

City of Saint Paul

Department of Public Works

Small Wireless Facility Specifications and Rules

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January 27, 2022	Proposed Rules	

Definitions

Capitalized terms used in this document shall have the same meaning as defined in Section 134A.01 of the Saint Paul Legislative Code.

Purpose

To protect the public health, safety, and welfare or when necessary to manage and protect the public right-of-way (ROW) and its current use, the City established these requirements to provide the technical, administrative, and aesthetic requirements that carriers/Applicants must meet prior to and following installation. The City shall have the power to enforce health, safety, and welfare regulations when evaluating and deciding to approve or deny a Small Wireless Facility permit or license, to the extent permitted by state and federal law. In making such decisions, the City shall strive to the extent possible to accommodate all existing and potential users of the ROW, but shall be guided primarily by considerations of the public health, safety, and welfare.

Permittee-Owned Wireless Support Structures

The following applies to Permittee-Owned Wireless Support Structures in the Saint Paul public ROW. The objective of these requirements is to strike a balance between preserving and protecting the character of the City through careful design, siting, and aesthetic considerations of Small Wireless Facilities, while enhancing the ability of carriers to deploy Small Wireless Facilities in the City effectively and efficiently so that residents, businesses, and visitors benefit from robust Wireless Service availability, all while complying with state and federal law. All Permittee-Owned Wireless Support Structures must be installed in Saint Paul ROW in accordance with these requirements, in addition to all applicable laws, ordinances, policies and rules.

1. Site review and placement:
 - a. It is expected that where collocation on an existing City-Owned Wireless Support Structure is possible, such sites will be pursued for Collocation before installation of a Permittee-Owned Wireless Support Structure.

- b. Every proposed Permittee-Owned Wireless Support Structure site is subject to site-specific review to determine if the site is acceptable for use with regard to public safety, current or reasonably anticipated future infrastructure conflicts, etc.
 - c. Sites will not impede emergency service, vehicular, pedestrian or bicycle traffic or any identified public access to the ROW.
 - d. Sites must comply with the federal Americans with Disabilities Act.
 - e. Sites should be located, to the extent practical, at a minimum of 5 feet from the nearest edge of a garage, building, entrance, or driveway, whichever is closer.
 - f. Permittee-Owned Wireless Support Structures must be sited a minimum of 2' from edge of curb or roadway.
 - g. Permittee-Owned Wireless Support Structure sites should be located between buildings as much as possible. Permittee-Owned Wireless Support Structure sites should be outside of the perpendicular extension of the primary street-facing wall plane of detached residential buildings.
 - h. Sites must not impact any existing bridges or retaining walls, or other structures such as vaults and areaways.
 - i. Applicants must coordinate with other utility companies and the City to ensure that sites do not obstruct the existing legal use of the ROW by a utility provider and cause minimum conflict with other utilities and installed City-owned signing.
 - j. Applicants must obtain a conditional use permit from the City's Historic Preservation Commission for the siting of a Small Wireless Facility in a ROW in a City-or-State-defined historic district. Meeting minutes from the City's Historic Preservation Commission identifying acceptance of the location is adequate documentation.
 - k. Sites will be evaluated for proximity to trees in the public ROW to minimize or eliminate future conflicts. Sites must be a minimum of 15 feet from the nearest edge of the trunk of trees in the ROW.
 - l. Permittee-Owned Wireless Support Structures must be located no closer than 250' away, radially, from another approved Permittee-Owned Wireless Support Structure site.
 - m. Permittee-Owned Wireless Support Structures must be located so as to reasonably minimize safety concerns in relation to existing trees, utility poles, and streetlights.
 - n. Sites with a demonstrable history of crashes or vehicular damage incidents (defined as more than one or more crashes or damage incidents in a 24-month period) are not acceptable for Permittee-Owned Wireless Support Structures because of public safety concerns.
 - o. Sites must comply with all adjacent power companies' engineering standards and proximity requirements and provide such documentation or compliance from the power company as part of the application. Such documentation is required if the installation will be 10 feet or closer horizontally of overhead power lines.
 - p. The Permittee must ensure the Permittee-Owned Wireless Support Structure site and operation is in compliance with all FCC regulations relating to radio frequency (RF) emissions including human exposure to RF. The Permittee must maintain records documenting compliance.
2. Installation, Design and Life Cycle Replacement:
- a. Permittee-Owned Wireless Support Structures are owned, operated, and maintained by the provider at their sole cost with all connected responsibilities such as Gopher State One Call registration and locating responsibilities, etc.
 - b. The City will not provide power to any Permittee-Owned Wireless Support Structure.
 - c. A Professional Engineer, licensed in the State of Minnesota, must certify that the Permittee-Owned Wireless Support Structure, foundation, and all components thereof, can

- accommodate all anticipated loads for all expected design conditions. Prior to permit approval, the Applicant must complete required structural design and analysis/review. Such design and analysis must be available upon request.
- d. All rights-of-way management costs related to the Permittee-Owned Wireless Support Structure realized by Saint Paul must be reimbursed by the Permittee, as permitted under state and federal law.
 - e. The Applicant is encouraged to design and install as much of the Small Wireless Facility equipment and technology within the Permittee-Owned Wireless Support Structure as is possible. Where practical, equipment associated with Small Wireless Facilities should be provided underground in a vault or handhole rather than in an above ground pole. Where impractical for equipment associated with Small Wireless Facilities to be underground, the above ground cabinet must be a consistent color to the nearby pole.
 - f. Design of the Permittee-Owned Wireless Support Structure must not result in a pole taller than 50 feet unless the Director agrees to a greater height.
 - g. Permittee-Owned Wireless Support Structure components (excluding the power supply/meter from the power company) must be sized to be visually pleasing. For a Permittee-Owned Wireless Support Structure to be considered visually pleasing, the transition between the equipment cabinet and upper pole should be considered. A decorative transition must be installed over the equipment cabinet upper bolts, or decorative base cover shall be installed to match the equipment cabinet size.
 - h. Each Permittee-Owned Wireless Support Structure component shall be architecturally compatible to create a cohesive aesthetic.
 - i. To prevent cups, trash, and other objects from being placed on the pole components, horizontal flat spaces greater than 1.5 inches are prohibited.
 - j. All Permittee-Owned Wireless Support Structure-attached equipment (excluding the power supply/meter from the power company) must be a minimum of ten (10) feet above sidewalk elevation. Only one Small Wireless Facility per Permittee-Owned Wireless Support Structure is permitted unless/until an additional installation permit is requested and approved.
 - k. Design collaboration with the City's Artist in Residence and District Councils is encouraged to provide an opportunity for expression of community identity and facilitate community acceptance of Permittee-Owned Wireless Support Structures.
 - l. To the extent that design approval must be obtained from the Capitol Area Architecture and Planning Board (CAAPB) for any poles placed in the Capitol Area, Applicants must provide meeting minutes or other documentation from the Board demonstrating acceptance of the design.
 - m. Permittee-Owned Wireless Support Structure poles must have a maximum foundation diameter of 36".
 - n. All other wireless equipment associated with the small wireless facility, excluding electric meters, concealment elements, telecommunications demarcation boxes, battery backup power systems, grounding equipment, power transfer switches, cutoff switches, cable, conduit, vertical cable runs for the connection of power and other services, and any equipment concealed from public view within or behind an existing structure or concealment, must be in the aggregate no more than twenty eight (28) cubic feet in volume.
 - o. Each Small Wireless Facility antenna must be located entirely within a shroud or canister type enclosure.
 - p. The diameter of the antenna or antenna shroud or enclosure should not exceed the diameter of the top of the wireless support structure pole, and to the maximum extent practical, should appear as a seamless vertical extension of the pole. The bottom of the shroud or

- enclosure must be tapered to meet the diameter of the pole. The shroud or enclosure must not exceed six (6) cubic feet in volume.
- q. All antennae must be mounted to the top of the Permittee-Owned Wireless Support Structure pole, aligned with the centerline of the pole or mounted to the side of the pole such that that vertical centerline of the antenna shall be parallel with the support pole.
 - r. Tree “topping” or the improper pruning of trees is prohibited. Any proposed pruning or removal of trees, shrubs, or other landscaping already existing in the ROW must be noted in the application and must be approved by the City.
 - s. All cables, wires and connectors related to the Permittee-Owned Wireless Support Structure (excluding the power supply/meter from the power company) must be fully concealed on the Structure and must match the color of the Structure. There shall be no external cables and wires related to the Small Wireless Facility hanging off or otherwise exposed on the Permittee-Owned Wireless Support Structure. All colors must match the background of any wireless support structure that the facilities are located upon.
 - t. Equipment enclosures must be as small as possible. Ground mounted equipment (excluding the power supply/meter from the power company) must incorporate concealment elements into the proposed design and should have matching color and materials of Permittee-Owned Wireless Support Structures.
 - u. Radio equipment must be fully enclosed within an equipment cabinet or concealed within the antenna shroud enclosure and should have matching color and materials of the Permittee-Owned Wireless Support Structure.
 - v. Banners, cameras, charging stations, signs, stickers, flags, illumination, or other attached products or other devices must not be installed on Permittee-Owned Wireless Support Structure poles.
 - w. Impacts to downstream street lighting – both during construction and regarding placement of new Permittee-Owned Wireless Support Structures affecting in place wiring, etc. - and other city services and infrastructure must be kept to a minimum.
 - x. The Permittee must be responsible for construction, operation, and maintenance of all electrical and fiber communications connections necessary.
 - y. The Permittee must label the pole 4-6 feet off the ground. The label must be constructed of durable material resistant to UV light degradation and made for outdoor use in the installed environment. The letters must be at least 0.5” tall. The label must include the following information:
 - i. The Permittee’s name.
 - ii. Main emergency (24/7/365) telephone number providing direct and immediate access to a Permittee staff person who is capable of responding to emergencies.
 - z. The Permittee must provide and place a radio frequency (RF) caution label/warning sticker at the point of the safety boundary for the specific site. If the boundary changes, the label must be relocated by the Permittee immediately. The label must be constructed of durable material resistant to UV light degradation and made for outdoor use in the installed environment. The letters must be at least 0.5” tall. If requested, the Permittee will provide documentation identifying the safety of normal public ground-level travel around the site.
 - aa. The Permittee agrees and must install and maintain equipment of the type and frequency which will not cause harmful interference to any current or known near-future equipment of the City or its partners/contractors. It is the Permittee’s responsibility to confirm and appropriately test their equipment in accordance with FCC requirements by an independent professional radio frequency engineer (“RF Engineer”) to confirm that there will not be harmful interference before pursuing approval from the City.

- bb. The installation will not create noise above 45 decibels within 3 feet of any property line.
- cc. The Permittee must remove or paint over unnecessary equipment manufacturer decals. The color must match the equipment. Support structures must not include advertisements and may only display information required by a federal, state, or local agencies.
- dd. The Permittee is responsible for all costs and actions for life cycle replacement of the Permittee-Owned Wireless Support Structure or equipment.
- ee. The Permittee is responsible for all costs and actions for movement or replacement of the Permittee-Owned Wireless Support Structure or equipment due to City infrastructure or development projects. Any movement or replacement of the Permittee-Owned Wireless Support Structure requires a new encroachment permit and new review of the installation for public safety reasons.
- ff. Permittee-Owned Wireless Support Structures must resemble in color, and should resemble in aesthetics and style, the surrounding support structures. In areas where decorative poles exist, the provider must show how their support structure design will be reasonably consistent with the adjacent aesthetics, including but not limited to decorative pole bases, mounting heights, pole colors, etc.
- gg. No Small Wireless Facility may extend more than 10 feet above its Permittee-Owned Wireless Support Structure.

Collocated Small Wireless Facilities

The following applies to Small Wireless Facilities collocated on City-Owned Wireless Support Structures in the Saint Paul public ROW. All carriers intending to place a Small Wireless Facility upon a City-Owned Wireless Support Structure must enter into a Standard Small Cell Collocation License agreement prior to any site selection or review. Each proposed Small Wireless Facility collocation must be reviewed and approved by means of a Supplemental License Agreement (SLA) as described in the Standard Small Cell Collocation License. Both the Applicant and the City of Saint Paul shall have the goals of safety, efficiency, accurate records, and cooperation.

The City may deny a Collocation Application if it determines that the denial is necessary to protect the health, safety, and welfare or when necessary to protect the public ROW and its current use. If the City accepts an Application for Collocation of a Small Wireless Facilities on a streetlight pole, the primary purpose of the pole shall remain as a streetlight.

1. Site review: The Applicant must submit a Supplemental License Agreement (SLA) and application fee for every collocated Small Wireless Facility site, and pay the required rent identified in the Standard Small Cell Collocation License.
 - a. Every proposed site is subject to site-specific review to determine whether the site is acceptable for use with collocated Small Wireless Facility equipment.
 - b. To protect the ROW in its current use, and the strength and structural integrity of City-Owned Wireless Support Structures, sites with existing Small Wireless Facility equipment, cameras, charging stations, traffic signals, or other attached wind/weight load products are not acceptable for use with collocated Small Wireless Facilities.
 - c. If a carrier proposes a collocation installation on a pole that has an existing banner, the City will review the banner installations in the vicinity of the specific pole initially requested to see if there are light poles in the vicinity that do not have banners and would be potentially viable for the small cell installation. If potentially viable poles exist, the City will convey that option(s) to the carrier and will let them review and resubmit. If there are no potentially

viable poles in the vicinity (due to the potential for numerous banners in a group installation), or the carrier identifies that the proposed alternate site is not viable, the City will work with the Mayor's Office and Traffic Operations to have the banner owner notified and the banner structure removed at no cost to the banner owner (but at the cost of the carrier). The collocation process at that location can then continue.

- d. Sites with a demonstrable history of crashes or vehicular damage incidents (defined as more than one or more crashes or damage incidents in a 24-month period) are not acceptable for use with collocated Small Wireless Facilities.
- e. Sites must comply with all adjacent power companies' engineering standards and proximity requirements and provide such documentation or compliance from the power or communication company as part of the application. Such documentation is required if the installation will be 10 feet or closer horizontally of overhead power or communication lines.
- f. The Licensee must ensure the site is not located within the safe radio frequency clearance of buildings, public spaces, and normally habitable areas.
- g. City-Owned Wireless Support Structures with above ground power feeds are not acceptable for use with collocated Small Wireless Facility equipment.
- h. To protect the ROW in its current use, and the strength and structural integrity of City-Owned Wireless Support Structures, historic or decorative poles, and poles supporting traffic signals, are not acceptable for use with collocated Small Wireless Facilities.

2. Design, Installation and Life Cycle Replacement:

- a. The City's application fee, which may recover the City's rights-of-way management costs to the extent permissible under state and federal law, should be submitted with the collocation application. All installation and associated costs (office, field inspection/review, banner removal, administrative, mapping updates, etc.) related to the Small Wireless Facility Collocation realized by Saint Paul must be reimbursed by the Licensee, as authorized and permitted by state and federal law.
- b. Roadway streetlight poles are typically replaced with decorative poles when streets with roadway streetlight poles are reconstructed. Collocated Small Wireless Facilities may be altered or removed at no cost to the city when streets are reconstructed. The Licensee will have an opportunity to remove the existing Small Wireless Facility.
- c. A Licensed Professional Engineer, licensed in the State of Minnesota, must certify that the pole, foundation, and all components thereof, can accommodate all anticipated loads for all expected design conditions. Prior to SLA approval, the Applicant must complete required structural design and analysis/review. Such design and analysis must be available upon request. This information is in addition to detailed construction plans required as identified by the Right of Way Management Division as part of the permit process.
- d. Collocated Small Wireless Facilities must be installed on Saint Paul standard poles. Existing poles must be replaced with a new, structurally adequate pole prior to the installation of Collocated Small Wireless Facilities. The color and surface treatment of the replacement pole must match the surrounding area poles, and the Collocated Small Wireless Facility must match the color of the pole to which it is attached.
 - i. Exception: On a site-by-site basis, Saint Paul may approve use of a non-Saint Paul standard pole under the following guidelines:
 - 1. The height of the streetlight luminaire must be determined by Saint Paul.
 - 2. Non-standard poles must appear the same as Saint Paul standard poles and must have the same bolt pattern.
 - ii. Note: In all cases, Saint Paul maintains ownership of street lighting/poles regardless of origin. Any pole purchased by a Licensee and installed through this Collocation process becomes the property of Saint Paul once it is installed.

- e. Collocated Small Wireless Facility poles must be installed on the existing foundation.
 - i. Exception 1: During the installation, the Licensee or the City may determine that the foundation is not suitable for use with Collocated Small Wireless Facilities. Saint Paul will arrange the replacement of the existing foundation with a new Saint Paul standard foundation at the expense of the Licensee.
 - ii. Exception 2: On a site-by-site basis, Saint Paul may approve replacement of the existing foundation under the following guidelines:
 - 1. The maximum allowable diameter of the foundation is 30"; the minimum allowable diameter of the foundation is 24".
 - 2. The minimum depth of the foundation is 60".
 - 3. All anchor rods must be hot-dip galvanized steel embedded in the concrete at least 32".
 - 4. All anchor rods must be 1" bolt diameter with 8 threads per inch.
 - 5. Each foundation must have four anchor rods installed in a square pattern on a 15" circle (10.6066" between adjacent bolts, 15" between diagonal bolts, measured to bolt centers).
 - 6. Some of Saint Paul's fiber optic systems run through the street lighting foundations. If a foundation replacement is approved, Saint Paul will arrange the replacement at the expense of the Licensee.
 - 7. Impacts to downstream street lighting and other city services must be kept to a minimum.
- f. Saint Paul will provide constant power to Collocated Small Wireless Facilities at the expense of the Licensee up to 10 amps at 120 volts.
 - i. If impassible conduits are encountered, Saint Paul will arrange new conduits at the expense of the Licensee.
 - ii. Metering needs or electrical capacity limitations may require new electrical service equipment to be installed. Saint Paul will arrange the installation at the expense of the Licensee; however, power demand may not exceed 10 amps at 120 volts.
 - iii. The Licensee must identify max power demand and average daily power demand before installation.
- g. The Licensee must label the pole 4-6 feet off the ground consistent with any FCC requirements. The label must be constructed of aluminum, brass, or stainless steel. The letters must be at least 0.5" tall, engraved or embossed. The label must include the following information:
 - i. The Licensee's name.
 - ii. Main emergency (24/7/365) telephone number providing direct and immediate access to a Licensee staff person who is capable of responding to emergencies.
- h. The Licensee must provide and place a radio frequency (RF) caution label/warning sticker at the point of the safety boundary for the specific site. If the boundary changes, the label must be relocated by the Licensee immediately. The label must be constructed of durable material resistant to UV light degradation and made for outdoor use in the installed environment. The letters must be at least 0.5" tall. If requested, the Licensee will provide documentation identifying the safety of normal public ground-level travel around the site.
- i. The Licensee agrees and must install and maintain equipment of the type and frequency which will not cause harmful interference to any current or near-future equipment of the City or its partners/contractors. It is the Licensee's responsibility to confirm and appropriately test their equipment to confirm that there will not be harmful interference before pursuing approval from the City. The Licensee must obtain a radio frequency interference study carried out by an independent professional radio frequency engineer ("RF Engineer") showing that the Licensee's intended use will not interfere with the City's licensed and unlicensed communications facilities located in the vicinity of the structure. The Licensee

must not transmit or receive radio waves at the site until such evaluation has been satisfactorily completed and approved.

- j. No Collocated Small Wireless Facility may extend more than ten (10) feet above its City-Owned Wireless Support Structure.
- k. No company signs or logos are permitted to be placed on a City pole, including replacement poles. Logos or identifying marks on the Small Wireless Facility equipment itself shall not be visible from the street/sidewalk.
- l. All Collocated Small Wireless Facilities, other than electric meters, must be a minimum of ten (10) feet above sidewalk elevation.
- m. All cables or wires for the Collocated Small Wireless Facility must be located inside the pole to the extent practical except where such cables or wires attach to the ports in the antenna.
- n. Each Collocated Small Wireless Facility must be equipped with an emergency fuse disconnect (i.e. "break away" fuse). If a City-Owned Wireless Support Structure is already equipped with an emergency fuse disconnect, splicing is permitted after the disconnect.
- o. Replacement of light fixtures to LEDs is encouraged to free up capacity in the circuit, with review and approval by the Director.