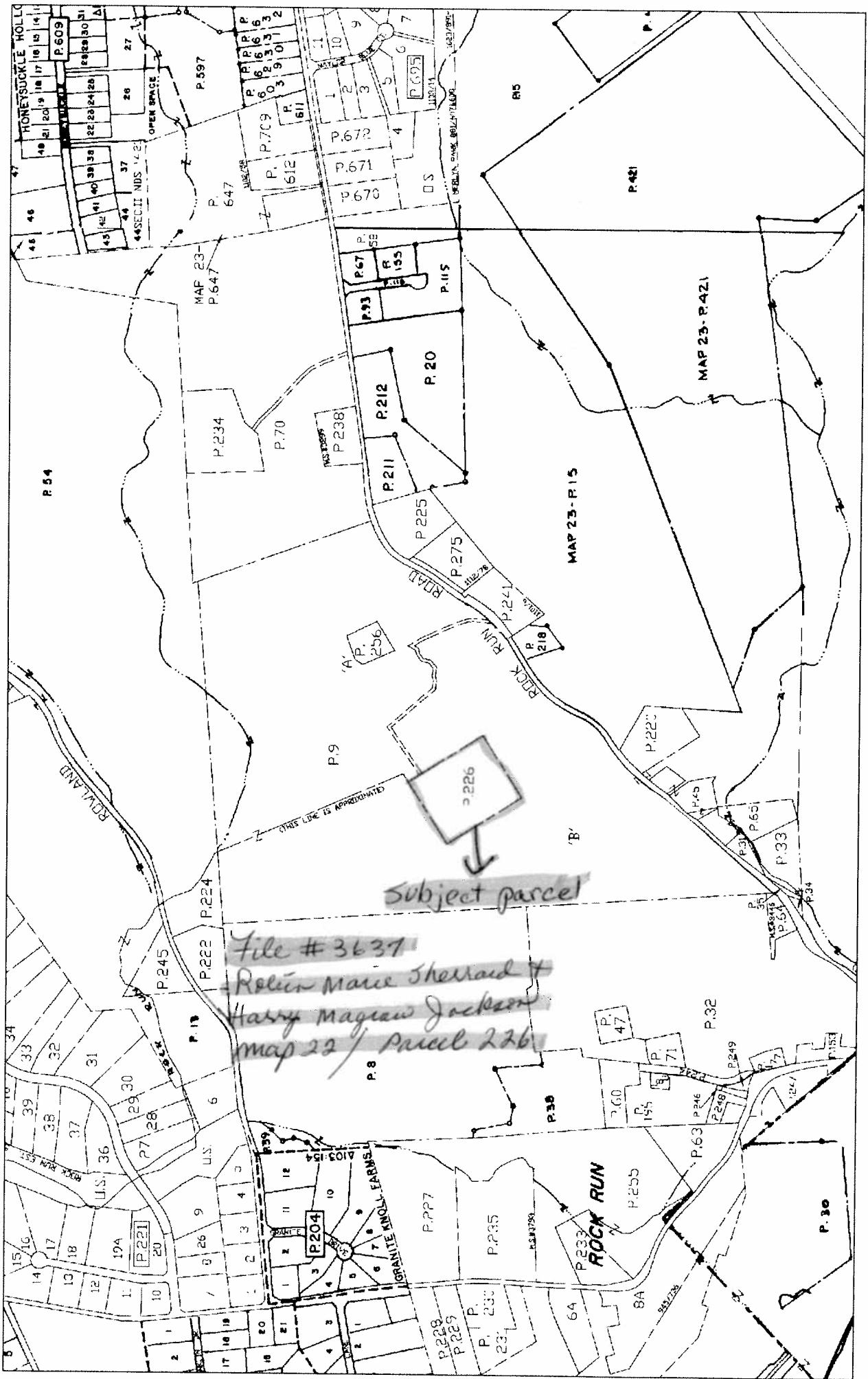
**G. PROVISION OF ZONING ORDINANCE:** Article I, Part VIII §115 (8.04.00)

**H. SPECIAL EXCEPTION RENEWAL** - PREVIOUS FILE NO. & CONDITIONS FOR APPROVAL: N/A

**I. SPECIAL EXCEPTION FOR A MANUFACTURED HOME** - Please fill out the following information:

- Will unit be visible from the road?  If yes, distance: \_\_\_\_\_
- Will unit be visible from adjoining properties?  If yes, distance: \_\_\_\_\_
- Distance to nearest manufactured home: \_\_\_\_\_ Size/Model/Year of Unit: \_\_\_\_\_
- Number of units on property at present time: \_\_\_\_\_





Subject parcel

File # 3637  
Rolin Marie Sherrard +  
Harry Magraw Jackson  
map 22 / Parcel 226

April 3, 2013

**HAND DELIVERY**

Board of Appeals  
Cecil County Maryland  
Office of Planning & Zoning  
Attn: Mr. Clifford Houston  
200 Chesapeake Boulevard  
County Administration Building, Rm 2300  
Elkton, MD 21921

APR 3 2013

SECRET OFFICE OF  
PLANNING & ZONING

Re: Application of Cellco Partnership d/b/a Verizon Wireless

Dear Mr. Houston:

Attached please find the application of Cellco Partnership for a Special Exception to place a 150 foot tall telecommunications monopole on a 6.0 acre parcel of land located at 35 Rolling Hills Farm Lane near its intersection with Rock Run Road. The subject parcel is subsumed by two larger farm parcels that surround the smaller parcel intended to hold the monopole and related infrastructure.

As this parcel is located within the Northern Agricultural Residential District ("NAR"), the monopole is proposed to be located so as to satisfy the additional setback requirements imposed by §115(1) of the Cecil County Zoning Code. As the enclosed plans demonstrate, the monopole is situated over 1,000 feet from Rock Run Road and over 680 feet from the nearest property line for a property unaffiliated with this application. The monopole also maintains the required 150 foot setback from the internal property lines. The property chosen for this installation is heavily wooded, particularly as one views the property from Rock Run Road. That being said, the 2,500 square foot enclosure that will hold the monopole and related equipment will be surrounded by an 8 foot tall fence. As the enclosed design reports and plans demonstrate, the tower is proposed to be gray in color, unlit (save for a small security light at the entrance to the enclosure) and will be designed to accommodate at least one (1) additional carrier for colocation purposes.

YOUNG CONAWAY STARGATT & TAYLOR, LLP

Board of Appeals

April 3, 2013

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As the enclosed materials demonstrate, Verizon Wireless believes that this application will satisfy the requirements of §115(2) for such a special exception. As this property is located in a decidedly rural area of the County, no feasible colocation options were available. That being said, the applicant did diligently search for a parcel that would be able to accommodate the monopole while, at the same time, causing minimal impact to surrounding properties. The proximity of this parcel, which is one of several farm parcels within this complex, Liberty Grove Road and the Jacob Tome Memorial Highway, two routes (along with the residential subdivisions in this area) which are currently underserved by existing coverage, makes this property particularly appropriate for this facility, which is focused primarily on serving the needs of residential and agricultural subscribers in this area, along with those travelling to and from the Port Deposit area. As the enclosed RF Design Report provides, no structures were available for either colocation or for modification to accommodate the need to fill the existing gap in coverage. This same report evidences the need for this facility and the benefits the facility is intended to provide, including providing new colocation options for other service providers while utilizing as minimally invasive structure as possible to meet these needs.

The Applicant is also aware that it must satisfy the standards contained in Article XVII, Part II, §311 for Special Exceptions. With regard to these standards, the Applicant believes that many of these standards are not impacted by this application. The use and operation of this monopole will not endanger public health safety and welfare; indeed, it will enhance it by providing greater cellular coverage. As these facilities have no impact on municipal services, do not generate any traffic demands (on average, one (1) trip to the site per month, utilizing the existing entrance to the property), will not impact any critical resources, meets all code imposed setbacks for such uses, and will otherwise comply with the requirements for such uses within the NAR zoning district, the requirements of §311 (1), (3), (4), (5), (6) and (8) would appear to be satisfied. As the proposed monopole is located in the middle of a largely rural area, situated on a 6-acre parcel that is screened from Rock Run Road by a large amount of trees, it will have little impact on nearby properties. It certainly will not be injurious to such properties as these facilities generate little traffic, do not tax municipal resources and emit no noises, smells or lights. In addition, the proposed monopole is not contrary to the objectives of the current Comprehensive Plan for Cecil County; indeed it is consistent with the stated goal, found in Chapter 4, §4.3.2 of the Comp Plan, entitled "Infrastructure: Sewer, Water, Roads and Broadband", which provides, as one of the many goals of the Comprehensive Plan, the provision of better broadband services to the rural areas of the County. This proposed facility, through Verizon's EVDO and LTE networks, will provide expanded broadband mobile internet service to many areas that are currently underserved.

Enclosed with this correspondence please find two copies of the required application form, two copies of the plans for this project, and two copies (each) of the Radio Frequency Design Report, the Electromagnetic Emissions Analysis, the Interference Analysis, and the FAA Screening, along with this Firm's check in the amount of \$250 representing the application fee for this matter. I trust that this correspondence and the enclosed plans, reports

YOUNG CONAWAY STARGATT & TAYLOR, LLP

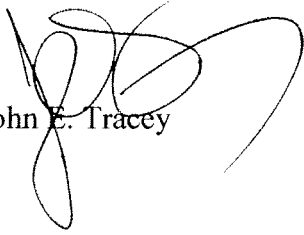
Board of Appeals

April 3, 2013

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and application are sufficient for your needs. To the extent, however, that additional information is required, please do not hesitate to contact me at (302) 571-6740.

Very truly yours,

  
John E. Tracey

Enclosures

cc: Ms. Sue Manchel  
Mr. Chris Frelick  
Andrew Petersohn, P.E.  
Kenneth Farrall  
Ms. Robin Marie Sherrard

**PO Box 165  
Fairview Village, PA 19409  
Phone: 610.304.2024  
Fax: 610.584.5387  
info@dBmEng.com**



March 19, 2013

Board of Appeals  
Cecil County, Maryland  
Department of Planning  
Cecil County Administration Building  
200 Chesapeake Boulevard  
Elkton, MD 21921

APR 8 2013

CECIL COUNTY OFFICE OF  
PLANNING AND ZONING

Re: Cellco Partnership d/b/a Verizon Wireless  
"WIL-PORT DEPOSIT"  
Proposed 150' Monopole  
35 Rolling Hills Ranch Lane  
Port Deposit, MD 21904  
Latitude: N 39° 37' 24.61" (NAD 83)  
Longitude: W 76° 07' 06.80" (NAD 83)  
Elevation: 359' ± (NAVD 88)

To Whom It May Concern:

I am writing to you to document the need for Cellco Partnership d/b/a Verizon Wireless (hereinafter referred to as "Verizon Wireless") to install its antennas at a height of 150' on the tower proposed for the above-referenced property from a radio frequency perspective in accordance with the requirements of Section 115.2 of the Cecil County Zoning Ordinance (hereafter referred to as the "Ordinance").

My company provides independent consulting engineering services to the wireless telecommunications industry. As a Professional Engineer, with a specialty in radio frequency (RF) design, I am familiar with all aspects of RF design of a wireless telecommunications system, including search area design to meet the demand for wireless service, field testing for site suitability and performance optimization, and technology planning for the rollout of digital technologies to meet the needs of customers who desire reliable wireless communications services. I have been retained by Verizon Wireless to consult on the design of sites to provide wireless service throughout Maryland, including Cecil County.

Verizon Wireless is currently licensed by the Federal Communications Commission (FCC) to provide wireless services to Cecil County and the surrounding areas. The license specifies the frequency band and power levels at which Verizon Wireless is authorized to operate their system. Typically, Verizon Wireless' facilities transmit with only a fraction of its licensed power output to promote channel re-use and thereby optimize service and capacity.

The objective of the proposed telecommunications facility is to provide continuous reliable coverage to the largely residential and agricultural areas including, and roughly bounded by, routes 269 and 276 (Liberty Grove Road and Jacob Tome Memorial Highway) and Dr. Jack Road. This area includes a number of throughways and residential subdivisions where a significant gap in coverage currently exists. This gap results in the inability to make or receive calls, the loss of calls experienced by customers as they enter the significant gap in coverage, a lack of reliable data functionality and other service problems to customers in this area.

The existing base stations currently serving the periphery of this area are located as follows:

#	Name	Street Address	City	Structure Type	Structure Height (ft)	GE (ft)	CL (ft)
12	CONOWINGO	476 Conowingo Road	Conowingo	Self-support Structure	140	260.5	113
122	CHESAPEAKE VILLAGE	1800 Perryville Road	Perryville	Water Tank	140	309.3	142
205	RISING SUN	300 Biggs Hwy, Rt 274	Rising Sun	Self-support Structure	180	380.6	225.1
221	Port Deposit West	520 Susquehanna River Road	Port Deposit	Mono Pole	100	74.2	100

I use the term “reliable” coverage to describe the standard level of service that each wireless licensee is expected to achieve by the FCC. “Reliable coverage” is defined as the ability of a remote user of wireless services to connect with the land-based national telephone network and to maintain a connection capable of supporting a reasonably uninterrupted communication. The concept of reliable coverage extends beyond just voice communication to include the transmission and reception of data services (with adequate throughput) over the handheld unit, including services that impact public safety, such as e-mails, text messages, medical information, or law enforcement inquiries.

It is my opinion that the area of unreliable coverage area is significant, in that it spans sections of heavily traveled roads as well as adjoining residential and agricultural areas.

In order to provide reliable coverage, the proposed facility must be well placed in order to properly fit into the coverage provided by the existing and proposed base stations in the surrounding area. For this reason, the target area for a new facility is very small. There are no any existing structures available for co-location in the target area for a new facility that could fulfill the objectives of this proposed facility. To deviate from the target area would advance the proliferation of additional facilities as opposed to using the least number of facilities and utilizing existing structures.

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The prerequisite to reliable service is sufficient signal strength in the area being served by the base station. The base station must be able to provide sufficient signal to the handheld mobile unit, and the handheld mobile unit must not be out of range of the base station. The effect of having lack of coverage (weak signal strength) is denial of wireless services, lost calls, or poor quality service to customers in these areas.

It is necessary to locate the tower where proposed given the topography of the land throughout the intended coverage area, the proximity to roads of various classification, the proximity of areas of the community in which mobile users are located, the relative ground elevation of the site, the height of the tree line surrounding the site, the absence of other existing tall structures which may serve as candidates, the equipment Verizon Wireless plans to utilize in the facility, and the traffic distribution of the facility. As evidenced by the base stations surrounding this site, Verizon Wireless supports collocation efforts to minimize the proliferation of new towers whenever possible to serve the wireless needs of a community; however, there are none available for this site.

I have evaluated the subject site candidate to meet the target objectives taking into account that there are no existing tall structures either inside or within one half (½) mile outside of the service area that can effectively be used in the wireless network. The community's interests are best served by locating the new facility centrally to the area that lacks reliable coverage. Failure to do so potentially sacrifices reliable communications for the community, including those that impact public safety. According to the Cecil County Comprehensive plan: ... *As of 2010, not all of the County's existing and proposed employment areas have broadband service, and rural areas also lack access to high-speed Internet service. Working in partnership with service providers can help to fill this gap.* Verizon's existing EVDO and LTE networks will provide expanded mobile broadband internet service to many areas that are currently underserved or not served at all by broadband providers, wireless or wire-line, in harmony with the intentions of the Comprehensive Plan.

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It is my opinion that the proposed facility is necessary for Verizon Wireless to fulfill the objectives of providing continuous reliable coverage to this section of Cecil County. The proposed antenna height of 150' is the minimum height required to provide the necessary reliable service needed in this area for Verizon Wireless, taking many factors into account, including the location and the relative ground elevation. Any reduction in height would sacrifice the objectives of the proposed facility and serve to require additional facilities within Cecil County.

In support of my opinion, attached hereto and incorporated herein as Exhibits "A" and "B" are colored propagation studies showing the existing significant gap in coverage and the reliable coverage that will be provided by this site as proposed. These Exhibits were prepared utilizing an industry standard, predictive, computer propagation tool. This program utilizes data regarding topography, environmental clutter, existing coverage and the characteristics of Verizon Wireless' radio frequency signal. The colors depicted in the Exhibits correspond to the levels of coverage as follows: any colored area represents signal strength adequate for reliable in-car coverage; and any non-colored (white) areas represent inadequate signal strength for reliable in-car coverage. Exhibit A depicts a significant gap in coverage identified by the color white. Exhibit B shows reliable coverage provided by the site to the above described areas as depicted by red. A 150' tower represents the least intrusive means of providing reliable coverage in this area. Specifically for this installation, Verizon Wireless plans to install up to twelve (12) panel style antennas arranged in three sectors with azimuths evenly spaced in the horizontal plane. The antenna centerline height above ground level is planned at 150'. Transmitting through these antennas will be one (1) LTE radio in the 700 MHz band (per sector) at a maximum of 200 watts ERP (effective radiated power) per radio, one (1) LTE radio in the 2100 MHz band (per sector) at a maximum of 200 watts ERP (effective radiated power) per radio, up to four (4) CDMA radios in the 850 MHz band (per sector) transmitting at a maximum of 250 watts ERP (effective radiated power) per radio and up to four (4) CDMA radios in the 1900 MHz band (per sector) transmitting at a maximum of 250 watts ERP (effective radiated power) per radio.

It is my opinion that the proposed facility would fulfill Verizon Wireless' needs in the least intrusive means possible for this area. I am not aware of any more feasible alternatives of providing the reliable service Verizon Wireless is required to provide by alternative means such as with modifications to existing base stations, antenna enhancements, repeaters, re-radiators, microcells, etc. It is my opinion that the radio equipment, antenna configuration, and technologies used by Verizon Wireless provide for reliable wireless services in the most efficient means possible for this area.

In summary, upon consideration of the many factors discussed herein, it is my opinion that the proposed communications facility is well suited (in terms of location and minimum height) to provide reliable service to Verizon Wireless' subscribers in a section

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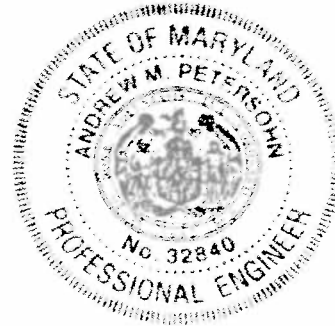


of Cecil County which currently suffers from a significant gap in reliable wireless service. I am not aware of any other more feasible alternatives for providing enhanced coverage to this section of Cecil County. The proposed communications facility in this location is necessary for the efficient operation and provision of wireless services to the area for which it is proposed.

Sincerely,



Andrew M. Petersohn, P.E.  
Registered Professional Engineer  
Maryland license number 32840



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**Fairview Village, PA 19409**  
**Phone: 610.304.2024**  
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## DECLARATION OF ENGINEER

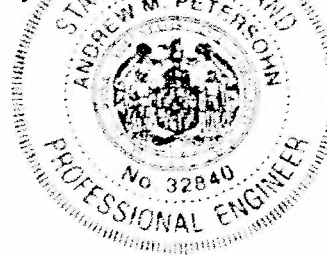
Andrew M. Petersohn, P.E., hereby states that he is a graduate telecommunications consulting engineer possessing Master and Bachelor Degrees in Electrical Engineering from Lehigh University (2005 and 1999, respectively). His corporation, dBm Engineering, P.C., has been retained by representatives of Verizon Wireless to perform an electromagnetic emissions analysis for a proposed telecommunications facility.

Mr. Petersohn also asserts that the calculations and/or measurements described in this report were made personally and in a truthful and objective manner. Mr. Petersohn is a Registered Professional Engineer licensed in Pennsylvania, Delaware, Maryland, Virginia, New York, and New Jersey. He has over a decade of engineering experience in the field of wireless communications. Mr. Petersohn is an active member of the National Society of Professional Engineers (NSPE) and the Institute of Electronic and Electrical Engineers (IEEE). Mr. Petersohn further states that all facts and statements contained in the foregoing document are true and accurate to the best of his knowledge. He believes, under penalty of perjury, the foregoing to be correct.



Andrew M. Petersohn, P.E.  
Registered Professional Engineer  
Maryland license number 32840

Executed this the 19<sup>th</sup> day of March, 2013.

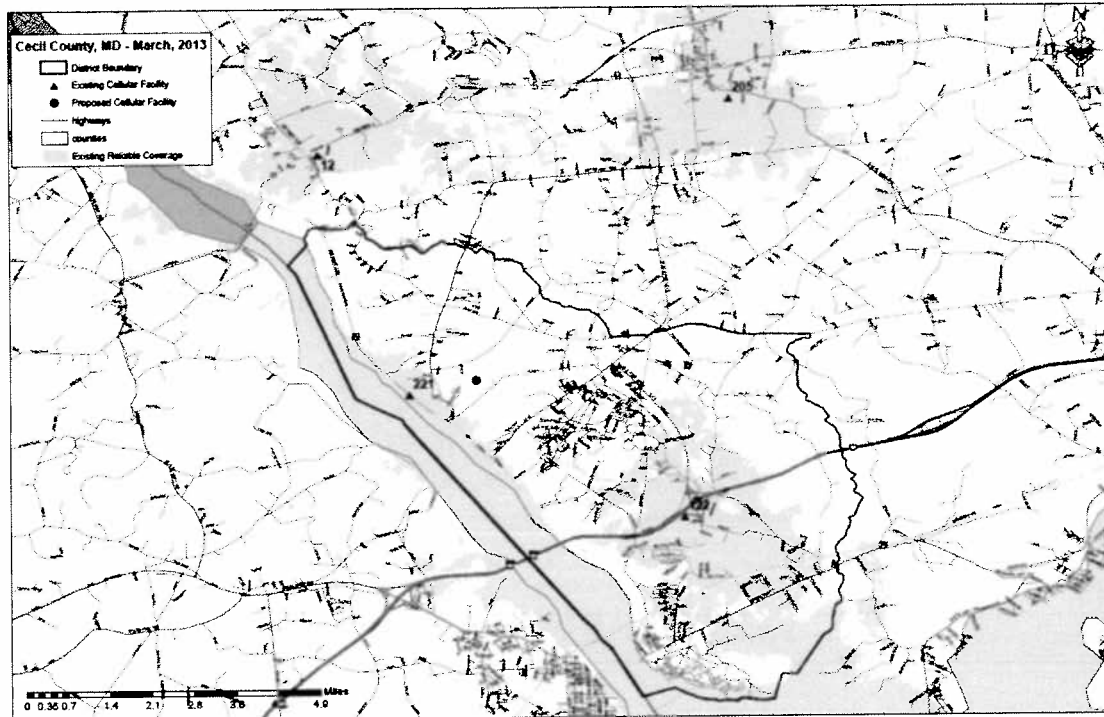


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The logo for dBm Engineering, P.C. features a stylized, three-dimensional graphic of a signal or wave on the left, followed by the text "dBm" in a large, bold, sans-serif font, and "ENGINEERING, P.C." in a smaller, bold, sans-serif font below it.

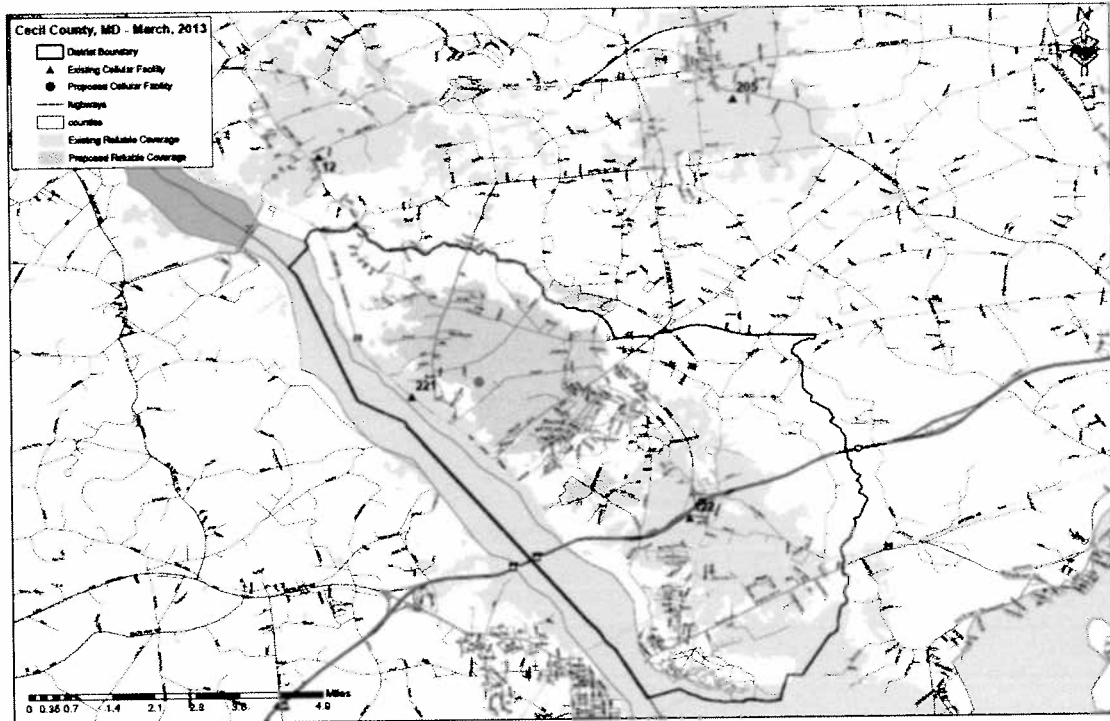
Existing Coverage – Exhibit A



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Proposed Coverage – Exhibit B



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