

TOWN OF PINETOP-LAKESIDE

RESOLUTION NO. 18-1454

A RESOLUTION OF THE MAYOR AND TOWN COUNCIL OF THE TOWN OF PINETOP-LAKESIDE, ARIZONA, DECLARING AS PUBLIC RECORD A CERTAIN DOCUMENT FILED WITH THE TOWN CLERK AND ENTITLED "2018 TOWN OF PINETOP-LAKESIDE DESIGN STANDARDS FOR WIRELESS FACILITIES IN THE RIGHT-OF-WAY."

WHEREAS, that certain document entitled "2018 Town of Pinetop-Lakeside Design Standards for Wireless Facilities in the Right-of-way," attached hereto as Exhibit A, three (3) copies of which shall be filed in the Office of the Town Clerk pursuant to this Resolution, shall remain on file with the Town Clerk.

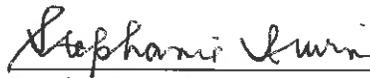
WHEREAS, A.R.S. § 9-802 permits the enactment and publication by reference of a code or public record, including statute, rule or regulation of the municipality, in the interest of economy, and

WHEREAS, the document entitled "2018 Town of Pinetop-Lakeside Design Standards for Wireless Facilities in the Right-of-way," is a lengthy ordinance to be adopted by Ordinance No. 18-413, and which would qualify for enactment by reference.

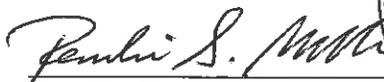
NOW, THEREFORE, BE IT RESOLVED, the Mayor and Town Council of the Town of Pinetop-Lakeside hereby declare that the document entitled "2018 Town of Pinetop-Lakeside Design Standards for Wireless Facilities in the Right-of-way," is hereby declared a Public Record for the purpose of adoption by reference pursuant to Ordinance No. 18-413, and order that three (3) copies of the document entitled "2018 Town of Pinetop-Lakeside Design Standards for Wireless Facilities in the Right-of-way," be permanently filed in the Office of the Town Clerk and available for public inspection.

PASSED AND ADOPTED at a regular meeting by the Mayor and Town Council of the Town of Pinetop-Lakeside this 3<sup>rd</sup> day of May, 2018.

TOWN OF PINETOP-LAKESIDE

  
Stephanie Irwin  
Mayor

ATTEST:

  
Remilie S. Miller, MMC  
Town Clerk



APPROVED AS TO FORM:  
  
William J. Sims, III  
Town Attorney

***EXHIBIT "A"***

**2018**

**Town of Pinetop-Lakeside  
Design Standards for  
Wireless Facilities in the Right-of-Way**

**Town of Pinetop-Lakeside  
Design Standards for Wireless Facilities in the Right-of-Way**

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**Town of Pinetop-Lakeside**  
**Definitions**  
**Standard Design Requirements for Small Wireless Facility**

**“Antenna”** means communications equipment that transmits or receives electromagnetic radio frequency signals and that is used in providing wireless services.

**“Antenna Mounting Bracket”** means the hardware required to secure the antenna to the pole.

**“Antenna Mounting Post”** means the vertical post or pipe that the antenna mounting bracket is mounted to in order for the antenna to be attached to the pole.

**“Antenna Shroud”** means the three-sided cover that is mounted at the base of the antenna to conceal the appearance of the cables and wires from the hand-hole port on the pole to the bottom-fed antenna.

**“Canister Antenna”** means the canister or cylinder style housing used to conceal the antenna(s), amplifier(s), radio(s), cables, and wires at the top of a pole.

**“Communications Equipment”** means any and all electronic equipment at the Small Wireless Facility location that processes and transports information from the antennas to the Wireless Provider’s network.

**“Dog House”** means the plastic or metal attachment to the base of a pole that covers the transition point of underground cables and wires to the vertical section of the pole.

**“Ground Mounted Equipment”** means any communications equipment that is mounted to a separate post or to a foundation on the ground.

**“Light Emitting Diode”** also referred to as “LED” is a type of lighting fixture installed on Town streetlights and traffic signal poles.

**“Light Fixture”** means the lighting unit or luminaire that provides lighting during the evening hours or during the hours of darkness.

**“Luminaire Mast Arm”** means the horizontal post that attaches the light fixture to the streetlight pole or traffic signal pole.

**“Outside Diameter”** also referred to as “OD” means the points of measurement, using the outer edges of a pole, pipe or cylinder.

**“Panel Antenna”** means the style of antenna that is rectangular in shape and with dimensions that are generally four (4) feet to eight (8) feet in height, by eight (8) inches to twelve (12) inches wide, and four (4) inches to nine (9) inches deep.

**“Remote Radio Heads (RRH) / Remote Radio Units (RRU)”** means the electronic devices that are used to amplify radio signals so that there is increased performance (farther distance) of the outgoing radio signal from the antenna.

**“Right-of-Way”** as defined for wireless sites in A.R.S. §9-591(18) means the area on, below or above a public roadway, highway, street, sidewalk, alley, or utility easement. Right-of-way does not include a Federal Interstate Highway, a state highway or state route under the jurisdiction of the Department of Transportation, a private easement, property that is owned by a special taxing district, or a utility easement that does not authorize the deployment sought by the wireless provider.

**“Sight Distance Easements”** means the area of land adjacent to an intersection, driveway or roadway that has restrictive uses in order to preserve the view of oncoming or crossing vehicular and pedestrian traffic by drivers in vehicles attempting to merge with traffic or enter a roadway.

**“Sight Visibility Triangles”** means the traffic engineering and safety concept that requires clear view by the driver of a vehicle to crossing traffic at a stop sign, driveway or intersection. In order to achieve clear visibility of the cross traffic, the land areas in the sight visibility triangle has specific maximum heights on landscaping, cabinets, and other potential view obstructions.

**“Signal Head”** means the “Red, Yellow and Green” light signals at a signal-controlled intersection.

**“Signal Head Mast Arm”** means the horizontal pole that has the signal heads mounted to it and attaches to the traffic signal pole.

**“Small Wireless Facility”** as defined in A.R.S. 9-591(19), means a Wireless Facility that meets both of the following qualifications:

- a) All antennas are located inside an enclosure of not more than six (6) cubic feet in volume or, in the case of an antenna, that has exposed elements, the antenna and all of the antenna’s exposed elements could fit within an imaginary enclosure of not more than six (6) cubic feet in volume.
- b) All other wireless equipment associated with the facility is cumulatively not more than twenty-eight (28) cubic feet in volume, or fifty (50) cubic feet in volume if the equipment was ground mounted before the effective date of this section. The following types of associated ancillary equipment are not included in the calculation of equipment volume pursuant to this subdivision:
  - (i) An electric meter
  - (ii) Concealment elements
  - (iii) A telecommunications demarcation box
  - (iv) Grounding equipment
  - (v) A power transfer switch
  - (vi) A cutoff switch
  - (vii) Vertical cable runs for the connection of power and other services

**“Stealth and Concealment Elements”** means the use of shrouds, decorative elements, design concepts and faux elements so that a small wireless facility can be designed to blend in with the surrounding streetscape with minimal to any visual impact.

**“Utility Pole”** as defined in A.R.S. §9-591(21) means a pole or similar structure that is used in whole or in part for communications services, electric distribution, lighting or traffic signals. Utility pole does not include a monopole.

**Town of Pinetop-Lakeside**  
**Standard Design Requirements**  
**Small Wireless Facility on Existing Streetlight**

The following design standards shall apply, in addition to the Common Standards Design Concepts, Requirements and Details that is included in this document, to a Small Wireless Facility (SWF) proposed for a location with an existing town-owned or third party-owned streetlight in the Town of Pinetop/Lakeside Right-of-Way (ROW). These design standards are not exhaustive and the Town, as the owner, keeper and manager of the ROW retains the right to modify or adjust the requirements on a case-by-case basis.

**A. Pole Criteria:**

1. Purpose of Streetlight Pole: The primary purpose of the pole shall remain as a pole structure supporting a streetlight luminaire and related streetlight fixtures used to provide lighting to the Town ROW. The attachment of wireless equipment to an existing streetlight pole or to a replacement pole that impedes this primary purpose will not be approved.
2. General Requirement:
  - a) An SWF shall be designed to blend in with the surrounding streetscape with minimal to any visual impact.
  - b) A replacement pole shall match the Town of Pinetop/Lakeside standard streetlight pole, as closely as possible, subject to more specific criteria below.
  - c) For each individual pole type or style used to support the wireless equipment, one spare replacement pole shall be provided by the wireless provider to Town in advance so the pole can be replaced promptly in case of a knockdown.
  - d) All plans shall be signed and sealed by a Professional Engineer.
  - e) All other details in the Town of Pinetop/Lakeside 17.104.140 Outdoor Light Control shall apply.
3. Specific Criteria:
  - a) New or Replacement Pole Height  
A new or replacement pole may be installed without zoning review if one of the two height requirements is met:
    - 1) Up to a ten (10) foot increase, not to exceed fifty (50) feet total (whichever is less), per A.R.S. §9-592(I); or
    - 2) Up to forty (40) feet above ground level, per A.R.S. §9-592(J)
  - b) Overall Height of Replacement Pole
    - 1) The “base” height of an existing streetlight pole shall be the height of the vertical pole section from the existing grade. The height of the luminaire mast arm, if higher than the vertical pole section, shall not be used to determine the new overall height of the replacement pole.
    - 2) If the antennas are the highest vertical element of the site, then the new overall height of the replacement pole is measured from the existing grade to the top of the canister or the top of the panel antenna.
  - c) Increase in Outside Diameter (OD) of Pole  
The non-tapered replacement pole outside diameter (OD) of the base section shall be equal to the top section, and the OD shall not exceed eight and five-eighths (8-5/8) inches (the pole manufacturing industry standard OD for an 8 inch diameter pole) or a 100% increase in diameter of the original pole, whichever is less.

- d) Luminaire Mast Arms
  - 1) All luminaire mast arms shall be the same length as the original luminaire arm, unless the Town requires the mast arm to be different (longer or shorter) based upon the location of the replacement pole.
  - 2) Unless otherwise approved, all luminaire mast arms shall match the arc (if applicable) and style of the original luminaire arm.
  - 3) The replacement luminaire mast arm shall be at the same height above the ground as the existing luminaire.
  
- e) Luminaire Fixtures
  - 1) All replacement poles shall have the Town standard light fixture installed.
  - 2) All replacement light fixtures shall have a new Town standard photo-cell or sensor as required by the Public Works Director.
  
- f) Pole Foundation
  - 1) All pole foundations shall conform to the Town's adopted standards and specifications on streetlight design and shall be modified for wireless communications equipment and cables.
  - 2) The Town, in its sole discretion, may require the pole foundation design to be "worst case scenario" for all soil conditions.
  - 3) A separate, one-inch diameter conduit shall be installed in the pole foundation for the Town's luminaire wire and any additional Town wires or cables. The Town's conduit shall be trimmed to three (3) inches above the top of the caisson.
  - 4) The height of the pole foundation shall be two (2) inches above finished grade. If the pole foundation encroaches into any portion of the sidewalk, then the pole foundation shall be flush with the sidewalk.
  - 5) Shrouds for the streetlight pole mounting bolts may be required for the replacement pole.
  
- g) Painting of Replacement Pole
  - 1) If the replacement pole is an unpainted galvanized pole, the pole shall not be painted or have a finish unless otherwise specified by the Town.
  - 2) For powder coated type poles, the wireless provider shall replace with same powder coated color and/or color combination
  
- h) Painting Antennas and Mounting Equipment
  - (1) All antenna mounting brackets and hardware, antenna mounting posts, cables, shrouds and all other equipment mounted on a new or replacement pole shall be painted a color specified by the Town.
  
- i) Wireless provider shall install pole numbers on each replacement pole (to match the number on the existing streetlight pole being replaced).

**Town of Pinetop/Lakeside**  
**Standard Design Requirements**  
**Small Wireless Facility on Existing Utility Pole**

The following design standards shall apply, in addition to the Common Standards Design Concepts, Requirements and Details that is included in this document, to a Small Wireless Facility (SWF) proposed for a location with an existing third party-owned utility pole in the Town of Pinetop/Lakeside Right-of-Way (ROW). These design standards are not exhaustive and the Town, as the owner, keeper and manager of the ROW retains the right to modify or adjust the requirements on a case-by-case basis.

**A. Pole Criteria:**

1. **Purpose of Utility Pole:** The primary purpose of the pole shall remain as a pole structure supporting a cables and wires used to provide communications services and electric distribution in the Town ROW. The attachment of wireless equipment to an existing third party-owned utility pole that impedes this primary purpose will not be approved.
2. **General Requirement:**
  - a) An SWF shall be designed to blend in with the surrounding streetscape with minimal to any visual impact.
  - b) A SWF mounted on an existing third party-owned utility pole is subject to more specific criteria below.
  - c) Each existing pole used to support the wireless equipment shall be inspected, tested and approved by a licensed structural engineer to be able to have the additional weight and wind-loading placed upon it within industry accepted safety margins.
  - d) All plans shall be signed and sealed by a Professional Engineer.
3. **Specific Criteria:**
  - a) **Replacement Pole Height**

A replacement pole may be installed without zoning review if one of the two height requirements is met:

    - 1) Up to a ten (10) foot increase, not to exceed fifty (50) feet total (whichever is less), per A.R.S. §9-592(I); or
    - 2) Up to forty (40) feet above ground level, per A.R.S. §9-592(J)
  - b) **Overall Height of Replacement Utility Pole**
    - 1) The “base” height of an existing utility pole shall be the height of the vertical pole section from the existing grade.
    - 2) If the antennas are the highest vertical element of the site, then the new overall height of the replacement pole is measured from the existing grade to the top of the canister or the top of the panel antenna.
  - c) **Use of Existing Pole – Wood**
    - 1) An existing wood pole used for a SWF shall have the antennas contained within an eighteen (18) inch (OD) canister mounted at the top of the pole.
    - 2) Unless otherwise approved, the cables and wires from the base of the pole to the antennas shall be installed in a conduit or cable chase outside of the pole, facing away from the street or away from on-coming traffic.
    - 3) If a “dog house” (see Exhibit C) is required as a transition point connecting the underground cables and wires from the ground mounted equipment to the pole, the Town shall provide the maximum size, dimension and shape of the dog house on a case-by-case basis.

- d) Use of Existing Pole – Metal
  - 1) An existing metal pole used for a SWF shall have the antennas contained within an eighteen (18) inch (OD) canister mounted at the top of the pole.
  - 2) Panel antennas on a metal pole shall have the same “RAD center” (center of radiation) so the antennas will be at the same height on the pole.
  - 3) The cables and wires from the base of the pole to the antennas shall be installed in a conduit or cable chase on the outside of the pole, facing away from the street or away from on-coming traffic.
  - 4) If a “dog house” (see Exhibit C) is required as a transition point connecting the underground cables and wires from the ground mounted equipment to the pole, the Town shall provide the maximum size, dimension and shape of the dog house on a case-by-case basis.
  
- e) Painting of Pole and Dog House
  - 1) If the replacement pole is an unpainted galvanized pole, the pole shall not be painted or have a finish unless otherwise specified by the Town.
  - 2) If the existing or replacement pole includes a dog house for the transition of the cables and wires to the pole, the dog house shall be painted the same color as the pole or a color specified by the Town.
  
- f) Painting Antennas and Mounting Equipment
  - 1) All antenna mounting brackets and hardware, antenna mounting posts, cables, shrouds and all other equipment mounted on a new or replacement pole shall be painted a color specified by the Town.
  - 2) If the antenna is mounted on a wood pole, the color of the antenna, antenna canister, mounting brackets and posts, shrouds and cable chases shall be painted a color specified by the Town that will closely match the color of the wood.
  
- g) Ground Mounted Equipment

All ground mounted equipment shall be mounted underground. If underground installation is unfeasible do to utility conflicts, the Town may require the ground-mounted wireless equipment to be screened or concealed to reduce the visual impact to the surrounding area. The screening or concealment shall take into account the location of the site, the use of the immediate area, and the existing aesthetic elements surrounding the site.

**Town of Pinetop-Lakeside**  
**Standard Design Requirements**  
**Small Wireless Facility on New Poles in ROW**

The following design standards, in addition to the Common Standards Design Concepts, Requirements and Details that are included in this document, shall apply to a Small Wireless Facility (SWF) that a wireless provider may install in the ROW that is not either:

- 1) A replacement pole for an existing streetlight, or
- 2) A replacement pole for an existing traffic signal.

A new wireless support structure, including a monopole that is up to forty (40) inches in outside diameter (OD), shall incorporate the highest level of stealth and concealment of the antennas and wireless equipment in order to minimize the visual impact of the site to the public.

**A. Pole Criteria:**

1. **Purpose of Wireless Support Structure:** The sole purpose of a new vertical element or wireless support structure is to attach antennas for the provision of wireless services by a wireless provider in the Town's ROW.
2. **General Requirement:**
  - a) A new wireless support structure shall be designed to minimize the visual and aesthetic impact of the new vertical element and associated equipment upon the look, feel, theme, and use of the surrounding area.
  - b) An SWF shall be designed to blend in with the surrounding streetscape with minimal to any visual impact.
  - c) The new wireless support structure shall be architecturally integrated and compatible with the use of the surrounding area.
  - d) The height of the new wireless support structure cannot exceed the maximum allowed height of the zoning district that the site is proposed.
  - e) All plans shall be signed and sealed by a Professional Engineer.
3. **Specific Criteria:**
  - a) **New Pole Height**

A new wireless support structure may be installed without zoning review if one of the two height requirements are met, see A.R.S. §9-592(I) and A.R.S. §9-592(J):

    - 1) Up to a ten (10) foot increase, not to exceed fifty (50) feet total (whichever is less), per A.R.S. §9-592(I); or
    - 2) Up to forty (40) feet above ground level, per A.R.S. §9-592(J).
  - b) **Overall Height of New Pole**

The height of the new wireless support structure is measured from grade to top of the antenna canister, or the top of the panel antenna if the antennas are the highest elements of the site. Otherwise, the measured height shall be from existing grade to the highest point of the wireless support structure.
  - c) **Outside Diameter of Monopole**

The maximum outside diameter of a monopole, as defined in A.R.S. §9-591(13), shall be the minimum necessary to support the antennas and shall not exceed forty (40) inches.

d) **Stealth and Concealment Elements**

As part of the stealth and concealment elements of the wireless support structure, the Town may require the wireless provider to install street name plates, directional signs, and other decorative signs or artistic elements on the structure.

- 1) The wireless provider is solely responsible for the cost of all stealth and concealment elements and the installation of other elements required by the Town.
- 2) The wireless provider is responsible for the performance of and any costs incurred for regular upkeep, maintenance and replacement (if necessary) of these stealth and concealment elements.

e) **Architectural Integration with Surrounding Area**

- 1) The new wireless support structure shall be designed in consultation with various internal Town stakeholders and may include external stakeholders.
- 2) The Town may require the new wireless support structure to be constructed of a specific material that will enhance the stealth and concealment of the site.

f) **Pole Foundation**

- 1) The pole foundation for the wireless support structure, if required, shall conform to civil and structural engineering standards acceptable to the Town, with design modifications for wireless communications equipment and cables.
- 2) The height of the pole foundation shall be two (2) inches above finished grade. However, if the pole foundation is adjacent to or within a sidewalk or ramp, the height of the pole foundation shall be flush with the surface of the immediate area.
- 3) Shrouds for the pole mounting bolts may be required.

g) **Painting of Wireless Support Structure, Antennas and Mounting Equipment**

- 1) The Town shall identify the paint colors, location of paint and any decorative work that may be painted onto the new wireless support structure.
- 2) The Town shall identify the paint colors for the antennas, antenna mounting brackets and posts, antenna shrouds, and cables.
- 3) The Town may require the new wireless support structure to be painted using a powder-coat process.

h) **Ground Mounted Equipment**

All ground mounted equipment shall be mounted underground. If underground installation is unfeasible do to utility conflicts, the Town may require the ground-mounted wireless equipment to be screened or concealed to reduce the visual impact to the surrounding area. The screening or concealment shall take into account the location of the site, the use of the immediate area, and the existing aesthetic elements surrounding the site.

**Town of Pinetop/Lakeside**  
**Small Wireless in the ROW**  
**Common Standard Design Concepts, Requirements and Details**

The following standard design requirements shall be applied to all new small wireless facilities in the Town's ROW, whether for a small wireless facility to be installed on an existing or replacement streetlight pole, or on a new wireless support structure.

**A. Pole Design & Installation**

**1. Replacement and New Pole Clearances – Underground Utilities**

All ground-mounted electrical equipment shall maintain minimum horizontal clearance from underground utilities.

- Clearance from water lines shall be at least six (6) feet
- Clearance from sewer lines shall be at least six (6) feet
- Clearance from telecommunications shall be at least one (1) foot
- Clearance from cable television lines shall be at least one (1) foot
- Clearance from all other types of underground infrastructure shall be at least six (6) feet
- Clearance from edge of existing pavement shall be at least ten (10) feet
- Pole footings shall not impact existing roadside drainage ditches
- No additional overhead utilities shall be permitted.

a) The Town, in its sole discretion, may grant a variance, upon approval by the Town Engineer, from these horizontal separation distances on a case-by-case basis. The approval of a variance is dependent on factors specific to the site.

b) In the case where there is an issue with horizontal separation from other underground utilities, the wireless provider may elect to work with the impacted utility to have lines, pipes or property moved so that minimum clearance is achieved. All relocation of Town-owned or a privately-owned utility shall be at the sole expense of the wireless provider.

**2. Calculating the Base Height of an Existing Pole**

The base height, from which the calculation of the "increase in pole height" is referenced for determining the overall pole height, shall be calculated as follows:

**a) Streetlight Pole (see Exhibit A1 and A2)**

- 1) A streetlight with a separate luminaire mast arm mounted to the vertical pole shall use the top of the vertical pole as the base height.
- 2) A streetlight, with the luminaire mast arm integrated (e.g. telescopic style pole) into the top vertical section of the pole, shall use the point on the pole where the mast arm is connected plus twenty-four (24) inches as the base height.

**3. Replacement Pole Clearance – Original Streetlight Pole.**

The minimum distance of the replacement pole from the original pole location shall be sixty (60) inches or more so that construction can occur safely. The Town may change this minimum distance on a case-by-case basis.

4. Replacement Pole Clearances – Sidewalks

The new or replacement pole shall maintain twelve (12) inch minimum clearance distance from sidewalks or future sidewalk locations. The Town, in its sole discretion, may increase that minimum clearance on a case-by-case basis to ensure the safe use of the sidewalk and adjacent area.

5. Sight Distance Easements (SDE) and Sight Visibility Triangles (SVT)

All new and replacement poles shall be installed in a location that does not impair or interfere with SDE or SVT safety requirements.

6. Cables, Wires and Jumpers

a) All cables for the wireless equipment and antennas – except where such cables or wires attach to the ports in the antenna – shall be located inside a conduit, inside the caisson and pole. There shall not be any “dog house” or externally visible conduit or entry point of the cables.

b) All electrical wires for the streetlight luminaire, traffic signal heads, and any Town device on the pole shall be new and connected to the existing power source.

7. Hand-holes

a) All hand-hole locations shall be called out on the plans.

b) All hand-holes near antennas shall have the top of the hand-hole no lower than the bottom height of the antennas

c) The bottom of the hand-hole should not exceed six (6) inches below the bottom of the antenna.

8. Wireless Facility Identification Information

a) A four (4) inch by six (6) inch Radio Frequency Safety Sticker may be mounted no less than twenty-four (24) inches from the bottom of the antenna, facing away from traffic.

b) The wireless provider may place a discreet site identification or number. The size, color and location of this identifier shall be determined by the Town.

c) No wireless provider signs may be placed on a streetlight pole including a replacement pole except to the extent required by local, state or federal law or regulations.

9. Cable Chase and Dog Houses

The Town, in its sole discretion, shall determine if an exterior cable chase and dog house are aesthetically compatible with the pole and immediate area. The materials and paint color of the cable chase and dog house shall be determined on a case-by-case basis.

B. Removal of Original Pole, Equipment and Pole Foundation

1. Removal of Original Signal Pole, Mast Arm, Signal Heads and Luminaire

a) The Town shall determine what original components, (e.g., original pole, mast arm(s), signal heads and luminaire, etc.), shall be delivered at no cost to the Town’s Public Works Yard by the wireless provider.

b) If the Town declines to accept some or all of the original components, then only those components the Town wants to retain shall be delivered by the wireless company to the Town’ Yard and the remaining components shall be discarded by the wireless provider at their cost.

2. Removal of Original Streetlight Foundation

The concrete pole foundation for the original streetlight shall be completely removed by the wireless provider as instructed by the Town:

a) Complete Removal

If the entire original pole foundation must be removed, then all materials (concrete, rebar, metals, bolts, etc.) shall be removed. The Town's Inspector shall determine, on a case-by-case basis, the type of backfill material and compaction required – ranging from native soil that is compacted to a half (1/2) sack slurry for the entire depth, or a combination of native soil and slurry.

C. Antennas, RRH/RRU, Cables and Mounting on Pole:

1. General Requirement: All antennas shall be installed in a manner that minimizes the visual impact to the general public. All work shall be performed in a professional manner that is consistent with the highest standards of workmanship.

2. Specific Criteria:

a) Antenna Mounting Posts and Brackets

- 1) All panel antennas shall be mounted directly to the pole or onto a mounting pole so that the distance from the "face" of the streetlight pole to the back of the antenna does not exceed nine (9) inches.
- 2) All mounting posts shall be trimmed so that the poles do not extend higher than the top of the antenna or protrude lower than the antenna unless necessary to install the shroud.
- 3) All pole attached wireless equipment must be a minimum ten (10) feet from the sidewalk elevation.

b) Panel Antennas

- 1) All panel antennas for a small cell site shall fit within an imaginary enclosure of not more than six (6) cubic feet in volume in accordance with A.R.S. §9-591(19)(a). (NOTE: This volume does not include antenna cable shrouds when required.)
- 2) All panel antennas with exposed cables from the bottom of the antenna shall have a shroud installed on the antenna or antenna mounting posts to conceal the cables. (see Exhibits D1 and D2)
  - a. The type of shroud may be a forty-five (45) degree angle (away from the bottom of the antenna; toward the pole) or a ninety (90) degree angle (parallel to the bottom of the antenna) depending on the location of the site.
  - b. The shroud shall extend from the bottom of the antenna to two (2) inches below the bottom of the nearest hand-hole.

c) Canister Antennas

- 1) All canister antennas shall fit within an imaginary enclosure of not more than six (6) cubic feet in volume. (Note: This volume does not include the canister as it is a stealth device and not the antenna.)
- 2) The canister shall be no larger than eighteen (18) inches in diameter (OD).
- 3) All canister antennas shall be located in a canister that is mounted to a base plate at the top of the vertical section of the replacement pole.
- 4) All cables protruding from the canister shall be concealed within the canister or by a shroud at the point where the canister is mounted to the base plate.

d) Remote Radio Heads (RRH) / Remote Radio Units (RRU)

Under State Law §9-591(19)(a), the RRH/RRU is not considered part of the antenna. If allowed, the RRH/RRU shall be calculated as part of "All other wireless equipment associated with this facility..." in A.R.S. §9-591(19)(b) that is subject to the twenty-eight (28) cubic feet maximum size for small cell sites.

- 1) On a case-by-case basis, the Town in its sole discretion and – upon reviewing the landscape in the immediate surrounding area, the location of the pole, and stealth options, may allow a site to have an RRH/RRU installed on the pole.

D. Ground-mounted Equipment:

1. General requirement: Unless mounted belowground, all ground-mounted equipment shall be installed in a manner that minimizes the visual and ingress/egress impact to the general public. All work shall be performed in a professional manner that is consistent with the highest standards of workmanship.

2. Specific criteria:

- a) Sight Distance Easements (SDE) and Sight Visibility Triangles (SVT)

All ground-based wireless equipment shall be installed in a location that does not impair or interfere with SDE or SVT safety requirements. A minimum site visibility triangle of twenty-five (25) feet is required from all intersections and driveways.

- b) Ground Equipment Location – Generally

All ground-based wireless equipment, including but not limited to equipment cabinets or power pedestals, shall be placed as far as practical to the back of the ROW while maintaining at least three (3) feet of ingress/egress in the ROW or public utility easement (PUE) around the equipment.

- c) Ground Equipment Clearances—Underground Utilities

- 1) All ground-mounted electrical equipment shall maintain minimum horizontal clearance from below-ground utilities:

- Clearance from water lines shall be at least six (6) feet
- Clearance from sewer lines shall be at least six (6) feet
- Clearance from telecommunications shall be at least one (1) foot
- Clearance from cable television lines shall be at least one (1) foot
- Clearance from all other types of underground infrastructure shall be at least six (6) feet

- 2) The Town, in its sole discretion, may grant a variance upon approval from the Board of Adjustment, from these horizontal separation distances on a case-by-case basis. The approval of a variance is dependent on factors specific to the site.

- 3) In the case where there is an issue with horizontal separation from other underground utilities, the wireless provider may elect to work with the impacted utility to have its lines, pipes or property moved so that minimum clearance is achieved. All relocation work of Town-owned or a privately-owned utility shall be at the sole expense of the wireless provider.

- d) **Ground Equipment Clearance – Sidewalks**  
The ground equipment shall maintain a minimum twelve (12) inch clearance distance from sidewalks. The Town, in its sole discretion, may increase the minimum clearance on a case-by-case basis to ensure the safe use of the sidewalk and adjacent area.
- e) **Compliance with Height Requirements**  
Evidence or documentation that, where the above-ground structure is over thirty-six (36) inches in height, given its proposed location, the structure will comply or be in compliance with applicable Town of Pinetop/Lakeside Planning and Zoning ordinances.
- f) **Screening of Ground Equipment**  
The Town, in its sole discretion, may require the ground-mounted equipment to be screened; the type of screening materials and design will be addressed on a case-by-case basis.
  - 1) In cases when screening is not required, the Town may specify the paint color of the ground-mounted equipment.
- g) **Decals and Labels**
  - 1) All equipment manufacturers' decals, logos and other identification information shall be removed unless required for warranty purposes.
  - 2) The wireless provider of the site may place an "Emergency Contact" decal or emblem to the ground equipment.
  - 3) The ground-mounted equipment shall not have any flashing lights, sirens or regular noise other than a cooling fan that may run intermittently. Cooling fans shall be limited to a maximum of 50 db as measured from the nearest private property line.
- h) **Equipment Cabinets on Residential Property**
  - 1) **Residential Single-Family Lot**  
The Wireless Equipment and Ancillary Equipment listed in A.R.S. §9-591(19)(b) shall not exceed thirty-six (36) inches in height in the front yard of a residential single-family zoned property.
  - 2) **Air-conditioning Units**  
Unless otherwise specified by Town, a wireless equipment cabinet with air-conditioning (not a fan only) shall be enclosed by walls and setback a minimum of fifteen (15) feet from lots where the existing or planned primary use is a residential single-family dwelling.
- i) **Electric Company Meter**
  - 1) All electric company meters shall be installed in the ROW or PUE. The location of the meter equipment shall have minimum ingress and egress clearance from private property lines and driveways.
  - 2) All electric company meters shall maintain minimum clearance from above-ground utility cabinets and below-ground utilities.
  - 3) All electric company meters shall be installed in a location that does not impair or interfere with the SDE or SVT safety requirements of the Town.
  - 4) The electric company meters shall be screened or contained within a Town approved pedestal cabinet that is painted to match the ground equipment or as specified by the Town.
  - 5) In the case where screening is not required, the Town may specify the paint color of the electric company meter cabinet on a case-by-case basis.

**Town of Pinetop/Lakeside  
Small Wireless in the ROW  
Permit and Fees Requirements**

The following permit requirements shall be applied to all new small wireless facilities in the Town's ROW, whether for a small wireless facility to be installed on an existing or replacement streetlight pole, an existing pole, or on a new wireless support structure.

- A. All work performed in the ROW shall require a Right-of-Way permit reviewed and approved by the Public Works Department.
- B. All work governed by the adopted building codes of the Town of Pinetop/Lakeside shall require a permit approved and issued by the Town's building department.
- C. Timeframes for review shall be in accordance with state statute.
- D. A permit for a SWF shall become null, void and non-renewable if the permitted facility is not constructed and placed into use within one hundred eighty days after the issuance date.
- E. All fees shall be charged in accordance with state statute and the applicable fee schedule as adopted through resolution by the Town council.

**Exhibit C**  
**Dog House – Cable Transition from Underground to Electric Utility Pole**



External cable chase  
– the cables and  
wires are mounted  
underneath the  
chase.

“Dog House” with external  
cable chase installed at the  
base of a pole to cover the  
cables and wires when  
they cannot be installed  
inside the utility pole.



**Exhibit D1**  
**Antenna Shrouds – 45 Degrees**



**Exhibit D2**  
**Antenna Shrouds – 90 Degrees**

