

Section 10.600 Telecommunication towers/antennas (Amend. #57)

- A. Purpose. The purpose of these standards is to establish general guidelines for the siting of communication towers, antenna structures and antennas for commercial wireless telecommunications.
- B. Goals:
 - 1. Encourage the location of towers, where necessary, in non-residential areas;
 - 2. Encourage the joint use of new and existing telecommunication tower sites and other antenna structures;
 - 3. Encourage telecommunication towers, other antenna structures, and antennas to be configured in a way that minimizes the adverse visual impact on the community;
 - 4. Encourage users of communication towers, other antenna mounts, and antennas to configure them in a way that minimizes the adverse visual impact of those structures;
 - 5. Enhance the ability of the City to ensure that wireless telecommunications services are provided to the community quickly, effectively, and efficiently;
- C. Minimize the potential adverse effects associated with telecommunication towers through the implementation of reasonable design, landscaping, and construction practices; and
 - 1. Conform to Federal and State laws that allow certain antennas to be exempt from local regulations.
- D. Definitions:
 - 1. Telecommunications Tower—Any structure that is designed and constructed primarily for the purpose of supporting one or more antennas, including self-supporting lattice towers, guyed towers, or monopole towers. The term includes radio and television transmission towers, microwave towers, common-carrier towers, cellular telephone towers, and the like. Terms associated with tower shall mean as follows:
 - a. Alternative communication tower structure—shall mean man-made trees, clock towers, bell steeples, light poles and similar alternative-design mounting structures that camouflage or conceal the presence of antennas or towers.
 - b. Antenna—shall mean any exterior apparatus or apparatuses designed for telephonic, radio, data, Internet, or television communications through the sending or receiving of electromagnetic waves including equipment attached to a tower or building for the purpose of providing personal wireless services including, for example, cellular, enhanced specialized mobile radio and personal communications services telecommunications services, and its attendant base station.
 - c. Antenna for non-commercial use—shall mean any antenna external to a building, including any supporting structure such as a tower, which is not hand-carried while in use and is used for: reception or electromagnetic signals, such as radio or television broadcasts or direct satellite television; or for transmission of electromagnetic signals by a licensed amateur radio operator or by means of an Earth-orbiting satellite communications device.
 - d. Antenna panel—shall mean an antenna or array of antennas that are flat and rectangular and designed to concentrate a radio signal in a particular area. Also,

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referred to as directional antennas.

- e. Antenna support structure—shall mean any mast, pole, tripod, tower or similar structure used to support an antenna.
- f. Antenna system—shall mean the combination of an antenna and antenna support structure.
- g. Antenna system height—shall mean the overall vertical length of the antenna system above grade. If such system is located on a building, the overall height shall include the height of the building.
- h. Antenna tower—shall mean a structure designed and constructed to support one or more antennas used by commercial wireless telecommunication facilities and including all appurtenant devices attached to it. A tower can be free-standing (solely self-supported by attachment to the ground) or supported (attached directly to the ground and with guy wires), or either lattice or monopole construction.
- i. Antenna, whip—shall mean an antenna that transmits signals in 360 degrees. They are typically cylindrical in shape and are less than six inches in diameter and measure up to 18 feet in height. Also called omni-directional, pipe, or stick antenna.
- j. Coaxial Cable—shall mean a cable consisting of one or more cylinders with a single wire running down the center of each cylinder.
- k. Mast—shall mean any structure or part of an antenna that has vertical dimensions greater than five (5) times its horizontal dimension that supports or lends support to any part of an antenna.
- l. Microwave—shall mean electromagnetic radiation with frequencies higher than 1,000 MHz; highly directional signal used to transmit radio frequencies from point to point at a relatively low power level.
- m. Microwave Radio—shall mean a line-of-sight radio transmission using very short wavelengths, corresponding to a frequency of 1,000 megahertz or greater.
- n. Radio Transmitting and Receiving Antenna—shall mean an array or system of wires, tubing and supporting members mounted on a mast, tower or building, used for transmitting and/or receiving radio signals that include, but are not limited to, citizen band and other special frequencies.
- o. Satellite Parabolic or Dish Receiving Antenna—shall mean a device incorporating a reflective surface that is solid, open mesh, or bar configured and is in the shape of a shallow dish, cone, horn, bowl, or cornucopia. Such device shall be used to transmit or receive radio or electromagnetic waves between terrestrially or orbitally based uses. This definition is meant to include but not be limited to what are commonly referred to as satellite earth stations, TVROs (television reception only satellite dish antennas), and satellite microwave antennas. See: Article 8; Table 8-1
- p. Satellite relay—shall mean an active or passive satellite repeater that relays signals between two earth terminals.
- q. Standard Residential Receiving Antenna—shall mean an array made up of small metal tubing and supporting members that are commonly installed on or near

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residential buildings for the purpose of receiving television or radio signals. See: Article 8; Table 8-1

- r. Telecommunications carrier—shall mean a company that provides wireless services. Telecommunication carriers may or may not own the tower they are on; if they are not the owner they are typically leasing the space from a tower company.
- s. Telecommunications facilities equipment shelter—shall mean a facility, shelter, cabinet, shed, or vaults used to house and protect the electronic equipment necessary for processing wireless communications signals. Associated equipment may include, for example, air conditioning, backup power supplies and emergency generators.
- t. Tower company—shall mean a company that owns, operates and maintains the tower infrastructure.
- u. Tower, guyed—shall mean a monopole or lattice tower that is supported, in whole or in part, by guy wires and ground anchors or other means of support besides the superstructure of the tower itself.
- v. Tower, lattice—shall mean a tower characterized by an open frame-work of lateral cross-members that stabilize the structure.
- w. Tower, monopole—shall mean a telecommunications tower consisting of a single pole, constructed without guy wires and ground anchors.
- x. Tower, self-supporting—shall mean a lattice telecommunications tower that is constructed without guy wires and ground anchors.
- y. Wireless telecommunication—shall mean the transmission through the air of information in the form of electromagnetic or optical signals; including television, AM/FM radio, digital, microwave, cellular, telephone, or similar forms of electronic or optical wireless communication.
- z. Wireless telecommunication facility—shall mean a facility including antennas and transmitting and receiving equipment for wireless telecommunication, including personal wireless services facilities.

E. Applicability:

- 1. Antenna and antenna structure. An antenna and antenna structure, any portion of which is located within the City of Lee's Summit, shall be subject to this Chapter, except as otherwise provided herein.
- 2. Utility poles. The provisions of this Chapter shall not apply to utility poles that are utilized for the support of electrical, telephone, cable television, or other similar cables and wires, are located on public rights-of-ways or easements for that purpose, and are a part of a system of such poles throughout the City of Lee's Summit.
- 3. Amateur radio, receive-only antenna. The requirements of this Section shall not govern any communication tower or the installation of any antenna that is:
 - a. Under seventy (70) feet in height,
 - b. Owned and operated by a federally-licensed amateur radio station operator, or
 - c. Used exclusively for receive-only antennas.

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4. Pre-existing communication tower, other antenna structure, and antenna. A pre-existing communication tower, other pre-existing antenna structure, and pre-existing antenna shall not be required to meet the requirements of this Section except upon expiration of an existing special use permit.
 5. Principal or accessory use. An antenna, a communication tower, or an antenna structure, and equipment accessory to the same, may be considered either principal or accessory uses. A different existing use or an existing structure on the same lot shall not preclude the installation of an antenna, telecommunications tower or other antenna structure, and equipment accessory to the same on such lot.
 6. Parcel boundaries. For purposes of determining whether the installation of a telecommunication tower or antenna complies with district development regulations, including but not limited to setback requirements, lot coverage requirements, and other such requirements, the dimensions of the entire lot shall control, even though the antennas or towers may be located on leased parcels within such lot.
 7. Non-conforming use. A tower or other antenna structure that is constructed or installed in accordance with the provisions of this Chapter, although an addition to the property, shall not be deemed to constitute the expansion of a non-conforming use or structure.
- F. General requirements:
1. Federal requirements:
 - a. All wireless telecommunication facilities must meet or exceed current standards and regulations of the Federal Aviation Administration (FAA), the Federal Communications Commission (FCC), and any other agency of the federal government with the authority to regulate towers and antennas.
 - b. If such standards and regulations are changed, then the owner(s) of the wireless telecommunication facility governed by this Chapter shall bring such facility into compliance with such revised standards and regulations within six (6) months of the effective date of such standards and regulations, unless a more stringent compliance schedule is mandated by the controlling federal agency.
 - c. Failure to bring a wireless telecommunication facility into compliance with such revised standards and regulations shall constitute grounds for the removal of the facility at the owner's expense. Any such removal by the governing authority shall be in the manner provided in this Section.
 2. Building codes and safety standards:
 - a. To ensure the structural integrity of telecommunication towers, the owner of a tower shall ensure that it is maintained in compliance with standards contained in the International Building Code (IBC) and the applicable standards for towers that are published by the Telecommunications Industry Association (TIA)/Electronic Industries Association (EIA), as amended from time to time. Tower owners shall conduct periodic inspections of telecommunications towers at least once every three (3) years to ensure structural integrity. Inspections shall be conducted by a structural engineer licensed to practice in Missouri. The results of such inspection(s) shall be provided to the Building Official.
 - b. If, upon inspection, the Building Official concludes that a tower fails to comply with such codes and standards and is not a danger to persons or property, then a

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written notice will be sent to the owner of the tower with a copy of said notice to all of the known lease holders. Such notice shall include:

- (1) A description of the property;
- (2) A statement of the violation(s) and the reason the notice is being issued;
- (3) Statement that the owner shall have thirty (30) days to bring such tower into compliance; and
- (4) A statement that the owner has a right to appeal the Building Official's findings to the Board of Appeals.

If the tower is not brought into compliance within the stated time period above, an extension may be requested by the owner. The extension request shall be in writing and include a proposed plan of action with a timeframe for completion of the work. The Building Official is authorized to grant in writing one or more extensions of time as deemed reasonable and appropriate; however, the owner shall provide proof that action is being taken. If tower is not brought into compliance within the stated time period and no extension is requested, the City may remove such tower at the owner's expense after notice is sent to the property owner and all known lease holders of a Notice Appeal Hearing and such hearing is held.

If, upon inspection, the Building Official concludes that a tower constitutes a danger to persons or property, then upon written notice being provided to the owner of the tower and any known lease holders, the owner shall have fifteen (15) days to inspect the tower and make the necessary repairs. If repairs are not made within the stated time period the City may take whatever action is necessary to remove or lessen the dangerous condition.

3. Special use permit. A telecommunications tower shall be subject to a special use permit, in accordance with the following considerations:
 - a. Setbacks. No new tower shall be constructed without setbacks from all property lines a distance equal to the height of the tower as measured from the base of the structure to its highest point or as otherwise authorized by the Governing Body in approval of the special use permit. Accessory structures shall be governed by the setbacks for that particular zoning district.
 - b. Guy Anchors. Guy anchor foundations shall be setback a minimum of ten (10) feet from all property lines.
 - c. Separation Distances. The following are the required separation distances from other towers and residential:
 - (1) A telecommunications tower over ninety (90) feet in height shall be separated from any other telecommunications tower over ninety (90) feet in height by a distance of at least one (1) mile.
 - (2) These separation distances may be waived if the Governing Body legislatively determines the application of these requirements would effectively prevent the provision of wireless telecommunications services within the City.
 - d. Lighting. A telecommunications tower or other antenna structure shall not be artificially lighted unless such lighting is required by the FAA or other applicable

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authority. If lighting is required, the Governing Body may review the available lighting alternatives and approve the design that would cause the least disturbance to the surrounding views. Security lighting around the base of a communications tower or other antenna structure may be installed if the lighting complies with Article 7 and no light is directed toward adjacent properties or rights-of-way.

- e. Signage. Signs located at the telecommunications tower shall be limited to ownership, contact information, the FCC antenna registration number and any other warning signs required by the FCC. Commercial advertising is strictly prohibited.
- f. Landscaping. A telecommunications tower facility shall be landscaped in accordance with Article 14 to provide a buffer of plant materials that effectively screen the view of the telecommunications tower base and accessory structures from adjacent property. This may be waived by the Governing Body where natural growth and land forms provide an equivalent buffer. Existing mature tree growth and natural land forms on the site shall be preserved to the maximum extent possible. In certain locations where the visual impact of the tower would be minimal, such as remote agricultural or rural locations or developed heavy industrial areas, the landscaping requirement may be reduced or waived by the Governing Body.
- g. Parking Areas & Drives. Parking areas and drives associated with the telecommunications tower shall be paved in accordance with this Chapter and the Design and Construction Manual or as otherwise authorized by the Governing Body in the approval of a special use permit after making a determination that additional impervious coverage is not in the best interest of adjacent property owners.
- h. Security Fencing. A telecommunications tower shall be enclosed by fencing not less than six (6) feet in height and equipped with an appropriate anti-climbing device. The type of fence shall be in accordance with Article 14 or as otherwise authorized by the Governing Body in the approval of the special use permit.
- i. Visual Impact. To limit the visual impact of a telecommunications tower, to the extent feasible, the tower shall be:
 - (1) Located away from key public viewpoints;
 - (2) Located down-slope from the top of ridge lines, so that from key public viewpoints, a smaller portion of the height of the tower is viewed against the sky;
 - (3) Placed within forested areas with antennas just above the treeline;
 - (4) Located or be of such a height not to necessitate FAA coloring and lighting;
 - (5) Located in industrial areas;
 - (6) Of the minimum height necessary for operation of the telecommunication system, considering the visual trade-off of a greater number of towers at lower heights; and
 - (7) Located outside historic districts designated by the Governing Body and located unobtrusively so as not to be visible from historic structures.

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- j. View of accessory equipment. Mobile or immobile equipment not used in direct support of a wireless telecommunications facility shall not be stored or parked on the site of the facility, unless repairs to the facility are being made.
- k. Design. The following standards shall apply:
 - (1) A telecommunications tower shall, subject of any applicable standards of the FAA, be painted a neutral color approved by the Governing Body, so as to reduce visual obtrusiveness;
 - (2) At a telecommunications tower site, the design of the buildings and related structures shall, to the extent possible, use materials, colors, textures, screening, and landscaping that will blend the tower facilities to the natural setting and built environment; and
 - (3) If an antenna is installed on an antenna structure other than a telecommunications tower, the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, or closely compatible with, the color of the antenna structure so as to make the antenna and related equipment as visually unobtrusive as possible.
 - (4) Tower design will be evaluated on a case by case basis utilizing the following design preferences:
 - (a) Monopoles are highly encouraged;
 - (b) Stealth technology shall be incorporated into the placement of antenna utilizing architectural elements or structures whenever feasible. Such antenna placement is appropriate around window frames, doorways, along guttering, incorporated into penthouses, cupolas, steeples, etc.; and
 - (c) Towers are to be architecturally compatible to the surrounding development(s).
 - (d) However, the Governing Body shall not mandate design requirements which have been found to be unreasonable under Missouri law.
- 4. Accessory uses. Accessory uses including telecommunications facilities equipment shelter as defined herein shall be located underground in a vault and shall include only such structures and equipment as are necessary for transmission and receiving functions and satellite ground stations associated with them and shall not include broadcast studios, offices, vehicle storage area, or other similar uses. Accessory structures shall be in compliance with the requirements of this Chapter.
- 5. Exceptions. The Governing Body may reduce the requirements of this Section if the goals of this Section would be better served thereby.
- G. All telecommunications towers over fifty (50) feet in height shall be designed to accommodate antennas for more than one user;
- H.
- I. Abandonment and Removal:
 - 1. If the use of any antenna mounted on a telecommunications tower ceases, and the antenna is not used for a continuous period of twelve (12) months, the antenna shall be considered abandoned, and the owner of such antenna and tower shall remove it

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within ninety (90) days of receipt of notice from the City notifying the owner of such abandonment. If such antenna and tower is not removed within said ninety (90) days, the City may remove such antenna and tower at the owner's expense. In the event the owner is defunct or cannot be located, the property owner shall be held jointly and severally responsible for the removal of abandoned facilities. If there are two or more users of a single tower, then this provision shall not become effective until all users cease using the antennas on the tower.

J. Replacement or alteration of an existing communication tower.

1. The Director may approve the replacement or alteration of an existing telecommunications tower under a current and valid special use permit if:

a. All conditions of this Article are otherwise met.

b. The replacement or alteration does not result in an increase in height at or above 25% of the height of the existing telecommunications tower.

2. All other replacements or alterations of telecommunications towers shall require a special use permit.

K.

L. Required submittals. The following items are required for any new tower application, existing tower renewal, or co-locate as indicated:

1. New Towers. New towers require the submittal of the following items:

- a. A Preliminary Development Plan per Article 4;
- b. A Special Use Permit as detailed in Article 10; and
- c. Supplemental technical studies as detailed below.

2. Existing Towers. The following items are required for existing telecommunication towers:

- a. A Special Use Permit renewal per Article 10; and
- b. Supplemental technical studies as detailed below.

3. Administratively-approved uses. The following uses (co-locations) are specifically permitted without a special use permit, subject to approval of a Final Development Plan. The application shall follow the procedures set forth in Article 4.

- a. Installing an antenna on an existing structure other than a telecommunications tower (such as a building, sign, light pole, water tower, or other free-standing non-residential structure), provided that:
 - (1) Such structure is not designated as a historic structure by the Governing Body,
 - (2) The antenna does not extend horizontally from the side of such structure farther than the minimum necessary for attachment, and
 - (3) Where the antenna extends horizontally from the side of a building, it is camouflaged by the use of materials, colors, textures, or screening that will visually blend the antenna into the building.

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- b. Installing an antenna on any existing telecommunications tower of any height, including the placement of additional mounts or other supporting equipment used in connection with said antenna.
 4. The Director, Commission, or Governing Body may require additional technical studies deemed necessary to fully evaluate the application. Should the services of an outside consultant be needed to evaluate any such technical studies, the cost of such services shall be borne by the applicant.
 5. Where required by the Director as essential to the evaluation of a proposed location, proposed mounting of an antenna shall be shown by an accurately-scaled photo simulation, from not less than three viewpoints approved by the Director.
 6. A map of the City and the first half-mile of all bordering communities showing the design of the applicant's entire existing and proposed wireless telecommunications network. Such map shall, at a minimum, indicate the exact location of all proposed and existing tower and antenna sites, their dimensions, specifications, and signal area coverage.
 7. Color photo simulations from several different angles showing the proposed site of the tower with a photo-realistic representation of the proposed tower as it would appear viewed from the closest residential property or properties and from adjacent roadways.
 8. A structural integrity study completed and certified by a licensed Professional Engineer. The study should include, at a minimum, the following items:
 - a. Tower type, age, manufacturer, model number, and all current and proposed antennas and their owners;
 - b. A review of wind and ice load design criteria under current conditions and with the proposed additions/changes; and
 - c. A statement indicating the condition of the tower's foundation.
 9. Tower owners shall provide documentation (i.e., a copy of the FCC Antenna Structure Registration and any other relevant documents) indicating that each telecommunications tower is in compliance with all federal requirements. A statement declaring that the existing tower is still in compliance and will remain so after any proposed alterations or additions shall be submitted when the structure is altered or antenna(s) added.
 10. A copy of an inspection report current within the last 3 years.
 11. Proof of general liability insurance for claims from injury or death and property damage in an amount approved by the City, but not less than \$2,000,000.00 per occurrence for personal injury and \$2,000,000.00 per occurrence for property damage with the City listed as an additional insured.
 12. The tower owner and/or landowner shall promptly notify the city within 30 days by certified or registered mail of the sale, transfer, or assignment of any tower or telecommunications facility. Each co-location shall be conditioned upon the co-locate obtaining the necessary approvals for the subject facility or site from the City prior to siting such facility.
- M. Pre-existing Towers/Non-conforming Uses. All nonconforming telecommunication towers installed and in use on November 1, 2001 (which was the the effective date of the Unified Development Ordinance) shall be allowed to continue their present usage as a legal non-

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conforming use and shall be treated as a non-conforming use in accordance with Article 15 of the UDO. Periodic structural integrity and inspection reports shall be submitted as required by this Article.

- N. Maintenance. Routine maintenance on an existing telecommunications tower shall be permitted without need for a new application unless the structure is being altered beyond what currently exists per the latest approved plan.
- O. Denial. Upon denial of a special use permit tower application by the Governing Body the applicant or any other person, official or agency who is aggrieved by the final decision may appeal the denial pursuant to Article 4. Upon denial of an administrative use, the applicant or any other person, official or agency who is aggrieved by the decision may appeal the denial pursuant to Article 17. In either case, written findings shall be made available to the applicant. The findings should recite the requirements of the ordinance and the failure of the applicant to meet one or more of them.
- P. Preemption. Nothing in this Section shall apply to any application or circumstances where to do so would violate applicable provisions of federal law or laws of the State of Missouri.