

## 5G Small Cell Aesthetic Standards (Draft)

Town of Boonsboro Mayor & Council Workshop, March 18<sup>th</sup>, 2019

### Permit Required.

No small cell installation shall be constructed, erected, modified, mounted, attached, operated, or maintained within the Town on or within any public right-of-way without the issuance of a permit. No approval granted under this chapter shall confer any exclusive right, privilege, license, or franchise to occupy or use the public right-of-way of the Town for delivery of telecommunications services or any other purpose.

**Permit Application Content. All applications are subject to staff review prior to any approvals or denials of the application. Either Staff or the Mayor & Council may also require permit applications be reviewed by the Planning Commission prior to any approvals or denials of the application. All permit applications must include:**

1. Site and Engineering plans for each proposed small cell installation, including associated equipment necessary for operation
2. Photographs of the proposed facility equipment
3. A visual impact analysis with photo simulations (visual simulations)
4. Certification by a certified radio-frequency engineer that the small cell installation will be in compliance with the FCC standards for RF emissions as they relate to the general public, including aggregate emissions for all co-located equipment (FCC compliance affidavit)
5. Documentation that demonstrates a good faith effort to locate the small cell installation in accordance with the preferred provisions of these guidelines
6. Documentation that owners of all properties within 500 feet of the proposed small cell installation have been notified in writing via certified mail of the proposed installation, including its exact location
7. Application Fee. The Town shall assess a per-installation (per facility) fee of \_\_\$100\_\_ to cover the Town's costs of processing the application.
8. Consultant Fee. The town shall have the right to retain an independent technical consultant to assist the town in its review of the application. The reasonable cost of the review shall be paid by the applicant.
9. Compliance Bond (performance bond requirement)
10. Indemnification (indemnification requirement)

### Annual Re-Certification Fee. (Annual Co-Location Fee).

The Town shall assess a \_\$270\_ fee on an annual basis for each small cell installation located within the Town's right-of-way or on wireless support structures owned or operated by the Town.

### In reviewing an application, the Town will consider the following:

1. The location of any ground mounted small cell facilities
2. The location of a small cell facility on a wireless support structure
3. The appearance and concealment of small cell facilities, including those relating to materials used for arranging, screening, and landscaping

4. The design and appearance of a wireless support structure

**Order of Preference – Location. The order of preference for the location of small cell installations in the Town located upon Town rights-of-way adjacent to certain zoning districts, from most preferred to least preferred, is:**

1. Road Rights-of-Way areas (except those adjacent to municipal parks, residential areas, or the Town Center area)
2. Commercial Zone (General Commercial Zoning adjacent, Retail and Commercial Areas)
3. Mixed Commercial and Residential Zone (Town Center, the historic center of town, etc.)
4. Residential Zone (Town Residential, other residential areas, etc.)
5. Parks (on rights-of-way adjacent to parks)

**Order of Preference – Configuration of Small Cell Installations from most preferred to least preferred:**

1. Co-located with existing wireless facilities – It is the Town’s strong preference that whenever an applicant proposes a new wireless support structure with a small cell facility within 300 feet from an existing wireless support structure that the applicant attempt to collocate with the existing facility or demonstrate that collocation is not technically feasible or space does not exist on the existing facility or structure. Collocation is encouraged.
2. Mounted on existing utility poles – This includes existing utility poles, electric poles, telephone poles, electrical lines, telephone lines, etc.
3. Mounted on non-ornamental municipal service poles
4. Mounted on new poles
5. Mounted on ornamental municipal service poles – this includes ornamental street lights
6. Mounted on Sign Poles – This only applies to signs that are a least 15 feet in height. Small Cell Installations cannot be located upon Sign Poles less than 15 feet in height.

**Consideration of Alternate Locations.**

The Town reserves the right to propose an alternate wireless support structure to the one proposed in an application. The Town may propose an alternate location for a new structure within 100 feet of the proposed location that is reasonable for the operator and does not impose technical limits or additional costs.

**Restricted Locations.**

1. Parks or Playgrounds
2. **Setback from Residential Properties of \_\_\_\_\_ feet.**
3. Setback two (2) feet from the roadway face of curb, sidewalk, or shared use path as measured to the nearest part of the structure.
4. Setback five (5) feet from any existing permanent object lawfully existing in the right of way.

**Small Cell Facilities and wireless support structures shall be constructed and maintained in the following manner:**

1. Using the smallest and least intrusive means available to provide wireless services
2. Using matching materials that are consistent with the materials and finish of the adjacent municipal poles or adjacent utility poles.

3. The permittee must construct, install, and operate the small cell installation in strict compliance with the plans and specifications included in the application.
4. Where feasible, as new technology becomes available, the permittee shall replace larger, more visually intrusive facilities with smaller, less visually intrusive facilities, after receiving necessary permits and approval required by the Town.

### **Undergrounding of Equipment.**

In areas of Town where the Town has already required utilities to be placed underground instead of on utility poles, all equipment not to be installed on or inside the pole must be located underground, flush to the ground, within (3) three feet of the utility pole. Each installation is to have its own dedicated power source to be installed and metered separately. New Installations are prohibited from using the same power source providing power to the existing facilities of the support structure. The applicant shall coordinate, establish, maintain, and pay for all power and communication connections with private utilities.

Service lines must be undergrounded whenever feasible to avoid additional overhead lines.

The Town may deny requests to install structures and facilities in the right of way in an area where the Town has required all structures and facilities except those owned by the Town to be placed underground or elsewhere in the right-of-way or utility easement(s). These areas are usually where electric has been placed underground.

### **Underground Equipment Vaults**

Equipment in an Environmentally controlled underground vault may be required in some areas where technologically feasible and appropriate for the location.

### **Ground Mounted Equipment**

Ground mounted equipment should be minimal and the least intrusive. It should be placed to:

- 1) Minimize obstructions to the usual travel or public safety of a right-or-way
- 2) Maximize the line of sight required to add to safe vehicular and pedestrian traffic
- 3) Maximize the line of site at street corners and intersections

The Town reserves the right to deny a request that negatively impact vehicular and/or pedestrian safety.

The ground mounted equipment cabinet must contain all the equipment associated with the facility other than the antenna. All cables and conduits must be concealed from view and undergrounded between the pole and the ground mounted cabinet.

Ground mounted equipment must be designed with concealment elements that allow it to blend in with the surrounding aesthetics of the area.

### **Pole Mounted Equipment**

All pole mounted equipment must be installed as flush as possible to the pole.

All equipment other than the antenna(s), electric meter and disconnect switch must be concealed within an equipment cage.

Equipment cabinets must be non-reflective and colored to match the existing pole.

### **General Guidelines on Placement.**

Small Cell Facilities and wireless support structures shall be constructed and maintained in a manner that does not do the following:

- 1) Obstruct or hinder the usual travel or public safety on a right of way - **Public Rights-Of-Way**. *All new small cell facilities shall be placed in line with other utility features and in a location that minimizes any obstruction, impediment or hindrance to the usual travel or public safety on a right of way.*
- 2) Obstruct the legal use of a right of way by other utility providers
- 3) Violate nondiscriminatory applicable codes
- 4) Violate or conflict with Ordinance \_\_\_\_\_ or this set of guidelines
- 5) Violate the federal Americans with Disabilities Act - **ADA**. *All new small cell facilities must be compliant with the Americans with Disabilities Act and its requirements.*

Ambient noise suppression measures are required when considering the placement of equipment in locations likely to impact adjacent residences or businesses.

The Town strongly discourages more than one (1) new wireless support structure per block and will not approve more than one per 300 feet on each side of the street to minimize hazard of poles adjacent to roadways and minimize visual clutter and distractions to vehicular traffic. A minimum of 300 linear feet between small cell facilities or wireless support structures is required.

The Town encourages the centerline of any new wireless support structure to be aligned with the centerlines of existing poles or street trees on the same street segment, but only if the new structure's height does not conflict with overhead power utility lines and facilities.

### **General Guidelines on Design**

- 1) Small Cell facilities shall be installed at least 8 feet above ground (or whatever is reasonable as to not obstruct regular movement within the right of way).
- 2) Those projecting towards the street must be installed at least 16 feet above the ground to protect the public and vehicular traffic.
- 3) New wireless support structures must be no more than 5 feet taller than maximum allowable height for building construction in the Town, and specifically within the adjacent zoning district to the structure.
- 4) New wireless support structures shall be built at a height that is consistent with the closest existing municipal or utility poles adjacent to the location of the new structure.
- 5) All antenna should ideally be installed at the top of the wireless support structure and aligned with the centerline of the support structure
- 6) Antenna shall be located entirely within an enclosure of not more than 6 cubic feet in volume.
- 7) Antennas should be cylindrical in shape and their color should match the color specifications for the wireless support structure.
- 8) For existing wireless support structures, the antenna and any associated shroud or concealment material are permitted to be collocated at the top of the existing wireless

support structure and shall not increase the height of the existing support structure by more than 5 feet.

- 9) No protrusions from the circumference of the existing structure shall be more than 2 feet.
- 10) Excess cables shall not be spooled, coiled, or otherwise stored on the pole except within the approved enclosure such as a cage or cabinet.
- 11) Above ground conduit shall be encased within the smallest section or smallest diameter PVC channel and be colored to match the structure. (revise to match language from example ordinance)
- 12) New small cell facilities and wireless support structures shall not be illuminated, except in accordance with applicable federal or state regulations or unless the illumination is integral to concealment/camouflaging. Other than what was just mentioned, external lighting associated with small cell facilities is prohibited.
- 13) Passive cooling systems should be used adjacent to residential areas. When fans are used, cooling fans must have a low noise profile.
- 14) As stated previously, equipment enclosures are required and should match the color specification of the wireless support structure.
- 15) For ground mounted small cell facilities, all small cell wireless equipment associated with the facility shall not cumulatively exceed twenty-eight (28) cubic feet in volume.

#### **General Guidelines on Concealment**

It is the Town's preference that all new wireless support structures be camouflaged. The applicant shall submit their proposal for camouflage with the permit application.

Ground mounted equipment shall incorporate concealment elements into the proposed design. Concealment can include landscaping, strategic placement in less obtrusive locations, or placement within existing or replacement street furniture.

Landscaping shall be provided and maintained around ground mounted equipment enclosures with the goal to achieve 100% screening within three years of installation.

Underground vaults shall be located to minimize disruption to the placement of street trees.

All colors shall match the background of any wireless support structure that the facilities are located upon. Colors should be consistent with the color of other poles in the immediate vicinity.

Operator must get written permission from the Town before trimming trees in the right of way hanging over its small cell facility and/or wireless support structure.

#### **Structural Integrity.**

Single or co-located small cell installations must be mounted on an existing structure such as a utility or lighting pole that can support its weight and the weight of any existing co-located equipment. All new wires needed to service the small cell installation must be located within the width of the existing structure to not exceed diameter and height of the existing utility pole.

Installations on all Town owned poles shall have a load analysis completed and signed by a professional engineer licensed and registered by the state of Maryland. The Town will not authorize attachments to town-owned infrastructure that negatively impacts the structural integrity of that support structure.

### **Reservation of space for future public safety or transportation uses.**

Applications for space on Town owned or operated wireless support structures cannot conflict with space reserved for future public safety or transportation uses documented in an approved plan in place at the time of the application.

### **Signage**

Operator shall post its name, location, and emergency telephone number in an area on the cabinet of the small cell facility, visible to the public, in a space that shall not exceed 4" by 6". Other logos or decals may only be used to display information required by a federal, state, or local agency.

### **Requirement to Comply.**

The Placement, modification, operation, relocation, and removal of a small cell facility and/or wireless support structure shall comply with Ordinance No. \_\_\_\_\_ and these guidelines at the time the permit for installation, modification, relocation, or removal is approved and as amended from time to time.

### **Waiver of Guidelines.**

In the event that compliance with any provision in the small cell guidelines as applied to a specific proposed small cell facility would prohibit the provision of personal wireless services, the Town may grant a limited, one-time exemption from strict compliance to the guidelines.

The Town shall process waivers in a reasonable and nondiscriminatory manner that does not have the effect of prohibiting the provision of wireless service.

### **ADDITIONAL QUESTIONS (Not a part of draft guidelines)**

Additional Questions for Town Attorney and Town Council

- 1) Parameters for collocation on traffic lights and street lighting to ensure new small cell nodes are not obstructing or in other ways limiting these structures' primary use when installing new facilities.
- 2) Requirements for Removal, Replacement, Maintenance and Repair
- 3) (Permittee) Liability for damage or injury caused to any person or property by the facility
- 4) Indemnification clause for the Town
- 5) Performance Bond clause
- 6) Giving the Town the right to hire consultants to conduct inspections
- 7) Antenna maximum dimensions of six (6) cubic feet in volume and requirement for concealed cable connections, antenna mount and other hardware.