CLARKE COUNTY PLANNING COMMISSION
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April 4, 2017 Briefing Meeting

Clarke County Planning Commission

AGENDA – Briefing Meeting
Tuesday, April 4, 2017 – 3:00PM
Berryville/Clarke County Government Center– A/B Meeting Room

1. **Approval of Briefing Meeting Agenda**

2. **Old Business Items**

   a. Discussion, Proposed Wireless Communication Facilities Regulations Text Amendment (TA-17-02)

3. **New Business Items**

4. **Other Business**

5. **Adjourn**

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TO: **Planning Commission members**

FROM: **Brandon Stidham, Planning Director**

SUBJECT: **Proposed Wireless Communication Facilities Regulations Text Amendment (TA-17-02)**

DATE: **March 27, 2017**

Enclosed you will find clean and redlined copies of the updated Wireless Communication Facilities (WCF) Regulations text amendment draft (TA-17-02). The revised draft incorporates changes requested by the Commission at the February 28 Briefing meeting. Additionally, Staff worked with the County Attorney to review the draft for legal issues and to address any non-technical and continuity concerns. These changes have also been incorporated into the revised draft. Below is a summary of the changes in this draft:

- 3-C-2-u-1-a, Purpose. Replaced "guidelines" with "requirements" to clarify that the purpose of the ordinance is to provide rules for siting new WCFs. Added "siting" for clarity purposes. Added "stealth structures" to recognize the new rules being added for these facilities. (Staff)

- 3-C-2-u-1-b, Objectives. Added language regarding co-location in subsection (2) to emphasize that the County encourages co-location. Added new subsection (4) per Frank Stearns's suggestion. (Planning Commission)

- 3-C-2-u-4-a, Co-location. Deleted language regarding zoning administrator's authority to waive site plan requirements as new §6-H-12-b-4 is included to provide the review process for co-location applications in a consolidated location. (Staff)

- 3-C-2-u-4-d, Distributed antenna systems (DAS). Replaced "wires" with "equipment" to provide a broader description of the facilities to which a DAS can be connected. Per Frank Stearns's suggestion. (Planning Commission)

- 3-C-2-u-4-e, WCF upgrades/equipment maintenance of an existing wireless provider on a WCF. Deleted language regarding zoning administrator's authority to waive site plan requirements as new §6-H-12-b-5 is included to provide the review process for applications to upgrade/maintain existing equipment in a consolidated location. (Staff)

- 3-C-2-u-6. Deleted "requirements" and added "of antennas as required by Federal law" to better identify this section as containing the rules pertaining to the Federal co-location law. (Staff)

- 3-C-2-u-9, Existing monopoles and telecommunication towers. New section added to clarify that existing monopoles would be considered WCFs with a Class that corresponds to their current height, and any existing towers over 199 feet or not having a monopole design would not be considered a WCF. The effect of this section is to allow existing monopoles that would qualify as a WCF to be potentially considered as a conforming use and structure, and any existing non-WCF towers to be considered as a nonconforming use and structure. (Staff)

- Zoning Districts for Wireless Communication Facilities (chart). Placed this chart immediately following 3-C-2-u-9. Listed co-location as accessory uses in the referenced districts per County Attorney recommendation. Clarified in footnote that new co-location and WCF applications are subject to the underlying zoning district regulations in the Historic and Historic Access Overlay Districts, in addition to the review criteria for the applicable overlay district. Also note that per the County Attorney, Class 5 amateur radio towers cannot be prohibited in the Historic Zoning District although they are still required to comply with the district regulations. (Staff/Legal)

- Summary of Wireless Communication Facility Classes (chart). Placed this chart immediately following 3-C-2-u-9. Clarified in footnote that co-location can occur on WCFs and other structures. Deleted language regarding zoning administrator authority to waive site plan requirements for Class 1 and 5 WCFs as being redundant. (Staff)

- 6-H-12-a-4-a, Aesthetic requirements. Replaced "visible" with "readily apparent" per Frank Stearns's suggestion. Replaced/added language to clarify that WCFs cannot be located along the topographic crest of the Blue Ridge Mountains and cannot exceed the maximum height of the tree canopy. (Planning Commission)

- 6-H-12-a-4-d, Stealth Technology. Added section title and various edits for continuity purposes.

    - Subsection 1(a). Added language to exempt placement of all equipment inside of a silo in cases where antennas are being co-located on the exterior of an existing silo rather than in conjunction with a silo stealth structure. (Staff)

    - Subsection 1(b). Deleted "paddock" per Frank Stearns's suggestion. (Planning Commission)

    - Former Subsection (3) under silo stealth structures. Deleted requirement that silo stealth structures be placed within 50 feet of an existing barn or paddock per Frank Stearns's suggestion. (Planning Commission)

    - Former Subsection (4) under bell tower stealth structures. Deleted requirement that landscaping for bell tower stealth structures match existing landscaping of existing structures. This reflects Frank Stearns's suggestion that bell tower stealth structures should not have mandatory landscaping requirements. (Planning

Commission)

- Subsection 3(b). Deleted language requiring tree stealth structures to be "of an evergreen variety native to Virginia and Clarke County" and replaced with "designed to resemble an evergreen species native to Clarke County." Purpose is to clarify that a local native species be used in designing the tree stealth structure. (Planning Commission)

- Subsection 3(g). New section stating that tree stealth structures shall be Class 1 or Class 2 but may be approved as Class 3 in certain situations where topography and height of tree coverage would make a taller WCF appropriate. An example would be a WCF constructed on a lower ridgeline with the mountains as a backdrop (e.g., current Mt. Carmel Road monopole – 99 feet/Class 3). (Staff)

- Former Subsection (3) under flag pole stealth structures. Deleted language requiring underground installation of all equipment per Frank Stearns's suggestion. (Planning Commission)

- Former Subsection (4) under flag pole stealth structures. Deleted requirement that flag pole stealth structures be landscaped per Frank Stearns's suggestion. (Planning Commission)

- Former Subsection (8) under flag pole stealth structures. Deleted maximum height requirement to avoid redundancy with Subsection 4(e) referencing Class 1 WCF requirement. (Staff)

- 6-H-12-a-5, Setbacks and Buffering.

  - Subsection (a), Setback requirements from property lines and structures. Added language to note that the fall zone setback requirement applies to property lines and structures. Added language to require a 400 foot setback from the footprint of the Appalachian Trail (see enclosed GIS map depicting areas in red where the centerline of the Trail is 400 feet or less from the closest private property line). (Planning Commission)

  - Former Subsection (b). Deleted requirement that Class 3 and 4 WCFs be set back a minimum of 100% of the height from habitable structures in favor of using the fall zone setback. (Planning Commission)

  - Subsection (b), Setback requirements for buildings and support equipment. Added language to clarify that there is no setback required for private access easements (or portions of private access easements) that are designed exclusively for ingress/egress from the WCF compound to a public road. Per Frank Stearns's suggestion. (Planning Commission)

- Subsection (d), Perimeter buffer. Added language to require for Class 3 and 4 WCFs a 50 foot perimeter buffer of which the first 25 feet closest to the compound fencing be supplemented with trees for screening purposes. The Commission would have the discretion to require additional plantings within the remaining 25 feet on a case-by-case basis to ensure effective screening of the WCF compound. (Planning Commission)

- 6-H-12-a-6-b, Design requirements for buildings and support equipment.

  - Subsection (1). Added language to clarify that structures intended to house equipment are not required to observe the 12 foot height requirement for cabinets but instead have to comply with the maximum height requirement for that zoning district. Per Frank Stearns's suggestion. (Planning Commission)

  - Former Subsection (d). Deleted fence criteria as redundant. (Staff)

  - Former Subsection (f). Deleted Karst report requirement as this is now referenced in the application requirements for new WCFs.

- 6-H-12-b, Application Requirements. Staff has consolidated all base site development plan application requirements into the description for Class 1 and Class 2 WCFs (Subsection 1) and reference that Class 3 and 4 applications must comply with the requirements for Class 1 and 2 WCFs in addition to special requirements for Class 3 and 4 WCFs. This eliminates redundancy in previous drafts.

  - Subsection 1(a). Deleted the description of the term "fall zone" as this has been moved to the definitions section in Article 9 per Frank Stearns's suggestion. (Staff)

  - Subsection 1(d). Added language requiring fall zone certification. (Staff)

  - Former Subsection (f). Deleted language as it is now referenced in the new co-location application requirements section. (Staff)

  - Subsection (i). Added language to clarify that the landscaping plan must show proposed new plantings to comply with buffer requirements. (Staff)

  - Subsections (l-q). These sections were moved from the Class 3 and 4 application requirements in order to make them part of the base application requirements for Class 1-4 WCFs. (Staff)

- 6-H-12-b-2, Requirements for Class 3 and Class 4 applications. Moved subsections c-t to the Class 1 and 2 application requirements (6-H-12-b-1) in order to make them part of the base application requirements for Class 1-4 WCFs.

- 6-H-12-b-3, Requirements for amateur radio antennas.

    - Subsection (a). Added language outlining the submission requirements for Class 5 applications (Staff/Legal).

    - Subsection (b). Clarified that the height requirement for Class 5 WCFs is governed by the Code of Virginia although the Code does not specify a maximum height. (Legal)

- 6-H-12-b-4, Requirements for co-location applications. New section added to outline application requirements in a similar fashion as the WCF application requirements. Furthers Frank Stearns's suggestion that we emphasize co-location as a permitted and encouraged activity. (Staff)

- 6-H-12-b-5, Requirements for applications to upgrade/maintain existing equipment. New section added to outline application requirements in a similar fashion as the WCF application requirements. (Staff)

- 6-H-12-c-3. Added "letter of credit" as an acceptable form of surety in addition to a bond. (Legal)

- Review Procedures by Class (chart). Added immediately following 6-H-12-e. (Staff)

- Proposed New Definitions (Article 9).

    - Co-location. Added language that co-location can occur on structures other than WCFs. Also added language to clarify that co-location also includes adding one provider's antennas to a non-WCF structure. This is intended to avoid confusion with language that co-location on a WCF is by two or more providers. (Staff)

    - Fall zone. Moved the fall zone definition from 6-H-12-b-1-a to Article 9. (Staff)

The revised text amendment concludes with a listing of the zoning district use assignments in Article 3 which corresponds to the Zoning Districts for Wireless Communication Facilities chart appearing after 3-C-2-u-9. As noted above, co-location of antenna on existing approved antenna support structure" is proposed for listing as an accessory use in all applicable districts. Furthermore, language is proposed for addition to the Historic (H) Overlay District (3-E-3-h) and Historic Access Overlay District (3-E-4-f) to note that WCFs may be permitted subject to compliance with the applicable overlay district regulations. Class 1-4 WCFs would be prohibited in the H District.

Absent any further concerns to be addressed, Staff recommends that Commission consider setting Public Hearing on the text amendment at the April 7 meeting for the Commission's May 5 regular meeting. Please let us know if you have any questions or concerns in advance of the briefing meeting.

DRAFT FOR PLANNING COMMISSION REVIEW (4-7-2017)
REDLINED VERSION

Note – Current Ordinance text shown in plain font, proposed language shown in bold italics. Changes since February 28 PC Briefing Meeting shown in red.

3-C-2-u ~~Monopoles for Telecommunication Antennae:~~
Wireless Communication Facilities (WCFs):

~~1 A site plan, in accord with Section 6 of this ordinance, shall be submitted for Monopoles for Telecommunication Antennae (note: Section 6-H-12, Standards for Monopoles for Telecommunication Antennae, contains additional specific regulations). A monopole is a self-supporting single-shaft structure. It does not have guy wires and is not a lattice tower with multiple legs and cross-bracing structure~~

1. Purpose and objectives; Telecommunications Engineering Study.

a. Purpose. The purpose of this section and the design standards in ~~Section~~ §6-H-12 is to provide for the siting of Wireless Communication Facilities (WCFs) by establishing ~~guidelines~~ requirements for the siting, construction and modification of monopoles, towers, stealth structures, support structures, and associated equipment.

b. Objectives. These objectives of this section are ~~designed to~~:

(1) To reduce the adverse visual impact of such facilities
(2) To encourage the placement of WCFs in locations with appropriate vegetative cover and screening, and encourage co-location of antennas as an alternative to construction of new WCFs
(3) To promote alternative stealth structure design
(4) To facilitate deployment of WCFs to provide coverage to all residents and businesses of Clarke County in a manner consistent with the County's character

c. Telecommunications Infrastructure and Broadband Study. This section is intended to be applied in conjunction with the County's Telecommunications Infrastructure and Broadband Study. The Study's proposed locations for new WCFs are a guide to maximize telecommunications service to residents and businesses and to minimize adverse impact on the County's scenic and historic resources.

2. Classes of Wireless Communication Facilities. WCFs shall be divided into the following classes:

a. Class 1. WCFs with a height not to exceed fifty (50) feet above ground level (AGL). Such design shall be limited to a monopole or "stealth" design. Antennas must be surface mounted on the monopole.

b. ***Class 2. WCFs with a height not to exceed eighty (80) feet above ground level (AGL). Such facilities shall be limited to a monopole or "stealth" design. Antennas must be surface mounted on the monopole.***

c. ***Class 3. WCFs with a height not to exceed one hundred and twenty (120) feet above ground level (AGL). Such facilities shall be limited to a monopole design as the support structure.***

d. ***Class 4. WCFs with a height not to exceed one hundred and ninety nine (199) feet above ground level (AGL). Such facilities shall be limited to a monopole design as the support structure.***

e. ***Class 5. Amateur radio antennas subject to the limitations of Code of Virginia §15.2-2293.1 and Federal Communications Commission (FCC) provisions specified in the Code of Federal Regulations.***

3. General Use Standards.

a. ***All WCFs must meet current standards and regulations of the Federal Aviation Administration (FAA), ~~Federal Communications Commission (~~FCC~~)~~, and any other agency of the county, state, or federal government with the authority to regulate WCFs. If regulations change and WCFs are required to comply with such changes, the owners of the WCFs governed by this ordinance shall bring WCFs into compliance within six (6) months of the effective date of such change in standards or regulations. Failure to comply shall constitute grounds for the removal of the WCFs at the owner's expense.***

b. ***WCFs shall be considered either a principal or accessory use.***

4. By-right uses. The uses listed in this subsection are deemed to be by-right uses subject to review and approval of a site development plan demonstrating compliance with this section, ~~Section~~ §6-H-12, and other applicable sections of the Zoning Ordinance:

a. ***Co-location. Co-location of new antennas, electronics, cables, and ground support equipment to include cabinets, shelters, power supply transformers, generators, fuel tanks, power meters and other required support equipment on existing ~~Class 1, 2, 3, or 4~~ WCFs or other structures. The site development plan shall be subject to administrative review and approval by the Zoning Administrator. Third-party engineering review may be required if deemed necessary by the Zoning Administrator. ~~The Zoning Administrator shall have the authority to waive requirements for modification, replacement, or upgrades to existing equipment or structural features provided that such changes occur within the facility compound and do not result in a material alteration to the appearance, height, or setbacks for the WCF.~~***

b. ***Class 1 and Class 5 WCFs. The site development plan shall be subject to administrative review and approval by the Zoning Administrator. Third-party engineering review may be required if deemed necessary by the Zoning Administrator.***

c. ***Class 2 WCFs. The site development plan shall be subject to administrative review and approval by the Planning Commission including third-party engineering review.***

d. ***Distributed antenna systems (DAS). Installing a DAS (such as a cable microcell network) through the use of multiple low-powered transmitters/ receivers attached to existing wireless systems, such as conventional cable or telephone ~~wires~~ equipment, or similar technology that does not require the use of WCFs. The site development plan shall be subject to administrative review and approval by the Zoning Administrator. Third-party engineering review may be required if deemed necessary by the Zoning Administrator.***

e. ***WCF upgrades/equipment maintenance of an existing wireless provider on a WCF. The site development plan shall be subject to administrative review and approval by the Zoning Administrator. Third-party engineering review may be required if deemed necessary by the Zoning Administrator. ~~The Zoning Administrator shall have the authority to waive requirements for modification, replacement, or upgrades to existing equipment or structural features provided that such changes occur within the facility compound and do not result in a material alteration to the appearance, height, or setbacks for the WCF.~~***

5. Special Uses.

a. ***The uses listed in this subsection require issuance of a Special Use Permit including review and approval of a site development plan demonstrating compliance with this section, ~~Section~~ §6-H-12, and other applicable sections of the Zoning Ordinance:***

(1) Class 3 & 4 WCFs.

(2) Any Class 3 or Class 4 WCF which is being rebuilt on the same parcel to accommodate the co-location of an additional WCF. The rebuilt WCF shall meet all requirements of this section and ~~Section~~ §6-H-12. There shall only be one (1) WCF per Special Use Permit in the designated compound area.

b. ***In granting a Special Use Permit, the Planning Commission may recommend and the Board of Supervisors may impose conditions to the extent that the Board concludes such conditions are necessary to minimize any adverse effect of the proposed WCF on adjoining properties.***

6. ***Co-location ~~requirements~~ of antennas as required by Federal law.*** Notwithstanding any provision of this Ordinance related to Special Use Permit requirements and procedures on any specific special use condition placed on an approved ~~monopole~~ ***WCF***, the Zoning Administrator shall administratively approve ~~an amendment to the previously approved site development plan for a monopole~~ ***a site development plan*** to allow co-location, removal, or replacement of ~~transmission equipment~~ ***antennas, electronics, cables, and ground support equipment to include cabinets, shelters, power supply transformers, generators, fuel tanks, power meters and other required support equipment on existing Class 1, 2, 3, or 4 WCFs***, as required by Federal law, that meets all of the following standards:

a. The co-location, removal, or replacement of equipment does not result in the ~~monopole~~ ***WCF*** failing to meet the requirements of ~~§6-H-12-b and §6-H-12-e~~ ***§6-H-12-a-5 of*** this Ordinance.

b. Installation of the proposed equipment does not increase the height of the ~~monopole~~ ***WCF*** by more than 10% of the original approved height or by the height needed to provide 20 feet of separation from the closest antenna array location on the ~~monopole~~ ***WCF***, whichever is greater, except that the mounting of the proposed equipment may exceed these limits if necessary to avoid interference with equipment existing on the ~~monopole~~ ***WCF***. For any request to exceed height limits to avoid interference with existing equipment on the ~~monopole~~ ***WCF***, the applicant shall provide a report by a licensed engineer to justify the request. Such report shall be evaluated by the County's engineering consultant and the applicant shall be responsible for reimbursing the county for all costs associated with the consultant's review.

c. Installation of the proposed equipment would not involve the installation of more than the standard number of new equipment cabinets for the technology involved, not to exceed four, or more than one new equipment shelter. New equipment shelters and cabinets shall be located within the existing approved compound.

~~d. Installation of the proposed equipment would not involve the adding of any appurtenance that would protrude from the edge of the monopole more than 20 feet or protrude more than the width of the largest existing appurtenance, whichever is less. Mounting of the proposed equipment may exceed the foregoing size limits if necessary to provide shelter from inclement weather or to connect the equipment to the monopole via cable.~~

de. Installation of the proposed equipment would not involve excavation outside the boundaries of the ~~monopole~~ ***WCF*** site depicted on the original approved site development plan.

7~~8~~. ***Compliance with Federal and State regulations required. Compliance with all Federal Aviation Administration and Federal Communication Commission requirements, including review by the Virginia Department of Historic Resources of properties***

eligible for listing and listed on the National Register of Historic Places in accord with Section 106 procedures, shall be demonstrated in writing if required by statute.

~~8~~9. Commercial use of Class 5 WCFs prohibited. There shall be no co-location of any commercial antennas or equipment on any Class 5 amateur radio WCF for service other than the owner/operator of the Class 5 structure. If any commercial service is located on the WCF, the Class 5 WCF shall lose its status as a Class 5 WCF and shall become a commercial facility and be treated as such under County, State and Federal regulations.

9. Existing monopoles and telecommunication towers. Monopoles in existence as of the adoption date of this ordinance shall be considered as WCFs with a Class that corresponds to the monopole's height. Existing telecommunication towers in excess of 199 feet in height or having a design other than a monopole shall not be considered WCFs for the purpose of this ordinance.

ZONING DISTRICTS FOR WIRELESS COMMUNICATION FACILITIES

Class	*AOC*	*FOC*	*CH*	*CN*	*RR*	*Historic Overlay**	*Hist Access Overlay**
Co-Location	*A*	*A*	*A*	*A*	*A*	*A*	*A*
1 (max 50')	*P*	*P*	*P*	*P*	*P*	*X*	*P*
2 (max 80')	*P*	*P*	*P*	*P*	*P*	*X*	*P*
3 (max 120')	*S*	*S*	*S*	*X*	*X*	*X*	*S*
4 (max 199')	*S*	*S*	*S*	*X*	*X*	*X*	*S*
5 (am. radio)	*P*	*P*	*P*	*P*	*P*	*P*	*P*

P – Permitted/by-right
S – Special use
X – Prohibited use
**** -- Subject to ~~Certificate of Appropriateness Review~~ the underlying zoning district regulations and compliance with overlay district review criteria.***

DRAFT FOR PLANNING COMMISSION REVIEW (4-7-2017)
REDLINED VERSION

SUMMARY OF WIRELESS COMMUNICATION FACILITY CLASSES

Class	*Max Height*	*Approval Authority*	*Special Use Permit Required?*	*Site Plan Required?*	*Engineering Review Required?*	*Design*
1	*50 feet*	*Zoning Administrator*	*No – by right use*	*Yes**	*Zoning Administrator's discretion*	*Monopole or stealth w/surface mounted antennas*
2	*80 feet*	*Planning Commission*	*No – by right use*	*Yes*	*Yes*	*Monopole or stealth w/surface mounted antennas*
3	*120 feet*	*BOS with PC review*	*Yes*	*Yes*	*Yes*	*Monopole*
4	*199 feet*	*BOS with PC review*	*Yes*	*Yes*	*Yes*	*Monopole*
5	*Per State law*	*Zoning Administrator*	*No – by right use*	*Yes**	*Zoning Administrator's discretion*	*Amateur radio antenna per State law*

* *Depending on the nature and design of the Class 1 or Class 5 WCF, the Zoning Administrator has the discretion to waive certain site development plan requirements per ~~Section~~ §6-C.*

NOTE – Co-location of new antennas and equipment on existing WCFs and other structures are approved administratively by the Zoning Administrator. ~~A site plan is required and the Zoning Administrator has the discretion to waive certain site plan requirements per Section 6-C similar to the review for Class 1 and Class 5 WCFs~~

6-H-12 ~~Monopoles for Telecommunication Antennae~~
Design Standards for Wireless Communication Facilities (WCFs)

6-H-12-a. ***Design Standards***

1. ***All WCFs shall be a monopole or stealth design.***

2. ***Prohibition on lighted WCF.*** A ~~monopole~~ ***WCF*** shall not trigger a requirement, public or private, that it be lighted nor shall it be lighted on a voluntary basis.

3. Height ***requirements.***

   a. ***The maximum height for a Class 1 WCF shall be fifty (50) feet including any attachments.***

   b. ***The maximum height of a Class 2 WCF shall be eighty (80) feet including any attachments.***

   c. ***The maximum height of a Class 3 WCF shall be one hundred and twenty (120) feet including any attachments.***

   d. ***The maximum height of a Class 4 WCF shall be one hundred and ninety nine (199) feet including any attachments.***

   e. ***Class 5 WCFs shall conform to all Federal ~~C~~codes regulating ~~A~~amateur ~~R~~radio Licenses.***

   f. Determination of ~~monopole~~ height shall include any attachments to the ~~monopole~~ ***WCF. Lightning rods shall be exempt from the maximum height calculation***.

4. ***Aesthetic requirements. WCFs shall meet the following aesthetic requirements:***

   a. The visual impact of a ~~monopole~~ ***WCF*** ~~and any associated facilities (including attachments, security fencing, utilities, and equipment shelters)~~ shall blend with the natural and built environment of the surrounding area using mitigation measures such as: architecture, color, innovative design, landscaping, setbacks greater than the minimum required, materials, siting, topography, and visual screening. The number of existing ~~monopoles~~ ***~~visible~~ readily apparent Class 2, 3 and 4 WCFs*** in an area shall also be considered when determining visual impact of a new ~~monopole~~ ***WCF***. ~~Monopoles~~ ***Class 3 or 4 WCFs*** shall not be located along ~~ridge lines, but ***shall be located*** down slope from the top of ridge lines~~ ***the topographic crest of the Blue Ridge Mountains and shall not exceed the maximum height of the tree canopy***.

   Administrative Review of the site development plan, including third-party engineering review, will determine if stealth technology shall be used and what

type of stealth technology is required if the WCF design and placement is determined to not meet the objectives stated within this Ordinance.

b. The design of buildings and related structures within the WCF compound area shall, to the extent possible, use materials and colors that will blend into the natural setting and surrounding trees. Security fencing shall be six (6) feet tall, and dark green or black in color made of chain link. All post and fence mesh shall be of the dark green or black color.

c. If various antennas, cables and electronics are installed on a structure other than another WCF (i.e., water tower, light pole, rooftop, sign or silo), the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, or closely compatible with, the color of the supporting structure so as to make the antenna and related equipment as visually unobtrusive as possible.

~~d. The monopole shall have the minimum diameter necessary to accommodate the proposed attachments. Attachments to the monopole shall be the same color as the monopole. Attachments to the monopole shall have the minimum dimensions and protrusion for the monopole based on the best available technology or shall be enclosed within the pole. A lightening rod may be mounted as an extension of a monopole and shall be included in determining the height of the monopole. The Board of Supervisors may require attachments to the monopole to be flush-mounted as a means of reducing visibility of the monopole from surrounding properties.~~

d. Stealth Technology. Stealth technology may be used on ~~Class 1 and Class 2 WCFs for "By-Right" deployment~~ WCFs as set forth below. Because of the agrarian nature and beauty of the County, the "silo" ~~solution~~ structure will be the highest valued stealth technology. This technology of "silo stealth structures" should blend harmoniously with the existing farm structures.

(1) The design standards for the "Silo" stealth structure shall be:

(a) All equipment except for local commercial power service shall be placed inside of the silo. This provision shall not apply to the co-location of antennas on existing silos.

(b) The silo shall not be taller in height than a ratio of 2 to 1 of the existing ~~Barn or Paddock~~ barn not to exceed eighty (80) feet at ground level (AGL).

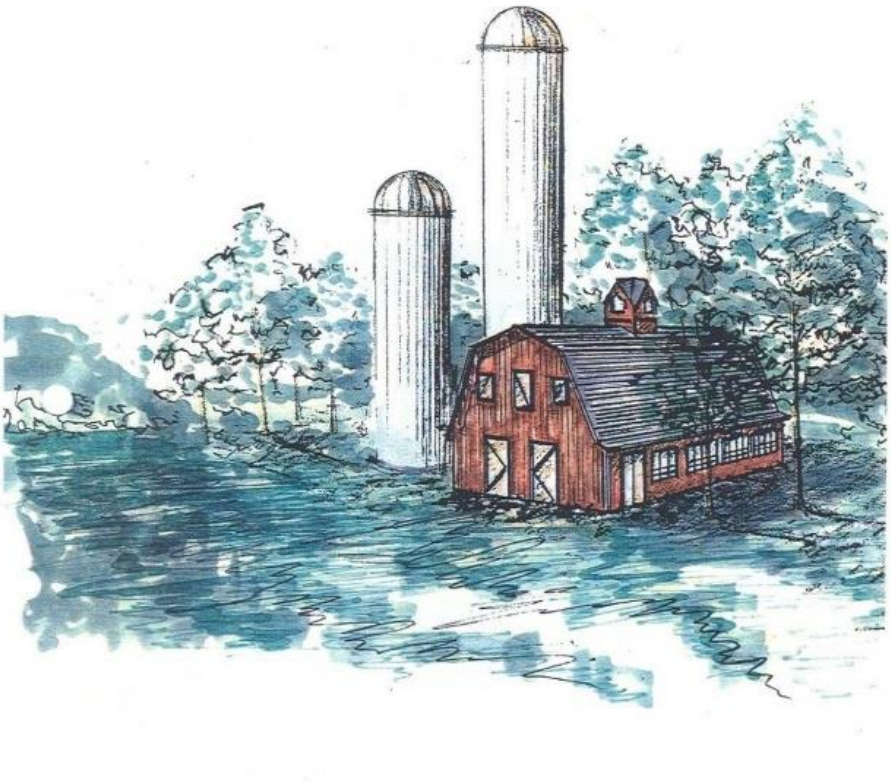
~~***(3) The silo shall be placed within 50' of an existing barn or paddock.***~~

(c) The silo shall match ~~as reasonably so to~~ any existing silo on the property in architectural design and colors.

(d) ***Silo compounds must match existing fencing located on the agricultural property.***

(e) ***Renderings prepared by a licensed landscape architect shall be provided for all stealth silo applications.***

(f) ***Shall be a Class 1 or Class 2 WCF.***



Camouflage screening using existing or new structures employing a 2:1 and 3:1 ratio

(2) The design standards for the ~~"Bell Tower"~~ bell tower stealth structure shall be:

(a) All ~~B~~bell ~~T~~tower stealth WCFs shall match architecturally to the existing building's architecture.

(b) All ~~B~~bell ~~T~~tower stealth WCFs shall be no more than a 2:1 ratio ~~to~~ from height of the bell tower to ~~R~~roof ~~L~~line of existing structure not to exceed fifty (50) feet AGL.

(c) All ~~B~~bell ~~T~~tower stealth WCFs shall be located within twenty (20) feet of the existing match structure.

~~***(4) All Landscaping must match the existing Landscaping of the existing structure.***~~

(d) Renderings prepared by a licensed landscape architect shall be provided for all bell tower stealth structure applications.

(e) Shall be a Class 1 WCF.

Example of a well-designed ~~B~~bell ~~T~~tower WCF

(3) ***The design standards for ~~the "Tree"~~ a tree stealth structure shall be:***

(a) ***Must not be higher than twenty (20) feet above the existing tree line measured from trees within a 200~~'~~ foot radius of the proposed site.***

(b) ***The ~~"~~tree~~"~~ structure must be ~~of an evergreen variety native to Virginia and Clarke County~~ designed to resemble an evergreen species native to Clarke County.***

(c) ***The ~~"~~tree~~"~~ structure must have textured bark, branches and foliage that encapsulate the cables, electronics and antennas.***

(d) ***The colors of the ~~"~~tree~~"~~ structure must blend with existing trees of that species and variety.***

(e) ***The structure must meet all design standards for stability and must be maintained for accuracy of the colors and foliage.***

(f) ***Renderings prepared by a licensed landscape architect shall be provided for all tree stealth structure applications.***

(g) ***Shall be a Class 1 or 2 WCF. May be a Class 3 WCF depending upon topography of site and surrounding properties and the height of surrounding tree coverage.***

Example of a well-designed ~~T~~tree WCF

(4) The Design standards for the ~~"Flag Pole"~~ flag pole stealth structure shall be:

(a) All antennas, cables, electronics and devices must fit within the designed enclosure of the flag pole.

(b) The flag pole shall be used as a flag pole and fly a flag accordingly. If the flag is flown at night adequate lighting shall be installed.

~~***(3) The ground equipment for the telecommunications equipment shall be housed in an Underground Environmental Controlled Vault.***~~

~~***(4) The surrounding grounds shall be landscaped.***~~

(c) The ~~F~~flag pole shall not have reflective paint.

(d) Renderings prepared by a licensed landscape architect shall be provided for all flag pole stealth structure applications.

(e) Shall be a Class 1 WCF.

~~***(8) The maximum height shall not exceed fifty (50) feet AGL.***~~

Example of a well-designed ~~F~~flag ~~P~~pole WCF

5. ***Setbacks and Buffering***

a. ***Setback requirements from property lines and structures. Class 1, 2, 3, and 4 WCFs shall be set back from all property lines and structures a distance equivalent to the WCF's fall zone, or the WCF's fall zone and required perimeter buffer area, whichever distance is greater. The WCF's designed fall zone shall be described in the applicant's site development plan ~~per §6-H-12-b-1-a~~. For parcels located adjacent to the Appalachian National Scenic Trail Corridor, WCFs shall be set back a minimum of 400 feet from the footprint of the Appalachian Trail.***

~~A monopole shall be set back a distance equal to at least 100% of its height from any property line. A monopole shall be set back a distance equal to at least twice its height from any public right of way (except as noted below). A monopole shall not be located on and shall be set back a distance equal to at least four times its height from the following:~~

~~(1) Parcels comprising the Appalachian National Scenic Trail corridor~~
~~(2) Parcels under permanent open space easement~~
~~(3) The State Arboretum of Virginia portion of the University of Virginia's Blandy Farm~~
~~(4) State designated Scenic Byways~~
~~(5) The Shenandoah River (a state designated scenic river)~~
~~(6) State Parks and Wildlife Management Areas.~~

~~***b. Setback requirements from habitable structures on parcel. A Class 3 or 4 WCF shall be set back a distance equal to at least 100% of its height from any habitable structure on the same parcel. The Planning Commission may approve a reduced setback for a new Class 3 or 4 WCF provided that the Applicant demonstrates that the proposed site will not create a life safety issue for any potential occupants of the existing structure or structures.***~~

b. ***Setback requirements for buildings and support equipment. For any building or structure associated with a WCF, the minimum setback from any property line abutting a public road or shared private access easement right of way shall be fifty (50) feet and in all other instances shall be no less than twenty-five (25) feet. No setback shall be required for private access easements or portions thereof designed exclusively to provide ingress and egress from the WCF compound to a public road.***

c. ***Method for measuring setback distances. Setbacks shall be measured from the closest structural member on the WCF. Guy lines shall be exempt from the minimum setback requirements in side and rear yards for the respective zoning district but shall comply with the front yard setback requirements.***

d. ***Perimeter buffer.*** ~~The monopole~~ ***Class 3 ~~or~~ and 4 WCFs*** shall be located in a wooded area of dense tree cover ***referred to as the perimeter buffer***. ~~This dense tree cover~~ ***The perimeter buffer*** shall have a minimum depth ***of ~~25~~ 50 feet from the compound fencing*** as a radius around the perimeter of the area to be cleared for the ~~monopole~~ ***WCF***. All trees within ~~120 feet of the perimeter of the area to be cleared~~ ***the perimeter buffer*** for the ~~monopole~~ ***Class 3 or 4 WCF*** must be retained, unless specifically approved for removal on the site ***development*** plan. ***Within 25 feet of the compound fencing, ~~T~~the perimeter buffer shall be supplemented with evergreen trees planted in a double-staggered row and shrubs as necessary to effectively screen the compound and WCF structure base from view. The Planning Commission may request additional planting within the remaining 25 feet of the perimeter buffer on a case-by case basis to ensure effective and appropriate screening. All vegetation within the perimeter buffer shall be maintained throughout the lifespan of the WCF.***

e. ***Setbacks for co-location on other support structure. For co-location of ~~a WCF~~ antennas and equipment on a support structure other than a WCF (e.g., building, water tower, silo), the governing setbacks shall be the support structure's current setback requirements as enumerated in the Ordinance.***

6. Other Design Requirements

a. ***Compound design requirements.*** The area to be cleared for the compound containing ***a*** ~~the~~ ~~monopole~~ ***Class 1, 2, 3 or 4 WCF*** and support facilities shall be the minimum necessary to accommodate the facilities and shall not exceed 2,500 square feet. The driveways accessing the compound shall be gated.

b. ***Design requirements for buildings and support equipment.***

(1) ***~~The e~~Equipment cabinets ~~or structure~~ shall not be more than twelve (12) feet in height. Structures designed to house equipment shall not exceed the maximum building height for the zoning district in which the subject property is located.***

(2) ***If the equipment cabinet or structure is located on the roof of a building, the area of the equipment structure and related equipment shall not occupy more than 25% of the roof area. The equipment cabinet or structure and related equipment shall also be completely screened from view on all sides of the building.***

(3) ***Equipment cabinets or structures shall comply with all applicable building codes.***

c. ***Advertisement signs are prohibited. Signs compliant to FCC requirements containing ownership, operational, and name plate data shall be allowed.***

~~*d. All security fencing shall be of a dark green or black color for the fencing mesh, post and gate materials.*~~

~~*e*~~*d. All WCFs shall have appropriate FCC signage and contact information for emergency communications.*

~~*f. Due to the pre-existing soil conditions within Clarke County known as "Karst" soil, each Application must be submitted with a full Soil Survey Report performed by a qualified Geotechnical Engineer or Soil Scientist.*~~

6-H-12-b. ***Application Requirements***

1. ***Requirements for Class 1 and Class 2 WCF applications. Applicants requesting approval of a Class 1 or Class 2 WCFs shall submit the following information to the Zoning Administrator for review:***

   a. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, showing the following information:

      (1) Legal description of subject property and proposed lease area (if applicable)
      (2) ~~type~~ Design and height of the proposed WCF~~,~~
      (3) P~~p~~roposed means of access from the public road to the WCF site~~,~~
      (4) S~~s~~etbacks from the property lines, existing structures on the subject property, and existing private access easements
      (5) E~~e~~levation ~~drawing~~ of the proposed WCF site and surrounding topography~~,~~
      (6) Location of all improvements including but not limited to compound location, equipment cabinets, structures, fencing, and signage
      (7) Existing tree coverage and vegetation
      (8) Zoning of subject property and adjacent properties
      (9) Distances to uses and structures on adjacent properties
      (10) General location of all residences and structures within two-thousand (2,000) feet of the proposed WCF
      (11) Any ~~and any~~ other ~~structures or~~ information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

   ~~*The site development plan shall also include a diagram and statement describing the fall zone, or maximum distance from the structure base that the WCF is designed to fall in the event of a structural failure and collapse. This diagram and statement shall be sealed by a licensed structural engineer.*~~

   b. A cover letter that outlines what the applicant is proposing to do on-site.

c. ***Any fees associated with the review of the application by the County and/or its consultant shall be paid by the applicant at submittal.***

d. ***Structural engineering documentation shall be provided demonstrating compliance with all applicable building codes and regulations. A diagram and statement certified and sealed by a licensed structural engineer shall also be provided that describes the fall zone for the proposed WCF.***

e. ***The Zoning Administrator may request additional information if needed while reviewing an application for administrative approval. Failure to provide the requested information shall result in the denial of the application.***

~~***f. New applications to co-locate a new antenna and equipment on an existing Class 1, 2, 3, or Class 4 WCF shall be considered an amendment of the existing site plan for the Class 3 or Class 4 WCF and shall be acted upon administratively by the Zoning Administrator. Such applications shall demonstrate compliance with any special conditions imposed on the Class 3 or Class 4 WCF.***~~

f. ***Due to the ~~pre-existing~~ Karst soil conditions within Clarke County ~~known as "Karst" soil~~, each Application must be submitted with a full Soil Survey Report performed by a qualified Geotechnical Engineer or Soil Scientist.***

g. ***A statement justifying the need for the project by a licensed telecommunications provider. In the event that none of the applicants are a telecommunications provider, a letter of intent from a licensed telecommunications provider to operate on the proposed WCF upon its completion shall be provided. This statement shall include the following:***

(1) ***A description of how the location of the proposed WCF is consistent with the guidance provided in the County's Telecommunications Engineering Study.***

(2) ***The unsuitability of the use of existing WCFs, other structures or alternative technology not requiring the use of WCFs or structures to provide the services under consideration.***

(3) ***A map depicting all co-location candidates in the search area, along with the RF analysis documentation as to their suitability. These include ~~P~~propagation ~~M~~modeling for the network ~~"Before"~~ before the applicant's request and ~~"After"~~ after if approved.***

h. ***A description of compliance with all applicable Federal, State, or local laws including the following actual documents addressing the historic site impact review Section 106 Historical Review portion of the approved National***

Environmental Policy Act (NEPA) statement, and the TOWAIR determination results for FAA registration.

i. ***A landscape plan showing specific landscape materials including proposed plantings to comply with perimeter buffer requirements.***

j. ***If required, a method of security fencing (no less than six (6) feet in height) with anti-climbing device and finished color and, if applicable, the method of camouflage and illumination.***

k. ***At least 2 (two) actual photographs of the site that include simulated photographic images of the proposed WCF at the proposed construction height and at a height 10% greater than the proposed construction height to simulate future co-location.*** The photographs with the simulated image shall illustrate how the facility will look from adjacent roadways, nearby residential areas, or public buildings such as a school, church, etc. The Zoning Administrator reserves the right to select the location for the photographic images and require additional images. The applicant at the Zoning Administrator's request shall conduct a balloon test to demonstrate the height of a proposed ~~monopole~~ ***WCF with a potential 10% height increase to simulate future co-location*** and provide adjoining property owners with a 48-hour notice of the test.

l. ***The applicant shall identify the type of construction of the existing WCF(s) and the owner/operator of the existing WCF(s), if known.***

m. ***A statement by the applicant as to whether construction of the WCF will accommodate co-location of antennas including the number and dimensions of available co-location positions.***

n. ***Identification of the entities providing the backhaul network for the WCF(s) described in the application and other cellular sites owned or operated by the applicant in the County.***

o. ***A description, including mapping at an appropriate scale, of the search area and coverage objective.*** A figure depicting the radio frequency coverage (or propagation map) of the proposed facility and all nearby facilities ***shall also be provided.*** Propagation maps shall show a minimum of three (3) signal intensities in milliwatts.

p. ***A cost estimate for removal of the WCF and facilities from the site.***

q. ***An application for a site development plan review shall be signed by the owner(s) of the property on which the WCF is to be sited and by the telecommunications provider or developer of the WCF site.***

2. ***Requirements for Class 3 and 4 WCF applications. In addition to the application requirements for Class 1 and Class 2 WCF applications, A****a*pplicants requesting a Special Use Permit to construct a new ~~monopole~~ ***Class 3 or 4 WCF*** shall submit the following information ***to the Zoning Administrator for review and action by the Planning Commission and Board of Supervisors***:

   a. ***Applications for new proposed Class 3 WCFs shall depict a location that is consistent with the guidance regarding the Permitted Commercial Tower Development Areas (PCTDA) depicted in the County's Telecommunications Infrastructure and Broadband Study.***

   b. Applications for new proposed Class 4 WCFs shall demonstrate the following:

      (1) A location that is consistent with the guidance regarding the Permitted Commercial Tower Development Areas (PCTDA) depicted in the County's Telecommunications Infrastructure and Broadband Study.

      (2) In order to justify a maximum height in excess of 120 feet, the applicant shall demonstrate one or more of the following conditions:

         (a) The proposed site would provide a demonstrable coverage improvement over a Class 3 tower height and would be consistent with the guidance regarding the County's coverage goals in the Telecommunications Infrastructure and Broadband Study.

         (b) Need to ensure proper connectivity for microwave "point to point" systems. A Path Study and evidence of rejection from fiber optic providers shall be submitted with the application.

         (c) Proposed WCF is required by the property owner to be located in an area with a lower elevation in relation to the overall elevation of the subject property. Setback calculations with ground elevation profile diagrams and property owner requirements shall be submitted with the application.

   c*~~f~~*. An application for a ~~monopole~~ Special Use Permit and site ***development*** plan ***review*** ~~application~~ shall be signed by the owner(s) of the property on which the ~~monopole~~ ***WCF*** is to be sited and by the telecommunications provider or developer of the ~~monopole~~ ***WCF*** site.

   d*~~g~~*. At time of submission of a ~~monopole~~ special use permit and site ***development*** plan application, the applicant shall document that ~~it considered at least two alternative sites~~ ***a new WCF is required because there is no existing structure of sufficient height within the Applicant's search ring available for possible co-location***, and set forth its reasons for selecting the site proposed. After a public hearing on an application, an applicant may be requested to consider alternate

sites that in the opinion of the reviewing body will better comply with the ***objectives and*** regulations ***~~and standards~~*** for ~~monopole~~ ***siting of new WCF***s.

~~c~~h. Verifiable evidence shall be provided in writing showing the lack of antenna space on existing towers, buildings, or other structures suitable for antenna location, or evidence of the unsuitability of existing tower locations for co-location.

~~***c.***~~ ~~A Site development Plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation~~***~~, signed and sealed by a licensed professional engineer, Surveyor, Landscape Architect or Architect~~***~~, showing the location and dimensions of all improvements, including topography; existing zoning; existing tree coverage and vegetation; ~~***proposed tree plantings and landscaping***~~; height requirements; setbacks from property line ~~***and existing buildings on the subject property***~~; access drives; fencing; distances to adjacent uses and adjacent buildings, and the general location of all residences and structures within two thousand (2,000) feet of the proposed monopole ~~***WCF***~~.

~~***d. Legal description of the parent tract and leased parcel (if applicable).***~~

~~***e. The applicant shall identify the type of construction of the existing WCF(s) and the owner/operator of the existing WCF(s), if known.***~~

~~***f. A landscape plan showing specific landscape materials.***~~

~~***g. Method of security fencing (no less than six (6) feet in height) with anti-climbing device and finished color and, if applicable, the method of camouflage and illumination. It is recommended that the fence have a dark green or black color to help blend into the surrounding foliage.***~~

~~***h. A description of compliance with all applicable Federal, State, or local laws including the following actual documents addressing the historic site impact review portion of the approved National Environmental Policy Act (NEPA) statement, Section 106 Historical Review and the TOWAIR determination results for FAA registration.***~~

~~***i. A statement by the applicant as to whether construction of the WCF will accommodate co-location of antennas including the number and dimensions of available co-location positions.***~~

~~***j. Identification of the entities providing the backhaul network for the WCF(s) described in the application and other cellular sites owned or operated by the applicant in the County.***~~

~~b~~ ~~***k. A statement justifying the need for the project by a licensed telecommunications provider. In the event that none of the applicants are a telecommunications***~~

provider, a letter of intent from a licensed telecommunications provider to operate on the proposed WCF upon its completion shall be provided. This statement shall include the following:

(1) A description of how the location of the proposed WCF is consistent with the guidance of the County's Telecommunications Engineering Study,

(2) The unsuitability of the use of existing WCFs, other structures or alternative technology not requiring the use of WCFs or structures to provide the services under consideration.

(3) A map depicting all co-location candidates in the search area, along with the RF analysis documentation as to their suitability. These include Propagation Modeling for the network "Before" the applicant's request and "After" if approved.

c ***l***. ***A description, including mapping at an appropriate scale, of the search area and coverage objective.*** A figure depicting the radio frequency coverage (or propagation map) of the proposed facility and all nearby facilities ***shall also be provided***. Propagation maps shall show a minimum of three (3) signal intensities in milliwatts.

d ***m***. At least 2 (two) actual photographs of the site that include simulated photographic images of the proposed monopole ***WCF at the proposed construction height and at a height 10% greater than the proposed construction height to simulate future co-location***. The photographs with the simulated image shall illustrate how the facility will look from adjacent roadways, nearby residential areas, or public buildings such as a school, church, etc. The zoning administrator reserves the right to select the location for the photographic images and require additional images. The applicant at the zoning administrator's request shall conduct a balloon test to demonstrate the height of a proposed monopole ***WCF with a potential 10% height increase to simulate future co-location*** and provide adjoining property owners with a 48-hour notice of the test.

n. A cost estimate for removal of the WCF and facilities from the site.

e ***o***. The zoning administrator may require other information deemed necessary to assess compliance with this ordinance.

i ***s***. To ensure the structural integrity and wind load capacity of monopole ***WCF*** s, the monopole ***WCF*** owner shall ensure that it is designed and maintained in compliance with standards contained in applicable building codes and regulations. ***Certification from a licensed professional engineer shall be provided that the tower will not fall onto any adjoining property in the event of failure or collapse of the structure.***

~~*t. Due to the pre-existing soil conditions within Clarke County known as "Karst" soil, each Application must be submitted with a full Soil Survey Report performed by a qualified Geotechnical Engineer or Soil Scientist.*~~

3. Requirements for amateur radio antennas (Class 5 WCFs).

a. A site development plan to be reviewed and acted upon administratively by the Zoning Administrator shall be provided for all Class 5 WCFs. The site development plan shall depict the antenna design, height, and setbacks from property lines, public rights of way, private access easements, and existing structures on the subject property.

b. Maximum height. The maximum height of a Class 5 WCF shall be ~~as set forth in~~ the lowest height limitation permitted by Code of Virginia §15.2-2293.1.

c. Setback requirements. Class 5 WCFs shall be set back a minimum distance of 100% of the antenna's height from all property lines and private access easements.

4. Requirements for co-location applications.

a. This section shall apply to all applications to co-locate new antennas and required support equipment on existing WCFs and structures, including the installation of distributed antenna systems (DAS).

b. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, shall be provided by the Applicant showing the following information:

(1) Legal description of subject property and proposed lease area (if applicable)
(2) Sketch showing the existing WCF or structure, the dimensions and location of the antenna and equipment to be co-located, and the proposed change in the height of the structure as a result of the co-location if applicable
(3) Sketch showing dimensions and location of all proposed equipment, cabinets, and structures to be added to the WCF compound. For co-location on structures other than a WCF, setback distances from property lines and adjacent structures shall be shown.
(4) All proposed changes to existing landscaping, buffering, fencing, signage, and other material site features.
(5) Any other information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

c. Co-location applications shall be signed by the property owner or by the owner or lessee of the WCF or structure.

d. Applications to co-locate a new antenna and equipment on an existing WCF shall be considered an amendment of the existing site development plan for the WCF and shall be acted upon administratively by the Zoning Administrator. For co-location on Class 3 or Class 4 WCFs, such applications shall demonstrate compliance with any special conditions imposed in conjunction with the special use permit.

5. Requirements for applications to upgrade/maintain existing equipment.

a. This section shall apply to all applications to upgrade, change, modify, or maintain existing equipment on a WCF or a structure containing antennas for telecommunications. This section shall also apply to applications to upgrade, change, modify, or maintain structural elements of existing WCFs or structures containing antennas for telecommunications.

b. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, shall be provided by the Applicant showing the following information:

(1) Legal description of subject property and proposed lease area (if applicable)
(2) Sketch showing dimensions and location of all proposed equipment, cabinets, and structures to be added, changed, or otherwise altered and their position on the WCF compound. For changes to existing equipment on structures other than a WCF, changes to setback distances from property lines and adjacent structures shall be shown.
(3) All proposed changes to existing landscaping, buffering, fencing, signage, and other material site features.
(4) Any other information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

c. Applications to upgrade/maintain existing equipment shall be signed by the property owner or by the owner or lessee of the WCF or structure.

d. Applications to replace equipment on an existing WCF shall be considered an amendment of the existing site plan for the WCF and shall be acted upon administratively by the Zoning Administrator. For co-location on Class 3 or Class 4 WCFs, such applications shall demonstrate compliance with any special conditions imposed in conjunction with the special use permit.

6-H-12-c. ***Inactive WCFs; Removal Bond Required***

1. ***Inactive WCFs.*** The owner of ~~the monopole~~ ***an inactive WCF*** shall dismantle the ~~monopole~~ ***support structure, antennas,*** and all associated structures if no functioning ~~privately owned telecommunication antenna~~ ~~is attached to the monopole for 12 consecutive months~~ ***WCF is operated for a continuous period of six (6) months***, and restore the site as nearly as possible to preexisting site conditions. ***The owner of the WCF shall remove the same within ninety (90) days of receipt of notice from the County notifying the owner of the inactive WCF. If there are two or more users of a single WCF, then this provision shall not become effective until all users cease using the WCF.***

2. ***Annual user reports. The owner of a Class 1, 2, 3 or Class 4 WCF shall provide, by July 1 annually to the Zoning Administrator, an inventory of all active and inactive users on the WCF.***

3. A bond ***or letter of credit*** ~~must~~ ***shall*** be posted at the time of ~~monopole~~ ***WCF*** approval, in the event the County must remove the ~~monopole~~ ***WCF*** upon abandonment. This bond ***or letter of credit*** shall be equal to the cost to remove the ~~monopole~~ ***WCF***, all ~~monopole~~ ***WCF*** and fence footers, underground cables, and support buildings, plus 25% ~~***for surety***~~. The bond ***or letter of credit*** shall ~~be renewed every five years~~ ***remain in effect*** for the life of the ~~monopole~~ ***WCF***.

6-H-12-d. Third-Party Engineering Review

The County reserves the right to employ the services of a third-party wireless telecommunications engineer or consultant to review all WCF applications. All applicable costs for the third-party review shall be the responsibility of the applicant.

6-H-12-e. Engineering Information Provided by Applicant

Any information of an engineering nature that the applicant submits, whether civil, mechanical, or electrical, shall be certified by a licensed professional engineer.

~~6-H-12-f Monopoles, antennas, and equipment mounted to or located at the base of the monopole shall either maintain a flat, non-glossy, non-reflective galvanized steel finish or be painted a neutral color so as to reduce visual obtrusiveness.~~

DRAFT FOR PLANNING COMMISSION REVIEW (4-7-2017)
REDLINED VERSION

REVIEW PROCEDURES BY CLASS

Class	Approval Authority	Review Process
Co-location*	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether ~~tower~~ engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.
1 (50' max)	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether ~~tower~~ engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.
2 (80' max)	Planning Commission/ By-right	1. Site Development Plan application filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to Planning Commission's Plans Review Committee, ~~tower engineer for review~~ engineering consultant, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission acts on application within 60 days.
3 (120' max)	Board of Supervisors with Planning Commission review/ Special Use	1. Special use permit and site development plan applications filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to ~~engineer for review~~ the engineering consultant, to the Planning Commission's Plans Review Committee, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission makes formal recommendation on application. 5. Application forwarded to Board of Supervisors to schedule/hold public hearing. 6. Board of Supervisors takes formal action on special use permit/site plan application.
4 (199' max)	Board of Supervisors with Planning Commission review/ Special Use	1. Special use permit and site development plan applications filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to ~~engineer for review~~ the engineering consultant, to the Planning Commission's Plans Review Committee, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission makes formal recommendation on application.

		5. Application forwarded to Board of Supervisors to schedule/hold public hearing. 6. Board of Supervisors takes formal action on special use permit/site plan application.
5 (amateur radio)	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether ~~tower~~ engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.

* Review procedure is the same for new distributed antenna systems (DAS) and upgrades/equipment maintenance on an existing WCF.

PROPOSED NEW DEFINITIONS (ARTICLE 9)

***Compound area** – The area located at the base of the WCF, defined by a fenced boundary, that contains support structures, generators, equipment cabinets or shelters, and other accessory items necessary to the function of the WCF and the antennas located on it.*

***Co-location** -- The shared use of an antenna support structure by two or more wireless service providers or other entities that operate antennas. Co-location may occur on structures other than wireless communication facilities (WCFs) including but not limited to water tanks, lattice towers, rooftops, utility poles, silos, and similar structures. The use of a non-WCF structure by one wireless service provider or other entity that operates antennas shall also be considered co-location.*

***Distributed Antenna System (DAS)** – A network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure.*

***Fall zone** – The maximum distance from the structure base of a wireless communications facility (WCF) that the WCF is designed to fall in the event of a structural failure and collapse.*

***Monopole** -- A hollow or solid, cylindrical self-supporting structure which is made of steel, wood or concrete.*

***Permitted Commercial Tower Development Area (PCTDA)** – Pre-planned location areas where it is recommended that WCFs be constructed to provide for commercial wireless carriers. PCTDAs are designated in the County's Telecommunications Infrastructure and Broadband Study and are plotted at road intersections with a ½ mile radius for proposed WCF locations.*

Stealth technology *– A design method to conceal or disguise antenna structures and antennas associated with wireless communication facilities including, but not limited to, tree poles, flag poles, bell towers, silos, and ~~"lookout"~~ lookout towers.*

Wireless Communication Facility (WCF) *– All infrastructures and equipment including, but not limited to, antenna support structures, antennas, transmission cables, equipment shelters, equipment cabinets, utility pedestals, ground equipment, fencing, signage, and other ancillary equipment associated with the transmission or reception of wireless communications.*

PROPOSED ZONING DISTRICT USE ASSIGNMENTS (ARTICLE 3)

Agricultural-Open Space-Conservation (AOC) District

Permitted Uses
3-A-1-a-1-i Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses
3-A-1-a-2-f Co-location of antennas on existing approved antenna support structure

Special Uses
3-A-1-a-3-m ~~Monopoles greater than 50 feet in height for commercial telecommunications antennae~~

3-A-1-a-3-w Wireless Communication Facilities – Class 3 and 4

Forestal-Open Space-Conservation (FOC) District

Permitted Uses
3-A-2-a-1-i Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses
3-A-2-a-2-f Co-location of antennas on existing approved antenna support structure

Special Uses
3-A-2-a-3-j ~~Monopoles greater than 50 feet in height for commercial telecommunications antennae~~

3-A-2-a-3-s Wireless Communication Facilities – Class 3 and 4

Rural Residential (RR) District

Permitted Uses
3-A-3-a-1-e Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses

3-A-3-a-2-d Co-location of antennas on existing approved antenna support structure

Neighborhood Commercial (CN) District

Permitted Uses

3-A-12-a-1-p Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses

3-A-12-a-2-f Co-location of antennas on existing approved antenna support structure

Highway Commercial (CH) District

Permitted Uses

3-A-13-a-1-w Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses

3-A-13-a-2-c Co-location of antennas on existing approved antenna support structure

Special Uses

3-A-13-a-3-h ~~Monopoles greater than 50 feet in height for commercial telecommunications antennae~~

3-A-13-a-3-s Wireless Communication Facilities – Class 3 and 4

Historic (H) District

3-E-3-h Class 5 wireless communication facilities (WCFs) and co-location on existing structures may be permitted subject to compliance with the requirements of this section 3-E-3. Class 1, 2, 3 and 4 WCFs shall be prohibited.

Historic Access Overlay District

3-E-4-f Wireless communication facilities (WCFs) may be permitted as allowed by the regulations of the underlying zoning district and subject to compliance with the requirements of this section 3-E-4.

DRAFT FOR PLANNING COMMISSION REVIEW (4-7-2017)
CLEAN VERSION

3-C-2-u Wireless Communication Facilities (WCFs):

1. Purpose and objectives; Telecommunications Engineering Study.

   a. Purpose. The purpose of this section and the design standards in §6-H-12 is to provide for the siting of Wireless Communication Facilities (WCFs) by establishing requirements for the siting, construction and modification of monopoles, towers, stealth structures, support structures, and associated equipment.

   b. Objectives. The objectives of this section are:

      (1) To reduce the adverse visual impact of such facilities
      (2) To encourage the placement of WCFs in locations with appropriate vegetative cover and screening, and encourage co-location of antennas as an alternative to construction of new WCFs
      (3) To promote alternative stealth structure design
      (4) To facilitate deployment of WCFs to provide coverage to all residents and businesses of Clarke County in a manner consistent with the County's character

   c. Telecommunications Infrastructure and Broadband Study. This section is intended to be applied in conjunction with the County's Telecommunications Infrastructure and Broadband Study. The Study's proposed locations for new WCFs are a guide to maximize telecommunications service to residents and businesses and to minimize adverse impact on the County's scenic and historic resources.

2. Classes of Wireless Communication Facilities. WCFs shall be divided into the following classes:

   a. Class 1. WCFs with a height not to exceed fifty (50) feet above ground level (AGL). Such design shall be limited to a monopole or "stealth" design. Antennas must be surface mounted on the monopole.

   b. Class 2. WCFs with a height not to exceed eighty (80) feet above ground level (AGL). Such facilities shall be limited to a monopole or "stealth" design. Antennas must be surface mounted on the monopole.

   c. Class 3. WCFs with a height not to exceed one hundred and twenty (120) feet above ground level (AGL). Such facilities shall be limited to a monopole design as the support structure.

   d. Class 4. WCFs with a height not to exceed one hundred and ninety nine (199) feet above ground level (AGL). Such facilities shall be limited to a monopole design as the support structure.

e. Class 5. Amateur radio antennas subject to the limitations of Code of Virginia §15.2-2293.1 and Federal Communications Commission (FCC) provisions specified in the Code of Federal Regulations.

3. General Use Standards.

a. All WCFs must meet current standards and regulations of the Federal Aviation Administration (FAA), FCC, and any other agency of the county, state, or federal government with the authority to regulate WCFs. If regulations change and WCFs are required to comply with such changes, the owners of the WCFs governed by this ordinance shall bring WCFs into compliance within six (6) months of the effective date of such change in standards or regulations. Failure to comply shall constitute grounds for the removal of the WCFs at the owner's expense.

b. WCFs shall be considered either a principal or accessory use.

4. By-right uses. The uses listed in this subsection are deemed to be by-right uses subject to review and approval of a site development plan demonstrating compliance with this section, §6-H-12, and other applicable sections of the Zoning Ordinance:

a. Co-location. Co-location of new antennas, electronics, cables, and ground support equipment to include cabinets, shelters, power supply transformers, generators, fuel tanks, power meters and other required support equipment on existing WCFs or other structures. The site development plan shall be subject to administrative review and approval by the Zoning Administrator. Third-party engineering review may be required if deemed necessary by the Zoning Administrator.

b. Class 1 and Class 5 WCFs. The site development plan shall be subject to administrative review and approval by the Zoning Administrator. Third-party engineering review may be required if deemed necessary by the Zoning Administrator.

c. Class 2 WCFs. The site development plan shall be subject to administrative review and approval by the Planning Commission including third-party engineering review.

d. Distributed antenna systems (DAS). Installing a DAS (such as a cable microcell network) through the use of multiple low-powered transmitters/ receivers attached to existing wireless systems, such as conventional cable or telephone equipment, or similar technology that does not require the use of WCFs. The site development plan shall be subject to administrative review and approval by the Zoning Administrator. Third-party engineering review may be required if deemed necessary by the Zoning Administrator.

e. WCF upgrades/equipment maintenance of an existing wireless provider on a WCF. The site development plan shall be subject to administrative review and approval by the Zoning Administrator. Third-party engineering review may be required if deemed necessary by the Zoning Administrator

5. Special Uses.

a. The uses listed in this subsection require issuance of a Special Use Permit including review and approval of a site development plan demonstrating compliance with this section, §6-H-12, and other applicable sections of the Zoning Ordinance:

(1) Class 3 & 4 WCFs.

(2) Any Class 3 or Class 4 WCF which is being rebuilt on the same parcel to accommodate the co-location of an additional WCF. The rebuilt WCF shall meet all requirements of this section and §6-H-12. There shall only be one (1) WCF per Special Use Permit in the designated compound area.

b. In granting a Special Use Permit, the Planning Commission may recommend and the Board of Supervisors may impose conditions to the extent that the Board concludes such conditions are necessary to minimize any adverse effect of the proposed WCF on adjoining properties.

6. Co-location of antennas as required by Federal law. Notwithstanding any provision of this Ordinance related to Special Use Permit requirements and procedures on any specific special use condition placed on an approved WCF, the Zoning Administrator shall administratively approve a site development plan to allow co-location, removal, or replacement of antennas, electronics, cables, and ground support equipment to include cabinets, shelters, power supply transformers, generators, fuel tanks, power meters and other required support equipment on existing Class 1, 2, 3, or 4 WCFs, as required by Federal law, that meets all of the following standards:

a. The co-location, removal, or replacement of equipment does not result in the WCF failing to meet the requirements of §6-H-12-a-5 of this Ordinance.

b. Installation of the proposed equipment does not increase the height of the WCF by more than 10% of the original approved height or by the height needed to provide 20 feet of separation from the closest antenna array location on the WCF, whichever is greater, except that the mounting of the proposed equipment may exceed these limits if necessary to avoid interference with equipment existing on the WCF. For any request to exceed height limits to avoid interference with existing equipment on the WCF, the applicant shall provide a report by a licensed engineer to justify the request. Such report shall be evaluated by the County's

engineering consultant and the applicant shall be responsible for reimbursing the County for all costs associated with the consultant's review.

c. Installation of the proposed equipment would not involve the installation of more than the standard number of new equipment cabinets for the technology involved, not to exceed four, or more than one new equipment shelter. New equipment shelters and cabinets shall be located within the existing approved compound.

d. Installation of the proposed equipment would not involve excavation outside the boundaries of the WCF site depicted on the original approved site development plan.

7. Compliance with Federal and State regulations required. Compliance with all Federal Aviation Administration and Federal Communication Commission requirements, including review by the Virginia Department of Historic Resources of properties eligible for listing and listed on the National Register of Historic Places in accord with Section 106 procedures, shall be demonstrated in writing if required by statute.

8. Commercial use of Class 5 WCFs prohibited. There shall be no co-location of any commercial antennas or equipment on any Class 5 amateur radio WCF for service other than the owner/operator of the Class 5 structure. If any commercial service is located on the WCF, the Class 5 WCF shall lose its status as a Class 5 WCF and shall become a commercial facility and be treated as such under County, State and Federal regulations.

9. Existing monopoles and telecommunication towers. Monopoles in existence as of the adoption date of this ordinance shall be considered as WCFs with a Class that corresponds to the monopole's height. Existing telecommunication towers in excess of 199 feet in height or having a design other than a monopole shall not be considered WCFs for the purpose of this ordinance.

DRAFT FOR PLANNING COMMISSION REVIEW (4-7-2017) CLEAN VERSION

ZONING DISTRICTS FOR WIRELESS COMMUNICATION FACILITIES

Class	AOC	FOC	CH	CN	RR	Historic Overlay*	Hist Access Overlay*
Co-Location	A	A	A	A	A	A	A
1 (max 50')	P	P	P	P	P	X	P
2 (max 80')	P	P	P	P	P	X	P
3 (max 120')	S	S	S	X	X	X	S
4 (max 199')	S	S	S	X	X	X	S
5 (am. radio)	P	P	P	P	P	P	P

P – Permitted/by-right
S – Special use
X – Prohibited use
* -- Subject to the underlying zoning district regulations and compliance with overlay district review criteria.

DRAFT FOR PLANNING COMMISSION REVIEW (4-7-2017) CLEAN VERSION

SUMMARY OF WIRELESS COMMUNICATION FACILITY CLASSES

Class	Max Height	Approval Authority	Special Use Permit Required?	Site Plan Required?	Engineering Review Required?	Design
1	50 feet	Zoning Administrator	No – by right use	Yes*	Zoning Administrator's discretion	Monopole or stealth w/surface mounted antennas
2	80 feet	Planning Commission	No – by right use	Yes	Yes	Monopole or stealth w/surface mounted antennas
3	120 feet	BOS with PC review	Yes	Yes	Yes	Monopole
4	199 feet	BOS with PC review	Yes	Yes	Yes	Monopole
5	Per State law	Zoning Administrator	No – by right use	Yes*	Zoning Administrator's discretion	Amateur radio antenna per State law

* Depending on the nature and design of the Class 1 or Class 5 WCF, the Zoning Administrator has the discretion to waive certain site development plan requirements per §6-C.

NOTE – Co-location of new antennas and equipment on existing WCFs and other structures are approved administratively by the Zoning Administrator.

6-H-12 Design Standards for Wireless Communication Facilities (WCFs)

6-H-12-a. Design Standards

1. All WCFs shall be a monopole or stealth design.

2. Prohibition on lighted WCF. A WCF shall not trigger a requirement, public or private, that it be lighted nor shall it be lighted on a voluntary basis.

3. Height requirements.

   a. The maximum height for a Class 1 WCF shall be fifty (50) feet including any attachments.

   b. The maximum height of a Class 2 WCF shall be eighty (80) feet including any attachments.

   c. The maximum height of a Class 3 WCF shall be one hundred and twenty (120) feet including any attachments.

   d. The maximum height of a Class 4 WCF shall be one hundred and ninety nine (199) feet including any attachments.

   e. Class 5 WCFs shall conform to all Federal codes regulating amateur radio licenses.

   f. Determination of height shall include any attachments to the WCF. Lightning rods shall be exempt from the maximum height calculation.

4. Aesthetic requirements. WCFs shall meet the following aesthetic requirements:

   a. The visual impact of a WCF shall blend with the natural and built environment of the surrounding area using mitigation measures such as: architecture, color, innovative design, landscaping, setbacks greater than the minimum required, materials, siting, topography, and visual screening. The number of existing readily apparent Class 2, 3 and 4 WCFs in an area shall also be considered when determining visual impact of a new WCF. Class 3 or 4 WCFs shall not be located along the topographic crest of the Blue Ridge Mountains and shall not exceed the maximum height of the tree canopy.

      Administrative Review of the site development plan, including third-party engineering review, will determine if stealth technology shall be used and what type of stealth technology is required if the WCF design and placement is determined to not meet the objectives stated within this Ordinance.

b. The design of buildings and related structures within the WCF compound area shall, to the extent possible, use materials and colors that will blend into the natural setting and surrounding trees. Security fencing shall be six (6) feet tall, and dark green or black in color made of chain link. All post and fence mesh shall be of the dark green or black color.

c. If various antennas, cables and electronics are installed on a structure other than another WCF (i.e., water tower, light pole, rooftop, sign or silo), the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, or closely compatible with, the color of the supporting structure so as to make the antenna and related equipment as visually unobtrusive as possible.

d. Stealth Technology. Stealth technology may be used on WCFs as set forth below. Because of the agrarian nature and beauty of the County, the silo structure will be the highest valued stealth technology. This technology of silo stealth structures should blend harmoniously with the existing farm structures.

(1) The design standards for the "Silo" stealth structure shall be:

(a) All equipment except for local commercial power service shall be placed inside of the silo. This provision shall not apply to the co-location of antennas on existing silos.

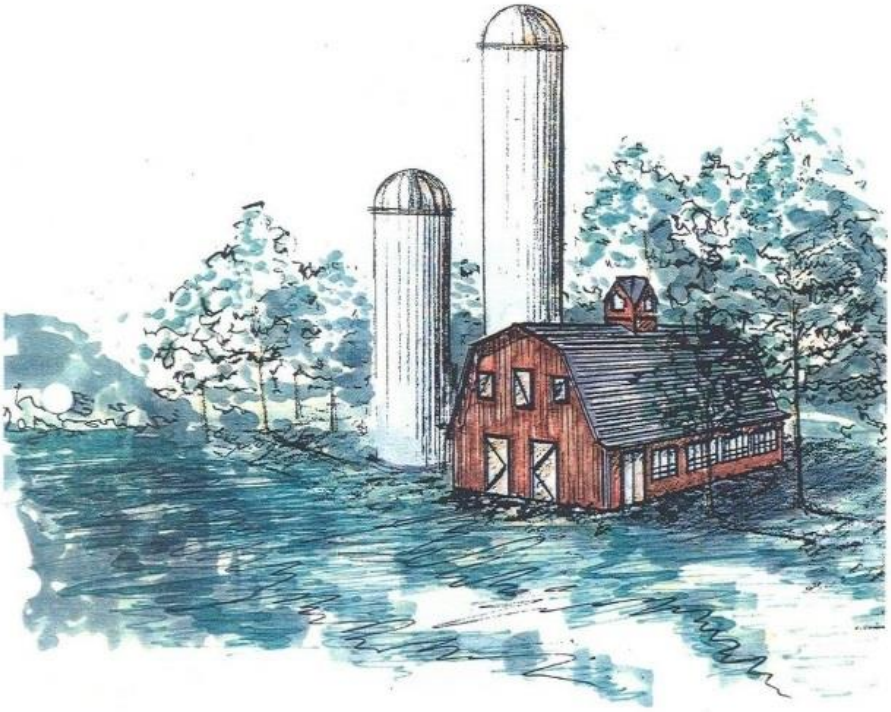
(b) The silo shall not be taller in height than a ratio of 2 to 1 of the existing barn not to exceed eighty (80) feet at ground level (AGL).

(c) The silo shall match any existing silo on the property in architectural design and colors.

(d) Silo compounds must match existing fencing located on the agricultural property.

(e) Renderings prepared by a licensed landscape architect shall be provided for all stealth silo applications.

(f) Shall be a Class 1 or Class 2 WCF.



Camouflage screening using existing or new structures employing a 2:1 and 3:1 ratio

(2) The design standards for the bell tower stealth structure shall be:

(a) All bell tower stealth WCFs shall match architecturally to the existing building's architecture.

(b) All bell tower stealth WCFs shall be no more than a 2:1 ratio from height of the bell tower to roof line of existing structure not to exceed fifty (50) feet AGL.

(c) All bell tower stealth WCFs shall be located within twenty (20) feet of the existing match structure.

(d) Renderings prepared by a licensed landscape architect shall be provided for all bell tower stealth structure applications.

(e) Shall be a Class 1 WCF.

Example of a well-designed bell tower WCF

(3) The design standards for a tree stealth structure shall be:

(a) Must not be higher than twenty (20) feet above the existing tree line measured from trees within a 200 foot radius of the proposed site.
(b) The tree structure must be designed to resemble an evergreen species native to Clarke County.
(c) The tree structure must have textured bark, branches and foliage that encapsulate the cables, electronics and antennas.
(d) The colors of the tree structure must blend with existing trees of that species and variety.
(e) The structure must meet all design standards for stability and must be maintained for accuracy of the colors and foliage.
(f) Renderings prepared by a licensed landscape architect shall be provided for all tree stealth structure applications.
(g) Shall be a Class 1 or 2 WCF. May be a Class 3 WCF depending upon topography of site and surrounding properties and the height of surrounding tree coverage.

Example of a well-designed tree WCF

(4) The Design standards for the flag pole stealth structure shall be:

(a) All antennas, cables, electronics and devices must fit within the designed enclosure of the flag pole.

(b) The flag pole shall be used as a flag pole and fly a flag accordingly. If the flag is flown at night adequate lighting shall be installed.

(c) The flag pole shall not have reflective paint.

(d) Renderings prepared by a licensed landscape architect shall be provided for all flag pole stealth structure applications.

(e) Shall be a Class 1 WCF.

Example of a well-designed flag pole WCF

5. Setbacks and Buffering

a. Setback requirements from property lines and structures. Class 1, 2, 3, and 4 WCFs shall be set back from all property lines and structures a distance equivalent to the WCF's fall zone, or the WCF's fall zone and required perimeter buffer area, whichever distance is greater. The WCF's designed fall zone shall be described in the applicant's site development plan. For parcels located adjacent to the Appalachian National Scenic Trail Corridor, WCFs shall be set back a minimum of 400 feet from the footprint of the Appalachian Trail.

b. Setback requirements for buildings and support equipment. For any building or structure associated with a WCF, the minimum setback from any property line abutting a public road or shared private access easement right of way shall be fifty (50) feet and in all other instances shall be no less than twenty-five (25) feet. No setback shall be required for private access easements or portions thereof designed exclusively to provide ingress and egress from the WCF compound to a public road.

c. Method for measuring setback distances. Setbacks shall be measured from the closest structural member on the WCF. Guy lines shall be exempt from the minimum setback requirements in side and rear yards for the respective zoning district but shall comply with the front yard setback requirements.

d. Perimeter buffer. Class 3 and 4 WCFs shall be located in a wooded area of dense tree cover referred to as the perimeter buffer. The perimeter buffer shall have a minimum depth of 50 feet from the compound fencing as a radius around the perimeter of the area to be cleared for the WCF. All trees within the perimeter buffer for the Class 3 or 4 WCF must be retained, unless specifically approved for removal on the site development plan. Within 25 feet of the compound fencing, the perimeter buffer shall be supplemented with evergreen trees planted in a double-staggered row and shrubs as necessary to effectively screen the compound and WCF structure base from view. The Planning Commission may request additional planting within the remaining 25 feet of the perimeter buffer on a case-by case basis to ensure effective and appropriate screening. All vegetation within the perimeter buffer shall be maintained throughout the lifespan of the WCF.

e. Setbacks for co-location on other support structure. For co-location of antennas and equipment on a support structure other than a WCF (e.g., building, water tower, silo), the governing setbacks shall be the support structure's current setback requirements as enumerated in the Ordinance.

6. Other Design Requirements

a. Compound design requirements. The area to be cleared for the compound containing a Class 1, 2, 3 or 4 WCF and support facilities shall be the minimum necessary to accommodate the facilities and shall not exceed 2,500 square feet. The driveways accessing the compound shall be gated.

b. Design requirements for buildings and support equipment.

(1) Equipment cabinets shall not be more than twelve (12) feet in height. Structures designed to house equipment shall not exceed the maximum building height for the zoning district in which the subject property is located.

(2) If the equipment cabinet or structure is located on the roof of a building, the area of the equipment structure and related equipment shall not occupy more than 25% of the roof area. The equipment cabinet or structure and related equipment shall also be completely screened from view on all sides of the building.

(3) Equipment cabinets or structures shall comply with all applicable building codes.

c. Advertisement signs are prohibited. Signs compliant to FCC requirements containing ownership, operational, and name plate data shall be allowed.

d. All WCFs shall have appropriate FCC signage and contact information for emergency communications.

6-H-12-b. Application Requirements

1. Requirements for Class 1 and Class 2 WCF applications. Applicants requesting approval of a Class 1 or Class 2 WCFs shall submit the following information to the Zoning Administrator for review:

a. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, showing the following information:

(1) Legal description of subject property and proposed lease area (if applicable)
(2) Design and height of the proposed WCF
(3) Proposed means of access from the public road to the WCF site
(4) Setbacks from the property lines, existing structures on the subject property, and existing private access easements

(5) Elevation of the proposed WCF site and surrounding topography
(6) Location of all improvements including but not limited to compound location, equipment cabinets, structures, fencing, and signage
(7) Existing tree coverage and vegetation
(8) Zoning of subject property and adjacent properties
(9) Distances to uses and structures on adjacent properties
(10) General location of all residences and structures within two-thousand (2,000) feet of the proposed WCF
(11) Any other information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

b. A cover letter that outlines what the applicant is proposing to do on-site.

c. Any fees associated with the review of the application by the County and/or its consultant shall be paid by the applicant at submittal.

d. Structural engineering documentation shall be provided demonstrating compliance with all applicable building codes and regulations. A diagram and statement certified and sealed by a licensed structural engineer shall also be provided that describes the fall zone for the proposed WCF.

e. The Zoning Administrator may request additional information if needed while reviewing an application for administrative approval. Failure to provide the requested information shall result in the denial of the application.

f. Due to the Karst soil conditions within Clarke County, each Application must be submitted with a full Soil Survey Report performed by a qualified Geotechnical Engineer or Soil Scientist.

g. A statement justifying the need for the project by a licensed telecommunications provider. In the event that none of the applicants are a telecommunications provider, a letter of intent from a licensed telecommunications provider to operate on the proposed WCF upon its completion shall be provided. This statement shall include the following:

(1) A description of how the location of the proposed WCF is consistent with the guidance provided in the County's Telecommunications Engineering Study.

(2) The unsuitability of the use of existing WCFs, other structures or alternative technology not requiring the use of WCFs or structures to provide the services under consideration.

(3) A map depicting all co-location candidates in the search area, along with the RF analysis documentation as to their suitability. These include

propagation modeling for the network before the applicant's request and after if approved.

h. A description of compliance with all applicable Federal, State, or local laws including the following actual documents addressing the historic site impact review Section 106 Historical Review portion of the approved National Environmental Policy Act (NEPA) statement, and the TOWAIR determination results for FAA registration.

i. A landscape plan showing specific landscape materials including proposed plantings to comply with perimeter buffer requirements.

j. If required, a method of security fencing (no less than six (6) feet in height) with anti-climbing device and finished color and, if applicable, the method of camouflage and illumination.

k. At least 2 (two) actual photographs of the site that include simulated photographic images of the proposed WCF at the proposed construction height and at a height 10% greater than the proposed construction height to simulate future co-location. The photographs with the simulated image shall illustrate how the facility will look from adjacent roadways, nearby residential areas, or public buildings such as a school, church, etc. The Zoning Administrator reserves the right to select the location for the photographic images and require additional images. The applicant at the Zoning Administrator's request shall conduct a balloon test to demonstrate the height of a proposed WCF with a potential 10% height increase to simulate future co-location and provide adjoining property owners with a 48-hour notice of the test.

l. The applicant shall identify the type of construction of the existing WCF(s) and the owner/operator of the existing WCF(s), if known.

m. A statement by the applicant as to whether construction of the WCF will accommodate co-location of antennas including the number and dimensions of available co-location positions.

n. Identification of the entities providing the backhaul network for the WCF(s) described in the application and other cellular sites owned or operated by the applicant in the County.

o. A description, including mapping at an appropriate scale, of the search area and coverage objective. A figure depicting the radio frequency coverage (or propagation map) of the proposed facility and all nearby facilities shall also be provided. Propagation maps shall show a minimum of three (3) signal intensities in milliwatts.

p. A cost estimate for removal of the WCF and facilities from the site.

q. An application for a site development plan review shall be signed by the owner(s) of the property on which the WCF is to be sited and by the telecommunications provider or developer of the WCF site.

2. Requirements for Class 3 and 4 WCF applications. In addition to the application requirements for Class 1 and Class 2 WCF applications, applicants requesting a Special Use Permit to construct a new Class 3 or 4 WCF shall submit the following information to the Zoning Administrator for review and action by the Planning Commission and Board of Supervisors:

a. Applications for new proposed Class 3 WCFs shall depict a location that is consistent with the guidance regarding the Permitted Commercial Tower Development Areas (PCTDA) depicted in the County's Telecommunications Infrastructure and Broadband Study.

b. Applications for new proposed Class 4 WCFs shall demonstrate the following:

(1) A location that is consistent with the guidance regarding the Permitted Commercial Tower Development Areas (PCTDA) depicted in the County's Telecommunications Infrastructure and Broadband Study.

(2) In order to justify a maximum height in excess of 120 feet, the applicant shall demonstrate one or more of the following conditions:

(a) The proposed site would provide a demonstrable coverage improvement over a Class 3 tower height and would be consistent with the guidance regarding the County's coverage goals in the Telecommunications Infrastructure and Broadband Study.

(b) Need to ensure proper connectivity for microwave "point to point" systems. A Path Study and evidence of rejection from fiber optic providers shall be submitted with the application.

(c) Proposed WCF is required by the property owner to be located in an area with a lower elevation in relation to the overall elevation of the subject property. Setback calculations with ground elevation profile diagrams and property owner requirements shall be submitted with the application.

c. An application for a Special Use Permit and site development plan review shall be signed by the owner(s) of the property on which the WCF is to be sited and by the telecommunications provider or developer of the WCF site.

d. At time of submission of a special use permit and site development plan application, the applicant shall document that a new WCF is required because

there is no existing structure of sufficient height within the Applicant's search ring available for possible co-location, and set forth its reasons for selecting the site proposed. After a public hearing on an application, an applicant may be requested to consider alternate sites that in the opinion of the reviewing body will better comply with the objectives and regulations for siting of new WCFs.

e. Verifiable evidence shall be provided in writing showing the lack of antenna space on existing towers, buildings, or other structures suitable for antenna location, or evidence of the unsuitability of existing tower locations for co-location.

3. Requirements for amateur radio antennas (Class 5 WCFs).

a. A site development plan to be reviewed and acted upon administratively by the Zoning Administrator shall be provided for all Class 5 WCFs. The site development plan shall depict the antenna design, height, and setbacks from property lines, public rights of way, private access easements, and existing structures on the subject property.

b. Maximum height. The maximum height of a Class 5 WCF shall be the lowest height limitation permitted by Code of Virginia §15.2-2293.1.

c. Setback requirements. Class 5 WCFs shall be set back a minimum distance of 100% of the antenna's height from all property lines and private access easements.

4. Requirements for co-location applications.

a. This section shall apply to all applications to co-locate new antennas and required support equipment on existing WCFs and structures, including the installation of distributed antenna systems (DAS).

b. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, shall be provided by the Applicant showing the following information:

(1) Legal description of subject property and proposed lease area (if applicable)
(2) Sketch showing the existing WCF or structure, the dimensions and location of the antenna and equipment to be co-located, and the proposed change in the height of the structure as a result of the co-location if applicable
(3) Sketch showing dimensions and location of all proposed equipment, cabinets, and structures to be added to the WCF compound. For co-

location on structures other than a WCF, setback distances from property lines and adjacent structures shall be shown.

(4) All proposed changes to existing landscaping, buffering, fencing, signage, and other material site features.

(5) Any other information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

c. Co-location applications shall be signed by the property owner or by the owner or lessee of the WCF or structure.

d. Applications to co-locate a new antenna and equipment on an existing WCF shall be considered an amendment of the existing site development plan for the WCF and shall be acted upon administratively by the Zoning Administrator. For co-location on Class 3 or Class 4 WCFs, such applications shall demonstrate compliance with any special conditions imposed in conjunction with the special use permit.

5. Requirements for applications to upgrade/maintain existing equipment.

a. This section shall apply to all applications to upgrade, change, modify, or maintain existing equipment on a WCF or a structure containing antennas for telecommunications. This section shall also apply to applications to upgrade, change, modify, or maintain structural elements of existing WCFs or structures containing antennas for telecommunications.

b. A site development plan consisting of a scaled plan and a scaled elevation view and other supporting drawings, calculations, and other documentation, signed and sealed by a licensed Professional Engineer, Surveyor, Landscape Architect or Architect, shall be provided by the Applicant showing the following information:

(1) Legal description of subject property and proposed lease area (if applicable)

(2) Sketch showing dimensions and location of all proposed equipment, cabinets, and structures to be added, changed, or otherwise altered and their position on the WCF compound. For changes to existing equipment on structures other than a WCF, changes to setback distances from property lines and adjacent structures shall be shown.

(3) All proposed changes to existing landscaping, buffering, fencing, signage, and other material site features.

(4) Any other information deemed by the Zoning Administrator to be necessary to assess compliance with this ordinance

c. Applications to upgrade/maintain existing equipment shall be signed by the property owner or by the owner or lessee of the WCF or structure.

d. Applications to replace equipment on an existing WCF shall be considered an amendment of the existing site plan for the WCF and shall be acted upon administratively by the Zoning Administrator. For co-location on Class 3 or Class 4 WCFs, such applications shall demonstrate compliance with any special conditions imposed in conjunction with the special use permit.

6-H-12-c. Inactive WCFs; Removal Bond Required

1. Inactive WCFs. The owner of an inactive WCF shall dismantle the support structure, antennas, and all associated structures if no functioning WCF is operated for a continuous period of six (6) months, and restore the site as nearly as possible to preexisting site conditions. The owner of the WCF shall remove the same within ninety (90) days of receipt of notice from the County notifying the owner of the inactive WCF. If there are two or more users of a single WCF, then this provision shall not become effective until all users cease using the WCF.

2. Annual user reports. The owner of a Class 1, 2, 3 or Class 4 WCF shall provide, by July 1 annually to the Zoning Administrator, an inventory of all active and inactive users on the WCF.

3. A bond or letter of credit shall be posted at the time of WCF approval, in the event the County must remove the WCF upon abandonment. This bond or letter of credit shall be equal to the cost to remove the WCF, all WCF and fence footers, underground cables, and support buildings, plus 25%. The bond or letter of credit shall remain in effect for the life of the WCF.

6-H-12-d. Third-Party Engineering Review

The County reserves the right to employ the services of a third-party wireless telecommunications engineer or consultant to review all WCF applications. All applicable costs for the third-party review shall be the responsibility of the applicant.

6-H-12-e. Engineering Information Provided by Applicant

Any information of an engineering nature that the applicant submits, whether civil, mechanical, or electrical, shall be certified by a licensed professional engineer.

REVIEW PROCEDURES BY CLASS

Class	Approval Authority	Review Process
Co-location*	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.
1 (50' max)	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.
2 (80' max)	Planning Commission/ By-right	1. Site Development Plan application filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to Planning Commission's Plans Review Committee, engineering consultant, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission acts on application within 60 days.
3 (120' max)	Board of Supervisors with Planning Commission review/ Special Use	1. Special use permit and site development plan applications filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to the engineering consultant, to the Planning Commission's Plans Review Committee, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission makes formal recommendation on application. 5. Application forwarded to Board of Supervisors to schedule/hold public hearing. 6. BOS takes formal action on special use permit/site plan application.
4 (199' max)	Board of Supervisors with Planning Commission review/ Special Use	1. Special use permit and site development plan applications filed with Zoning Administrator following required pre-application meeting. 2. Application is routed to the engineering consultant, to the Planning Commission's Plans Review Committee, Karst engineer, and other applicable agencies for review. 3. Application forwarded to Planning Commission to schedule/hold public hearing once all reviewers have commented. 4. Planning Commission makes formal recommendation on application.

		5. Application forwarded to Board of Supervisors to schedule/hold public hearing. 6. Board of Supervisors takes formal action on special use permit/site plan application.
5 (amateur radio)	Zoning Administrator/ By-right	1. Pre-application meeting held with Zoning Administrator, who determines whether engineering review will be required as well as whether any Article 6 requirements may be waived. 2. Site Development Plan application filed with Zoning Administrator. 3. Zoning Administrator acts on application within 60 days.

* Review procedure is the same for new distributed antenna systems (DAS) and upgrades/equipment maintenance on an existing WCF.

DRAFT FOR PLANNING COMMISSION REVIEW (4-7-2017) CLEAN VERSION

PROPOSED NEW DEFINITIONS (ARTICLE 9)

Compound area – The area located at the base of the WCF, defined by a fenced boundary, that contains support structures, generators, equipment cabinets or shelters, and other accessory items necessary to the function of the WCF and the antennas located on it.

Co-location -- The shared use of an antenna support structure by two or more wireless service providers or other entities that operate antennas. Co-location may occur on structures other than wireless communication facilities (WCFs) including but not limited to water tanks, lattice towers, rooftops, utility poles, silos, and similar structures. The use of a non-WCF structure by one wireless service provider or other entity that operates antennas shall also be considered co-location.

Distributed Antenna System (DAS) – A network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure.

Fall zone – The maximum distance from the structure base of a wireless communications facility (WCF) that the WCF is designed to fall in the event of a structural failure and collapse.

Monopole -- A hollow or solid, cylindrical self-supporting structure which is made of steel, wood or concrete.

Permitted Commercial Tower Development Area (PCTDA) – Pre-planned location areas where it is recommended that WCFs be constructed to provide for commercial wireless carriers. PCTDAs are designated in the County's Telecommunications Infrastructure and Broadband Study and are plotted at road intersections with a ½ mile radius for proposed WCF locations.

Stealth technology – A design method to conceal or disguise antenna structures and antennas associated with wireless communication facilities including, but not limited to, tree poles, flag poles, bell towers, silos, and lookout towers.

Wireless Communication Facility (WCF) – All infrastructures and equipment including, but not limited to, antenna support structures, antennas, transmission cables, equipment shelters, equipment cabinets, utility pedestals, ground equipment, fencing, signage, and other ancillary equipment associated with the transmission or reception of wireless communications.

DRAFT FOR PLANNING COMMISSION REVIEW (4-7-2017)
CLEAN VERSION

PROPOSED ZONING DISTRICT USE ASSIGNMENTS (ARTICLE 3)

Agricultural-Open Space-Conservation (AOC) District

Permitted Uses
3-A-1-a-1-i Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses
3-A-1-a-2-f Co-location of antennas on existing approved antenna support structure

Special Uses
3-A-1-a-3-m ~~Monopoles greater than 50 feet in height for commercial telecommunications antennae~~

3-A-1-a-3-w Wireless Communication Facilities – Class 3 and 4

Forestal-Open Space-Conservation (FOC) District

Permitted Uses
3-A-2-a-1-i Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses
3-A-2-a-2-f Co-location of antennas on existing approved antenna support structure

Special Uses
3-A-2-a-3-j ~~Monopoles greater than 50 feet in height for commercial telecommunications antennae~~

3-A-2-a-3-s Wireless Communication Facilities – Class 3 and 4

Rural Residential (RR) District

Permitted Uses
3-A-3-a-1-e Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses
3-A-3-a-2-d Co-location of antennas on existing approved antenna support structure

Neighborhood Commercial (CN) District

Permitted Uses
3-A-12-a-1-p Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses
3-A-12-a-2-f Co-location of antennas on existing approved antenna support structure

Highway Commercial (CH) District

Permitted Uses
3-A-13-a-1-w Wireless Communication Facilities – Class 1, 2, and 5

Accessory Uses
3-A-13-a-2-c Co-location of antennas on existing approved antenna support structure

Special Uses
3-A-13-a-3-h ~~Monopoles greater than 50 feet in height for commercial telecommunications antennae~~

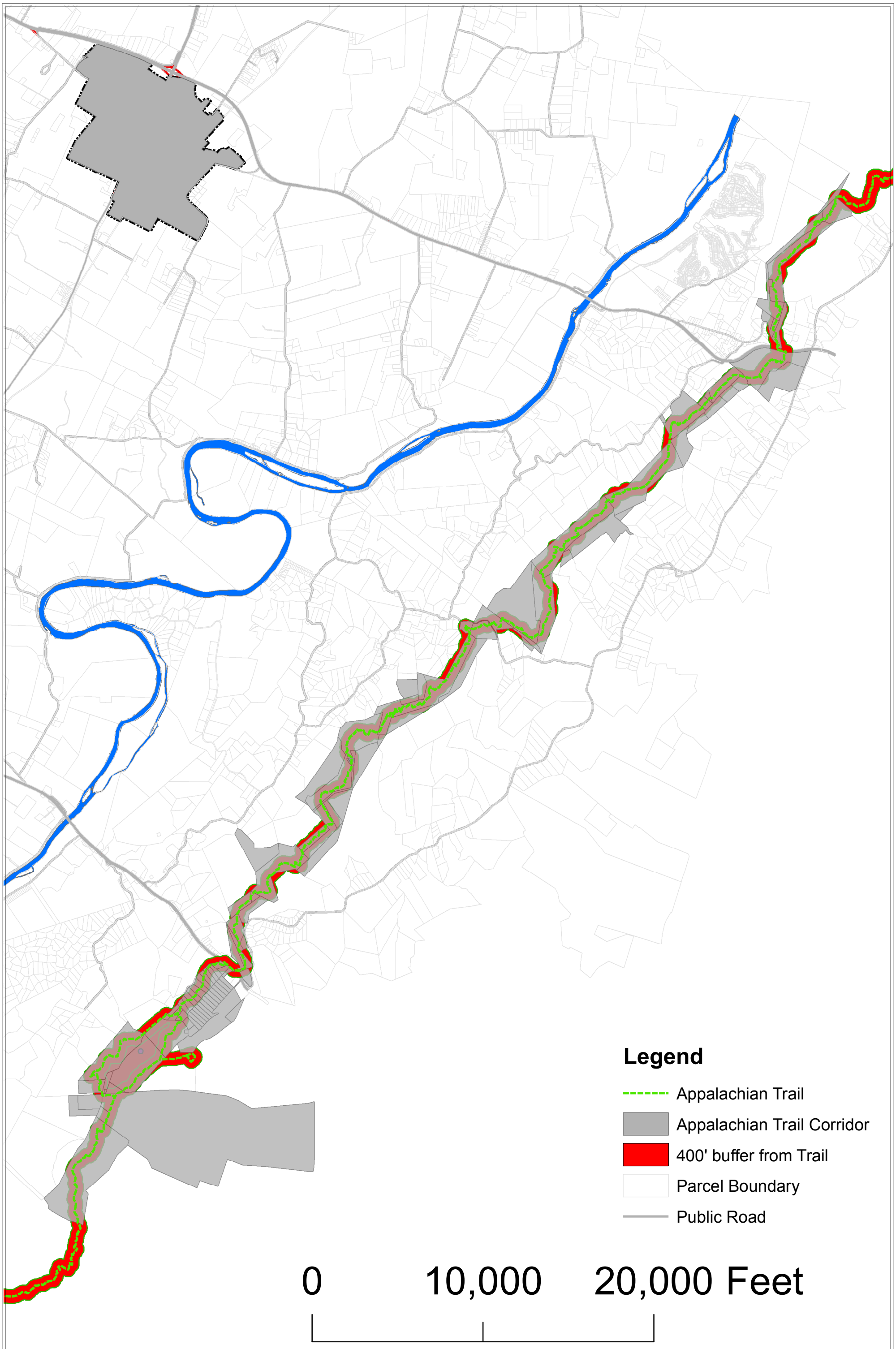
3-A-13-a-3-s Wireless Communication Facilities – Class 3 and 4

Historic (H) District

3-E-3-h Class 5 wireless communication facilities (WCFs) and co-location on existing structures may be permitted subject to compliance with the requirements of this section 3-E-3. Class 1, 2, 3 and 4 WCFs shall be prohibited.

Historic Access Overlay District

3-E-4-f Wireless communication facilities (WCFs) may be permitted as allowed by the regulations of the underlying zoning district and subject to compliance with the requirements of this section 3-E-4.


Legend
Appalachian Trail
Appalachian Trail Corridor
400' buffer from Trail
Parcel Boundary
Public Road
0
10,000
20,000 Feet