

# **WIRELESS COMMUNICATIONS BYLAW (CELL TOWER)**

January 29, 2001

## **5.4 WIRELESS COMMUNICATIONS STRUCTURES AND FACILITIES**

### **5.4.1 Purpose**

The purpose of this section is to outline the special permitting process to site wireless communication facilities in the Town of Chester, while minimizing potential damage and adverse visual impacts of wireless communication facilities on adjacent properties, residential neighborhoods, and areas of historic or high scenic value; to allow the provision of wireless communication services in an orderly way; and to promote shared use of existing facilities to reduce the need for new facilities.

### **5.4.2 Definitions**

For the purposes of Section 5.4 of this bylaw, the following definitions apply:

Distance:	distance shall be measured on a horizontal plane.
FAA:	the Federal Aviation Administration.
FCC:	the Federal Communications Commission.
Height:	the distance measured from ground level to the highest point on the structure.
SPGA	Special Permit Granting Authority, The Planning Board shall be the SPGA for this Section.
Non-Residential: Structure	such structures as, but not limited to, buildings, grain silos, and water towers, but does not include dwellings.
Wireless: Communication Building	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	any antenna, appurtenance, wiring, or equipment used in connection with the reception or transmission of electromagnetic radiation which is attached to a structure.
Wireless: Communication Facility	a general term to include wireless communication building, wireless communication device, and wireless communication structure.

Wireless: a monopole tower intended to support equipment used for the  
Communication transmission and reception of electromagnetic radiation, including the  
Structure antennas, wiring or other devices attached to or mounted on a structure.

Personal: An entity, licensed by the FCC to provide Personal Wireless Services.  
Wireless  
Service  
Provider

#### **5.4.3 Exemptions**

The following shall be exempt from this by law:

- (a) Wireless communication facilities used exclusively for Town or State emergency services.
- (b) Amateur radio towers used in compliance with the terms of any amateur radio service licensed by the Federal Communication Commission and used solely for that purpose.
- (c) Wireless communication structures and devices used expressly for home television reception.

#### **5.4.4 General Guidelines**

- (a) No wireless communication facility shall be erected, constructed, or installed without a special permit from the Planning Board acting as the Special Permit Granting Authority (SPGA). Wireless communication facilities may be permitted in any zoning district.
- (b) Wherever feasible, wireless communication devices shall be located on existing towers or other non-residential structures, minimizing proliferation of new towers.
- (c) Wireless communications structures are encouraged on Town owned properties where such properties are in compliance with the requirements of this section.
- (d) Wireless communication structures shall be built so that the structural integrity of the facility is able to accommodate devices operated by another carrier with little or no modification. Any new tower constructed shall be of the monopole type, consisting of a single self-supporting vertical pole with below grade foundation. No other type of structure shall be permitted.
- (e) No wireless communication structure shall be constructed closer to any existing wireless communication structure than is necessary to provide the minimum adequate wireless communications coverage to the Town of Chester, such determination to be made by the Independent Consultant.
- (f) Wireless communication buildings shall be no larger than 500 square feet and 12 feet high, shall be designed to match other accessory buildings on the site, and shall be used only for the placement of equipment related to this particular site.

- (g) A special permit shall not be granted for a wireless communication structure to be built on speculation. If Applicant is not simultaneously installing a wireless communication device on the structure, it shall provide a copy of its existing lease/contract with a Personal Wireless Service Provider. Said Provider shall submit all data requested by SPGA to assure compliance with the terms of this section.

#### **5.4.5 Siting and Height Requirements**

- (a) Setbacks
1. The minimum distance from the base of the wireless communication structure to any property line or road right-of-way shall be at least 1.25 times the height of the structure.
  2. The setbacks for the wireless communication building shall comply with the setback requirements for the zoning district.
  3. The wireless communication structure shall be a minimum distance of three times the height from school buildings, playgrounds, athletics fields, and abutting residences to prevent the structure from appearing to "tower" over; and so as not to adversely affect property values.
- (b) The height shall be the minimum height necessary, as determined by the Independent Consultant, to accommodate anticipated and future use, but in no case shall exceed one hundred twenty (120) feet.
- (c) The wireless communication structure shall, when possible, be sited off ridge lines and where the visual impact is the least detrimental to historic and scenic areas.
- (d) No new wireless communication structure shall be permitted unless the Applicant demonstrates to the reasonable satisfaction of the SPGA that no existing wireless communication 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:
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 brought up to appropriate strength 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.
6. The applicant demonstrates that there are other limiting factors that render existing structures unreasonable.

#### **5.4.6 Design Requirements**

- (a) Wireless communication structures shall be designed to accommodate the maximum number of users as technologically possible.
- (b) There shall be no signs or advertisements, except for no trespassing signs and a required sign giving a phone number where the responsible party can be reached on a 24-hour basis.
- (c) All wireless communication devices shall be colored, molded, and or installed to blend into the structure and/or the landscape. The SPGA shall require that all wireless communication structures be constructed to resemble or mimic a native coniferous species of tree or that other camouflage as determined by the SPGA be used to minimize the adverse visual impact of such structures.
- (d) The area around the wireless communication facility shall be completely fenced to control access within an area no greater than 25 feet in radius from the base of the wireless communication structure.
- (e) Night lighting of the facility shall be prohibited, unless required by the FAA.
- (f) There shall be a maximum of one parking space for each facility to be used in connection with maintenance of the site and not to be used for the 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.

#### **5.4.7 Application Process**

Application for a special permit for siting wireless communication facilities shall be filed in accordance with Section 6.5

- (a) Applications for a special permit to construct a new wireless communications structure shall include the following information:
  1. Site plans and engineering plans, prepared by a professional engineer licensed to practice in Massachusetts, on 24" x 36" sheets at a scale of 1"=40' or 1"=200' where appropriate, on as many sheets as necessary which shows the following:
    - a. north arrow, date, scale, seal(s) of the licensed professional(s) who prepared plans and space for reviewing licensed engineer's seal.

- b. name and address of landowner and name and address of abutters.
  - c. property lines and location of permanent structures or buildings, within 500-foot radius of 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 2-foot intervals and spot elevations at base of all the 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 wireless communication structure.
  - i. plans for anchoring and supporting the structure, including specifications of hardware and all other building material.
  - 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 areas of Town determined by the SPGA.
2. A map showing the areas covered/served by the proposed wireless communication structure and device of different signal strengths, and the interface with adjacent service areas.
  3. A locus map at a scale 1"=1000' (or whatever is necessary to show where in town the proposed tower is sited) which shall show streets, and landscape features.
  4. A description of the soil and surficial geology at the proposed site.
  5. A narrative report written by the Personal Wireless Service Provider and licensed professional engineer which shall :
    - a. Describe the justification of 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 it can accommodate.

- d. Describe actions to be taken if electromagnetic radiation from the facility should exceed levels designated by the FCC.
  - e. Describe the projected future needs of the Personal Wireless Service Provider and how the proposed wireless communications facilities fit with future projections to serve the Town and adjacent towns.
  - f. Describe leasing agreement should another carrier desire to co-locate.
  - g. Describe special design features to minimize the visual impact of the proposed wireless communication facility
6. Proof of approval of all other necessary permits needed for construction and operation.
7. After the application is submitted, and not more than 14 days before the public hearing, the applicant shall arrange to fly a three foot-diameter, brightly colored balloon at the site of the proposed wireless communication structure at the maximum height of the proposed installation. The date and location of the flight shall be advertised at least 14 days, but not more than 21 days before the flights, and again in the public hearing advertisement in a newspaper with a general circulation in the town. The Applicant shall inform the SPGA in writing of the date and time of the test at least 14 days in advance. The balloon shall be flown for at least eight consecutive hours sometime between 7:00 a.m. and 6:00 p.m. on the date chosen.
- (b) Applications for a special permit to construct a new wireless communication device on an existing wireless communication structure or non-residential structures such as buildings, grain silos, steeples, water towers or other non-residential structures, including co-location with another carrier, provided that the new use does not add to the height of the structure, shall include the following information:
- 1. Site plans and engineering plans, prepared by a professional engineer licensed to practice in Massachusetts, on 24" x 36" sheets at a scale of 1"=40' or 1"=200' on as many sheets as necessary which shows the following:
    - a. north arrow, date, scale, the seal(s) of the licensed professionals who prepared the plans and a space for the reviewing licensed engineer's seal.
    - b. plans for supporting and attaching the device including specifications of hardware and all other building material.
    - c. building plans for accessory buildings, if any.
    - d. layout and details of surfacing for access road and parking, if it is to be altered from existing condition.
  - 2. A map showing the areas covered by proposed device(s) of different signal strengths and the interface with adjacent service areas.

3. A narrative report written by the Personal Wireless Service Provider and licensed professional engineer which shall:
    - a. include a draft of the contract between the structure/building owner (whichever appropriate) 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 device.
    - c. describe 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.
  4. Proof of approval of all other necessary permits needed for construction and operation.
  5. If the proposed facility adds more than five feet to the height of the structure at the effective date of this by-law and will exceed zone height restrictions, the SPGA may require a balloon test as described above in Section 5.4.7 (a) 7.
- (c) In addition to the submittal requirements of Section 6.5.5, the Applicant shall submit one copy of the application to the Fire Chief for his review in accordance with Section 6.5.5.

#### **5.4.8 Independent Consultant(s)**

- (a) Upon submission of an application for a Special Permit under this Section, the Applicant shall pay a review fee determined by the SPGA, consisting of reasonable costs to be incurred by the SPGA for the employment of Independent Consultant(s). These Consultant(s) shall each be qualified professionals with a record of service to municipalities in one of the following fields:
  1. telecommunications engineering
  2. structural engineering
  3. monitoring of electromagnetic fields
  4. other relevant fields of experience as determined necessary by the SPGA
- (b) The Applicant shall provide a complete copy of the application for a Special Permit to any Independent Consultant(s) and shall further provide any additional information reasonably requested by the Independent Consultant(s) in order to properly advise the SPGA in their review of the application.
- (c) The Applicant shall grant permission for any Independent Consultant(s) to conduct any necessary site visits.



#### **5.4.9 - Approval**

- (a) In granting a special permit for wireless communication facilities, in addition to the findings required by the Town's Zoning By-law for Special Permits, the SPGA shall find:
1. That the Applicant has demonstrated to the satisfaction of the SPGA that the requirements of this section have been met.
  2. That the size and height of the structure is the minimum necessary.
  3. That the proposed wireless communication facilities will not adversely impact historic structures or scenic views.
  4. That there are no feasible alternatives to the location of the proposed wireless communication facilities, including co-location, that would minimize their impact, and the Applicant has exercised good faith in permitting future co-location of facilities at the site.
  5. That the Applicant has agreed to implement all reasonable measures to mitigate the potential adverse impacts of the wireless communication facilities.
  6. That the proposal shall comply with FCC 96-326 and any and all other applicable FCC regulations, regarding emissions of electromagnetic radiation and that the required Monitoring program is in place and shall be paid for by the Applicant.
- (b) When considering an application for a wireless communication facility, the SPGA shall place great emphasis on the proximity of the facility to residential dwellings, its impact on these residences, and will encourage the use of existing structures.
- (c) Any extension, or construction of new or replacement towers or transmitters shall be subject to an amendment to the Special Permit, following the same procedure as siting a new wireless communication device on an existing structure.
- (d) Any decision by the SPGA to deny an application for a special permit under this bylaw shall be in conformance with the Telecommunications Act of 1996, in that it shall be in writing and supported by substantial evidence contained in a written record.

#### **5.4.10 Conditions of Use**

- (a) The Applicant shall post an initial bond with the Town Treasurer to cover the costs of remediation of any damage to the landscape which occurs during the clearing of the site of any wireless communication facility. In addition an annual maintenance bond shall be posted to cover maintenance for the access road, site, and structure(s). An access road may include existing town roads not designed for heavy traffic. Both bonds shall be in an amount to be determined by the SPGA.



(b) Regulatory Compliance

1. Annual certification demonstrating structural integrity and continuing compliance with current standards of the FCC, FAA and the American National Standards Institute shall be filed with the Building Inspector by the Special Permit Holder, and shall be reviewed by a licensed professional engineer hired by the Town 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 six 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 removal of non-complying structures, buildings, devices at the owner's expense.
4. If the device is moved lower on the structure and the top of the structure is no longer needed, then the non-operational part of the structure shall be removed within 120 days.

(c) Removal and Repair

Any wireless communication structure which ceases to operate for a period of one year shall be removed by the Special Permit Holder within 395 days of the last day of operation. Cease to operate is defined as not performing the normal functions associated with any wireless communication structure on a continuous and ongoing basis for a period of one year, including the absence of a valid lease/contract with a Personal Wireless Service Provider. At the time of removal, the site of the wireless communication structure shall be remediated such that the site is restored to the same condition as existed prior to the structure being constructed. A cash bond shall be posted with the Town Treasurer in an amount determined by the SPGA to be used by the Town to remove any structure required to be removed and not removed within the time frame required by this Section.

- (d) All wireless communication facilities shall be insured by the owner(s) against damage to persons or property. The special permit holder shall provide a Certificate of Insurance to the Board of Selectmen on an annual basis. The Town of Chester shall be added as an additional named insured on the subject insurance policy.

**5.4.11 Severability**

The invalidity, unconstitutionality, or illegality of any provision of this section shall not have any effect upon the validity, constitutionality or legality of any other provision of this section.