

## SECTION 8.7 WIRELESS COMMUNICATION FACILITIES

### 8.7-1 Purpose and Intent

The purpose of this Section is to establish standards for siting wireless telecommunication towers and facilities in Shutesbury. The intent of this Section is to:

- A. Encourage the location of wireless communication devices on pre-existing structures so as to minimize the total number of towers and visual impact upon the community;
- B. Require the co-location of new and existing tower sites thereby reducing the need for new facilities;
- C. Locate towers and facilities, to the extent possible, in areas where adverse environmental, historic, and visual impact to the community and adjacent property is minimal;
- D. Enhance the ability of providers of telecommunications services to provide such services to the community effectively and efficiently; and
- E. Make available wireless telecommunications tower locations on a preferential basis to local municipal agencies on the same financial terms as commercial providers.

### 8.7-2 Definitions

As used in this Section 8.7, the following definitions apply:

**Applicant** shall mean any person applying for a Special Permit to construct, erect, install, operate, or substantially modify a Wireless Communication Facility, Wireless Communication Device or Wireless Communication Structure, or such person's agent, representative, or successor in interest. An Applicant or at least one of the Co-Applicants if there is more than one Applicant in an application must be a Telecommunications Service Provider.

**Application** shall mean the process of submission, consideration, and action on an Applicant's request for a Special Permit to construct, erect, install, operate, or substantially modify a Wireless Communications Facility, Device, Structure or Building; and the forms, documents, and information presented to the town in the course of said request. The application includes verbal representations made by and on behalf of the Applicant to the Planning Board.

**Distance** shall mean horizontal distance, measured on a horizontal plane.

**FAA** shall mean the Federal Aviation Administration.

**FCC** shall mean the Federal Communications Commission.

**Height** shall mean the vertical distance measured from the pre-existing ground level to the highest point on the structure.

**Non-residential structures** shall mean structures that do not contain any dwelling units,

including but not limited to grain silos, water towers, and church steeples.

**Telecommunications service provider** shall mean a corporation or organization that provides wireless communications service to the public through explicit license by the FCC as contemplated by the “Telecommunications Act of 1996” in the term “carrier”.

**Wireless communication building** shall mean any building or shelter used to house equipment primarily for the installation and operation of equipment for generating and detecting electromagnetic radiation, and is an accessory to a wireless communication structure.

**Wireless communication device** shall mean any antenna, appurtenance, wiring or equipment used in connection with the reception or transmission of radio frequency electromagnetic radiation which is attached to a structure.

**Wireless communication facility** shall be used as a general term to include wireless communication building, wireless communication device, and wireless communication structure, and shall exclude communication relay structures, TV broadcast systems, radio broadcast systems and similar systems.

**Wireless communication structure** shall mean any structure or tower intended to support equipment used for the transmission and reception of radio frequency electromagnetic radiation, including antennae, wiring, or other devices attached to or mounted on a structure.

**Wireless communication tower** shall refer to any structure whose height greatly exceeds its width and which is used for the mounting of wireless communication devices.

### **8.7-3 Exemptions**

The following shall be exempted from this bylaw and are permitted by right:

- A. Wireless Communication Facilities used for town or state emergency services, subject to the standards in Subsections 8.7-4 C, 8.7-4D, and 8.7-5A below.
- B. Amateur radio towers used in compliance with the terms of any amateur radio service licensed by the FCC and used solely for that purpose.
- C. Wireless communication structures and devices used expressly for home television reception and personal wireless communications.

### **8.7-4 General Standards**

- A. Wireless telecommunications facilities may be located in the Town of Shutesbury upon the granting of a Special Permit from the Planning Board in accordance with the requirements set forth herein and the requirements for Special Permits contained in Section 9.2.

Upon written request by the applicant, the Planning Board may waive or reduce any requirement of this Section 8.7 by the same majority vote required for the permit itself upon written findings included in the permit of:

- 1. special circumstances of the site, its surroundings, or the proposal that negate the need for imposition of the requirement; or the objectives of this section may be met in an alternative manner; and
- 2. that such a waiver or reduction will not derogate from the public purposes and intent of

this zoning bylaw. In the case of a special permit, such requests must be made by the applicant no later than the close of the public hearing. An affirmative or negative vote under this paragraph shall not be construed as an approval or disapproval of the permit sought.

- B. Wherever feasible, wireless communication devices shall be located on existing towers or other non-residential structures, minimizing proliferation of new towers.
- C. Wireless communication structures shall be built with structural integrity to accommodate devices operated by another carrier with little or no modification.
- D. Wireless communication buildings shall be no larger than 500 square feet and 12 feet high, shall be designed to match other accessory buildings on site, and shall be used only for the housing of equipment related to the particular Wireless Communication Facility on site.

### **8.7-5 Siting and Height Requirements**

#### **A. Setbacks**

- 1. The minimum horizontal distance from the base of the wireless communication structure and any attached wireless communication devices to any property line or road right-of-way shall be the greater of the following:
    - a. the tower height plus 10 feet; or
    - b. the "fall zone," as determined by a licensed professional engineer, plus 10 feet.
  - 2. The minimum horizontal distance between the wireless communication structure and existing abutting residences shall be three times the height of the structure.
  - 3. The wireless communication facility shall comply with applicable zoning setback requirements.
- B. The height of the wireless communication structure and any attached wireless communication devices shall be no greater than 100 feet. Tower height shall be measured from grade, and shall include the tower itself, its base pad, and any attached facilities.
- C. The wireless communication structure shall, when possible, be sited off ridge lines and where visual impact is the least detrimental to valuable historic and scenic areas. Valuable areas shall be determined by the Planning Board, and may be views that Shutesbury has identified as scenic in the Shutesbury Open Space and Recreation Plan or the Shutesbury Master Plan, or areas that are listed in the Massachusetts Landscape Inventory, MGL. Ch. 131, §.39A, conducted by the Massachusetts Department of Environmental Management, 1982.
- D. No new wireless communication structure shall be permitted unless the Applicant demonstrates to the reasonable satisfaction of the Planning Board that no existing wireless communication structure or other non-residential structure can accommodate the Applicant's proposed wireless communication device. Evidence submitted to demonstrate that no existing structure can accommodate the Applicant's proposed device may consist of any of the following where each such structure is specifically identified:
- 1. No existing wireless communication structures or non-residential structures are located within the geographic area required to meet the Applicant's engineering requirements.
  - 2. Existing wireless communication structures or non-residential structures are not of sufficient height to meet the Applicant's requirements.

3. Existing wireless communication structures or non-residential structures do not have sufficient structural strength or cannot be strengthened to support the proposed wireless communication device.
4. The proposed wireless communication device would cause electromagnetic interference with the existing devices on the site, or the existing devices would cause interference with the proposed wireless communication device.
5. The fee, costs, or contractual provisions required by the owner in order to share an existing wireless communication structure or to adapt an existing structure for use are unreasonable. Unreasonable cost would be twice the cost of building a new structure.
6. The Applicant demonstrates that there are other limiting factors that render use of existing structures unreasonable.

#### **8.7-6 Design Requirements**

- A. Wireless communication structures shall be designed to accommodate the maximum number of users technologically possible, consistent with the requirements and limitations of this bylaw (e.g., limitations on tower height).
- B. There shall be no signs or advertisements, except for no trespassing signs and a required sign giving the phone number where the responsible party can be reached on a 24-hour basis.
- C. All wireless communication structures and devices shall be colored, molded, and/or installed to blend into the structure and/or landscape.
- D. Wireless communication facilities shall be fenced to control access (not necessarily the entire property).
- E. Night lighting of wireless communication facilities shall be prohibited unless required by the FAA. If required by the FAA, a copy of the FAA permit requiring night lighting shall be submitted with the application.
- F. There shall be a maximum of one parking space for each facility to be used for parking in connection with maintenance of the site and not to be used for storage of vehicles or other equipment.
- G. Existing on-site vegetation shall be preserved to the maximum extent possible.
- H. Vegetative screening shall be used to screen abutting residential properties and roadways. Plants that fit in with the surrounding natural vegetation shall be used.

#### **8.7-7 Application Process**

- A. The Shutesbury Planning Board is hereby designated the Special Permit Granting Authority to grant Special Permits for wireless telecommunications towers and facilities in accordance with MGL. Ch. 40A, §9, applicable provisions of this bylaw, and in accordance with any rules and regulations that the Planning Board may adopt relative hereto.
- B. A Special Permit granted under this bylaw shall expire within two (2) years of the date of issuance of the permit, if no Wireless Communication Facility is constructed.
- C. Failure to provide all of the required materials and information shall be grounds for denial of an application. The Planning Board may require additional or supplemental information at its discretion, and the Applicant's failure to timely provide such information shall also be grounds for denial of the application.
- D. The applicant or Co-Applicant must be a telecommunications service provider or a tower

construction company that holds a current contract with a telecommunications service provider for use of the proposed tower to provide wireless communication services to the public.

- E. Submission requirements for a new Wireless Communication Facility shall include:
1. Site Plans and engineering plans, prepared by a professional civil engineer licensed to practice in Massachusetts, on 24" by 36" sheets at a scale of 1"=40' or 1"=200', where appropriate, on as many sheets as necessary which show the following:
    - a. north arrow, date, scale, seal(s) of licensed professional(s) who prepared the plans and space for reviewing engineer's seal
    - b. name and address of landowner and names and addresses of abutters
    - c. property lines and location of permanent structures and buildings, within a 500-foot radius of the proposed wireless communication structure
    - d. existing (from a topographical survey completed within 2 years of application submittal date by a professional surveyor licensed to practice in Massachusetts) and proposed contour lines at a maximum of two-foot contour intervals and spot elevations at the base of all proposed and existing structures
    - e. vegetation to be removed or altered
    - f. plans for drainage of surface water and plans to control erosion and sedimentation both during construction and as a permanent measure
    - g. delineation of wetlands, if any
    - h. location of the wireless communication structure, including supports and guy wires, if any
    - i. plans for anchoring and supporting the structure, including specifications of hardware and all other building materials, and wind/ice survivability estimates
    - j. plans for accessory buildings
    - k. layout and details of surfacing for access road and parking
    - l. amenities such as lighting, fencing, and landscaping
    - m. four view lines in a one-to-three mile radius of the site, beginning at True North and continuing clockwise at ninety-degree intervals, plus additional view lines from any historic, scenic, or other prominent areas of Shutesbury, as determined by the Planning Board, based on scenic views and areas identified in the Shutesbury Open Space and/or Master Plan.
  2. A map showing all areas covered/served by the proposed wireless communications structure and device of different signal strengths, and the interference with adjacent service areas.
  3. A narrative description of the type of service being provided, including the number of channels or number of supported communication links, maximum RF power level, effective radiated power, ranges of frequencies of operation both transmit and receive, and type(s) of modulation.
  4. A report setting forth the proposed power density of the Facility that demonstrates how FCC standards for RF emissions are met.
  5. If the service requires point-to-point links or other relay or RF communications not specifically between the subscriber and the facility, details of such additional communications requirements shall also be described.
  6. A locus map at a scale of 1"=1000', which shall show streets and landscape features

7. A description of the soil and surficial geology of the proposed site
  8. A narrative report written by the proposed operator of the Wireless Communication Facility and a licensed professional engineer which shall:
    - a. describe the justification of the proposed site,
    - b. describe the structure and the technical, economic, and other reasons for the facility design,
    - c. describe the capacity of the structure, including the number and type of additional facilities that it can accommodate,
    - d. describe the actions to be taken if the electromagnetic radiation from the facility should exceed levels designated by the FCC,
    - e. describe the projected future needs of the operator of the Wireless Communication Facility, and how the proposed wireless communications facility fits with future projections to serve Shutesbury and adjacent communities,
    - f. describe leasing agreement should another carrier desire to co-locate,
    - g. describe special design features to minimize visual impact of the proposed wireless communication facility, and
    - h. provide simulated graphical depictions of the appearance of the facility from all public ways where it may be seen.
  9. Proof of approval of all other necessary permits needed for construction and operation.
  10. Evidence that a valid license has been granted to the Applicant (or Co-Applicant) for the specific service in the specific location by the FCC. A photocopy of such license is sufficient for the application, although other evidence may be required prior to approval.
- F. Submission requirements for a wireless communication device located on an existing wireless communication structure or non-residential structure (including co-location with another carrier) shall include:
1. All information described in Subsection 8.7-7 E above except for the narrative report as described in Subsection 8.7-7 E(8).
  2. A narrative report written by the proposed Wireless Communication Facility operator and a licensed professional engineer which shall:
    - a. include a draft contract between the non-residential structure owner and the Applicant
    - b. demonstrate that the wireless communication structure or non-residential structure to which the device will be mounted has the structural integrity to support such a device,
    - c. describe the actions to be taken if electromagnetic radiation from the facility should exceed levels designated by the FCC.
    - d. describe the projected future needs of the carrier, and how the proposed facility fits with future projections.
  3. If the proposed facility adds more than 5 feet to the height of the non-residential structure at the effective date of this bylaw, the Planning Board may require a demonstration of height with balloons, as described in Subsection 8.7-8A below.
- G. The information required in Subsection 8.7-7E or F shall be submitted along with the regular Special Permit application form, as follows:
- 1 copy to the Building Inspector,

- 1 copy to the Fire Chief,
- 1 copy to the Chief of Emergency Services or Department of Public Works, and
- 3 copies to the Planning Board.

#### **8.7-8 Review and Approval**

- A. The Planning Board may require the Applicant to perform an on-site demonstration of the visibility of the proposed tower by means of a crane with a mock antenna array raised to the maximum height of the proposed tower. A colored 4' minimum diameter weather balloon held in place at the proposed site and maximum height of the proposed tower may be substituted for the crane if approved by the Planning Board. The date and location of the demonstration shall be advertised at least 14 days, and not more than 21 days before the demonstration, and again in the public hearing advertisement in a newspaper with a general circulation in Shutesbury. Failure in the opinion of the Planning Board to adequately advertise the demonstration may be cause for the Planning Board to require another, properly advertised, demonstration.
- B. In the event that the Planning Board determines that circumstances necessitate expert technical review, the Planning Board reserves the right to select expertise for the review, and the expense of the review shall be paid by the Applicant, as provided in Section 9.6.
- C. In granting a Special Permit for Wireless Communications Facilities, the Planning Board shall find:
  1. That the Applicant has demonstrated to the satisfaction of the Planning Board that the requirements of this bylaw have been met.
  2. That the size and height of the structure are the minimum necessary.
  3. That the proposed Wireless Communication Facility will not adversely impact historic structures or scenic views.
  4. That there are no feasible alternatives to the location of the proposed Wireless Communication Facility, including co-location, that would minimize their impact, and that the applicant has exercised good faith in permitting future co-location of Wireless Communication Facilities at the site.
- D. When considering an application for a Wireless Communication Facility, the Planning Board shall place great emphasis on the proximity of the facility to residential dwellings, its impact on these residences, and the requirement to use existing structures wherever feasible.
- E. Any extension or construction of new or replacement towers or transmitters shall be require amendment of the Special Permit, following the same procedure required for siting a new wireless communication device on an existing structure.

#### **8.7-9 Conditions of Use**

- A. As provided in Subsection 9.2-3E below, the Applicant shall post an initial performance bond or other security to cover construction costs, as well as an annual maintenance bond or other security to cover maintenance for the access road, site and structures, and additional security to cover the removal of the facility in the event of non-operation. The amount of such performance bonds or security shall be determined by the Planning Board pursuant to Subsection 9.2-3E.
- B. Regulatory Compliance. The applicant shall comply with the following additional post-

approval requirements.

1. The Special Permit holder (or other owner or operator) shall demonstrate the structural integrity of the structure and continuing compliance with current standards of the FCC, FAA, and the American National Standards Institute with the Building Inspector, which shall be reviewed by a licensed professional engineer hired by the Town of Shutesbury and paid for by the Special Permit holder.
2. If the FCC or the FAA regulations are changed, the owner or operator shall bring the facilities into compliance within 6 months or earlier if a more stringent compliance schedule is included in the regulation.
3. Failure to comply with any regulations shall be grounds for the Planning Board to revoke this Special Permit and require removal of non-complying structures, buildings, and devices at the owner's expense.
4. If a wireless communication device is moved lower on the structure and the top of the structure is no longer needed, the non-operational part of the structure shall be removed in 120 days.

C. Removal and Repair.

1. An Applicant shall execute a covenant with the Planning Board agreeing to remove, within 180 days of notice from the Town, any Wireless Communication Facility not in operation for a period of 12 months, unless the non-operation is a result of major damage not caused by the fault of the owner or operator.
2. If the facility is not removed within 180 days, the Town shall remove said facility at the owner's expense.
3. In the event of major damage not caused by the fault of the owner or operator, repair must begin within 6 months of such damage.