

Town of Arlington Small Cell Wireless Facility Design Rules and Regulations

I. Background

Public spaces, including streetscapes, enhance the quality of life for our residents and visitors and ensure that the Town has the foundation to become more walkable and sustainable. Streets also serve as the Town's civic, cultural, and physical framework of the character of Arlington.

New Small Cell Wireless Facilities will accommodate the increased cellular demand while balancing Arlington's public space character and function. To provide the necessary coverage, each cellular provider will install infrastructure to serve their individual needs; additionally, some companies serve as an infrastructure provider installing equipment that will house infrastructure for multiple cellular providers. Like other utilities, federal law allows Small Cell infrastructure equipment in the public right-of-way. Balancing the need to accommodate increasing cellular demand while preserving public space character and function is critically important, as is the need to design and place the proposed infrastructure in an appropriate way.

2. Intent

These standards are intended to cover the general requirements and aesthetics for the design and installation of Small Cell and similar technology. It is the intent of this document to establish uniform standards to address issues presented by small wireless facilities including, but not limited to:

- 1. Prevention of interference with the use of streets, sidewalks, alleys, traffic light poles or other light poles, and other public ways and places; and,
- 2. Prevention of the creation of visual and physical obstructions and other conditions that are hazardous to vehicular and pedestrian traffic; and,
- 3. Prevention of interference with other facilities and operations of facilities lawfully located in Town rights-of-way or public property; and,
- 4. Protection against environmental damage, including damage to trees or shrubbery including, but not limited, those items planted pursuant to Town landscaping, zoning, tree preservation, or other Town policies;
- Preservation of the character of neighborhoods in which facilities are installed;
- 6. Preservation of the historical character of historic structures, or historic neighborhoods, including but not limited to such structures or neighborhoods listed in Local Historic Districts or on the National Register of Historic Places; and,
- 7. Facilitation of the rapid deployment of small wireless facilities to provide the citizens with the benefits of advanced wireless services.

Small Cell Wireless Facility Design Rules and Regulations

3. Guidelines on Placement

General

- 1. The small wireless facility shall not interfere with the safety and convenience of ordinary travel over the right-of-way or access as required by the Americans with Disabilities Act (ADA) before or after installation of the facility or other related equipment.
- 2. The small wireless facility may not extend more than ten feet above the pole supporting it, or 60 feet total in height above the ground, whichever is lower in height.
- 3. No part of the small wireless facility shall extend further than four feet from the pole if installed twenty feet or higher above the ground or further than two feet if installed below 20 feet above the ground.
- 4. No part of the small wireless facility shall extend below eight feet above ground level.
- 5. A small wireless facility shall not be installed within 180 feet of another pole-mounted Small Wireless Facility.
- 6. No small wireless facility shall be installed on double poles, and a second pole shall not be installed in order to support a small wireless facility on a pole.
- 7. No small wireless facility shall interfere with the health of public shade trees.
- 8. No small wireless facility shall be place upon poles which cannot safely structurally support additional equipment.
- 9. A small wireless facility shall be located in a manner that does not obstruct the legal use of the right-of-way by a utility provider.
- 10. Small wireless facilities and wireless support structures shall be located with appropriate clearance from existing utilities.
- 11. A small wireless facility shall not be attached to a traffic signal or its equipment.
- 12. A small wireless facility shall not be located within sight triangles at street intersections.

Existing Poles

- 1. Only one installation per pole on a first come, first served basis is permitted.
- No small wireless facility shall be installed on poles with existing Small Wireless Facilities or
 other substantial wireless equipment in place, except that the existing equipment may be
 replaced in a manner consistent with the Arlington Small Cell Wireless Facilities Policy.
- 3. A small wireless facility shall not be attached to a Town-owned pole or other utility pole that is owned and maintained by the Town.
- 4. A small wireless facility shall not be attached to a decorative pole. A new pole is required on streets with decorative poles.

New and Replacement Poles

- 1. Poles height shall be the same as the nearest pole of the same material on the same street.
- 2. Poles shall be placed consistent with the most current Manual on Uniform Traffic Control Devices.
- 3. New and replacement poles shall not obstruct ADA access, including for sidewalks and maintaining a clear landing at the top of curb ramps at crosswalks.
- 4. The mounting height of the luminaires on replacement poles shall match the existing mounting height.
- 5. Replacement poles shall match the existing streetlight poles being replaced in appearance, material, and function.

Small Cell Wireless Facility Design Rules and Regulations

6. When wireless equipment is attached to a replacement pole, the primary purpose of the pole shall remain as a pole structure supporting a streetlight luminaire, or power facilities, and replacement fixtures, as originally established within the Town right-of-way.

New Pole Location Requirements

- 1. The minimum wireless equipment pole separation is 150 feet.
- 2. The minimum separation from intersection curb line is 50 feet.
- 3. The minimum separation from hydrant or a building fire connection is 6 feet.
- 4. The minimum separation from a tree is 15 feet.
- 5. The minimum separation from light poles and traffic signal poles is 10 feet.
- 6. The minimum separation from existing water and sewer mains and laterals is 4 feet.
- 7. The minimum separation from the outside edge of an alley or driveway is 15 feet.
- 8. The minimum separation from bicycle racks is 3 feet and shall not impede the attachment of bicycles.

Alignment of Poles

- 1. Standalone poles shall be aligned with existing streetlights, utility poles, and street trees as applicable to maintain a visual and physical organization of structures within the right-of-way, as measured from the center of the base of the pole. When streetlight and street tree alignment are offset, prioritize alignment of the small wireless facility with streetlights.
- 2. Poles should be located, to the maximum extent possible, to minimize impact on businesses and residences, and buildings by avoiding placement directly in front of building entrances, alignment with windows, primary entry walks, or delivery zones or entrances.
- 3. Poles shall be placed a minimum of 10 feet from any above grade building face, including bay windows, show windows, oriel windows, and building projections or overhangs.
- 4. Small wireless facilities and wireless support structures shall be located equidistant between trees when possible, with a minimum of 15 feet separation such that no proposed disturbance shall occur within the critical root zone of any tree.
- 5. If a streetscape is redesigned in the future, including, but not limited to the location and type of streetlights, small wireless facility providers will be required to remove their infrastructure at their own cost and apply to reinstall small cell infrastructure in accordance with these guidelines and the new streetscape.
- 6. To the greatest extent possible, new wireless support structures shall be located in line with existing lot lines or an equal distance from any two existing structures. In areas of the Town where multiple structures abut each other and/or where no side lot setback requirements exist, new wireless support structures shall not be located directly in front of an entrance or window of any existing structure.

4. Aesthetic Requirements for Small Cell Wireless Facilities

Antennas

- 1. The dimensions of the antenna shall not exceed 16 inches in diameter or 40 inches in height.
- 2. Each small wireless antenna shall be located entirely within a shroud or canister-type enclosure.
- 3. The diameter of the antenna enclosure at its widest point should not be wider than two times the diameter of the top of the wireless support structure. The enclosure shall not exceed three cubic feet in volume.

Small Cell Wireless Facility Design Rules and Regulations

- 4. All antenna enclosures shall either be mounted to the top of the wireless support structure pole and aligned with the centerline of the wireless support structure, or mounted to the side of the wireless support structure such that the vertical centerline of the antenna enclosure shall be parallel with the wireless support structure, but at least 8 feet above ground level at its lowest point.
- 5. Tree "topping" or the improper pruning of trees is prohibited. Any proposed pruning or removal of trees, shrubs or other landscaping already existing in the right-of-way must be noted in the application and must be approved by the Tree Warden.

Cables and Wires

- 1. All cables, wires, and connectors related to the small wireless facility must be fully concealed on the wireless support structure and shall match the color of the wireless support structure.
- 2. Exposed wires are not permitted.
- 3. There shall be no external cables or wires related to the small wireless facility hanging off or otherwise exposed on the wireless support structure.

Equipment Enclosures and Concealment

- 1. A small wireless facility shall not be fenced.
- 2. Equipment enclosures, including electric meters, shall be as small as possible, but in no event larger than 28 cubic feet in volume. Ground-mounted equipment shall incorporate concealment elements into the proposed design matching color and materials of the wireless support structure, unless other materials or colors are approved by the Department of Planning and Community Development. Concealment may include, but shall not be limited to, landscaping, strategic placement in less obtrusive locations and placement within existing or replacement street furniture.
- Radio equipment shall be fully enclosed within an equipment cabinet or concealed with the
 antenna shroud enclosure matching the color and materials of the wireless support structure,
 unless other color and materials are approved by the Department of Planning and Community
 Development.
- 4. Landscaping concealing equipment enclosures shall be planted in such quantity and size such that 100 percent screening is achieved within two years of installation.

Color

- 1. Except when a small wireless facility is attached to a wood pole, poles and all equipment must be the same color and finish as surrounding streetlight poles or third party poles.
- 2. In the case of wood utility poles, finishes of conduit shall be zinc, aluminum, or stainless steel, or colored to match those metal finishes, and equipment cabinets shall be the color of brushed aluminum.

Signage, Logos, Lights, Decals, and Cooling Fans

- 1. A small wireless facility shall not display a sign unless:
 - a. The sign displays emergency information, owner contact information, warning instructions, safety instructions, or is otherwise required by a federal, state, or local agency. Allowed sign on a small wireless facility shall not exceed one (1) square foot in area; and,

Small Cell Wireless Facility Design Rules and Regulations

- b. Company 2-inch by 2-inch sign is required to be placed on each pole located 6-feet above sidewalk elevation. Sign must include company logo or name, and pole identification number.
- 2. A small wireless facility shall not have lights on the facility unless the lights are required by other laws and consistent with the requirements of law, or unless illumination is integral to the camouflaging strategy such as design intended to look like a street light pole.
- 3. Unnecessary equipment manufacturer decals shall be removed or painted over. The color shall match or shall be as approved by the Department of Planning and Community Development. Small wireless facilities and wireless support structures shall not include advertisements and may only display information required by a federal, state, or local agency. The smallest and lowest visibility radio-frequency (RF) warning sticker required by government or electric utility regulations shall be used. Placement of the RF sticker shall be as close to the antenna as possible.
- 4. In residential areas, passive cooling fans shall be used. In the event that a fan is needed, a cooling fan with a low noise profile shall be used.

Significant Historic Buildings and Historic Districts

- 1. Small wireless facilities and wireless support structures shall be located so as not to be located along the frontage of any building deemed to be of historic significance on a federal, state, or local level.
- 2. Concealment techniques shall be designed to be consistent and harmonious with the nature and character of the historic district, including color, shape, and size of proposed equipment.
- 3. A certificate of appropriateness, certificate of hardship, or certificate of non-applicability shall be obtained from the Arlington Historic Districts Commission.

5. Stealth Technology

A small wireless facility shall be installed using stealth technology to the greatest extent practicable including without limitation the following:

- 1. Reduced visibility. Antenna arrays, cables, and other accessory facilities used for providing the wireless service shall not be obtrusive;
- 2. Color. The color of the facility shall be compatible with that of the non-tower support structure. All facilities located on buildings, roofs, or structures shall be painted or constructed of materials to match the color of the structure directly behind them to reduce the visibility of the small wireless facility; and
- 3. Accessory facilities. Accessory facilities mounted onto a non-tower support structure shall not project greater than three feet, as measured horizontally, from the surface of the non-tower support structure and shall be painted or screened with materials that are a complementary color as the non-tower support structure. Cables shall travel along the exterior of a non-tower support structure.