

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312A&B

§242-312 Telecommunication Towers and Antennas. *[added 7/9/98]*

A. Intent and Purpose:

It is the intent and purpose of these regulations to accommodate the communication needs of residents and businesses while protecting public health, safety and general welfare of the community. These regulations are necessary in order to:

- (1) Facilitate the provision of wireless communication services to residents and businesses
- (2) To minimize the adverse visual effects of towers through careful design and siting standards
- (3) Avoid potential damage to adjacent properties from tower failure through structural standards and setback requirements
- (4) Minimize any health hazards associated with use of such equipment
- (5) Reduce the number of towers needed to serve the community by maximizing the use of existing and approved suitable facilities, existing water towers or similar buildings to accommodate new wireless telecommunication antennas
- (6) Minimize the perception of diminution of adjoining property values due to the location of such devices
- (7) Review the electro-magnetic radiation interference to receptor devices on adjoining properties to ensure consistency with the requirements of the Federal Communications Commission
- (8) To enable the Commission to find that the above purposes are met together with the requirements of §242-301C and this §242-312 in approving any Design Review or Site Plan Modification application.

A. General:

The review and approval criteria for a special permit for wireless telecommunications activities is generally set forth in §242-301C., "Design Review Approval" and the following additional guidelines, standards, application requirements, procedures and considerations shall also apply:

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312B

(1) **Plans and Specifications:**

Plans and specifications for the antenna and the antenna tower shall be prepared and signed by a Connecticut Licensed Professional Engineer and shall be designed to withstand sustained winds of at least eighty (80) miles per hour.

(2) **Site Simulations:**

The Commission may require the applicant to provide simulations of tower locations and impacts as part of the review of the special permit application. Such simulations may entail the erection of balloons or other devices necessary to visualize the proposed facility.

(3) **Consolidation of Facilities:**

The proposed support structure shall be designed for additional facilities including other wireless communication companies, and local police, fire and ambulance needs, unless it is determined to be technically unfeasible. The Commission may require independent outside evaluation of such determination at the applicant's expense. The applicant shall defray the cost of such expenditures for which payment shall be made prior to the decision by the Commission on the application.

(4) **Distance Requirement:**

No tower may be constructed within one (1) mile radius of an existing tower.

(5) **Lot Size and Setbacks:**

The minimum site shall be the minimum lot size required for the zoning district in which it is located and site shall be of sufficient size to accommodate a setback from all adjoining property lines equal to the maximum height of the tower and all appendages plus twenty-five feet (25').

(6) **Antenna Size:**

Directional or panel antenna(e) shall not exceed six feet (6') in height or two feet (2') in width. Omni-directional antenna(e) shall not exceed twenty feet (20') in height or seven inches (7') in diameter. Satellite and microwave dish antenna(e) shall not exceed two feet six inches (2'6") in diameter in residential districts and six feet (6') in diameter in all other districts.

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312B

(7) **Height Limitations:**

Any proposed radio or television antenna tower, earth station, dish, or other such device shall not exceed the allowable building height plus twelve feet (12') in residential zones or one hundred feet (100') in height, above existing grade, in any other permitted zone.

(8) **Fencing:**

A fence with a height of eight feet (8') shall be required around the tower and its ancillary equipment.

(9) **Landscaping:**

Landscaping shall be required around the fence which shall consist of a row of evergreen trees planted not less than ten feet (10') on center. The evergreen plantings shall be a minimum height of six feet (6') at planting and shall reach a minimum height of fifteen feet (15') at maturity. Such screening shall be maintained by the owner of the property to insure its effectiveness.

(10) **Scenic Ridge Lines:**

Antenna towers on any property that may be designated as a scenic ridgeline by the Planning Commission pursuant to the Plan of Conservation and Development are prohibited.

(11) **Design Compatibility:**

Structures shall be designed to be in harmony with the surrounding neighborhood properties and with due consideration for the impact that the tower will have on these properties, i.e., structures in residential districts must have characteristics such as roof lines, siding, fenestration, etc. that are compatible with residential structures in the immediate area as determined by the Commission. The Commission may impose conditions that foster a compatible design of the tower with the site and surrounding environment.

(12) **New Towers:**

Only monopole antennae shall be permitted as new towers and only after exhausting co-locations on existing towers or buildings. The economical situation associated with a site should not be a reason for exhausting a site.

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312B

(13) **Existing Towers:**

Antenna(e) shall be located on existing towers where available. If no existing towers are available, antenna may be located on new towers or other structures which ever provides the greatest amount of screening.

(14) **Associated Equipment:**

The related unmanned equipment areas and/or building shall not contain more than seven hundred fifty (750) square feet of gross floor area or be more than twelve feet (12') in height. Manned equipment incidental to the business office, maintenance depot and vehicle storage is prohibited. All site utilities shall be provided underground.

(15) **Building and Roof-Mounted Antennae:**

Building or roof-top mounted antenna(e) shall be located or screened so as not to be visibly intrusive from abutting public streets or adjoining residence. The area of the equipment enclosures and other structures shall not occupy more than fifteen percent (15%) of the roof area. If the equipment is located on the roof, setbacks from the roof edge shall be ten feet (10') or ten percent (10%) of the roof depth whichever is greater. Antenna(e) installed on buildings shall be compatible with the underlying structure.

(16) **Noise:**

All operations on site, including the operation of generating equipment, shall comply with all state and local noise regulations.

(17) **Interference:**

Subject to F.C.C. regulations and requirements, any communications equipment or devices shall not cause electro-magnetic interference with receptor devices located on adjoining or nearby properties nor shall they interfere with any existing or proposed public safety communications activities.

(18) **Illumination:**

Illumination shall not be permitted on the tower unless required by the Federal Communications Commission, The Federal Aviation Agency or Connecticut Siting Council.

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312C

B. New Towers:

The proposal to erect a new tower or expand an existing tower shall require a “Special Permit Design Review” as outlined in Chapter 242-301C of the Brookfield Town Code. In addition to the requirements of the special permit “Design Review” applications shall include the following information:

- (1) A description of the proposed tower and associated equipment including height, design features, structural analysis, access roads and power lines, if any.
- (2) A map showing the extent of planned coverage within the Town of Brookfield and the location of the proposed facilities
- (3) Plan and elevation drawings showing the proposed tower, associated equipment, antennae and other structures on site
- (4) A topographic profile showing the proposed tower and its associated equipment
- (5) A description of the slopes, wetlands, watercourses, scenic vista, other environmental characteristics of the site and any historically designated areas of the site and the impact that the tower will have on these resources.
- (6) An architectural rendering of the view of the tower from adjoining properties.
- (7) A statement from the applicant shall be required, if appropriate, or a report or certification from the applicant or his engineer shall be required if that is more appropriate, containing a description of the siting criteria and the process by which other possible sites were considered and eliminated.
- (8) A statement from the applicant shall be required, if appropriate, or a report or certification from the applicant or his engineer shall be required if that is more appropriate, of technological alternatives and their costs for the proposed tower and a statement containing the reasons for the choice of the proposed facility.
- (9) A statement from the applicant shall be required, if appropriate, or a report or certification from the applicant or his engineer shall be required if that is more appropriate, describing the impact on human health, if any, of signal frequency and power density at the proposed site to be transmitted and/or received by the proposed facility.

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312C&D

- (10) Any application for a modification or change to an existing tower shall be accompanied by the submission of items 242-312B(1) - 242-312B(11), 242-312B(14) & 242-312B(15) above. The Commission may waive any of these requirements if it finds that the modification or addition will not have a significant impact.
- (11) All applications for a Special Permit to construct and operate wireless communications towers in a residential district shall include an inventory of all antenna equipment and apparatus not contained within fully enclosed buildings and the power and frequency of all transmission to be broadcast from the facility.

C. New Antenna:

The proposal to add an antenna to an existing tower or building shall require a “Site Plan Modification” as outlined in Chapter 242-301.C(3)[b] of the Brookfield Town Code. In addition to the requirements of the “Site Plan Modification” applications shall include the information listed below. Applications for multiple antenna(e) on an existing tower may be submitted in one Site Plan Modification application.

- (1) A description of the proposed tower and associated equipment including height, design features, structural analysis, access roads and power lines, if any.
- (2) A map showing the extent of the planned coverage within the Town of Brookfield and the location of the proposed antenna(e).
- (3) Plan and elevation drawings showing the proposed antenna(e), associated equipment, tower and other new structures on site.
- (4) An architectural rendering of the view of the antenna(e) from adjoining properties.
- (5) A statement from the applicant shall be required, if appropriate, or a report or certification from the applicant or his engineer shall be required if that is more appropriate, of technological alternatives and their costs for the proposed antenna(e) and a statement containing the reasons for the choice of the proposed location.
- (6) A statement from the applicant shall be required, if appropriate, or a report or certification from the applicant or his engineer shall be required if that is more appropriate, describing the impact on human health, if any, of signal frequency and power density at the proposed site either transmitted and/or received by proposed antenna.

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312D-G

- (7) Subject to and not inconsistent with F.C.C. Regulations, an analysis indicating that any communications devices proposed on the site will not cause electromagnetic interference within receptor devices located on adjacent or nearby properties.
- (8) All applications for a Special Permit to construct and operate wireless communications towers in a residential district shall include an inventory of all antenna equipment and apparatus not contained within fully enclosed buildings and the power and frequency of all transmission to be broadcast from the facility.
- (9) The Commission may waive any requirement of the requirements of § 242-312D(1) – (8) or the requirements under §242-312C(3)[b], Site Plan Modifications, if it finds the new antenna on an existing tower will not have a significant impact.

D. Termination or Non-Use Removal:

A facility not in use for more than one (1) year or whose use is terminated shall be removed by the service facility owner. This removal shall be completed within ninety (90) days of the end of the one (1) year period. Upon removal, the site shall be restored to its previous appearance. The owner shall submit an annual report indicating that the facility is still in use.

E. Bonding:

The Commission may require the posting of a bond to:

- (1) secure compliance with the approved installation of all towers and antenna(e); and
- (2) to ensure the timely and proper removal of said tower and/or antenna upon termination or non-use.

G. Amateur Radio Operations (HAM Operators):

(1) **Accessory Use:**

Amateur Radio Operations are considered an “accessory use” to a residential structure in all Residential Zones, subject to the provisions set forth hereinafter.

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312G

(2) **Application:**

Erection and use of antenna towers and antennae shall require approval of the Commission. A Design Review Approval is not required. An applicant shall complete an "Application - Zoning Approval" form and shall attach thereto the following data:

- (a) **Plot Plan**, to scale, minimum 8 ½ " x 11" sheet showing lot outline and dimensions and location of all structures.
- (b) A narrative **Description** of the proposed operations including a statement that all FCC regulations will be complied with, all equipment used will meet FCC requirements and that the applicant will comply with any orders from the FCC regarding his/her operations.
- (c) **Engineering/structural drawings** or sketches indicating the configuration and elevation of the proposed tower and antenna.
- (d) **Safety devices** (anti-climb barriers, etc.) and proposed fencing and landscaping, if any.

(3) **Standards:**

In granting this type of site plan approval, the Commission shall have found substantial compliance with the following:

(a) **Structural Design:**

All towers shall be designed to withstand sustained winds of at least eighty miles per hour (80 mph).

(b) **Location:**

All towers shall be located in such a manner so that, in the event of accidental collapse, the tower and its appendages shall be contained on the site.

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

Telecommunications Towers and Antennae - § 242-312G&H

(c) **Height:**

The maximum height of a tower shall not exceed either:

- (i) the maximum elevation of any portion of a roof surface (cupolas, chimneys, etc. excluded) plus twelve feet (12') when the tower is in a non-operational mode, or
 - (ii) or the mean height of all trees on the site, whichever is higher.
- Telescoping towers, when in operation, shall not exceed sixty five feet (65') in height above grade.

(4) **Approval:**

Approval of the application shall be evidenced by:

- (a) A notation contained in the official minutes of the Commission,
- (b) Approval and certification signatures appearing on the application/approval form, and
- (c) Legal notice of the approval in a newspaper having general circulation in Brookfield.

H. Continuation of Lawful Use:

The lawful use of any existing tower including existing antennae constructed or attached thereon may be continued and new antenna may be added in accordance with the provision of this Chapter.