



CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-2724

PLANNING DEPARTMENT

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MEMORANDUM

TO: Rapid City Planning Commission

FROM: Vicki L. Fisher, Senior Planner

DATE: May 17, 2001

RE: Draft of Wireless Communication Tower Ordinance

Attached please find a draft of the Ordinance language intended to allow Wireless Communication Towers as a Use on Review. There are three separate parts to this Ordinance amendment as follow:

#1 - This Ordinance sets forth the various requirements under which an application for a Use on Review for a wireless communication tower must be reviewed. The Ordinance includes requirements related to: the construction standards including size, height, signage and lighting restrictions, collocation, removal of abandoned or unused towers and impacts upon neighboring properties.

#2 – This Ordinance amendment sets forth the definition of commercial wireless telecommunication services.

#3 – This Ordinance would amend the Light Industrial, Heavy Industrial and Mining and Earth Extraction Zoning Districts to allow wireless communication towers as a Use on Review.

Currently, communication towers are allowed as a Use on Review in the General Agriculture, General Commercial, Park Forest and Public Zoning Districts. The proposed Ordinance Amendments will establish construction and design standards for the wireless communication towers and allow the use as a Use on Review in additional zoning districts.

It is important to note that this Ordinance is only in draft format. The draft is being brought to the Commission for discussion purposes. Some of the requirements included in the draft

Ordinance are standard requirements that cannot be changed because they are addressed by some other federal or state law. However, a number of requirements can be modified to fit our community standards. It is these requirements in particular that the Planning Commission should carefully review. Some such requirements open to discussion include setbacks, tower height, tower design and collocation. Tower design and the requirement to mandate collocation on towers in particular are sensitive issues.

With direction from the Planning Commission, staff will invite industry representatives to participate in an informational meeting to discuss the proposed ordinance. Staff has recently become aware of a growing trend to locate communication antennas on utility poles in order to relay signals throughout a service area. The smaller communication antennas are being proposed in order to minimize the number of larger wireless communication towers that may be needed to serve a specific area. Staff is awaiting additional information regarding the communication antennas and will forward the information to the Planning Commission as soon as possible.

Please review the attached information. If you have any questions please feel free to contact me.

Thank you.

City of Rapid City
Ordinance Provisions Pertaining to Telecommunications

CHAPTER 17.50.186

PERFORMANCE STANDARDS

SEC.: 17.50.186 TOWERS

(a) Purpose. In order to accommodate the communication needs of residents and business while protecting the public health, safety, and general welfare of the community, the following regulations are necessary in order to:

- (1) Facilitate the provision of wireless telecommunication services to the residents and businesses of Rapid 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) Intent. Towers shall be allowed as a Use on Review in the PF, GAD, GC, ME, Public, LI and HI zoned areas under the following conditions:

(c) Co-location requirements. All commercial wireless telecommunication towers erected, constructed, or located within Rapid 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 radius for towers in excess of 120 feet in height, within a one half mile radius for towers between 80 foot and 100 feet in height and, one-quarter mile 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 telecommunications service tower shall be designed, structurally and electrically to accommodate both the applicant's antennas and comparable antennas for at least two additional tower users if the tower is over 100 feet in height or for at least one additional user if the tower is 60 to 100 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.

(d) Tower Construction Requirements - All towers erected, constructed, or located within the City and all wiring, shall comply with the requirements set forth in Title 15 of this Code.

(e) Tower and Antenna Design Requirements - Proposed or modified towers and antennas shall meet the following design requirements:

(1) 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 the federal or state authorities such as the Federal Aviation Administration. In particular, towers and antennas shall be camouflaged as steeples or bell towers on church sites.

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

(f) Tower Setbacks - Towers shall conform to each of the following minimum setback requirements:

(1) 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 of the property line abuts another industrial zoned property and the tower does not encroach upon any easements;

(2) Towers shall be set back from the public rights of way by a minimum distance equal to one half of the height of the tower including all antennas, guy wires and attachments;

(3) Towers shall not be located between a principal structure and a public street; and,

(4) A tower's setback may be reduced 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.

(g) Tower Height - All proposed towers shall be constructed to the least height that is technically feasible to service the geographical service area of the applicant and co-locators. All applications for new towers shall be accompanied by an engineer's statement which provides this technical evaluation.

(h) 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.

(i) Signs and Advertising - The use of any portion of a tower for signs other than warning or equipment information signs is prohibited;

(J) 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 compliments the architectural character of the surrounding neighborhood;

(k) Abandoned or Unused Towers or Portions of Towers - 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 twelve (12) months of the cessation of operations at the site unless a time extension is approved by the City Council. A copy of the relevant portions of the 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 twelve (12) months of the cessation of the 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 the antenna relocation. The replacement of portions of a tower previously removed requires approval of a Major Amendment to the Use on Review unless the replacement of portions of the tower is being done as a repair or to maintain an existing used tower. No maintenance or repair of an existing tower shall increase the height of the tower without the issuance of a new Use on Review.

(l) Antennas Mounted on Roofs, Walls and Existing Towers - The placement of wireless telecommunications antennas on roofs, walls, and existing towers may be approved by a Minimal Amendment to the Use on Review requiring the signature of the Planning Director, provided the antennas meet the requirements of this Code, after submittal of 1) a final site and building plan as required in Section Title 15 of the Rapid City Municipal Code, and 2) a report prepared by a qualified and licensed professional engineer indicating that the structure or tower's suitability to accept the antenna, and the proposed method of affixing the antenna to the structure. Complete details of all fixtures and couplings, and the precise point of attachment shall be indicated;

(n) Additional Submittal Requirements - In addition to the information required elsewhere in this Code, development applications for towers shall include the following supplemental information:

- (1) 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 distance between antennas that it can accommodate;
 - c) describe the tower's capacity, including the number and the 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 a engineer's stamp and registration number; and,
 - f) includes other information deemed necessary to evaluate the request.

(2) For all commercial wireless telecommunication service towers, a letter of intent committing the tower owner and his or her successors to allow shared use of the tower if an additional user agrees in writing to meet reasonable terms and conditions for shared use;

(3) Before the issuance of a building permit, the following supplemental information shall be submitted:

- a) proof that the proposed tower complies with regulations administered by the 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.

(o) Exceptions - Towers supporting amateur radio antennas and conforming to all applicable provisions of this Code shall be allowed in the rear yard of residentially zoned parcels with an approved building permit;

(p) DEFINITIONS:

Antenna - "Antenna" means 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 omni-directional antennas, such as whip antennas.

Collocation/Site Sharing - Collocation/Site Sharing shall mean use of a common Wireless Communication Facility or common site by two or more wireless license holders or by one wireless holder for more than one type of communications technology and/or placement of a Wireless Communication Facility or a structure owned or operated by a utility or other public entity.

Commercial Wireless Telecommunication Services - "Commercial Wireless Telecommunication Services" means 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.

Public Utility (17.04.570) - "Public Utility" means any person, firm, corporation, municipal department or board duly authorized to furnish and furnishing under state or municipal regulations, to the public, electricity, gas, steam, land line telephone service, telegraph, transportation, or water. For the purpose of this ordinance, commercial wireless telecommunication service facilities shall not be considered public utility uses, and are defined separately. (Prior code Appendix A, Art. II (part)).

Tower - "Tower" means any ground or roof mounted pole, spire, structure, or combination thereof taller than fifteen (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" includes a self-supporting lattice, guyed-lattice or monopole structure which supports wireless communications facilities.

Tower Height - "Tower Height" means the height of the tower shall be determined by measuring the vertical distance from the tower's point of contact with the ground to the highest

point of the tower, including all antennas or other attachments. When towers are mounted upon rooftops, the combined height of the building and the tower shall be calculated to determine the height of the tower.

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

Tower, Single-User - "Single-User Tower" means 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.

Wireless Communication Facility (WCF) - A WCF is any unstaffed facility for the transmission and/or reception of wireless telecommunications services, usually consisting of an Antenna Array, connection cables, and Equipment Facility, and a Support Structure to achieve the necessary elevation.