

COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2019, Legislative Day No. 6

Bill No. 8-19

Mr. Tom Quirk, Chairman
By Request of County Executive

By the County Council, March 18, 2019

A BILL
ENTITLED

AN ACT concerning

Small Wireless Facility Design Guidelines

FOR the purpose of adopting Small Wireless (SWF) Facility Design Guidelines in accordance with the Federal Communications Commission's (FCC) Declaratory Ruling and Third Report and Order (Order) (FCC 18-133); providing: General Guidelines; guidelines for existing wireless support structures; guidelines for new or replacement wireless support structures or poles; guidelines for antennas; guidelines for SWFs installed on wireless support structures; guidelines for ground mounted SWFs; guidelines on mid-span installations; construction and safety requirements; requirements for surety bonds or equivalent financial tools for the cost of removal and other costs; indemnity and hold harmless provisions; requiring the adoption of a certain manual; providing for the application of this Act; providing for the retroactive application of this Act; defining certain terms; and generally relating to small wireless facility guidelines.

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter stricken from existing law.
~~Strike out~~ indicates matter stricken from bill.
Underlining indicates amendments to bill.

By repealing and reenacting, without amendments
Section 32-4-404(a) and (d)
Article 32. Planning, Zoning and Subdivision Control
Title 4. Development
Baltimore County Code, 2015

By repealing and reenacting, with amendments
Section 32-4-404(b)
Article 32. Planning, Zoning and Subdivision Control
Title 4. Development
Baltimore County Code, 2015

1 SECTION 1. BE IT ENACTED BY THE COUNTY COUNCIL OF BALTIMORE

2 COUNTY, MARYLAND, that the Laws of Baltimore County shall read as follows:

3

4 SMALL WIRELESS FACILITY (SWF) DESIGN GUIDELINES

5 PURPOSE

6 In order to address the growing demand for wireless technology across the United States,
7 wireless telecommunications providers endeavor to increase the capacity of their networks by
8 incorporating small cell infrastructure and facilities to increase data capacity beyond what can be
9 supported by roof mounted equipment and cell towers. This new, lower-powered technology
10 requires infrastructure to be installed in closer proximity to wireless users on the ground.

11

12 These Small Wireless Facility Design Guidelines (Design Guidelines) are created to provide
13 objective, technically feasible criteria applied in a non-discriminatory manner that protect the
14 health, safety, and welfare of the public by minimizing and reducing impacts to public safety
15 within the County's Rights-of-Way, and to assist and guide wireless telecommunications
16 providers in the timely, efficient, safe, and aesthetically pleasing installation and deployment of
17 technologically competitive equipment.

1 These Design Guidelines apply to County-owned public Rights-of-Way (ROW) but do not
2 restrict the County's right to regulate Small Wireless Facilities (SWF) or wireless support
3 structures in non-ROW County-owned property or private property.

4
5 During a temporary emergency, an applicant is not subject to the provisions of these Design
6 Guidelines. Any applicant seeking installation of a SWF needed during an emergency condition
7 that poses an imminent threat to life or property must apply to the County for a temporary
8 emergency-use permit no later than the business day following the installation. The County has
9 the authority to approve a temporary emergency-use permit. A wireless telecommunications
10 facility installed for temporary emergency use must be removed immediately after the conclusion
11 of the emergency. The County may remove, at the ~~operator's~~ Wireless Provider's expense, any
12 such facility that has not been removed immediately after the conclusion of the emergency.

13
14 A permit granted by the County shall not convey any right, title, or interest in the ROW, but shall
15 be deemed a permit only to use and occupy the public ways for the limited purpose and terms
16 stated in the permit.

17
18 The provisions in these Design Guidelines, or any subsequent SWF Guidelines and/or Manuals,
19 shall not limit or prohibit the County's discretion to promulgate and make publicly available
20 other information, materials or requirements in addition to, and/or separate from, any current or
21 future Design Guidelines which do not conflict with state or federal law.

22
23

1 DEFINITIONS

2 The following words, terms, and phrases, when used in these Design Guidelines, shall
3 have the meanings ascribed to them in this section except where the context clearly
4 indicates a different meaning.

5 **Antenna** means communications equipment that transmits or receives electromagnetic
6 radio frequency signals used in the provision of Wireless Services.

7 **Applicant** means an entity who is applying to install a Small Wireless Facility in the
8 County right-of-way.

9 **Collocate and Collocation** mean the installation, mounting, maintenance, modification,
10 operation, or replacement of SWFs in a County Public Right-of-Way on or adjacent to an
11 existing Pole.

12 **County** has the meaning stated in § 1-2-104 of the Baltimore County Code, 2015.

13 **County Facilities** means and includes County-owned or managed property of all kinds,
14 including without limitation County-owned support structures, County Public Rights-of-
15 Way, and appurtenances the County may place in the Public Rights-of-Way.

16 **Decorative Pole** means a pole specially designed and placed for aesthetic purposes and
17 on which no appurtenances or attachments, other than specially designed informational or
18 directional signage or temporary holiday or special event attachments, have been placed
19 or are permitted to be placed according to nondiscriminatory County codes.

20 **Make-Ready Charges** means the cost of all work that is required to accommodate or
21 accomplish Make-Ready Construction.

22 **Make-Ready Construction** means all work that is required to accommodate Wireless
23 Provider's SWF on a County-owned support structure. Make-Ready Construction may

1 include, but is not limited to, engineering design, Pole loading analysis, electrical
2 construction, communications construction, support structure replacement, and a post-
3 construction inspection.

4 **Plan View or Plan** means a top view of a three-dimensional object.

5 **Pole** means a vertical, wood or metal, support structure, including a streetlight Pole or a
6 utility pole.

7 **Profile View or Profile** means a side view of a three-dimensional object.

8 **Small Wireless Facilities (SWF)**, consistent with 47 CFR 1.1312(e)(2), are facilities that
9 meet each of the following conditions:

10 (1) The facilities—

11 (i) are mounted on structures 50 feet or less in height including their
12 antennas as defined in 47 CFR 1.1320(d), or

13 (ii) are mounted on structures no more than 10 percent taller than other
14 adjacent structures, or

15 (iii) do not extend existing structures on which they are located to a height
16 of more than 50 feet or by more than 10 percent, whichever is greater;

17 (2) Each antenna associated with the deployment, excluding associated
18 antenna equipment (as defined in the definition of antenna in 47 CFR 1.1320(d)), is no
19 more than three cubic feet in volume;

20 (3) All other wireless equipment associated with the structure, including the
21 wireless equipment associated with the antenna and any pre-existing associated
22 equipment on the structure, is no more than 28 cubic feet in volume;

23 (4) The facilities do not require antenna structure registration; and

1 (5) The facilities do not result in human exposure to radiofrequency radiation
2 in excess of the applicable safety standards specified in 47 CFR 1.1307(b).

3 **Support Structure** means a Pole or structure of any type whatsoever, that is used, or is
4 to be used, to support a SWF.

5 **Wireless Service** means any fixed or mobile service using licensed or unlicensed
6 wireless spectrum, including the use of Wi-Fi, provided to the public using a SWF.

7 **Wireless Provider** means:

8 (1) a Wireless Service Provider; or

9 (2) an entity that does not provide Wireless Service and that is not an electric
10 utility but builds, installs or operates on behalf of a Wireless Service Provider, or leases
11 to a Wireless Service Provider:

12 (i) SWFs;

13 (ii) Wholesale wireless service; or

14 (iii) Any other structure that supports or is capable of supporting an
15 SWF.

16 **Wireless Service Provider** means an entity that provides Wireless Service to the public.

17
18 (A) GENERAL GUIDELINES

19 (l) All SWFs and construction practices shall comply with, but not limited to, the latest
20 versions of the United States Department of Transportation Manual on Uniform Traffic Control
21 Devices (MUTCD), any State of Maryland (Department of Transportation) Manuals, the
22 National Electric Code (NEC), the National Electrical Safety Code (NESC), the National Fire
23 Prevention Association (NFPA) 70E (Standard for Electrical Safety in the Workplace),

1 ANSI/TIA-222-H, ANSI/TIA-322, ANSI/ASSE A10.48, Baltimore County Comprehensive
2 Manual of Development Policies, Baltimore County Landscape Manual, Baltimore County
3 Historic Preservation Design Guidelines, Baltimore County Street Light Policy, Baltimore
4 County Complete Street Design Guidelines for Urban Areas, all other County Codes, manuals,
5 and regulations, and any other applicable local, state, and federal rules and regulations. A
6 ~~wireless service provider~~ Wireless Provider, owner, or operator shall construct and maintain
7 SWFs and wireless support structures in a manner that does not:

- 8 (a) obstruct, impede, or hinder the usual travel or public safety on a public right-of-
9 way;
- 10 (b) obstruct the legal use of a public right-of-way by any public or private utility
11 providers;
- 12 (c) violate nondiscriminatory applicable codes or regulations;
- 13 (d) violate the federal Americans with Disabilities Act of 1990 (42 U.S.C. Section
14 12101 et seq.);
- 15 (e) impede, obstruct, violate, conflict with, or hinder any mode of travel or access to
16 the public right-of-way, an alley, or driveway;
- 17 (f) Obstruct any access to any fire escape, fire hydrant, doors, gates, stoops, public
18 transportation vehicles, shelters, street furniture or other improvements at any public
19 transportation stop (including, without limitation, bus stops, streetcar stops, and bike share
20 stations);
- 21 (g) obstruct the sight line of any alley or driveway, and a minimum of fifteen feet
22 (15') shall be maintained between the pole and the outside edge of the alley or driveway and
23 twenty-five feet (25') from intersecting street; or

1 (h) obstruct public works projects and submit to temporary rerouting, if needed.

2

3 (2) Utility Underground Required. All service, power, and communication lines to a
4 proposed SWF shall be underground if all other utilities in the immediate area are also
5 underground.

6

7 (3) Power and Fiber Optic Supply.

8 (a) Independent Power Source Required. SWFs located on County-owned support
9 structures may not use the same power source providing power for the existing facilities' original
10 purposes. An independent power source must be contained within a separate conduit on the
11 existing support structure.

12 (b) Applicant shall coordinate, establish, maintain and pay for all power and
13 communication connections with private utilities, separate and apart from any county
14 agreements.

15 (c) Emergency RF/ Power Shut-Off. Each approved wireless installation shall have a
16 clearly marked disconnect switch adjacent to the electronics cabinet. Once the shut-off switch is
17 placed in the open position, the electronics equipment related to the wireless installation shall not
18 be energized. Additionally, no RF transmissions shall be emanating from any antenna related to
19 the wireless installation.

20

21 (4) Wiring, Cables and Conduit Requirements.

- 1 (a) All wiring and cables must be housed within the steel support structure pole and
2 extended vertically within a flexible conduit. In non-steel support structures, all wiring and
3 cables must be inside a riser flush mounted to the pole.
- 4 (b) Above ground wires, cables, connections and conduits are prohibited, except as
5 specified in these Design Guidelines based on the wireless support structure.
- 6 (c) Spools and/or coils of excess fiber optic or coaxial cables or any other wires shall
7 not be stored on the pole except completely within the approved enclosures or cabinets.
- 8 (5) Lighting. Lighting associated with small wireless facilities is prohibited. Any internal
9 lights associated with electronic equipment must be shielded from public view.
- 10 (6) Signage. Signage is prohibited on all SWFs and wireless support structures, including
11 stickers, logos, and other non-essential graphics and information unless required by the FCC or
12 the utility pole owner for safety reasons.
- 13 (7) Work Permits. All applicants and/or ~~their operators~~ Wireless Providers must acquire the
14 appropriate work permit from the County for any activity for which consent is required.
- 15
- 16 (8) Interference with Right-of-Way. No part of a wireless telecommunications facility may
17 alter vehicular circulation or parking within the right-of-way or impede vehicular or pedestrian
18 access or visibility along the right-of-way. No ~~operator~~ Wireless Provider may locate or maintain
19 an SWF in a manner that causes unreasonable interference, including sightlines and any audible
20 tone. The ~~operator~~ Wireless Provider must move any facility, upon request of the County, at the
21 ~~operator's~~ Wireless Provider's cost, if the County finds the facility to interfere with the right-of-
22 way as described herein.
- 23

1 (9) Noise. All construction and operation activities must comply with the relevant County
2 and State noise law and regulations. SWFs in residential neighborhoods may not create noise
3 greater than 50 dB measured at 20 feet from the device.

4
5 (10) Historic Districts and Landmarked Properties.

6 (a) Certain communications facilities licensed or permitted by the Federal
7 Communications Commission (FCC) are subject to Section 106 of the National Historic
8 Preservation Act. Any person, organization, or business entity seeking state or federal assistance
9 for a deployment may need to consult with State Historic Preservation Office (SHPO). Prior to
10 submitting an application for SWFs and wireless support structures ~~shall not be located within~~
11 ~~twenty feet (20') of the front or side boundary lines of a recognized County or state Landmark, a~~
12 ~~National Historic Landmark, federal properties, or a property individually listed in the National~~
13 ~~Register of Historic Places~~ the applicant must demonstrate that they have fulfilled their
14 obligations under Section 106, as applicable.

15 (b) SWFs and wireless support structures located in County Historic Districts, are on
16 the Final Landmarks list or in unnamed alleys within a ~~historic district shall be a minimum of~~
17 ~~twenty feet (20') from the property line extended across the alley entrance. If the properties~~
18 ~~adjacent to the alley have a building restriction line (BRL) the twenty~~
19 ~~feet (20') shall be measured from the BRL.~~ County Historic District shall comply with County
20 Historic Preservation Design Guidelines and all other applicable Baltimore County rules,
21 procedures, manuals, policies, regulations and zoning requirements.

22 (c) ~~Operator~~ Wireless Providers shall comply with and observe all applicable County,
23 State, and federal historic preservation laws and requirements.

1 (d) Each application shall disclose if it is within a County Historic District (as defined
2 in the Baltimore County Code) with decorative poles, a Landmarked Property, or in an area of
3 the County zoned or otherwise designated as a County Historic District.

4 (e) Concealment of SWFs and wireless support structures is required by the
5 County in Historic Districts with decorative poles, the design of which shall be submitted to the
6 County for approval with the application, but which shall be consistent with other decorative
7 structures of similar types and height in the area.

8
9 (11) Spacing among streetscape elements.

10 (a) A standalone pole shall not be located within an existing street tree's critical root
11 zone. The protected zone shall be equal to one foot for each inch of the tree's diameter or a
12 minimum of fifteen feet (15'), whichever is greater. The protected zone shall be measured from
13 the outside of the tree to protect root growth.

14 (b) Trees shall not be removed or have their critical root zones damaged without the
15 prior approval of the County for the installation of small wireless infrastructure, regardless of
16 whether the application is for a standalone pole or to replace an existing County streetlight or
17 third party pole. Excavation to install a replacement streetlight or third party pole may damage an
18 existing tree's critical root zone. As such the County reserves the right to deny a permit for a
19 location where a tree has been recently removed or may require the replanting of a tree at a
20 location specified by the County, in the County's sole discretion.

21 (c) Standalone poles shall not be placed where it limits the ability of the County to
22 plant a street tree or other County structure in the future, regardless of whether the County plans
23 to plant a tree in that location at the time the application is submitted.

1 (12) Repair of Damage to County Right-Of-Way.

2

3 (a) A ~~wireless provider~~ Wireless Provider shall be required to promptly:

4 (1) Repair any damage to the public right-of-way or any damages to facilities
5 in the right-of-way directly caused by the activities of the ~~wireless provider, operator, owner~~
6 Wireless Provider or an agent of same; and

7 (2) Return the right-of-way to the right-of-way's condition before the
8 damages caused by the ~~wireless provider, operator, owner~~ Wireless Provider or an agent of same.

9

10 (13) Public Hearing.

11 (a) The County may elect to provide public notice of an application and hold a public
12 hearing before the approval of an application or waiver of any design guidelines. This does not
13 modify any FCC shot clocks and any extensions must be mutually agreed upon.

14 (b) If the County elects to hold a public hearing on an application, the applicant shall be
15 represented at the public hearing and be available to answer inquiries about the application.

16 (c) If the County receives written inquiries about an application, it may elect to forward
17 the written inquiries to the applicant for a an initial response, and the applicant must respond in a
18 timely manner, but no later than three (3) days after receipt. An application will be considered
19 incomplete until resolution is accepted by the County. The shot clock will be tolled if the
20 applicant does not provide a response after three days.

21 (d) If the applicant agrees, the time for approving or denying an application shall be
22 extended an additional 10 business days following a public hearing.

23

1 (14) Operability Time Frame.

2 (a) As part of the application process, the County may require a SWF to be fully
3 operational within ~~120~~ 180 days after the date the last or final permit is issued, unless the County
4 and the applicant mutually agree to extend the period.

5
6 (b) The failure of a SWF to operate in the time established under subsection (a) of this
7 section shall allow the County to:

8 (1) cancel the County's approval of the SWF and supporting structure; and

9 (2) cause the removal of the SWF and supporting structure by the ~~wireless~~
10 ~~provider/operator~~ Wireless Provider at the ~~wireless provider's~~ Wireless Provider's sole expense
11 and in a time the County specifies and/or through the County's use of any surety bond provided
12 by the ~~wireless provider/operator~~ Wireless Provider to remove the wireless facility.

13

14 (15) Concealment or Camouflaging of a SWF or supporting structure is strongly encouraged,
15 and means to have the facility be covered, blended, painted, disguised, camouflaged or otherwise
16 concealed such that the wireless facility blends into the surrounding environment and is visually
17 unobtrusive, including but not limited to hidden beneath a façade, blended with surrounding area
18 design, painted to match the supporting area, or disguised with real or artificial tree branches or
19 shrubbery.

20 (a) All installations should use all design techniques to minimize visual impacts.

21 Anti-graffiti finishes should be applied to all equipment cabinet designs reachable from ground
22 level. Locations with the least visual impact should be chosen. Exhaust all options to minimize
23 visual impact. The Wireless Provider shall promptly remove any graffiti.

1 (b) Any manufacturer decals or logos on equipment enclosures that may be visible to
2 the public should be removed or painted over.

3 (c) Unless otherwise stated in these guidelines, cabling should always be concealed.
4 Absolutely no visible cabling at any time. Cabling shall run within any pole upon which a SWF
5 is mounted. If placed on a pole, conceal all cabling within the pole, with no doghouse and no
6 looping cables. Match nearby poles to the maximum extent possible.

7
8 (d) Vertical elements should replicate the design, diameter and proportion of the
9 vertical element they are intending to imitate. The dimension should not exceed 10% of the
10 diameter of the pole. Applicant may request a waiver to be granted in the County's discretion in a
11 non-discriminatory manner.

12
13 (e) Concealment of SWFs and wireless support structures is required, the design of
14 which shall be submitted to the County for approval with the application, and shall be consistent
15 with other structures of similar types and height in the area.

16
17 (16) Avoid electric meter enclosure if possible. Use an underground, unmetered connection. If
18 not, use the narrowest electric meter and disconnect available.

19
20 (17) Equipment cabinets/shrouds not integrated into a pole or mounted on a cable strand may
21 not exceed ~~10~~ 12 cubic feet in volume, ~~24 inches in width, 18 inches in depth,~~ and should be
22 mounted directly behind any road signs located on a pole. Equipment cabinets and associated

1 components should not block any road signs or sightlines. The design of non-integrated
2 equipment cabinets/shrouds should be slim in profile to match the pole.

3
4 (18) Replacement decorative poles supporting SWFs are allowed when they are designed to
5 replicate other nearby decorative poles in color and style and not to exceed ~~50%~~ 150% of the
6 existing height of the pole.

7
8 (19) Unless required to provide service, avoid pole locations near windows (especially
9 residential windows), historically/architecturally significant buildings, and ornamental light
10 standards.

11
12 (20) If there is a choice of using a location in the street or in an alley, the alley should be used.
13 Most preferable locations for SWFs are industrial areas, highway rights-of-way, retail and
14 commercial areas if not adjacent to a county park, residential area, ~~historic district or design~~
15 ~~district~~ Historic District.

16
17 (21) It is preferred SWFs and support structures not be installed:
18 (a) On medians and traffic islands (i.e. any public space that is contiguous only with
19 roadways and does not border any private property, regardless of whether it currently houses a
20 County owned streetlight or a third party utility pole);
21 (b) On bridges and tunnels;
22 (c) On poles that have traffic control devices;

1 (d) Within areas less than two feet from the road-way/face of curb, sidewalk or
2 shared use path as measured to the nearest part of a ground mounted cabinet or enclosure.

3 (e) Within six feet from any permanent object or existing lawful encroachment into
4 the right-of-way.

5
6 (22) The ~~owner/operators/wireless providers~~ Wireless Providers shall continue to maintain the
7 aesthetics and safety of the SWFs and supporting structures at their own cost. Any deficiencies in
8 maintenance shall be addressed by the ~~owner/operator/wireless provider~~ Wireless Provider
9 within thirty days and if not remedied may be corrected by the County at the
10 ~~owner/operator/wireless provider's~~ Wireless Provider's cost.

11
12 (B) EXISTING WIRELESS SUPPORT STRUCTURES.

13 (1) Collocation encouraged. The collocation of SWFs on existing support structures is
14 strongly encouraged as a means to minimize the extent of intrusion of redundant support
15 structures within the right-of-way. Such collocations must follow the latest structural integrity
16 and safety requirements and guidelines.

17
18 (2) Structural integrity of existing support structures.

19 (a) The County shall not authorize any attachments to County-owned infrastructure
20 that negatively impacts the structural integrity of said support structure.

21 (b) The County may condition approval of the collocation on replacement or
22 modification of the wireless support structure at the ~~operator's~~ Wireless Provider's cost if the
23 County determines that replacement or modification is necessary for compliance with the

1 County's construction and/or safety standards. A replacement or modification of the wireless
2 support structure shall conform to the applicable design guideline(s) and the County's s
3 applicable specifications for the type of structure being replaced. The County may retain
4 ownership of a replacement wireless support structure. The applicant shall be responsible for all
5 make-ready charges.

6
7 (3) Maximum Permitted Height. For an existing wireless support structure, the antenna and
8 any associated shroud or concealment material are permitted to be collocated at the top of the
9 existing wireless support structure and shall not increase the height of the existing wireless
10 support structure by more than ten (10) percent or 6 feet, whichever is greater, unless otherwise
11 specified in the Design Guidelines based on the specific context and characteristics of the
12 wireless support structure.

13
14 (4) Right to reserve space on wireless support structure or pole. The County may reserve
15 space for future public safety or transportation uses in the right-of-way or on a wireless support
16 structure or pole owned by the County in a documented and approved plan in place at the time an
17 application is filed.

18 (a) A reservation of space shall not preclude placement of a pole or collocation of a
19 SWF.

20 (b) If replacement of the County's pole or wireless support structure is necessary to
21 accommodate the collocation of the SWF and the future use, the ~~operator~~ Wireless Provider shall
22 pay for the replacement of the pole or wireless support structure, and the replaced pole or
23 wireless support structure must accommodate the future use.

1 (5) Existing ~~Third Party~~ Third-Party Utility or Third-Party Streetlight Poles.

2 (a) Poles owned by a third party (i.e. poles installed in public space by entities other
3 than the County) are typically wood utility poles and are located throughout the County's rights-
4 of way and alleyways.

5 (b) (1) With the consent of the pole owner, ~~operators~~ Wireless Providers may
6 submit applications to install infrastructure attached to these poles.

7 (2) Wireless Providers shall comply with pole owner technical requirements,
8 application requirements and processes, in addition to the requirements and procedures required
9 by the County. Where the pole owner requires make-ready and/or pole replacement, Wireless
10 Providers shall also work according to procedures and terms established by the pole owner or
11 owners, including those for coordination with other attachers to the pole.

12 (c) These guidelines do not allow the installation of new third party utility poles in
13 the ROW without prior County approval. Any application must indicate whether the installation
14 is a replacement of an existing or a new third party pole.

15 (d) All wireless facilities and equipment on third party poles, including antennas,
16 antenna related equipment, cabinets, shrouds, conduit, and mounting hardware shall be a grey
17 powder coated finish, or match existing infrastructure, in the sole discretion of the County.

18

19 (6) Existing government infrastructure on a light pole, traffic signal, or elsewhere nearby
20 may preclude small cell installation at a given location. A pole may be deemed unsuitable for a
21 SWF if there is existing County-owned technology already on the structure, such as cameras,
22 sensors, etc.

23 (C) NEW OR REPLACEMENT WIRELESS SUPPORT STRUCTURES/POLES.

1 (1) Selection of New, Replacement or Existing Pole.

2 (a) ~~Operators~~ Wireless Providers shall not propose new wireless support structures or
3 poles where utility poles and/or streetlight poles exist, unless they can demonstrate that it is not
4 technically possible to use or replace an existing pole.

5 (b) The standard approach for attaching to a County streetlight pole will be for the
6 streetlight pole to be replaced with a light pole within five feet (5') of the location designed to
7 accommodate the SWF. In the event the applicant believes the existing pole can support the
8 structure and fulfill all other aesthetic and technical standards, the applicant shall provide an
9 industry-standard PLA certified by a Maryland Professional Engineer indicating that the specific
10 pole will safely support the load. Replacement poles shall resemble existing poles.

11 (c) Required Setbacks.

12 (1) The centerline of new support structures shall be installed in alignment
13 with existing street trees and other poles along the same right-of-way when possible.

14 (2) In no case shall a new support structure be located less than two feet from
15 any of the road-way/face of curb, sidewalk, or shared use path as measured to the nearest part of
16 the support ~~structure.~~ structure, unless existing poles in the area are less than two feet.

17 (3) New support structures shall be located a minimum of six feet from any
18 permanent object, structure or existing lawful encroachment into the right of way.

19 ~~(b)~~ (d) Fall Zones. Fall-Zone requirements for wireless support structures shall be
20 consistent with the requirements for other structures of similar types and height within the right-
21 of-way and the SWFs and any supporting structures, collocations or poles must be built to
22 maximize safety and setbacks in the event of a fall.

1 (⇨) (e) Required Spacing. Collocation is strongly encouraged. If not feasible, a minimum
2 of 300 linear feet between SWFs or wireless support structures is required.

3 (f) Streetlight Requirements. Street lights are placed at all intersections, tee-turnarounds,
4 and cul-de-sacs. For streets of 30' or less, a streetlight based on the 14' ornamental pole with 100-
5 watt sodium vapor, colonial type fixture is to be used and the type of light must be approved by
6 the County and (if BGE-owned) BGE. Due to future maintenance issues, specialty fixtures/poles
7 typically will not be considered (see section III-C of the County's Street Light Policy). Lights are
8 placed along the public roadways within the public right-of-way at a spacing of approximately
9 150' to 175' on alternating sides of the street, when feasible. Streets in the 36-42 foot width
10 usually require a 25' or 30' steel or fiberglass pole with a 150-watt sodium vapor pendant
11 mounted fixture on a standard 6' arm. These lights are placed about 175' to 200' apart on
12 alternating sides of the street. Mercury Vapor or Metal Halides fixtures are not acceptable. On
13 totally residential settings, the County will consider 14-foot ornamental street lights for roadways
14 up to 40 feet upon written request and at the discretion of the County.

15 (2) Maximum Permitted Height.

16 (a) For a new wireless support structure in a business or industrial zone, the overall
17 height of the wireless support structure and any collocated antennas shall not be more than ~~forty~~
18 fifty feet in height above established grade measured at the base of the wireless support structure.

19 (b) The County shall limit the maximum permissible height of wireless support
20 structures in residential zones to not more than thirty-five feet in height above established grade
21 measured at the base of the structure.

1 (3) Design Requirements.

2 (a) Shape and Dimensions. All new wireless support structures shall be constructed
3 of solid hot-dipped galvanized steel (or other substitute material approved by the County in
4 advance), be round in shape with the pole shaft tapered in diameter from the base to the top with
5 a maximum of twelve (12) inches at the base. If the applicant requires a larger diameter,
6 applicant may request a waiver, however the larger base shall not interfere with sightlines,
7 pedestrian flow, or ADA compliance and requirements.

8 (b) Transformer Base. All new wireless support structures shall include a one-piece
9 cast aluminum designed to allow transformer base in a breakaway design, consistent with
10 generally accepted engineering standards and subject to the County's review and approval.

11 (c) Foundation/Footer.

12 (1) All new wireless support structures must be supported with a reinforced
13 concrete foundation and footer designed, stamped, sealed and signed by a professional engineer
14 licensed and registered in the State of Maryland, and subject to the County's review and
15 approval.

16 (2) Anchor bolts must be constructed from steel (high strength, hot dip
17 galvanized) per ASTM A36, and any other applicable state or County regulation and code.
18 Design of the connection of the pole to the foundation shall be stamped, sealed and signed by a
19 professional engineer licensed and registered in the State of Maryland and subject to the
20 County's review and approval.

21 (3) All anchor bolts must be concealed from public view with an appropriate
22 pole boot or cover, powder coated to match the pole.

1 (d) Color. New wireless support structures, including the breakaway transformer
2 base, shall have a powder coated finish in the dark earth tone colors such as dark green, dark
3 brown, gray, or black consistent with the color of other poles in the immediate vicinity.
4

5 (4) Multiple requests for wireless support structures. If multiple requests are received by the
6 County to install two or more poles that would violate applicable spacing requirements outlined
7 in the Design Guidelines, or to collocate two or more SWFs on the same wireless support
8 structure, the County may resolve conflicting requests through whatever reasonable and
9 nondiscriminatory manner it deems appropriate.
10

11 (5) Exemption to County undergrounding requirements.

12 (a) ~~SWF operators~~ Wireless Providers may seek an exemption from the County of the
13 undergrounding requirements for the placement of a new wireless support structure to support
14 SWFs if the ~~operator~~ Wireless Provider is unable to achieve its service objective using a SWF.

15 (b) The County shall process waivers in a reasonable and nondiscriminatory manner
16 that does not have the effect of prohibiting the provision of wireless service.
17

18 (D) ANTENNA.

19
20 (1) Location. All antennas to be installed on new or existing wireless support structures shall
21 be mounted to the top of the wireless support structure and aligned with the centerline of the
22 wireless support structure, unless otherwise agreed to by the County based on the specific
23 context and characteristics of the wireless support structure.

1 (2) Size. Each antenna shall be located entirely within an enclosure of not more than six
2 cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all
3 of its exposed elements could fit within an enclosure of not more than six cubic feet in volume.
4 The height shall not exceed four (4) feet.

5
6 (3) Design.

7 (a) Shape. Antennas shall be cylindrical in shape, or completely housed
8 within a cylindrical enclosure or radome.

9 (b) Color. Exposed antennas and antenna enclosures shall match the color
10 specifications of the structure.

11

12 (E) SWFs INSTALLED ON WIRELESS SUPPORT STRUCTURES.

13 (1) Size. Exclusive of the antenna, all wireless equipment associated with the facility shall
14 not cumulatively exceed twenty-eight cubic feet in volume. The calculation of equipment
15 volume shall not include electric meters, concealment elements, telecommunications
16 demarcation boxes, grounding equipment, power transfer switches, cut-off switches, and vertical
17 cable runs for the connection of power and other services.

18 (2) Equipment Enclosures Required. All small cell facilities mounted to wireless support
19 structures or located on the ground shall be fully contained within enclosures or cabinets.

20 (3) Required Clear Height. All SWFs mounted to a wireless support structure shall provide a
21 minimum of 10 feet of clear space on the pole as measured from established grade to the lowest
22 point of any facility/equipment cabinets or concealment apparatus mounted to the support
23 structure.

1 (4) Maximum Horizontal Offset from Support Structure. SWF equipment cabinets or
2 enclosures shall not extend more than fourteen inches (14 20") beyond the pole of centerline in
3 all directions.

4 (5) Design.

5

6 (a) Cabinet or Enclosure Shape.

7 (1) SWF equipment cabinets or enclosures attached to a supporting structure
8 shall be matching in shape to what they are attached, with the vertical dimensions being greater
9 than the horizontal.

10 (2) Generally, the cabinet or enclosure shall be no wider than the maximum
11 diameter of the support structure, but no more than three feet (3') total.

12 (b) Installation Method.

13 (1) All pole mounted equipment cabinets or enclosures must be installed as
14 flush to the pole as possible.

15 (2) Any installation brackets connecting the cabinets or enclosure to the pole
16 shall not extend more than 2 inches from the pole, and shall include metal flaps (or wings) to
17 fully conceal the gap between the cabinet and pole.

18 (c) Color. Cabinets or enclosures shall match the color specification of the structure.

19

20 (F) GROUND MOUNTED SWFs.

21 (1) Location.

22 (a) Required Setbacks.

1 (1) In no case shall ground mounted SWFs be located less than two feet from
2 the road-way/face of curb, sidewalk, or shared use path as measured to the nearest part of the
3 cabinet or enclosure.

4
5 (2) Ground mounted SWFs and associated required screening shall be located
6 a minimum of six feet from any permanent object or existing lawful encroachment into the right-
7 of-way.

8 (3) SWFs shall have a minimum 60-foot setback from residential buildings
9 and a minimum 20-foot setback from commercial buildings.

10

11 (2) Size. All SWF equipment associated with the facility shall not cumulatively exceed
12 twenty-eight (28) cubic feet in volume. The calculation of equipment volume shall not include
13 electric meters, concealment elements, telecommunications demarcation boxes, grounding
14 equipment, power transfer switches, cut-off switches, and vertical cable runs for the connection
15 of power and other services.

16

17 (3) Maximum Permitted Height. The maximum height for ground mounted ~~SWFs~~ cabinet
18 shall not exceed two and one-half feet (2.5 ') as measured from established grade at the base of
19 the facility.

20

21 (4) Equipment Enclosures Required. All ground mounted SWFs shall be fully contained
22 within enclosures or cabinets.

23

1 (5) Design Requirements.

2 (a) Screening required. Evergreen plant material shall be used for screening and shall
3 be planted and maintained to ensure that the equipment will be screened to its full height two
4 years of planting without obstructing the view of motor traffic or pedestrians.

5 (b) Concrete Pad or Slab. In accordance with state and local standards approved by
6 the County.

7 (c) Breakaway Design. All objects placed within the clear zone shall feature
8 breakaway design.

9 (d) Color. Ground mounted small wireless facility cabinets and enclosures shall be
10 dark green or black powder coated finish.

11 (G) MID-SPAN INSTALLATIONS. SWFs installed on strand or cables between utility poles
12 shall be subject to the following requirements:

13 (a) Midspan wireless installations cannot exceed 18 inches in length, 15 inches in
14 height, and 12 inches in depth.

15 (b) Must comply with all requirements in this document, including but not limited to
16 RF, clearances from other attachments, and power disconnect.

17 (c) Strand mounted devices must have RF warning tags and contain the company site
18 name and 24-hour contact phone number.

19 (d) May not exceed five (5) cubic feet in volume.

20

21 (H) CONSTRUCTION AND SAFETY REQUIREMENTS.

1 (1) Approval of the collocation, replacement, or modification of the wireless support
2 structure is conditioned upon an ~~operator's~~ Wireless Provider's assumption of costs the County
3 determines is necessary for compliance with its written construction or safety standards.

4
5 (2) Prevention of failures and accidents. ~~The owner or operator of a SWF sited in the right-~~
6 ~~of-way~~ A Wireless Provider shall at all times employ ordinary and reasonable care and install
7 and maintain in use nothing less than the best available technology for preventing failures and
8 accidents which are likely to cause damage, injury, or nuisance to the public.

9
10 (3) Compliance with fire safety and FCC regulations. SWFs, wires, cables, fixtures, and
11 other equipment shall be installed and maintained in substantial compliance with the
12 requirements of the National Electric Code, all FCC, state, and local regulations, and in such
13 manner that will not interfere with the use of other property.

14
15 (I) MINIMUM REQUIRED SUBMISSIONS.

16 (1) Site Plans and Structural Calculations.

17 (a) The applicant must submit fully-dimensioned scale site plans including GIS
18 zoning map with proposed location, elevation drawings and structural calculations prepared,
19 sealed, stamped and signed by a Professional Engineer licensed and registered by the State of
20 Maryland. Drawings must depict any existing wireless facilities (SWF or otherwise), with all
21 existing transmission equipment identified; other improvements; the proposed facility, with all
22 proposed transmission equipment and other improvements; and the boundaries of the area
23 surrounding the proposed facility and any associated access or utility easements, the public right-

1 of-way and setbacks. SWF zoning map data, including relevant pole and antenna locations, shall
2 be provided to the County in an electronic GIS format to be approved by the County. Submittals
3 must encompass as much of an area as is necessary to capture construction boundaries and
4 nearby features, such as property boundaries, set-backs to nearest residential structures and other
5 buildings, site entries, utilities and nearby roads. The County reserves the right to request a
6 revised submittal for a larger affected area view.

7 (b) Photo Simulations: For all applications, photo simulations from at least three
8 reasonable line of-site sight locations near the proposed project site. The photo simulations must
9 be taken from the viewpoints, including at least 3 varying heights along the proposed line of
10 sight, of the greatest pedestrian or vehicular traffic. Angle of photo simulation must be at least 90
11 degrees or greater and provide a full profile depiction. Photo simulations must be included in the
12 application packet.

13
14 (2) Equipment Specifications. For all equipment depicted on the plans, the applicant must
15 include:

16 (a) the manufacturer's name and model number and full cut sheets for each
17 component;

18 (b) physical dimensions including, without limitation, height, width, depth, volume
19 and weight with mounts and other necessary hardware;

20 (c) Technical rendering of all external components, including enclosures and all
21 attachment hardware; and

22 (d) Which sections(s) from the Design Guidelines standards match the desired design.

23

1 (3) Name of the structure owner (if not the County) and written permission from the owner
2 to attach to the structure.

3

4 (J) SURETY BOND OR EQUIVALENT FINANCIAL TOOL FOR COST OF REMOVAL
5 OR RECOUPMENT OF UNPAID RATES OR FEES.

6 (a) All ~~owners, wireless providers, and/or operators~~ Wireless Providers must procure
7 and provide to the County a renewable bond, or must provide proof of an equivalent financial
8 mechanism, to ensure compliance with all provisions of the Design Guidelines. The amounts
9 shall be sufficient to:

10 (1) Provide for the removal of abandoned or improperly maintained wireless
11 facilities or poles, including those that the county determines need to be removed to protect
12 public health, safety, or welfare and restore the right-of-way;

13 (2) Cover the costs of any damage to county property caused by ~~an operator~~ a
14 Wireless Provider or its agent; and

15 (3) Recoup rates or fees that have not been paid by a ~~wireless provider~~ Wireless
16 Provider more than thirty days past due, as long as the County has given reasonable notice to the
17 ~~wireless provider/operator/owner~~ Wireless Provider.

18 (b) Two acceptable alternatives to a bond include a funds set-aside and a letter of
19 credit.

20

21 (K) INDEMNITY ~~AND HOLD HARMLESS~~ HOLD HARMLESS, DEFENSE AND
22 INSURANCE.

1 (1) ~~An owner, wireless provider, and/or operator, as applicable,~~ A Wireless Provider shall
2 indemnify, protect, defend and hold harmless the County and its officers and employees against
3 any claims, loss, suits, judgments, costs, liens, expenses, fees, damage, or liability, including any
4 attorneys' fees, resulting from the SWF or supporting structure. Said ~~owner, wireless provider,~~
5 ~~and/or operator~~ Wireless Provider shall also hold the County and/or its agent(s) harmless in the
6 event any action by the County and/or its agent(s) negligently or recklessly disrupts, destroys,
7 and incapacitates small cell facility or wireless support structure in the public way created under
8 these Design ~~Guideline~~ Guidelines.

9

10 (2) During the period in which the facilities of ~~owner, wireless provider, and/or operator~~ a
11 Wireless Provider are located on or attached to the County's assets or rights-of-way, the County
12 may require a ~~wireless provider~~ Wireless Provider to:

13 (a) Carry, at the ~~owner, wireless provider, and/or operator's~~ Wireless Provider's sole
14 cost and expense, the following types of third-party insurance:

15 (i) Property insurance for the replacement cost of all wireless facilities and
16 poles against all risks;

17 (ii) Workers' compensation insurance, as required by law;

18 (iii) Commercial general liability insurance of at least \$2,000,000 per claim,
19 with respect to the ~~owner, wireless provider, and/or operator's~~ Wireless Provider's activities in,
20 on, or around the authority improvements or rights-of-way, including coverage for bodily injury
21 and property damage; and

22 (iv) Environmental ~~insurance; insurance, including but not limited to coverage~~
23 for environmental remediation;

1 (b) include the County as an additional insured on the commercial general liability
2 policy and provide certification and documentation of inclusion of the authority in a commercial
3 general liability policy as reasonably required by the authority; and

4 (c) Provide that the County and its employees, officers, and officials are immune
5 from liability for any claim, including a tort claim, arising from the installation or operation of
6 wireless facilities and wireless support structures.

7
8 (L) SEVERABILITY. If any of the provisions in these Design ~~Standards~~ Guidelines are
9 declared by a court or other lawful authority to be unenforceable or invalid for any reason, the
10 remaining provisions hereof shall not be affected thereby and shall remain enforceable to the full
11 extent permitted by law.

12
13 (K) RETENTION OF LOCAL POLICE POWER. EFFECT OF FUTURE CHANGE IN
14 GOVERNING LAW. These Design Guidelines are intended to establish only the minimum
15 restrictions upon the police power of the County necessary to comply with the final rules adopted
16 by the Federal Communications Commission regarding permissible local regulations of wireless
17 facilities and wireless support structures. Nothing in these Design Guidelines shall be construed
18 as surrender by the County of its right and power to adopt future ordinances, rules, and
19 regulations in the exercise of its police power applying to wireless facilities to the maximum
20 extent allowed by applicable law. Issuance of any permit pursuant to these Design Guidelines
21 and any license agreement shall not grant the applicant any vested rights in the event of a change
22 in governing law, including any vested right for applicant to remain regulated under the laws,
23 ordinances, rules, and regulations in effect at the time of issuance of a permit. In the event of any

1 future change in governing law (including, but not limited to, invalidation or modification of the
2 final rules of the Federal Communications Commission in effect at the time of initial adoption of
3 these Design Guidelines), the County at all times reserves the right to regulate wireless facilities
4 under new governing law as changed and to apply new County regulations allowed by the
5 changed law to all pre-existing wireless facilities.

6

7 SECTION 2. AND BE IT FURTHER ENACTED, that the Laws of Baltimore County
8 shall read as follows:

9

10 Article 32. Planning, Zoning and Subdivision Control

11 Title 4. Development

12

13 § 32-4-404.

14 (a) In order to implement the standards and requirements set forth in this subtitle, the
15 county shall prepare development manuals in accordance with the requirements of this section
16 and submit the manuals to the Planning Board for its action under subsection (d) of this section.

17 (b) The appropriate county agencies shall prepare the following manuals and submit
18 them to the Planning Board:

19 (1) A Design Manual;

20 (2) A Manual of Standard Details;

21 (3) A Manual of Standard Specifications;

22 (4) A Manual of Stormwater Management Policy;

23 (5) A Manual of Sediment Control and Slope Protection;

1 (6) A Manual of Uniform Traffic-Control Devices; [and]

2 (7) A Manual of Development [Procedures] PROCEDURES; AND

3 (8) A SMALL WIRELESS FACILITY MANUAL.

4 (d) (1) Each agency that is required to prepare a manual under this section, shall submit
5 the manual to the Planning Board for its review and approval.

6 (2) Within 75 days after the submission of a manual to the Planning Board, the
7 Planning Board shall:

8 (i) Conduct a public hearing; and

9 (ii) Allow any person a reasonable opportunity to comment upon the proposed
10 manual during the public hearing.

11 (3) Within 75 days after the public hearing, the Planning Board shall:

12 (i) Approve the manual, with any amendments the Planning Board considers
13 appropriate; and

14 (ii) Submit the approved manual, as amended, to the County Council for its adoption.

15 (4) Within 90 days after submission of the manual to the County Council, the County
16 Council shall adopt the manual with any amendments the council considers appropriate.

17 (5) The manual shall become effective as of the date of adoption by the County
18 Council.

19
20 SECTION 3. AND BE IT FURTHER ENACTED, that the appropriate county agencies
21 shall jointly prepare and make ready for adoption a Small Wireless Facility Manual in
22 accordance with § 32-4-404(d) of the Baltimore County Code, 2015 (BCC) not more than twelve
23 months after the effective date of this Act and that on adoption of the manual in accordance with

1 BCC § 32-4-404(d), Section 1 of this Act shall be considered null and void with regard to any
2 small wireless facility application filed after the date of adoption of the manual.

3

4 SECTION 4. AND BE IT FURTHER ENACTED, that this Act, having passed by the
5 affirmative vote of five members of the County Council shall take effect on enactment
6 retroactive to April 14, 2019.