

## Chapter 15-12 Electronic Communications and Alternative Energy Sources

### 15-12-02 Wireless Telecommunications Facilities

A. **Definitions** The following definitions are specific to this Chapter.

EQUIPMENT FACILITY. Any building, shelter or cabinet used by telecommunication providers to house switching, backup or other equipment at a Telecommunications Facility.

ANTENNA. Any system of wires, poles, rods, arms, reflecting discs or similar devices of various sizes, materials, and shapes including but not limited to solid or wire-mesh dish, horn, spherical or bar configuration used for the transmission or reception of radio signals. Types of antennas include:

1. Wall Mounted Antenna. Any antenna mounted directly to the fascia or outside wall of a structure, existing parapet walls, penthouses, or mechanical equipment rooms, with no portion of the antenna extending above the roofline of such structures.
2. Roof Mounted Antenna. An antenna mounted directly to the roof of a building, mechanical penthouse or parapet enclosure wall which is on the roof top of a building.
3. Top-hat Antenna. A spatial array of Antennas, generally located on a free-standing structure, where the visible width of Antennas and Antenna Mounting Structures are more than three (3) feet in width as viewed looking directly at the structure.
4. Whip Antenna. An Antenna that is cylindrical in shape. Whip Antennas can be directional or omnidirectional and vary in size depending upon the frequency and gain for which they are designed.
5. Utility Pole Antennas. Any Antenna mounted directly to a street light pole. This definition shall not include poles carrying electrical lines, telephone lines or any other type of utility not specifically included above.

ANTENNA SUPPORT STRUCTURE. A structure the principle purpose of which is for location of Antennas. Types of Antenna Support Structures include:

1. Monopole. A free standing Antenna Support Structure placed directly on the ground used to support one or more Antennas.
2. Lattice Tower. A self-supporting multiple sided, open steel frame structure used to support one or more Antennas.

CO-LOCATION. A Telecommunications Facility comprising more than one telecommunications provider's Antennas.

RESIDENTIAL INSTITUTIONAL USE. A school, church, clubhouse or public building in a residential zone. This definition does not include residences or multi-family structures containing one or more residential units.

TELECOMMUNICATIONS FACILITY. An unmanned structure which consists of equipment, including Antennas, Antenna Support Structures and Equipment Facilities as defined herein, that transmit and/or receive voice and/or data communications through radio signals such as "cellular" or "PCS" (Personal Communications System) communications and paging systems.

TELECOMMUNICATIONS FACILITY. An unmanned structure which consists of equipment, including Antennas, Antenna Support Structures and Equipment Facilities as defined herein, that transmit and/or receive voice and/or data communications through radio signals such as "cellular" or "PCS" (Personal Communications System) communications and paging systems.

NON-STEALTH DESIGN. Any Antenna or Equipment Facility not camouflaged in a manner to blend with surrounding land uses, features or architecture. The design does not conceal the intended use of the telecommunications facility. A Monopole with Equipment Facilities above ground and unscreened would be considered non-stealth.

STEALTH. Antennas, Antenna Support Structures and Equipment Facilities camouflaged or designed to blend with surrounding land uses, features, and architecture, thus minimizing the aesthetic impact on adjacent uses, thereby concealing the intended use and appearance of the Telecommunications Facility such as heavy landscaping, installing Telecommunications Facilities within existing buildings, or placing Equipment Facilities underground. A flush Wall Mount Antenna painted the same color as the background, located on a building where the Equipment Facility is located inside said building would be considered stealth design.

- B. **Purpose.** The purpose of this Section is to address planning issues brought on by the rapid growth in demand for low power wireless telecommunications services. This Section establishes provisions that deal with issues of demand, visual mitigation, engineering, residential impacts, health, safety and facility siting.
- C. **Application.** The requirements of this Section apply to both commercial and private Telecommunications Facilities. All Telecommunications Facilities shall comply with the following regulations and all other ordinances of the City and any pertinent regulations of the Federal Communications Commission and the Federal Aviation Administration.
- D. **Telecommunication Facility Justification Study and Master Plan Required.** A Master Plan for each company shall be submitted. Additionally, a complete application and Telecommunication Facility Justification Study shall be submitted by each company for each proposed Telecommunications Facility. The Telecommunication Facility Justification Study and Master Plan shall be submitted to the Community Development Department, which will provide a preliminary review. Upon completion of the Community Development Department review, the Telecommunication Facility Justification Study and Master Plan will be scheduled with the Development Committee for further review and recommendation to the Planning Commission together with the complete application.
- E. **Master Plan Requirements.** A Master Plan shall be completed by each company. The Master Plan shall show proposed locations of future Telecommunication Facilities and include the rationale for each potential Telecommunication Facility. Maps shall be utilized to graphically illustrate the coverage radius of each potential Telecommunication Facility.
- F. **Telecommunication Facility Justification Study Requirements.** A Telecommunication Facility Justification Study shall be completed for each Telecommunication Facility. The Study shall include:
1. **Rationale.** The rationale for the selection of the proposed Telecommunication Facility in view of the relative merits of any feasible alternative Telecommunication Facilities within the search ring. The Telecommunication Facility Justification Study shall include a description of the Telecommunication Facility, a description of the Telecommunications Facilities proposed to be placed on the location with technical reasons for their design and efforts made to minimize impacts on the surrounding land uses, a listing of other Telecommunication Facilities within the search ring which were evaluated and a statement of reasons why the final location was chosen. Staff may request the search ring and propagation information for the proposed Telecommunication Facilities. The applicant shall justify that the Telecommunications Facilities comply with the Sandy City General Plan, as well as the required setback, height and landscaping

requirements of the zoning district in which they are proposed to be located.

2. Co-location. The Study shall also examine the potential for co-location at an existing or the proposed Telecommunication Facility. If co-location is not possible at an existing Telecommunication Facility or if the proposed new Telecommunication Facility is not available for co-location, then the applicant shall include a written explanation why co-location is not possible.
  3. Height. The height of the Antennas and Antenna Support Structures shall be justified through a detailed written analysis that explains in non-technical terms the reasons why service cannot be effectively provided unless at the requested height. If the proposed Telecommunication Facility is a roof mount or wall mount the City may request that the Study verify that the existing or proposed screening will screen from view all Telecommunications Facilities.
  4. Equipment Facilities. The Study must include a detailed, written explanation and analysis, not limited to fiscal reasons alone, of the potential for the Equipment Facilities to be either (1) located in an existing building or (2) designed using Stealth design technology or other visual screening is utilized that readily conceals the appearance of the equipment facilities.
  5. Visual Analysis. The applicant shall submit a visual analysis, which may include photosimulation, field mock up or other techniques, which identifies the potential for visual impacts of the proposed Telecommunications Facility. The analysis shall consider views from public areas (streets, parks, etc) and from private residences. The analysis shall assess the cumulative impacts of the proposed Telecommunications Facility and other existing or approved Telecommunications Facilities in the area as provided by City staff, and shall identify all mitigation measures consistent with the technical aspects and requirements of the proposed Telecommunications Facility. All costs associated with this requirement are to be borne by the applicant.
  6. Independent Review. The City may if it deems necessary, cause each telecommunications facility to be reviewed by a qualified radio frequency engineer. The purpose of the review is to determine if other locations are available to achieve an equivalent signal distribution and not significantly affect the operation of the telecommunications facility. Such a review may be required when an applicant indicates that no other acceptable location exists. The costs shall be borne by the applicant.
- G. **Permitted Uses**. The following Telecommunications Facilities are classified as permitted uses. Any request for Telecommunications Facilities differing from the standards as allowed in this section shall require a Technical Necessity Exception from the Planning Commission.

All Telecommunications Facilities must comply with the Sandy City General Plan, as well as the required setback, height and landscaping requirements of the zoning district in which they are to be located, and are subject to all provisions for "Site Plan Review," including modifications to existing site plans.

All permitted use Equipment Facilities listed in this section must be (1) located in an existing building or (2) designed using Stealth design technology or other visual screening is utilized that readily conceals the appearance of the equipment facilities.

1. City Property. Telecommunications Facilities located on Sandy City-owned property are allowed as a permitted use, provided the Facilities meet the standards as specified for each type of Facility as contained in this Section and the Facility owner has entered into a lease-type agreement with the City.

2. Wall Mounted Antenna. Wall Mounted Antennas which comply with the following standards are allowed as a permitted use:
  - a. Locations. Located on a parcel in a commercial, industrial, or professional office zone district on a commercial, industrial or office structure or in residential zone districts on Residential Institutional Uses.
  - b. Mounting Method. Wall Mounted Antennas shall not extend above the wall line of the building or extend more than four (4) feet horizontally from the face of the building.
  - c. Stealth Design. Antennas, Equipment Facilities and the Antenna Support Structure shall be constructed with Stealth design to match the color of the building or structure and to be architecturally compatible with the building or to match the color of the background against which they are most commonly seen.
  - d. Area Limitations. The Wall Mounted Antenna shall comply with §15-12-02-G-3-e “Area Limitations for Wall and Roof Mounted Antennas”
  
3. Roof Mounted Antenna. Roof Mounted Antennas which comply with the following standards are permitted uses:
  - a. Locations. Located on a parcel in a commercial, industrial, or professional office zone district on a commercial, industrial or office structure or in residential zone districts on Residential Institutional Uses.
  
  - b. Mounting Location.
    1. Roof Mounted Antennas may be located on top of existing penthouses or mechanical equipment rooms provided the Telecommunications Facilities are enclosed by a structure that creates a visual screen. The screening structure and Telecommunications Facilities shall not extend more than eight (8) feet above the existing roofline of the penthouse or mechanical equipment room.
    2. For Roof-Mounted Antennas not mounted on a penthouse or mechanical equipment room, the Telecommunications Facilities shall be mounted at least five (5) feet from the exterior wall of a building. For Antennas mounted between five (5) and ten (10) feet from the exterior wall, the maximum height of a Roof Mounted Antenna is directly proportional to the distance the Antenna is set back from the exterior wall up to a maximum height of ten (10) feet above the roofline of the building to which the Antenna is attached.
    3. Telecommunications Facilities shall be mounted at least five (5) feet behind any parapet wall. For Antennas mounted between (5) five and ten (10) feet behind a parapet wall, the maximum height of the Antenna is directly proportional to the distance the Antenna is set back from the wall up to a maximum of ten (10) feet as measured from the top of the parapet wall.
  
  - c. Screening. Roof Mounted Telecommunications Facilities shall be located only on a flat roof and shall be screened, constructed and/or colored to match the structure to which they are attached. Roof Mounted Telecommunications Facilities for pitched roofs must receive a Technical Necessity Exception.

- d. Area Limitations for Wall and Roof Mounted Antennas. A combination of both Roof and Wall Mounted Antennas are allowed on a building. The total area for all Wall and Roof Mounted Antennas and Antenna Support Structures combined shall not exceed forty (40) square feet for each exterior wall of the building or a total of 160 square feet per building per carrier. A maximum of four (4) walls shall be occupied by Antennas. The total area is the sum of the area of each individual Antenna face and the visible portion of the Antenna Support Structure and the Equipment Facility as viewed when looking directly at the face of the building. The total area for a Roof Mounted Antenna shall apply to the closest exterior wall. Up to three [3] carriers may utilize each building side for a maximum of four [4] sides as a permitted use.
  4. Co-location. Co-location of Antennas on an existing Monopole is a permitted use provided the antennas do not extend more than 12 inches from the monopole and meet all the provisions as stated in §15-12-02-H-4-f “Landscaping, Fencing and Safety” and §15-12-02-I “Equipment Facilities”.
  5. Stealth Design. Telecommunications Facilities that incorporate Stealth design technology and are located on a parcel in a commercial, industrial, or professional office zone district or in a residential zone district containing a Residential Institutional Use are a permitted use.
  6. Conversion. Conversion of existing flagpoles, light standards, athletic field lights or other similar structures provided the structure’s height is not increased more than ten (10) feet or unless approved by the Community Development Director as provided for in Modified Site Plan Review as described in this Title are a permitted use.
  7. Utility Pole Antennas. Utility Pole Antennas which comply with the following standards are permitted uses:
    - a. Location. Utility Pole Antennas may only be located on existing utility poles.
    - b. Method of Mounting. Such antennas shall be designed and installed by the applicant according to the City’s specifications and details for utility poles.
    - c. Agreement. Consistent with the use of public rights of way by other utility and cable providers, each telecommunication provider is required to enter into an agreement with the City prior to installing any Telecommunication Facilities in the rights of way. The Planning Commission shall review site plan conditions prior to the execution of the agreement.
- H. **Technical Necessity Exception/Conditional Uses.** If an applicant cannot meet the standards for Telecommunications Facilities as provided for in §15-12-02-G “Permitted Uses” for technical reasons, an applicant may request a Technical Necessity Exception under the Conditional Use process from the Planning Commission. If an applicant cannot or will not meet those standards for reasons other than technical reasons the use is not allowed.

Telecommunications Facilities which meet the following standards and it is determined by the Planning Commission that a Technical Necessity Exception is appropriate are conditional uses:

1. Comply with the Sandy City General Plan, as well as the required setback, height and landscaping requirements of the zoning district in which they are located.
2. An applicant cannot meet the standards for Telecommunication Facilities as provided in §15-12-02-G “Permitted Uses” for technical reasons.

3. Telecommunications Facilities shall be mounted at least five (5) feet behind any parapet wall. For Antennas mounted between (5) five and ten (10) feet behind a parapet wall, the maximum height of the Antenna is directly proportional to the distance the Antenna is set back from the wall up to a maximum of ten (10) feet as measured from the top of the parapet wall.
  - c. Screening. Roof Mounted Telecommunications Facilities shall be located only on a flat roof and shall be screened, constructed and/or colored to match the structure to which they are attached. Roof Mounted Telecommunications Facilities for pitched roofs must receive a Technical Necessity Exception.
  - d. Area Limitations for Wall and Roof Mounted Antennas. A combination of both Roof and Wall Mounted Antennas are allowed on a building. The total area for all Wall and Roof Mounted Antennas and Antenna Support Structures combined shall not exceed forty (40) square feet for each exterior wall of the building or a total of 160 square feet per building per carrier. A maximum of four (4) walls shall be occupied by Antennas. The total area is the sum of the area of each individual Antenna face and the visible portion of the Antenna Support Structure and the Equipment Facility as viewed when looking directly at the face of the building. The total area for a Roof Mounted Antenna shall apply to the closest exterior wall. Up to three [3] carriers may utilize each building side for a maximum of four [4] sides as a permitted use.
  4. Co-location. Co-location of Antennas on an existing Monopole is a permitted use provided the antennas do not extend more than 12 inches from the monopole and meet all the provisions as stated in §15-12-02-H-4-f “Landscaping, Fencing and Safety” and §15-12-02-I “Equipment Facilities”.
  5. Stealth Design. Telecommunications Facilities that incorporate Stealth design technology and are located on a parcel in a commercial, industrial, or professional office zone district or in a residential zone district containing a Residential Institutional Use are a permitted use.
  6. Conversion. Conversion of existing flagpoles, light standards, athletic field lights or other similar structures provided the structure’s height is not increased more than ten (10) feet or unless approved by the Community Development Director as provided for in Modified Site Plan Review as described in this Title are a permitted use.
  7. Utility Pole Antennas. Utility Pole Antennas which comply with the following standards are permitted uses:
    - a. Location. Utility Pole Antennas may only be located on existing utility poles.
    - b. Method of Mounting. Such antennas shall be designed and installed by the applicant according to the City’s specifications and details for utility poles.
    - c. Agreement. Consistent with the use of public rights of way by other utility and cable providers, each telecommunication provider is required to enter into an agreement with the City prior to installing any Telecommunication Facilities in the rights of way. The Planning Commission shall review site plan conditions prior to the execution of the agreement.
- H. **Technical Necessity Exception/Conditional Uses**. If an applicant cannot meet the standards for Telecommunications Facilities as provided for in §15-12-02-G “Permitted Uses” for technical reasons, an applicant may request a Technical Necessity Exception under the Conditional Use process from the Planning Commission. If an applicant cannot or will not meet those standards for reasons other than technical reasons the use is not allowed.

Telecommunications Facilities which meet the following standards and it is determined by the Planning Commission that a Technical Necessity Exception is appropriate are conditional uses:

1. Comply with the Sandy City General Plan, as well as the required setback, height and landscaping requirements of the zoning district in which they are located.
2. An applicant cannot meet the standards for Telecommunication Facilities as provided in §15-12-02-G "Permitted Uses" for technical reasons.
3. Antennas in Multi-Family Zones. Wall Mount Antennas, Roof Mount Antennas, and Stealth applications on structures containing ten or more dwelling units and Conversions are conditional uses which require a technical necessity exception. Antennas on structures containing less than 10 units are not allowed. The Antennas and their related Antenna Support Structures and Equipment Facilities must meet the design standards for each respective Telecommunications Facility as referenced in 15-12-02-G "Permitted Uses".
4. Monopoles. Monopoles are not allowed in any zone within the City without a Technical Necessity Exception being granted by the Planning Commission. Following are the minimum standards for a Monopole to qualify for a Technical Necessity Exception/Conditional Use. The

Planning Commission may impose additional requirements pursuant to the Conditional Uses review standards in this Title.

- a. Independent Review. All applications requesting a Monopole under the Technical Necessity Exception provision shall complete an independent radio frequency engineering review of the proposed Monopole Telecommunication Facility in relation to the (1) requested height (2) alternative locations (3) other proposed Telecommunication Facilities and (4) existing Telecommunication Facilities within Sandy City. The cost of the independent review shall be borne by the applicant.
- b. Antenna Sizing. The maximum visible width of Antennas and Antenna Support Structures on a Monopole shall not exceed eight (8) feet in height or three (3) feet in width as viewed looking directly at the Monopole at same elevation as the Antennas and Antenna Support Structure. "Top Hat" design is not permitted.
- c. Location and Minimum Setbacks. Monopoles shall be allowed only in the rear yard area of any commercial or industrial lot which contains a commercial or industrial use or City property. These structures shall not be located in a required landscaped area, buffer area or required parking area. No such Antenna shall be located within 165 feet of a residential property line. However, the Planning Commission may reduce the required setback from a residential property line if practical difficulties are demonstrated by the applicant (e.g. City park location, public buildings, etc.)
- d. Height Limit. Monopoles shall not project higher than ten feet above the average building height to a maximum of 60 feet or, if there are no buildings within 300 feet, these facilities shall not project higher than ten feet above the average tree canopy height to a maximum of 60 feet, measured from ground level.
- e. Landscaping, Fencing and Safety. Monopoles shall, at minimum, be landscaped as per the requirements of the zoning district in which they are located. If there are no buildings immediately adjacent to the Monopole and Equipment Facilities, all Monopoles and Equipment Facilities shall be surrounded by dense tree growth to screen views of the facility in all directions. These trees may be existing on the subject property or planted on subject property. The Planning Commission may require additional landscaping or fencing as part of the site plan approval. The climbing pegs shall be removed from the lower twenty (20) feet of the Monopole.

5. The applicant shall re-submit each Telecommunication Facility which has been granted a Technical Necessity Exception/Conditional Use for review seven (7) years to a maximum of ten (10) from final approval as established by the Planning Commission. At the time of this review, the applicant shall provide information to show that the Telecommunications Facility is still necessary at the approved location, employs the most current available technological advances and that it has been in compliance with all the requirements established by this ordinance and the Planning Commission.
6. In addition to conditional use standards outlined in this Title for Conditional Uses, the information concerning the following shall be submitted by the applicant and considered by the Planning Commission for all Technical Necessity Exception requests:
  - a. Compatibility of the proposed Telecommunications Facilities with the height and mass of existing buildings and utility structures.
  - b. Whether it is possible to locate the Antenna on other existing structures with less aesthetic impact in the same vicinity such as other Monopoles, buildings, utility poles, athletic field lights, parking lot lights, etc. without significantly impacting transmission or reception.
  - c. The location of the Telecommunications Facilities in relation to existing vegetation, topography and buildings to obtain the best visual screening.
  - d. Whether the spacing between the proposed and existing Telecommunications Facilities creates detrimental impacts to adjoining properties.
  - e. Substantial existing or proposed landscaping, including tree cover, to reduce visibility of Telecommunications Facilities.
  - f. Whether, the Telecommunications Facility complies with the Sandy City General Plan, as well as the required setback, height and landscaping requirements of the zoning district in which the Telecommunications Facility is proposed to be located and whether it complies with provisions as stated in the Site Plan Review section of this Title, including modifications to existing site plans.
- I. **Equipment Facilities.** All Equipment Facilities shall be (1) located in an existing building or (2) designed whereby the incorporation of Stealth design technology or other screening is utilized that readily conceals the appearance of the Equipment Facility. All power lines on the lot leading to the Telecommunication Facility shall be underground. If the Planning Commission does not require the applicant to place the Equipment Facility underground or utilize Stealth design technology, then the Telecommunications Facility shall be fenced with a six (6) foot vinyl coated chain-link fence or other fencing and landscaping as approved or required by the Planning Commission.
- J. **Historic Districts.** Any Telecommunications Facility proposed for a location within a historic district or on a landmark site must be reviewed by the Planning Commission.
- K. **Non-Allowed Uses.** The following Telecommunications Facilities are not allowed in any zone district:
  1. Lattice Towers
  2. Whip antennas on wall-mounted support structures.
  3. Any telecommunications facility not specifically listed in the permitted use subsection or not in compliance with the requirements for a Technical Necessity Exception/Conditional Use.

- L. **Non-Maintained or Abandoned Facilities.** The Community Development Director may require each non-maintained or abandoned Telecommunication Facility to be removed when such a Telecommunications Facility has not been repaired or put into use by the owner, person having control or person receiving benefit of such structure within thirty (30) calendar days after notice of non-maintenance or abandonment is given to the owner, person having control or person receiving the benefit of such structure. The City may require a Cash or Surety Bond to guarantee removal of the Telecommunications Facility to be submitted prior to final site plan approval or issuance of a building permit. The bond amount shall be determined upon review by City Staff.

If the structure upon which the Antenna is placed, including but not limited to Utility Pole, water tank, light pole or building is no longer used or is proposed by the owner or operator of that structure to be removed or replaced, the Antenna must be removed within ninety (90) calendar days after notice from the City. Any replacement Telecommunication Facility, if necessary, is required to comply with the requirements herein or any subsequent amendment hereto.

- M. **Building Permits.** Prior to the construction of any Telecommunications Facility, the applicant shall obtain the proper building permits, road cut permits, and other permits as required by the Revised Ordinances of Sandy City (ROSC).