

## Small Cell Facility FAQs

Until recently, cell phone service was provided using large antennas mounted on towers located on private property. Those antennas served relatively large areas, or “cells.” With mobile data traffic expected to double annually, providers are installing additional facilities that serve smaller areas. With fewer users within each of the smaller cell coverage areas, providers can deliver higher speeds and greater capacity to each user.

There are several different technologies that can be used to serve these smaller areas: “small cell” or “femtocell” systems, picocell systems and distributed antenna systems (DAS) are examples of systems being installed to provide enhanced services outdoors and indoors. For convenience, we are referring to all these systems as “small cells,” although different types of systems may actually look and function quite differently. For example, DAS systems can and do support multiple wireless providers at a single installation, while true “small cells” typically do not at this point in time.

Requests for small cell antenna installations in the City of Gaithersburg are expected to rise dramatically in the coming years as the need for data increases. The City is working to develop prototypes that meet the requirements of federal legislation while respecting the integrity of our residential neighborhoods and commercial areas.

A presentation was made at the [April 11, 2016, Mayor and City Council Work Session](#) with respect to a proposal by a particular company, Crown Castle, that wishes to install and lease DAS facilities to companies that offer cell service. Crown Castle has not yet filed an application with the City. The presentation generated significant public comment. Below are answers to the most common questions that have been posed. Please see the Contact Information box on this page to direct additional questions or concerns.

### City of Gaithersburg Responses

#### 1. Types of Applicants

- Why is a commercial entity involved in this installation and what is its status as a utility?

*Crown Castle, the potential applicant involved in the discussion thus far, has received a certificate from the Maryland Public Service Commission to provide certain telecommunications services in Maryland. We understand it plans to install the antennas and supporting structures that will be used by cell phone companies to provide personal wireless services.*

- Who are Crown Castle’s client and what are they attempting to do?

*Crown Castle's clients are typically companies that provide services commonly referred to as "cellular services." We are told the overall purpose is to improve provision of data services to smartphones, although Crown Castle may also believe that voice services would be improved in at least some areas.*

## 2. Municipal Review Process

- Has the decision to install these towers already been made?

*No formal application has been filed with the City. The information presented at the April 11, 2016, Mayor and City Council Work Session was intended to facilitate a discussion regarding possible placement and design criteria.*

- How is the City going to verify information provided by the company requesting installation?

*As part of the current discussions, City Staff will review the information presented by an applicant, including reports and statements, and can request further information, seek additional reports or retain outside consultants, if necessary. If and when an application is filed, that application and information presented will also be subject to review.*

- How many small cell towers does the City of Gaithersburg intend to allow to be installed within the City limits?

*Federal law provides that the local government's policies with respect to wireless facilities "shall not unreasonably discriminate among providers of functionally equivalent services; and shall not prohibit or have the effect of prohibiting the provision of personal wireless services...." The City is concerned with the overall impact of small cell facilities in our community and will be reviewing applications and policies with the applicable federal and state limitations in mind.*

- If the City, as part of an application, asks applicants why they are requesting these installations and why they are needed, to what degree does the public have access to this information?

*Application materials are part of the public record and are subject to review under the [Maryland Public Information Act](#). There may be some details that an applicant can maintain as confidential, but we doubt those would prevent the public from addressing this issue. We caution that under some circumstances, federal law will prevent us from asking information about the need for a modification to a facility.*

### 3. Public Notification and Input

- There seemed to be limited public notification prior to the April 11, 2016, Work Session. Why were no signs posted in affected neighborhoods, and why didn't the City do more to make residents aware of the process?

*Because no actual application had been received, there were no neighborhoods to officially notify. The meeting in question was a Mayor and City Council Work Session. These are typically noticed through announcements on the City's [webpage](#), in its weekly [e-mail newsletter](#) and at City Council Meetings. The City took additional steps to provide notice via press releases, including a [release](#) issued March 30, 2016, e-mails to HOA and neighborhood property managers, through social media, and by the creation of a dedicated [project page](#) on the City's website.*

- How will the City consider community input on locations of these installations?

*The Mayor and City Council is currently considering the type and extent of the review process, which could involve public comment for some installations. These reviews and the input may be limited by deadlines that apply for review of complete applications – federal deadlines, for example, range from 60-150 days.*

### 4. Court Challenges

- Why is the City not helping with the Montgomery County complaint against the FCC? Can the City challenge the Federal statute? Would denying all applications give the City standing to then challenge the statute in a more specific case?

*Montgomery County and other entities filed an appeal of the most recent FCC Order in 2015. The appeal before the 4<sup>th</sup> Circuit Court of Appeals in December, 2015, was dismissed. After a rehearing petition was denied, the decision was not appealed, and is final. Thus, the complaint is not active.*

*It should also be noted that a prior FCC Order implementing the 1996 law was appealed to the Supreme Court, which upheld that order in 2013. At this stage, the main result of an outright denial of installations may be a court order directing the City to issue permits without protections that could be imposed as a result of the process we are going through now.*

### 5. Legal Questions

- Is the City planning on making any changes to ordinance provisions as part of this review?

*At this point, we cannot say. In July, 2015, the City adopted a number of revisions to our zoning ordinance to be better prepared for changes in federal regulations related to cell towers. However, the current discussions involve right of way small cell installations, and the information we are gathering may call for further adjustments. City staff will continue to review and recommend update of its ordinances as appropriate.*

- Could the failure to install stealth facilities, i.e. facilities that blend into the structure such that they do not stand out visually, serve as the basis for denial of an application?

*Stealth or concealment elements are matters the City can review in acting on applications, although the experience of many communities is that as a result of stealth concerns being raised, the design in an application is modified rather than leading to an application being denied altogether. The refusal of a facilities provider to agree to reasonable concealment conditions may be a ground for denial in some circumstances, for example, where a new wireless facility is being installed or there are “stealth” requirements already in place for existing installations. Denial may not be permitted under some circumstances under federal law: where an application proposes modifications to existing wireless facilities, the modifications do not involve a substantial change in the physical dimensions of those facilities and there is no existing concealment requirement for the facility. For particular applications there may also be contractual, state and local law issues that must be considered.*

- What is the scope of the City’s discretion? When can it say “no,” and what is the exposure if the City repeatedly denies requests?

*No application has been filed, and it is not easy to answer the question in the abstract. Whether the City may deny an application depends on combinations of federal, state and local laws and applicable agreements, and there remain many open questions regarding the scope of local authority under applicable law. With respect to federal law, the City may be subject to restrictions as outlined above, which are listed in more detail at 47 U.S.C. §332(c)(7), 47 U.S.C. §1455, and in FCC regulations at 47 CFR §1.40001. In terms of remedies, while what a court should order is open to debate, there have been court cases where cities have been directed to issue permits after a denial, without being given the opportunity to go back and reconsider its position.*

- Can a maximum concentration of installations be set for a particular area?

*Requests for installation may be denied for safety or similar reasons where the installation presents a physical hazard that the City has a right to address (e.g., blocking sidewalks), but they may not be denied based on RF (Radio Frequency) considerations. Those are controlled solely based on federal law. Aesthetic reasons*

*may also justify such a restriction, but some restrictions may not actually result in a more aesthetic result overall; rather this could result in multiplying the total number of installations in some circumstances. Some cities have attempted to limit the number of individual installations that may be installed along a particular street line. However, wireless facilities providers will argue that those restrictions are subject to the non-prohibition and non-discrimination provisions we've outlined above.*

- Is there a height limit?

*There are limits on the size of freestanding monopoles and other facilities under Section 24-167A of the City Code, but most of those would be relevant primarily for large facilities on private property. There is not a specific overall height limit currently in place, but Federal law does grant the City some parameters, depending on the installation being proposed, for limiting additional height added by extra installations on an existing facility. The Mayor and City Council potentially could establish specific height limitations with design regulations.*

## 6. Land Use and Zoning

- Why doesn't City Code specifying distance from property lines apply to these installations, and can there be a setback requirement for an installation or pole from areas such as schools and residences?  
*See below.*
- Why are Conditional Use Permits not being required as part of the process?  
*See below.*
- Do these structures meet the clear zone requirements such as requiring "break-a-way" bases?  
*See below.*

*Currently, the City Code does not require setbacks or conditional use applications for proposed installations in rights of way, but any transportation safety or "clear zone" requirements for roadways would be imposed upon review of specific applications.*

- How can installations be located in the easements when the easements are restricted to gas and electric?

*The current discussions involve potential installations in rights of way, near public streets. No proposals for installations in public utility easements have been proposed at this point, and for a restricted easement that is limited in uses, the utilities as well as the property owner of the land in question would have to approve the installation.*

## 7. Environmental or Health Concerns

- Is there any evidence that emissions may be harmful to human health, and why are environmental concerns not allowed to be considered?

*Environmental concerns can be addressed, subject to limitations of the sort we've described. Applicable Federal law specifically limits any consideration of any RF (Radio Frequency) emissions concerns beyond an assurance the installations comply with minimum FCC requirements.*

- If the International Association of Fire Fighters (IAFF) won't allow these cell phone towers on their site, why should we allow these cell phone towers in our neighborhood?

*Private property owners are not obligated to allow installations on their property, and the City is not required to allow wireless providers on City-owned land or buildings. When the City regulates the use of property, as through a zoning ordinance, it faces restrictions on its authority to enact provisions that prohibit, or have the effect of prohibiting, the provision of personal wireless services.*

## 8. Other Possible Locations

- Why are the companies looking at residential neighborhoods rather than in commercial areas, along main roads and in less populated areas?  
*See below*
- How can the public verify that a proposed installation would not work at another location or could not be retrofitted or moved elsewhere?  
*See below*
- Why can't these facilities be put on existing structures or outfit existing cell towers with additional antennas?  
*See below*

*As noted at the outset, the provider claims that the locations are needed to enhance services in those residential areas. The City does intend to examine need to the extent that it may do so. We are not drawing any conclusion now as to whether service could be provided using other locations. But we do note that some of the options we are reviewing are designed to utilize existing structures, with a smaller footprint than large towers.*

- Why would Crown Castle need to add an installation across the street from an existing small cell tower at Dufief Mill Road and Route 28?

*See above. It is also possible that the immediate proposals are related to continuing the work completed on Route 28.*

#### 9. Insurance and Damage

- Is there insurance to cover liability for any installations and can private citizens get reimbursed for any property damage?

*See below.*

- How does the City Propose to remedy the lowered property valuations that could occur once these cell phone towers have been erected in a neighborhood? Will taxes be adjusted downward? Will property owners be compensated by the providers, and who will negotiate for the property owner?

*See below.*

*The City has requirements, including performance bonds, to ensure that the installation of the facilities is done according to the approved plans. This ensures that areas such as lawns and streets are restored to their original condition. There is no provision for reimbursement for any property value changes, but the provider must have adequate insurance before the City will issue a right of way agreement or permit. The City is covered by insurance, through the Local Government Insurance Trust (LGIT), and Crown Castle has also provided evidence of insurance coverage.*

#### 10. Poles

- If installed light poles are outsourced and storm damage occurs, who will residents notify for repair/replacement?

*Residents should continue to notify the City of Gaithersburg. If the pole is owned and maintained by a third party, the City will request repair. As it currently does in third party situations, the City will require repairs in a timely manner, and if they are not completed, the City can take action to make the repairs at the third party's expense.*

- If poles allow up to three separate providers, will there be three separate instances of construction? (Also a Crown Castle question, see Question 1 in the Crown Castle section below).

*The City is hopeful any excavation would not be repeated for any future installations, but that is difficult to predict before seeing a specific application. For the pole itself, while equipment may need to be changed out, it is unlikely any work required would be substantial, and the design itself would not change.*

## 11. Application Fees and Costs

- Is Crown Castle providing any compensation, and if so, to whom?

*Crown Castle is a private entity, presumably paid by wireless telephone companies who will use its installations. Under the current general right of way agreement, applicants and those installing fixtures would be charged a fee by the City of Gaithersburg, as other right of way installations, such as telephone companies, have been charged. The charge equals 5% of the annual revenues the applicant receives as a result of the installation. There may be other applicable fees or charges for use of certain City properties.*

### **Crown Castle Responses**

Several of the questions the City of Gaithersburg has received during this process are very specific to a potential applicant, Crown Castle. The responses that follow were provided by Crown Castle and do not reflect the opinion of the City of Gaithersburg.

#### Process/Installation

1. If the facilities will allow for three separate providers, will it be necessary to excavate for each provider or will Crown Castle provide all of the necessary lines and equipment during the initial installation?

*Verizon (Landline Telephone) will provide fiber connectivity to all nine Crown Castle node locations proposed in the City of Gaithersburg, as part of the initial construction. Crown Castle will also be extending its own fiber network to three of the locations. As additional tenants join the network, Crown will likely extend its fiber connectivity to the remaining small cell facilities.*

2. What is Crown Castle's plan for the ultimate buildout of Gaithersburg and how long do you anticipate that taking?

*Crown Castle's current design within the City of Gaithersburg includes only the nine small cell facilities under the proposed submission. The installation of the small cell facilities and the fiber network will be completed in stages. It is anticipated that our build-out will be complete and operational within the next 6-9 months.*

3. Who are Crown Castle's clients?

*Crown Castle is partners with all of the major wireless carriers and has over 16,000 installations across the Country.*

## Location

4. How did Crown Castle decide to focus on the Westleigh and Washingtonian Woods neighborhoods? What other neighborhoods is Crown Castle considering?

*These neighborhoods were identified as needing additional coverage and/or capacity. The locations were chosen to provide coverage and capacity to the area. Individual small cell facilities are spaced based on coverage radii to provide as close to contiguous coverage inside of the polygon for the customer.*

5. Is Crown Castle using any criteria when siting these locations?

*Crown Castle has been working with the City of Gaithersburg in determining locations within the right of way. The locations were chosen to reduce the impact to the surrounding area.*

6. What other locations were considered and how were the various other locations evaluated?

*Crown Castle is looking to deploy in areas where existing street lights may be replaced, at intersections where there is minimal impact, and in areas of open space that will reduce the visual impact in the area.*

7. Were other locations along major streets such as Route 28 or other public land considered before placing them in the neighborhoods? Could you accomplish the same needs by locating in commercial areas only?

*Small cell deployments do not function the same way as a macro environment. The coverage radiuses of many of these deployments are only 200-350 meters, depending on coverage objectives, dominance objectives, frequency, technology deployed, and bandwidth of carrier. Due to the small coverage radius, they are not able to be moved to alternative right of way locations and meet the coverage and capacity objectives.*

8. Does cost come into play with the siting of these locations?

*The locations were chosen to provide coverage and capacity to the area. Individual nodes are spaced based on coverage radii to provide as close to contiguous coverage inside of the polygon for the customer.*

## Technical

### 9. How do small cell facilities work?

*Small cell installations add additional capacity and coverage within the carriers' existing macro network, alleviating specific areas or polygons that have capacity or coverage concerns that affect the end user. A low power amplifier placed at the specific location the small cell is required is connected back to the carrier radio equipment (or base stations) by fiber optic cable. This allows the installation to be much smaller than the traditional macro installation, which requires the radio equipment (BTS) to be located at the same site as the antenna structure. Crown Castle provides the transport via fiber optics to the small cell facility.*

### 10. Why is it necessary to place these facilities in residential neighborhoods? Why won't they work in commercial locations?

*The coverage area of each DAS small cell facility is relatively small (250-400 meters) and therefore needs to be placed in areas of need by our customers.*

### 11. Why can't these facilities be located on existing towers?

*The existing towers in the area are not located such that the desired coverage and capacity can be achieved.*

### 12. Can you please identify specific coverage needs and/or issues that these facilities will provide?

*When a formal application is submitted, signal strength data will be provided for City review.*

### 13. I have no issue with cell service. Why are these facilities needed?

*Today, texting and phone calls are not the only services provided by mobile carriers. As expectations grow for faster data speeds, video streaming, social media, and gaming rise, additional spectrum, newer technologies (4G LTE), and small cells help add additional bandwidth to the network. It is widely estimated that wireless data traffic will increase fivefold in the next five years. DAS small cell facilities will play an integral part in addressing the capacity needs both today and in the future.*

### 14. Will these types of facilities have some type of lightening protection?

*The equipment is always grounded.*

15. Are these facilities addressing a coverage issue or are you providing additional services?

*Small cell facilities serve a dual purpose. The breadth of services provided by a small cell facility includes a larger bandwidth LTE carrier to their customers for faster data speeds and better reliability of service. The installations also provide additional capacity as data expectations and requirements continue to grow with more and more data usage.*