

State of Connecticut 5G Council Policy Guidance



The Office of
Governor Ned Lamont



Connecticut is dedicated to keeping its citizens connected, its businesses growing, and its economy thriving. To do this, we need a strong backbone of technology that will serve us now and secure us for the future.

5G is a wireless technology that will radically improve internet access in the state, particularly in rural and under-served areas. Our responsible investment in the 5G platform will **level the playing field for residents** and pave the way for practical innovation. From autonomous vehicles, to manufacturing, healthcare and personal services, 5G is going to deliver massive improvements to the productivity of our businesses and residents.

One of the hurdles to this kind of investment is the need to position communications equipment on state land. In the past, when wireless carriers requested access, the process could take many months (or years). And it was **riddled with red tape**. This handcuffed our ability to best serve our communities. That's why Governor Lamont signed [landmark legislation](#) that streamlines the equipment siting process. Wireless carriers will now get a fair and timely decision to their request in **90 days or less**.

Wiring Connecticut for 5G technology will be a massive undertaking, and we must be planned and coordinated in order to ensure we provide equitable coverage to our state residents, minimize disruptions from installation, are protecting the health of our residents and that 5G infrastructure blends in with the unique aesthetic designs of our beautiful cities and towns.

To ensure we do this right, the 5G Council has spent the last four months hearing from Connecticut residents and businesses, national policy and health experts, cellular carriers and others. Synthesizing what we have heard, the Council has produced a comprehensive set of criteria by which it will evaluate applications for building personal wireless service facilities and small wireless facilities on state real property.

These criteria also serve as the Council's recommendations for towns, municipalities, and private property owners as they approach installing personal wireless service facilities and small wireless facilities across the state.

5G wireless technology presents an exciting moment in our state's history as it will drastically improve the productivity and capabilities of our businesses and residents. We must capitalize on this opportunity to grow our economy and provide more prosperity for all while also protecting the health of our residents and the cultural and economic vibrancy of our great cities and towns. The Council crafted the policy guidance below to address each of those areas and feels confident that together we can responsibly and efficiently usher the state into a new era of technological advancement.

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The Connecticut 5G Council

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Master Plans

As required by [House Bill No. 7152](#), any wireless carrier or permitted entity that submits a request to build personal wireless service facilities and small wireless facilities on state real property shall submit to the 5G Council a master plan or equivalent plan for personal wireless service facilities and small wireless facilities. These plans will be deemed a trade secret and exempt from public disclosure. These plans help the Council to understand where and when a carrier would like to build and helps the Council consider aspects like construction disruption, co-location, aesthetic impacts, effects on other infrastructure, equitable cellular coverage across the state, and others.

The Council requests that carriers also share their master plans for installation in cities and towns with those local governments so that officials are able to prepare for installations in a holistic manner and assess factors such as construction disruption, coverage for all communities, aesthetic and other economic impact of infrastructure, and more.

Equitable and Inclusive Cellular Coverage for Connecticut

Every Connecticut resident deserves to have access to high speed broadband connectivity. The 5G Council urges applicants to build personal wireless service facilities and small wireless facilities in a manner that fairly and equitably provides cellular coverage to communities across the state, does not create or exacerbate the digital divide, and does not discriminate against localities based on geography or on the basis of race, color, socio-economic status, religion, sexual orientation, national origin, sex, physical or mental disability, or age.

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Fees

The 5G Council has the right to negotiate fees on a case-by-case basis with all applicants. In most cases, the Council expects annual lease fees to be as prescribed by the FCC at a rate of \$270 per small cell network facility. However, should the FCC rate change, the annual lease fees will be updated to reflect the most recent FCC ruling. An application fee will be levied on carriers at a rate of \$1,000 to cover the expected costs incurred by the state for processing small cell network facility requests. However, the Council reserves the right to negotiate fees dependent upon the circumstances of an applicant's request and the actual costs incurred by the state with respect to expenses associated with permitting and other factors. For example, a bundled lease and reduced application rate may be offered to applicants with multiple personal wireless service facilities and small wireless facilities requests, or an increased application rate may be applied if the actual costs associated with an application exceed the application rate.

All fees established will be a reasonable approximation of the state's or municipalities costs; the costs-calculated fees will be objectively reasonable; and fees may take into account other factors pertaining to the property, such as context of the surrounding areas, the reached population, and others.

In order to maintain a uniform fee structure, the 5G Council encourages municipalities to abide by the FCC-prescribed rate.

Escrow accounts may be established by the 5G Council and municipalities to cover the costs associated with municipal planning, engineering due diligence, design review, permit processing and other activities associated with the processing applications for personal wireless service facilities and small wireless facilities.

Health and Safety

The 5G Council requires applicants to conduct an analysis of the emissions of the facility in keeping with current Maximum Permissible Exposure (% MPE) as listed in [FCC bulletin 65 Edition 97-01 \("FCC OET 65"\)](#) and [A NSI/IEEE Std. C95.1](#). These standards for exposure to radio frequency ("RF") emissions from wireless telecommunications facilities are adopted pursuant to and in keeping with 47 CFR §1.1310 and 47 CFR §1.1307(b)(1)-(b)(3). See analysis [by the Connecticut Department of Health for more context on health effects of 5G RF Emissions](#). All calculations must be performed per the specifications set forth in [FCC](#)

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[OET 65](#). The anticipated maximum composite contributions of the site with regards to compliance with the FCC's allowable limits for general population exposure to RF emissions must be calculated using the closest accessible point to the antenna, assuming maximum gain values. Additionally, the aggregate emissions from surrounding telecommunication facilities, which affect the area of measurement, must be considered in the calculation of the proposed facility's contribution of RF emissions.

Applicants must adhere to all regulations on noise made during construction applicable in the area of installation. Applicants must ensure no harm is caused to communities, residents and business operations during the construction and installation activities.

Applicants should use the site so as to conform with and not violate any laws, regulations and/or requirements of the United States, the State of Connecticut, or any applicable ordinance, rule or regulation of the Town / City in which the site is located, now or hereafter made, relating to the use of the premises, and applicants shall indemnify and save the 5G Council harmless from any fines, penalties or costs for violation of or noncompliance with the same to the extent such fines are required and properly assessed by law.

Applicants must cooperate with the Council and other carriers such that the site and the associated premises shall be and remain in compliance with all applicable FCC and OSHA rules and regulations relating to guidelines for human exposure to radio frequency or electromagnetic emission levels, as may be issued from time to time, including but not limited to the rules and regulations adopted in FCC document OET 65 (which rules and regulations have also been adopted by OSHA). If applicants believe that the operation of its equipment on the site does not obligate applicants to submit filings in accordance with FCC and OSHA rules and regulations, applicants shall demonstrate, to Council's reasonable satisfaction, that an applicant's operations of its equipment is so excluded. To the extent that an applicant's equipment is not excluded, or if the Council in its reasonable judgment believes that an applicant's equipment, either by itself or in conjunction with other equipment in or on site, may exceed permitted emission levels, applicants shall (A) promptly, upon the Council's written request, deliver to the 5G Council a reasonably acceptable certification or survey report demonstrating that an applicant's equipment and actual design layout of the site is in compliance with all applicable FCC and OSHA rules and regulations (a "Survey"), and (B) to the extent that an applicant's equipment

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or the operation thereof directly or indirectly causes such non-compliance, as reasonably determined by an independent radio frequency engineer, and an applicant's equipment is the sole cause of such non-compliance, the site (or any section thereon) to not be in compliance with such rules and regulations, promptly remedy any such non-compliance in accordance with said Governmental Agency's or at the Council's reasonable directions and at the applicant's sole cost and expense; otherwise, if an applicant's equipment is not the sole cause of such non-compliance, the applicant shall undertake whatever actions are reasonably necessary on its part (based upon the level of RF emissions from each telecommunications provider's equipment), together with other responsible parties, for remedying such non-compliance. In the event that an applicant (i) relocates or makes any change to the equipment located on the site, or (ii) makes any change to any equipment or operation thereof which directly or indirectly affects the operation of the applicant's equipment located on the site, the Council may, at its option, and so long as such relocation or alteration was not made at the request of the 5G Council, require that a new survey be conducted at the applicant's sole cost and expense by a firm approved by the Council in its reasonable discretion (in addition to the annual survey described above), but if an applicant believes that the operation of its equipment does not obligate the applicant to submit filings in accordance with applicable FCC and OSHA rules and regulations, the applicant shall demonstrate, to the Council's reasonable satisfaction, that the applicant's operation of its equipment is so excluded, in which case the applicant shall have no obligation to pay for any portion of the survey.

Applicants shall adhere to any and all industry "safe" and "best" practices and all OSHA requirements related to the construction, installation, maintenance and operations of the improvements, poles and all equipment, and applicants shall indemnify, defend and hold harmless the 5G Council from any fines, penalties, costs, damages, claims, suits, judgments and/or awards for violation of or noncompliance with the same or any property damage, injuries or death resulting from noncompliance with the same.

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An applicant's use of the site shall be subject and subordinate to any reasonable rules or regulations, including, but not limited to, security procedures and orders, promulgated by the 5G Council from time to time concerning the site, whether or not reference in this guidance; however, the Council will provide applicants with adequate notice of any such rules or regulations and such rules will not be inconsistent with the terms and conditions of this guidance.

Installation

Applicants must ensure the structural safety of the site at which they intend to build, must protect public health, and must abide by the standard state construction processes. Steps that must be taken to ensure the above requirements be taken at the applicant's costs.

The 5G Council will require applicants to directly retain a report from a licensed, professional engineer that the personal wireless service facilities and small wireless facilities can be installed safely and within code to complete the engineering phase and to submit the results with, or as a supplement to, the application. The engineering phase consists of survey and engineering work that results in a make-ready estimate. During the survey, a crew performs a physical inspection of the site to inventory the location of existing attachments and to evaluate the adequacy of the site to accommodate the proposed attachments. Upon the completion of the survey, the 5G Council will procure a design make-ready solution and estimate.

The Council will be relieved from performing any survey and engineering work, except for reviewing the proposed make-ready solutions and developing a make-ready estimate. The make-ready estimate for billable make-ready work will be conducted within fifteen (15) business days, provided the make-ready solutions are reasonably satisfactory to the Council. If minor adjustments to the make-ready solutions are needed, the Council shall incorporate such adjustments into the make-ready estimate and notify the applicant, within said fifteen (15) business days, of the specific

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deficiencies and provide the applicant an opportunity to correct the deficient make-ready solutions. Upon resubmission, the Council will have fifteen (15) business days to issue the make-ready estimate.

Finally, after the 5G Council approves an applicant's work plan, the applicant shall have a period of one year to commence initial construction, unless the Council and the applicant agree to extend this period, or the delay is caused by events outside the reasonable control of the applicant.

Co-location

In order to minimize installation disruptions and infrastructure density required for coverage, the 5G Council will give strong preference to sites where co-location is possible and applications that utilize such co-location. If an applicant believes co-location is not appropriate or technologically possible because the personal wireless service facilities and small wireless facilities would not function properly, would cause structural or safety deficiencies to the municipal site, or for other reasons, it must provide the Council with explanation and evidence.

Municipalities are strongly encouraged to promote co-location of personal wireless service facilities and small wireless facilities on municipal sites using the processes established by the 5G Council or a municipal ordinance or a master license agreement consistent with the Council's standards, unless there is strong evidence the personal wireless service facilities and small wireless facilities would not function properly, cause structural or safety deficiencies to the municipal site, in which case the municipality and applicant shall work together for any make-ready work, modifications or replacements that are needed to accommodate the small wireless facility. All co-located structures and facilities must not obstruct or hinder travel for public safety within a right-of-way.

When a new party requests to co-locate on a site with existing personal wireless service facilities and small wireless facilities, the applicant must ensure that no technical limitations or additional costs to the original facilities will occur by installing new facilities.

Notice of Development

In addition to seeking 5G Council approval, applicants seeking to erect fixtures and apparatus on state real property must also notify property owners adjoining the proposed installation.

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Pursuant to House Bill No. 7152 [Public Act No. 19-163 Section 1(d)(2)(B)(i) the 5G Council shall accept and review comments from any state agency affected by installation requests and any interested person. “Interested persons” means a person as defined in section 3-56a of Connecticut General Statutes, who owns land in the state that abuts state real property, or is within 300 feet of the proposed personal wireless service facility or small wireless facility. The 5G Council will thoroughly review all comments from interested persons, particularly for insights on the impact installed equipment will have, if any, on adjoining proprietors or the community at large. The 5G Council may follow up with interested persons that submit comments to gain more understanding. The Council may require applicants to revise their building plans or deny requests altogether if it deems necessary following review of submitted comments.

All required federal, state, city, town licenses and permits, and all other licenses and permits for the site and the applicant’s use thereof, must be obtained by the applicant, at no cost or expense to the 5G Council. Copies of such documents must be provided to the Council and the property manager.

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Construction

Applicants shall be responsible for any and all costs associated with the installation, alteration, maintenance, improvement and/or repair of personal wireless service facilities and small wireless facilities, unless otherwise provided within this guidance.

Applicants, at their own expense, shall obtain all necessary governmental approvals, permits, authorizations and certificates for the commencement and prosecution of the applicant's improvements and for final approval thereof upon completion. Applicants shall cause the construction of all personal wireless service facilities and small wireless facilities to be performed in a good and first-class, workmanlike manner, using new materials and equipment at least equal in quality to the original standard installations of the site, if applicable. Applicants shall schedule such installation and other work with the responsible managing authority.

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Before proceeding with the initial construction or improvement work, applicants shall submit to the 5G Council, at the applicant's sole cost and expense, at least two (2) copies of detailed plans and specifications of the initial work for the Council's review in accordance with this paragraph.

Applicants will supply the Council with plans and specifications to be reviewed and approved by the Council prior to commencement of the applicant's improvements.

All equipment will be installed in the locations depicted in the drawings, and to the specifications and in accordance with the other sections of this guidance. If no such drawings, specifications or additional information are attached, or if the attached materials are reasonably determined by the 5G Council to be inadequate, then applicants shall not install or modify any equipment in or on the site unless and until such work is depicted in a work plan, submitted to, and approved in writing by, the 5G Council, which approval shall not be unreasonably withheld, conditioned or delayed.

Provided, however, that cable installation, upgrades, modifications, routine maintenance, in-kind replacements, or replacements permitted in this guidance and repairs to the site, which do not adversely affect equipment, cables, or other property at the site, or of other third parties, shall not require the Council's prior approval of a work plan. Applicants, without the consent of the 5G Council, may replace the personal wireless service facilities and small wireless facilities with (i) equipment of similar use, function or purpose; and/or (ii) equipment of comparable or smaller size and type. Although, applicants shall deliver to the Council a revised work plan within ten (10) days after completion of such work to reflect any modifications. The 5G Council shall approve or reject the work plan in its reasonable discretion within fifteen (15) days after submission stating in writing the specific objections to the proposed work plan. The Council may subject its approval of any work plan to reasonable conditions including, but not limited to, commercially reasonable accommodations to protect the aesthetics of the site, such as appropriate color schemes, cladding, materials or screening, at the applicant's expense, and, in connection with the construction of the improvements. After the applicant has completed the

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initial installation under the approved work plan, any alterations shall be subject to the terms and conditions of this section, including the requirement that an applicant obtain an approved work plan for all alterations, excluding routine maintenance, in-kind replacements and replacements permitted under this guidance.

Dig Once Policies

It is critical to communities, the taxpayer and the competitive market that construction costs and disruptions are kept to a minimum while installing personal wireless service facilities and small wireless facilities.

Dig once policies provide ready-made buried conduit that enable future providers to more easily and cheaply install fiber. Dig once policies benefit communities by protecting new and recently paved roads and sidewalks, enhancing the uniformity of construction, ensuring efficient, non-duplicative placement of infrastructure, and reducing overall costs and disruption of underground work. When digging is necessary for the installation or maintenance of fiber for other related personal wireless service facility and small wireless facility needs, the Council will give preference to applicants that utilize make use of dig once construction policies, whenever applicable. The Council recognizes that applicants will frequently use aerial installation for new fiber and may not need to dig at all.

Parties must prioritize laying conduit whenever installing fiber for personal wireless service facilities and small wireless facilities. If a party has a reason to not utilize conduit for an installation, they must provide the 5G Council with an adequate engineering explanation.

To minimize disruption, the 5G Council may require carriers and their affiliates to undergo construction during designated days and/or time periods. This planning process must be organized in conjunction with the municipal and state agencies of interest.

The Council strongly encourages municipalities and others to require a multi-party coordinated installation process of fiber conduit when it expects and / or receives multiple requests for access and installation to specific properties. To assist in this process, the Council requests that carriers and their affiliates make a good faith effort to inform, and continuously update, the Council, municipalities, and other associated parties of their Master Plans, and the implementation status of said plans.

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Design and Aesthetics

Applicants must work with state property managers and when applicable, local communities in a good faith effort to ensure new personal wireless service facilities and small wireless facilities meet the aesthetic and cultural design needs of the area and the community, does not economically or functionally harm surrounding properties, minimizes clutter, and does not conflict with other construction programs occurring simultaneously.

When designing aesthetics of equipment, applicants must ensure that:

1. A new utility pole that replaces an existing utility pole is substantially similar design, material, and color;
2. There is reasonable spacing between the location of a ground-mounted component of a personal wireless service facility or small wireless facility, but need not exceed 15 feet from the associated support structure;
3. A personal wireless service facility or small wireless facility meets reasonable location context, color, camouflage, and concealment needs of the structure, abutting properties, and community at large.
4. A new utility pole used to support a personal wireless service facility or small wireless facility meets reasonable location context, color, and material of the predominant utility pole type at the proposed location of the new utility pole.

Such design standards under this paragraph may be waived by the Council upon a showing that the design standards are not reasonably compatible for the particular location of a personal wireless service facility or small wireless facility or utility pole or are technically infeasible or that the design standards impose an excessive expense. The waiver will be granted or denied within 45 days after the date of the request.

Applicants must provide a summary and records of their interactions with property managers and neighboring properties (within reason and when applicable) discussing potential economic impact, explain in their proposals what aesthetic and economic impact their personal wireless service facilities and small wireless facilities will have on the state real property and local community, and provide evidence that they are minimizing as much as reasonably possible any negative aesthetic and economic impact to the community and surrounding property owners to ensure a timely response to the application. The Council may also consult with the relevant town, municipality, impacted property owners or others to understand the economic and aesthetic impact

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of proposed installations.

The 5G Council encourages municipalities and towns to ensure that installations of personal wireless service facilities and small wireless facilities match the aesthetic and cultural needs of their communities, minimizes clutter, makes no economically harmful impacts or otherwise disrupt quality of life.

Carriers will be required, as well as financially responsible, to meet all reasonable design standards prescribed by the State Historic Preservation Office, Municipality or State Agency for the site under consideration.

The 5G Council may require wireless providers to comply with objective design standards adopted by local ordinances. Such ordinances should only require the above mentioned parameters.

For sites considered to be on a state historic preservation building or within a district, personal wireless service facilities and small wireless facilities must also adhere to the standards and guidelines established by the Connecticut State Historic Preservation Office. The review and permitting process must be in compliance with Section 106 of the National Preservation Act of 1996.

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Environmental Impact and Endangered Species Act

The conservation of endangered and threatened species and their essential habitats is of paramount importance to the State. Every precaution must be made by State Agencies and carriers to ensure the safety of endangered and threatened species and their habitats during the planning, construction, maintenance and any other activities related to personal wireless service facilities and small wireless facilities development that could result in the destruction or adverse modification of an essential habitat for such species. For an optimal approval process, carriers should determine and illustrate whether installations will have any impact on endangered or threatened species and their habitats. If it is determined that there will be impact, applicants should apply to Connecticut's Department of Energy and Environmental Protection Natural Diversity Database in advance of submitting an application to the 5G Council for approval of wireless facilities.

Compliance With Law

Applicants must comply with all applicable laws relating to the ownership or operation of the site. Applicants must agree to comply with all applicable laws, work plans, and contractual obligations with respect to the installation, operation and maintenance of the equipment, an applicant's provision of services, and the site. Applicants shall obtain and keep in effect all required licenses, permits and other authorizations necessary to conduct their provision of services to the site and deliver copies thereof to the 5G Council upon request. The 5G Council agrees to cooperate with applicants, at no cost to the Council, in obtaining any required permits. If compliance with this section requires material modifications or alterations of any equipment, no such modification or alteration shall be made without the Council's prior written consent, which shall not be unreasonably withheld, conditioned or delayed.

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Cyber Security

Connecticut works hard to protect against cybersecurity threats. Carriers must ensure that they meet or exceed the standards established in Connecticut's [Cybersecurity Action Plan](#).

Building on Connecticut Rail Lines

DOT has developed a streamlined application that includes the conditions and requirements for installation of cellular sites in rail rights of way. Please contact the Department of Transportation for more information about the application process or to submit an online application.