

Town of Lexington
Small Cell Wireless Facility Installation Policy
Approved November 18, 2021

The Town of Lexington (the “Town”), by and through its Select Board (the “Board”) adopts this Small Cell Wireless Facility Installation Policy (the “Policy”) regulating the placement of small cell wireless facilities (“SWF”), including all related equipment and devices in order to address the demand for SWF and the Town’s interests in health, welfare and safety, as well as the aesthetic character of the Town.

This policy is subject to and intended to be consistent with the Federal Communications Commission (“FCC”) Order *In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment, Declaratory Ruling and Third Report and Order* (the “FCC Small Cell Wireless Order”), FCC WT Docket Nos. 17-79 and 17-84 (September 27, 2018); 47 U.S.C. §§ 253 and 332; M.G.L. c. 166, §§ 21 and 22; and other applicable laws and regulations. The terms used herein are defined consistent with the FCC Small Cell Wireless Order.

The Select Board considered climate change, systemic racism and disabilities in its adoption of this Policy.

1. Small Cell and Small Wireless Facilities (SWF)

SWF include those that meet the following conditions, consistent with Federal Communications Commission (“FCC”) criteria:

1. SWF that:
 - i. Are mounted on structures 50 feet or less in height including their antennas, or
 - ii. Are mounted on existing 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 50 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 17 cubic feet in volume;
4. The SWF do not require antenna structure registration pursuant to FCC regulations;
5. The SWF are not located on Tribal lands, as defined under 36 CFR 800.16(x); and
6. The SWF do not result in human exposure of radio frequency radiation in excess of the applicable safety standards specified in FCC regulations.

2. Application for SWF Installation

- a. SWF may only be installed or substantially altered subject to a permit from the Board in accordance with this Policy. Any replacement or alteration to an installation shall be subject to reapplication, hearing, and Board or its designee's approval. Repairs or replacements of existing installations with a substantially similar installation as determined by the Building Commissioner shall be exempt from this policy.
- b. All SWF installations shall comply with all other Town Bylaws, and all other applicable laws and regulations.
- c. Applications shall be submitted in the form and number required by the Town Manager, along with a \$1,000 application fee for proposals of up to five installation locations. Each additional proposed installation is subject to an additional \$200 application fee per installation. Application fees shall be reviewed from time to time.
- d. Applicants are responsible for sending and publishing all required notices, consistent with G.L. c. 166, §§ 21-22 and any other lawful notice rules adopted by the Board or its designee. Proof of notice must be submitted to the Town Manager with the completed application.
- e. The Building Commissioner or their designee shall make a determination as to the completeness of the application within ten (10) business days of receipt. If the application is incomplete, the Building Commissioner shall inform the Applicant of the unmet requirements. The application review period will restart once the Applicant submits the supplemental information requested by the Building Commissioner. Any material amendment to an application shall be deemed to be a withdrawal and resubmission of the application for any determination of timing and deadlines.
- f. Upon determination that an application is complete, the Building Commissioner shall distribute copies of the Application to the following departments: Building, Engineering, Planning, Health, Police, Fire, Conservation, and any other entity as determined appropriate by the Town Manager.
- g. Departments shall review applications and may submit written comments to the Office of the Town Manager within fifteen (15) business days of the application's circulation.
- h. The Board or its designee shall schedule and hold a public hearing no later than 60 days after submission of the application for a SWF installation on an existing structure and no later than 90 days after submission of the application for a SWF installation involving a new structure.
- i. Following the public hearing, the Board or its designee may grant, grant with conditions, or deny the application. The Board may additionally issue such other

administrative orders as are lawful, including orders concerning public way safety, pole capacity, or compliance with other relevant laws. Implementation of the siting process shall not materially inhibit the Applicant's SWF or be unlawfully discriminatory to the Applicant relative to similarly situated entities.

- j. Approval shall not be transferrable to other carriers, services, installations, or placement locations. The Board may allow transfer of a permit among entities only in the event that ownership of a small cell SWF is being transferred without any changes to the facility itself. In such situations, the parties engaged in the transfer may petition the Board, which shall act on the petition within 60 days.
- k. The Board may waive particular terms and conditions where substantial compliance with this Policy is maintained in order to ensure avoidance of effective prohibitions as that term is understood by federal law.

3. Content of Applications

Applicant shall be defined as the owner and operator of the SWF, including any representative, agent, contractor, sub-contractor or installer of the SWF.

No application shall be deemed complete unless it contains the following information:

- a. Name of the owner and operator of the SWF, the name of any representative, agent, contractor, sub-contractor, or installer of the SWF.
- b. Point of contact name, address, telephone number, and email address for each entity listed in Section 3(a).
- c. Detailed drawings, with wet stamp/signature, and descriptions of the equipment to be installed, including:
 - i. Manufacturer's cut sheets for all proposed SWF equipment
 - ii. Type of equipment
 - iii. Dimensions and weight of all equipment, individually and cumulatively
 - iv. Cost of installation, including labor and equipment
 - v. Power source(s)
 - vi. Expected life of equipment
 - vii. Coverage area of equipment, including:
 - a. Number of antennae
 - b. Antenna model
 - c. Antenna dimensions
 - d. Remote radio units ("RRU") count and power
 - e. Expected coverage radius
 - viii. Call capacity of equipment, including:
 - a. Total RRU
 - b. Maximum bandwidth per RRU

- c. Multiple input, multiple output (“MIMO”) per RRU
 - d. Backhaul rate per RRU
 - ix. Hardening information, including:
 - a. Existence of battery backup, if any
 - b. Fuel source for generator backup, if any
 - c. Existence of multiple fiber paths to switch, if any
 - x. Frequency proposed
 - xi. Noise specifications
- d. For SWF equipment that will be publicly visible, a description of alternative designs, colors, and sizes available. These alternatives will be used to evaluate the aesthetic impact of the proposal so as to minimize the visibility of the SWF installation from residents, businesses, pedestrians, drivers, and others.
- e. Description of efforts that will be taken to comply with the Town’s SWF and Similar Structures Guidelines attached hereto as Exhibit 1 and to otherwise minimize negative aesthetic impacts of the SWF installation. This description should include efforts to minimize size, match the color of the fixture on which the SWF is placed, place devices on existing structures, match the style of the fixture on which the SWF is placed, shroud the SWF and any antenna, and otherwise decrease the visibility of the SWF to those who might see it in the ordinary use of the surrounding area. Exceptions to the Guidelines may be made, in the reasonable discretion of the Board, where strict compliance is not technically or practically feasible.
- f. Description of precautions that will be taken to ensure public safety during installation, including traffic safety, sidewalk safety, use of barricades, use of police details, or any other measures to ensure the safety of pedestrians, motor vehicle traffic, and nearby structures.
- g. Photographs, renderings, and depiction of elevation of equipment to be installed. Renderings shall be to scale and shall include: right-of-way limits, existing walkways, driveways, streets, grass or tree areas, and fixtures such as hydrants, mailboxes, and utility boxes. Applicant shall submit detailed as-built drawings, photographs, renderings, and depiction of elevation of SWF equipment installed, identifying any deviations or changes from the proposed installation, prior to the Building Commissioner issuing permission to operate to the Applicant.
- h. Detailed map including locations of all equipment and all fixtures to which equipment will be attached. Data must include pole identification numbers, if applicable, and must be submitted in a format that can be integrated into Town GIS map.
- i. Detailed map including all existing and proposed SWF installations within 500 feet of the proposed SWF(s).
- j. Certification of registered professional engineer confirming structural integrity of the SWF and of any fixtures supporting or connected to proposed equipment.

- k. Written consent of all owners of any fixtures supporting or connected to proposed equipment.
- l. Affidavit of Radio Frequency Engineer characterizing current coverage and impact of proposed installation(s). Affidavit should include map depicting coverage zones pursuant to standards of the Lexington Zoning Bylaw.
- m. Documentation of insurance, including workers' compensation coverage and comprehensive general liability coverage for all activities made necessary by the SWF(s).
- n. Written comparison of proposed location with similar alternative locations, including analysis of visual impact on the community and proximity to residential structures.
- o. Written description of efforts to co-locate equipment on existing structures, including explanation of inability to do so, if applicable.
- p. Affidavit of appropriate representative of the Applicant that Applicant will maintain SWF(s) in good repair and according to FCC standards, and that Applicant will remove any SWF in disrepair or disuse within 60 days of it being in such condition.
- q. Any SWF that remains installed for more than 60 days of disrepair or disuse may be subject to a \$100 fine for each day they remain installed, pursuant to Section 1-6 of the Town of Lexington Town of Code.
- r. Copies of all required permits necessary to construct or install the SWF which is the subject of the application.
- s. Completed cover sheet as required by the Town.
- t. Surety in amount equal to the cost of installation on which the Town is obligee, in order to ensure Town's ability to remove the equipment, if necessary.

4. Annual Recertification

- a. No later than July 1 of each year, the Applicant or Applicant's designee shall submit an affidavit identifying each of Applicant's SWF locations within the Town. The affidavit shall certify that each SWF installation is covered by insurance as required by the Massachusetts Department of Transportation and either that the SWF installation remains in use or is scheduled for removal. The affidavit shall be accompanied by a \$100 recertification fee for each installation.
- b. No applications will be accepted from Applicants who are delinquent in recertification or payment of fines and fees.

Exhibit 1
SWF and Similar Structures Guidelines

An Applicant proposing to attach to a streetlight, utility pole, or other structure in the Town's public right of way shall comply with the following design specifications:

Pole location:

- 1) Applicants shall utilize existing pole locations.
- 2) Any new pole locations are prohibited unless approved through the grant of location process, or any other applicable legal requirement, for new poles.
- 3) SWF within a historic district location or along a scenic corridor may not utilize a top-mounted design.
- 4) SWF equipment and antennas shall be located on poles such that they do not fall within the horizontal plane defined by a 45 degree angle extending 50 feet from the center point of upper story windows, doors, balconies, and other openings.
- 5) No SWF shall be installed on a double pole, hazardous pole, or condemned pole or within 500 feet of an Applicant's double pole, hazardous pole, or condemned pole.
- 6) No SWF shall be installed before removal of any of the Applicant's equipment located within 500 feet of the proposed installation which has ceased to operate for more than 60 days.
- 7) No SWF equipment or antennas shall be installed suspended between poles.

Underground design:

- 1) Radio equipment shall be placed in an underground vault in the pedestrian right of way.
- 2) The antennae shall be placed in a shroud at the top of a nearby pole.
- 3) Underground vaults shall be the minimum volume necessary to house SWF equipment. Application materials should explain why the proposed dimensions are required.
- 4) In no event shall vault dimensions exceed 5 feet 8-inches x 8 feet 2-inches x 5 feet 7-inches or 260 cu. ft., excluding space required for ventilation or sump pump equipment.

Top-mounted design

- 1) All SWF equipment shall be enclosed within a shroud at the top of the pole containing both radio and antenna equipment.
- 2) The diameter of the antenna and shroud shall not exceed 15" at their widest.
- 3) Top-mounted equipment shrouds shall not exceed 5.5 feet from the top of the pole or bayonet attachment, if one is used, and shall taper to meet the pole above the mast arm.

Minimal sunshield design

Radio equipment shall be enclosed within one or two sunshields not exceeding 8 inches wide nor 0.75 cubic feet in volume each, mounted directly to the side of the pole. Sunshields shall be attached at least 12 feet above ground level. To the extent separate antennae are required, antennae shall be placed in a shroud at the top of the pole.

Existing signage

Radio equipment shall be attached to a pole behind existing signage under the following conditions:

- 1) Radio equipment shall be placed within a shroud that does not exceed the dimensions of the sign in height and width, nor 4 inches in depth, including any required mounting bracket.
- 2) In no event shall SWF equipment obscure or interfere with the visibility or functioning of the signage.
- 3) To the extent separate antennae are required, antennae shall be placed in a shroud at the top of the pole.

SWF equipment and shrouds:

- 1) Antennae shall be the smallest antennae possible to achieve the coverage objective.
- 2) Except in the case of top-mounted designs, antennae shall not exceed 3 feet from the top of a streetlight pole or 5.5 feet from a wooden pole or bayonet attachment.
- 3) The associated “antenna skirt” shall taper to meet the pole above the mast arm. The diameter of the antenna and shroud shall not exceed 15” at their widest.
- 4) Bayonet attachments and equipment or antennae at the top of the shroud shall be covered by a single integrated shroud and “antenna skirt” that shall meet the pole without any gaps. All conduit shall be mounted flush to the pole.
- 5) All shrouds and equipment shall be painted to match Department of Public Works (DPW) standards or the existing pole, as applicable. Paint shall be maintained regularly and shrouds shall be repainted if necessary to match changes in the pole color over time.
- 6) All shrouds and equipment shall be designed without gaps between materials or sky visible between component surfaces.
- 7) Equipment that cannot propagate an adequate signal within the shrouding required by the standard designs shall be attached to a streetlight pole at a height of 2 feet below the light mast or higher, or, for wooden poles, on a cross arm or brace protruding from the pole to the minimum extent necessary to comply with safety standards. Each instance of such equipment shall not exceed 0.85 cu. ft. nor shall the total volume of such equipment and any shrouding exceed 2.6 cu. ft. per streetlight pole.

Height

- 1) Except for top-mounted designs, poles and all attachments will not exceed the height of similar surrounding poles by more than 3 feet. For top-mounted designs, poles and all attachments shall not exceed the height of the pole by more than 6 feet.
- 2) Replacement poles will conform to DPW style guidelines where the Town’s DPW has adopted standards and will match the pole being replaced where no standards exist. For integrated pole designs, poles shall incorporate decorative elements (e.g. fluting, decorative mast arm and luminaire, etc.) from DPW standards or existing poles, as applicable.
- 3) For wood utility poles carrying power lines, replacement poles and pole-top bayonet attachments shall be the minimum height necessary to provide adequate and safe clearance between SWF equipment and power lines.

- 4) In no event shall the total height of a pole or replacement pole, including all SWF equipment, exceed 55 feet.

Landscaping and Trees

- 1) At the direction of the Tree Warden, the Applicant shall plant street trees to screen views of SWF equipment where the Tree Warden determines appropriate space exists.
- 2) Any existing landscaping removed or damaged by installation shall be replaced in kind.
- 3) All SWF must be installed in compliance with the Town's tree bylaw.
- 4) No trees shall be removed or have their root zones or protected zones impacted by installation. The protected zone shall be equal to one foot for each inch of the tree's diameter measured at 4' 6" from grade, or a minimum of fifteen feet (15'), whichever is greater. The protected zone shall be measured from the outside of the tree to protect root growth.
- 5) Tree "topping" or the improper pruning of trees is prohibited. Any proposed pruning must be noted in the application and must be approved by the Tree Warden.

Curb clearances

- 1) If placed below 16' above ground level, attachments shall not be placed closer than 18" to the curb, nor shall they extend over the sidewalk.
- 2) SWF equipment must be at least 3' from a curb cut.

Additional Design Standards

- 1) All cabling shall be routed entirely within the pole or an attached shroud.
- 2) Safety signage shall be the smallest size possible to accomplish its purpose.
- 3) Power disconnects shall be placed in a vault near the base of the pole.
- 4) Except as provided in these standards, no SWF equipment cabinets may be placed at grade.
- 5) Light mast orientation, height, color temperature and other photometric information shall comply with Department of Public Works standards. SWF shall not be separately lighted.
- 6) No SWF installation shall impede, obstruct, violate, conflict with, hinder, or make unsafe any mode of travel over or access to any public street, bridge, tunnel, highway, lane, path, alley, sidewalk, or driveway or hinder the operation or access to traffic signals, streetlights, or fire hydrants.
- 7) No SWF shall be installed with a fossil fueled backup generator.
- 8) SWF installed in residential zones shall use a passive cooling system.