

ZONING

195 Attachment 2

Township of Upper Gwynedd

Small Wireless Communications Facility Design Manual

[Added 10-28-2019 by Ord. No. 2019-13]

SECTION I. DEFINITIONS.

The following terms are defined as follows:

1. *Accessory Equipment* - any equipment serving or being used in conjunction with a wireless communications facility or wireless support structure. The term “Accessory Equipment” includes but is not limited to utility or transmission equipment, power supplies, generators, batteries, cables, equipment buildings, cabinets and storage sheds, shelters or similar structures.
2. *Antenna* - An apparatus designed for the purpose of emitting radiofrequency (RF) radiation, to be operated or operating from a fixed location pursuant to Federal Communications Commission authorization, for the provision of wireless service and any commingled information services.
3. *Collocation* - The mounting of one or more WCFs, including antennae, on a pre-existing structure, or modifying a structure for the purpose of mounting or installing a WCF on that structure.
4. *Decorative Pole* - A Township-owned pole that is specially designed and placed for aesthetic purpose and on which no appurtenances or attachments, other than a Small Wireless Communications Facility, lighting, or municipal attachments have been placed or are permitted to be placed.
5. *Front Facade Area* - The area of the public right-of-way directly in front of a structure, identified by drawing a perpendicular line from each corner of structure to the public right-of-way.
6. *Prior Approved Design* - A design for a small wireless communications facility that has been reviewed and deemed to be in accordance with this Design Manual and approved for construction by the Township.
7. *Small Wireless Communications Facility* — A wireless communications facility that meets the following criteria:
 - (1) The structure on which antenna facilities are mounted —
 - (i) Is 50 feet or less in height, or
 - (ii) Is no more than 10% taller than other adjacent structures, or

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- (iii) Is not extended to a height of more than 50 feet or by more than 10% above its preexisting height as a result of the collocation of new antenna facilities; and
 - (2) Each antenna associated with the deployment (excluding the associated equipment) is no more than three cubic feet in volume; and
 - (3) All antenna equipment associated with the facility (excluding antennas) are cumulatively no more than 28 cubic feet in volume.
 - (4) The facilities do not require antenna structure registration under 47 CFR Part 17;
 - (5) The facilities are not located on Tribal lands, as defined under 36 CFR 800.16(x); and
 - (6) The facilities do not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in 47 CFR 1.1307(b).
8. *Stealth Technology* - Camouflaging methods applied to wireless communications facilities and accessory equipment which render them more visually appealing or blend the proposed facility into the existing structure or visual backdrop in such a manner as to render it minimally visible to the casual observer. Such methods include, but are not limited to, architecturally screened roof-mounted antennae, building-mounted antennae painted to match the existing structure and facilities constructed to resemble trees, shrubs, and light poles.
9. *Underground District* - A zoning district in which all utility installations are required to be installed underground on a non-discriminatory basis.

SECTION II. GENERAL STANDARDS FOR SMALL WIRELESS FACILITIES

- 1. All Small WCF shall be installed and maintained in a workmanlike manner in compliance with the National Electric Safety Code and the National Electrical Code, as applicable.
- 2. All Small WCF shall comply with the Americans with Disabilities Act guidelines adopted by the Township and all applicable requirements of the Township Code relating to streets and sidewalks.
- 3. Utility poles shall not obstruct vehicular, pedestrian, or cyclist traffic or sight lines in an unsafe manner.
- 4. All Small WCF shall comply with applicable federal and state standards regarding pedestrian access and movement.

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5. All Small WCF shall be designed and constructed in an effort to minimize aesthetic impact to the extent technically feasible.
6. No Small WCF shall extend beyond the boundaries of the rights-of-way unless approved on a case-by-case basis by the appropriate Township official.
7. All Small WCF shall be designed to withstand the effects of wind gusts and ice to the standard designed by the American National Standards Institute as prepared by the engineering departments of the Electronics Industry Association and Telecommunications Industry Association (ANSI/TIA-222, as amended), or to the industry standard applicable to the structure.

SECTION II. ANTENNA AND ACCESSORY EQUIPMENT STANDARDS

1. Antenna Standards

- a. Any Antenna associated with a Small WCF shall not exceed three cubic feet in volume.
- b. All pole-top Antennas shall be flush-mounted as closely to the top of the utility pole as technically feasible.
- c. All Antennas shall be of a design, style, and color that reasonably matches the utility pole upon which they are attached.
- d. Any necessary pole-top extension shall be of the minimum height necessary to achieve separation from the existing pole attachments.
- e. Any Antenna mounted on a lateral standoff bracket shall protrude no more than necessary to meet clearances.
- f. If mounted on an existing structure, no Antenna shall impair the function of said structure.
- g. Antenna placement shall not impair light, air, or views from adjacent windows.

2. Accessory Equipment Standards

- a. Accessory Equipment shall not exceed 28 cubic feet in volume. Stealth Technology shall not be included in the Accessory Equipment volume calculation.
- b. Accessory Equipment shall be mounted flush to the side of a utility pole, or as near flush to the side of a utility pole as technically feasible.
- c. Accessory Equipment shall be mounted so as to provide a minimum of eight feet vertical clearance from ground level.

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- d. Accessory Equipment shall be of a color that reasonably matches the utility pole upon which such Accessory Equipment is mounted.
- e. All Accessory Equipment shall be contained within a single equipment shroud or cabinet.
- f. All Small WCF shall post a sign in a readily visible location identifying the owner's permit number and the name and phone number of a party to contact in the event of an emergency. The only other signage permitted shall be that required by the FCC or any other federal or state agency.
- g. Accessory Equipment placement shall not impair light, air, or views from adjacent windows.
- h. No Accessory Equipment shall feature any lighting, including flashing indicator lights, unless required by state or federal law.

3. Wiring Standards

- a. Exposed wiring is prohibited.
- b. Transmission, fiber, power cables and any other wiring shall be contained within any utility pole for which such concealment is technically feasible. If wiring cannot be contained within the utility pole, all wiring shall be contained within conduit or U-guard that is flush-mounted to the utility pole.
- c. All wiring shall be installed without excessive slack or extra cable storage on the utility pole.
- d. Any conduit or U-guard shall be of a color that reasonably matches the utility pole to which the Small WCF is attached.
- e. Loops of extra wiring shall not be attached to any utility pole.

SECTION III. POLE STANDARDS

1. Replacement Poles

- a. The maximum height of any proposed replacement utility pole installed for the purpose of supporting one or more Small WCF shall be: 1) no more than 10% taller than the tallest existing utility pole in the public rights-of-way within a 250-foot radius of the proposed Small WCF; or 2) 50 feet above ground level, whichever is greater.

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- b. Any replacement utility pole installed for the purpose of supporting one or more Small WCF shall be of comparable materials and design to the existing utility pole.
- c. Any replacement utility pole installed for the purpose of supporting one or more Small WCF shall be placed within five feet of the existing utility pole being replaced.
- d. Any replacement utility pole installed for the purpose of supporting one or more Small WCF shall be designed to accommodate all uses that existed on the existing utility pole prior to replacement. As part of an application for a Small WCF, the applicant shall provide documentation from a structural engineer licensed in the Commonwealth of Pennsylvania confirming that the replacement utility pole, Small WCF, and prior existing uses shall be structurally sound.
- e. Any replacement utility pole installed for the purpose of supporting one or more Small WCF shall not deviate from the predominant pattern of existing adjacent structures.

2. **New Poles**

- a. The maximum height of any new utility pole installed for the purpose of supporting one or more Small WCF shall be: 1) no more than 10% taller than the tallest existing utility pole in the public rights-of-way within a 250-foot radius of the proposed Small WCF; or 2) 50 feet above ground level, whichever is greater.
- b. Any new utility pole installed for the purpose of supporting one or more Small WCF shall be installed in accordance with the predominant pattern of existing adjacent structures.
- c. Utility poles installed for the purpose of supporting one or more Small WCF shall be limited to one per lot.
- d. To the extent technically feasible, no new utility pole installed for the purpose of supporting one or more Small WCF shall be sited:
 - i. Within 250 feet of an existing Small WCF;
 - ii. In the Front Facade Area of any commercial or residential building;
 - iii. Within 10 feet of the edge of any driveway;
 - iv. In the public rights-of-way directly opposite any driveway; or
 - v. In violation of the design standards contained herein.

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- e. Decorative Poles:
 - i. Decorative Poles shall be required:
 - 1. For the replacement of any existing Decorative Pole; and
 - 2. In any zoning district where all utilities are required to be placed underground on a non-discriminatory basis.
 - ii. For any replacement Decorative Pole, the new Decorative Pole shall match the existing Decorative Pole in shape, design, color, and material.
 - iii. All replacement Decorative Poles shall comply with the requirements of Section III(1) of this Design Manual.

SECTION IV. APPROVAL

- 1. The Township Zoning Officer shall reasonably determine whether a proposed Small WCF design complies with the requirements of this Design Manual.
- 2. Any requests for deployment of a Small WCF that does not comply with the requirements of this Design Manual shall be considered on a case-by-case basis by the Township Zoning Officer and shall be approved upon a determination by the Township Zoning Officer that the proposed Small WCF design is necessary to prevent the effective prohibition of wireless service pursuant to the Rules of the Federal Communications Commission.
- 3. Upon approval of a design for a Small WCF that does not comply with the requirements of this Design Manual, such design shall be incorporated by reference into this Design Manual as a Prior Approved Design.

SECTION V. PRIOR APPROVED DESIGNS

- 1. A record of Prior Approved Designs shall be kept on file at the Township Zoning Office.