

### **19. AT - Antenna Tower Overlay District**

Regulations for the location, construction, and use of communications towers and antenna.

#### **A. Purpose**

The purpose of the Antenna Tower Overlay District is to protect the public health, safety, general welfare, and to accommodate the telecommunication needs of residents and businesses by providing a specific zoning district for the use of land for the establishment and operation of wireless telecommunication towers. Since this is unique, a special zoning district is appropriate and the City of Princeton reserves the right to determine the suitability of a rezoning request to Antenna Tower District based on criteria which includes the following:

1. The compatibility of the rezoning request with surrounding land uses.
2. That the proposed rezoning is necessary in order to provide effective wireless telecommunication coverage for the City.
3. The rezoning is in accordance with the Comprehensive Plan for the City.

Wireless telecommunications towers shall not be permitted nor conditional uses in any other zoning district. This section shall apply to all towers over 60 feet in height.

#### **B. Findings**

In order to accommodate the communication needs of residents and businesses while protecting the public health, safety, and general welfare, the Council finds these regulations necessary in order to:

1. Establish standards which permit a reasonable and equitable opportunity for the establishment of a wireless telecommunication service in the City;
2. Avoid potential damage to adjacent properties from tower failure through structural standards and setback requirements;
3. Minimize adverse effects of towers through careful design and siting standards which attempt to screen and/or camouflage towers and antennas from adjacent private and public property;
4. Maximize the use of existing and approved towers, buildings, and other structures to accommodate new wireless telecommunication antennas in order to reduce the number of towers needed to serve the community.

### C. Uses

The Antenna Tower Overlay District (AT) is an overlay zoning district; land zoned into the AT will also maintain its original zoning classification. All permitted accessory and conditional uses allowed in the underlying zoning district will continue to be allowed on land rezoned to AT, subject to all restrictions and requirements applicable in the underlying district. In addition to the uses allowed in the underlying district, the following uses shall be allowed as a conditional use in the AT:

Antenna arrays, including radio, television, commercial wireless telecommunication, microwave transmitting and receiving equipment, supporting towers, buildings, and enclosures accessory to the tower and antennas.

### D. Co-Location Requirements

A proposal for a new commercial wireless telecommunication service tower shall not be approved unless it can reasonably be documented by the applicant that the telecommunications equipment planned for the proposed tower cannot be accommodated on an existing or approved tower or building within a one mile search radius (one half mile search radius for towers under 120 feet in height, one quarter mile search radius for towers under 80 feet in height) of the proposed tower due to one or more of the following reasons:

1. The planned equipment would exceed the structural capacity of the existing or approved tower or building, as documented by a competent radio frequency engineer;
2. The planned equipment would cause interference, materially impacting the usability of other existing or planned equipment at the tower or building as documented by a competent radio frequency engineer;
3. Existing or approved towers and buildings within the search radius cannot accommodate the planned equipment at a height necessary to function reasonably as documented by a qualified engineer;
4. Other reasons affecting technical performance, system coverage, and system capacity that make it impractical to place or locate the planned telecommunications equipment upon an existing or approved tower.

### E. Tower Design Requirements.

All antennas erected, constructed, or located within the City shall comply with the following requirements:

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1. Towers shall be designed to blend into the surrounding environment to the maximum extent possible through the use of color, except in instances where the color is dictated by federal or state authorities such as the Federal Aviation Administration.
2. Commercial wireless telecommunication service towers shall be of a mono-pole design unless the Planning Commission determines that an alternative design is preferred.

### **F. Design Standards.**

All antennas erected, constructed, or located within the City shall comply with the following requirements:

1. All applicable provisions of this code.
2. Tower designs shall be certified by a qualified engineer to conform to the latest structural standards and wind loading requirements of the Uniform Building Code and the Electronics Industry Association.
3. With the exception of necessary electric and telephone service and connection lines approved by the City, no part of any antenna or tower, nor any lines, cable equipment, wire, or braces in connection with either, shall at any time extend across or over any part of any right-of-way, public street, highway, sidewalk, or property line.
4. All towers shall be protected against unauthorized climbing. The bottom of the tower (measured from ground level to 12 feet above ground level) shall be constructed in such a manner to preclude unauthorized climbing.  
  
The tower, antenna, and supporting equipment shall be enclosed by an eight foot high chain link fence with a locked gate.
5. Only one tower shall exist at any one time on any lot or parcel. The minimum lot size requirement shall be one acre.
6. Towers and antennas shall be designed to conform with accepted electrical engineering methods and practices and to comply with the provisions of the National Electrical Code.

### **G. Signs and Advertising.**

No advertising, logos, or identification of any kind is permitted, except as may be required by Federal and State authorities.

### **H. Accessory Utility Buildings.**

All utility buildings and structures accessory to a tower shall be architecturally designed to blend in with the surrounding environment and shall meet such setback requirements as are compatible with the actual placement of the tower. Ground mounted equipment shall be screened from view by suitable vegetation, except where a design of non-vegetative screening better reflects and complements the architectural character of the surrounding neighborhood.

### **I. Tower lighting.**

Towers and antennas shall not be illuminated or display strobe lights unless specifically required by the Federal Aviation Administration or other Federal or State authority. When incorporated into the approved design of the tower, light fixtures used to illuminate ball fields, parking lots, or similar areas may be attached to the tower at the City's discretion.

### **J. Tower Setbacks and Tower Height.**

Towers shall conform with each of the following requirements:

1. Towers shall not be located between a principal structure and a public street.
2. Towers shall meet setback requirements, equal to the height of the tower, from all property lines.
3. Towers shall not encroach upon any easements.
4. The maximum height of any tower, including antennas and other attachments, shall not exceed 150 feet. The height of a tower may be increased by 20 feet to accommodate each additional user above those required by co-location up to a maximum height of 190 feet.

### **K. Time Limit On Tower Completion.**

Once a tower is approved by the City, the tower must be substantially completed within one year, including any structures accompanying the tower, following the date of tower approval.

### **L. Interference with Telecommunications.**

No new or existing telecommunication service shall interfere with public safety telecommunication. All applications for new services shall be accompanied by an intermodulation study which provides a technical evaluation of existing and proposed transmissions and indicates all potential interference problems.

### **M. Additional Submittal Requirements.**

In addition to the information required elsewhere in this code, development applications for towers and/or antennas shall include the following supplemental information:

1. A report from a qualified engineer that 1) describes the tower and antenna height and design, including a cross-section and elevation; 2) documents the approximate height above grade for potential mounting positions for co-located antennas and the approximate minimum separation distances between antennas; and 3) describes the tower's capacity generally, including the number and type of antennas that it can accommodate.
2. For all commercial wireless telecommunication service towers, a letter of intent committing the tower owner and his or her successors to allow the shared use of the tower if an additional user agrees in writing to meet reasonable terms and conditions for shared use.

### **N. Antennas Mounted On Roofs, Walls, and Existing Towers.**

The placement of the wireless telecommunication antennas on roofs, walls, and existing towers may be approved administratively, without requiring rezoning to Antenna Tower Overlay District, provided the antennas meet all applicable requirements of this code and the following:

1. The maximum height of an antenna shall not exceed 15 feet above the roof and shall be set back at least 10 feet from the roof edge.
2. A site plan application which includes the location of the proposed antennas on the structure and elevations, and an application for a building permit.
3. Any equipment placed on water towers within city limits shall be subject to the approval and control of the Public Utilities Commission.

### **O. Abandoned or Unused Portions of Towers.**

Abandoned or unused towers or portions of towers and accompanying accessory facilities shall be removed within twelve months of the cessation of operations of an antenna facility at the site unless a time extension is approved by the Planning Commission. In the event that a tower is not removed within twelve months of the cessation of operations at a site, the tower and associated facilities may be removed by the City and costs of removal assessed against the property.