

**DOCKET NO. 503** - Arx Wireless Infrastructure, LLC } Connecticut  
application for a Certificate of Environmental Compatibility and }  
Public Need for the construction, maintenance, and operation of a } Siting  
telecommunications facility located at 43 Osgood Avenue, New }  
Britain, Connecticut. } Council

December 16, 2021

### Opinion

On May 14, 2021, Arx Wireless Infrastructure, LLC (Arx or Applicant), applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a wireless telecommunications facility located at 43 Osgood Avenue, New Britain, Connecticut. The purpose of the proposed facility is to provide coverage to substantial portions of Farmington Avenue, Eddy Glover Boulevard, and surrounding residences and businesses in this area. The City of New Britain (City) is a party to the proceeding, and New Cingular Wireless PCS, LLC (AT&T) is an intervenor to the proceeding.

The United States Congress recognized a nationwide need for high quality wireless services through the adoption of the Federal Telecommunications Act of 1996 and directed the Federal Communications Commission (FCC) to establish a market structure for system development and develop technical standards for network operations. The FCC preempts state or local regulation on matters that are exclusively within the jurisdiction and authority of the FCC, including, but not limited to, network operations and radio frequency emissions. Preservation of state or local authority extends only to placement, construction and modifications of telecommunications facilities based on matters not directly regulated by the FCC, such as environmental impacts. The Council's statutory charge is to balance the need for development of proposed wireless telecommunications facilities with the need to protect the environment.

Arx constructs and owns tower facilities throughout the United States. Arx would construct, maintain and own the proposed facility and would be the Certificate Holder. AT&T is licensed by the FCC to provide personal wireless communications service throughout the state and would lease space on the proposed tower for their telecommunications equipment.

AT&T currently has coverage gaps along portions of Farmington Avenue, Eddy Glover Boulevard, and residential neighborhoods and business retail areas proximate to these roads. AT&T would deploy 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz frequency bands at the site, all of which transmit voice and data services. All of these frequency bands are designed to carry 5G services.

AT&T has two neighboring sites located at 35 Washington Street a/k/a Columbus Boulevard and 60 Paul Manafort Drive that have sectors facing AT&T's target area. AT&T's dropped/blocked call data from these sectors indicate elevated voice and data drops/blocks in the target area. The proposed tower would enhance coverage and capacity within the target area.

Coverage modeling indicates that the proposed site would provide 0.21 square miles of incremental coverage to the area surrounding the tower based on 700 MHz frequency band and a minimum of -93 dBm signal strength. This coverage would include, but not be limited to, 0.3 mile of main road coverage and 3.9 miles of secondary road coverage.

AT&T's deployment would enable customers to make wireless emergency calls within the service area. In addition to wireless call capability, AT&T's deployment would feature emergency communication FirstNet services. These services are provided through a federal program to establish emergency communications to areas with deficient wireless service. FirstNet gives emergency responders on AT&T's 700 MHz 4G LTE network first priority to ensure emergency communications are not interrupted.

Arx established a search ring for AT&T's proposed service area which had a radius of 0.25 mile and was centered at approximately Farmington Avenue and Allen Street. Arx, jointly with AT&T, determined that there were no existing structures available within the search ring. Thus, 15 potential sites were initially investigated. Fourteen of these sites were rejected due to lack of property owner interest in hosting a tower and/or due to the site being able to meet AT&T's coverage objectives.

Arx also evaluated sites suggested by the City including, but not limited to, Elam Street, Osgood Park, and 723 Farmington Avenue. These three sites would not meet AT&T's coverage objectives. Additional sites suggested by the City included an Eversource-owned substation property located at 148 Farmington Avenue as well as properties owned by the Beth Alom Cemetery Association Inc. (BACA). The three BACA properties included a cemetery property at 48 Allen Street and two vacant lots across the street located at 65 and 73 Allen Street respectively.

Arx reached out to Eversource regarding the 148 Farmington Avenue site and was advised that it is not available for tower development. Additionally, the area outside the substation fence is reserved by Eversource for future use.

The 48, 65 and 73 Allen Street BACA property sites could potentially meet AT&T's coverage objectives, and the City is supportive of any of these three sites. However, despite Arx's discussions with BACA regarding a potential lease agreement, a mutual agreement had not been reached during this proceeding. Furthermore, BACA is not obligated to approve and enter into any lease on its property.

During the proceedings, AT&T also considered various alternatives to the proposed site suggested by the Council, such as rooftop facilities, distributed antenna systems, small cell deployments and multi-site solutions, none of which were viable due to the reasons that include, but are not limited to, cost, deficient coverage, difficulty providing back up power, antenna mounting and height, and higher radio frequency emissions from the proposed facility.

Although many sites were examined and many landowners were not interested in a lease agreement for a wireless facility, the Council has no authority to compel a parcel owner to sell or lease property, or portions, thereof, for the purpose of siting a facility nor shall the Council be limited in any way by the applicant having already acquired land or an interest therein for the purpose of constructing a facility.

The proposed site consists of a 104-foot monopole facility located on a 2.62-acre parcel at 43 Osgood Avenue. The parcel, zoned S-3 District, is developed with an existing one-story building that was a school in the 1970s and is currently vacant and privately owned. The tower site, at an elevation of 344 feet above mean sea level, is located within a courtyard area south of the existing building. The proposed tower would be located within a 50-foot by 50-foot, fenced compound. The tower and compound would be designed to support AT&T and three other wireless carriers as well as emergency communication antennas.

AT&T proposes to install six panel antennas and nine remote radio heads on sector mount frames at a tower centerline height of 100 feet. As of July 7, 2021, the City has not expressed an interest in co-locating emergency services antennas on the proposed facility. As of September 2, 2021, no other wireless carriers (other than AT&T) had expressed an interest in co-locating on the proposed tower.

The compound would be accessed from Beach Street via an existing paved parking lot. The access road would be improved with gravel. Utilities to the compound would be installed underground from the northeast corner of the compound and along the proposed access route to an existing utility pole on Beach Street.

In the event an outage of commercial power occurs at the proposed site, AT&T would rely on approximately 15-kilowatt natural gas-fueled emergency backup generator to be installed within the fenced compound.

The nearest property boundary from the proposed tower is approximately 90 feet to the north. The nearest off site residence is located approximately 128 feet to the north of the tower site. There are approximately 302 residences within 1,000 feet of the proposed tower site. The Council will require that Arx design a yield point on the tower to ensure that the tower setback radius remains within the boundaries of the subject property.

Arx does not anticipate the need for blasting to construct the site. The project would require the approximately 8 cubic yards (cy) of cut and approximately 12 to 16 cy of fill to develop the compound. Access road improvement and construction of the utility route would require approximately 140 cy of cut and the installation of approximately 150 cy of gravel to improve the existing surface.

No wetlands or watercourses are located within or proximate to the subject property. The nearest wetland is approximately 0.6 mile east of the proposed facility.

The proposed facility would be constructed in compliance with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*.

Development of the proposed facility would not require the removal of any existing trees.

The site is not located within a flood zone, an aquifer protection area, or in an area with mapped prime farmland soils.

Operation of the facility would comply with DEEP Noise Control Standards.

The site is not located within a DEEP Natural Diversity Database buffer area. Connecticut is within the range of the northern long-eared bat (NLEB), a federally-listed threatened species and state-listed endangered species. However, the proposed site is not located within 150 feet of a known NLEB maternity roost tree or within 0.25-mile of a known hibernaculum.

The site is approximately 7.2 miles from a National Audubon Society designated Important Bird Area (Great Meadows). The proposed tower would comply with the United States Fish and Wildlife Service guidelines for minimizing the potential for telecommunications towers to impact bird species.

The subject property does not appear to be eligible for listing on the National Register of Historic Places (NRHP), and that the proposed project would not have an adverse effect on sites that are listed on or eligible for listing on the NRHP.

The Applicant prepared a visual impact assessment of the site utilizing a two-mile radius study area and computer modeling that was supplemented with in-field studies. These analyses were used by the Applicant to generate photo-simulations of the proposed tower.

Based on a visual impact assessment within a two-mile radius of the site (Study Area-8,042 acres), the proposed tower would be visible year-round from approximately 47 acres (<1%) and seasonally visible (leaf-off conditions) from approximately 87 acres (<1%) of the Study Area.

Generally, the tower would be visible from the residences immediately to the north. Views of the tower are also expected from the residences located across Beach Street. While some residences would have obstructed views due to a slight existing treeline, the tower would be visible from the majority of the abutters. Such visibility would be a mix of year-round views from those residences closest to the facility and directly across Beach Street and seasonal views for those farther away on Beach Street and subject to the intervening trees.

Views of the proposed facility would be limited primarily to locations within approximately 0.5 mile of the site. Adjacent neighborhoods within approximately 0.25 mile of the site would have both year-round and seasonal views of the facility. Seasonal visibility is expected to extend approximately 0.36 mile from the facility.

Intermittent seasonal views may extend to select locations between 0.4 mile and 0.6 mile to the south, southeast and east of the site. Additional year-round views are expected between 0.86 mile to 1.58 miles from the site to the northeast, south and northwest.

Arx could install a faux tree tower or “monopine” at the site. It would cost approximately \$90,000 for the tower. A “monopine” and faux branches would increase the overall width of the structure and likely draw more attention visually.

There are no “blue-blazed” hiking trails maintained by the Connecticut Forest and Park Association within one-mile of the site. In addition, there are no state or locally-designated scenic roads located within two miles of the proposed site.

No public schools or commercial child day care facilities are located within 250 feet of the proposed site. Furthermore, no such facilities are within a half-mile of the proposed site and the tower is not expected to be visible from these locations.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of the antennas proposed to be installed on the tower have been calculated to amount to 17.1% of the FCC’s General Public/Uncontrolled Maximum Permissible Exposure, as measured at the base of the tower. This is conservatively based on all antennas of a given sector pointing down to the ground and emitting maximum power. This percentage is well below federal standards established for the frequencies used by wireless companies. If federal standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC’s regulations concerning such emissions. Regarding potential harm to wildlife from radio emission; this, like the matter of potential hazard to human health, is a matter of federal jurisdiction. The Council’s role is to ensure that the tower meets federal permissible exposure limits.

After considering the record in this matter, the Council finds a need for a new tower to provide necessary wireless coverage to an underserved area. A 10-foot reduction in tower height would negatively impact coverage and future co-location opportunities. The site would also offer FirstNet emergency

communication service allowing for dedicated on-demand first responder communication to service subscribers.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, operation, and maintenance of the telecommunications facility at the proposed site, including effects on the natural environment, ecological balance, public health and safety, scenic, historic, and recreational values, agriculture, forests and parks, air and water purity, and fish, aquaculture and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, maintenance, and operation of a 104-foot steel monopole telecommunications facility at the proposed site located at 43 Osgood Avenue, New Britain, Connecticut.