



**City of Richmond, Virginia**  
**Department of Planning and Development Review**  
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To: Planning Commission  
From: Urban Design Committee  
Date: October 6, 2014  
RE: **Ord. No. 2014-189** To authorize NewPath Networks, LLC, to encroach upon the public right-of-way with proposed overhead and underground fiber optic cables, guy wires, conduit, hand-holes and short-range cellular transmission nodes encroachment, upon certain terms and conditions.

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**I. APPLICANT**

Rebecca Hunter, Newpath Networks, LLC (Crown Castle)

**II. LOCATION**

Various locations around the City in the public right-of-way.

**Property Owner:**

City of Richmond

**III. PURPOSE**

The application is for review of telecommunications encroachments into the public right-of-way in various locations in the City.

**IV. SUMMARY & RECOMMENDATION**

The applicant, Crown Castle, is a company that owns and operates infrastructure that facilitates wireless communications. They do not provide wireless services to customers; rather, they lease infrastructure capacity to various wireless/cellular carriers, such as Verizon, Sprint, T-Mobile and AT&T. Crown Castle is proposing to permit, construct and operate a neutral host distributed antenna system within the public right-of-way. The current application consists of 19 node locations as indicated on the location map and plans. Fourteen of the 19 proposed nodes will be utilizing existing utility infrastructure. The remaining 5 are being proposed as new Crown Castle poles since there is no existing infrastructure that meets the network requirements.

The Urban Design Committee reviewed the encroachment application at its June 5, 2014 meeting, and was generally supportive of the application, noting that it was consistent with the recommendation of the Urban Design Guidelines that "new telecommunication devices shall be located on existing infrastructure", which is intended to reduce the proliferation of stand-alone telecommunications devices. The Committee strongly recommended that the applicant should also seek to use existing utility poles to limit their proliferation as well. The Committee does not find the proposed antennae to be appreciably more intrusive than the utility poles on which they are to be mounted. The Departments of Public Works and Public Utilities offer no objections to the proposal. Therefore, it is the position of the Urban Design Committee (UDC) that the Planning Commission should recommend approval of the telecommunications encroachments, with the following conditions:

- That wherever possible, the telecommunications equipment utilizes existing poles or replaces existing poles in their place.
- That the proposed new metal poles match the color and material of the other metal poles in the immediate vicinity.
- That the proposed pole on Broad Street (Site #9) match the existing light poles along Broad Street, including providing a pedestrian fixture over the sidewalk.
- That the Broad Street node (Site #9) be attached to one of the existing light poles further to the west of the proposed site so that the rhythm and spacing of the existing lights is not disturbed and to avoid placing the pole in front of a historic asset.
- That the project be reviewed by the Virginia Department of Historic Resources.

**Staff Contact:**

Jeff Eastman, (804) 646-6348

**V. FINDINGS OF FACT**

**a. Site Description and Surrounding Context**

There are a total of 19 sites proposed for the telecommunications encroachments. They can be generally grouped into two areas: the first bound on the west by Chamberlayne Avenue, on the south by the Downtown Expressway, on the east by 30<sup>th</sup> Street and on the north by Brookland Park Boulevard; the second bound on the west by E. German School Road, on the south by Hull Street, on the east by E. Belt Boulevard and on the north by Midlothian Turnpike.

The zoning designations for the sites range from R-2 (Single-family residential) to M-1 (Light Industrial), and the land use of the surrounding areas vary from single-family low-density development to downtown office tower to industrial.

**b. Scope of Review**

This project involves the placement of telecommunications equipment into the City right-of-way. In some locations, existing utility poles will be used, while in other locations new poles will be provided to replace the existing ones. There are also locations that will receive a new utility pole in a new location.

All of the telecommunications equipment will be installed and maintained by the applicant, and as such they fall into the category of encroachments. The encroachment process is administered through the Department of Public Works, which has requested that the Urban Design Committee (UDC) provide design advice on certain types of encroachments. The UDC does not have the authority to approve encroachments, but rather provides aesthetic advice to the Department of Public Works.

This type of encroachment requires approval of an ordinance by City Council. The review process requires consideration of the request by both the Planning Commission and the Urban Design Committee. The Department of Public Works is responsible for drafting the ordinance that permits the use of the right-of-way.

**c. Project Description**

The applicant, Crown Castle, is a company that owns and operates infrastructure that facilitates wireless communications. They do not provide wireless services to customers; rather, they lease infrastructure capacity to various wireless/cellular

carriers, such as Verizon, Sprint, T-Mobile and AT&T who, in turn, provide service to paying wireless customers. Crown Castle's service allows wireless carriers to expand the coverage and/or capacity of wireless services using existing utility and/or streetlight poles. The applicant's report states that traditional wireless technologies have suffered from "dead spots" and bandwidth capacity limitations. Crown Castle's combination of fiber optics and lower antennas helps wireless providers eliminate such coverage gaps and increase bandwidth needed for emerging and future services.

Crown Castle is proposing to permit, construct and operate a neutral host distributed antenna system within the City public rights'-of-way. The current application consists of 19 node locations as indicated on the location map and plans. A node is a specific location on which Crown's telecommunication equipment will be installed. That equipment is comprised of antennas, lines, equipment cabinets that hold the telecommunication radios and other ancillary equipment as noted on each specific node plan. Each node is connected by fiber optic cables back to a centralized HUB equipment location.

The applicant's report states that the wireless antennas associated with Crown Castle's service produce radio frequency radiation at levels well below the FCC's permitted maximums for general-population, uncontrolled exposures. The applicant's report also states that, under both Virginia and federal laws, a Municipality cannot impose regulations on Crown Castle's access to the public rights of way to which it otherwise does not subject the incumbent telephone company, regardless of the wireless component of Crown Castle's network.

Crown Castle will generally seek to collocate its facilities on existing utility or streetlight poles, typically located in the public rights of way. To the extent that it will be using privately-owned utility poles, Crown Castle has entered into (or is in the process of entering into) any necessary pole attachment agreement. Fourteen of the 19 proposed nodes will be utilizing existing utility infrastructure. The remaining 5 are being proposed as new Crown Castle poles since there is no existing infrastructure that meets the network requirements.

Following is specific information on each proposed location:

**Site 1** (Crown Castle ID: RIC001m1)

Intersection of Warwick Road and Barlen Drive

Zoning: R-4

Replacement Dominion wood pole, 55' in height, 38' to nearest residential building

**Site 2** (Crown Castle ID: RIC002)

Intersection of Old Midlothian Turnpike and Rodman Road

Zoning: B-3

Replacement Verizon wood pole, 40' in height, 41'8" to nearest commercial building

**Site 3** (Crown Castle ID: RIC003)

Intersection of Rosemont Road and Stockwood Road

Zoning: R-2

Replacement Dominion wood pole, 40' in height, 81' to nearest residential building

**Site 4** (Crown Castle ID: RIC004)

Intersection of Swanson Road and Ullswater Road

Zoning: R-3

Replacement Dominion wood pole that also contains a cobrahead light fixture, 40' in height, 31'7" to nearest commercial building

**Site 5** (Crown Castle ID: RIC005)

Intersection of Alberene Road and Dixon Drive

Zoning: R-2

Replacement Dominion wood pole, 40' in height, 48'5" to nearest residential building

**Site 6** (Crown Castle ID: RIC006)

Intersection of W. Hill Street and St. James Street

Zoning: R-53

Replacement RRHA wood pole that also contains a cobrahead light fixture, 40' in height, 16'11" to nearest residential building

**Site 7** (Crown Castle ID: RIC007)

Intersection of N. 1<sup>st</sup> Street and E. Jackson Street

Zoning: R-63

Replacement Dominion wood pole, 40' in height, 29'6" to nearest mixed-use building

**Site 8** (Crown Castle ID: RIC008)

Intersection of N. 7<sup>th</sup> Street and Duval Street Connector

Zoning: RO-3

New Crown Castle metal streetlight pole, 25' in height, 37' to nearest institutional building

**Site 9** (Crown Castle ID: RIC009)

Intersection of E. Broad Street and N. 11<sup>th</sup> Street

Zoning: B-4

New Crown Castle metal streetlight pole, 25' in height, 20' to nearest institutional building

**Site 10** (Crown Castle ID: RIC010m1)

Intersection of Oliver Hill Way and Fairfield Way

Zoning: M-1

Replacement Dominion wood pole that also contains a cobrahead light fixture, 45' in height, 23' to nearest industrial building

**Site 11** (Crown Castle ID: RIC011m1)

Intersection of Rady Street and Dill Avenue

Zoning: R-6

New Crown Castle wood pole, 45' in height, 26' to nearest residential building

**Site 12** (Crown Castle ID: RIC017m1)  
Intersection of 2<sup>nd</sup> Avenue and Pulaski Street  
Zoning: R-5  
New Crown Castle wood pole, 45' in height, 28' to nearest residential building

**Site 13** (Crown Castle ID: RIC018)  
Intersection of Mechanicsville Turnpike and Redwood Avenue  
Zoning: R-5  
Replacement Verizon wood pole that also contains a cobrahead light fixture, 45' in height, 40' to nearest residential building

**Site 14** (Crown Castle ID: RIC019m1)  
Intersection of 1<sup>st</sup> Avenue and Alder Street  
Zoning: R-6  
Replacement Verizon wood pole, 45' in height, 21' to nearest residential building

**Site 15** (Crown Castle ID: RIC025)  
Intersection of S. 20<sup>th</sup> Street and E. Main Street  
Zoning: B-5  
Replacement Dominion wood pole that also contains a cobrahead light fixture, 40' in height, 43' to nearest commercial building

**Site 16** (Crown Castle ID: RIC026)  
Intersection of S. 15<sup>th</sup> Street and Lombardy Alley  
Zoning: B-5  
Replacement Dominion wood pole that also contains a cobrahead light fixture, 45' in height, 40' to nearest commercial building

**Site 17** (Crown Castle ID: RIC027m1)  
Intersection of N. 20<sup>th</sup> Street and R Street  
Zoning: R-6  
New Crown Castle wood pole, 45' in height, 22'6" to nearest residential building

**Site 18** (Crown Castle ID: RIC028m1)  
Intersection of N. 25<sup>th</sup> Street and Venable Street  
Zoning: UB-PE3  
Replacement Dominion wood pole that also contains a cobrahead light fixture, 45' in height, 25'6" to nearest institutional building

**Site 19** (Crown Castle ID: RIC029m1)  
Intersection of N. 29<sup>th</sup> Street and N Street  
Zoning: R-6  
Replacement Dominion wood pole that also contains a cobrahead light fixture, 45' in height, 45' to nearest institutional structure

Each pole will need to be connected to an underground power source. A small meter will be attached to the pole, 5' on center from the ground. Each pole will also have an equipment cabinet (62.33" tall x 24" wide x 17.75" deep) mounted to it, the bottom edge of which is 8'6" off the ground. At the top of each pole is the antenna. The setup is designed to accommodate multiple carriers per location.

All costs will be borne by Crown Castle, which proposes to begin construction as soon as all required City permits have been received.

**d. UDC Review History**

This is the first of this type of telecommunications encroachment into the public right-of-way.

**e. Master Plan**

The subject rights-of-way are located in areas within both the Downtown and Citywide Master plans, however, there is no language in either document specific to the proposed encroachments

**f. Urban Design Guidelines**

The Urban Design Guidelines note that “whenever possible, new telecommunication devices shall be located on existing infrastructure” and that “telecommunication devices that are able to be co-located on existing towers are encouraged” (page 16).

**VII. ATTACHMENTS**

- a. Vicinity Map**
- b. Application**
- c. Plans**