

Town of Medway  
Board of Selectmen  
Small Wireless Facility  
and Similar Infrastructures  
Design Rules and Regulations

## **1. BACKGROUND**

To address the growing demand for wireless technology across the United States, cellular providers propose to increase the capacity of their networks by deploying small wireless facilities (“SWF”) (sometimes referred to as “small cell”), a new lower-powered antenna technology, to reduce data traffic load on roof mounted equipment and larger cell towers. This new technology requires infrastructure to be installed in closer proximity to the users on the ground. Small Wireless Facilities consist of antennas and related power equipment that transmit wireless signals to improve reliable data streaming. This infrastructure will provide cellular and data coverage to smaller geographic areas. New Small Wireless Facilities will improve the provider’s ability to meet the public’s current 4G (LTE) voice and data demands and the future 5th generation cellular needs for interconnected devices to operate at high speeds to access data.

Public spaces and streetscapes enhance the quality of life for our residents and visitors, and ensures that the Town has the foundation to become a more walkable and sustainable town. Small Wireless Facilities will affect the function and aesthetics of public spaces. Municipalities across the nation are beginning to address the issue of balancing the need to accommodate the increased cellular demand with their community’s public space character and function. 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. ADOPTION**

These Rules and regulations set forth the general standards and aesthetics for the design and installation of Small Wireless Facilities and similar technology in the Town of Medway.

While the Town fully intends to apply the guidelines established in this policy uniformly to all SWF applications, there may be circumstances where not every specific guideline may be met. In these cases, the Board of Selectmen will use its reasonable discretion in approving SWF permit applications that deviate from the strict application of this policy.

## **3. DEFINITIONS**

“Board” as used herein means the Town of Medway Board of Selectmen

“Small Wireless Facilities,” as defined in federal regulations, are wireless facilities that meet each of the following conditions:

(1) The facilities—

- (i) are mounted on structures fifty feet or less in height including their antennas, or
- (ii) are mounted on structures no more than 10 percent taller than other adjacent structures, or
- (iii) do not extend existing structures on which they are located to a height of more than fifty feet or by more than 10 percent, whichever is greater;

(2) Each antenna associated with the deployment, excluding associated antenna equipment, is no more than three cubic feet in volume;

(3) All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is no more than twenty eight cubic feet in volume.

#### **4. SITING PROHIBITIONS**

Small Wireless Facilities are not permitted to be installed on:

- a. No SWF shall be installed on double poles
- b. No SWF shall be installed on poles which are not compliant with the Americans with Disabilities Act (“ADA”).
- c. No SWF equipment shall be placed inconsistent with ADA regulations for passage around said infrastructure.
- d. Cabinets or other SWF infrastructure may not be placed within the travel way of the sidewalk to impede ADA accessibility. Sidewalk travel ways shall maintain a minimum of 4 feet in width to accommodate the snow clearing vehicles along the sidewalks.
- e. No SWF which has not been certified as in use in the annual recertification affidavit shall remain within the Town right of way or on Town property.
- f. No SWF equipment shall be replaced or altered without a re-application, hearing, and approval from the Board of Selectmen unless the equipment is no longer properly functioning, and it is being replaced with the same or substantially similar equipment.

#### **5. AESTHETIC REQUIREMENTS FOR SMALL WIRELESS FACILITIES**

- a. Except when SWF are attached to a wood pole, poles and all equipment must be the same color and finish as surrounding streetlight poles or third party poles.
- b. Exposed wires are not permitted.
  1. Corporate or company names (except for location identification purposes noted below), logos, identifying graphics or other advertisements shall not be painted, embossed, applied or displayed in any manner on the poles, equipment enclosures (boxes, cabinets, etc.), hand hole covers, or other component of the pole.
  2. Individual location identification information will be permitted, provided no letter, number, or graphic symbol is taller than one inch in height.
- c. Standalone Poles: The height of any standalone pole including its antenna(e) shall not exceed thirty-two feet or no more than 10 percent taller than other adjacent poles, whichever is greater.
- d. Wood Poles: The height of any replacement wood pole including its antennae shall not exceed forty five feet.

#### **6. ANTENNAS**

##### **6.1 General**

- a. Each antenna shall be located entirely within a shroud or canister type enclosure.

- b. 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 six cubic feet in volume.
- c. 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 with the height of the side mounted antenna being at a location on the wireless support structure noted in the application and approved by the Town, but at least ten feet above ground level at its lowest point.
- d. 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 Town Department of Public Works.

## 6.2 Cables and Wires

All cables, wires and connectors related to the SWF must be fully concealed on the wireless support structure and shall match the color of the wireless support structure. There shall be no external cables and wires related to the SWF hanging off or otherwise exposed on the wireless support structure.

## 6.3 Colors

All colors shall match the background of any wireless support structure that the facilities are located upon, including equipment cabinets. Notwithstanding the foregoing, in the case of existing 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.

## 6.4 Equipment Enclosures and Concealment

- a. Equipment enclosures, including electric meters, shall be as small as possible, but in no event larger than twenty-eight 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 Town. Concealment may include, but shall not be limited to, landscaping, strategic placement in less obtrusive locations and placement within existing or replacement street furniture.
- b. Radio equipment shall be fully enclosed within an equipment cabinet or concealed within the antenna shroud enclosure matching the color and materials of the wireless support structure, unless other materials or colors are approved by the Town.

- c. Landscaping concealing equipment enclosures shall be planted in such quantity and size such that 100% screening is achieved within two years of installation.

## **7. SIGNAGE, LIGHTS, COOLING FANS**

- a. Signage: The SWF permittee shall post its name, location identifying information, and emergency telephone number in an area on the cabinet of the SWF that is visible to the public. Signage required under this section shall not exceed 4 inches by 6 inches, unless otherwise required by law (e.g. radio-frequency (RF) ground notification signs) or the Town. If no cabinet exists, the signage shall be placed at the base of the pole.
- b. Lights: New small wireless facilities and wireless support structures shall not be illuminated, except in accord with state or federal regulations, or unless illumination is integral to the camouflaging strategy such as design intended to look like a street light pole.
- c. Logos and Decals: The small wireless facility operator or permittee shall remove or paint over unnecessary equipment manufacturer decals. The color shall match or shall be as approved by the Building Commissioner. 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 small wireless facility operator or permittee shall utilize the smallest and lowest visibility RF warning sticker required by government or electric utility regulations. Placement of the RF sticker shall be as close to the antenna as possible.
- d. Cooling Fans: In residential areas, the SWF operator or permittee shall use a passive cooling system. In the event that a fan is needed, the SWF operator or permittee shall use a cooling fan with a low noise profile.

## **8. LOCATION REQUIREMENTS**

### **8.1 Most Preferable Locations**

The following are the most preferred areas for new Small Wireless Facilities in the order of preference (1 being most preferable):

- 1. *Industrial Districts* if not adjacent to a park, residential district or historic district.
- 2. *Public Rights-of-Way* areas if not adjacent to a park or a residential district.

### **8.2 Collocation Preference**

It is the Town's strong preference that whenever an applicant proposes to place a new SWF that the applicant collocate the same on existing wireless support structures.

### **8.3 Least Preferable Location**

The following are the least preferred areas for new small wireless facilities in the order of preference (2 being least preferable).

1. *Residential Districts*
2. *Parks*

#### 8.4 Consideration of Alternate Locations

The Town reserves the right to propose an alternate location for a SWF and/or wireless support structure to the location proposed in the application within one hundred feet of the proposed location or within a distance that is equivalent to the width of the Right of Way or structure in or on which the SWF and/or wireless support structure is proposed, whichever is greater, which the operator shall use if it has the right to use the alternate location on reasonable terms and conditions and the alternate location does not impose technical limits or additional costs.

#### 8.5 General limits: Adherence to Other Applicable Standards

If a streetscape is redesigned in the future, including, but not limited to the location and type of streetlights, SWF providers will be required to remove their infrastructure at their own cost and apply to reinstall SWF in accordance with these guidelines and the new streetscape.

#### 8.6 Guidelines on Placement

The Town desires to promote cleanly organized and streamlined facilities using the smallest and least intrusive means available to provide wireless services to the community. Generally, a SWF and/or wireless support structure shall match and be consistent with the materials and finish of the wireless support structure, adjacent poles and structures, and of the surrounding area adjacent to their location.

The following additional guidelines on placement shall apply:

- a. Small Wireless Facilities and wireless support structures shall be located no closer than 150 feet away, radially, from another small wireless facility and wireless support structure.
- b. A combination wireless support structure and streetlight pole should only be located where an existing pole can be removed and replaced, or at a new location where it has been identified that a streetlight is necessary.
- c. Small Wireless Facilities and wireless support structures shall be located in a manner that does not impede, obstruct, or hinder usual public pedestrian or vehicular travel or public safety on a Right of Way.
- d. Small Wireless Facilities and wireless support structures shall be located in a manner that does not obstruct the legal use of a Right of Way by a utility provider.

- e. Small Wireless Facilities and wireless support structures shall be located in a manner that does not violate or conflict with the zoning and general bylaws, applicable law and regulations, or this policy.
- f. Small Wireless Facilities and wireless support structures shall be located in a manner that does not violate the Americans with Disabilities Act.
- g. Small Wireless Facilities and wireless support structures shall be located in a manner that does not negatively impact the structural integrity of the associated wireless support structure.
- h. Small Wireless Facilities and wireless support structures shall be located in alignment with existing trees, utility poles, streetlights, and buildings.
- i. Small Wireless Facilities and wireless support structures shall be located equidistant between trees when possible, with a minimum of fifteen feet separation such that no proposed disturbance shall occur within the critical root zone of any tree.
- j. Small Wireless Facilities and wireless support structures shall be located with appropriate clearance from existing utilities.
- k. 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.
- l. Small Wireless Facilities and wireless support structures shall be located not within sight triangles at street intersections.
- m. New wireless support structures shall not be located directly in front of any existing residential, commercial or industrial structure.

To the greatest extent possible, new wireless support structures shall be located in line with existing lot lines or an equidistance from any two existing structures.

## **9. STANDALONE POLES**

- a. It is critical that the travel way (pedestrian path) of all sidewalks are clear to facilitate safe and optimal access and circulation along sidewalks.
- b. Standalone poles shall not be located in the clear pedestrian path.
- c. Standalone poles shall be aligned with existing streetlights, third party poles, and street trees as applicable in order 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 pole with streetlights.
- d. All measurements shall be taken from the outer edge of the standalone pole and the infrastructure listed in the following specific limits and prohibitions.

- e. Standalone poles must be placed a minimum of six feet from existing fire hydrants or buildings' fire connections.
- f. Standalone poles shall be located a minimum of ten feet from light poles and traffic signal poles.
- g. Standalone poles shall be located a minimum of three feet from bicycle racks and shall not impede the attachment of bicycles.
- h. Standalone poles shall be placed a minimum of ten feet from any above grade building face, including bay windows, show windows and building projections or overhangs.
- i. Poles should be located, to the maximum extent possible, to minimize impact on businesses and residential mixed-use development by avoiding placement directly in front of building entrances, alignment with windows, primary entry walks, or delivery zones or entrances.

## **10. ACCESS, CIRCULATION AND SIGHT DISTANCES**

- a. Safe and functional access, circulation, and clear sight lines are important for pedestrian ease of movement and to maintain unobstructed line of sight among drivers, pedestrians, bicyclists.
- b. Standalone poles shall not obstruct ADA access, including maintaining a clear landing at the top of curb ramps at crosswalks.
- c. Pole placement shall not impede, obstruct, violate, conflict with, or hinder any mode of travel over or access to any public street, bridge, tunnel, highway, lane, path, alley, sidewalk, or driveway, including but not limited to the obstruction of sight lines.
- d. Poles shall be placed consistent with the most current Manual on Uniform Traffic Control Devices
- e. A minimum of fifteen feet shall be maintained between the pole and the outside edge of the alley or driveway.

## **11. OTHER REQUIRED SUBMISSION INFORMATION**

- a. A composite map of all the desired locations of the SWF providers to understand the total need for facilities and the areas of highest demand within the study area.
- b. An understanding as to why there is no requirement for multiple providers to share infrastructure (hoteling) and whether this could occur if the number of allowable poles were reduced.

## **12. STEALTH APPLICATIONS**

The Town encourages any application that reduces the visual clutter within our environment. The use of stealth designs, such as chimneys and cupolas, for SWF's is encouraged.

## **13. EFFECTIVE DATE OF POLICY**

This Policy will be effective as of the **12<sup>th</sup> of November, 2019**. Modifications of the Design Rules and Regulations may be modified from time to time by the Board of Selectmen.