



**FAIRFAX COUNTY
PLANNING COMMISSION**

October 17, 2014

**PUBLIC HEARING
FOR
PLANNING DETERMINATION**
Pursuant to
Va. Code Sec. 15.2 – 2232

Public Hearing Date: Thursday, October 30, 2014 at 8:15 p.m.

Application Number: 2232-H13-16

Applicant: NewPath Networks, LLC, a subsidiary of Crown Castle

Proposed Use: Telecommunications Distributed Antenna System

Subject Property: Dominion Virginia Power electrical utility easements and VDOT right-of-way for portions of Vale Road, Carey Lane, and Fairoaks Road

Supervisor District: Providence and Hunter Mill

Application Received: October 23, 2013
Application Accepted: December 6, 2013

Recommendation: In accordance with Va. Code Sec. 15.2-2232, as amended, staff recommends that the Planning Commission find the proposal by NewPath Networks, LLC, as amended, for three (3) telecommunications Distributed Antenna System nodes along Vale Road, Carey Lane, and Fairoaks Roads, substantially in accord with provisions of the adopted Comprehensive Plan.

PLANNING DETERMINATION

Section 15.2 -2232 of the Code of Virginia



Number: 2232-H13-16

District: Providence

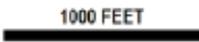
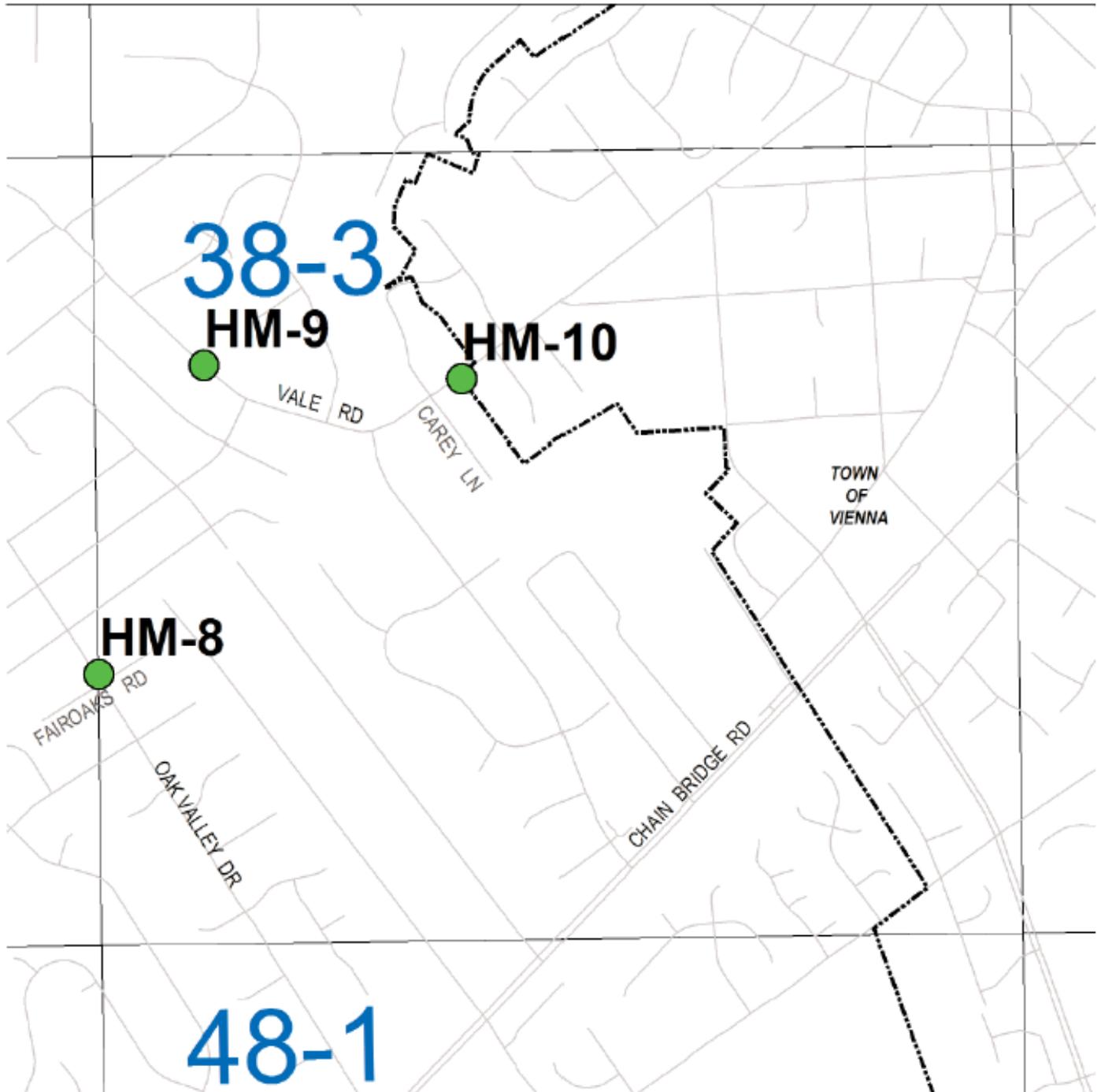
Acreage: N/A

Applicant: NewPath Networks, LLC

Subject Property: Utility easements within Tax Map #38-3: Node HM-8 near 9940 Fairoak Lat. 38°53'37", Long. -77°17'28"; Node HM-9 near 9905 Vale Rd, Lat. 38°53'57", Long. -77°17'19"; Node HM-10 near 2421 Carey Ln, Lat. 38°53'55", Long. -77°17'00".

Planned Use: Utility easements along Fairoaks Rd., Vale Rd., and Carey Ln.

Proposed Use: Distributed Antenna System



APPLICATION*Attachment A*

PROPOSAL: Expand a telecommunications facility (Distributed Antenna System).

APPLICANT: NewPath Networks, LLC ("NewPath")

SUBJECT PROPERTIES: Dominion Virginia Power ("Dominion") electrical utility easements and VDOT right-of-way for portions of Vale Road, Carey Lane, and Fairoaks Road in Tax Map 38-3.

PROPOSED USE: Distributed Antenna System ("DAS," "the system," or "the network").

Background: This is an expansion of a system that has progressed through numerous approvals. A network of four node sites was approved by the Planning Commission in 2007 under application 2232-MD06-23. As an extension of that network, DAS Nodes 6 and 7 were approved by the Planning Commission on February 24, 2011 under application 2232-P10-10. Two nodes (Nodes 8 and 9) were deferred and then eventually withdrawn by the applicant. A single DAS node was approved by the Planning Commission in 2012 under application 2232-P12-1. The current application 2232-H13-16 is a reimagining and resubmission of Nodes HM 8 and HM 9, originally submitted and then withdrawn, under application 2232-P10-10.

Among the primary concerns raised by residents which led to the withdrawal of Nodes HM 8 and HM 9 were: (1) the height of the structures and (2) the visibility of each location.

With this application, the applicant submits alternative heights and placements of Nodes HM 8 and HM 9 to accommodate the prior concerns. Crown Castle negotiated with Dominion to achieve a reduction in required clearances on the utility poles. Whereas previously Dominion required a minimum clearance of 10 feet between the base of the antenna structure and electrical lines, Dominion agreed to a reduced clearance if Crown Castle could provide an engineering analysis demonstrating electrical worker safety. The applicant reports that it was able to achieve a 12-15% reduction in structure height with this agreement.

A preliminary design was presented in a neighborhood open house on April 24, 2013 to obtain feedback on visibility and design. To balance radio frequency needs and community impact, the applicant states that the reduction in radio frequency (RF) coverage from the lowered heights required a third node (Node HM 10). In that design, Node HM 8 was shifted approximately 0.40 of a mile to the northwest on Oak Valley Drive, Node HM 9 was shifted to the east on Vale Road, and Node HM 10 was added near Flint Hill Road. Subsequent to the open house, Dominion added additional electrical equipment to the original Node HM 10 location, making it unavailable for the applicant's use. This required a shift of Node HM 10 to the east, and a corresponding shift of Node HM 9 to the east, to a location approximately 300 feet from the location proposed in the earlier application, 2232-P10-10.

AT&T, Verizon Wireless and T-Mobile service will be provided on the system. Both Verizon and AT&T will be installing their 4G LTE equipment. The applicant estimates that this expansion will serve 78% of wireless subscribers with no size increase in the most visible

component, the pole-top antenna shroud.

Project Justification: The primary objective for the entire Hunter Mill system is to provide coverage along Hunter Mill Road and Lawyers Road, along with the surrounding residential communities. NewPath proposes to construct a Distributed Antenna System telecommunications facility, consisting of three (3) nodes collocated on replacement utility poles. For these nodes, Crown Castle will be leasing utility and light poles owned by Dominion Virginia Electric Power Company (“Dominion”) and Verizon Communications-Virginia (“Verizon”).

Proposed Facility: Applicant requests approval for three new DAS nodes as summarized below, which will include: antennas and cabinets attached to utility poles and aerial fiber-optic cable connecting the nodes to the hub; see application (*Attachment A*) for detailed description; all dimensions are approximate:

- Antennas — three nodes of six panel antennas (22.3 in tall x 12.0 in wide x 7.1 in deep); mounted atop replacement utility poles concealed from view inside cylindrical sheath painted to match the pole; can be shared by multiple future co-located service providers.
- Equipment cabinets — three brown cabinets (92 in tall x 35.52 in wide x 23.88 in deep), mounted on utility pole 10 ft above ground (no equipment will be placed on ground); can be shared by multiple future service providers.
- Poles — three replacement roadside wood utility poles within VDOT rights-of-way to replace three existing roadside wood utility poles owned by Dominion; permits will be obtained from Fairfax County and VDOT prior to construction; replacement poles will be taller than existing poles, though decreased in height from the 2011 application, for several reasons:
 - VDOT requires 10 ft clearance above roads and driveways;
 - Dominion and Verizon require 4-10 ft between top of pole and antenna
 - National Electrical Safety Code ("NESC") — minimum vertical clearance between cables;
 - Compliance with NESC standards for worker safety; and
 - Wireless service providers — radio frequency requirements.

POLE & NODE TABLE (Current Application)

Node	Location (nearest property)	Height Above Ground		
		Existing Pole	Replacement Pole	Top of Sheath
HME 8	9940 Fairoaks Road (Providence District)	29 ft 6 in	38 ft 6 in	45 ft
HME 9	9905 Vale Road (Providence District)	38 ft 6 in	43 ft	49 ft 6 in
HME 10	2421 Carey Lane (Hunter Mill District)	34 ft	43 ft	49 ft 6 in

POLE & NODE TABLE (Original 2011 Application)

Node	Location (nearest property)	Height Above Ground		
		2011 Existing Pole	Replacement Pole	Top of Sheath
HME 8	2674 Oak Valley Dr. (Providence District)	34 ft 2 in	52 ft 6 in	58 ft
HME 9	9905 Vale Road (Providence District)	38 ft 10 in	50 ft	56 ft 6 in
HM 10	-----Not proposed in 2011-----			

- Cable — fiber-optic cable strung from utility poles to connect nodes to equipment hub.
- Operations — operates automatically 24 hours/day throughout the year; no on-site personnel; periodic and occasional visits by maintenance personnel for facility repairs or modifications.
- Heritage resources — NewPath will comply with all requirements of Section 106 of the National Historic Preservation Act of 1966 as related to the proposed facility.

Photographic Simulations: Application includes photographs of the existing utility poles and locations of new utility poles, and a photographic simulation depicting the appearance of the proposed nodes.

Alternatives: NewPath states that all three carriers, AT&T, T-Mobile, and Verizon Wireless, have existing tower and rooftop locations in the area, and there are no other existing structures tall enough on which to locate antennas to accomplish coverage objectives. Each carrier considered building a new structure on which to mount antennas in the Hunter Mill area, but due to the residential and historic nature of the area, could not find acceptable locations.

Off-site impacts: NewPath states that the proposed facility will have no impact on traffic, light pollution, air quality, water quality, or radiation on adjoining properties, and will comply with County noise regulations.

COMPREHENSIVE PLAN PROVISIONS

CHARACTER AND ADJOINING LAND USES:

Light-to-moderate tree cover and other vegetation are proximate to the node sites. Existing utility poles and overhead cables are located along the roads proximate to proposed locations of the proposed DAS nodes. Existing land uses along the route of the proposed DAS include residential, public facility, and institutional uses.

COMPREHENSIVE PLAN MAP:

Planning Area and District: Area II, Vienna Planning District

Planning Sector: V4-Piney Branch Planning Sector

Land Use Recommendations: For properties near the proposed DAS nodes:

- Node HME 8: 1.0 – 2.0 dwelling units per acre (“du/ac”) and public right-of-way
- Node HME 9: 1.0 – 2.0 dwelling units per acre (“du/ac”) and public right-of-way
- Node HME 10: 1.0 – 2.0 dwelling units per acre (“du/ac”) and public right-of-way

COMPREHENSIVE PLAN CITATIONS: An assessment of this proposal for substantial conformance with recommendations of the Comprehensive Plan (“the Plan”) is guided by the following Plan citations:

Policy Plan

In the Fairfax County Comprehensive Plan, 2013 Edition; Policy Plan; Public Facilities, as amended through April 30, 2013; **MOBILE AND LAND-BASED TELECOMMUNICATION SERVICES, GENERAL GUIDELINES**, pages 37 and 38:

“Objective 42: In order to provide for the mobile and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the co-location of related facilities and the reduction or elimination of their visual impact, locate the network’s necessary support facilities which include any antennas, support structures and equipment buildings or equipment boxes in accordance with the following policies.

- Policy a. Avoid the construction of new structures by locating proposed telecommunication facilities on available existing structures such as rooftops, telecommunication and broadcast support structures, electrical utility poles and towers, and water storage facilities when the telecommunication facilities can be placed inconspicuously to blend with such existing structures.
- Policy b. When existing structures are not available for co-location, or co-location is not appropriate because of adverse visual impacts or service needs, locate new structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.
- Policy c. When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.
- Policy d. When multiple sites provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.
- Policy f. Ensure that the use of public property by mobile and land-based telecommunication facilities does not interfere with the existing or planned operational requirements of the public use and complies with adopted policies and plans to protect natural resources.

...

- Policy g. Co-locate mobile and land-based telecommunication facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a co-location structure for multiple service providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.
- Policy h. Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based on its service area requirements while still mitigating the visual impact of the facility.
- Policy i. When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requirements for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.
- Policy j. Design, site and/or landscape proposed telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.
- Policy k. Demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.
- Policy l. A key concept in assessing telecommunication facilities is mitigation which is defined as actions taken to reduce or eliminate negative visual impacts. Mitigate the visual impact of proposed telecommunication facilities and their equipment, by using effective design options appropriate to the site such as:
- Design, site and/or landscape the proposed facility to minimize impacts on the character of the area;
 - Locate proposed telecommunication facilities near or within areas of mature vegetation and trees that effectively screen or provide an appropriate setting for the proposed structure provided such location does not adversely impact sensitive resources or cause fragmentation of forested communities. When viewed in context, consider perspective views, relative topography and other factors, to mitigate the visual presence and prominence of the structure;

- Blend proposed telecommunication facilities with an existing pattern of tall structures;

...

- Replace existing telecommunication facilities with taller structures or extend their overall height to reduce the need for another structure when such height increases or structure replacements are visually appropriate to the site, including the surrounding area and are consistent with the type, style and pattern of the existing structure.

Policy m. Locate proposed telecommunication facilities to ensure the protection of historically significant landscapes and cultural resources. ...

Policy n. Site proposed telecommunication facilities to avoid areas of environmental sensitivity...

Objective 43: Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area.”

In the Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition; Heritage Resources, as amended through August 5, 2002; **COUNTYWIDE OBJECTIVES AND POLICIES**, page 4:

"Objective 3: Protect significant heritage resources from degradation, or damage and destruction by public or private action.

Policy a. Avoid adverse impacts on or destruction of significant heritage resources unless there is no prudent and feasible alternative, in which case, plan and carry out appropriate mitigation activities to minimize the adverse effect."

Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition; Public Facilities, as amended through April 30, 2013; **MOBILE AND LAND-BASED TELECOMMUNICATION SERVICES, GENERAL GUIDELINES**, page 48: Figure 14 shows a telecommunications facility (not in Fairfax County), consisting of a 7-foot tall "radome cap" attached to the top of an electrical utility pole and an equipment box located on the distribution pole, as an example of a low-impact telecommunications facility.

STAFF ANALYSIS

ZONING

Attachment B

Findings: Staff in the Zoning Administration Division of the Department of Planning and Zoning reviewed the subject application and noted that the proposal meets the requirements of Par. 2 of Sect. 2-514 of the Zoning Ordinance, pending the approval of a Zoning Ordinance Text Amendment regarding telecommunications facilities, as recommended by the Planning Commission, scheduled for public hearing at the Board of Supervisors on October 28, 2014. In addition, please note that the diameter of any replacement standard cannot exceed 42 inches, and

the increase in height of the new standards cannot exceed 15 feet.

TRANSPORTATION

Attachment C

Findings: Staff in the Fairfax County Department of Transportation reviewed the subject application and noted that

- No road or trail improvements shown on the Fairfax County Transportation Plan or Countywide Trails Plan maps will be impacted by the replaced utility poles.
- There are no trail improvements shown on the Fairfax County Trails Plan that will be impacted by the replaced utility poles.
- No Fairfax Connector or Metrobus routes will be affected by the replaced utility poles; therefore, there should be no effect on existing transit service.

FOREST CONSERVATION

Attachment D

Findings: Staff in the Forest Conservations Branch of the Department of Public Works and Environmental Services reviewed the subject application and noted that there are no significant tree conflicts regarding the proposed antenna installations.

CONFORMANCE WITH THE COMPREHENSIVE PLAN

Attachment E

Va. Code Sec. 15.2-2232, as amended, requires the Planning Commission to determine whether the general location or approximate location, character and extent of the proposed facility are substantially in accord with the adopted Comprehensive Plan.

LOCATION: The proposed three nodes will be located on property planned and developed for public right-of-way and utility easement use. The nodes will occupy the same site as the existing pole it will replace. Although antennas will not be collocated on an *existing* utility pole per se, the proposal to locate antennas on *replacement* utility poles is consistent with Plan guidelines to avoid constructing new structures by locating telecommunications facilities on available utility poles. The ability for multiple future service providers to share antennas and equipment at the same nodes, as proposed, supports Plan guidelines to locate different providers on single structures. Finally, the proposed nodes will not be located in areas of environmental sensitivity.

The proposed locations for the three nodes also conform with Plan recommendations that public lands and utility easements should be considered as the *preferred* locations for telecommunications structures, subject to the availability and feasibility of a public site and the feasibility of using existing structures such as electrical utility poles, when such facilities can be placed inconspicuously to blend with existing structures. The nodes will blend with the existing structures and the visual impact will be mitigated by existing tree cover and other structures nearby. Therefore, the proposed locations comply with Plan recommendations for the location of telecommunications facilities.

CHARACTER: The proposed antennas will be located inside narrow cylindrical brown enclosures designed to conceal the antennas from view and mounted atop poles where they should blend visually with the replacement pole or remain in context with the light poles along Fairoaks Road, Vale Road and Carrey Lane. This enclosure is an effective design option and should, by itself, have no adverse visual impact on nearby properties. In addition, the pole-

mounted cabinets will be compatible with similar pole-mounted cabinets visible on other roadside utility poles in the area, and the cabinets' visual impacts should be mitigated by their brown color and/or by nearby screening trees. Finally, the nodes should have no adverse impact on heritage resources. Staff evaluated potential visual impact by viewing NewPath's photographic simulations at each site. The photo simulations provide a reasonably accurate visual depiction of the type, location, and height of the nodes for use in assessing its potential visual impacts on nearby properties and the public way. Although the nodes will be visible from surrounding areas to varying degrees, the proposal conforms with Plan guidelines to mitigate its visual presence and prominence. Furthermore, utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS) to minimize visual impacts on the surrounding area is in accordance with the Plan.

The existing poles are currently visible in line with other existing roadside utility poles and should blend with the existing pattern of utility poles, thus mitigating the visual presence and prominence in the surrounding area in support of Plan objectives. Although the existing poles will be replaced by taller poles, they will be compatible with other roadside poles. Furthermore, the nodes' visibility to motorists will be of short duration, and the visual impacts on the public way will be effectively mitigated by existing roadside utility poles and cables or trees. Thus, the proposed nodes should have no adverse visual impact on the character of surrounding areas. The proposal will have minimal adverse impact on surrounding areas, in accordance with Plan recommendations.

EXTENT: Although NewPath proposes to replace three existing utility poles with taller poles, the proposal attempts to limit the number of utility poles added to the landscape, consistent with Plan objectives to increase the height of an existing structure in order to reduce the need for another structure when visually appropriate. NewPath notes that the design of the node pole is based on wireless service provider's radio-frequency coverage requirements, VDOT's minimum requirements for cable clearance above roads and driveways, NESC's standards for separation between cables, and Dominion's requirements for a worker safety zone between the upper power lines and the lowest antenna. The height increase proposed for the nodes is consistent with Plan recommendations to increase the height of an existing structure to reduce the need for another structure when such increases are appropriate to the surrounding area, and that pole heights be no greater than required to achieve service area requirements when visually appropriate. Furthermore, NewPath has negotiated a new accommodation with Dominion that reduces the previous safety zone standard from a minimum of 10 ft clearance in all circumstance to a minimum of 4 ft clearance, thus reducing the height of each pole.

With no equipment proposed on the ground, no adverse impact on the use or operational requirements of the public right-of-way is expected, as recommended by the Plan. As previously discussed, the visual impact of the proposed height increase should be mitigated by nearby trees and other utility poles. The proposed height increase should have no adverse visual impact on the surrounding area, and is appropriate to the site, consistent with Plan recommendations. Finally, the telecommunications facility shown in Figure 14 in the "Public Facilities" section of the Policy Plan is similar in appearance to the nodes proposed by NewPath. Thus, the extent of the three proposed nodes is consistent with the spirit and intent of the Comprehensive Plan recommendations for the siting of telecommunications facilities.

CONCLUSIONS AND RECOMMENDATIONS

Department of Planning and Zoning staff concludes that the subject proposal by NewPath Networks, LLC, for three telecommunications Distributed Antenna System nodes in the Hunter Mill area, satisfies the criteria of location, character, and extent as specified in Va. Code Sec. 15.2-2232. Staff therefore recommends that the Planning Commission find the subject Application **2232-H13-16** substantially in accord with provisions of the adopted Comprehensive Plan.

Attachments

ATTACHMENT A
2232 Application



**COUNTY OF FAIRFAX, VIRGINIA
APPLICATION FOR DETERMINATION
PURSUANT TO VIRGINIA CODE SECTION 15.2-2232**

*** This area to be completed by staff ***

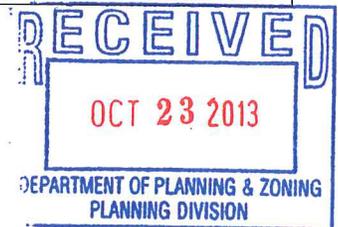
APPLICATION NUMBER 2232-H13-16

Date application received Oct 23, 2013 by DPZ Admin

Date(s) Revised _____

Date application accepted _____ by _____

(Please Type or Clearly Print)



PART I: APPLICATION SUMMARY

LOCATION OF PROPOSED USE

Address [Please see Node Chart attached]

City/Town Vienna Zip Code 22181

Place Name (example: Dale High School) _____

Tax Map I.D. Number(s) [Please see Node Chart attached]

Fairfax County Supervisor District Providence and Hunter Mill

APPLICANT(S)

Name (Company or Agency) NewPath Networks, LLC

Agent Name Mike Bortz

(Note: Failure to notify County of a change in agent may result in application processing delays)

Agent's Mailing Address 7380 Coca Cola Dr, Ste 106

City/Town Hanover State MD Zip Code 21076

Telephone Number (410) 712-7092 x1004 Fax (410) 712-4056

E-mail mbortz@nbcllc.com

Secondary Contact Sean Hughes

Telephone Number (703) 906-0184 E-mail shughes@nbcllc.com

BRIEF DESCRIPTION OF PROPOSED USE

Replace (3) existing utility poles. (6) antennas will be collocated on each pole for use in a distributed antenna system. (1) new cabinet will also be installed on to each pole along with a required Dominion electrical meter. Please note that all antennas will be screened by a cylindrical sheath that will be painted to match the pole.

Total Area of Subject Parcel(s) _____

Zoning District RE

Applicant's previous Zoning Approvals for all uses on site (proffered conditions, special permits, special exceptions, variances, development plans)

N/A



PROPERTY OWNER(S) OF RECORD

Owner Virginia Department of Transportation

Street Address 1401 E Broad Street

City/Town Richmond State VA Zip Code 23219

Has property owner been contacted about this proposed use? YES NO

SIGNATURE

The undersigned acknowledges that additional Fairfax County land use review requirements may be identified during the review of this 2232 Review application and the fulfillment of such requirements is the responsibility of the applicant. The undersigned also acknowledges that all Fairfax County Zoning Ordinance requirements pertaining to this project shall be fulfilled.

In the event a new agent is assigned responsibility for this application, the applicant agrees to provide a letter to the Department of Planning and Zoning authorizing the transfer of responsibility for the application and providing all new contact information. In the event the applicant fails to notify County staff of a change in agent, the application may be subject to processing delays.

Signature of Applicant or Agent *Mr. Baker*

Date 10.23.13

Submit completed application to:

**Chris Caperton, Chief, Facilities Planning Branch
Fairfax County Department of Planning and Zoning
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035-5507
(703) 324-1380**

PART II: STATEMENT OF JUSTIFICATION



NETWORK BUILDING
& CONSULTING, LLC

Over 25 years experience

October 22, 2013

Department of Planning and Zoning
Planning Division
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035-5505

RE: Request for determination under Virginia Code sec. 15.2-2232
Nodes HM-8, HM-9, and HM-10
Submitted by NewPath Networks, LLC
Hunter Mill DAS Expansion

To Whom It May Concern:

NewPath Networks, LLC, a Crown Castle company ("Crown Castle") and AT&T Mobility ("AT&T"), alongside T-Mobile Northeast LLC ("T-Mobile") on all three Nodes and Verizon Wireless ("Verizon Wireless") on Nodes HM-9 & HM-10, respectfully request that the Fairfax County Planning Commission make a determination pursuant to sec. 15.2-2232 of the Code of Virginia that Crown Castle's proposed nodes HM-8, HM-9, and HM-10 are substantially in accord with the Fairfax County Comprehensive Land Use Plan. This is part of the third phase of this DAS system.

APPLICANT:

NewPath Networks, LLC
2000 Corporate Drive
Canonsburg, PA 15317

AT&T Mobility
7491 Greenbelt Road
Greenbelt, MD 20770
Nodes HM-8, HM-9, HM-10

T-Mobile Northeast LLC
11033 Baltimore Ave
Beltsville, MD 20705
Nodes HM-8, HM-9, HM-10

Verizon Wireless
9000 Junction Drive
Annapolis Junction, MD 20701

7380 COCA COLA DR., SUITE 106, HANOVER, MD 21076

P 410.712.7092 • F 410.712.4056 • WWW.NETWORKBUILDING.COM



**NETWORK BUILDING
& CONSULTING, LLC**

Over 25 years experience

Node HM-9 & HM-10

SITE LOCATION:

Addresses: Varies (See Node Chart)
Zoning District: Varies (See Node Chart)
Use: VDOT Right-of-Ways
Supervisor District: Hunter Mill / *Prudence*

DESCRIPTION OF PROPOSED USE:

Crown Castle is a carrier-neutral provider of radio frequency (RF) transport for small cell solutions, including wireless distributed antenna systems (DAS). Instead of using one tall antenna support structure, such as a tower, to provide wireless coverage to a several-mile radius, a DAS uses numerous existing structures, typically utility poles, to provide service within a targeted area. Crown Castle designs its systems so that multiple providers can share the same facilities. The DAS also includes pole-mounted equipment cabinets, aerial or underground fiber optic cable, and a "hub" radio equipment cabinet.

For these nodes, Crown Castle will be leasing utility and light poles owned by Dominion Virginia Electric Power Company ("Dominion") and Verizon Communications-Virginia ("Verizon"). Fiber optic cable will be strung from the poles and connected to the proposed hub for Verizon Wireless located within an existing tower compound located at 1977 Hunter Mill Road, and for AT&T and T-Mobile at an existing hub site at 2915 Hunter Mill Rd. The fiber optic cable will be strung alongside the other cable lines running from pole to pole.

Replacement poles are needed for several reasons: 1) VDOT requires 10 feet of clearance from roads and driveways; 2) Dominion and Verizon require a clearance of 4-10 feet between the top of the pole and the antennas to comply with the National Safety Electrical Code ("NESC") standards to protect workers; 3) NESC requires minimum vertical clearance between the conducting service cables on the poles, and 4) the radio-frequency requirements of wireless service provider (WSP) tenants on the system.

In order to accommodate these requirements, each new pole will be taller than the existing pole. The pole is not custom-made for each replacement; they are available in five-foot increment lengths. Most of the replacement poles will be between 5 to 15 feet taller than the existing poles. These heights are dictated by Dominion and WSP requirements. Dominion is not subject to local zoning and may replace poles at any time for utility needs. Crown Castle has been working with Dominion to lower electrical clearance and reduce pole height and has recently been successful to this end and thus the reason why these replacement poles are slightly shorter than in the past.

The diameter of the replacement poles will be, at most, several inches more than the diameter of the existing poles.



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& CONSULTING, LLC**

Over 25 years experience

Six panel antennas will be mounted on top of the replacement pole, inside of a cylindrical sheath which will be painted to match. Each antenna measures 23.2" x 12.0" x 7.1" and will be stacked vertically in pairs, as shown on the zoning drawings. The cylindrical sheath adds an additional six feet of height to each replacement pole. An equipment box measuring 92.0" x 23.88" x 35.52" will be installed on each pole. The cabinet is designed to be shared by multiple carriers.

The facility will operate automatically and will not require personnel or hours of attendance. It will operate twenty-four (24) hours a day, three hundred and sixty-five days a year. Maintenance personnel will visit the site periodically and occasionally for repairs or modifications to the facility.

REQUIREMENT FOR PROPOSED USE:

Telecommunications carriers must locate antenna sites according to a network design within relatively limited geographic parameters in order to provide uninterrupted coverage. When carriers cannot locate a site within these geographic parameters, network users will pass through an area where the lost signal results in interrupted or "dropped" calls. In addition, an incomplete system is not consistent with each carrier's legal requirements to provide continuous coverage and to provide coverage to a percentage of the population within specific time parameters as required by its FCC license.

The coverage areas for the three (3) nodes are shown on the propagation maps included. The primary objective for the entire Hunter Mill system is to provide coverage on Hunter Mill Road and Lawyers Road, along with the surrounding residential communities.

There were no structures tall enough on which to locate antennas. Each carrier considered building a new structure on which to mount antennas in the Hunter Mill area, but due to the residential and historic nature of the area, could not find an acceptable location.

A DAS is the ideal way to meet wireless coverage objectives in the Hunter Mill area, while still protecting its scenic character.

ANTICIPATED IMPACTS ON ADJOINING PROPERTIES

The proposed facility will have no material impact as to traffic, light, pollution, air quality, water quality, or radiation on the adjoining properties. As stated previously, this proposal will replace existing utility distribution poles so that there will be minimal visual impact on surrounding properties. As well as avoiding the erection of additional new vertical structures. The DAS will have the positive impact of enabling residents, visitors and businesses within the reach of the signal to be served by wireless telecommunication.



RELATIONSHIP OF THE PROPOSAL TO THE COMPREHENSIVE PLAN

The proposed facility is consistent with and furthers the transcendent goals of the Fairfax County Comprehensive Land Use Plan ("Plan") as well as the applicable objectives. DAS is recommended in the Policy Plan of the Fairfax County Comprehensive Plan (Public Facilities/Mobile & Land-based Telecommunication Services) as the most appropriate solution for wireless communications in residential and other visually-sensitive areas.

The location, character and extent of the application should be found to be in substantial accord with the Comprehensive Plan. In terms of location, the nodes are within the public right-of-way. In terms of character, the system makes use of the existing infrastructure of poles. In terms of extent, the installations are designed to be as minimally intrusive as possible due to a stealth design. While the pole height will be increased minimally, no additional vertical elements will be added to the landscape. The proposed facility poses no encroachment on any existing easements or services, and the antenna mounting heights are the minimum needed to serve the facility's goals for the applicant. No equipment will be placed on the ground.

The instant application is also consistent with the objectives found under the Policy Plan of the Comprehensive Plan concerning "Mobile and Land-Based Telecommunication Services."

Under the "General Guidelines" section, it states:

Objective 42): In order to provide for the multiple and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the collocation of related facilities and the reduction of their visual impact, locate the network's necessary support facilities which include antennas, monopoles, lattice towers and equipment building in accordance with the following policies:

Policy a. Avoid construction of new structures by locating mobile and land-based telecommunication facilities on available existing structures such as building rooftops, telecommunication and broadcast poles and towers, electrical utility poles and towers, and water storage facilities when the telecommunications facilities can be placed inconspicuously to blend with such existing structure.

By utilizing the existing infrastructure of network utility distribution poles, applicants further this objective of the Comprehensive Plan. The Comprehensive Plan did not anticipate that utility companies require the vertical separation required by VDOT and utility companies to meet the NESC requirements. So while poles will need to be replaced, the system utilizes an existing network

Policy b. When existing structures are not available for co-location, or co-location is not appropriate because adverse visual impacts or service needs, locate new



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structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.

The proposed utility poles that were chosen for co-location offer the least visual impact to the surrounding residential community, and were based upon which poles Verizon and Dominion had available.

Policy c. *When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.*

Crown Castle, AT&T, and other carriers have proposed the utilization of existing utility poles for the proposed DAS installation in an attempt to minimize visual impacts on the surrounding community.

Policy g. *Co-locate mobile and land-based telecommunications facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a collocation structure for multiple service providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.*

With a distributed antenna system (DAS), multiple carriers can utilize one structure with minimal visual impact on the community. Only one antenna node per utility pole will be installed. This antenna can be used for multiple carriers.

Policy h. *Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based on its service area requirements while still mitigating the visual impact of the facility.*

A distributed antenna system (DAS) is a shared-infrastructure or neutral host model for expanding a wireless network footprint by adding coverage and capacity in hard to reach areas, resulting in increased quality. Multiple carriers can use the same antenna nodes to limit the visual aesthetic impact of multiple antennas on a new monopole or tower.



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Policy i. When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requirements for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.

Crown Castle, AT&T, and other carriers would submit that the design chosen for this particular installation effectively minimizes the impact on the surrounding residential area. Namely antennas mounted inside a stealth sheath painted to match, and equipment cabinets placed directly on the replacement utility distribution poles in question. This is demonstrated through the photo simulations.

Policy j. Design, site and/or landscape mobile and land-based telecommunication facilities to minimize impacts on the character of the property and surrounding area. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding area.

Crown Castle, AT&T, and other carriers would submit that the design chosen for this particular installation, namely stealth sheath mounted antennas, and equipment cabinets placed directly on the replacement utility distribution poles in question, effectively minimizes the impact on the surrounding residential area. This is demonstrated in the zoning drawings. Because of extensive vegetation in the area, the extra minimal height of the replacement poles will not have a significant visual impact. Given ever-increasing utility demands of the area, utility poles would otherwise be replaced over time with taller, stronger poles to accommodate more utility installations and current safety codes.

Policy k. Demonstrate that the selected site for a new telecommunications facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.

By replacing existing utility poles, the applicants are avoiding the need for a new tower or monopole effectively mitigating any negative visual impact on communities in the Hunter Mill district.

Policy m. *Locate telecommunication facilities to ensure the protection of historically significant landscapes. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.*

Due to the minimal height of the replacement poles, there will be no significant effect on historically significant landscapes. These landscapes are protected by avoiding the installation of another new, tall tower.

Policy n. *Site proposed facilities to avoid areas of environmental sensitivity.*

(See description of compliance with Policy m.)

Objective 43: *Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area:*

Policy a. *Disguise or camouflage the appearance of the proposed telecommunication facilities to resemble other man-made structures and natural features (such as flagpoles, bell towers, and trees) that are typically found in a similar context and belong to the setting where placed.*

Crown Castle, AT&T, and other carriers are currently proposing the use of existing utility poles to co-locate their antenna nodes. All antennas will be mounted inside of a stealth sheath, which will be painted to match the pole.

Policy b. *Design proposed telecommunication facilities that are disguised and camouflaged to be a bulk, mass and height typical of and similar to the feature selected.*

Crown Castle, AT&T, and other carriers plan on taking advantage of existing utility poles. The design chosen for this particular installation, namely a cap mounted antenna and equipment cabinets placed directly on the replacement utility distribution poles in question, effectively minimizes the impact on the surrounding residential area.



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Policy c. Use other new and existing structures and vegetation of comparable form and style to establish a grouping that complements a camouflaged telecommunication facility and supports its design, location and appearance.

Crown Castle, AT&T, and other carriers will submit that the design chosen adequately satisfies this requirement.

ALTERNATIVE SITES CONSIDERED FOR THIS PROPOSAL

All three carriers, AT&T, T-Mobile, and Verizon Wireless, have existing tower and rooftop locations in the surrounding area (detailed in the included maps), and there are no other existing structures tall enough on which to locate antennas to accomplish the coverage objective. Each carrier considered building a new structure on which to mount antennas in the Hunter Mill area, but due to the residential and historic nature of the area, could not find an acceptable location.

The applicants, Crown Castle and AT&T, alongside T-Mobile and Verizon Wireless, respectfully submit to the Planning Commission that the proposed facility is consistent with the Comprehensive Plan as to character, location and extent.

Please contact me at 410-712-7092 ext1004 (mbortz@nbcllc.com) if you have any questions with reference to this submission.

Sincerely,

Michael Bortz
Project Manager
Network Building & Consulting, LLC
Consultant for Crown Castle



PART IV: TELECOMMUNICATION USES
(Do not submit for non-telecommunications public facility uses)

A. TYPE OF PROPOSED FACILITY Check the appropriate box(es) and provide the required information

	Yes	No
New monopole* or tower	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Collocation on existing monopole or tower	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Collocation on building facade or rooftop	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Collocation on replacement light pole or utility pole	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Located in utility or transportation easement and/or right-of-way	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Modification to approved telecommunications facility	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Collocation on other structure _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Including treepoles, flagpoles and other freestanding stealth structures.*

B. CALCULATION OF FACILITY MODIFICATIONS for modifications to an approved telecommunications facility, provide the following:

1. Application number(s) (456-, 2232-, FS-, FSA-) for all applicant's prior telecommunications uses on site:

N/A

2. Calculate the surface area, in square inches (height x width **or** height x diameter), of the applicant's antennas organized in the following categories:

- a. approved N/A
- b. existing N/A
- c. proposed [6 per/18 total] 23.2" x 12.0"

3. Calculate the volume (height x width x depth) of the applicant's equipment cabinets (in cubic inches) and/or shelter (in cubic feet) organized in the following categories:

- a. approved N/A
- b. existing N/A
- c. proposed [1 per/3 total] 92.0" x 35.52" x 23.88"



C. ANTENNA(S) Provide a separate page for each provider listed as part of the application

Provider Amphenol

Model # or name	Type Panel, Dish, Omni	Quantity	Height	Width	Diameter	Location height on the structure
HTXCWW63111414Fx00	Panel	[6 per/18 total]	22.3"	12.0"		38' - 52'6"

Existing structure color: Brown Antenna color: Grey

Is antenna painted to match existing structure? Yes No

If No, please explain: Antennas will be screened by a cylindrical sheath, painted to match

Will the antennas be screened? Yes No If Yes, describe the screening to be provided:

Antennas will be screened by a cylindrical sheath, painted to match

Will the antennas be flush-mounted to the structure on which they are located? Yes No

If No, please explain: _____

Additional information:

D. EQUIPMENT

Model # or name	Type cabinet or shelter	Quantity	Height	Width	Depth	Location
Pole Mount Cabinet (Vertical)	Cabinet	[1 per/3 total]	92.0"	35.52"	23.88"	Flushmounted to pole

How will the equipment cabinet or shelter be screened? Painted to match

Screen material: _____ Screen color: Brown

Additional information:

All cabinets will be mounted at a minimum of 10' above grade.



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NODE CHART

Hunter Mill Node HM-8

Closest Address: *9940 Fair Oaks Rd*

Tax Map: *0383-07-0028*

Latitude: 38° 53' 37"

Longitude: -77° 17' 28"

Existing Pole: 29'-6"

Proposed Pole: 38'-6"

Top of Cylindrical Sheath: 45'-0"

Hunter Mill Node HM-9

Closest Address: *9905 Vale Rd*

Tax Map: *0383-26-0076*

Latitude: 38° 53' 57"

Longitude: -77° 17' 19"

Existing Pole: 38'-6"

Replacement Pole: 43'-0"

Top of Cylindrical Sheath: 49'-6"

Hunter Mill Node HM-10

Closest Address: *2421 Carey Ln*

Tax Map: *0383-06-0001*

Latitude: 38° 53' 55"

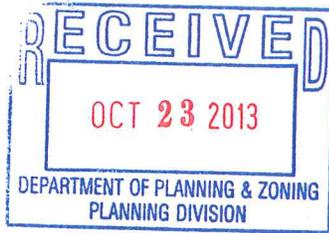
Longitude: -77° 17' 00"

Existing Pole: 34'-0"

Proposed Pole: 43'-0"

Top of Cylindrical Sheath: 49'-6"

Dominion Virginia Power
3072 Centreville Rd.
Herndon, VA 20171
Web Address: www.dom.com



Aug 1, 2013

Marco A. Morales
Site Development Manager
DAS Development and Implementation
Crown Castle
1200 MacArthur Blvd, Suite 200
Mahwah, New Jersey 07430

RE: New Permit Request
Location: near Vienna, VA
Nodes: HM 9&10, HME 2,4,&6 and HMV 5
NJUNS Ticket # 82701

Mr. Morales:

Per your request, Dominion VA Power has reviewed the following locations as suitable sites for potential pole top antenna applications with regard to electric facilities:

1. HM-09, Pole C0519-BC45; Nearest address: 9907 Vale Rd, Vienna, VA 22181
2. HM-10, Pole C0519-EC42; Nearest address: 2421 Carey Ln, Vienna, VA 22181
3. HME-2, Pole C0519-AM73; Nearest address: 9953 Lawyers Rd, Vienna, VA 22181
4. HME-4, Pole C0519-GH89; Nearest address: 9633 Lawyers Rd, Vienna, VA 22181
5. HMV-5, Pole C0418-QN65; Nearest address: 2708 Hunter Mill Rd, Vienna, VA 22181
6. HMV-6, Pole C0418-QN46; Nearest address: 2250 Hunter Mill Rd, Vienna, VA 22181

Pending county approval documentation, contract agreement ratification, final design, and all payments received, DVP will obtain all necessary VDOT work permits and schedule the required pre-construction work needed to facilitate installation of new pole top antenna equipment at the sites referenced above. All NEC and NESC code requirements must be maintained by Crown Castle construction during antenna installation. Proper identification tags displaying 272 are mandatory.

If you have any questions, please contact me via email at Jarred.T.Lampe@dom.com or I may be reached by phone at (571) 203-5332.

Jarred Lampē
Joint Use Northern Region
Dominion Virginia Power
3072 Centreville Road
Herndon, VA 20171



Verizon, Virginia
3011 Hungary Spring Road
2nd Floor
Richmond, Virginia 23228
Phone (804) 772-6625
Fax (804) 772-6612

Contracts/Agreements

8 October 2013

Mr. Marco Morales
Site Development Manager
Crown Castle
1200 MacArthur Blvd, Suite 200
Mahwah, NJ 07430

RE: Authorization to attach to Verizon pole in Fairfax County upon completion of Authorized Make Ready.

Dear Mr. Morales,

Crown Castle has entered into a pole attachment license agreement with Verizon in Virginia where, upon approval from Verizon and completion of any make ready work required, Crown Castle may attach equipment, including cables and antenna equipment, to Verizon's poles.

Specifically, Crown Castle currently has requested approval to attach to a Verizon pole along Fairoaks Rd off of Oak Valley Dr. with an antenna. This pole is listed below:

VZ Pole Number	Address	Existing pole size and class	Proposed pole size and class
23	9940 Fairoaks Rd, Oakton	30-5	50-2

Upon completion of the Verizon make ready work to provide space for this Crown Castle antenna attachment, Verizon will issue a license to Crown Castle to attach.

Mr. Marco Morales
8 October 2013

This license does not grant to Crown Castle any Easement or Right of Way and authorization from the local municipality or property owner must also be obtained by Crown Castle in addition to the license from Verizon.

Respectfully,

A handwritten signature in black ink, appearing to read "Mike Tysinger". The signature is written in a cursive style with a large initial "M".

Mike Tysinger
Section Manager



RECEIVED
OCT 23 2013
DEPARTMENT OF PLANNING & ZONING
PLANNING DIVISION



Photograph Information:
Node Hunter Mill-8
View from the South
Showing the Existing Site

Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia





Proposed Antenna

Proposed Cabinet

5 ft

Photograph Information:
Node Hunter Mill-8
View from the South
Showing the Proposed Site

Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia





Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

Photograph Information:
Node Hunter Mill-8
View from the Southeast
Showing the Existing Site

NBS-C
TOTALLY COMMITTED



Proposed Antenna

Proposed Antenna

Photograph Information:
Node Hunter Mill-8
View from the Southeast
Showing the Proposed Site

Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

NBIU
TOTALLY COMMITTED



5 ft

Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

Photograph Information:
Node Hunter Mill-9
View from the Northwest
Showing the Existing Site

NBC
TOTALLY COMMITTED.

Proposed
Antenna

Proposed
Cabinet is
Not Visible
Due to Existing Trees

5 ft

Photograph Information:
Node Hunter Mill-9
View from the Northwest
Showing the Proposed Site

Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

NBAC
TOTALLY COMMITTED.





Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

Photograph Information:
Node Hunter Mill-9
View from the Southeast
Showing the Existing Site

NBC
TOTALLY COMMITTED.

5 ft



Proposed Antenna

Proposed Cabinets Not Visible Due to Existing Trees

5 ft

Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

Photograph Information:
Node Hunter Mill-9
View from the Southeast
Showing the Proposed Site

NBC
TOTALLY COMMITTED.



Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

Photograph Information:
Node Hunter Mill-10
View from the Northeast
Showing the Existing Site

NBIU
TOTALLY COMMITTED.

5 ft



Proposed Antenna

Proposed Cabinet

5 ft

Photograph Information:
Node Hunter Mill-10
View from the Northeast
Showing the Proposed Site

Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

NABICTM
TOTALLY COMMITTED.



Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

Photograph Information:
Node Hunter Mill-10
View from the Southwest
Showing the Existing Site





Proposed Antenna

Proposed Cabinet

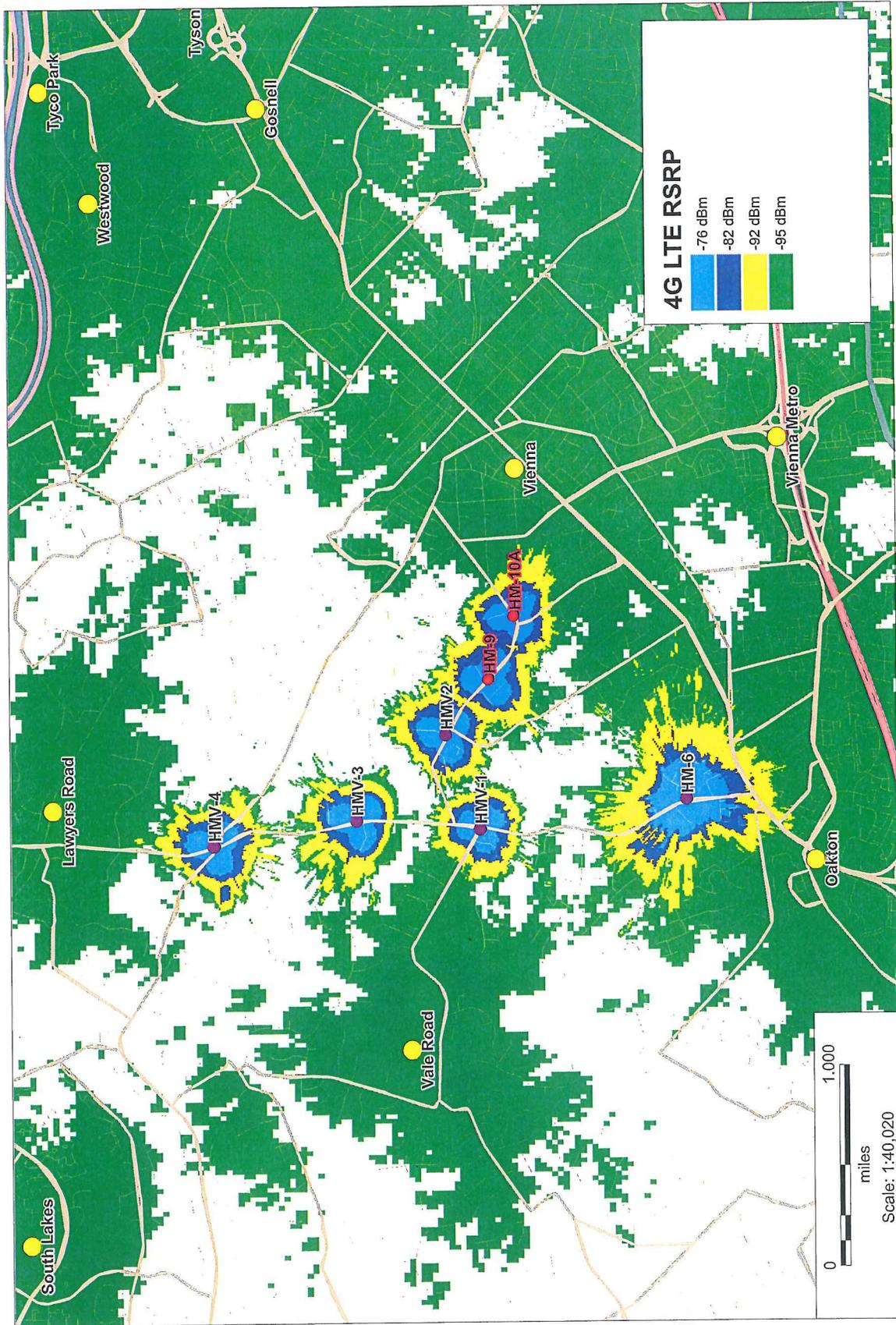
5 ft



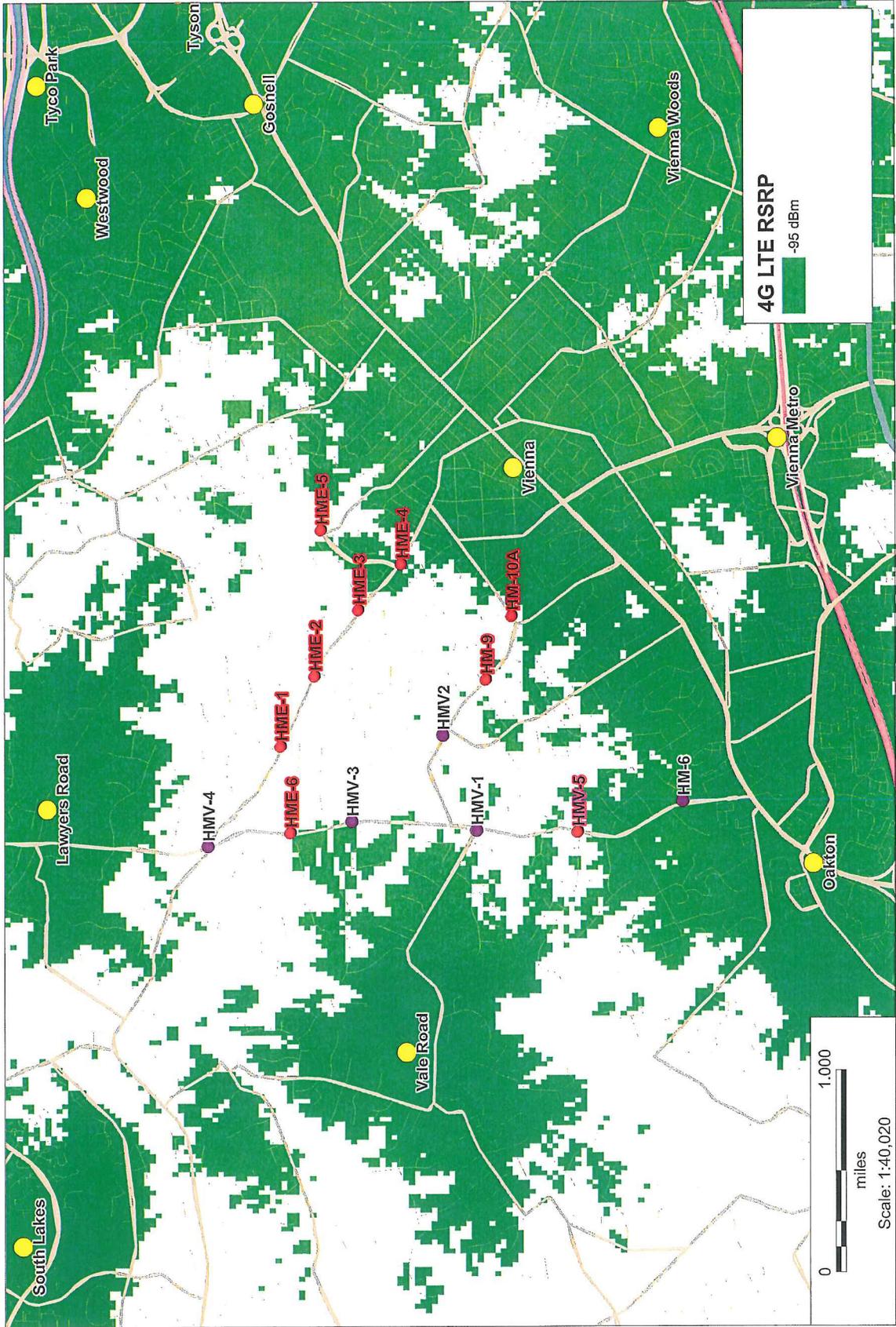
Photograph Information:
Node Hunter Mill-10
View from the Southwest
Showing the Proposed Site

Site Name: Hunter Mill
Distributed Antenna System
Fairfax, Virginia

VZW 4G LTE existing coverage,
and proposed coverage on Permitted Hunter Mill (Clarks Crossing) DAS Nodes
and on new nodes HM-9 & HM-10



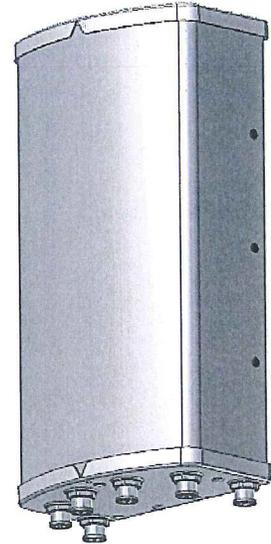
VZW - 4G LTE Existing Coverage



HTXCWW63111414Fxy0

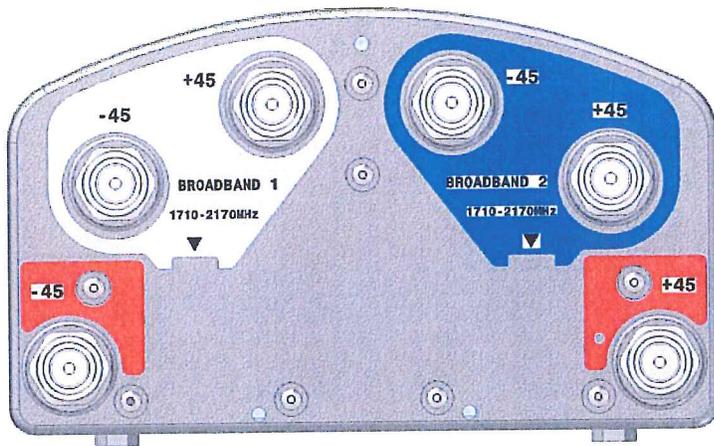
Replace "x" and "y" with desired electrical downtilts.

XXX-Pol | Tri Band FET Panel | 65° | 11.0 / 14.0 / 14.0 dBi



Electrical Characteristics	696-960 MHz		2 x 1710-2170 MHz		
	696-806	806-960	1710-1880	1850-1990	1900-2170
Frequency bands (MHz)	696-806	806-960	1710-1880	1850-1990	1900-2170
Polarization	±45°		±45°		
Horizontal beamwidth	75°	70°	65°	70°	75°
Vertical beamwidth	42°	40°	18°	16°	14°
Gain	10.5 dBi	11.0 dBi	13.5 dBi	14.0 dBi	14.0 dBi
Electrical downtilt (Other tilts available upon request)	(x) 0		(y) 0		
Impedance	50Ω		50Ω		
VSWR	≤1.5:1		≤1.5:1		
Front-to-back ratio	> 20 dB	> 20 dB	> 25 dB	> 25 dB	> 25 dB
Isolation between ports	> 25 dB		> 25 dB		
Input power	500 W		300 W		
IM3 (2x20W carriers)	< -150 dBc		< -150 dBc		
Lightning protection	Direct Ground				
Connector(s)	6 Ports / 7/16 DIN / Female / Bottom				
Mechanical Characteristics					
Dimensions Length x Width x Depth	589 x 305 x 180 mm			23.2 x 12.0 x 7.1 in	
Weight without mounting brackets	5.9 kg			13 lbs	
Survival wind speed	241 km/hr			150 mph	
Wind area	Front: 0.18 m²; Side: 0.11 m²		Front: 1.9 ft²; Side: 1.1 ft²		
Wind loads (160 km/hr or 100 mph)	Front: 219 N; Side: 129 N		Front: 49 lbf; Side: 29 lbf		
Mounting Options	Part Number	Fits Pipe Diameter		Weight	
2-Point Mounting Bracket Kit	MKS04P01	40-115 mm	1.57-4.5 in	2.9 kg	6.4 lbs
2-Point Mounting & Downtilt Bracket Kit	MKS04T03	40-115 mm	1.57-4.5 in	4.1 kg	9.0 lbs

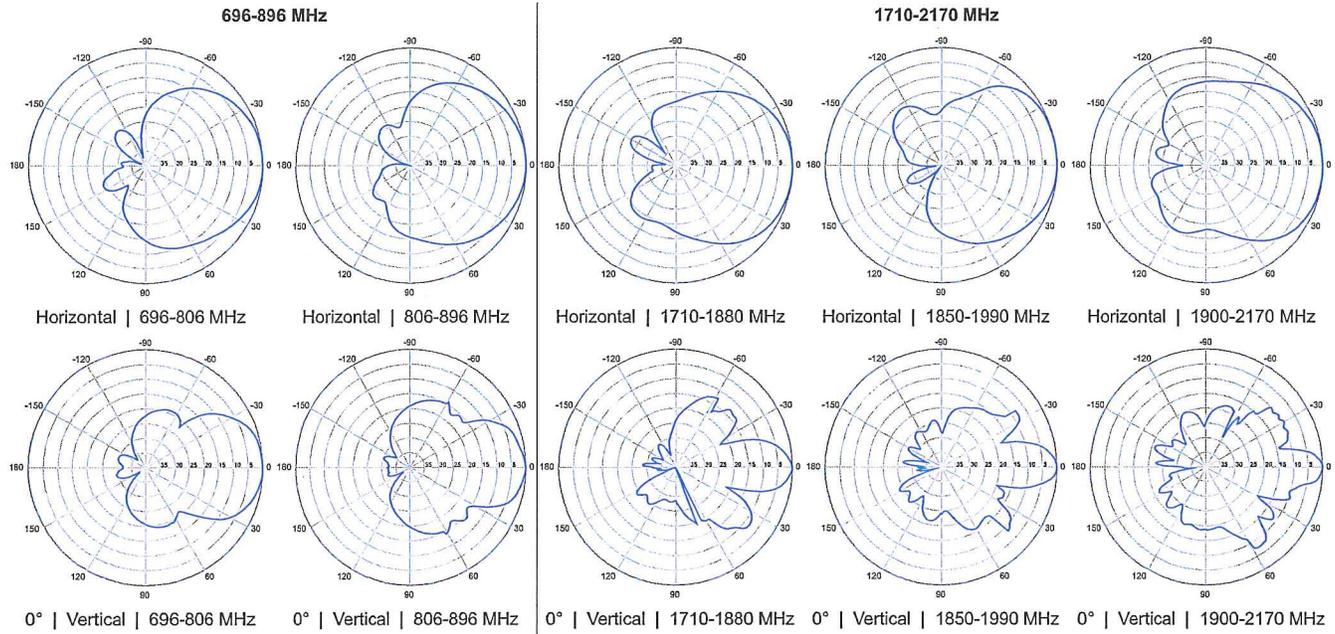
Bottom View



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.

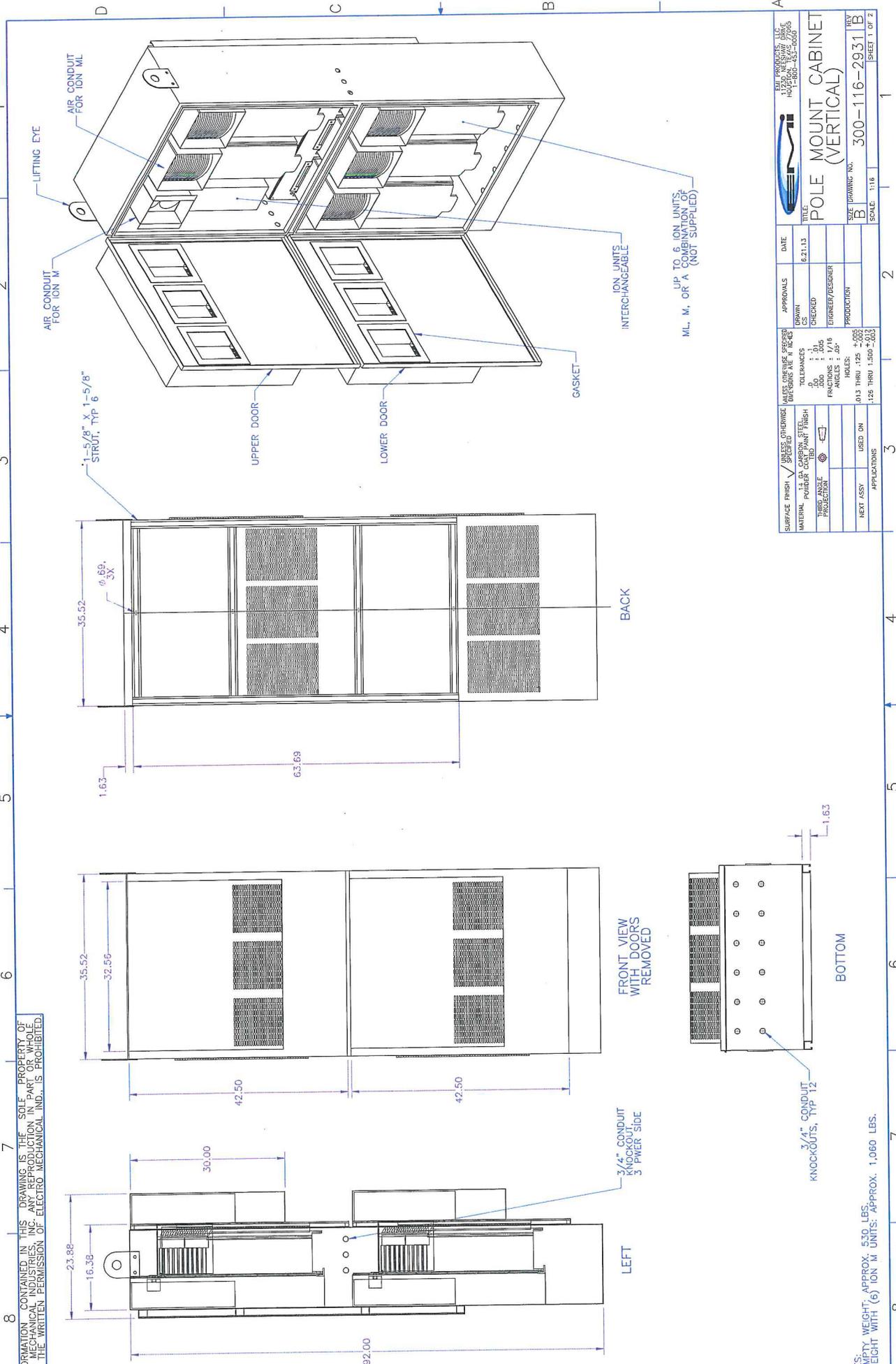
HTXCWW63111414F_{xy}0

XXX-Pol | Tri Band FET Panel | 65° | 11.0 / 14.0 / 14.0 dBi



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.

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		EMT PRODUCTS, LLC 11200 N. 29th Way, Drive Houston, TX 77060-2627-2628	
TITLE: POLE MOUNT CABINET (VERTICAL)		DATE: 6.21.13	
APPROVALS: DRAWN: CS CHECKED: CS ENGINEER/DESIGNER:		PRODUCTION:	
TOLERANCES: FRACTIONS: 1/16 ANGLES: 20°		Holes: .013 THRU .125 - .002 .125 THRU 1.500 - .003	
SURFACE FINISH: UNLESS OTHERWISE SPECIFIED, SPECIFIC ARE IN INCHES MATERIAL: POLYESTER COATED PAINT FINISH TYP:		SCALE: 1:16	
THIRD ANGLE PROJECTION		SIZE: DRAWING NO.: 300-116-2931 B SHEET 1 OF 2	
NEXT ASSY USED ON:			
APPLICATIONS:			

NOTES:
 1. WEIGHT: APPROX. 530 LBS.
 2. WEIGHT WITH (6) ION M. UNITS: APPROX. 1,060 LBS.

ATTACHMENT B
Zoning Analysis

Lambert, Richard

From: Hushour, Andrew
Sent: Friday, December 06, 2013 4:02 PM
To: Lambert, Richard
Subject: 2232-H13-16; NewPath Networks, LLC/Crown Castle; Vale Road, Carey Lane and Fair Oaks Road

2232-H13-16

NewPath Networks, LLC/Crown Castle – Replacement Standards in R.O.W.

Vale Road, Carey Lane, & Fair Oaks Road

Tax Map Ref.: 38-3

Zoning District: VDOT Rights-of-Way

Comments: The proposal meets the requirements of Par. 2 of Sect. 2-514 of the Zoning Ordinance. However, please note that the diameter of any replacement standard cannot exceed 42 inches, and the increase in height of the new standards cannot exceed 15 feet.

Prepared by Andrew Hushour 12/6/2013

ATTACHMENT C
Fairfax County Department of Transportation Analysis



County of Fairfax, Virginia

MEMORANDUM

DATE: December 4, 2013

TO: Chris Caperton, Chief
Facilities Planning Branch, DPZ

FROM: Leonard Wolfenstein, Chief
Transportation Planning Section
Department of Transportation *L.W.*

FILE: 10-5

SUBJECT: Application for 15.2-2232 determination -2232-H13-16 for the replacement of 3 existing utility poles near 9905 Vale Road, 2321 Carey Lane, and 9940 Fair Oaks Road, Vienna, VA.

The Fairfax County Department of Transportation (FCDOT) has reviewed the above 2232 application and has the following comments:

- There are no road improvements on the Fairfax County Transportation Plan Map that will be impacted by the replaced utility poles.
- There are no trail improvements on the Fairfax County Countywide Trails Plan that will be impacted by the replaced utility poles.
- No Fairfax Connector or Metrobus routes will be affected by the replaced utility poles; therefore, there should be no effect on existing transit service.

There appears to be no other significant traffic impacts resulting from the proposed use for the site. If you have any questions please feel free to contact Kristin Calkins (tel. 703-877-5710) Kristin.Calkins@fairfaxcounty.gov.

Cc: Richard Lambert, DPZ
Angela Rodeheaver, FCDOT
Karyn Moreland, FCDOT
Charlie Strunk, FCDOT
Kris Morley-Nikfar, FCDOT
Randy White, FCDOT
Chris Wells, FCDOT

ATTACHMENT D
Forest Conservations Branch Analysis



County of Fairfax, Virginia

MEMORANDUM

DATE: November 26, 2013

TO: Richard Lambert, Planner
Planning Division, DPZ

FROM: Hugh Whitehead, Urban Forester II *HW*
Forest Conservation Branch, DPWES

SUBJECT: New Path Networks, LLC, 2232-H13-16

SUBJECT: Forest Conservation Branch staff comments

I have reviewed the above referenced 2232 application for installation of utility poles, antennas, and equipment cabinets for use in a distribution antenna system (DAS). Review of the locations by photographs provided and site visits conduct on November 19, 2013, where conflicts seemed possible determined that there are no significant tree conflicts regarding the proposed antennae installations.

Please make the attached detail for proper branch removal available to the Applicant for use to guide pruning operations should it be decided that removal of any branches is necessary to complete the installations.

If there are any questions or further assistance is desired, please contact me at (703)324-1770.

HCW/
UFMDID #: 186540

Attachment (as stated)

cc: DPZ File

Department of Public Works and Environmental Services
Urban Forest Management Division
12055 Government Center Parkway, Suite 518
Fairfax, Virginia 22035-5503
Phone 703-324-1770, TTY: 703-324-1877, Fax: 703-803-7769
www.fairfaxcounty.gov/dpwes



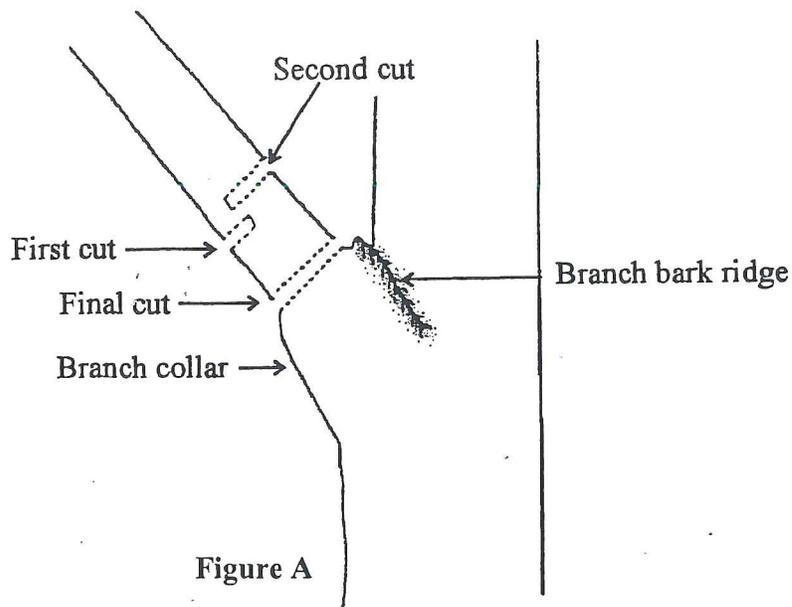


Figure A

Removing a large lateral branch requires two preliminary cuts before the final cut

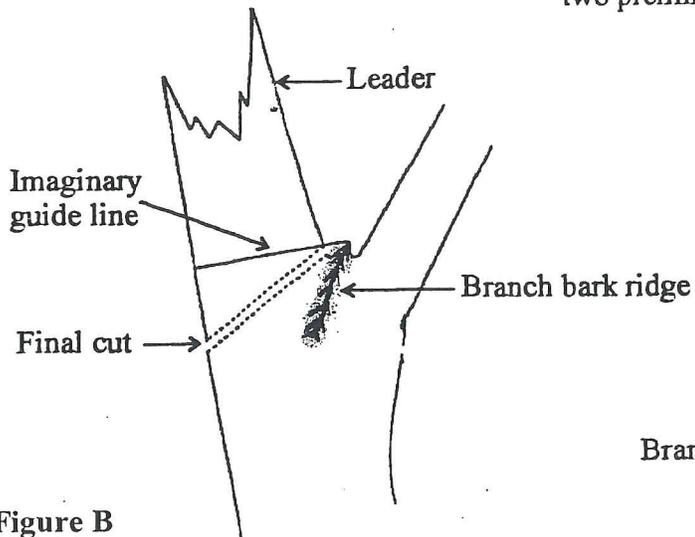
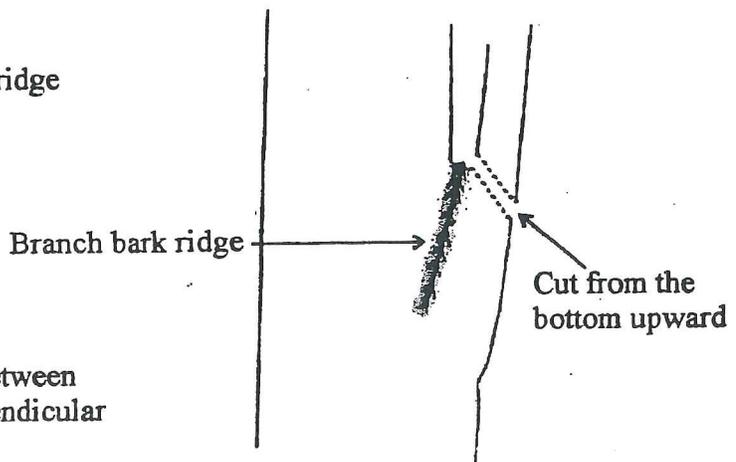


Figure B

When cutting back to a lateral, bisect the angle between the branch bark ridge and an imaginary line perpendicular to the leader or branch being removed



When removing a branch with a narrow branch attachment, cut from the bottom upward

Adapted from: *Tree, Shrub and Other Woody Plant Maintenance - Standard Practices - American National Standard for Tree Care Operations*, American National Standards Institute

PRUNING CUTS

ATTACHMENT

ATTACHMENT E
Legal Status of Plan

§ 15.2-2232. Legal status of plan.

A. Whenever a local planning commission recommends a comprehensive plan or part thereof for the locality and such plan has been approved and adopted by the governing body, it shall control the general or approximate location, character and extent of each feature shown on the plan. Thereafter, unless a feature is already shown on the adopted master plan or part thereof or is deemed so under subsection D, no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation facility other than railroad facility, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof. In connection with any such determination, the commission may, and at the direction of the governing body shall, hold a public hearing, after notice as required by § 15.2-2204.

B. The commission shall communicate its findings to the governing body, indicating its approval or disapproval with written reasons therefor. The governing body may overrule the action of the commission by a vote of a majority of its membership. Failure of the commission to act within sixty days of a submission, unless the time is extended by the governing body, shall be deemed approval. The owner or owners or their agents may appeal the decision of the commission to the governing body within ten days after the decision of the commission. The appeal shall be by written petition to the governing body setting forth the reasons for the appeal. The appeal shall be heard and determined within sixty days from its filing. A majority vote of the governing body shall overrule the commission.

C. Widening, narrowing, extension, enlargement, vacation or change of use of streets or public areas shall likewise be submitted for approval, but paving, repair, reconstruction, improvement, drainage or similar work and normal service extensions of public utilities or public service corporations shall not require approval unless involving a change in location or extent of a street or public area.

D. Any public area, facility or use as set forth in subsection A which is identified within, but not the entire subject of, a submission under either § 15.2-2258 for subdivision or provision 8 of § 15.2-2286 for development or both may be deemed a feature already shown on the adopted master plan, and, therefore, excepted from the requirement for submittal to and approval by the commission or the governing body; provided, that the governing body has by ordinance or resolution defined standards governing the construction, establishment or authorization of such public area, facility or use or has approved it through acceptance of a proffer made pursuant to § 15.2-2303.

E. Approval and funding of a public telecommunications facility by the Virginia Public Broadcasting Board pursuant to Article 12 (§ 2.2-2426 et seq.) of Chapter 24 of Title 2.2 shall be deemed to satisfy the requirements of this section and local zoning ordinances with respect to such facility with the exception of television and radio towers and structures not necessary to house electronic apparatus. The exemption provided for in this subsection shall not apply to facilities existing or approved by the Virginia Public Telecommunications Board prior to July 1, 1990. The Virginia Public Broadcasting Board shall notify the governing body of the locality in advance of any meeting where approval of any such facility shall be acted upon.

F. On any application for a telecommunications facility, the commission's decision shall comply with the requirements of the Federal Telecommunications Act of 1996. Failure of the commission to act on any such application for a telecommunications facility under subsection A submitted on or after July 1, 1998, within ninety days of such submission shall be deemed approval of the application by the commission unless the governing body has authorized an extension of time for consideration or the applicant has agreed to an extension of time. The governing body may extend the time required for action by the local commission by no more than sixty additional days. If the commission has not acted on the application by the end of the extension, or by the end of such longer period as may be agreed to by the applicant, the application is deemed approved by the commission.

(Code 1950, §§ 15-909, 15-923, 15-964.10; 1958, c. 389; 1960, c. 567; 1962, c. 407, § 15.1-456; 1964, c. 528; 1966, c. 596; 1968, c. 290; 1975, c. 641; 1976, c. 291; 1978, c. 584; 1982, c. 39; 1987, c. 312; 1989, c. 532; 1990, c. 633; 1997, c. 587, 858; 1998, c. 683.)