

# CITY OF GRAND JUNCTION, COLORADO

## ORDINANCE NO. 4704

### AN ORDINANCE AMENDING THE CITY'S ZONING AND DEVELOPMENT REGULATIONS RELATING TO TELECOMMUNICATIONS FACILITIES

**Recitals:**

The City Council has adopted a Wireless Master Plan to provide long-term planning for an efficient and capable wireless telecommunication environment in the community, so that existing and new telecommunications infrastructure can be optimally utilized to meet the current and future wireless communication needs of the City's industry, businesses, residents and visitors while minimizing negative aesthetic impacts so as to preserve the character of the community and its natural surroundings. This Ordinance implements the Wireless Master Plan.

The City has also commissioned a broadband planning effort that is under way. This Ordinance furthers some of the goals of the broadband planning efforts by encouraging fiber deployment throughout the City in an economical and efficient manner.

The City Council finds that it is necessary and beneficial for the health, safety and welfare of the community to update the regulations for development of telecommunications facilities in the City in order to:

- promote the health, safety, and welfare of the public and minimize impacts of Facilities on surrounding land uses;
- establish standards for location, structural integrity, and compatibility;
- encourage the location and co-location of equipment on existing structures in order to reduce the need for new towers, thereby minimizing visual clutter, public safety impacts, and effects upon the natural environment and wildlife;
- accommodate the growing need and demand for telecommunications services while protecting the character of the City and its neighborhoods;
- encourage the availability of affordable, high-speed internet and cellular telephone access for businesses and residents, acknowledging that a growing number of businesses are conducted in whole or in part from homes and/or on-the-go, that increasingly education incorporates on-line learning necessitating good home internet connections for students and faculty, and that government participation and emergency services to the general public are enhanced by fast and reliable cellular and home internet connectivity;
- encourage coordination between suppliers and providers of telecommunications services to maximize use of existing Facilities and structures;
- establish predictable and balanced regulations within the authority reserved for local land use determination;
- respond to the mandates of the Telecommunications Act of 1996, the Middle Class Tax Relief and Job Creation Act of 2012, and other applicable federal and state laws limiting local discretion to regulate location of personal wireless service facilities (PWSF);
- ensure that applications are reviewed and acted upon promptly, without unreasonable discrimination between providers of functionally equivalent personal wireless services, and so as not to prohibit or have the effect of prohibiting personal wireless services;
- encourage concealed technologies and the use of public lands, buildings, and structures as locations for Facilities;
- encourage affordable access to advanced technology and information, including but not limited to broadband facilities, which are critical to commerce, education, economic development, public safety

and competitive participation in the global economy;

- acknowledge the importance of fiber-optic infrastructure for modern telecommunications and data access, including for personal wireless services, for backhaul, data security, speed and reliability of transmission, and longevity of telecommunications systems, and to encourage and promote the installation of fiber-optic cable and conduit to every premise in the City;
- recognize that the permitting, construction, modification, maintenance and operation of broadband facilities are declared to be matters of statewide concern and interest to the extent specifically addressed in *Colorado Statutes*, Chapter 29-27-Parts 1-4.

**NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT:**

**Section 21.04.010 (Use Table) is amended as follows:**

USE CATEGORY	PRINCIPAL USE	R-R	R-E	R-1	R-2	R-4	R-5	R-8	R-12	R-16	R-24	R-O	B-1	B-2	C-1	C-2	C-S	C-R	M-U	B-P	I-O	I-1	I-2	M-X-	Std.
Telecommunications Facilities – devices and supporting elements necessary to produce nonionizing electromagnetic radiation operating to produce a signal	Facilities on Wireless Master Plan Priority Site when developed in accordance with Wireless Master Plan site-specific requirements	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	21.04.030(q) & 21.04.020(ee)
	Temporary PWSF (e.g., COW)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	21.04.030(q)
	Co-location	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	21.04.030(q)
	Tower Replacement	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	21.04.030(q)
	Dual Purpose Facility	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	21.04.030(q)
	DAS and Small Cell Facilities	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	21.04.030(q)
	Base station with concealed attached antennas	A*	A*	A*	A*	A*	A*	A*	A*	A*	A*	A*	A*	A	A	A	A	A	A*	A*	A	A	A	A*	21.04.030(q)
	Base station with non-concealed attached antennas	C*	C*	C*	C*	C*	C*	C*	C*	C*	C*	C*	C*	C	A	A	A	A	C*	A*	A	A	A	C*	21.04.030(q)
	Tower, concealed	C	C**	C**	C**	C**	C**	C**	C	C	C	C	C	C	A	A	C	C	C	C	A	A	A		21.04.030(q)



**Section 21.04.020(ee) is amended as follows.**

**(ee) Telecommunications Facilities.**

- (1) **Characteristics.** Telecommunications facilities include all devices, mechanical and/or electronic equipment or machinery, supporting structures or supporting elements, antenna(s), conduit, cable, enclosures, equipment compound(s), and/or assemblages necessary to generate or transmit non-ionizing electromagnetic radiation or light operating to produce a signal or message used for communication. Facilities may be self-supporting, guyed, or mounted on poles, other structures, light posts, power poles, or buildings, or may be installed underground. Facilities shall also include intertie and interconnection translators, access points, access vaults or cabinets, connections from over-the-air to cable, fiber optic, or other landline transmission system.
- (2) **Accessory Uses.** Accessory use may include transmitter facility buildings.
- (3) **Examples.** Examples include broadcast towers, communication towers, point-to-point microwave towers, distributed antenna systems, small cell facilities, fiber-optic cables, and any other facility defined, referenced or described in Section 21.04.030(q).
- (4) **Exceptions.** Exempt facilities are described in Section 21.04.030(q).

**All other portions of Section 21.04.020 shall remain in full force and effect without change.**

**Section 21.04.030(q) is repealed in its entirety and replaced with the following:**

**(q) Telecommunications Facilities.** This Section (q) establishes standards and requirements for the locating of Telecommunications Facilities.

**(1) Definitions**

Alternative Structure - A structure that is not primarily constructed for the purpose of holding antennas but on which one or more antennas may be mounted, such as buildings, water tanks, pole signs, billboards, church steeples, and electric power transmission towers.

Amateur Radio Tower - A tower used for non-commercial amateur radio transmissions consistent with the "Complete FCC U.S. Amateur Part 97 Rules and Regulations" for amateur radio towers.

Ancillary Structure - For the purposes of this Section, any form of development associated with a telecommunications facility, including foundations, concrete slabs on grade, guy anchors, generators, and transmission cable supports, but excluding equipment cabinets.

Antenna - Any apparatus designed for the transmitting and/or receiving of electromagnetic waves, including telephonic, radio or television communications. Types of elements include omni-directional (whip) antennas, sectionalized (panel) antennas, multi or single bay (FM & TV), yagi, or parabolic (dish) antennas.

Antenna Array - A single or group of antenna elements and associated mounting hardware, transmission lines, or other appurtenances which share a common attachment device such as a mounting frame or mounting support structure for the sole purpose of transmitting or receiving electromagnetic waves.

Antenna Element - Any antenna or antenna array.

ASR - The Antenna Structure Registration Number as required by the FAA and FCC.

Base Station - Equipment and non-tower supporting structure at a fixed location that enable wireless telecommunications between user equipment and a communications network. Examples include transmission equipment mounted on a rooftop, water tank, silo or other above ground structure other than a tower. The term does not encompass a tower as defined herein or any equipment associated with a tower. "Base Station" includes, but is not limited to:

equipment associated with wireless telecommunications services such as private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul;

radio transceivers, antennas, coaxial or fiber optic cable, regular and back up power supplies, and comparable equipment, regardless of technological configuration (including Distributed Antenna Systems and small-cell networks);

any structure other than a tower that, at the time the application is filed under this Section, supports or houses equipment described in this definition that has been reviewed and approved under the applicable zoning or siting process, or under another City regulatory review process, even if the structure was not built for the sole or primary purpose of providing such support.

"Base station" does not include any structure that, at the time the application is filed under this Section, does not support or house wireless communication equipment.

Breakpoint Technology - The engineering design of a monopole, or any applicable support structure, wherein a specified point on the monopole is designed to have stresses concentrated so that the point is at least five percent (5%) more susceptible to failure than any other point along the monopole so that in the event of a structural failure of the monopole, the failure will occur at the breakpoint rather than at the base plate, anchor bolts, or any other point on the monopole.

Broadband Facility - any infrastructure used to deliver broadband services or for the provision of broadband service.

Broadband Service - any technology identified by the US Secretary of Agriculture as having the capacity to transmit data to enable a subscriber to the service to originate and receive high-quality Internet access, voice, data, graphics, and video. Broadband service includes, but is not limited to:

*Cable Service* - the one-way transmission to subscribers of video programming or other programming services and subscriber interaction required for the selection or use of such video programming or other programming service.

*Telecommunications Service* - The offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

*Wireless Service* - data and telecommunications services, including commercial mobile services, commercial mobile data services, unlicensed wireless service and common carrier wireless exchange access services, as all of these terms are defined by federal law and regulations.

Co-location - The mounting or installation of transmission equipment on an eligible support structure for the purposes of transmitting and/or receiving radio frequency signals for communications purposes so that installation of a new support structure will not be required.

Combined Antenna – An antenna or an antenna array designed and utilized to provide services for more

than one (1) wireless provider, or a single wireless provider utilizing more than one (1) frequency band or spectrum, for the same or similar type of services.

**Concealed** - A tower, ancillary structure, or equipment compound that is not readily identifiable as a telecommunications facility and that is designed to be aesthetically compatible with existing and proposed building(s) and uses on a site or in the neighborhood or area.

There are two types of concealed facilities: 1) Antenna Attachments, including painted antenna and feed lines to match the color of a building or structure, faux windows, dormers or other architectural features that blend with an existing or proposed building or structure and 2) A freestanding concealed tower which looks like something else that is common in the geographic region such as a church steeple, windmill, bell tower, clock tower, light standard, flagpole with a flag that is proportional in size to the height and girth of the tower, or tree that grows naturally or is commonly found in the area.

**COW** – “Cellular on Wheels” – A temporary PWSF placed on property to provide short term, high volume telecommunications services to a specific location and which can be easily removed from the property.

**DAS** – Distributed Antenna System – A system consisting of: (1) a number of remote communications nodes deployed throughout the desired coverage area, each including at least one antenna for transmission and reception; (2) a high capacity signal transport medium (typically fiber optic cable) connecting each node to a central communications hub site; and (3) radio transceivers located at the hub site (rather than at each individual node as is the case for small cells) to process or control the communications signals transmitted and received through the antennas.

**DAS Hub** - Ancillary equipment usually contained in a shelter or other enclosure which does not have any wireless transmission or receive equipment contained therein but is utilized in the deployment and operation of wireless DAS receive/transmit infrastructure that is located elsewhere.

**Development Area** - The area occupied by a telecommunications facility including areas inside or under an antenna-support structure's framework, equipment cabinets, ancillary structures, and/or access ways.

**Dual Purpose Facility** – A new banner pole, light stanchion, support tower for overhead electric lines, or other similar utility structure onto which one or more antenna(s) are or can be mounted or attached, and which is built for the primary purpose of providing PWSF.

**Eligible Facilities Request** - Any request for modification of an existing tower or base station involving co-location of new transmission equipment; removal of transmission equipment; or replacement of transmission equipment that does not Substantially Change the physical dimensions of such tower or base station.

**Eligible Facility** - Existing wireless tower or base station that has been approved through a local government land use review process prescribed for the tower or base station.

**Eligible Support Structure** - Any tower or base station existing at the time the application is filed with the City.

**Existing** - A constructed tower or base station is “existing” for purposes of this Section if it has been reviewed and approved under an applicable City land use review process. “Existing” also includes a tower that was lawfully constructed but not reviewed because it was not in a zoned area when it was built.

**Equipment Compound**- The fenced-in area surrounding, inside or under a ground-based wireless communication facility containing ancillary structures and equipment (such as cabinets, shelters, and pedestals) necessary to operate an antenna that is above the base flood elevation.

Equipment Cabinet- Any structure used exclusively to contain equipment necessary for the transmission or reception of communication signals.

Equipment Shelter – A self-contained building housing ancillary electronic equipment typically including a generator.

Feed Lines- Cables or fiber optic lines used as the interconnecting media between the base station and the antenna.

Flush-Mounted- Antenna or antenna array attached to the face of a support structure or building such that no portion of the antenna(s) extend(s) above the height of the support structure or building. The maximum flush-mounting distance, if prescribed, shall be measured from the outside edge of the support structure or building to the inside edge of the antenna.

Geographic Search Ring- An area designated by a wireless provider or operator for a new base station and/or tower produced in accordance with generally accepted principles of wireless engineering.

Handoff Candidate - A wireless communication facility that receives call transference from another wireless facility, usually located in an adjacent first "tier" surrounding the initial wireless facility.

Least Visually Obtrusive Profile - The design of a telecommunication facility presenting the minimum visual profile necessary for proper function.

Non-concealed- A telecommunication facility that is readily identifiable as such (whether freestanding or attached).

OTARD – Over The Air Reception devices which are limited to either a "dish" antenna one meter (39.37 inches) or less in diameter designed to receive direct broadcast satellite service, including direct-to-home satellite service, or to receive or transmit fixed wireless signals via satellite, or an antenna that is one meter or less in diameter and is designed to receive video programming services via broadband radio service (wireless cable), or to receive or transmit fixed wireless signals other than via satellite or an antenna that is designed to receive local television broadcast signals.

Personal Wireless Service Facility ("PWSF")- Any staffed or unstaffed location for the transmission and/or reception of radio frequency signals or other personal wireless communications, including commercial mobile services, unlicensed wireless services, wireless broadband services, and common carrier wireless exchange access services as defined in the Telecommunications Act of 1996, and usually consisting of an antenna or group of antennas, transmission cables, feed lines, equipment cabinets or shelters, and may include a tower. Facilities may include new, replacement, or existing towers, replacement towers, co-location on existing towers, base station attached concealed and non-concealed antenna, dual purpose facilities, concealed towers, and non-concealed towers (monopoles, lattice and guyed), so long as those facilities are used in the provision of personal wireless services as that term is defined in the Telecommunications Act.

Qualified Co-location Request – co-location of PWSF on a tower or base station that creates a Substantial Change in the facility but is entitled to processing within 90 days under 47 U.S.C. §332(c)(7).

Radio Frequency Emissions- Any electromagnetic radiation or other communications signal emitted from an antenna or antenna-related equipment.

Radio Frequency Propagation Analysis- Computer modeling to show the level of signal saturation in a given geographical area.

Replacement- A modification of an existing tower to increase the height, or to improve its integrity, by



replacing or removing one (1) or several tower(s) located in proximity to a proposed new tower in order to encourage compliance with this Section, or improve aesthetics or functionality of the overall wireless network.

Satellite Earth Station- A single or group of parabolic or dish antennas mounted to a support device that may be a pole or truss assembly attached to a foundation in the ground, or in some other configuration, including the associated separate equipment cabinets necessary for the transmission or reception of wireless communications signals with satellites.

Site - For towers other than towers in the public rights-of-way, the boundaries of the leased or owned property on which the Facilities are or are proposed to be situated.

Small Cell Facility - means a wireless service facility that meets both of the following qualifications:

1. Each antenna is located inside an enclosure of no more than three (3) cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of its exposed elements could fit within an enclosure of no more than three (3) cubic feet; and
2. Primary equipment enclosures are no larger than seventeen (17) cubic feet in volume. The following associated equipment may be located outside of the primary equipment enclosure and, if so located, is not included in the calculation of equipment volume: Electric meter, concealment, telecommunications demarcation box, ground-based enclosures, back-up power systems, grounding equipment, power transfer switch, and cut-off switch.

Small Cell Network - a collection of interrelated small cell facilities designed to deliver wireless service.

Stanchion - A vertical support structure generally utilized to support exterior lighting elements.

Streamlined Processing- Expedited review process for co-locations required by the federal government (Congress and/or the FCC) for PWSF.

Substantial Change - A modification or co-location constitutes a "substantial change" of an eligible support structure if it meets any of the following criteria:

1. A PWSF co-location or modification of an existing antenna-supporting structure not in a public right of way increases the overall height of the antenna-supporting structure, antenna and/or antenna array more than 10% or 20 feet, whichever is greater. A PWSF co-location on an existing antenna-supporting structure within a public right of way increases the overall height of the antenna-supporting structure, antenna and/or antenna array more than 10% or 10 feet, whichever is greater.
2. A PWSF co-location for towers not in a public right of way protrudes from the antenna-supporting structure more than 20 feet or the width of the structure at the elevation of the co-location, and for towers within a public right of way, protrudes from the antenna-supporting structure more than 6 feet.
3. A PWSF co-location on an existing antenna-supporting structure fails to meet current building code requirements (including windloading).
4. A PWSF co-location adds more than 4 additional equipment cabinets or 1 additional equipment shelter.
5. A PWSF co-location requires excavation outside of existing leased or owned parcel or existing easements.
6. A PWSF co-location defeats any existing concealment elements of the antenna-supporting structure.
7. A PWSF co-location fails to comply with all conditions associated with the prior approval of the

antenna-supporting structure except for modification of parameters as permitted in this section.

**Support Structure** - Anything constructed or erected, the use of which requires permanent location on the ground, or attachment to something having a permanent location on the ground.

**Telecommunications Facility(ies)** – At a specific physical location, one or more antenna, tower, base station, mechanical and/or electronic equipment, conduit, cable, and associated structures, enclosures, assemblages, devices and supporting elements that generate or transmit nonionizing electromagnetic radiation or light operating to produce a signal used for communication, including but not limited to all types of communication facilities defined further herein.

**Temporary PWSF** – A temporary tower or other structure that provides interim short-term telecommunications needed to meet an immediate demand for service in the event of an emergency or a public event where a permanent wireless network is unavailable or insufficient to satisfy the temporary increase in demand or when permanent PWSF equipment is temporarily unavailable or offline.

**Transmission Equipment**- Equipment that facilitates transmission of communication service (whether commercial, private, broadcast, microwave, public, public safety, licensed or unlicensed, fixed or wireless), such as radio transceivers, antennas, coaxial or fiber-optic cable, and regular and backup power supply.

**Tower**- Any support structure built for the primary purpose of supporting any antennas and associated facilities for commercial, private, broadcast, microwave, public, public safety, licensed or unlicensed, and/or fixed or wireless services. A tower may be concealed or non-concealed. Non-concealed towers include:

**Guyed** - A style of tower consisting of a single truss assembly composed of sections with bracing incorporated. The sections are attached to each other, and the assembly is attached to a foundation and supported by a series of wires that are connected to anchors placed in the ground or on a building.

**Lattice** - A self-supporting tapered style of tower that consists of vertical and horizontal supports with multiple legs and cross bracing, and metal crossed strips or bars to support antennas.

**Monopole** - A style of freestanding tower consisting of a single shaft usually composed of two (2) or more hollow sections that are in turn attached to a foundation. This type of tower is designed to support itself without the use of guy wires or other stabilization devices. These facilities are mounted to a foundation that rests on or in the ground or on a building's roof. All feed lines shall be installed within the shaft of the structure.

**Tower Base**- The foundation, usually concrete, on which the tower and other support equipment are situated. For measurement calculations, the tower base is that point on the foundation reached by dropping a perpendicular from the geometric center of the tower.

**Tower Height**- The vertical distance measured from the grade line to the highest point of the tower, including any antenna, lighting or other equipment affixed thereto.

**Tower Site**- The land area that contains, or will contain, a proposed tower, equipment compound, support structures and other related buildings and improvements.

**Wireless Service Facility** – a telecommunications facility for the provision of wireless services.

**(2) Permit required; exemptions; permit types; general requirements; decision-making; fees.**

- (i) No telecommunications facility shall be installed, constructed, altered, added to, or permitted unless the Director has first approved a site plan review for the property and the facilities and a permit

has been issued. Telecommunications facilities and infrastructure shall be constructed and maintained in conformance with all applicable building code requirements as well as with the terms of the Permit issued under this Section.

(ii) No telecommunications facility shall be altered, added to, installed or permitted unless the applicant has shown compliance with all the requirements of this Section. The requirements of Section apply to all telecommunications facilities, whether concealed or not, whether above-ground or underground, including but not limited to existing towers, proposed towers, public towers, replacement of towers, ancillary structures and equipment, co-location on existing towers, base stations, temporary telecommunications facilities, PWSF facilities, DAS facilities, small cell sites and/or networks, and broadcast towers, except that the following are exempt and no permit is required:

- (A) An Amateur Radio Tower that is used exclusively for non-commercial purposes;
- (B) A government-owned telecommunications facility erected for a state of emergency officially declared by a federal, state or local government and where the City Manager or designee has made a written determination of public necessity for the facility, and only during the duration of the state of emergency;
- (C) A government-owned public safety facility;
- (D) Over-the-air reception devices (OTARD), including satellite earth stations, so long as the device does not require construction of a tower or other structure exceeding 12 feet above the home or building and the device is no more than one meter in diameter in a residential zone or two meters in any other zone district.

(iii) General Requirements Applicable To All Telecommunications Facilities

(A) Signage. Commercial messages shall not be displayed on any tower, support structure or ancillary structure, unless the tower is concealed and the means of concealment is or includes an existing sign or unless a sign is serving as a dual purpose facility or a base station. Required noncommercial signage shall be subject to the following:

- a. The only signage that is permitted upon a concealed tower, equipment cabinets, shelters or fence shall be informational, and for the purpose of identifying the tower (such as ASR registration number), as well as the party responsible for the operation and maintenance of the facility, and any additional security and/or safety signs as applicable.
- b. If more than 220 voltage is necessary for the operation of the facility and is present in a ground grid or in the tower, signs located every twenty (20) feet and attached to the fence or wall shall display in large, bold, high contrast letters, minimum height of each letter four (4) inches, the following: "HIGH VOLTAGE - DANGER."
- c. Name plate signage shall be provided, in an easily visible location, including the address and telephone number of the contact to reach in the event of an emergency or equipment malfunction, including property manager signs as applicable.

(B) Lighting. Lighting on PWSF towers shall not exceed the Federal Aviation Administration (FAA) minimum standards. All other lighting shall be subject to the following:

- a. Any lighting required by the FAA must be of the minimum intensity and number of flashes per minute (i.e., the longest duration between flashes) allowable by the FAA. Dual lighting standards are required with strobe during daytime and red flashing lights at night unless prohibited by the FAA.
- b. Lights shall be filtered or oriented so as not to project directly onto surrounding property or rights-of-way, consistent with FAA requirements.

(iv) Telecommunication Facilities shall be located in accordance with the Use Table in Section

21.04.010. One or more of several types of permits may be required for a given facility or group of facilities.

- (A) Administrative permit. For those types of facilities that are allowed in the given zone district, and for qualified co-locations, an administrative permit (a permit issued by the Director) is required. The permit shall be processed and decided in accordance with Section 21.02.070 and this Section 21.04.030(q).
- (B) Conditional use permit (CUP). For those types of facilities that require a conditional use permit (see Section 21.04.010 Use Table), the Director shall review the application and make a recommendation to the Planning Commission who shall hold a hearing on the application and who may approve, approve with conditions, or deny the application in accordance with Section 21.02.110 and with this Section 21.04.030(q).
- (C) Right-of-way work/use permit. Facilities / structures located in the public right-of-way shall be placed so as not to interfere with vehicular or pedestrian use of the rights-of-way or with traffic safety. Any/all work in the public right-of-way requires a separate permit pursuant to the City's right-of-way management ordinance. The provider shall comply with all the provisions and terms of the right-of-way management ordinance and right-of-way work permit. As-built construction drawings shall be provided to the City for all structures, equipment, cable, pipes and conduit located within the public right-of-way or within a public or City-owned utility or multi-purpose easement, which must include, for fiber optic cable, the number of strands of fiber in the conduit.
- (D) Consolidated application/permit. For the following facility types, the applicant shall be allowed, at the applicant's discretion, to file a single, consolidated application for multiple facilities and receive a single review/permit/decision instead of filing separate applications for each facility (however, right-of-way work permit(s) may also be required):
  - a. For small cell networks involving multiple individual small cell facilities within the City;
  - b. For an applicant desiring to co-locate on several wireless service facilities within the City.
- (E) Shadow conduit. For all telecommunications facility development/installation that involves trenching or excavation in the public right-of-way or in a public or City-owned utility or multipurpose easement, the applicant shall notify the City 30 days prior to commencing such excavation and provide the City the opportunity to install conduit in the same trench / excavation area. The City will pay for the incremental costs of the shadow conduit only.

(iv) Siting of Telecommunications Facilities.

- (A) Compliance with Siting Preferences. For every application for siting of new Telecommunications Facilities on or above ground level (except temporary PWSF and co-locations), the applicant must submit an affidavit by a radio frequency engineer demonstrating compliance with the Siting Preferences of subsection (5) below. Where a lower ranking alternative is proposed, the affidavit must address why each of the higher ranked options are not technically feasible, practical, and/or justified.
- (B) Where the application is for siting of PWSF, whether for a new facility, modification of existing facility, replacement facility or co-location, and whether the permit is administrative or a CUP, the following additional decision-making requirements apply:
  - a. If the application is denied, the decision maker shall issue the decision in writing, including the bases for the denial, which must be supported by substantial evidence contained in a written record. The written bases for the decision must be issued contemporaneously with the decision.
  - b. The application cannot be denied, nor can conditions be applied or required, based upon considerations of radio frequency (RF) emissions safety, other than to require the applicant to demonstrate that all applicable FCC rules are satisfied.

(v) Streamlined processing for co-location of PWSF.

- (A) If the applicant believes its co-location application is an Eligible Facilities Request or a Qualified Co-location Request, the applicant must submit:
- a. A complete co-location application specifically requesting streamlined processing and stating the applicable permitting time-frame (e.g., 60 days for Eligible Facilities Request or 90 days for Qualified Co-Location Request);
  - b. Documentation evidencing that any structure proposed to be replaced or modified has previously been subject to zoning / development approval by the City;
  - c. Documentation evidencing the replacement/modification does not create a Substantial Change in the underlying support structure or tower, or a statement that it does create a Substantial Change;
  - d. Documentation that the proposed modifications will be used to provide personal wireless services.
- (B) The Director shall review and decide applications for co-location of PWSF.
- (C) The Director will notify the applicant within thirty (30) days of submission (or within some other mutually agreed upon timeframe) if the submission is incomplete, identifying the specific deficiencies in the application which, if cured, would make the application complete.
- (D) Upon notice of deficiency, the timeline for a decision shall be tolled until the applicant re-submits to correct such deficiency. The City shall, within ten (10) days of re-submission, notify the applicant of continuing deficiencies or the application will be deemed complete. The timeline for a decision shall be likewise tolled during the additional re-submission deficiency period until the 2<sup>nd</sup> resubmission. Upon resubmitting of the revised application the City shall follow the process identified in this section, above, until all deficiencies identified are deemed cured.
- (E) If the Director fails to provide such notification, the application will be deemed complete.
- (F) The Director's decision shall be in writing and shall be postmarked to the applicant within 60 days after the initial submission, excluding any tolling period, for an Eligible Facilities Request, or, for a Qualified Co-location, within 90 days after the initial submission, excluding any tolling period, or within some other mutually agreed upon timeframe.
- (G) If the City does not respond in writing to an Eligible Facilities Request within the specified timeframe, the application shall be deemed approved. If the City does not respond in writing to a request for a Qualified Co-location within the specified timeframe, the applicant may pursue its remedies established by federal or state law.

(vi) Timing for Review of New PWSF Tower Applications.

A new PWSF tower, whether concealed or non-concealed, shall be reviewed and a decision rendered within one hundred and fifty (150) days of receipt of the application, subject to any applicable tolling for application deficiencies and resubmissions as described in subsection (v) above, so long as the applicant demonstrates that the facilities will be used, immediately upon completion of construction, to provide personal wireless services, or within such other mutually agreed upon time. ("Spec" towers are not entitled to review and decision within 150 days, or to any of the other protections of the Telecommunications Act.) Construction permits issued for new PWSF towers shall be valid for a term of eighteen (18) months and shall lapse and be void if construction of the contemplated PWSF structure is not completed within that time.

(vii) Application and Fees.

- (A) Application materials required for Telecommunications Facilities shall be in accordance with this Section and with the specific application requirements in the City's Submittal Standards for Improvements and Development (SSID) Manual. The application form and requirements are specific to the type of Telecommunications Facility.
- (B) The City Council shall establish fees to cover or offset the processing cost of all permits under this Section which will be included in the development fee schedule. Every application for a Telecommunications Facility shall be accompanied by the full payment of the fee established for the type of facility requested. Payment of fees is required in order for an application to be considered complete. The fee shall not be, in whole or in part, deferred or waived.
- (C) The City reserves the right to require, in its sole discretion, a supplemental review by experts for any application for a telecommunication facility where the complexity of the analysis requires technical expertise, and/or for any request to vary a standard under subsection (14) of this Section, and all the costs of such review shall be borne by the applicant, in addition to scheduled fees.
- (D) Based on the results of the supplemental review, City staff responsible for the initial application review may require changes to or supplementation of the applicant's submittal(s).
- (E) The supplemental review may address any or all of the following:
  - a. The accuracy and completeness of the application and any accompanying documentation.
  - b. The applicability of analysis techniques and methodologies.
  - c. The validity of conclusions reached.
  - d. Whether the proposed telecommunications facility complies with the applicable approval criteria and standards of the Zoning and Development Code and other applicable law.

**(3) Abandonment / discontinued use.**

- (i) All Telecommunication Facility structures, equipment, fencing and devices shall be removed from the property and the site returned to its natural state and topography and vegetated consistent with the natural surroundings or current surrounding land uses at the property owner's and/or service provider's expense within 180 days of cessation of use, or within 90 days of cessation of use if the abandonment is associated with a replacement.
- (ii) The City may extend the time for removal and site restoration up to 60 additional days if the owner or service provider so requests and shows good and unique cause for the extension.
- (iii) If removal and/or site restoration is not accomplished within the prescribed time, the City may initiate removal and restoration within 30 days following written notice to the property owner, and the property owner and service provider shall be jointly and severally responsible for all costs associated with the removal and restoration.
- (iv) Conduit and/or fiber optic cable, whether below or above ground, that is or has been abandoned or the use of which is discontinued for one year shall become the property of the City of Grand Junction. Easements for the maintenance of such conduit/cable shall also become the property of the City of Grand Junction, which shall have all the benefit and interest of the original easement holder with respect to installation, maintenance and repair of conduit/cable.

**(4) No interference with public safety communications.**

- (i) Applicant shall, regardless of the type of facility, comply with "Good Engineering Practices" as defined by FCC regulations and shall provide a composite analysis of all users of the site to determine that the proposed facilities will not cause radio frequency interference with any governmental public safety communications and shall implement appropriate technical measures to prevent such interference.

- (ii) When the City notifies a wireless service provider that it believes the provider's antenna(s) or array(s) are creating such interference, the provider shall investigate and mitigate the interference, if any, utilizing the procedures set forth in the joint wireless industry-public safety "Enhanced Best Practices Guide," released by the FCC in Appendix D of FCC 04-168 (released August 6, 2004), including the "Good Engineering Practices," as may be amended or revised by the FCC from time to time in any successor regulations.
- (iii) If the provider fails to comply with this subsection (4), including but not limited to by initiating an appropriate response within 24 hours of the City's notification, the provider and the property owner shall be jointly and severally responsible for reimbursing the City for all costs associated with ascertaining and resolving the interference.

**(5) Siting Preferences for New Telecommunications Facilities.**

Siting of new PWSF of any type shall be in accordance with the Siting Preferences below and with the Use Table in Section 21.04.030. Where a lower ranked alternative is proposed, the applicant must demonstrate through relevant information including, but not limited to, an affidavit by a radio frequency engineer demonstrating that despite diligent efforts to adhere to the established hierarchy within the geographic search area, higher ranked options are not technically feasible, practical or justified given the location of the proposed facilities, by clear and convincing evidence. The applicant must provide such evidence in its application in order for the application to be considered complete.

The Siting Preferences are, in order:

- (i) Co-located or combined PWSF
- (ii) Concealed antenna(s) on a base station
- (iii) Non-concealed antenna(s) on a base station
  - (A) On a Wireless Master Plan Priority Site
  - (B) On City-owned property in any non-residential zoning district
  - (C) On other public property in any non-residential zoning district
  - (D) On non-public property in the following zoning districts, ranked highest to lowest:
    - a. I-2, I-1 or I-O
    - b. C-2
    - c. B-P or C-1
    - d. CSR
    - e. Other zone districts in accordance with the Use Table in Section 21.04.010.
- (iv) Replacement of existing Telecommunications Facility in any zoning district
- (v) Dual Purpose Facility
- (vi) Concealed small cell site
- (vii) Non-concealed small cell site
- (viii) Distributed Antenna System
  - (A) Attached
    - a. Concealed on City-owned property, right-of-way or public easement
    - b. Concealed on other public property
    - c. Concealed on non-public property
    - d. Non-concealed on City-owned property, right-of-way or public easement
    - e. Non-concealed on other public property

- f. Non-concealed on non-public property
- (B) New Freestanding DAS facility
  - a. Concealed on City-owned property, right-of-way or public easement
  - b. Concealed on other public property
  - c. Concealed on non-public property
  - d. Non-concealed on City-owned property, right-of-way or public easement
  - e. Non-concealed on other public property
  - f. Non-concealed on non-public property

(ix) Concealed freestanding towers

- (A) On a Wireless Master Plan Priority Site
- (B) On City-owned property in any non-residential zoning district
- (C) On other public property in any non-residential zoning district
- (D) On non-public property in the following districts, ranked highest to lowest:
  - a. I-2 or I-1
  - b. C-2
  - c. C-1
  - d. Other zone districts, in accordance with the Use Table in Section 21.04.010.
- (E) Preferred concealment type (wherever located). Concealment types listed below are general preferences, in no particular order. The appropriate means of concealment will depend upon the structures and developed features already existing in the area. Innovative concealment is encouraged so long as it is visually integrated into the immediate surroundings.
  - a. Tree of a type naturally occurring or normally found in the geographic area
  - b. Church steeple
  - c. Bell or clock tower
  - d. Belfries, domes or chimneys
  - e. Elevator towers
  - f. Flag poles
  - g. Water towers
  - h. Cupolas
  - i. Other architectural or art feature



Examples of concealed facilities:



- (x) Non-concealed towers
  - (A) On a Wireless Master Plan Priority Site
  - (B) On City owned property in any non-residential zoning district
  - (C) On other public property in any non-residential zoning district
  - (D) On non-public property in the following districts, ranked highest to lowest:
    - a. I-2;
    - b. I-1
    - c. C-2;
    - d. C-1.
  - (E) Preferred tower type (wherever located)
    - a. Monopole
    - b. Lattice
    - c. Guyed

Broadcast towers are not subject to the siting preferences; they may be sited in accordance with the Use Table (Section 21.04.010). Broadcast towers shall not be located on a Wireless Master Plan Priority Site; those are reserved and planned for PWSF and public safety telecommunications facilities.

#### **(6) Temporary PWSF Specifications and Requirements**

**Development Standards.** Temporary PWSF shall be permitted by the Director in those zone districts specified in the Use Table in Section 21.04.010 where all of the following are met:

- (i) It will be in place for no more than 60 days (subject to a one time extension of an additional 60 days for good cause);
- (ii) Notification of construction is provided by the applicant to the FAA;
- (iii) It does not require marking or lighting by the FAA;
- (iv) It will be less than 200 feet in height;
- (v) It does not involve any excavation (or excavation where prior disturbance exceeds proposed excavation by at least 2 feet).

#### **(7) Telecommunication Facility Co-location and Combination**

**Development Standards.** The City requires co-location and combining of Telecommunications Facilities on existing towers, existing Base Stations or existing alternative support structures (Dual Purpose Facilities) as a highest priority where such co-location is possible. A permit shall be required for co-location of facilities on an existing tower, existing Base Station or Dual Purpose Facility. Co-location or combination of Telecommunications Facilities requires an administrative permit, and is subject to the

following:

- (i) A co-located or combined antenna or antenna array shall not exceed the maximum height prescribed in the applicable land use permit or increase the height of an existing tower by more than 20 feet and shall not affect any tower lighting, except as provided for herein below. A PWSF co-location that does not create a Substantial Change in the tower or support structure shall be approved within 60 days (subject to tolling) in accordance with Section 21.04.030(q)(2)(v).
- (ii) If the applicant who seeks to co-locate PWSF demonstrates a coverage gap that cannot be addressed by a co-location that meets (A) above, the applicant may request a variance of the height limitation in accordance with 21.04.030(q)(14). If the co-location is a qualified co-location under 47 U.S.C. §332(c)(7), the Director shall render a decision within 90 days, subject to tolling, in accordance with 21.04.030(q)(2)(v).
- (iii) New antenna mounts shall be flush-mounted onto existing structures where flush mounting was a condition of the original approval, unless it is demonstrated through radio frequency (RF) propagation analysis that flush-mounted antennas will not meet the network objectives of the desired coverage area, or unless applicant demonstrates that flush-mounting would interfere with existing antenna mounting or coax arrangements that were previously approved.
- (iv) The equipment cabinet shall be subject to the setback requirements of the underlying zoning district.
- (v) When a co-located or combined antenna is to be located on a nonconforming building or structure, then the existing permitted nonconforming setback shall prevail.
- (vi) No signage shall be permitted on an antenna or antenna array that is combined with or co-located on an alternative support structure; however, the support structure may itself be an existing sign, so long as the sign was approved through a non-Telecommunications Facility development permit or sign permit.

**(8) New Base Stations: Concealed and Non-concealed**

- (i) Antennas and equipment may be mounted onto a structure which is not primarily constructed for telecommunications purposes in accordance with the Use Table of Section 21.04.010. A permit is required for base station antennas and equipment mounted onto such an alternative structure. In residential districts, the following structures shall not be used as base stations or to support PWSF or commercial antenna(s): single-family dwelling, two-family dwelling, multi-family dwelling of fewer than three stories in height, group living facility, or day care.
- (ii) Development Standards. Antenna(s) and equipment to be located on an alternative structure shall be subject to the following:
  - (A) If the facility is concealed, the top of antenna(s) shall not be more than 35 feet above the existing or proposed building or structure, except that antenna(s) located on the perimeter of the supporting structure shall not be more than ten feet above the supporting structure;
  - (B) If the facility is non-concealed, the top of the antenna shall not be more than 20 feet above the existing or proposed building or structure and shall not be located on the perimeter of the supporting structure;
  - (C) New antenna mounts shall be flush-mounted onto existing structures, unless it is demonstrated through radio frequency (RF) propagation analysis that flush-mounted antennas will not meet the network objectives of the desired coverage area;
  - (D) New antenna mounts shall meet the setbacks and height restrictions of the underlying zone district;
  - (E) When attached base station antenna(s) and equipment is/are to be located on a

nonconforming building or structure, the existing permitted nonconforming setback or height shall prevail;

- (F) Concealed base station attached antennas, feed lines and antennas shall be designed to architecturally match the façade, roof, wall, and/or structure on which they are affixed so that they blend with the existing structural design, color, and texture; and
- (G) No signage shall be allowed on an antenna or antenna array that is located on an alternative structure; however, the alternative structure itself may have a sign that was otherwise approved as part of a non-Telecommunications Facility development application or sign permit.

#### **(9) Antenna Element Replacement or Modification**

Development Standards. A permit is required for any replacement or modification of existing antenna(s) and associated equipment, and the replacement or modification must comply with the following:

- (i) Height. The increase in height of a PWSF that is modified shall not create a "Substantial Change" in the PWSF.
- (ii) Equipment cabinets and Equipment Shelters. Electronic equipment shall be contained in either (a) equipment cabinets or (b) equipment shelters. Equipment cabinets shall not be visible from pedestrian and right-of-way views. Equipment cabinets may be provided within the principal building on the lot, behind a screen on a rooftop, or on the ground within the fenced-in and screened equipment compound.
- (iii) Sounds. No unusual sound emissions such as alarms, bells, buzzers, or the like are permitted. Emergency generators are allowed. Sound levels shall not exceed 65 db as measured at the property boundaries for the facility.

#### **(10) Tower / Support Structure Replacement**

(i) A permit is required for replacement of a tower and support structure. Applicant must demonstrate by clear and convincing competent evidence that replacement will accomplish at least one of the following:

- (A) Reduction in the number of Telecommunications Facility support structures or towers;
- (B) Replacement of a non-concealed tower with a concealed tower
- (C) Significant reduction of the visual impact of a Telecommunications Facility;
- (D) Replacement of an existing tower with a new tower so as to improve network functionality resulting in compliance with this Section; and/or
- (E) Replacement of an existing support structure to increase the number of Personal Wireless Service Providers located on such structure.

(ii) Development Standards.

- (A) Setbacks: A new tower approved for replacement shall not be required to meet new setback standards so long as the new tower and its equipment compound are no closer to any property lines or dwelling units as the tower and equipment compound being replaced. The intent is to encourage the replacement process, not penalize the tower owner for the change out of the old facility. (For example, if a new tower is replacing an old tower, the new tower is permitted to have the same setbacks as the tower being removed, even if the old tower had nonconforming setbacks.)
- (B) Height: The height of the replacement tower or support structure shall not create a Substantial Change of the facility being replaced.
- (C) Breakpoint technology: A replacement monopole tower shall use breakpoint technology

in the design of the replacement facility.

- (D) **Visibility:** Replacement towers or support structures shall be configured and located in a manner that minimizes adverse effects on the landscape and adjacent properties, with specific design considerations as to height, scale, color, texture, and architectural design of the buildings on the same and adjacent zoned lots.
- (E) All replacement towers shall be constructed and maintained to meet ANSI/EIA/TIA-G (as amended) Series III, Exposure C structural standards.

#### **(11) DAS & Concealed Small Cell Facilities**

##### **(i) Attached DAS Development Standards.**

- (A) Where feasible, antennas can be placed directly above, below or incorporated with vertical design elements of a building or structure to maximize concealment. The top of the antenna(s) shall not exceed more than 7 feet above the tallest level of the structure on which it is attaching.
- (B) Attached Equipment box and power meter is discouraged; however, if attachment is justified, equipment box and meter shall be located on the pole at a height that does not interfere with pedestrian or vehicular traffic or visibility and where applicable shall not interfere with street name signs or traffic lighting standards.
- (C) Freestanding equipment box and/or power meter not attached to an existing structure shall be located no farther than 2' from the base of the structure and shall not interfere with pedestrian or vehicular traffic. Screening materials may be required if the equipment box and/or meter are adjacent to a public right-of-way or along a pedestrian sidewalk or pathway.
- (D) All cables shall be installed internally; but where internal mounting is not possible, surface mounted wires shall be enclosed within conduit or a similar cable cover which should be painted to match the structure or building on which that DAS is mounted.

##### **(ii) New Freestanding DAS Facility & Concealed Small Cell Facility Development Standards.**

- (A) **Height.** The total height of DAS facility/Small Cell Facility including antenna shall not exceed one foot above the height of existing public utility poles for power or light in the same geographic area.
- (B) **Setbacks** for DAS/Small Cell outside of the right-of-way shall meet the same setbacks of the underlying zoning district for similar structures.
- (C) The use of foliage and vegetation around ground equipment may be required by the City based on conditions of the specific area where the ground equipment is to be located. In order to avoid the clustering of multiple items of ground equipment in a single area, a maximum of two ground equipment boxes may be grouped together in any single location. In addition, such locations must be spaced a minimum of 500 linear feet of right-of-way apart from each other. Individual ground equipment boxes shall not exceed three feet wide by three feet deep by five feet high in size. The size and height of new freestanding DAS and concealed small cell facility poles shall be no greater than the size and height of any other telecommunications facility poles located in the same or similar type of rights-of-way in the City.

(D) Visibility of new DAS/Small Cell poles

- a. New DAS/Small Cell structures shall be configured and located in a manner that minimizes adverse effects on the landscape and adjacent properties, with specific design considerations as to height, scale, color, texture, and architectural design of the buildings on the same and adjacent zoned lots. Concealment design is required to minimize the visual impact of wireless communications facilities.
- b. All cables, conduits, electronics and wires shall be enclosed within the structure.
- c. Small Cell facilities shall be no larger in size than what is specified in the Definitions (Section 21.04.030(q)(1)).
- d. New DAS/Small Cell structures shall be located in arterial rights-of-way whenever possible. Placement of new DAS/Small Cell structures in rights-of-way other than arterials shall be justified by an engineering analysis from the applicant to the satisfaction of the city engineer prior to the issuance of any permit. Whenever new DAS/Small Cell structures must be placed in a right-of-way with residential uses on one or both sides of the street, no pole, equipment, antenna or other structure may be placed directly in front of a residential structure. If a right-of-way has residential structures on only one side of the street, the new DAS/Small Cell structure shall be located on the opposite side of the right-of-way whenever possible. All new DAS/Small Cell structures shall be located such that views from residential structures are not significantly impaired. Newly installed poles for new DAS/Small Cell structures should be located in areas with existing foliage or other aesthetic features in order to obscure the view of the pole.
- e. New DAS/Small Cell structures located in rights-of-way shall be constructed and maintained so as not to interfere with, displace, damage, inhibit or destroy any other utilities or facilities, including but not limited to sewer, gas or water mains or service lines, storm drains, pipes, cables or conduits, or any other facilities lawfully occupying the right-of-way, whether public or private. All wireless communications facilities shall be placed and maintained so as not to create interference with the operations of public safety telecommunications service. The City reserves the right to place and maintain, and permit to be placed or maintained, sewer, gas, water, electric, storm drainage, communications, and other utilities and facilities, cables or conduit, and to do, and to permit to be done, any underground and overhead installation or improvement that may be deemed necessary or proper by the City in public rights-of-way occupied by the new DAS/Small Cell structure.

(E) Equipment cabinets. Equipment shelters or cabinets shall be consistent with the general character of the neighborhood and historic character if applicable. Equipment shelters or cabinets shall be screened from the public view by using landscaping, or materials and colors consistent with the surrounding backdrop.

- a. Screening enclosures shall be allowed when the design is architecturally compatible with the building
- b. Screening materials shall consist of materials and colors consistent with the surrounding backdrop and/or textured to match the existing structure.
- c. The use of foliage and vegetation around ground equipment may be required based on conditions of the specific area where the ground equipment is to be located.
- d. Small Cell equipment cabinets shall comply with the size requirements set forth in the Definitions above.

(iii) DAS Hub Development Standards.

- (A) Setbacks for DAS hubs outside of the right-of-way shall meet the setback standards of the underlying zoning district.
- (B) DAS hub. Equipment shelters or cabinets shall be consistent with the general character of the neighborhood and historic character if applicable. Equipment shelters or cabinets shall be screened from the public view by using landscaping, or materials and colors consistent with the surrounding backdrop.
  - a. Screening enclosures shall be allowed when the design is architecturally compatible with the building
  - b. Screening materials shall consist of materials and colors consistent with the surrounding backdrop and/or textured to match the existing structure.
  - c. The use of foliage and vegetation around ground equipment may be required based on conditions of the specific area where the ground equipment is to be located.

**(12) Concealed and Non-concealed Telecommunications Towers (Not including DAS or Broadcast Tower, which are addressed in other subsections)**

- (i) A pre-application conference is required for a new telecommunications tower. A permit and a major site plan review shall be required for a new telecommunication tower. The permit required may be an administrative permit or a CUP, depending upon the zone district (See Section 21.04.010 Use Table) and/or whether or not the site is a Priority Site on the Wireless Master Plan.
- (ii) No new tower shall be permitted unless the applicant demonstrates that no existing tower or qualified alternative support structure can accommodate the applicant's proposed use, or that co-location on such existing facilities would have the effect of prohibiting personal wireless services in the geographic search area to be served by the proposed tower.
- (iii) Development Standards.

(A) Height.

- a. New concealed towers shall be limited to 200 feet in height. Height calculations shall be made in accordance with FAA standards, and shall include all appurtenances.
- b. New non-concealed (non broadcast) towers shall be limited to 150 feet in height. An applicant desiring a new non-concealed tower taller than 150 feet must request a variance in accordance with Section 21.04.030(q)(14). However, under no circumstance shall any non-concealed tower exceed 199 feet.

(B) Setbacks and spacing from residential structures. A new tower shall be subject to the principle structure setbacks of the underlying zone district, and, with respect to any residential structure on adjacent property:

- a. If the tower has been constructed using breakpoint design technology (see 'Definitions'), the minimum distance from any residential structure shall be equal to 110 percent (110%) of the distance from the top of the structure to the breakpoint level of the structure, or the minimum principle structure setbacks, whichever is greater. Certification by a registered professional engineer licensed by the State of Colorado of the breakpoint design and the design's fall radius must be provided together with the other information required herein from an applicant. (For example, on a 100-foot tall monopole with a breakpoint at eighty

(80) feet, the minimum distance from the residential structure would be twenty-two (22) feet (110 percent of twenty (20) feet, the distance from the top of the monopole to the breakpoint) plus the minimum principle structure setback requirements for that zoning district.)

- b. If the tower is not constructed using breakpoint design technology, the minimum distance from any residential structure shall be equal to the height of the proposed tower.
- (C) Equipment cabinets and Equipment Shelters. Electronic equipment shall be contained in either (a) equipment cabinets or (b) equipment shelters. Equipment cabinets shall not be visible from pedestrian and right-of-way views. Equipment cabinets may be provided within the principal building on the lot, behind a screen on a rooftop, or on the ground within the fenced-in and screened equipment compound.
- (D) Fencing. All equipment compounds shall be enclosed with an opaque fence or masonry wall in residential zoning districts and in any zoning district when the equipment compound adjoins a public right-of-way. Alternative equivalent screening may be approved through the site plan approval process described in section 6.6(E) below.
- (E) Buffers. The equipment compound shall be landscaped with a minimum ten (10) foot wide perimeter buffer containing the following planting standards:
  - a. All plants and trees shall be indigenous to this part of Colorado.
  - b. Existing trees and shrubs on the site should be preserved and may be used in lieu of required landscaping as approved by the Planning Department.
  - c. One (1) row of evergreen trees with a minimum two (2) inch caliper, twenty-five (25) foot on center.
  - d. Evergreen shrubs capable of creating a continuous hedge and obtaining a height of at least five (5) feet shall be planted, minimum three (3) gallon or twenty-four (24) inches tall at the time of planting, five (5) foot on center.
  - e. Alternative landscaping plans which provide for the same average canopy and understory trees but propose alternative locating on the entire subject property may be considered and approved by the Director, provided the proposed alternative maximizes screening as provided above, and is otherwise consistent with the requirements of this section.
- (F) Equipment Compound. The fenced-in compounds shall not be used for the storage of any excess equipment or hazardous materials. No outdoor storage yards shall be allowed in a tower equipment compound. The compound shall not be used as habitable space.
- (G) Structural Standards. All new concealed or non-concealed PWSF towers shall be constructed and maintained to meet ANSI/EIA/TIA-G (as amended) Series III, Exposure C structural standards.
- (H) Visibility
  - a. Concealed:
    - 1. New concealed towers shall be designed to match adjacent structures and landscapes with specific design considerations such as architectural designs, height, scale, color, and texture.
    - 2. New antenna mounts shall be concealed and match the concealed tower.
    - 3. In residential zoning districts and in mixed use zoning districts that include residential uses, new concealed towers shall not be permitted on lots where the primary use or principal structure is single-family or two-family residential,

group living, day care, or a multi-family structure of fewer than three stories. Examples of land uses/structure types in residential areas where the site may include a concealed tower are: school, religious assembly, fire station, stadium tower or stand, or other similar institutional / civic uses/structures.

- b. Non-concealed: New antenna mounts shall be flush-mounted unless the applicant can demonstrate that flush-mounted antennas will not reasonably meet the network objectives of the desired coverage area or that more co-locations will be available on the tower if flush-mounting is not required.
- c. Concealed and Non-concealed:
  1. New concealed and non-concealed towers shall be configured and located in a manner that shall minimize adverse effects including visual impacts on the landscape and adjacent properties.
  2. A balloon test shall be required subsequent to the receipt of the photo simulations in order to demonstrate the proposed height and concealment solution of the PWSF. The applicant shall arrange to raise a red or orange colored balloon no less than three (3) feet in diameter at the maximum height of the proposed tower, and within twenty-five (25) horizontal feet of the center of the proposed tower. The applicant shall meet the following for the balloon test:
    - i. Applicant must inform the Planning Department and abutting property owners in writing of the date and times, including alternative date and times, of the test at least fourteen (14) days in advance.
    - ii. A 3' by 5' sign with lettering no less than 3 inches high stating the purpose of the balloon test shall be placed at closest major intersection of proposed site.
    - iii. The date, time, and location, including alternative date, time and location, of the balloon test shall be advertised in a locally distributed paper by the applicant at least seven (7) but no more than fourteen (14) days in advance of the test date.
    - iv. The balloon shall be flown for at least four (4) consecutive hours during daylight hours on the date chosen. The applicant shall record the weather, including wind speed during the balloon test.
    - v. Re-advertisement will not be required if inclement weather occurs.
  3. Towers shall be constructed to accommodate antenna arrays as follows:
    - i. Up to 120 feet in height shall be engineered and constructed to accommodate no fewer than four (4) antenna arrays.
    - ii. All towers between 121 feet and 150 feet shall be engineered and constructed to accommodate no fewer than five (5) antenna arrays.
  4. Grading shall be minimized and limited only to the area necessary for the new tower and equipment compound.
  5. Sounds. No unusual sound emissions such as alarms, bells, buzzers, or the like are permitted. Emergency generators are allowed. Sound levels shall not exceed 65 db as measured at the property boundaries.

### **(13) Broadcast Towers**

No new broadcast facilities shall be constructed or installed without a site plan review and a permit under this Section. No new broadcast facilities shall be permitted unless the applicant provides a valid FCC Construction Permit and demonstrates that no existing broadcast tower can accommodate the applicant's



proposed use. A pre-application conference shall be required for any new broadcast facility.

(i) Development Standards.

- (A) Height. Height for broadcast facilities shall be evaluated on a case-by-case basis; the determination of height contained in the applicant's FCC Form 351/352 construction permit or application for construction permit and an FAA determination of no hazard (FAA Form 7460/2) shall be considered prima facie evidence of the tower height required for such broadcast facilities.
- (B) Setbacks. New broadcast facilities and anchors shall be setback a minimum of five hundred (500) feet from any single-family dwelling unit on same zone lot; and a minimum of 1 foot for every 1 foot of tower height from all adjacent lots of record.
- (C) Equipment Cabinets. Except for AM broadcast facilities, cabinets shall not be visible from pedestrian views.
- (D) Fencing. All broadcast facility towers, AM antenna(s) towers, and guy anchors shall each be surrounded with an anti-climbing fence compliant with applicable FCC regulations.
- (E) Buffers
  - a. Except for AM broadcast facilities, it is the intent that all pedestrian views from public rights-of-ways and adjacent residential land uses be screened from proposed broadcast facilities pursuant to Article VIII Section 1.0(E) & (F). AM broadcast facilities shall, where practicable, use artificial screening devices in lieu of natural vegetation for screening its ground equipment located at the base of AM tower(s).
  - b. Alternative landscaping plans which provide for the same average canopy and understory trees but propose alternative siting on the entire subject property on which the proposed facility is projected may be considered and approved by the planning division, provided the proposed alternative maximizes screening as provided above, and is otherwise consistent with the requirements of this section.
- (F) Signage.
  - a. Commercial messages shall not be displayed on any tower.
  - b. The only signage that is permitted upon an antenna support structure, equipment cabinets, or fence shall be informational, and for the purpose of identifying the antenna support structure (such as ASR registration number), as well as the party responsible for the operation and maintenance of the facility; i.e. the address and telephone number, security or safety signs, and property manager signs (if applicable).
- (G) If more than two hundred twenty (220) volts are necessary for the operation of the facility, signs located every twenty (20) feet and attached to the fence or wall shall display in large, bold, high contrast letters (minimum height of each letter four (4) inches) the following: "HIGH VOLTAGE - DANGER".
- (H) Lighting.
  - a. Lighting on towers shall meet and not exceed the FAA minimum standards.
  - b. Any lighting required by the FAA must be of the minimum intensity and number of flashes per minute (i.e., the longest duration between flashes) allowable by the FAA. Dual lighting standards are required and strobe light standards are prohibited unless required by the FAA. The lights shall be oriented so as not to project directly onto surrounding property,

consistent with FAA requirements.

- (I) Equipment Compound. The fenced in compounds shall not be used for the storage of any excess equipment or hazardous materials. No outdoor storage yards shall be allowed in a tower equipment compound. The compound shall not be used as habitable space.
- (J) Grading shall be minimized and limited only to the area necessary for the new tower and equipment.
- (K) Sounds. No unusual sound emissions such as alarms, bells, buzzers, or the like are permitted. Emergency generators are allowed. Sound levels shall not exceed 65db as measured at the closest property boundaries for the facility.
- (L) Parking. One parking space is required for each tower development area. The space shall be provided within the leased area, or equipment compound or the development area as defined on the site plan.

**(14) Variance – PWSF only**

The purpose of this subsection (14) is to ensure that land use decisions with respect to siting of personal wireless service facilities (PWS) comply with 47 U.S.C. §332(c)(7)(B).

From time to time, due to unique characteristics specific to a single application, such as terrain, existing infrastructure, or other factors unique to the particular location and proposed PWSF thereon, strict application of a specific development standard for siting of PWSF could have the effect of unreasonably discriminating among providers of functionally equivalent services within the meaning of 47 U.S.C. §332(c)(7)(B)(i)(I) or of prohibiting personal wireless services within the meaning of 47 U.S.C. §332(c)(7)(B)(i)(II). In such a case the applicant, so long as the applicant is a provider of personal wireless services who will be using the facility for provision of personal wireless services, may seek a variance from such standard under this Section. Considerations of increased financial costs are not unique characteristics and shall NOT constitute a valid basis for a variance under this subsection (14). Moreover, the ONLY development standards from which a variance can be sought/approved under this subsection (14) are the following:

- Maximum tower height
- Flush mounting requirement
- Maximum height of antenna above base station/supporting structure (for non-concealed PWSF only)

To obtain a variance under this Section 21.04.030(q)(14), the provider must demonstrate by clear and convincing evidence that:

- (i) Due to characteristics specific and unique to the particular facilities and location, strict application of the development standard would not permit the applicant to address a demonstrable coverage gap or would result in unreasonable discrimination among providers of functionally equivalent services; AND
- (ii) There is no reasonable alternative available, other than varying the standard, to address the demonstrable coverage gap or to avoid unreasonable discrimination among providers of functionally equivalent services, including but not limited to use of another site, co-location on another facility, or modification of the proposed facility so as to meet the applicable standard; AND
- (iii) The extent of the variance proposed is the minimum necessary to address the demonstrable coverage gap or to avoid unreasonable discrimination among providers of functionally equivalent services, as confirmed by qualified, independent third party review of the proposal.

The decision-maker for the variance shall be the decision-maker for the underlying permit type required in accordance with this Section and with the Use Table of Section 21.04.010. For example, if the facility requires an administrative permit, the Director would decide the variance request. If the facility requires a conditional use permit, the Planning Commission would decide the variance request.

INTRODUCED on first reading the 18<sup>th</sup> day of May, 2016 and ordered published in pamphlet form.

PASSED and ADOPTED on second reading the 1<sup>st</sup> day of June, 2016 and ordered published in pamphlet form.

ATTEST:

The seal of the City of Grand Junction is circular, featuring a central illustration of a mountain range and a river. The words "CITY OF GRAND JUNCTION" are inscribed around the perimeter of the seal.  
Stephanie Yun  
City Clerk

Sam Ellis Norris  
President of the Council

I HEREBY CERTIFY THAT the foregoing Ordinance, being Ordinance No. 4704 was introduced by the City Council of the City of Grand Junction, Colorado at a regular meeting of said body held on the 18<sup>th</sup> day of May, 2016 and that the same was published in The Daily Sentinel, a newspaper published and in general circulation in said City, in pamphlet form, at least ten days before its final passage.

I FURTHER CERTIFY THAT a Public Hearing was held on the 1<sup>st</sup> day of June, 2016, at which Ordinance No. 4704 was read, considered, adopted and ordered published in pamphlet form by the Grand Junction City Council.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said City this 6<sup>th</sup> day of June, 2016.

  
\_\_\_\_\_  
Stephanie Tuin, MMC  
City Clerk

Published: May 20, 2016  
Published: June 3, 2016  
Effective: July 3, 2016

