

**Status Summary: This draft was last updated on 8-18. On 8-24, the Board opted to discontinue the review until a Needs Analysis and Wireless Communications Master Plan can be commissioned. 9-14-2021: PB agreed to post this latest draft online to accompany the update announcement about the planned Needs Analysis and Wireless Communications Master Plan.**

Note to Reviewers:

This draft includes updates and suggested editorial markup.

This is the document we should now all refer to as the “Procedure Manual” – we used to call it the design manual.

This document includes application processes and design standards for use by anyone planning to install a SWF in the Town ROW.

TOWN OF LENOX  
DEPARTMENT OF PUBLIC WORKS  
**STANDARD SPECIFICATIONS & DETAILS MANUAL**  
SMALL WIRELESS FACILITIES IN RIGHT OF WAY

Section 100 – Small Wireless Facilities within a Town Right of Way.

Item 101 New small wireless facilities.

- A. Scope of Work – the work under this section shall consist of installing small wireless facilities within a public right of way, by installation of a new piece of vertical infrastructure, and shall be performed in accordance with the provisions herein and those contained in Section 8.18 of the Town of Lenox Zoning Bylaw, which contains definitions for the terms used herein.
- B. Materials – New utility/light poles shall utilize design and materials as set forth in Item 106 of these Standard Specifications and Details to replicate either standard or decorative street lights (as applicable for the subject location as determined by the Town).
- C. Design and Construction. All new small wireless facilities antenna and transmission lines shall be enclosed and concealed. All new small wireless facility infrastructure poles shall be installed in a 12" x 12" cement concrete foundation, with a minimum depth of 4.0 feet. This installation process shall be used for all types of bituminous concrete sidewalks or loam borders. In cement concrete sidewalks the Contractor shall install pre-molded bitumastic filler. The small wireless facility pole shall be centered in the foundation with a maximum of 3" distance from the finished surface of the ground to the bottom of the pole and not less than 6" from the edge of the curbing. Existing poles that have been removed for replacement shall be disposed by the Contractor.

**Commented [LF1]:** FYI: The dimensions noted in this item came from DPW + Gwen.

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- D. Application Submittal Requirements. Applicants for new small wireless facilities shall submit a completed Town of Lenox Small Wireless Facility application with the required application fees and the following materials:
- (1) The location where each proposed small wireless facility or utility pole would be installed and photographs of the location and its immediate surroundings depicting where utility poles or structures would be installed;
  - (2) A Town-wide map showing all applicant's other existing Wireless Facilities in the Town.
  - (3) Site specific structural integrity prepared by a professional engineer, as that term is defined in Section 81D, Chapter 112, Title XVI, M.G.L.; together with any other federal, state or local regulatory requirements for structural integrity;
  - (4) Specifications and drawings prepared by a professional engineer, as that term is defined in Section 81D, Chapter 112, Title XVI, M.G.L., for each proposed small wireless facility covered by the application as it is proposed to be installed;
  - (5) The equipment type and model numbers for the antennas and all other equipment associated with the small wireless facility;
  - (6) A proposed schedule for the installation and completion of each small wireless facility covered by the application, if approved; and
  - (7) Certification from a professional engineer licensed in Massachusetts that the new small wireless facility application complies with:
    - the Interference with Public Safety Communications provisions (§8.18.7) of the Town of Lenox Zoning Bylaw;
    - any agreement between the Town and a private property owner concerning design standards for infrastructure in the right of way;
    - the spacing requirement for ground mounted equipment to be located within the right of way as provided in this Section;
    - applicable undergrounding requirements as provided for in this Section;
    - all other construction and public safety regulations contained in any federal, state or local building, electrical, structural codes or ordinances;
    - all FCC rules and standards regarding human exposure to Radio Frequency Energy as defined in OET 65 and 47 CFR §1.1307(b); and
    - concealment requirements contained in this Section.
  - (8) Certification from a professional engineer licensed in Massachusetts that the small wireless facility is in compliance with Federal Aviation Administration (FAA) regulations pertaining to airport airspace protections.
  - (9) A list of all frequencies to be used by the proposed small wireless facility, the number of channels, the maximum allowable output levels pursuant to the applicable FCC license for the proposed location, and the type of traffic the proposed facility will carry (voice, data, or a combination of both).

- E. Application Review Process –

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(1) Permits Required

(A) No work within the right-of-way relating to a small wireless facility shall be performed without a permit(s) from the Town Select Board and such additional permitting authorities as are required by Section 8.18.18 or other law, including but not limited to work that involves excavation, electrical service, affects traffic patterns or obstructs pedestrian or vehicular traffic in the rights-of-way.

(B) Concurrent with submittal of a small wireless facility application, applicant shall obtain and submit all permits, licenses, and authorizations that are required for the installation and operation of the small wireless facility from other departments, boards, committees, or commissions of the Town, and persons other than the Town, including but not limited to private property owners, utilities, and other governmental entities.

(C) An applicant is allowed to file a consolidated small wireless facility application for no more than ten (10) separate small wireless facilities in multiple locations and may receive a separate permit(s) for each small wireless facility.

(2) Application Review

(A) The Town Select Board or designee will review any small wireless facility application and provide a determination as to whether it is complete to the applicant in writing via email to the email address(es) provided by applicant in its application within ten (10) days of the Town's date-stamped received submission or within some other mutually agreed upon time frame memorialized in writing.

(B) If the Town or its designee finds that the application is not complete, the notice shall identify the deficiencies in the application, which, if cured, would make the application complete.

(C) The small wireless facility application shall be deemed complete on submission of the resubmitted materials needed to cure the original deficiencies indicated by the Town. Processing timelines will restart from the date of resubmission that cures the incompleteness.

(3) Application Approval/Denial

(A) The Town Select Board or designee shall administratively approve or deny a small wireless facility application on an existing utility pole or wireless support structure under this section within sixty (60) days from the time the application is submitted or, if initially incomplete, from the time the application is deemed complete.

(B) The Town shall administratively approve or deny a small wireless facility application on a new utility pole or wireless support structure under this section within ninety (90) days from the time the application is submitted or, if initially incomplete, from the time the application is deemed complete. An application not approved within the applicable period shall be deemed denied.

F. Grant of Location Permit.

- **Small wireless facilities located in the public right-of-way shall be placed so as not to interfere with vehicular or pedestrian use of the rights-of-way, or infringe on ADA compliant pedestrian use, or impede or infringe with traffic safety.**
- **Any/all work in the public right-of-way requires a permit as provided in this Section.**
- **The provider shall comply with all the provisions and terms of the Grant of Location permit.**
- **As-built construction drawings shall be provided to the Town for all structures, equipment, cable, pipes and conduit located within the public right-of-way or within a public or Town-owned utility or multi-purpose easement, which must include, for fiber optic cable, the number of strands of fiber in the conduit.**
- **If any utilities or other infrastructure is relocated within the right-of-way or any charges or costs are assessed or other requirements imposed arising from or related to the installation, construction, improvement, repair, or maintenance of any wireless facility, the Town shall have final approval of the design and engineering of such relocated items, and the applicant shall reimburse the Town for any expense charged to the Town by any third party arising from such relocation.**

(1) Vaulting underground freestanding equipment cabinets or shelters and/or power meters are required in ROW where sidewalk space is limited and adding additional equipment will cause conflict with pedestrian traffic, obscure vehicular traffic, or interfere with ADA compliance for public sidewalks.

(2) All new utility poles or replacement utility poles installed for the purpose of installing a small wireless facility shall be designed as a concealed dual-purpose facility.

(3) All new small wireless facilities utilizing new utility/light poles or replacement utility/light poles shall have equipment mounted within such poles or shall be concealed by a shroud on the outside of the pole that is painted to match the color and style of the pole, or will vault underground any freestanding equipment cabinets. Equipment cabinets incapable of being vaulted for demonstrable technical reasons shall be placed on the ground instead of attached to the structure supporting the antenna, and screened in accordance with the buffering provisions below.

(4) Equipment shelters or cabinets shall be screened from public view by using landscaping, fencing or materials and colors consistent with the surrounding backdrop. The buffering/screening shall be consistent with the general character of the

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neighborhood/zoning district and historic character if applicable. When screening is not possible due to location, equipment cabinets shall be painted a solid neutral color consistent with the general character of the neighborhood or painted with art consistent with any public art scheme developed by the Town. The appropriate selection shall be made by the Town at the time of processing the application.

(5) All buffering, fencing, painting or screening with the use of small wireless communication facilities in the ROW shall be maintained by the owner of such facilities at its own cost.

(6) All equipment cabinets shall bear identification labels indicating the contact name and number of an applicant representative to be contacted in the event of an emergency.

Item 102 Small wireless facilities on existing structures.

- A. Scope of Work – the work under this section shall consist of installing small wireless facilities within a public right of way on existing vertical infrastructure (e.g. utility/light pole) and shall be performed in accordance with the provisions herein and those contained in Section 8.18 of the Town of Lenox Zoning Bylaw.
- B. Materials – Small wireless facilities installed on existing utility/light poles shall utilize materials which in design and color match the existing utility/light pole to which they are being affixed, using the design and materials standards as set forth in Item 106 of these Standard Specifications & Details.
- C. Design and Construction. All small wireless facilities antenna and transmission lines on an existing structure shall be enclosed when possible and concealed when not enclosed using concealment techniques such as vertical channels painted to match the existing pole to enclose transmission lines and canisters designed to replicate the existing structure's diameter and color to enclose antenna. All new small wireless communication facility infrastructure poles shall be installed in a 12" x 12" cement concrete foundation, with a minimum depth of 4.0 feet. This installation process shall be used for all types of bituminous concrete sidewalks or loam borders. In cement concrete sidewalks the Contractor shall install pre-molded bitumastic filler. The small wireless facility pole shall be centered in the foundation with a maximum of 3" distance from the finished surface of the ground to the bottom of the pole and not less than 6" from the edge of the curbing.
- D. Application Submittal Requirements. Applicants for small wireless facilities on existing structures shall submit a completed Town of Lenox Small Wireless Facility application with the required application fees and the following materials:

(1) Site specific structural integrity and, for a Town utility pole, make-ready analysis prepared by a professional engineer, as that term is defined in Section 81D, Chapter 112, Title XVI, M.G.L.; together with any other federal, state or local regulatory requirements for structural integrity;

(2) The location where each proposed small wireless facility or utility pole would be installed and photographs of the location and its immediate surroundings depicting the

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utility poles or structures on which each proposed small wireless facility would be mounted;

(3) Specifications and drawings prepared by a professional engineer, as that term is defined in Section 81D, Chapter 112, Title XVI, M.G.L., for each proposed small wireless facility covered by the application as it is proposed to be installed;

(4) The equipment type and model numbers for the antennas and all other equipment associated with the small wireless facility;

(5) A proposed schedule for the installation and completion of each small wireless facility covered by the application, if approved; and

(6) Certification from a professional engineer licensed in Massachusetts that the collocation application complies with

- the Interference with Public Safety Communications section (Section 8.18.7) of the Town of Lenox Zoning Bylaw;
- any agreement between the Town and a private property owner concerning design standards for infrastructure in the right of way;
- the spacing requirement for ground mounted equipment to be located within the right of way as provided in this Section;
- applicable undergrounding requirements as provided for in this Section;
- all other construction and public safety regulations contained in any federal, state or local building, electrical, structural codes or ordinances;
- all FCC rules and standards regarding human exposure to Radio Frequency Energy as defined in OET 65 and 47 CFR §1.1307(b); and
- concealment requirements contained in this Section.

(7) Certification from a professional engineer licensed in Massachusetts that the small wireless facility is in compliance with Federal Aviation Administration (FAA) regulations pertaining to airport airspace protections. Where the small wireless facility will not exceed the highest point of the existing structure upon which it is to be mounted, such evidence shall not be required.

(8) A Town-wide map showing all applicant's other existing Wireless Facilities in the Town.

(9) A list of all frequencies to be used by the proposed small wireless facility, the number of channels, the maximum allowable output levels pursuant to the applicable FCC license for the proposed location, and the type of traffic the proposed facility will carry (voice, data, or a combination of both).

(F) Grant of Location Permit. Small wireless facilities located in the public right-of-way shall be placed so as not to interfere with vehicular or pedestrian use of the rights-of-way, or infringe on ADA compliant pedestrian use, or impede or infringe with traffic safety. Any/all work in the public right-of-way requires a permit as provided in this Section. The provider shall comply with all the provisions and terms of the Grant of Location permit. As-built construction drawings shall be provided to the Town for all structures, equipment, cable, pipes and conduit located within the public right-of-way or within a public or Town-owned utility or multi-purpose easement, which must include, for fiber optic cable, the number of strands of fiber in the conduit. If any utilities or other infrastructure is relocated within the

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right-of-way or any charges or costs are assessed or other requirements imposed arising from or related to the installation, construction, improvement, repair, or maintenance of any wireless facility, the Town shall have final approval of the design and engineering of such relocated items, and the applicant shall reimburse the Town for any expense charged to the Town by any third party arising from such relocation.

- (1) Vaulting underground freestanding equipment cabinets or shelters and/or power meters are required in ROW where sidewalk space is limited and adding additional equipment will cause conflict with or create a safety hazard to pedestrian traffic, obscure vehicular traffic views, or interfere with ADA compliance for public sidewalks.
- (2) For collocation on existing utility poles or vertical infrastructure, equipment shelters or cabinets that are not vaulted shall be placed on the ground instead of attached to the structure supporting the antenna, and screened in accordance with the buffering provisions below.
- (3) Equipment shelters or cabinets shall be screened from public view by using landscaping, fencing or materials and colors consistent with the surrounding backdrop. The buffering/screening shall be consistent with the general character of the neighborhood/zoning district and historic character if applicable. When screening is not possible due to location, equipment cabinets shall be painted a solid neutral color consistent with the general character of the neighborhood or painted with art consistent with any public art scheme developed by the Town. The appropriate selection shall be made by the Town at the time of processing the application.
- (4) All buffering, fencing, painting or screening with the use of small wireless communication facilities in the ROW shall be maintained by the owner of such facilities at its own cost.
- (5) All equipment cabinets shall bear identification labels indicating the contact name and number of an applicant representative to be contacted in the event of an emergency.

Item 103 – All Small Wireless Facilities – Insurance

The owner of a small wireless facility, whether a wireless infrastructure provider or wireless services provider, shall carry, at their own cost and expense, the following insurance:

- (1) occurrence basis commercial general liability coverage for bodily injury and property damage, including but not limited to its property's replacement cost against all risks;
- (2) workers' compensation insurance, as required by Massachusetts law;
- (3) The wireless infrastructure provider or wireless services provider shall include the Town as an additional insured on the commercial general liability policy and provide a Certificate of Insurance and documentation of inclusion of the Town in a commercial general liability policy as a condition of a Grant of Location for any wireless facility.

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(4) The applicant shall maintain not less than such required coverage unless and until the wireless facility and all related equipment and appurtenances have been fully removed and the Town's property has been fully restored.

Item 103 – Restoration of Damaged Small Wireless Facilities in Rights of Way, Maintenance.

(1) The owner of a small wireless facility, whether a wireless infrastructure provider or wireless services provider, shall immediately remove any structure or portion thereof damaged by a vehicle or other third party or act of God from the right of way or roadway and ensure that electrical service to the damaged facility is terminated. In the event the owner fails to timely effect such remedial efforts such that the presence of the damaged facility is a hazard to pedestrians and/or vehicular traffic, the Town shall be entitled to effect such efforts to secure the public safety and the owner shall indemnify and hold harmless the Town for all such actions and shall reimburse the Town for all reasonable costs associated with same.

(2) The owner of a small wireless facility, whether a wireless infrastructure provider or wireless services provider, shall be exclusively responsible for the maintenance of all of its equipment, and in the case of new small wireless facilities, its infrastructure and shall be responsible for ensuring its facilities at all times remain compliant with all safety regulations regarding physical, electrical, or radio frequency hazards.

Item 104 – Compliance with Other Regulations Regarding Installation, Construction and Maintenance.

In addition to compliance with the standards, specifications and details in this document and Section 8.18 of the Town of Lenox Zoning Bylaw, the owner of a small wireless facility, whether a wireless infrastructure provider or wireless services provider, shall comply with all other applicable rules, regulations, standards, specifications and details of any federal, state, or local law, code, or regulation regarding installation and construction within a right of way, including, but not limited to; provisions regarding electrical code compliance and safety, provisions regarding engagement of police detail for traffic control during construction, asphalt and concrete patching and paving requirements following construction, and all other applicable safety, construction and maintenance regulations relating to infrastructure within a right of way.

Item 105 – Connection to Electrical Service for Collocating Small Wireless Facilities.

(1) The owner of a collocating small wireless facility, whether a wireless infrastructure provider or wireless services provider, shall not under any circumstance connect any portion or aspect of its equipment to Town electrical service or meter. All owners of small wireless facilities shall separately and independently of the Town make arrangements directly with the incumbent electrical utility to furnish electrical service for their equipment and for complying with said agreement and remitting payment to such provider.

(2) The owner of a collocating small wireless facility on any Town infrastructure shall comply with all existing agreements between the Town and the incumbent electrical utility regarding such existing infrastructure within a Right of Way, to the extent such



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agreements impact or affect the use of the Town infrastructure for a collocated small wireless facility.

(3) Any and all charges assessed to the Town by any utility, including the incumbent electrical utility, arising from the collocation of a small wireless facility on any Town infrastructure shall be borne by the owner of the small wireless facility, who shall indemnify and hold harmless Town from any such expense.

Item 106 – Design Specifications.

(1) New concealed dual purpose small wireless facilities proposed for installation in the public rights of way in Lenox shall be designed to appear as one of options below. Planning staff shall advise applicants prior to submittal of application of the desired selection based on the location of the proposed new concealed dual purpose small wireless facility, or may offer an alternative solution if more appropriate for the particular location:



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- (2) Small wireless facilities on existing structures in the public rights of way in Lenox shall be designed to replicate one of the options below. Planning staff shall advise applicants prior to submittal of application of the desired selection based on the location of the proposed small wireless facility on an existing structure in the public right of way, or may offer an alternative solution if more appropriate for the particular location:



- (3) Equipment cabinets for small wireless facilities on existing structures in public rights of way shall be either mounted on the existing pole, vaulted underground, or ground mounted adjacent to the existing pole using some element of concealment, the selection of which shall be made by Planning staff in conjunction with the selection of

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design in subsection (2) above, taking into account obstruction/public safety concerns and aesthetics at the desired location.

Item 107 – Amendments.

- (1) This Manual and the standards and specifications contained herein may be amended from time to time in accordance with Town policy and revisions to federal and Massachusetts law applicable to small wireless facilities within public rights of way.

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