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## **Model Policy on Wireless Towers**

Includes: an Outline of Zoning Regulations, and Selected Ordinance Provisions  
Pertaining to Towers

(Source Unknown)

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Resolution No. \_\_\_\_\_

\_\_\_\_\_ City Council Policy Statement Regarding Wireless  
Telecommunication Antennas and Towers

This policy is established as a guide to city staff in zoning and other regulatory ordinances and in the preparation of site lease agreements which would permit the location of antenna arrays and towers on city-owned or controlled real estate. To the extent that a specific inconsistent zoning or other regulatory ordinance is enacted or a site lease adopted or approved by the council, the ordinance or lease shall control and this policy shall have no binding effect; however, paragraph 2 of Article I, Priority of Users, and any subsequent amendments thereto shall control over subsequent inconsistent language in individual site leases.

### **Article I: Regulation Under City Police Power**

City actions taken with regard to telecommunication activities, must comply with a number of federal parameters established by the Telecommunications Act of 1996. For example, local actions must foster rather than discourage competition, thus the city will not discriminate against one or a group of providers in favor of another, or another group of providers or potential providers. Under the same act, local actions which result in a prohibition on provision of telecommunication services are invalid. Thus staff is directed to facilitate establishment and provision of lawful wireless telecommunications services with the following local objectives in mind:

- Minimize the overall number of towers through co-location requirements.
- Insure that new towers will be safe and blend into their environment when possible.
- Insure that towers are placed in suitable locations with residential locations being a last resort.

- Insure that zoning ordinances and other municipal police power regulations be defensible in light of federal and state laws.
- Insure that revenue from site leases of city-controlled lands and structures be maximized consistent with achievement of the four preceding goals.
- Encourage multiple users on both towers and tower sites.

## **Article II: Policy regarding use of city-owned land for wireless telecommunication antennas and towers.**

### **1. Introduction**

The City of \_\_\_\_\_ has received requests from wireless telecommunication providers to place wireless telecommunication antennas and towers on city-owned property. City Council has determined that a uniform policy for reviewing these requests is desirable.

### **2. Priority of Users**

Priority for the use of City-owned land for wireless telecommunication antennas and towers will be given to the following entities in descending order:

- A. City of \_\_\_\_\_
- B. Public safety agencies, including law enforcement, fire, and ambulance services, which are not part of the City of \_\_\_\_\_ and private entities with a public safety agreement with the City of \_\_\_\_\_
- C. Other governmental agencies, for uses which are not related to public safety; and
- D. Entities providing licensed commercial wireless telecommunication services including cellular, personal communication services (PCS), specialized mobilized radio (SMR), enhanced specialized mobilized radio (ESMR), paging, and similar services that are marketed to the general public.

### **3. Minimum Requirements**

The placement of wireless telecommunication antennas or towers on City-owned property must comply with the following requirements:

- A. The antennas or tower will not interfere with the purpose for which the City-owned property is intended;
- B. The antennas or tower will have no adverse impact on surrounding private property;
- C. The applicant is willing to obtain adequate liability insurance and commit to a lease agreement which includes equitable compensation for the use of public land and other necessary provisions and safeguards. The fees shall

be established by the City Council after considering comparable rates in other cities, potential expenses, risks to the City, and other appropriate factors;

- D. The applicant will submit a letter of credit, performance bond, or other security acceptable to the City to cover the costs of antenna or tower removal;
- E. The antenna or tower will not interfere with other users who have a higher priority as referenced in Section 2;
- F. Upon reasonable notice, the antennas or tower may be required to be removed at the user's expense;
- G. The applicant must reimburse the City for any costs which the city incurs because of the presence of the applicant's antenna or tower;
- H. The user must obtain all necessary land use approvals; and
- I. The applicant will cooperate with the City's objective to promote co-locations and thus limit the number of separate antenna sites requested.

#### **4. Special Requirements**

The use of certain City-owned property, such as water tower sites and parks, for wireless telecommunication antennas or towers brings with it special concerns due to the unique nature of these sites. The placement of wireless telecommunication antennas or towers on these special City-owned sites will be allowed only when the following additional requirements are met:

**A. Water Tower or Reservoir Sites** - The City's water towers and reservoirs represents a large public investment in water pressure stabilization and peak capacity reserves. Protection of the quality of the City's water supply is of prime importance to the City. As access to the City's water storage systems increases, so too increases the potential for contamination of the public water supply. For these reasons, the placement of wireless telecommunication antennas or towers on water tower or reservoir sites will be allowed only when the City is fully satisfied that the following requirements are met:

- 1. The applicant's access to the facility will not increase the risks of contamination to the City's water supply;
- 2. There is sufficient room on the structure and/or on the grounds to accommodate the applicant's facility;
- 3. The presence of the facility will not increase the water tower or reservoir maintenance cost to the City; and
- 4. The presence of the facility will not be harmful to the health of workers maintaining the water tower or reservoir.

**B. Parks** - The presence of certain wireless telecommunication antennas or towers represents a potential conflict with the purpose of some City-owned parks. Towers shall be allowed in designated conservation areas only as a special exception in cases where in the City's sole opinion, the presence of the tower is essential. Wireless telecommunication antennas or towers will be considered only in the following parks

after the recommendation of the Parks and Recreation Commission and approval of the City Council.

1. Public parks of a sufficient scale and character that are adjacent to an existing commercial or industrial use;
2. Commercial recreation areas and major play fields; and,
3. Park maintenance facilities.

## **5. Application Process**

All applicants who wish to locate a wireless telecommunication antenna or tower on City-owned property must submit to the City Manager a completed application and detailed plan that complies with the submittal requirements of the Zoning Ordinance along with other pertinent information requested by the City.

## **6. Termination**

The City Council may terminate any lease if it determines that any one of the following conditions exists:

- A. A potential user with a higher priority cannot find another adequate location and the potential use would be incompatible with the existing use;
- B. A user's frequency broadcast unreasonably interferes with other users of higher priority, regardless of whether or not this interference was adequately predicted in the technical analysis; or
- C. A user violates any of the standards in this policy or the conditions attached to the City's permission.

Before taking action, the City will provide notice to the user of the intended termination and the reasons for it and provide an opportunity for the user to address the City Council regarding the proposed action. This procedure need not be followed in an emergency.

## **7. Reservation of Right**

Notwithstanding the above, the City Council reserves the right to deny, for any reason, the use of any or all City-owned property, by any one or all applicants.

## **8. Effective Date**

This policy shall be effective from and after its adoption by the city council.

Adopted by Resolution Number \_\_\_\_\_

At the \_\_\_\_\_ City Council Meeting of \_\_\_\_\_

## OUTLINE OF ZONING REGULATIONS

### I. Purpose and Intent

**Comment:** If the city has not adopted a general statement of policy, it is recommended that each city establish a written purpose and intent within the zoning ordinance to provide clear direction and understanding of the regulations. It should be noted that this zoning regulation outline is restricted to towers and antennas used for wireless telecommunication facilities such as personal communication services (PCS). This zoning outline has not been prepared with the intent of regulating other types of antennas and towers such as radio and television antennas, residential satellite dishes, or public safety transmitters. Cities may also wish to expand the suggestions herein to address other types of communication facilities.

### **Examples:**

1. The purpose of this ordinance is to establish predictable and balanced regulations for the siting and screening of wireless communications equipment in order to accommodate the growth of wireless communication systems within the City of \_\_\_\_\_ while protecting the public against any adverse impacts on the City's aesthetic resources and the public welfare.
2. The regulations and requirements of this Ordinance are intended to 1) provide for the appropriate location and development of communication towers to serve the residents and businesses in the City of \_\_\_\_\_ ; 2) minimize adverse visual effects of towers through careful design, siting, and vegetative screening; 3) avoid potential damage to adjacent properties from tower failure through engineering and careful siting of tower structures; and maximize use of any new or existing communication tower to reduce the number of towers needed.
3. In order to accommodate the communication needs of residents and business while protecting the public health, safety, and general welfare of the community, the Council finds that these regulations are necessary in order to: 1) facilitate provision of wireless communications services to the residents and businesses of the city; 2) minimize 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; and, 4) maximize the use of existing and approved towers and buildings to accommodate new wireless telecommunication antennas in order to reduce the number of towers needed to serve the community.

### II. Definitions

**Comment:** In order to establish specific zoning standards for PCS antennas and towers, each municipality should adopt specific definitions for such devices to distinguish them from essential services or public utilities which are often exempt from local zoning ordinances. Such definitions may also be used to apply to other types of antennas and towers as shown in the examples below.

## **Examples:**

### **Antenna**

\*equipment used for transmitting or receiving telecommunication, television or radio signals, which is located on the exterior of, or outside of, any building or structure

\*a device used to transmit and/or receive radio or electromagnetic waves between terrestrially and/or orbitally based structures.

\*any structure or device used for the purpose of collecting or radiating electromagnetic waves, including but not limited to directional antennas, such as panels, microwave dishes, and satellite dishes, and omni-directional antennas, such as whip antennas.

### **Commercial Receiving and or Transmitting Antenna**

\*any antenna erected for the commercial use of the information.

### **Private Receiving and/or Transmitting Antenna**

\*any antenna erected for the non-commercial use of the information.

### **Commercial Wireless Telecommunication Services**

\*includes cellular, personal communications services (PCS), specialized mobilized radio (SMR), enhanced specialized mobilized (ESMR), paging, and similar services that are marketed to the general public.

### **Public Utility**

\*persons, corporations, or governments supplying gas, electric, transportation, water, sewer, or land line telephone service to the general public. For the purpose of this ordinance, commercial wireless telecommunication services shall not be considered public utility uses, and are defined separately.

### **Tower**

\*any ground or roof mounted pole, spire, structure, or combination thereof taller than 15 feet, including supporting lines, cables, wires, braces, and masts, intended primarily for the purpose of mounting an antenna, meteorological device, or similar apparatus above grade.

\*any pole, spire, or structure, or combination thereof, to which an antenna is attached, or which is designed for an antenna to be attached, and all supporting lines, cables, wires, and braces.

### **III. Zoning Districts**

**Comment:** Each city must determine what zoning district(s) is most appropriate for wireless communication facilities. Federal law allows cities to maintain local zoning authority over such facilities, however, the law states that local government shall not 1) unreasonably discriminate among providers of functionally equivalent services, 2) shall not prohibit or have the effect of prohibiting the provision of personal wireless services, and 3) shall not regulate the placement, construction and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the FCC's regulations concerning such emissions. Therefore, cities cannot outright prohibit PCS or cellular antennas in all districts. Cities should conduct an inventory of existing communication antennas and towers to determine the current impact and locational pattern of such facilities.

It is estimated that wireless communication facilities may be needed every 1-2 miles along heavily traveled corridors and every 2 miles in other areas. This is to allow the providers to achieve complete coverage of a specific geographic region. The exact spacing of antennas will depend on the amount of wireless usage, the exact type of system proposed and the local topography of the area. Because zoning and land use patterns vary considerably from community to community, no one recommendation can be provided with respect to the appropriate zoning districts to allow for PCS antennas. Provided below, however, is a general list of what are considered to be primary and secondary land use districts for such facilities.

#### **Primary Land Use Districts**

- \* Industrial Districts
- \* Commercial Districts
- \* Freeway/Highway Corridor Districts
- \* Institutional/Public Districts
- \* Community Athletic Complexes

## Secondary Land Use Districts

- \* High Density Residential Districts
- \* Medium Density Residential Districts
- \* Special Use Districts (i.e., historic or downtown districts)
- \* Environmentally Sensitive Areas (i.e., shore land or scenic river)
- \* S.F. Residential Districts

## IV. Performance Standards

**Comment:** The establishment of performance standards to enhance the visual and aesthetic appearance of PCS antennas and towers is perhaps the area where local ordinances can be most improved. Performance standards can be used to reduce the number of new towers by requiring co-location or by establishing incentives to use existing buildings and facilities (i.e., permitted use vs. conditional use). Below is an example of standards which may be used.

It should be emphasized that not all of the provisions listed below need to be incorporated into a city's ordinance to adequately address the use of wireless telecommunication facilities. The need to include such provisions will largely depend on a city's individual circumstances such as location potential for such facilities, form and content of other applicable ordinances, the desire to regulate with strict control (or conversely less control), etc.

### **Examples:**

**Co-location Requirements.** All commercial wireless telecommunication towers erected, constructed, or located within the City shall comply with the following requirements:

1. A proposal for a new commercial wireless telecommunication service tower shall not be approved unless the City Council finds 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:
  - a. The planned equipment would exceed the structural capacity of the existing or approved tower or building, as documented by a qualified and licensed professional engineer, and the existing or approved tower cannot be reinforced, modified, or replaced to accommodate planned or equivalent equipment at a reasonable cost.

- b. 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 qualified and licensed professional engineer and the interference cannot be prevented at a reasonable cost.
- c. 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 and licensed professional engineer.
- d. Other unforeseen reasons that make it infeasible to locate the planned telecommunications equipment upon an existing or approved tower or building.

2. Any proposed commercial wireless telecommunication service tower shall be designed, structurally, electrically, and in all respects, to accommodate both the applicant's antennas and comparable antennas for at least two additional users if the tower is over 100 feet in height or for at least one additional user if the tower is over 60 feet in height. Towers must be designed to allow for future rearrangement of antennas upon the tower and to accept antennas mounted at varying height.

#### **V. Area Wide Analysis/Proof of Need**

The applicant shall demonstrate, by providing a coverage/ interference analysis and capacity analyses, that the location of the antenna as proposed is necessary to meet the frequency reuse and spacing needs of the wireless telecommunication facilities and to provide adequate coverage and capacity, to areas which cannot be adequately served by locating the antennas in a less restrictive district.

#### **VI. Proof of Non-Interference**

Each application for construction of a wireless telecommunication facility shall include either a preliminary or a certified statement that the construction of the tower, including reception and transmission functions, will not interfere with the radio, television, etc., service enjoyed by adjacent residential and nonresidential properties. In the event only a preliminary statement is submitted with the application, a final certified statement of non-interference will be provided and approved by the city prior to issuance of a building permit. The statement shall be prepared by an engineer licensed to practice in the State of Virginia, or other professional accepted by the City.

#### **VII. Setbacks**

**Comment:** Setbacks are generally regulated by base zoning district. Cities often require 1) setback based on an engineered fall zone analysis, 2) setback equal to height of tower, or 3) greater setback adjacent to sensitive uses (i.e., residential, schools, churches, parks, etc.)

**Example:**

Where adjacent parcels are zoned or guided for commercial or industrial uses, setbacks equivalent to those established for the principal structure shall be provided. This standard shall also apply when adjacent to residentially zoned or guided land, where, due to topography, presence of wetlands or similar limitations, the land will not be actively developed for residential use. Setbacks equal to the height of the tower shall be established on sites that are adjacent to parcels developed or able to be developed for residential use.

**VIII. Lighting:**

**Comment:** Information from the APA publication suggests that city ordinances commonly require that lighting meet FM or FCC requirements and that lighting not result in glare on adjacent property (most notably in residential sites). Some cities allow basic security lighting only. Some cities also specify red lights at night and white strobe lighting during the day. Other cities restrict lighting, requiring it to be shielded during the day or because of a scenic overlay district. Other restrictions include restricting the height of lighting to 15-20 feet and/or no flashing lights.

Other options include not allowing illumination by artificial means and no strobe light display unless specifically required by the FM or other federal or state authority for that particular tower site. When the design of the tower incorporates light fixtures used to illuminate ball fields, parking lots, etc. fixtures may be attached to the tower in an approved tower design. Or no artificial lighting is allowed unless required by law or by a governmental agency to protect public health and safety. Or artificial tower lighting is limited to mandatory safety lighting required by other regulatory agencies with jurisdiction over communications towers. Or security lighting may be allowed around the base of the tower if it does not adversely affect adjacent property owners.

**Example:**

Towers shall not be artificially lighted unless required by the Federal Aviation Administration.

**IX: Structural Design, Height, Screening, Access, and Building Requirements:**

Options include requiring the antenna and towers to blend with the surrounding environment, including locating antennas on the roof of an existing building or mounted on building walls or on the sides of water towers. With new towers, especially in residential districts, requirements can mandate they be camouflaged as church steeples or bell towers or to replace existing light standards. Regulating the type and color of towers can also minimize visual impact. Although monopoles are less intrusive, metal frame towers are better suited to co-location.

Heights are generally regulated by base zoning district. Typically ordinances allow 50-100% increase over height allowed in base zoning district and allow greater height by conditional use permit or variance. Antennas 6 to 20 feet in height, located on existing buildings are typically permitted under most ordinances.

Screening includes security fencing, specifying camouflage as well as emphasis on the attractiveness of the material and the affect produced. Most commonly, ordinances submitted to the APA require landscaping around the base of the structure, with the height and depth for vegetation landscaping and screening in many ordinances. Other ordinances may require landscaping only for residential districts or include requirements for standards to be determined by a local zoning board. Specific non-vegetative screening commonly includes some form of screening around the base with specific descriptions that include brick masonry walls, chain link fences, solid wood fences, opaque barriers and beams. Some ordinances require landscaping or screening height standards of 4-24 feet. Finally, other ordinances require that the landscaping/screening be done in a manner that is compatible with the surrounding character, buildings or landscape.

Structure requirements include compliance with Electronics Industry Association (EIA) standards and approval by a licensed structural engineer approved or hired by the city. Some of the items have noted under design requirements probably are more appropriate to this category. With respect to safety considerations, the most conservative setback requirements specify 110 percent of the tower height, plus additional distance of 20 feet from the nearest property line or street to protect adjacent property from damage. The fact that some towers are designed to collapse within themselves could also be cited.

Lot requirements can also be added to local ordinances. Although most cities do not include such requirements in their ordinances, those that do, provide for lot size based on the minimum allowed for whatever zoning district the tower is to be sited in. Lot requirements most often cited are given in square footage or acreage and range from 5,000 square feet to 2 acres. A common method for determining lot size is to make it a function of 1) tower height, with the toppling factor being the primary justification, and 2) the concern over proximity of adjacent uses to an EMF source. Some cities provide for separate accessory structure setbacks from both the property line and tower itself.

Accessory buildings and equipment are treated in a wide variety of ways. Some ordinances require that zoning district requirements apply to accessory structures while others require only that the structures meet the building code. Some ordinances require that in residential districts, structures be designed to fit with the basic residential house design in the area. Still other ordinances require design review board approval, or separate accessory structure setbacks from the property line and tower. Where the tower is an accessory to a principal use, some cities even require the related buildings to have the same building design or materials as the principal use.

**Example:**

Free-standing transmission towers and other antenna devices over 60' in height.

1. Maximum height is limited to 150' above the ground upon which the antenna is placed. The city council may allow towers up to 200' high if the applicant can demonstrate, based upon the topography of the site and surrounding area, siting of the antenna, antenna design, surrounding tree cover and structures and/or through the use of screening, that off-site views of the tower will be minimized;
2. The use of guyed towers is prohibited. Towers must be self supporting without the use of wires, cables, beams or other means. The design should utilize an open framework or monopole configuration. Permanent platforms or structures exclusive of antennas that serve to increase off-site visibility are prohibited;
3. The base of the tower shall occupy no more than 500 square feet and the top of the tower shall be no larger than the base;
4. Minimum spacing between tower locations is 1/4 mile;
5. Tower locations should provide the maximum amount of screening possible for off-site views of the facility;
6. Existing on-site vegetation shall be preserved to the maximum extent practicable;
7. The installation shall be designed to be compatible with the underlying site plan. The base of the tower and any accessory structures shall be landscaped. Accessory structures will be designed to be architecturally compatible with principal structures on the site;
8. The tower shall be painted light blue or other color that is demonstrated to minimize visibility. No advertising or identification visible off-site shall be placed on the tower or antennas;
9. Antennas placed upon the tower shall be subject to state and federal regulations pertaining to non-ionizing radiation and other health hazards related to such facilities. If new, more restrictive standards are adopted the antennas shall be made to comply or continued operations may be restricted by the city council. The cost of verification of compliance shall be borne by the owner and operator of the tower; and
10. Towers shall be provided with security fencing to prevent unauthorized entry.

## **X. Obsolete or Unused Towers**

### **Example:**

All obsolete and unused towers and accompanying accessory facilities shall be removed by the property owner within 12 months of cessation of use.

## **XI. Effect of Ordinance on Existing Towers**

**Example:**

Antennas and towers in residential districts and in existence as of \_\_\_\_\_, which do not conform to or comply with this Section are subject to the following provisions:

1. Towers may continue in use for the purpose now used and as now existing but may not be replaced or structurally altered without complying in all respects with this Section.
2. If such towers are hereafter damaged or destroyed due to any reason or cause whatsoever, the tower may be repaired and restored to its former use, location, and physical dimensions upon obtaining a building permit therefore, but without otherwise complying with this Section, provided, however, that if the cost of repairing the tower to the former use, physical dimensions, and location would be ten percent or more of the cost of a new tower of like kind and quality, then the tower may not be repaired or restored except in full compliance with this Section.

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City of \_\_\_\_\_, Virginia

**Selected Ordinance Provisions Pertaining to Towers**

**ZONING**

**ARTICLE 1. GENERAL PROVISIONS**

**SEC. \_\_\_\_\_. DEFINITIONS.**

The following words and terms when used in this Chapter shall have the following meanings unless the context clearly states otherwise:

**Antenna** - Any structure or device used for the purpose of collecting or transmitting electromagnetic waves, including but not limited to directional antennas, such as panels, microwave dishes, and satellite dishes, and omnidirectional antennas, such as whip antennas.

**Commercial Wireless Telecommunication Services** - Licensed commercial wireless telecommunication services including cellular, personal communication services (PCS), specialized mobile radio (SMR), enhanced specialized mobile radio (ESMR), paging, and similar services that are marketed to the general public.

**Public Utility** - Persons, corporations, or governments supplying gas, electric, transportation, water, sewer, or land line telephone service to the general public. For the

purpose of this ordinance, commercial wireless telecommunication service facilities shall not be considered public utility uses, and are defined separately.

**Tower** - Any ground or roof mounted pole, spire, structure, or combination thereof taller than 15 feet, including supporting lines, cables, wires, braces, and masts, intended primarily for the purpose of mounting an antenna, meteorological device, or similar apparatus above grade.

**Tower, Multi-User** - A tower to which is attached the antennas of more than one commercial wireless telecommunication service provider or governmental entity.

**Tower, Single-User** - A tower to which is attached only the antennas of a single user, although the tower may be designed to accommodate the antennas of multiple users as required in this Code.

## ARTICLE II. DISTRICT REGULATIONS

### SEC. \_\_\_\_\_

a. Purpose - The purpose of this Section is to regulate the height of structures in order to maintain the character and scale of the predominant single-family residential development in the City of \_\_\_\_\_

#### b. Definitions-

1. Protected residential property - any property within the City that meets all of the following requirements:

- The property is zoned R-1, R-1 A, or RS-1 and the property may or may not also have a Planned Development (PD) Overlay classification;
- The property is designated on the Comprehensive Plan as Low-Density Residential, Medium-Density Residential, or High-Density Residential; and
- The property is used or subdivided for use as residential.

#### 2. Structure height -

1. Buildings - the height of buildings shall be determined using two methods and both methods must comply with the restrictions of Section \_\_\_\_\_ (c) of the City Code.

1. the number of stories shall be determined by counting the total number of above-grade, habitable floors in the building and shall not include walk-out basements, attics, or underground parking;

2. the height of buildings shall be determined by measuring the vertical distance from the lowest exterior grade of the building to the ceiling of the highest habitable story of the building. Habitable stories with sloped ceilings shall be measured to the base of the slope.

1. Parking structures - the height of parking structures shall be determined by measuring the vertical distance from the lowest exterior grade of the parking structure to the highest point of the permanent structure.

2. Towers - the height of towers shall be determined by measuring the vertical distance from the tower's point of contact with the ground or rooftop to the highest point of the tower, including all antennas or other attachments. When towers are mounted upon other structures, the combined height of the structure and tower must meet the height restrictions of Section 19.47.

3. Other structures - the height of all other structures shall be determined by measuring the vertical distance from the lowest exterior grade of the structure to the highest point of any part of the structure.

4. The final determination of height shall be made by the Issuing Authority in accordance with the guidelines of Section 19.47(b)(2)(A), (B), and (C) of the City Code.

### 3. Height Limitations

#### A. Buildings and Structures Other Than Towers.

1. In all single-family residential zoning district (R-1, R-1A, RS-1) the maximum height of any building shall be 2 stories and the maximum height of any structure, including buildings, shall be 30 feet;

2. In all other zoning districts, the maximum height of any building or structure, excluding towers, shall be as follows:

Distance of Building or Structure from the Property Lines of any Protected Residential Property

Maximum Height: 0-30 feet 31-300 feet 301-600 feet over 600 feet

no limit

#### B. Towers.

a. In all protected residential property the maximum height of any tower, including all antennas and other attachments, shall be 30 feet.

b. In all residential zoning districts other than protected residential property, the maximum height of any tower, including all antennas and other attachments, shall not exceed one foot for each four feet the tower is set back from protected residential property up to a maximum height of 150 feet.

c. In all non-residential zoning districts, the maximum height of any tower, including all antennas and other attachments, shall not exceed one foot for each two feet the tower is set back from protected residential property up to a maximum height of 150 feet.

d. Applicability -

1. In all zoning districts, the maximum or portion thereof, other than towers, 600 feet or greater from any protected residential property shall not be governed by Section \_\_\_\_ of this Code.

2. Exceptions - The requirements of Section \_\_\_\_\_ of this Code shall apply to all structures and developments otherwise permitted under this Code except:

1. planned developments, when approved as a part of a preliminary and final development plan pursuant to Section \_\_\_\_\_ this Code.

2. public utility structures, including but not limited to water towers, antennas, lights and signals, power and telephone poles, and poles supporting emergency warning devices.

3. church sanctuaries, steeples and bell towers.

4. Multi-User towers may exceed the height limitations of Section \_\_\_\_\_ by up to 20 feet.

5. in accordance with the Federal Communications Commission's preemptive ruling PRB1, towers erected for the primary purpose of supporting amateur radio antennas may exceed 30 feet in height provided that a determination is made by the City that the proposed tower height is technically necessary to successfully engage in amateur radio communications.

e. Noncompliance - Noncompliance of characteristics of structures and site development created by the application of Section \_\_\_\_\_

of this Code shall not in any manner limit the legal use of the property, nor in any manner limit the repair, maintenance, or reconstruction of a non-complying characteristic or feature.

### ARTICLE III. PERFORMANCE STANDARDS

#### SEC. \_\_\_\_\_. TOWERS

A. Purpose. In order to accommodate the communications needs of residents and business while protecting the public health, safety, and general welfare of the community, the Council finds that these regulations are necessary in order to:

1. facilitate the provision of wireless telecommunication services to the residents and businesses of the City;
2. minimize 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; and,
4. maximize the use of existing and approved towers and buildings to accommodate new wireless telecommunication antennas in order to reduce the number of towers needed to serve the community.

B. Towers in Residential Zoning Districts. Towers shall be allowed only in the following residentially zoned areas:

1. Towers supporting amateur radio antennas and conforming to all applicable provisions of this Code shall be allowed only in the rear yard of residentially zoned parcels
2. Towers supporting commercial antennas and conforming to all applicable provisions of this Code shall be allowed only in the following residentially zoned locations:
  1. Church sites, when camouflaged as steeples or bell towers;
  2. Park sites, when compatible with the nature of the park; and,
  3. Government, school, utility, and institutional sites.

C. Co-Location Requirements. All commercial wireless telecommunication towers erected, constructed, or located within the City shall comply with the following requirements:

1. A proposal for a new commercial wireless telecommunication service tower 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 qualified and licensed professional engineer, and the existing or approved tower cannot be reinforced, modified, or replaced to accommodate planned or equivalent equipment at a reasonable cost.

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 qualified and licensed professional engineer and the interference cannot be prevented at a reasonable cost.

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 and licensed professional engineer.

D. Other unforeseen reasons that make it infeasible to locate the planned telecommunications equipment upon an existing or approved tower or building.

1. Any proposed commercial wireless telecommunication service tower shall be designed, structurally, electrically, and in all respects, to accommodate both the applicant's antennas and comparable antennas for at least two additional users if the tower is over 100 feet in height or for at least one additional user if the tower is over 60 feet in height. Towers must be designed to allow for future rearrangement of antennas upon the tower and to accept antennas mounted at varying heights.

1. Tower Construction Requirements. All towers erected, constructed, or located within the City, and all wiring

therefore, shall comply with the requirements set forth in Section \_\_\_\_ of this Code.

2. Tower and Antenna Design Requirements. Proposed or modified towers and antennas shall meet the following design requirements:

a. Towers and antennas shall be designed to blend into the surrounding environment through the use of color and camouflaging architectural treatment, except in instances where the color is dictated by federal or state authorities such as the Federal Aviation Administration.

b. Commercial wireless telecommunication service towers shall be of a monopole design unless the City Council determines that an alternative design would better blend into the surrounding environment.

1. Tower Setbacks. Towers shall conform with each of the following minimum setback requirements.

a. Towers shall meet the setbacks of the underlying zoning district with the exception of industrial zoning districts, where towers may encroach into the rear setback area, provided that the rear property line abuts another industrially zoned property and the tower does not encroach upon any easements.

b. Towers shall be set back from the planned public rights of way as shown on the most recently adopted \_\_\_\_\_ [Master Street Plan] of the City by a minimum distance equal to one half of the height of the tower including all antennas and attachments.

c. Towers shall not be located between a principal structure and a public street, with the following exceptions:

1. In industrial zoning districts, towers may be placed within a side yard abutting an internal industrial street.

2. On sites adjacent to public street on all sides, towers may be placed within a side yard abutting a local street.

1. A tower's setback may be reduced or its location in relation to a public street varied, at the sole discretion of the City Council, to allow the integration of a tower into an

existing or proposed structure such as a church steeple, light standard, power line support device, or similar structure.

2. Towers erected on any protected residential parcel as defined in Section \_\_\_\_\_ of this Code are also subject to the setback provisions of Section \_\_\_\_\_ of this Code.

1. Tower Height. All proposed towers shall meet the height restrictions set forth in Section \_\_\_\_\_ of this Code.

2. Tower Lighting. Towers shall not be illuminated by artificial means and shall not display strobe lights unless such lighting is specifically required by the Federal Aviation Administration or other federal or state authority for a particular tower. 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.

3. Signs and Advertising. The use of any portion of a tower for signs other than warning or equipment information signs is prohibited.

4. 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 the minimum setback requirements of the underlying zoning district. 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. Abandoned or Unused Towers or Portions of Towers.

5. Abandoned or unused towers or portions of towers shall be removed as follows:

1. All abandoned or unused towers and associated facilities shall be removed within 12 months of the cessation of operations at the site unless a time extension is approved by the City. A copy of the relevant portions of a signed lease which requires the applicant to remove the tower and associated facilities upon cessation of operations at the site shall be submitted at the time of application. In the event that a tower is not removed within 12 months of the

cessation of operations at a site, the tower and associated facilities may be removed by the City and the costs of removal assessed against the property.

2. Unused portions of towers above a manufactured connection shall be removed within six months of the time of antenna relocation. The replacement of portions of a tower previously removed requires the issuance of a new conditional use permit.

1. Antennas Mounted on Roofs, Walls, and Existing Towers. The placement of wireless telecommunication antennas on roofs, walls, and existing towers may be approved by the City, provided the antennas meet the requirements of this Code, after submittal of

1) a final site and building plan as specified by Section \_\_\_\_\_ of this Code, and

2) a report prepared by a qualified and licensed professional engineer indicating the existing structure or tower's suitability to accept the antenna, and the proposed method of affixing the antenna to the structure.

2. Complete details of all fixtures and couplings, and the precise point of attachment shall be indicated.

3. Interference with Public Safety Telecommunications. No new or existing telecommunications service shall interfere with public safety telecommunications. All applications for new service shall be accompanied by an intermodulation study which provides a technical evaluation of existing and proposed transmissions and indicates all potential interference problems. Before the introduction of new service or changes in existing service, telecommunication providers shall notify the City at least ten calendar days in advance of such changes and allow the City to monitor interference levels during the testing process.

4. Additional Submittal Requirements. In addition to the information required elsewhere in this code, development applications for towers shall include the following supplemental information: A report from a qualified and licensed professional engineer which

- a. describes the tower height and design including a cross section and elevation;
- b. documents the height above grade for all potential mounting positions for co-located antennas and the minimum separation distances between antennas;
- c. describes the tower's capacity, including the number and type of antennas that it can accommodate;
- d. documents what steps the applicant will take to avoid interference with established public safety telecommunications;
- e. includes an engineer's stamp and registration number; and
- f. includes other information necessary to evaluate the request.

1. 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.

2. Before the issuance of a building permit, the following supplemental information shall be submitted;

a. Proof that a proposed tower complies with regulations administered by Federal Aviation Administration; and

b. a report from a qualified and licensed professional engineer which demonstrates the tower's compliance with the aforementioned structural and electrical standards.

E. Violations. Any person who shall violate any of the provisions of this Section shall be guilty of a class one misdemeanor and subject to penalties of up to Twenty-Five Hundred Dollars (\$2500) and/or incarceration in jail of up to twelve (12) months.