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1. Executive Summary

1.1 Background

The Town of Snowmass Village (Town) (TOSV), as with communities across the country and around the world, is facing the next wave of communications technology. Although the Town welcomes advancements and improvements in our local telecommunication capabilities, this next wave has the potential to impact the safety, aesthetic values, and enjoyment of our community if not managed properly.

Small cell communications now include what is now known as 5G technology. 5G technology can sometimes utilize higher frequencies, or shorter, “millimeter wave” with the capability to accommodate significantly higher data needs than current 4G/LTE technologies. The physical limits of some of the higher frequencies require that the transmitters be installed at a much reduced spacing, and may ultimately be roughly 300 feet, which is similar to the spacing of streetlights or fire hydrants rather than 2+/ - mile or greater distances that 4G/LTE small cell technologies currently accommodate. The result of this physical need is that the public rights-of-way within roads and streets are often the optimal location to install the required equipment.

In September of 2018, the Federal Communications Commission (FCC) adopted the Declaratory Ruling and Third Report and Order, known as FCC 18-133. The Order outlines the extent to which local agencies may or may not regulate the installation of small cell facilities within the public rights-of-way and the use of existing public infrastructure.

In July of 2017, more than a year before the adoption of the FCC Order, House Bill 17-1193, the State of Colorado, Small Cell Facilities Permitting and Installation Act (the Act), became effective. In general, the Act specifies how local authorities throughout Colorado, may regulate the attachment of small cell facilities. Similar to the advent of the telephone which required extensive wires, switch boxes, poles and other structures to provide these services, small cell communications technology will ultimately require a structure to mount a transmitter approximately every 300 to 600 feet most often with fiber optic cable and power conductor cable connections to each one.

Absent the adoption of standards to assure that installations are context sensitive, service providers would be free to install equipment with no concern for the visual impact that they create. This document seeks to accommodate the implementation of the new technology while assuring that the new infrastructure is installed with the community character and TOSV values in mind.

In addition, the equipment needs to be located where it will not interfere with visibility for drivers, interference with sidewalks, or other common amenities found in public rights-of-way.

Other issues such as safety, aesthetics, noise and accommodating multiple providers at each location are also addressed within these Guidelines.

1.2 Regulatory Matters

The Order establishes fees, timelines that are also known as “shot clocks,” and provides limits on local governments’ control of small cell infrastructure.

The Act became effective July 1, 2017. In a similar manner to the FCC Order, the Act establishes “shot clocks” and provides limits on local governments’ control of small cell infrastructure in public rights-of-way.

Various provisions of the Colorado and FCC actions provide similar but sometimes conflicting direction on issues such as fees, shot clocks, aesthetics, and other considerations. The Town has established the governing structures in Section 16A-3-250 of its Municipal Code, and all references to these items are governed by (a) Section 16A-3-250 of the Town Code and subsequently (b) by definition in this Design Guidelines manual.

The purpose of Section 16A-3-250 is to establish policies and procedures for the placement of Wireless Communication Facilities (WCFs) within the Town Limits of the Town of Snowmass Village, which will
provide public benefits and will be consistent with the preservation of the integrity, safe usage, and visual qualities of the Town and its public rights-of-way.

All applications for the installation or development of WCFs and/or equipment must receive land use and development approval, building permits, and/or right-of-way permits, as applicable, prior to installation. Concurrent with the issuance of appropriate building and right-of-way permits, WCFs and/or equipment shall be reviewed for approval by the Community Development Director (and when applicable, the Town’s Public Works Director) in conformance with the provisions and criteria of Section 16A-3-250 as well as other applicable sections of Town of Snowmass Village Code including Chapter 11 - Streets, Sidewalks and Public Property, Chapter 16A - Land Use and Development Code, and Chapter 18 - Building Regulations. WCFs and equipment subject to the provisions and criteria of Section 16A-3-250 include without limitation, small cell facilities (SCF) within the Public Rights of Way, cellular telephone, paging, enhanced specialized mobile radio (ESMR), personal communication services (PCS), commercial mobile radio service (CMRS) and other wireless commercial telecommunication devices and all associated structures and equipment including transmitters, antennas, monopoles, towers, masts and microwave dishes, cabinets and equipment rooms.

1.3 Overview of Key Design Guidelines

The following is an overview of key elements of these design guidelines.

1) No towers or antennae will be permitted within 600’ of any existing or proposed small cell tower or antennae equipment.

2) All small cell equipment and appurtenances shall be housed internally regarding a new or replacement pole or alternative tower structure which hosts small cell antennas.

3) Electric metering structures and/or meters shall not be visible from the exterior of the pole or alternative tower structure which hosts the small cell antennas where the pole or alternative tower structure is located in Town right-of-way. This requirement may be wholly or partially waived by the Public Works Director where it is technically infeasible to place all or part of a meter internally.

4) The height of the tower, antennae, and/or any supporting equipment shall not exceed the dimensional limitations of the underlying zone district as outlined in Chapter 16A of the Snowmass Village Municipal Code. If not specified for the proposed site, no infrastructure shall exceed a maximum height of 25’ tall, as measured from the existing grade at ground level directly below the proposed infrastructure.

5) To the extent possible, concealment of all small cell equipment and appurtenances shall be required when attaching to an existing facility.

6) Any stand-alone small cell facility shall not any building entrances, or be directly placed in front of any windows adjacent to the right of way. To the extent possible, poles shall not be located at intersections. All poles shall be located so as to ensure proper sight-triangles.

7) The pole design in the Town right-of-way shall match the color, aesthetics, spacing, and architectural characteristics of existing streetlights installed adjacent to the pole, or in the vicinity. The Town’s current streetlight design and construction specifications can be found in Appendix D of this document.

8) In select circumstances, the Town may require poles and towers to incorporate banner arms and luminaries to blend with the existing streetscape.

9) Wireless communications facilities and equipment should not be installed within the dripline of any tree.

10) Pole caissons should be circular in nature and designed to minimize impact of adjacent and future utilities. Concrete must follow the latest Colorado Department of Transportation (CDOT) Road & Bridge Specification for applicable design. All designs must be stamped and signed by a registered Professional Engineer in the State of Colorado.
11) The Town of Snowmass Village encourages co-location of facilities and the location of facilities on existing infrastructure, such as Town-owned light poles, with the written approval of the Public Works Director.

12) The Town of Snowmass Village has the right to remove and relocate infrastructure if necessary, or if alternative methods become available.

13) Non-Ionizing Electromagnetic Radiation (NIER) or Electromagnetic Energy (EME) Reporting – this is a site-specific technical description of the specific radio frequencies that are expected as designed from a specific small cell facility – related to the FCC rules regarding maximum permissible exposure (MPE). This report will provide detailed, site specific information about the radio frequency emissions for a given facility. It will be required in the establishment of a new facility and any time a facility is upgraded, at the time of application.

14) Testing – site specific testing and reporting of the actual frequencies and strength of frequencies being emitted following the installation or upgrade of a wireless facility is required. Additionally, annual audits of radio frequency signals from all facilities will be required. This is the responsibility of the Provider or its representative with the assistance of the Town.

15) In extenuating circumstances, or if deemed in the best interest of the public, the Town Manager, or his/her designee, may exempt a project from any of requirements contained herein.

1.4 Statement of Purpose

The Town of Snowmass Village Wireless Communications Facilities Design Guidelines which provide objective, technically feasible criteria applied in a non-discriminatory manner are hereby established with the goal of accommodating the installation of wireless communications facilities including small cells (4G, LTE, 5G, and other systems currently under development) technology within the Town of Snowmass Village, provided that the installations meet the following standards:

- Aesthetics
- Location
- Spacing of facilities
- Accommodation of multiple providers at each location
- Safety
- Noise
2. General Information

2.1 Introduction

These Wireless Communications Facilities Design Guidelines are intended to supplement the requirements of Snowmass Village Land Use and Development Code Section 16A-3-250 as well as other applicable sections of Town of Snowmass Village Code including Chapter 11 - Streets, Sidewalks and Public Property, Chapter 16A - Land Use and Development Code, and Chapter 18 - Building Regulations. They provide objective, technically feasible criteria consistent with Snowmass Village’s small mountain town character, applied in a non-discriminatory manner that reasonably match the aesthetics and character of the immediate area regarding all of the following, which the Town shall consider in reviewing an application:

(a) The location of any wireless communications facilities (WCF) including their relationship to other existing or planned WCF sites regardless of provider
(b) The location of a WCF on a wireless support structure
(c) The appearance and concealment of WCFs, including those relating to materials used for arranging, screening, and landscaping
(d) The design and appearance of a wireless support structure including any height requirements adopted in accordance with these Guidelines

It is the goal of the Town to allow the installation of a wireless communications infrastructure with a minimum footprint in a safe and responsible manner that minimizes impacts to the community. This shall be accomplished by WCF siting and the use of multi-cell poles that can accommodate multiple service providers.

The Town may administratively revise, develop new, update, or amend these Guidelines as necessary to meet the goals of the Town. The provisions of these Guidelines shall not limit or prohibit the Town’s discretion to promulgate and make publicly available other information, materials or requirements in addition to, and separate from these Wireless Communications Facilities Design Guidelines that do not conflict with state or federal law.

2.2 Definitions

If a word is not defined here or in Town Code, it shall have the usual and customary meaning as defined in a standard dictionary. The following words, terms, and phrases, when used in this document, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

AASHTO means the American Association of State Highway and Transportation Officials, which is a standards setting body that publishes specifications, test protocols, and guidelines that are used in highway design and construction throughout the United States. The association represents not only highways but air, rail, water, and public transportation as well.

Accessory Wireless Equipment means any equipment serving or being used in conjunction with a Wireless Communications Facility (WCF), including, but not limited to, utility or transmission equipment, power supplies, generators, batteries, cables, equipment buildings, cabinets and storage sheds, shelters or other structures.

Administrative Review means ministerial review of an Application by the Town relating to the review and issuance of a Permit, including review by the designated staff to determine whether the issuance of a Permit is in conformity with the applicable provisions of these Guidelines and all Town Codes.

Alternative Tower Structure means man-made trees, clock towers, bell steeples, light poles, buildings, and similar alternative design mounting structures that are intended to be compatible with the natural setting and surrounding structures, and camouflage or concealment design techniques so as to make the presence of antennas or towers compatible with the surrounding area pursuant to Section 16A-3-250. This term also includes any antenna or antenna array attached to an Alternative Tower Structure and a Replacement Pole.
A stand-alone Monopole in the Public Right-of-Way that accommodates Small Cell Wireless Facilities is considered an Alternative Tower Structure to the extent it meets the camouflage and concealment standards of These Guidelines.

**Antenna** means any device used to transmit and/or receive radio or electromagnetic waves such as, but not limited to panel antennas, reflecting discs, microwave dishes, whip antennas, directional and non-directional antennas consisting of one (1) or more elements, multiple antenna configurations, or other similar devices and configurations. Exterior apparatus designed for telephone, radio, or television communications through the sending and/or receiving of wireless communications signals.

**Antenna, Dish** means dish (parabolic or cylindrical) antennas used for microwave and satellite transmission and reception for commercial purposes. This definition shall not apply to wireless cable satellite dish antennas or dish antennas less than one (1) meter measured diagonally.

**Applicable Codes** means any Code drafted and adopted by the Town, including Chapter 11 - Streets, Sidewalks and Public Property, Chapter 16A - Land Use and Development Code, and Chapter 18 - Building Regulations, as well as uniform building, fire, safety, electrical, plumbing, Uniform Traffic Control or mechanical codes adopted by a recognized national code organization to the extent such codes have been adopted by the Town, including any amendments adopted by the Town, or otherwise are applicable in the jurisdiction.

**Applicant** means the person submitting an application that is proposing an action requiring review and approval by one or more of the sections in Section 16A-3-250 as well as other applicable sections of Town of Snowmass Village Code including Chapter 11 - Streets, Sidewalks and Public Property, Chapter 16A - Land Use and Development Code, and Chapter 18 - Building Regulations. An applicant may subsequently become the developer once approval is granted, and in this case the terms shall be interchangeable.

**Attached Wireless Facilities** means facilities affixed to a structure except optical fiber, wires, coaxial cable, and the mounting hardware used to attach optical fiber, wires, and coaxial cable. Examples of attached facilities include but are not limited to antennas, telephone boxes, power boxes, and other equipment boxes and cabinets on structures located.

**Base Cabinet** means a cabinet at the base of a SCF that houses the Base Station.

**Base Station** means:

a. A structure or equipment at a fixed location that enables Federal Communications Commission ("FCC") licensed or authorized wireless communications between user equipment and a communications network. The definition of base station does not include or encompass a tower as defined herein or any equipment associated with a tower. Base station includes, without limitation:

   1. Equipment associated with wireless communications services such as private broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul that, at the time the relevant application is filed with the Town pursuant to Section 16A-3-250 has been reviewed and approved under the applicable zoning or siting process, or under another state or local regulatory review process, even if the structure was not built for the sole or primary purpose of providing such support; and

   2. Radio transceivers, antennas, coaxial or fiber-optic cable, regular and backup power supplied, and comparable equipment, regardless of technological configuration (including distributed antenna systems and small-cell networks) that, at the time the relevant application is filed with the Town pursuant to Section 16A-3-250 has been reviewed and approved under the applicable zoning or siting process, or under another state or local regulatory review process, even if the structure was not built for the sole or primary purpose of providing such support.

b. The definition of "base station" does not include any structure that, at the time the application is filed with the Town under Section 16A-3-250, *Wireless Communication Facilities*, does not support or house equipment described herein in Subparagraphs 1. and 2. of this definition.

**Camouflage, concealment, or camouflage design techniques** means a WCF which is camouflaged or utilizes camouflage design techniques when any measures are used in the design and siting of WCF's with
the intent to minimize or eliminate the visual impact of such facilities to surrounding uses. A WCF site utilizes camouflage design techniques when it (i) is integrated as an architectural feature of an existing structure such as a cupola, or (ii) is integrated in an outdoor fixture such as a flagpole, or (iii) uses a design which mimics and is consistent with the nearby natural, or architectural features (such as an artificial tree) or is incorporated into or replaces existing permitted facilities (including without limitation, stop signs or other traffic signs or freestanding light standards) so that the presence of the WCF is not readily apparent.

**CDOT** means the Colorado Department of Transportation.

**Clear Zone** (as defined in AASHTO’s Roadside Design Guide) means the total roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope, and/or a clear run-out area.

**Code** means the Snowmass Village Town Code.

**Collocation** means (1) mounting or installing a WCF on a pre-existing structure, and/or (2) modifying a structure for the purpose of mounting or installing a WCF on that structure. Provided that, for purposes of Eligible Facilities Requests, “Collocation” means the mounting or installation of transmission equipment on an Eligible Support Structure for the purpose of transmitting and/or receiving radio frequency signals for communications purposes.

**Development Code** means Chapter 16A of the Town Code, as amended.

**Director** means the Town’s Community Development Director or and Public Works Director or designees.

**Eligible Facilities Request** means any request for modification of an Eligible Support Structure that does not Substantially Change the physical dimensions of such Eligible Support Structure involving: (i) collocation of new Transmission Equipment, (ii) removal of Transmission Equipment, or (iii) replacement and/or addition of Transmission Equipment.

**Eligible Support Structure** means any Tower or Base Station as defined in this Section, provided that it is existing at the time the relevant application is filed with the Town under this Section.

**Existing Tower or Base Station** means a constructed Tower or Base Station is existing for purposes of this Section if it has been reviewed and approved under the applicable zoning or siting process, or under another State or local regulatory review process, provided that a tower that has not been reviewed and approved because it was not in a zoned area when it was built, but was lawfully constructed, is existing for purposes of this definition.

**Facilities** means any and all equipment, structures, materials or tangible components located in the rights-of-way and used to provide a service, including without limitation: all plants, whether inside or outside, fiber strands or optic lines, electronic equipment, amplification equipment, optic equipment, transmission and distribution structures, antennas of any type, lines, termination equipment, pipes, poles, ducts, mains, conduits, inner ducts, regenerators, repeaters, underground lines, vaults, manholes, pull boxes, splice closures, wires and cables, and all other like equipment, fixtures and appurtenances used in connection with transmitting, receiving, distributing, offering, and/or providing such service. Facilities shall include, as the context dictates, wireless communications facilities, as defined herein.

**FCC** means the Federal Communications Commission of the United States.

**FCC Small Cell Order or Order** means the FCC’s Declaratory Ruling and Third Report and Order, WT Docket No. 17-79, WC Docket No. 17-84, FCC-18-133, released September 27, 2018, which is incorporated herein by this reference.

**Height** means maximum height of the WCF, including antenna, above established grade measured at the base of the structure.

**House Bill 17-1193 or Act** means Colorado’s Small Cell Facilities Permitting and Installation Act, as amended, which became effective on July 1, 2017 and is incorporated herein by this reference.

**Macro Wireless Telecom Facility or Macrocell** means a cell in a mobile phone network that provides radio coverage served by a power cellular base station (tower). The antennas for macrocells are mounted
on ground-based masts, rooftops, and other existing structures, at a height that provides a clear view over the surrounding buildings and terrain. The term macrocell is used to describe the widest range of cell sizes.

**Micro Cell Facility** means a small wireless facility that is no larger than 24 inches in length, 15 inches in width, 12 inches in height, and that has an exterior antenna, if any, that is no more than eleven inches in length.

**Monopole** means a single, freestanding pole-type structure supporting one (1) or more antennas.

**Multi-User Facility** means a facility that is designed to accommodate two (2) or more service providers.

**Ordinance** means Snowmass Village Land Use and Development Code Section 16A-3-250, *Wireless Communications Facilities*, as amended, and is incorporated herein by this reference.

**Ordinary Maintenance and Repair** means inspections, testing and/or repair that maintain functional capacity, aesthetic and structural integrity of a Communications Facility and/or the associated Support Structure, Pole or Tower, that does not require blocking, damaging or disturbing any portion of the Public ROW.

**Public right-of-way** means any public way or public thoroughfare dedicated or devoted to public use, including street, highway, road, alley, lane, court, boulevard, sidewalk, public square, mall or like designation.

**Replacement Pole** means an Alternative Tower structure that is a newly constructed and permitted streetlight, flagpole, or other similar structure of proportions and of equal height to a pre-existing pole or structure in order to support a WCF or Small Wireless Facility or to accommodate collocation and remove the pre-existing pole or structure.

**Roof-mounted wireless facility** means a wireless facility that is mounted on the roof or any rooftop appurtenance of a legally existing building or structure.

**Screening** means reducing the visibility of all wireless facilities equipment, including accessory equipment, from adjacent and nearby public rights-of-way and public or private properties by the use of fencing, landscaping, and/or berming, or in the case of wall-mounted or roof-mounted wireless facilities, the use of paint color selection, parapet walls, screen walls, and/or placing equipment in the structure.

**Site** (for towers other than towers in the right-of-way and eligible support structures) means the current boundaries of the leased or owned property surrounding the tower or eligible support structure and any access or utility easements currently related to the site. A site, for other towers in the right-of-way, is further restricted to that area comprising the base of the structure and to other related accessory equipment already deployed on the ground.

**Small cell facility or small wireless facility or SCF** (as defined in the FCC Order and the Act) means a WCF where 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 imaginary enclosure of no more than three (3) cubic feet; and 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 enclosure, backup power systems, grounding equipment, power transfer switch and cut-off switch.

**Structure** means anything constructed or erected with a fixed location below, on, or above grade, including, without limitation, service cabinets, junction boxes, foundations, fences, retaining walls, awnings, balconies, and canopies.

**Substantial change** means a modification that substantially changes the physical dimensions of an eligible support structure, which meets any of the following criteria:

a. For towers other than alternative tower structures in the right-of-way, it increases the height of the tower by more than ten (10) percent or by the height of one (1) additional antenna array with separation from the nearest existing antenna not to exceed twenty (20) feet, whichever is greater;
for other eligible support structures, it increases the height of the structure by more than ten (10) percent or more than ten (10) feet, whichever is greater;

b. For towers other than towers in the right-of-way, it involves adding an appurtenance to the body of the tower that would protrude from the edge of the tower more than ten (10) feet, or more than the width of the tower structure at the level of the appurtenance, whichever is greater for eligible support structures, it involves adding an appurtenance to the body of the structure that would protrude from the edge of the structure by more than five (5) feet;

c. For any eligible support structure, it involves installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four (4) cabinets; or for towers in the right-of-way and base stations, it involves installation of any new equipment cabinets on the ground if there are no pre-existing ground cabinets associated with the structure, or else involves installation of ground cabinets that are more than ten (10) percent larger in height or overall volume than any other ground cabinets associated with the structure;

d. For any eligible support structure, it entails any excavation or deployment outside the current site; or would impair the concealment elements of the eligible support structure; or

e. For any eligible support structure, it does not comply with conditions associated with the siting approval of the construction or modification of the eligible support structure or base station equipment, unless the non-compliance is due to an increase in height, increase in width, addition of cabinets, or new excavation that would not exceed the thresholds identified in Paragraphs a., b., and c. of this definition; and

f. For any eligible support structure, it does not comply with the generally applicable building, structural, electrical, and safety codes or with other laws codifying objective standards reasonably related to health and safety, or it does not comply with any relevant federal requirements.

**Telecommunications** means the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.

**Telecommunication service(s)** means 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.

**Telecommunication service provider or telecommunications applicant** means any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in 47 U.S.C. Section 226).

**Telecommunication system** means 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. A system that provides both cable and telecommunications or information services may be considered both as a cable system and a telecommunications system pursuant to this Code.

**Toll** means a pause in the progression of the shot clock due to an incomplete application.

**TOSV** means the Town of Snowmass Village.

**Tower** means any structure that is designed and constructed primarily built for the sole or primary purpose of supporting one (1) or more any Federal Communications Commission (“FCC”) -licensed or authorized antennas and their associated facilities, including structures that are constructed for wireless communications services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul, and the associated site. The term includes self-supporting lattice towers, guy towers or monopole towers. The term also includes radio and television transmission towers, microwave towers, common carrier towers, cellular telephone towers, alternative tower structures and such other similar structures.

**Town** means the Town of Snowmass Village, its citizens, representatives, and employees.

**Town Council** means the Snowmass Village Town Council.
Town Manager means the Snowmass Village Town Manager or designee.

Transmission equipment means equipment that facilitates transmission for any FCC licensed or authorized wireless communication service, including, but not limited to, radio transceivers, antennas, coaxial or fiber-optic cable, and regular and backup power supply. The term includes equipment associated with wireless communications services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul.

Unreasonable Interference means any use of the Right-of-Way that disrupts or interferes with its use by the Town, the general public, or other person authorized to use or be present upon the Right-of-way, when there exists an alternative that would result in less disruption or interference. Unreasonable interference includes any use of the Right-of-way that disrupts vehicular, bike, or pedestrian traffic, any interference with public utilities, and any other activity that will present a hazard to public health, safety, or welfare. This shall also apply to any violation of the Americans with Disabilities Act.

Wall-mounted wireless facility means a WCF that is mounted and supported entirely on the wall of a legally existing building, including the walls of architectural features such as parapets, but does not include mechanical screens, chimneys and similar appurtenances.

Wireless communications facility, or WCF means a facility used to provide personal wireless services as defined at 47 U.S.C. Section 332(c)(7)(C); or wireless information services provided to the public or to such classes of users as to be effectively available directly to the public via licensed or unlicensed frequencies; or wireless utility monitoring and control services. A WCF does not include a facility entirely enclosed within a permitted building where the installation does not require a modification of the exterior of the building; nor does it include a device attached to a building, used for serving that building only and that is otherwise permitted under other provisions of the Code. A WCF includes an antenna or antennas, including without limitation, directional, omni-directional, and parabolic antennas, base stations, support equipment, alternative tower structures, and towers. It does not include the support structure to which the WCF or its components are attached if the use of such structures for WCFs is not the primary use. The term does not include mobile transmitting devices used by wireless service subscribers, such as vehicle or hand-held radios/telephones and their associated transmitting antennas, nor does it include other facilities specifically excluded from the coverage of Section 16A-3-250, Wireless Communication Facilities.

2.3 Application and Review Procedures

No new WCF shall be constructed and no Collocation or modification to any WCF may occur except after a written request from an applicant, reviewed and approved by the Town in accordance with Section 16A-3-250(e) and Section 16A-3-250(f) in Town Code.

Voluntary Preliminary Review: Because shot clocks greatly reduce staff’s ability to help a submitted project through the process, the Town strongly encourages applicants to submit voluntary preliminary review applications for any WCF project. Preliminary reviews are not a project and are not subject to any shot clock. Staff can then work with an applicant to address issues prior to submittal.

Shot Clock Processing Standards: To meet shot clock requirements, the Town requires the concurrent submittal of developmental approval, Building/Electrical permit, and ROW permits at the same time. If the applicant does not want this, they must toll the shot clock. Tolling applies to the whole project, including any ministerial construction permits. Tolled projects will still be processed diligently.

After acceptance of a completed application, the Town will issue one (1) set of corrections; if corrections are all not addressed by the second review, the applicant must toll the shot clock.

2.4 Additional Review Procedures

In addition to the applicable application and review procedures listed in the Section 16A-3-250(e) and Section 16A-3-250(f) in Town Code, all applications shall be reviewed based on the following procedures:

A. All applicable requirements outlined in Chapter 11 - Streets, Sidewalks and Public Property, Chapter 16A - Land Use and Development Code, and Chapter 18 - Building Regulations.
B. Small cell facility applicants must execute a master license agreement as per the Town’s Right-of-Way regulations.

C. Attachment of SCFs on an existing streetlight pole or similar structure shall require written evidence of a license, or other legal right or approval, to use such structure by the Town’s Public Works Director or its owner.

D. Pursuant to Town Code Section 16A-3-250(g), the Town of Snowmass Village reserves the right to require an applicant to pay the fees and costs of any consultant retained by the Town to assist in the review of plans, applications, reports, inspections, and/or testing.

E. Certification of compliance. Pursuant to Town Code Section 16A-3-250(e)(3), the wireless provider shall certify that the WCF is in compliance with applicable FCC Maximum Permissible Exposure (MPE) regulations, by submitting a site specific non-ionizing electromagnetic radiation (NIER) or electromagnetic energy (EME) report for the WCF equipment type and model being installed at the site that is endorsed by a radiofrequency engineer licensed in the State of Colorado, including a certification that the WCF complies with all radiation and electromagnetic standards. The report shall specify approach distances to the general public and occupational workers at the ground and antenna centerline levels. The report shall include instructions regarding powering off the equipment or contact information for a person who can power off the equipment. No significant changes to the power, location, RF emission patterns and/or emitting frequencies may be made without prior notification and approval. However, non-substantive changes, for example, in-kind replacements of transmitters of the same frequency, radiation patterns and power are permitted. The Town retains the right to independently verify the RF patterns as installed.

F. Public Safety. Pursuant to Town Code Section 16A-3-250(e)(4), The wireless provider shall comply with all applicable FCC, state, and local codes, provisions, or regulations that concern public safety. WCFs must not result in human exposure to radio frequency radiation in excess of applicable safety standards specified in 47 CFR Rule 1.1307(b). After transmitter and antenna system optimization, but prior to unattended operations of the facility, the wireless provider or its representative must conduct on-site post-installation RF emissions testing to demonstrate actual compliance with the FCC OET Bulletin 65 RF emissions safety rules for general population/uncontrolled RF exposure in all sectors. For this testing, the transmitter shall be operating at maximum operating power, and the testing shall occur outwards to a distance where the RF emissions no longer exceed the uncontrolled/general population limit. The wireless provider shall submit documentation of this testing to the Town within ninety (90) days after installation of the facility. RF emissions testing shall be conducted annually, and the wireless provider shall submit documentation of this testing to the Town within ninety (90) days after the testing is completed.

G. Notice Requirements. Pursuant to sections of Town Code Section 16A-5-60, at the issuance of a completeness letter for an application for a new SCF installation, the following procedures for public notice will be followed by the applicant:

Within 15 days of the completeness letter being issued, the following notice materials are required:

1) A 24x36 poster will be placed at the location of the proposed facility. The poster will include the following information:
   - A photo simulation of the proposed facility.
   - A brief description of the type of equipment and RF signal that is emitting from the facility.
   - Contact information for the applicant.
   - Contact information for Town staff.

2) A mailed notice to all property owners within 300 feet of each proposed facility, measured from the parcel line to the proposed facility. The mailed notice will include the information required by the on-site poster – and shall additionally include text that better explains what a SCF is.

3) Newspaper Notice – Town of Snowmass Village Community Development will facilitate.
4) Location information shall be provided in a compatible format so that Town of Snowmass Village GIS can update the location in a layer on the Snowmass Village map identifying Existing and Pending Wireless facilities.

The Town of Snowmass Village Community Development Department will assist the applicant in the provision of the notice. Any delays in the provision of necessary materials for public notice by the applicant will result in a hard stop on the shot clock tolling. All costs associated with the issuance of public notice shall be the responsibility of the applicant.

2.5 Conditions and Limitations

Except for Eligible Facility Requests or SCF applications, the Town shall reserve the right to add, modify or delete conditions after the approval of a request in order to advance a legitimate Town interest related to health, safety or welfare. Prior to exercising this right, the Town shall notify the owner and operator in advance and shall not impose a substantial expense or deprive the affected party of a substantial revenue source in the exercising of such right.

Approval by the Community Development Director and Town Engineer of a WCF application shall not be construed to waive any applicable zoning or other regulations; and wherein not otherwise specified, all other requirements of Town Code shall apply, including Chapter 11 - Streets, Sidewalks and Public Property, Chapter 16A - Land Use and Development Code, and Chapter 18 - Building Regulations. All requests for modifications of existing facilities or approvals shall be submitted to the Community Development Director and for review under all provisions and requirements of these Guidelines. If other than minor changes are proposed, a new, complete application containing all proposed revisions shall be required.

Any changes to approved plans shall be subject to review and approval by the Town in accordance with the process required above.

The following Design Guidelines are only for small cell facilities (SCF) in the public right-of-way. The Design Guidelines for all other wireless communications facilities (WCF), including SCFs not in the public right-of-way, can be found in other sections of this document.

3.1 General Pole Design Standards

Every small cell facility (SCF) in the public right-of-way shall comply with the following standards:

1. All SCF equipment and appurtenances shall be housed internally with regard to the pole or alternative tower structure which hosts the SCF antennas.

2. Only top-mounted antennas and their enclosures shall be used and shall be no more than 3.14 cubic feet in volume. SCFs shall be contained in the base of the pole and shall be no larger than 17.28 cubic feet in volume. Above the base, the diameter of the pole shall be a maximum of twelve (12”) inches and tapered to a diameter of eight (8”) inches at the top. The Town’s preferred pole design concepts are shown in Appendix A. Other pole designs will need to be reviewed and approved by the Town.

3. Side-mounted SCF antennas are not allowed.

4. SCFs located on streetlight poles shall not block light emanating from the streetlight fixture or otherwise interfere with the purpose or operation of the streetlight fixture.

5. SCF’s and related ground equipment shall be placed to comply with the Clear Zone requirements as described in the most recent edition of AASHTO’s Roadside Design Guide. These specifications generally state that when there is curb and gutter there should be a four-foot clear zone on straightaways and a six-foot clear zone on curves. The placement of these facilities on roads that do not have curb and gutter, need to comply with the Clear Zone requirements in the Roadside Design Guide.

6. All WCFs shall be installed in accordance with all applicable Town Codes. No wiring or cabling shall interfere with any existing wiring or cabling installed by the Town, a utility, or a wireless services provider.

7. No guy or other support wires will be used in connection with a SCF unless the SCF is to be attached to an existing streetlight pole or wireless support structure that incorporates guy wires prior to the date the applicant has applied for a permit.

8. The SCF, including the antenna, and all related equipment when attached to a new pole or wireless support structure, must be designed to withstand a wind force and ice loads in accordance with the applicable standards established in Chapter 25 of the National Electric Safety Code for utility poles, Rule 250-B and 250-C standards governing wind, ice, and loading forces on utility poles, in the American National Standards Institute (ANSI) in TIA/EIA Section 222-G established by the Telecommunications Industry Association (TIA) and the Electronics Industry Association (EIA) for steel wireless support structures and the applicable industry standard for other existing structures. The evaluation must be prepared by a professional structural engineer licensed in the State of Colorado.

9. The minimum distance between SCFs is 600 feet. Another provider may request a SCF within this 600’ limitation, provided co-location on any applicable existing SCF is not a technically viable option. This restriction applies to any existing or proposed application, including consolidated applications for SCFs by the same applicant.

10. Ground mounted enclosures must be concealed within existing above-ground cabinets or placed in a flush-to-grade underground equipment vault or within approved design standard treatments adopted by the Town.

11. SCFs shall be located in a manner that meets the Americans with Disabilities Act (ADA) and does
not obstruct, impede or hinder the usual bike, pedestrian or vehicular path of travel.

12. SCFs collocated on Town-owned poles may not use the same power or communication source providing power and/or communication for the existing infrastructure. The Town may permit a new SCF to use unused fibers within the same fiber cable if available. The wireless provider shall coordinate, establish, maintain, and pay for all power and communication connections with private utilities.

13. SCF poles and associated equipment must meet minimum clearances from all utility infrastructure as specified in Chapter 11 - Streets, Sidewalks and Public Property.

14. If required by a utility provider, electric metering structures and/or meters shall not be visible from the exterior of the pole or alternative tower structure which hosts the small cell antennas where the pole or alternative tower structure is located in Town right-of-way but will instead be located proximate to the transformer or underground with other related equipment. This requirement may be wholly or partially waived by the Public Works Director where it is technically infeasible to place all or part of a meter internally.

15. All related cabling shall connect to the SCF underground. Above ground connections to the facility are prohibited.

16. Concealment of all SCF equipment and appurtenances shall be required, pursuant to these Guidelines.

17. Unless required by the FCC, signage is prohibited on all SCFs and wireless support structures, except for a four (4) inch by six (6) inch plate with the wireless provider’s name, location identifying information, and emergency telephone number shall be permanently fixed to the SCF equipment enclosure or shroud. The provider is required to update this information whenever it changes.

3.2 Streetlight Poles

No SCF shall be attached to any existing streetlight pole unless the existing streetlight pole was specifically designed to support SCF equipment or is approved by a licensed Colorado Professional Engineer, and the Town. In all other cases, the applicant shall have the existing streetlight pole removed. The applicant shall be responsible for any and all costs for removal of the streetlight pole. The applicant shall place a new combined SCF and streetlight pole in place of the removed streetlight pole or within 5 feet of the removed streetlight pole. A map of the existing Town-owned streetlight poles can be found in Appendix B of this document, pictures of the current streetlights can be found in Appendix C of this document, and the Town’s current streetlight design and construction specifications can be found in Appendix D of this document.

1. The pole design in the Town’s right-of-way shall match the color, aesthetics, spacing, and architectural characteristics of existing streetlights installed adjacent to the pole, or in the vicinity.

2. The pole shall be designed and located in accordance with all Town requirements as specified in these Guidelines, and the latest version of the AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, and approved by the Town prior to submittal of the application. The Town’s preferred pole design concepts are shown in Appendix A. Other pole designs will need to be reviewed and approved by the Town.

3. A new combined SCF and streetlight pole shall incorporate banner arms and luminaries to blend with the existing streetscape. The poles shall be designed to accommodate the additional forces generated by the addition of these banners including wind loads. A waiver of this requirement may be granted by the Public Works Director where it is deemed in the best interest of the public to do so.

4. Pole caissons should be circular in nature and designed to minimize impact of adjacent and future utilities. Concrete must follow the latest Colorado Department of Transportation (CDOT) Road & Bridge Specification for applicable mix design. All designs must be stamped and signed by a registered Professional Engineer in the State of Colorado.

5. Pole caissons must be flush-to-grade and must show the number of conduits and their locations.
6. Geotechnical boring may be used to install pole caissons. A geotechnical report from a registered Professional Engineer in the State of Colorado must be provided for the general area of the proposed location. The report must detail soils observed, depths, soil strength and that the soil can support the entire proposed facility.

7. The applicant must provide a service letter for both electric and fiber.

8. All new conduits (fiber, electric, etc.) and appropriate information must be shown in the complete layout.

9. Location of existing electrical items must be shown on plans. The applicant shall coordinate with Holy Cross Energy to properly restore power to the existing streetlight circuit. The applicant will be responsible for all new conduit, electric line, traffic rated vaults and associated construction activities to get power to streetlight circuit in proper working order.

10. The applicant shall furnish and install a streetlight luminaire pursuant to the Town’s streetlight standards in Section 18-267 - Street lighting standards of Town Code and the Town’s current streetlight design and construction specifications found in Appendix D of this document.

11. If required, the applicant shall wire the SCF equipment to its own meter, with recurring monthly electric service and metering paid for by the applicant.

12. Electric metering structures and/or meters shall not be visible from the exterior of the pole or alternative tower structure which hosts the small cell antennas where the pole or alternative tower structure is located in Town rights-of-way. This requirement may be wholly or partially waived by the Public Works Director where it is technically infeasible to place all or part of a meter internally.

13. The applicant shall wire the streetlight luminaire to the previously existing power source, with recurring monthly electric service and metering (if applicable) continuing to be paid for by the Town.

14. The new pole shall have space for at least one (1) internal bay to house SCF equipment. If the new pole is capable of housing two (2) collocated SCFs, the pole shall have space for two (2) internal bays. The second bay will be available to another applicant with Town approval and upon demonstrating no interference with the first occupant’s SCF.

15. Support facilities and enclosures must be concealed within existing above-ground cabinets or placed in a flush-to-grade underground equipment vault.

16. Only top-mounted antennas and their enclosures shall be used.

17. All wiring shall be concealed inside the pole within a channel separate from municipal wiring within the pole.

18. If the new pole results in the removal of an existing streetlight pole, any existing caisson shall be completely removed. Landscaping, sidewalk, or other surface treatment shall be restored above the removed caisson to the satisfaction of the Town.

19. Due to the related streetlight service, unless otherwise provided for in the MLA or similar agreement, the Town shall be the owner of all new poles in the right-of-way including streetlight poles and luminaires upon completion of construction. The applicant shall retain ownership of any SCF.

20. The new pole shall have secured safety shutoff controls within the pole base for the Town to be able to turn off the SCF equipment for streetlight maintenance purposes.

21. Removed streetlights and luminaires shall be salvaged and returned to the Town of Snowmass Village.

3.3 New Poles

1. If a replacement pole design is not possible, then a new wireless support structure shall be designed to minimize the visual and aesthetic impact of the new vertical element and associated
SCFs upon the surrounding area and shall blend in with the surrounding streetscape with minimal visual impact. The Town requires that new wireless support structures be constructed of a specific material that will enhance the stealth and concealment of the structure. New poles shall be designed as monopoles, consistent with the Town’s preferred pole design concepts that are shown in Appendix A. Other pole designs will need to be reviewed and approved by the Town.

2. New wireless support structures shall match the design, type, color, and material of existing streetlight poles, within the immediate area, except as otherwise approved by the Town.

3. New poles shall incorporate banner arms to blend with the existing streetscape. The poles shall be designed to accommodate the additional forces generated by the addition of these banners including wind loads. A waiver of this requirement may be granted by the Public Works Director where it is deemed in the best interest in the public to do so.

4. New wireless support structures shall be equal distance from other streetlight poles based upon the average distance between existing streetlight poles within the designated area. If a new wireless support structure cannot be located the average distance from other streetlight poles, a new wireless support structure may be approved if such wireless support structure is designed as a stealth pole.

5. The centerline of a new wireless support structure shall be in alignment with existing poles where present, or with street or parkway trees along the same side of the right-of-way.

6. Wireless communications facilities and equipment should not be installed within the dripline of any tree.

7. The height of the new wireless support structures, and/or any supporting equipment shall not exceed the dimensional limitations of the underlying zone district as outlined in Chapter 16A of the Snowmass Village Municipal Code. If not specified for the proposed site, no infrastructure shall exceed a maximum height of 25’ tall, as measured from the existing grade at ground level directly below the proposed infrastructure.

8. New wireless support structures shall be context sensitive based on poles in the surrounding area of the Town.

9. Electric metering structures and/or meters shall not be visible from the exterior of the new pole or alternative tower structure which hosts the small cell antennas where the pole or alternative tower structure is located in Town right-of-way. This requirement may be wholly or partially waived by the Public Works Director where it is technically infeasible to place all or part of a meter internally.

10. New wireless support structures incorporating SCFs in an equipment enclosure within a base shall utilize poles tapered in diameter.

11. Pole caissons should be circular in nature and designed to minimize impact of adjacent and future utilities. Concrete must follow the latest Colorado Department of Transportation (CDOT) Road & Bridge Specification for applicable mix design. All designs must be stamped and signed by a registered Professional Engineer in the State of Colorado.

12. Pole caissons must be flush-to-grade and must show the number of conduits and their locations.

13. All anchor bolts must be concealed from public view, with an appropriate pole boot or cover powder-coated to match the wireless support structure color.

14. For all new pole installations, the Town reserves the right to require a second applicant for the same general space to install a new pole capable of collocating both applicants internally in the pole. The first applicant is required to allow the subsequent applicant to replace the pole with a multi-cell pole at the cost of the subsequent applicant. The original pole shall be made available to the first applicant to salvage. If not retrieved in 30 days, the pole shall be declared abandoned and disposed at the cost of the first applicant.

15. The applicant shall be responsible for meeting Subsurface Utility Engineering (SUE) Requirements.
and Town Code Section 18-11, *Construction management plan requirements* where applicable.
4. Small Cell Facilities Pole Siting Requirements

The following Siting Requirements are only for small cell facilities (SCF) in the public right-of-way. The Siting Requirements for all other wireless communications facilities (WCF), including SCFs not in the public right-of-way, can be found in other sections of this document.

4.1 Location

The Town of Snowmass Village reserves the right to remove and relocate infrastructure if necessary, or if alternative methods become available. The Town reserves the right to approve all proposed pole locations and to modify those locations as necessary for future Town needs, functional and/or aesthetic reasons. The Town will work with the applicant to find a suitable location for both the Town and the applicant.

The Town of Snowmass Village encourages co-location of facilities and the location of facilities on existing infrastructure, such as Town-owned streetlight poles, with the written approval of the Public Works Director.

The Town of Snowmass Village reserves the right to remove and relocate infrastructure if necessary, or if alternative methods become available.

Small cell facilities (SCFs) shall not interfere with prominent vistas or significant public view corridors.

Wherever possible the poles shall be sited to take advantage of existing screening.

Poles shall not be located:

- Within 30 feet of a fire hydrant unless replacing an existing pole in the same location, reduced distances can be approved by the Roaring Fork Fire & Rescue Authority.
- In any manner which would obstruct a public sidewalk or roadway including reducing vertical or horizontal clearances required by the Town and shall not result in a change in the slope of any sidewalk adjacent to the SCF.
- All poles shall be located so as to ensure proper sight-triangles.
- Wireless communications facilities and equipment should not be installed within the dripline of any tree.
- Within roadway medians due to non-breakaway design.

When located adjacent to a commercial establishment, such as a shop or restaurant, care should be taken to locate the SCF such that it does not negatively impact the business. Any stand-alone small cell facility shall not block windows or any building entrances. To the extent possible, poles shall not be located at intersections. SCFs should be located between properties as much as possible.

SCFs shall not impede existing and future facilities, including sidewalks, stormwater infrastructure, water infrastructure, fiber optic infrastructure, and electric infrastructure, and other infrastructure included in adopted Town plans.

In areas of the Town identified as parks and open space the applicant shall conduct a consultation with the applicable departments, divisions, or personnel of the Town to discuss aesthetically significant structures, views, or community features and options to minimize any adverse aesthetic impacts of attaching or installing SCFs in such areas.

Except for equipment mounted in the base cabinet, no equipment, shelters, or cabinets, and no electrical distribution panels may be at ground level, except after all reasonable alternative pole locations have been explored and found unavailable or lacking in some substantial way, and only with the prior written approval of the Town upon a good faith showing of necessity, and upon such conditions as the Town deems appropriate under the circumstances. The Town shall weigh such requests against aesthetic considerations, pedestrian, and disabled person access to sidewalks, public safety concerns, technical installation conflicts, and compliance with all applicable laws.
The following is the order of preference regarding the preferred locations of Wireless communication facilities, including SCFs within the Town limits:

1. Co-located on the rooftop of private property.
2. Co-located on the rooftop of a Town building.
3. New facility on the rooftop of private property.
4. New facility on the rooftop of a Town building.
5. Co-located on an already established or future small cell facility in the right of way.
6. New small cell facility established on the site and in replacement of an existing Town owned streetlight in the right of way, including an attached luminaire.
7. New stand-alone facility in a new location in the right of way – this may or may not include a luminaire.
8. Alley locations may be considered on a case-by-case basis.

4.2 Height Requirements

The height of the tower, antennae, and/or any supporting equipment in the right-of-way shall not exceed the dimensional limitations of the underlying zone district as outlined in Chapter I6A of the Snowmass Village Municipal Code. If not specified for the proposed site, no infrastructure shall exceed a maximum height of 25' tall, as measured from the finished grade at ground level directly below the proposed infrastructure.

4.3 Noise

A SCF shall not generate any unnecessary noise or be a nuisance, as determined by the Town, except that a SCF owner or operator shall be permitted to exceed Code noise standards for a reasonable period of time during repairs, not to exceed two hours without prior authorization from the Town. Maintenance crews will not be allowed access between midnight and 6 AM unless emergency repairs are required, and the Town is notified. Crews shall manage construction impacts including noise and lighting to minimize impacts to residential land uses whenever they are working between dusk and dawn.

4.4 Related Accessory Equipment

All equipment related to SCFs shall be located within the facility’s pole structure or in an underground vault. Beyond the antenna, related shroud, and luminaire, no equipment may be attached to the exterior of the pole.

4.5 Lighting

SCFs shall not be artificially lighted, unless required by the FAA or other applicable governmental authority, or the SCF is mounted on a light pole or other similar structure primarily used for lighting purposes. If lighting is required, it shall conform to applicable sections of Town Code, Chapter 18, Article XIII, Outdoor Lighting.

4.6 Signage

Signage is prohibited on all SCFs and wireless support structures, including stickers, logos, and other non-essential graphics and information with the following exceptions. If signage is required, it shall conform to other applicable sections of the Town Code regulating signage.

1. Required by the FCC.
2. A required small placard identifying the service provider and providing a 24-hour contact number, which shall be placed facing away from the public rights of way.

4.7 Landscape Standards
Wireless providers shall comply with the landscape standards that are set forth in Town Code Section 16A-4-320(a).

4.8 Stealth and Concealment Requirements

Wireless providers shall comply with the design and construction standards that are generally applicable to facility installations in the public right-of-way, as set forth in Town Code Chapter 11, as well as these standards, any other written design standards for streetlight poles, or reasonable stealth, concealment, and aesthetic requirements that are otherwise identified by the Town in an ordinance, written policy adopted by the Town Council, in the Town’s comprehensive plan, or in another written design plan that applies to other occupiers of the rights-of-way. In addition to the design requirements found in Section 4.1 of these Guidelines, where technically feasible and financially reasonable, the Town strongly prefers that providers shall follow the criteria for stealth found below as a minimum requirement:

1. The use of stealth technology in the location and construction of small wireless facilities is required. Stealth technology means using the least visually and physically intrusive design and equipment that is not technologically or commercially impractical under the facts and circumstances, to employ methods that blend into surroundings and not be visible; and to minimize adverse aesthetic and visual impacts on the right-of-way, property, building and/or other facilities adjacent to, surrounding and in generally the same area as the requested location of such small wireless facilities.

2. Small wireless facilities, including but not limited to antennas, equipment enclosures, mounting brackets and hardware, mounting posts, cables, and shrouds, shall be of a color that is identical to the streetlight pole or of a neutral color compatible with the color of the streetlight pole and any surrounding elements so as to camouflage or conceal their appearance, create consistency among right-of-way infrastructure, and to make such small wireless facilities as unobtrusive as possible. The Town may approve compatible color schemes for antennas and small wireless facilities.

3. Mechanical equipment and devices shall be concealed underground or mounted within a concealment box designed as a decorative pole base except as noted and allowed for in Section 4.4 Related Ground Equipment in this document.

4. Small wireless facilities must be located and oriented in such a way as to minimize view blockage, especially in regard to any viewsheds of Snowmass Mountain and Mt. Daly.

5. The wireless provider shall use the smallest suitable wireless facilities currently in industry use, regardless of location, for the particular application.

6. Small wireless facilities shall not be artificially lighted or marked, except as required by law.

Alternative measures for concealment may be proposed by the wireless provider and approved by the Town, if the Town determines that the optional measures will be at least as effective in concealing the small wireless facilities as the measures required above.
5. Design Guidelines and Siting Requirements for Other WCFs

The following Design Guidelines and Siting Requirements are for wireless communications facilities (WCF) that are not small cell facilities (SCF) in the public right-of-way. WCFs and equipment subject to the provisions and criteria of this section include without limitation, small cell facilities (SCF) not within the public right-of-way, cellular telephone, paging, enhanced specialized mobile radio (ESMR), personal communication services (PCS), commercial mobile radio service (CMRS) and other wireless commercial telecommunication devices and all associated structures and equipment including transmitters, antennas, monopoles, towers, masts and microwave dishes, cabinets and equipment rooms.

The Design Guidelines and Siting Requirements for SCFs in the public right-of-way can be found in other sections of this document.

The following provisions apply to all WCFs and equipment applications, sites and uses, except for Small Cell Facilities in the Public Rights-of-Way.

5.1 Prohibitions

1. Lattice towers (a structure, with three or four steel support legs, used to support a variety of antennae; these towers generally range in height from sixty (60) to two hundred (200) feet and are constructed in areas where great height is needed, microwave antennas are required or where the weather demands a more structurally sound design) are prohibited within the Town.

2. Towers, excluding Alternative Tower Structures and Small Wireless Facilities attached to Towers, shall be prohibited in the following Zone Districts as described in Town Code Section 16A-3-10: Single-Family Residential (SF-4, SF-6, SF-15, SF-30, SF-150); Estate Residential (EST); Duplex Residential (DU); Multi-Family Residential (MF); Multi-Family Planned Unit Development (MF/PUD); Conservation (C); and Open Space (OS).

3. All WCFs and equipment not prohibited by the preceding statements shall be allowed in all other zone districts subject to review and approval by the Community Development Director pursuant to the provisions, requirements and standards of these design guidelines, including consistency with the dimensional requirements of the underlying zone district.

5.2 Site Selection

Except for Small Cell Facilities in the Public Rights-of-Way, Wireless communication facilities shall be located in the following order of preference:

First: Collocated on existing structures such as buildings, communication towers, flagpoles, church steeples, cupolas, ball field lights, streetlights, etc.

Second: In locations where the existing topography, vegetation, buildings or other structures provide the greatest amount of screening.

Least: On vacant ground or highly visible sites without significant visual mitigation and where screening/buffering is difficult

The Town of Snowmass Village reserves the right to remove and relocate infrastructure if necessary, or if alternative methods become available.

5.3 Public buildings, structures, and rights-of-way

Leasing of public buildings, publicly owned structures and/or public rights-of-way for the purposes of locating WCFs and/or equipment is encouraged. In cases where a facility is proposed on Town property that is not in the Public Right-of-Way, specific locations and compensation to the Town shall be negotiated in lease agreements between the Town and the provider on a case-by-case basis and would be subject to all of the review criteria contained in this Section. Such agreements would not provide exclusive arrangements that could tie up access to the negotiated sites or limit competition and must allow for the possibility of Collocation with other providers.
5.4 Design Guidelines for all WCFs that are not SCFs in the ROW

5.4.1 Camouflage/Concealment

All WCFs and any Transmission Equipment shall, to the extent possible, use Camouflage Design Techniques including, but not limited to the use of industry best practices materials, colors, textures, screening, undergrounding, landscaping, or other design options that will blend the WCF into the surrounding natural setting and built environment.

1. Camouflage design may be of heightened importance where findings of particular sensitivity are made (e.g., proximity to natural or aesthetically significant structures or areas, views, and/or community features or facilities). In such instances where WCFs are located in areas of high visibility, they shall (where possible) be designed (e.g., placed underground, inside of existing structure, depressed, or located behind earth berms) to minimize their profile.

2. The camouflage design may include the use of Alternative Tower Structures should the Community Development Department determine that such design meets the intent of this Code and the community is better served thereby.

3. All WCFs, such as antennas, vaults, equipment rooms, equipment enclosures, and tower structures shall be constructed out of non-reflective materials (visible exterior surfaces only). Coloring of welds, bands, bolts, and the like, shall be of a similar color to the main WCF.

4. When located adjacent to a commercial establishment, such as a shop or restaurant, care should be taken to locate the WCF such that it does not negatively impact the business. WCFs shall not block windows or any building entrances. To the extent possible, WCFs shall not be located at intersections. All WCFs shall be located so as to ensure proper sight-triangles. WCFs should be located between properties as much as possible.

5. When located within a Town right-of-way, deployment shall not impede existing and future facilities, including sidewalks, stormwater infrastructure, water infrastructure, and electric infrastructure, and other infrastructure included in adopted Town plans.

5.4.2 Collocation

Collocation of facilities with other providers is encouraged by the Town of Snowmass Village. Collocation can be achieved as either building-mounted, roof-mounted, or ground-mounted facilities. In designing or retrofitting Towers, applicants are strongly encouraged to consider the possibility of present or future collocation of other WCFs by structurally overbuilding in order to handle the loading capacity of additional WCFs, for the use of the applicant and for other wireless service providers to use as well. Applicants shall use good faith efforts to negotiate lease rights to other users who desire to use an approved WCF site. Collocation on an existing support structure shall be permitted as an accessory use. Projections of any type on the monopole, which are not antennas, are strongly discouraged.

1. Multiple use facilities are encouraged as well. WCFs and equipment may be integrated into existing, replacement of existing, or newly developed facilities that are functional for other purposes, such as ball field lights, flagpoles, church steeples, street lighting, etc. All multiple use facilities shall be designed to make the appearance of the antennae relatively inconspicuous.

2. The collocation requirement may be waived by the Community Development Director upon a showing that either federal or state regulations prohibit the use, the proposed use will interfere with the current use, the proposed use will interfere with surrounding property or uses, the proposed user will not agree to reasonable terms, such co-location is not in the best interest of the public health, safety or welfare or collocation is not reasonably feasible from a technological, construction or design perspective. Time needed to review a collocation request shall not greatly exceed that for a single applicant.

5.4.3 Setbacks
All WCFs shall comply with setback requirements. At a minimum, except for WCFs in the Public Right-of-Way all WCFs shall comply with the minimum setback requirements of the underlying zone district as outlined in Chapter 16A of the Snowmass Village Municipal Code; if the following requirements are more restrictive than those of the underlying zone district, the more restrictive standard shall apply.

1. All WCFs (except for WCFs in the Public Right-of-Way) shall be located at least fifty (50) feet from any property lines, except when roof-mounted (above the eave line of a building) or wall mounted. Flat-roof mounted facilities visible from ground level within one hundred (100) feet of said property shall be concealed to the extent possible within a compatible architectural element, such as a chimney or ventilation pipe or behind architectural skirting of the type generally used to conceal HVAC equipment, and shall comply with any applicable design requirements of Town Code, Section 16A-4-340, Building design guidelines to preserve community character. Pitched-roof-mounted facilities shall always be concealed within a compatible architectural element, such as chimneys or ventilation pipes.

2. Monopole towers (except for monopole towers in the Public Right-of-Way) shall be set back from any residentially zoned properties a distance of at least three (3) times the monopole's height (i.e., a sixty (60) foot setback would be required for a twenty (20) foot monopole) and the setback from any public road, as measured from the right-of-way line, shall be at least equal to the height of the monopole.

3. No WCF may be established within six hundred (600) feet of any existing, legally established WCF except when located on the same building or structure.

4. No portion of any antenna array shall extend beyond the property lines or into any front yard area. Guy wires shall not be anchored within any front yard area but may be attached to the building.

5. Any Alternative Tower Structure utilizing existing facilities shall meet the Town's most recently adopted right-of-way guidelines, as such guidelines may be amended from time to time, pursuant to adopted standards in Chapter 11 - Streets, Sidewalks and Public Property. Considerations should be given to the general safety of the traveling public.

5.4.4 Height
The following restrictions shall apply:

1. WCFs not attached to a building shall not exceed the dimensional limitations of the underlying zone district as outlined in Chapter 16A of the Snowmass Village Municipal Code or shall not exceed a maximum height of 25' tall, as measured from the existing grade at ground level directly below the proposed infrastructure, whichever is more restrictive.

2. Whenever a WCF antenna is attached to a building roof, the antenna and support system for panel antennas shall not exceed ten (10) feet above the highest portion of that roof, including parapet walls and the antenna and support system for whip antennas shall not exceed ten (10) feet in height as measured from the point of attachment.

3. The Community Development Director may approve a taller antenna height than stipulated in 2. above if it is his or her determination that it is suitably camouflaged, in which case an administrative approval may be granted.

4. If the Community Development Director determines that an antenna taller than stipulated in 2. above cannot be suitably camouflaged, then the additional height of the antenna shall be reviewed pursuant to the process and standards of Town Code Section 16A-5-230, Special review.

5. Support and/or switching equipment shall be located inside a building unless it can be fully screened, pursuant to Town Code Section 16A-4-320 and Town Code Section 16A-4-340, or no building exists in which to locate the equipment.

5.4.5 Architectural compatibility
WCFs shall be consistent with the architectural style of the surrounding architectural environment (planned or existing) considering exterior materials, roof form, scale, mass, color, texture, and character. In addition:

1. If such WCF is accessory to an existing use, it shall be constructed out of materials that are equal to or of better quality than the materials of the principal use and shall exhibit compatible architectural characteristics to the principal use.

2. WCF equipment shall be of the same color as the building or structure to which or on which such equipment is mounted, unless otherwise required by Town Code Section 16A-4-340, *Building Design Guidelines to Preserve Community Character*, or as required by the appropriate decision-making authority (Community Development Director, Planning Commission, or Town Council, as applicable).

3. Whenever WCF equipment is mounted to the wall of a building or structure, the equipment shall be mounted or a dark, neutral tone, whichever is found to provide better concealment, in a configuration designed to blend with and be architecturally integrated into a building or other concealing structure, be as flush to the wall as technically possible and shall not project above the wall on which it is mounted. Variations to this standard in order to meet applicable requirements of Town Code Section 16A-4-340, *Building Design Guidelines to Preserve Community Character*, may be approved during the review.

4. Monopole support buildings, which house switching devices and/or other equipment related to the use, operation, or maintenance of the subject monopole, must be designed to match the architecture of adjacent buildings. If no recent and/or reasonable architectural theme is present, the Community Development Director may require a particular design that is deemed to be suitable to the subject location.

5. All utilities associated with WCFs shall be underground (also see “Screening” below), unless the applicant demonstrates that it is not reasonably feasible from a construction, design, and engineering perspective.

### 5.4.6 Compatibility with the natural environment

WCFs shall be compatible with the surrounding natural environment considering landforms, topography and other natural features and shall not dominate the landscape or present a dominant silhouette on a ridge line. In addition:

1. If a location at or near a mountain ridge line is selected, the applicant shall provide computerized, three-dimensional, visual simulations of the WCF and other appropriate viewshed information and graphics to demonstrate the visual impact on the view of the affected ridges or ridge lines.

2. Site disturbances shall be minimized, and existing vegetation shall be preserved or improved to the extent possible, unless it can be demonstrated that such disturbance to vegetation and topography results in less visual impact to the surrounding area.

3. Surrounding viewsheds shall be preserved, as required in Town Code Section 16A-4-50, *Geologic hazard areas, steep slopes, and ridgeline protection areas*.

### 5.4.7 Screening

All WCF equipment, including accessory equipment, shall be screened from adjacent and nearby public rights-of-way and public or private properties placing equipment internal to the structure, by paint color selection, parapet walls, screen walls, fencing, landscaping and/or berming in a manner compatible with the building’s and/or surrounding environment’s design, color, materials, texture, landforms and/or topography, as appropriate or applicable in a given zone district. In addition:

1. Whenever possible, if monopoles are necessary for the support of antennas, they shall be located near existing streetlight poles while maintaining National Electric Safety Code clearance and/or other governing regulations, trees or other similar objects; consist of colors and materials that best blend with their background; and, have no individual antennas or climbing spikes on the pole other than those approved by the appropriate decision-making authority (Community Development
Director, Planning Commission, or Town Council, as applicable).

2. For ground-mounted facilities, landscaping may be required to achieve a total screening effect at the base of such facilities or equipment in order to screen the mechanical characteristics; a heavy emphasis on coniferous plants for year-round screening may be required. Landscaping shall be of a type and variety capable of growing within one (1) year to a landscape screen which satisfactorily obscures the visibility of the facility. This requirement may be waived by the Community Development Director if it is determined it is not necessary or reasonably feasible.

3. Unless otherwise expressly approved, all cables for a WCF shall be fully concealed from view underground or inside of the screening or monopole structure supporting the antennas; any cables that cannot be buried or otherwise hidden from view shall be painted to match the color of the building or other existing structure.

4. All screening shall meet the applicable requirements of Town Code Section 16A-4-340, **Building Design Guidelines to Preserve Community Character**. Additionally, all screening shall meet the requirements of Town Code Section 16A-3-230, **Accessory units**.

5. Notwithstanding the foregoing, the WCF shall comply with all additional measures deemed necessary to mitigate the visual impact of the facility. Also, in lieu of these screening standards, the Community Development Director may allow use of an alternate detailed plan and specifications for landscape and screening, including plantings, fences, walls, sign and structural applications, manufactured devices and other features designed to screen, camouflage and buffer antennas, poles and accessory uses. The plan should accomplish the same degree of screening achieved by meeting the standards outlined above.

### 5.4.8 Lighting and Signage

WCFs shall not be artificially lighted, unless required by the FAA or other applicable governmental authority, or the WCF is mounted on a light pole or other similar structure primarily used for lighting purposes. If lighting is required, it shall conform to other applicable sections of the code regulating signage or outdoor lighting. The following standards shall apply to WCFs and equipment:

1. The light source for security lighting shall feature down-directional, sharp cut-off luminaries to direct, control, screen, or shade in such a manner as to ensure that there is no spillage of illumination off-site.

2. Light fixtures, whether free standing or tower-mounted, shall not exceed height of other light fixtures in the adjacent area or the dimensional limitations of the underlying zone district as outlined in Chapter I6A of the Snowmass Village Municipal Code, when measured from finished grade.

3. The display of any sign or advertising device other than public safety warnings, certifications or other required seals on any wireless communication device or structure is prohibited.

4. The telephone numbers to contact in an emergency shall be posted on each facility in conformance with the provisions of Town Code Chapter 16A, Article IV, Division 5, **Signs Standards**.

### 5.4.9 Noise

A WCF shall not generate any unnecessary noise or be a nuisance, as determined by the Town, except that a WCF owner or operator shall be permitted to exceed Code noise standards for a reasonable period of time during repairs, not to exceed two hours without prior authorization from the Town. Maintenance crews will not be allowed access between midnight and 6 AM unless emergency repairs are required, and the Town is notified. Crews shall manage construction impacts including noise and lighting to minimize impacts to residential land uses whenever they are working between dusk and dawn.

### 5.5 Additional design requirements

The following requirements shall be applicable to the various types of WCFs as specified below:

#### 5.5.1 Base Stations
If an antenna is installed on a structure other than a Tower or Alternative Tower Structure, such as a Base Station (including, but not limited to the antennas and accessory equipment) it shall be of a neutral, non-reflective color that is identical to, or closely compatible with, the color of the supporting structure, or uses other camouflage/concealment design techniques so as to make the antenna and related facilities as visually unobtrusive as possible, including for example, without limitation, painting the antennas and accessory equipment to match the structure. Additionally, any ground mounted equipment shall be located in a manner necessary to address both public safety and aesthetic concerns in the reasonable discretion of the Planning Director or designee, and may, where appropriate, and reasonable feasible from a technological, construction or design perspective, require a flush-to-grade underground equipment vault.

5.5.2 Alternative Tower Structures not in the Public Right-of-Way

1. Alternative Tower Structures shall be designed and constructed to look like a building, facility, or structure typically found in the area;
2. Be camouflaged/concealed consistent with other existing natural or manmade features near the location where the Alternative Tower Structure will be located;
3. Such structures shall be architecturally compatible with the surrounding area;
4. The height of the proposed alternative tower structure and/or any supporting equipment shall not exceed the dimensional limitations of the underlying zone district as outlined in Chapter I6A of the Snowmass Village Municipal Code. If not specified for the proposed site, no infrastructure shall exceed a maximum height of 25’ tall, as measured from the existing grade at ground level directly below the proposed infrastructure;
5. WCFs shall be sited in a manner that evaluates the proximity of the facility to residential structures and residential district boundaries;
6. WCFs should take into consideration the uses on adjacent and nearby properties and the compatibility of the facility to these uses;
7. Compatibility with the surrounding topography;
8. Compatibility with the surrounding tree coverage and foliage;
9. Alternative Tower Structures should not be installed within the dripline of any tree;
10. Compatibility of the design of the site, with particular reference to design characteristics that have the effect of reducing or eliminating visual obtrusiveness; and
11. Impact on the surrounding area of the proposed ingress and egress, if any.

5.5.3 Towers

1. Towers shall be painted a neutral color so as to reduce visual obtrusiveness as determined by the Town;
2. Tower structures should use existing landforms, vegetation, and structures to aid in screening the facility from view or blending in with the surrounding built and natural environment;
3. Monopole support structures shall taper from the base to the tip;
4. All Towers, excluding Alternative Tower Structures in the Right-of-Way, shall be equipped with an appropriate anti-climbing device.

5.6 Related Accessory Equipment.

Accessory equipment for all WCFs shall meet the following requirements:

1. All buildings, shelter, cabinets, and other accessory components shall be grouped as closely as technically possible;
2. The total footprint coverage area of the WCF’s accessory equipment shall not exceed 350 square feet per carrier;
3. No related accessory equipment or accessory structure shall exceed the dimensional limitations of the underlying zone district as outlined in Chapter 16A of the Snowmass Village Municipal Code;
4. Accessory equipment, including but not limited to remote radio units, shall be located out of sight whenever possible by locating behind parapet walls or within equipment enclosures. Where such alternate locations are not available, the accessory equipment shall be camouflaged or concealed.

5.7 Access ways
In addition to ingress and egress requirements of the Building Code, access to and from WCFs shall be regulated as follows:
1. No WCF shall be located in a required parking, maneuvering or vehicle/pedestrian circulation area such that it interferes with or in any way impairs, the intent or functionality of the original design.
2. The WCF, except for Small Wireless Facilities in the Public Right-of-Way, must be secured from access by the general public but access for emergency services must be ensured. Access roads must be capable of supporting all potential emergency response vehicles and equipment.
3. The proposed easements for ingress and egress and for electrical and telecommunications shall be recorded at the County Clerk and Recorder's Office prior to the issuance of building permits.
6. Safety Requirements

Prevention of failures and accidents. Any Person who owns and/or operates any Wireless Communications Facility, including a small cell facility in the right-of-way, and/or Wireless Support Structure shall at all times employ ordinary and reasonable care, and install and maintain using industry standard technology for preventing failures and accidents, which are likely to cause damage, injury, or nuisance to the public.

Compliance with fire safety. Wireless Communications Facilities, including small cell facilities in the right-of-way, Wireless Support Structures, wires, cables, fixtures, and other equipment shall be installed and maintained in substantial compliance with the requirements of the National Electric Code, all state and local regulations, and in such manner that will not interfere with the use of other property.

Compliance with FCC regulations. The wireless provider shall comply with all applicable FCC, state, and local codes, provisions, or regulations that concern public safety. All wireless communications facilities must not result in human exposure to radio frequency radiation in excess of applicable safety standards specified in 47 CFR Rule 1.1307(b). As specified in Town Code Section 16A-4-250(e), permit requests shall include a complete site-specific Non-Ionizing Electromagnetic Radiation (NIER) or electromagnetic energy (EME) Report certified by a licensed Professional Engineer in the State of Colorado. In addition, as specified in Town Code Section 16A-4-250(e), after transmitter and antenna system optimization, but prior to unattended operations of the facility, the wireless provider or its representative must conduct on-site post-installation RF emissions testing to demonstrate actual compliance with the FCC OET Bulletin 65 RF emissions safety rules for general population/uncontrolled RF exposure in all sectors. This testing shall also occur annually.

Changes in state or federal standards and regulations. If state or federal standards and regulations are amended, the owners of Wireless Communications Facilities, including small cell facilities in the right-of-way, and/or Wireless Support Structures governed by this document shall bring any facilities and/or structures into compliance with the revised standards and regulations within six (6) months of the effective date of the standards and regulations, unless a different compliance schedule is mandated by the regulating agency. Failure to bring Wireless Communications Facilities, including small cell facilities in the right-of-way, and/or Wireless Support Structures into compliance with any revised standards and regulations shall constitute grounds for removal at the owner’s expense.

Compliance with engineering and safety codes and standards. All permitting decisions exercised by the Town are subject to all applicable engineering and safety codes and standards.
Appendix A: Design Concepts

A.1 SCF pole without an attached light fixture
A.2 SCF pole with an attached light fixture
Appendix B: Street Light Map
Appendix C: Street Light Pictures

Single Specialty Fixture Pedestrian Streetlight Pole
Dual Specialty Fixture Right-of-Way Streetlight Pole
Single Ruud Fixture Entryway Streetlight Pole
Appendix D: Street Light Design and Construction Specifications

Specifications

70 to 150 watt
Medium Base
Maximum Fixture weight (150HPS) = 25 lb

Housing: One-piece die-cast, low copper (<0.5% Cu) aluminum alloy with integral cooling ribs over the optical chamber and electrical compartment. Solid barrier wall separates optical and electrical compartments. Double-thick wall with gussets on the support-arm mounting end. The fixture’s housing forms a half cylinder with 50° front face plane providing a recess to allow a flush single-latch detail. All hardware is stainless steel or electro-circ plated steel.

Lens Frame: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy lens frame with 1” minimum depth around the gasket flange. Integral hinges with stainless steel pins provide no-tool mounting and removal from housing. Single die-cast aluminum or-latch provides positive locking and sealing of the optical chamber by a one piece extruded and vulcanized silicone gasket to provide an IP66 rating for the optical module. Clear 3/4” thick tempered glass lens retained by eight steel clips with full silicone gasketing around the perimeter.

Reflector Module: Specular AlSi® optical segments are rigidly mounted within a die-cast aluminum enclosure that attaches to the housing as a one-piece module. Reflector module is field rotatable in 90° increments. PWR and HPS sockets are porcelain 4KV pulse rated medium base. All reflector modules are factory prewired with quick-disconnect plug and include silicone seal at the penetration of the internal barrier wall in the luminaire housing.

Electrical Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Electrical module attaches to housing with no-tool hinges and latches, accessible by opening the lens frame only. All ballasts are high power factor rated 90PF, starting.

Support Arm: One-piece extruded aluminum with internal bolt guides and fully radiused top and bottom. Luminaire-to-pole attachment is by internal draw bolts, and includes a pole reinforcing plate with wire strain relief. Arm is circular cut for specified round pole.

Optional Wall Mounting: Fixture mounts to 3” or 4” junction boxes by a cast aluminum adapter plate with fixture mounting bolts


CAUTION: Fixture must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

Listings and Ratings

<table>
<thead>
<tr>
<th>UL/cUL 1598</th>
<th>CE</th>
<th>250°C Ambient</th>
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<tbody>
<tr>
<td><em>Suitable for wet locations.</em></td>
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## Standard Features

### Mounting
- SY configuration is available for round poles only.

### Plan View:
- **EPA:**
  - 0.7
  - 1.4
  - 1.2
  - 1.9
  - 1.9
  - 2.5
- **Cat. No.:**
  - 18
  - 29A
  - 29B
  - 29L
  - 38T
  - SY
  - 4S
  - 1W

### Fixture
- **Cat. No.** designates fixture and light distribution. See the Kim Site Roadway Optical Systems Catalog for detailed information on reflector design and application.

### Electrical Module
- **HPS = High Pressure Sodium**
- **PMH = Pulse Start Metal Halide**

### Lamp
- **Cat. Nos. for Electrical Modules available:**
  - 70HPS120
  - 70HPS208
  - 70HPS240
  - 70HPS277
  - 70HPS347
  - 70HPS480
  - 100HPS120
  - 100HPS208
  - 100HPS240
  - 100HPS277
  - 100HPS347
  - 100HPS480
  - 150HPS120
  - 150HPS208
  - 150HPS240
  - 150HPS277
  - 150HPS347
  - 150HPS480

### Socket
- **Medium Base**

### Ballast
- **S-62**
- **S-54**
- **S-55**

### Lamp
- **ED-17, Clear**

### Finish
- **TC/C powder coat**
- **Color:** Black, Dark Bronze, Light Gray, Satin Gray, Platinum Silver, White, Custom Color
- **Cat. No.:** BL, DB, LG, SG, PS, WH, CO

### Notes:
- Due to the Energy Independence and Security Act (EISA) of 2007, Kim Lighting can no longer supply pulse start metal halide lamps with Tungsiluminators, effective January 1, 2008. Contact Kim Lighting for availability of replacement ballasts for warranty service claims.

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## Optional Features

### Wall Mounting
*Cat. No.*
- 1W
- No Option

Select from Mounting on page 2.

Fixtures are mounted to 3" or 4" junction boxes by a cast aluminum adapter plate with fixture mounting bolts. **NOTE:** Junction box in wall must provide adequate fixture support. See NEC sections 370-13, 17 and 410-14, 15. Quick-disconnect plug and wiring are provided to allow field connections prior to fixture mounting.

### Photocell Control
*Cat. No.* **See right**
- No Option

Fixtures supplied with an internal photocell with the sensor on the fixture end facing the pole. For multiple fixture pole mountings, one fixture has a photocell to operate the others. Not available if wall mounted (1W).

**Mounting Configuration:**
- Fixtures with Photocell Sensor
- Slave unit(s)
- No fixture wattage limit

### Convex Glass Lens
*Cat. No.*
- CGL
- No Option

The 3/8" thick clear convex tempered glass lens replaces the standard flat glass lens. Provides increased lens presence and provides a subtle improvement in uniformity where pole spacing is extreme. Increases effectiveness of house side shielding.

### Polycarbonate Lens
*Cat. No.*
- LS
- No Option

Fixtures supplied with a one piece vacuum formed, clear, UV stabilized convex polycarbonate, fully gasketed, replacing the standard tempered glass lens.

**CAUTION:** Use only when vandalism is anticipated to be high. Useful life is limited by UV discoloration from sunlight and metal halide lamps.

### Quartz Standby
*Cat. No.*
- QS
- No Option

Integral electronic device energizes a T-4 mini-can socket during initial lamp start-up or after a power interruption. De-energizes prior to HID lamp reaching full brightness. T-4 halogen lamp by others; 100 watt maximum.
## Optional Features

### Houseside Shield

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td>Cat. No.</td>
<td>(See right)</td>
</tr>
<tr>
<td>□ No Option</td>
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</table>

(Types II, III, and IV only) Fixtures with the standard flat glass lens are available with stamped aluminum louvers that pass streetlight and block houseside light, and a blackened panel added to the reflector to reduce houseside reflections. Fixtures with the optional convex glass lens are available with a formed aluminum shield that passes streetlight and blocks houseside light, and a black anodized panel added to the reflector to reduce houseside reflections. Use with clear lamps only, as coated lamps reduce effectiveness.

- **HS** for flat lens
- **HSC** for convex lens or polycarbonate lens

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Recommended for use with clear lamps only. Effectiveness is reduced for coated lamps. Not for use with Type V light distributions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ HS</td>
<td>Recommended for use with clear lamps only. Effectiveness is reduced for coated lamps. Not for use with Type V light distributions.</td>
</tr>
<tr>
<td>□ HSC</td>
<td>For use with all fixtures with convex glass lens. Not for use with Type V light distributions.</td>
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### Neighbor Friendly Shield

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td>Cat. No.</td>
<td>NFS</td>
</tr>
<tr>
<td>□ No Option</td>
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</tbody>
</table>

(Type IV only) Stamped internal shield and blocking panels are used to direct and redirect lighting into a forward throw distribution. The amount of light directed and redirected toward the back of the luminaire is dramatically reduced to create extremely low glare behind the pole. Only available on the Type IV reflector.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>NFS</th>
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<tbody>
<tr>
<td>□ NFS</td>
<td>Neighbor Friendly Shield</td>
</tr>
<tr>
<td>□ No Option</td>
<td>Neighbor Friendly Shield</td>
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</tbody>
</table>

### Tamper-Resistant Latch

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td>Cat. No.</td>
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</tr>
<tr>
<td>□ No Option</td>
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</tbody>
</table>

Standard die-cast latch is provided with a captive 10-32 stainless steel flat socket-head screw to prevent unauthorized opening.

**NOTE:** Required only for vandal protection in locations where fixtures can be reached by unauthorized persons.

### Horizontal Slipfitter Mount

<table>
<thead>
<tr>
<th>Feature</th>
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<tbody>
<tr>
<td>Cat. No.</td>
<td>HSF</td>
</tr>
<tr>
<td>□ No Option</td>
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</tbody>
</table>

Replaces standard mounting arm with a slipfitter which allows fixture to be mounted to a horizontal pole davit-arm with 2” pipe-size mounting end (2 3/4” O.D.). Cast aluminum slipfitter with set screw anti-rotation lock. Bolts to housing from inside the electrical compartment using mounting holes for the standard support arm. Davit-arm must be field drilled at set screw location to insure against fixture rotation. Finished to match fixture and arm.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Horizontal Slipfitter Mount by Kim</th>
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</thead>
<tbody>
<tr>
<td>□ HSF</td>
<td>Horizontal Slipfitter Mount by Kim</td>
</tr>
<tr>
<td>□ No Option</td>
<td>Horizontal Slipfitter Mount by Kim</td>
</tr>
</tbody>
</table>
Optional Features

Vertical Slipfitter Mounts
Cat. No. includes Mounting Cat. No. (See right)

□ No Option

Allows fixture with standard support arm to be mounted to poles having a 2″ pipe-size tenon (2⅝” O.D. x 4⅛” min. length). All mounting configurations can be used (1SA, 2SB, 2SL, 3ST, 3SY, 45C). 4” square or round die-cast aluminum with flush cap, secured by four ⅜” stainless steel set point alien screws, finished to match fixture and arm.

NOTE: 3SY only available on round slipfitter.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Cat. No.</th>
<th>Mounting Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>V6F-18A</td>
<td>V6F-18A</td>
<td>1SA - single arm mount</td>
</tr>
<tr>
<td>V6F-28B</td>
<td>V6F-28B</td>
<td>2SB - 2 at 180°</td>
</tr>
<tr>
<td>V6F-28L</td>
<td>V6F-28L</td>
<td>2SL - 2 at 90°</td>
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<tr>
<td>V6F-3ST</td>
<td>V6F-3ST</td>
<td>3ST - 3 at 90°</td>
</tr>
<tr>
<td>V6F-3SY</td>
<td>V6F-3SY</td>
<td>3SY - 3 at 120°</td>
</tr>
<tr>
<td>V6F-45C</td>
<td>V6F-45C</td>
<td>45C - 4 at 90°</td>
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</tbody>
</table>

Stainless steel set screws
**Specifications**

- **Conduit Opening**
- **Presswood Template**
- **Plan View**
  - Plan view diagram showing the orientation and dimensions of the pole.
  - Longitudinal reference line and orientation to curb or walkway.
  - Bolt Circle Diameter marked with a 45° angle.
  - Handhole located 18" up from base with a gasketed cover and ground lug.
  - Anchor Bolts: Four galvanized anchor bolts provided, complete with eight nuts, eight flat washers, and a presswood template.
  - Vibration Dampener: All poles 25' and above include an internally mounted, factory installed pendulum vibration dampener, with flush stainless steel socket head fasteners finished to match pole.
  - Strength: Poles withstand wind loads as listed in chart (See page 2) when luminaires are mounted per future installation instructions.
  - Finish: Durable thermost polyester powder coat paint finish with nominal 3.0 mil thickness. Decorative finish coat available in multiple standard colors; Custom colors available, RAL number preferred.
  - CAUTION: Installation of poles without luminaires will compromise pole strength. Any accessories attached to pole, or other modifications will compromise pole strength and may result in pole failure.
  - Maintenance: A regularly scheduled maintenance program must be established to ensure the protective paint coating is intact, corrosion or structural damage has not occurred, and anchor bolt nuts are tight. Failure to do so could lead to pole collapse and serious personal injury.
  - Certification: Certified UL 1598 in accordance with Article 410 of ANSI/NFPA 70 National Electrical Code.

- **Leveling Nut and Washer**
- **Base Cover**
- **Handhole**
- **Post Top Mounting**
- **Side Arm Mounting**
- **Base Detail**
- **Grout Fill**

**Pole Construction**: Seamless round extruded aluminum tube of alloy 6061-T6, welded to top and bottom of aluminum base casting of alloy 356.

**Base Cover**: Base has a two-piece cast aluminum full cover of 319 alloy, secured by stainless steel screws.

**Pole Cap**: A flush-sided cast aluminum pole cap is provided for side arm mounted luminaires.

**Handhole**: 18" up from base, with a gasketed cover and ground lug.

**Anchor Bolts**: Four galvanized anchor bolts provided, complete with eight nuts, eight flat washers, and a presswood template.

**Vibration Dampener**: All poles 25' and above include an internally mounted, factory installed pendulum vibration dampener, with flush stainless steel socket head fasteners finished to match pole.

**Strength**: Poles withstand wind loads as listed in chart (See page 2) when luminaires are mounted per future installation instructions.

**Finish**: Durable thermost polyester powder coat paint finish with nominal 3.0 mil thickness. Decorative finish coat available in multiple standard colors; Custom colors available, RAL number preferred.

**CAUTION**: Installation of poles without luminaires will compromise pole strength. Any accessories attached to pole, or other modifications will compromise pole strength and may result in pole failure.

**Maintenance**: A regularly scheduled maintenance program must be established to ensure the protective paint coating is intact, corrosion or structural damage has not occurred, and anchor bolt nuts are tight. Failure to do so could lead to pole collapse and serious personal injury.

**Certification**: Certified UL 1598 in accordance with Article 410 of ANSI/NFPA 70 National Electrical Code.
**Standard Features**

NOTE: All allowable pole and fixture FPAs are derived from the AASHTO standard. Responsibility lies with the specifier for correct pole selection based on local codes and standards for the job location. (See page 4).

![Diagram of pole and fixture with dimensions and specifications]
### Standard Features

NOTE: All allowable pole and fixture EPAs are derived from the AASHTO standard. Responsibility lies with the specifier for correct pole selection based on local codes and standards for the job location. (See page 5).

#### Anchor Base and Bolt Details

<table>
<thead>
<tr>
<th>Pole Height</th>
<th>Pole Diameter</th>
<th>Bolt Circle Dia.</th>
<th>Anchor Bolt Projection</th>
<th>Anchor Bolts Size</th>
<th>Base Cover Size</th>
<th>Conduit Opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>8'-14'</td>
<td>4'</td>
<td>8 1/2&quot;</td>
<td>3 1/4&quot;</td>
<td>3/4&quot; x 15&quot; + 3&quot;</td>
<td>11 7/8&quot;</td>
<td>3&quot; dia.</td>
</tr>
<tr>
<td>8'-14'</td>
<td>5'</td>
<td>8 1/2&quot;</td>
<td>3 1/4&quot;</td>
<td>3/4&quot; x 30&quot; + 4&quot;</td>
<td>11 7/8&quot;</td>
<td>3&quot; dia.</td>
</tr>
<tr>
<td>12'</td>
<td>6'</td>
<td>10 1/2&quot;</td>
<td>3 1/4&quot;</td>
<td>3/4&quot; x 30&quot; + 4&quot;</td>
<td>11 7/8&quot;</td>
<td>3&quot; dia.</td>
</tr>
<tr>
<td>14'</td>
<td>6'</td>
<td>10 1/2&quot;</td>
<td>3 1/4&quot;</td>
<td>3/4&quot; x 30&quot; + 4&quot;</td>
<td>11 7/8&quot;</td>
<td>3&quot; dia.</td>
</tr>
<tr>
<td>16'-20'</td>
<td>4'-5&quot;</td>
<td>8 1/2&quot;</td>
<td>3 1/4&quot;</td>
<td>3/4&quot; x 30&quot; + 4&quot;</td>
<td>11 7/8 E&quot;</td>
<td>3&quot; dia.</td>
</tr>
<tr>
<td>16'-20'</td>
<td>6'</td>
<td>10 1/2&quot;</td>
<td>3 3/8&quot;</td>
<td>3/4&quot; x 30&quot; + 4&quot;</td>
<td>14&quot;</td>
<td>5&quot; dia.</td>
</tr>
<tr>
<td>25'-30'</td>
<td>6'</td>
<td>10 1/2&quot;</td>
<td>3 3/8&quot;</td>
<td>3/4&quot; x 30&quot; + 4&quot;</td>
<td>14&quot;</td>
<td>5&quot; dia.</td>
</tr>
</tbody>
</table>
## Standard and Optional Features

**Finish**
TGIC powder coat paint over a titanianized zirconium conversion coating.

**Color**
- Black
- Dark Bronze
- Light Gray
- Graphite
- Platinum Silver
- Titanium
- White
- Custom Color*

*Custom color subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: ____________________________

### Optional Hinged Base

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HB-X1</td>
<td>Optional hinged base available for FM, A, and B mount poles up to 14 feet only. The use of hinged bases requires some pre-planning so poles hinge in the right direction, as dictated by the surrounding environment.</td>
</tr>
<tr>
<td>HB-X2</td>
<td></td>
</tr>
<tr>
<td>HB-Y1</td>
<td></td>
</tr>
<tr>
<td>HB-Y2</td>
<td></td>
</tr>
<tr>
<td>No Option</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: For FM mount, use HB-X1 base.

### Optional Duplex Receptacle

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR</td>
<td>Mounted opposite the hardhole, at 22½° from base of pole, in a cast aluminum box that is internally welded and sealed with a gasketed self-closing cover and locking bracket.</td>
</tr>
<tr>
<td>DR-QF</td>
<td>Duplex Receptacle (DR) rated 20A, 125V.</td>
</tr>
<tr>
<td>No Option</td>
<td>Duplex Receptacle with Ground Fault Circuit Interrupter (DR-QF) rated 20A, 125V.</td>
</tr>
</tbody>
</table>
Wind Map
United States and Canada

To obtain more information on AASHTO Standards for Lighting Equipment contact:
American Association of State Highway and Transportation Officials:
444 N. Capitol Street, NW, Suite 249
Washington, DC 20001
(202) 624-5800
www.aashto.org

**NOTES:**

- Values are based on 50 year mean recurrence interval 30° above grade.
- Hawaii has an **105 mph** wind velocity.
- Puerto Rico has a **125 mph** wind velocity.
- Caution must be exercised in determining wind velocities in special wind areas such as:
  - Mountainous Regions
  - Areas surrounding the Great Lakes or other large bodies of water or open land
  - Areas subject to extreme wind conditions, such as hurricanes, typhoons, cyclones, and tornadoes
  - Areas adjacent to airports.

Any specific area with a known or suspected abnormally high intermittent wind condition caused by geography, adjacent structures, or other specific local conditions that may not be recorded in National Weather Service records.

- Allowable pole EPA for jobsite wind conditions must be equal to or greater than fixture EPA. Responsibility lies with the specifier for correct pole selection based on AASHTO wind map and job location.

- The Wind Map is intended only as a general guide. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application.

**CAUTION:** Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide. Consult AASHTO standards.

- Extreme Wind Events: Hurricanes, Typhoons, Cyclones, or Tornadoes expose poles to flying debris, wind shear, and other unpredictable aerodynamic forces not indicated by the wind velocity ratings.

- Pole Strength Limited Warranty: Standard, unmodified Kim Lighting Poles installed as recommended, undamaged by corrosion, or lack of maintenance, shall withstand steady wind conditions as provided on page 2 (Allowable Pole EPA). Installation of poles without luminaires, or attachment of any unauthorized accessories to poles shall void this warranty.
High-pressure die-cast aluminium housing, with a powder finish after treatment of the surfaces with the Deltaguard process, guaranteed for seven years against all corrosive phenomena and colour changes due to exposure to UV rays. Square profile with rounded edges to reduce wind exposure. Door frame in die-cast aluminium with 3.2 mm tempered-glass lens. On request also with tool-free opening device, internal hinged support with possibility of rapid replacement of the door. External anti-drip screws in stainless steel, weatherlight gaskets in corded silicon material.

Modular mounting bracket for pole- and wall mounted units guarantees interchangeable configurations. Details in high-pressure aluminium, aluminium extrusion and pressed steel, bolts in stainless steel. High-yield precision optics in aluminium, manually assembled with modular mounting possibilities that guarantees different optical solutions. Power supply unit housed inside mounted on extractable plates attached to the housing (exception optics QV/QH). Class I insulation without protection fuse (installed on request), Class II insulation protection fuse is included. E27 and E40 heat resistant ceramic lamp-holder, support for lamp-holder for multiple mounting positions to optimize the spot beam with different bulb geometries. Protection degree IP65.

Fixed pole bracket with a length of 152 mm for square poles with removable top cover. Square profile in extruded aluminium, complete with counter-poles with threaded spacers for mounting on the pole.

The PR Optic – Parking Roadway – has a street-type beam with ample side emission on both the transversal and longitudinal. This is the ideal solution for pole lighting of car parks and streets where it is necessary to have a high level of backlight. The PR optics are used above all in streets with wide sidewalks, parks and gardens, squares and parking areas.

<table>
<thead>
<tr>
<th>Lamp Type:</th>
<th>CMH/MH 70 Plug: E27</th>
<th>Type</th>
<th>Power</th>
<th>Bulb</th>
<th>Finishing</th>
<th>Flux</th>
<th>Color Temperature</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMH 70 W</td>
<td>Ellissodade 54 Polveta 5700 Lm 3000</td>
<td>OS HCl-EPTM WDLCO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH 70 W</td>
<td>Ellissodade 54 Chiara 6000 Lm 3000</td>
<td>OS HCl-EPTM WDLCL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH 70 W</td>
<td>Ellissodade 54 Polveta 5700 Lm 4200</td>
<td>OS HCl-EPTM WDLCO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH 70 W</td>
<td>Ellissodade 54 Chiara 5600 Lm 4200</td>
<td>OS HCl-EPTM WDLCL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MH 70 W</td>
<td>Ellissodade 54 Chiara 5600 Lm 4000</td>
<td>SY HCl-MPTWAC4K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MH 70 W</td>
<td>Ellissodade 54 Polveta 5500 Lm 3800</td>
<td>SY HCl-MPTWAC4K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MH 70 W</td>
<td>Ellissodade 54 Chiara 5500 Lm 3000</td>
<td>SY HCl-MPTWAC3K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MH 70 W</td>
<td>Ellissodade 54 Polveta 5200 Lm 2900</td>
<td>SY HCl-MPTWAC3K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specifications:
- Weight: 1.2 kg
- Colours: Bronze, Black, Silver, White
- Tilting: 0°, 25°, 45°, 90°
- Wind exposure surface (m²): 0.14, 0.25, 0.35, 0.45

**Wireless Communications Facilities**
**Design Guidelines**
High-pressure die-cast aluminium housing, with a powder finish after treatment of the surfaces with the Deltaguard process, guaranteed for seven years against all corrosive phenomena and colour changes due to exposure to UV rays. Square profile with rounded edges to reduce wind exposure. Door flaps in die-cast aluminium with 3.2 mm tempered-glass lens. On request also with tool-free opening device, internal hinged support with possibility of rapid replacement of the door. External anti-drop screws in stainless steel, watertight gaskets in corded silicon material.

Modular mounting bracket for pole- and wall mounted units guarantees interchangeable configurations. Details in high-pressure aluminium, aluminium extrusion and pressed steel, bolts in stainless steel. High-yield precision optics in aluminium, manually assembled with modular mounting possibilities that guarantees different optical solutions. Power supply unit housed inside mounted on extractable plates attached to the housing (exception optics QV/QH). Class I insulation without protection fuse (installed on request). Class II insulation protection fuse is included. E27 and E40 heat resistant ceramic lamp-holder, support for lamp-holder for multiple mounting positions to optimize the spotlight with different bulb geometries. Protection degree IP65.

Fixed pole bracket with a length of 152 mm for square poles with removable top cover. Square profile in extruded aluminium, complete with counter-plate with threaded spacers for mounting on the pole.

The PR Optic – Parking Roadway – have a street-type beam with ample side emission on both the transversal and longitudinal. This is the ideal solution for pole lighting of car parks and streets where it is necessary to have a high level of backlight. The PR optics are used above all in streets with wide sidewalks, parks and gardens, squares and parking areas.

<table>
<thead>
<tr>
<th>Lamp: Type: HPS 600W</th>
<th>Plug: E40</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Power</td>
<td>Bulb</td>
</tr>
<tr>
<td>HPS</td>
<td>600 W</td>
<td>Tubolare T46</td>
</tr>
</tbody>
</table>

| Specifications: Weight: Colours: Bronze, Black, Silver, White |

<table>
<thead>
<tr>
<th>Tilt</th>
<th>Width exposed surface (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°</td>
<td>3.13</td>
</tr>
<tr>
<td>10°</td>
<td>0.18</td>
</tr>
<tr>
<td>20°</td>
<td>0.23</td>
</tr>
<tr>
<td>30°</td>
<td>0.27</td>
</tr>
<tr>
<td>60°</td>
<td>0.33</td>
</tr>
</tbody>
</table>
Code: 16PR2525  Model: Stradale e arredo urbano > Square Medi

Stradale e arredo urbano > Square Medi, Parking Roadway, CMH/HPS 250, 2 - Bracket for square pole

High-pressure die-cast aluminum housing, with a powder finish after treatment of the surfaces with the Deltaguard process, guaranteed for seven years against all corrosive phenomena and colour changes due to exposure to UV rays. Square profile with rounded edges to reduce wind exposure. Door frame in die-cast aluminum with 3.2 mm tempered-glass lens. On request also with tool-free opening device, internal hinged support with possibility of rapid replacement of the door. External anti-stop screws in stainless steel, watertight gaskets in corded silicon material.

Modular mounting bracket for pole- and wall mounted units guarantees interchangeable configurations. Details in high-pressure aluminum, aluminum extrusion and pressed steel, bolts in stainless steel. High-yield precision optics in aluminum, manually assembled with modular mounting possibilities that guarantees different optical solutions. Power supply unit housed inside mounted on extractable plates attached to the housing (exception optics QV/QH). Class I insulation without protection fuse (installed on request). Class II insulation protection fuse is included. E27 and E40 heat-resistant ceramic lamp-holder, support for lamp-holder for multiple mounting positions to optimize the spot-beam with different bulb geometries. Protection degree IP65.

Fixed pole bracket with a length of 152 mm for square poles with removable top cover. Square profile in extruded aluminum, complete with counter-plate with threaded spacers for mounting on the pole.

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<thead>
<tr>
<th>Lamp Type</th>
<th>Type</th>
<th>Power</th>
<th>Bulb</th>
<th>Finishing</th>
<th>Flux</th>
<th>Color Temperature</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMH/HPS 250</td>
<td>CMH</td>
<td>250 W</td>
<td>Tubolite 58</td>
<td>Chiara</td>
<td>22500 Lm</td>
<td>2300</td>
<td>PH CD0.TT250/UV828</td>
</tr>
<tr>
<td>HPS 250</td>
<td>Tubolite T46</td>
<td>Chiara</td>
<td>26800 Lm</td>
<td>2300</td>
<td>PH SON-T250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPS 250</td>
<td>Tubolite T46</td>
<td>Chiara</td>
<td>33200 Lm</td>
<td>2300</td>
<td>PH SON-T250PLUS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specifications:
- Weight: 1.8 kg
- Colours: Bronze, Black, Silver, White
- Tilting: 0°, 15°, 20°, 30°, 45°, 60°
- Wind exposed surface (m²): 0.37, 0.29, 0.12, 0.14, 0.18
Wireless Communications Facilities
Design Guidelines

Catalogue

Poles

Characteristics

Rued Lighting recommends always using its own poles. The identification of the right pole is a necessary step in the choice of Rued Lighting product.

Rued Lighting offers standard version poles with square and cylindrical sections, with any other type available on request. The Rued Lighting poles are divided into two installation types: in-ground and with plates and anchor bolts. Both versions are available with either the square or cylindrical section and come with a series of transversal brackets and supporting brackets for guaranteeing the maximum in flexibility of use. The entire range of Rued Lighting poles comes in top quality steel. All galvanising is carried out in compliance with the UNI EN 40/4 standard.

The painting of the Rued Lighting poles, with the exception of the brackets specifically treated with the DeltaGuard® system, is carried out with polyurethane enamel on top of a coat of epoxy primer.

H = 10 m
Heavy traffic areas, turn-offs, main extra-urban and urban roads, sports fields, squares

H = 8 m
Secondary urban roads, intersections, squares

H = 5 m
Car parks, parks and gardens, residential areas, cycling tracks, pedestrian areas
**SPECIFICATIONS**

**Pole Shaft** - The pole shaft is fabricated from hot rolled welded steel tubing of one-piece construction with a minimum yield strength of 55 KSI.

**Pole Top** - A removable pole cap is provided for poles receiving drilling patterns for side-mount luminaire arm assemblies. For top mount luminaire and/or bracket, consult the factory. Consult the luminaire manufacturer for correct tenon size or drill pattern. Other pole top options include pole cap only (FC) or plain top (PL) which is typical when the pole top diameter matches the necessary slip fit dimensions.

**Handhole** - A reinforced handhole with grounding provision is provided at 1'-6" from the base end of the pole assembly. Each handhole includes an easy to install, self-contained Swing Latch handhole cover assembly. U.S. Patent Swing Latch cover is fabricated from durable polycarbonate/ABS blend plastic. All pole assemblies are provided with a 2.50" x 5.00" rectangular handhole. Handhole dimensions are nominal.

**Base Cover** - A two-piece full base cover fabricated from ABS plastic is provided with each pole assembly. Additional base cover options, including the dart square (2T) cast aluminum cover, are available upon request.

**Anchor Bolts** - Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

**Hardware** - All structural fasteners are galvanized high strength carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

**Finish** - Standard finishes are either Galvanized (GV) or Finish Painted (FP). Additional finish options including Finish Paint over Galvanizing (FPGV) or any of the V-PRO® Finish Coating Systems are available upon request. See the product ordering code for color options.

**Design Criteria** - Please reference Design Criteria Specification for appropriate design conditions.

* Consult factory on loading criteria for pole top mounted luminaires and/or brackets.
Wireless Communications Facilities
Design Guidelines

TYPE G5
CATALOG NUMBER
UCS-ANG-WMA5D
07A-1055

FINISH: POLYESTER POWDER
COAT.
AAL COLOR: CTR
TO MATCH:

PROVIDE A SAMPLE COLOR CHIP

LAMPS: (4-PIN) COMPACT
UNIVERSAL BALLAST
LAMP TYPE FLUOR. T-4
SOCKET GX24q-X
WATTAGE 28,32,42
VOLTAGE 120 - 277

ALL BALLAST ARE HI-F CON.
DIA. 1/4 IN. SHORTE, 30 DEGREE
STARTING, ALL SOCKET ARE
PORCELAIN PULATION RATED 44A.

ANCHOR BOLTS
QTY
SIZE

BOLT CIRCLE

PROJECTION
FR1/FR2 OPTIONS.
FOIL SHIELDS ONLY.
PURLIES BY OTHERS.

LEVELING NUTS AND WASHERS
MUST BE INSTALLED UNDER ALL
BASES.

ONE APPROVED DRAINAGE
MUST BE RETURNED TO A.A.L.
BEFORE THIS PRODUCT CAN BE
FABRICATED.

WARNING: THIS FIXTURE MUST
BE GROUNDED IN ACCORDANCE
WITH LOCAL CODES OR THE
NATIONAL ELECTRICAL CODE.
FAILURE TO DO SO MAY RESULT
IN SERIOUS PERSONAL INJURY.

SOLD TO
PO#
JOB NAME

STD
SNOWMASS VILLAGE PED.

07A-1055

ARCHITECTURAL AREA LIGHTING

14249 Artesia Blvd. P.O. Box 1569
La Mirada CA 90638-1569
(714)964-2500 fax(714)964-2522
Architectural Area Lighting Inc.
Reserves The Right To Change
Manufacturing Specifications
Without Notice.

DATE DRWN
01-22-07 D.L.F
DATE APRRVD
DATE REV.
01-31-07

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Wireless Communications Facilities
Design Guidelines

TYPE: G2

CATALOG NUMBER
2-UCM-STR-H3-FTG-2-WMA9D
06A-1925

FINISH: POLYESTER POWDER COAT.

AAL COLOR: CTR

TO MATCH:

PROVIDE A SAMPLE COLOR CHIP

LAMPH: ED-17

LAMP TYPE: MH

SOCKET: PULSE RATED

WATTAGE: 150

VOLTAGE: MULTI-TAP

ALL BALLAST ARE HP CON- STANT WATTAGE - OR DECENT STARTING ALL SOCKETS ARE PORCELAIN, PULSE RATED 40VA.

ANCHOR BOLTS

QTY

SIZE

BOLT CIRCLE

PROJECTION

FSI'S OPTIONS:

FUSE HOLDERS ONLY

LEVELING NUTS AND WASHERS MUST BE INSTALLED UNDER ALL NAILS

ONE APPROVED DRAWING MUST BE RETURNED TO A.A.L. BEFORE THIS PRODUCT CAN BE FABRICATED.

WARNING: THIS FIXTURE MUST BE GROUNDED IN ACCORDANCE WITH LOCAL CODES ON THE NATIONAL ELECTRICAL CODE FAILURE TO DO SO MAY RESULT IN SERIOUS PERSONAL INJURY.

SOLD TO: PO# JOB NAME

ARCHITECTURAL 14246 Artesia Blvd., P.O. Box 1866
La Mirada CA. 90638-1866
(714)994-2790 Fax:(714)994-0522

AREA

ARCHITECTURAL AREA Lighting Inc.
Reserves The Right To Change Manufacturing Processes Without Notice

LIGHTING

DATE DRN 11-13-06 A.F.M.

APPVTD DATE

REV.

01-31-07

55 | P a g e
Wireless Communications Facilities
Design Guidelines

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---

**Type:** GS

**Catalog Number:** UCM-STR-H3-FTG-WMA9D

**Finish:** Polyester Powder Coat

**AAL Color:** CTR

**To Match:**

Provide a sample color chip

**Lamping:** ED-17

**Lamp Type:** MH

**Pulse Rated Socket:** Medium

**Wattage:** 50

**Voltage:** 120 / 277

All ballast are HPS, low voltage starting. All sockets are porcelain, pulse rated 4KVA

**Anchor bolts**

**QTY**

**Bolt circle**

**Projection**

FS / FS2 options. Fuse holder only. Fuses by others.

**Leveling nuts and washers**

Must be installed under all bases

One approved drawing must be returned to AAL before this product can be fabricated.

**Warning:** This fixture must be grounded in accordance with local codes. Failure to do so may result in serious personal injury.

---

**SOLD TO**

**PO#**

**Job Name**

**SNOWMASS VILLAGE PARKING**

**ARCHITECTURAL**

14294 Artesia Blvd., P.O. Box 1899
La Mirada CA 90638-1899
(714)864-2799 Fax(714)899-0522

**AREA**

Architectural Area Lighting Inc.
Reserves the Right to Change Manufacturing Processes Without Notice

**LIGHTING**

---

**DATE:** 06A-1924

**DRAWN:** 11-13-06 A.F.M.

**APPROVED:**

**REV.:** 01-22-07

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### Color Chart

#### Standard Colors

Colors are for reference only, as monitor configuration may distort and/or change color appearance. Contact a local representative for a color chip.

<table>
<thead>
<tr>
<th>Color Code</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWT</td>
<td>Arctic White</td>
</tr>
<tr>
<td>LGY</td>
<td>Light Gray</td>
</tr>
<tr>
<td>MAL</td>
<td>Matte Aluminum</td>
</tr>
<tr>
<td>MDG</td>
<td>Medium Gray</td>
</tr>
<tr>
<td>ATG</td>
<td>Antique Green</td>
</tr>
<tr>
<td>VBL</td>
<td>Verd Blue</td>
</tr>
<tr>
<td>WFZ</td>
<td>Weathered Bronze</td>
</tr>
<tr>
<td>DGN</td>
<td>Dark Green</td>
</tr>
<tr>
<td>CRT</td>
<td>Corian</td>
</tr>
<tr>
<td>BRM</td>
<td>Metallic Bronze</td>
</tr>
<tr>
<td>DBZ</td>
<td>Dark Bronze</td>
</tr>
<tr>
<td>BLK</td>
<td>Black</td>
</tr>
<tr>
<td>MTB</td>
<td>Matte Black</td>
</tr>
</tbody>
</table>

#### Hood Finishes

All styles of hoods are available in the matching fixture color. Stainless steel or natural copper finishes are available for the following fixtures: Parkway Square, Universe Collection, Spectra, eSconce, and mini eSconce.

<table>
<thead>
<tr>
<th>Color Code</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>COP</td>
<td>Copper</td>
</tr>
</tbody>
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