

**DOCKET NO. 504** - Arx Wireless Infrastructure, LLC application } Connecticut  
for a Certificate of Environmental Compatibility and Public Need }  
for the construction, maintenance, and operation of a } Siting  
telecommunications facility located at Lot N-4, Sequin Drive, }  
Glastonbury, Connecticut. } Council

November 18, 2021

### Opinion

On June 4, 2021, Arx Wireless Infrastructure, LLC, (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 at Lot N-4, Sequin Drive, Glastonbury, Connecticut. The purpose of the proposed facility is to provide service to an existing coverage gap and provide reliable wireless communications services for AT&T's customers along portions of Route 2, Hebron Avenue, Route 94 and nearby residential neighborhoods and business areas in Glastonbury. 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's radio frequency propagation modeling and an analysis of ineffective attempts and dropped call data in the Voice over LTE wireless system indicate that AT&T is experiencing coverage gaps within its 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz frequencies along Hebron Avenue and the neighboring residential and business areas. AT&T currently operates equipment on 4 existing facilities within a four-mile radius of the site. As a result of distance from the target area and the geographical terrain, none of these facilities are able to provide adequate coverage to the proposed service area.

AT&T proposes to provide digital voice and data services to the proposed service area using 4th Generation (4G) services over LTE technology in the 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz, frequency bands. AT&T's coverage modeling indicates the proposed facility would provide about 0.9 square miles of service to the area surrounding the tower (700 MHz at -93 dBm), which includes, but is not limited to, 0.1 miles on State Route 2 and 0.8 miles on Hebron Avenue.

AT&T's proposed 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.

AT&T's proposed equipment installation would also provide 5G service over all its frequency bands.

AT&T established a search ring for the proposed service area which had a radius of 0.25 miles and was centered about 0.3 miles southeast of the proposed site. AT&T determined that there were no existing structures available within the search ring and subsequently joined Arx in searching for properties suitable for tower development. A total of 12 potential sites were investigated. The 11 other sites investigated were rejected due to property owners lack of interest in hosting a tower or deficient coverage to the proposed service area. Arx subsequently entered into a lease agreement with the owner of Lot N-4, Sequin Drive.

During the proceedings, AT&T 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 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 than the proposed facility. Also during the proceedings, the Town of Glastonbury (Town), expressed its preference for a tower location at 311 Oakwood Drive, approximately 0.46 miles southeast of the proposed site. A facility at this site would not satisfy AT&T's coverage objectives.

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 115-foot monopole located in the western portion of the 11.2-acre commercial parcel south of Route 2 and currently used to store equipment. The monopole would be located within a 50-foot by 50-foot fenced equipment compound designed to accommodate the equipment of four wireless carriers as well as municipal emergency services antennas and equipment. As of August 12, 2021, neither the Town nor any emergency response entity has expressed an interest in co-locating antennas on the tower. The equipment compound with an elevation of 94 feet above mean sea level (amsl) is located 5-feet from the western property boundary and is close to an existing commercial warehouse building on the adjacent parcel to the west.

AT&T proposes to install six panel antennas and 12 remote radio heads on a low-profile platform antenna mount at a centerline height of 111 feet above ground level which is the minimum height required to achieve its coverage objectives. AT&T would install one equipment walk-in cabinet and a 15-kilowatt emergency backup generator on concrete pads within the equipment compound at ground level. The generator would be fueled directly from the existing natural gas line on Sequin Drive and would be capable of running as long as there is supply for the duration of any power outage.

The proposed equipment compound will be surrounded by an 8-foot high chain link fence with a 12-foot wide gate that would be locked for security purposes. No landscaping would be installed around the compound. The compound would be accessed utilizing a proposed 25-foot wide paved driveway extending about 250 feet north from Sequin Drive to the proposed site. Utilities would extend underground from the southern side of the compound and along the proposed driveway to an existing utility box located along Sequin Drive.

During the proceedings, to increase the distance from the nearest property boundary and associated wetlands, Arx proposed a potential alternate location approximately 32 feet east of the proposed location

within the host parcel. At the alternate location, the equipment compound would have the same dimensions as the proposed location and AT&T would install antennas at a similar height (111 feet) without compromising its proposed coverage objectives. Access to the alternate location would be via a slightly longer driveway (268 feet) also extending north from Sequin Drive. The cost of construction would remain the same for both locations.

The nearest property boundary is at 65 Sequin Drive approximately 30 feet west of the base of the proposed tower and 5 feet from the western compound fence. The adjacent property boundary at 65 Sequin Drive would be approximately 61 feet west of the base of the alternate tower location and 30 feet from the compound fence. Thus, the tower setback radius for the proposed and alternate locations would extend beyond the boundary of the subject property to the west by 85 feet and 54 feet, respectively. Arx would design a tower yield point at the 85-foot level and 54-foot level for the proposed and alternate tower locations, respectively, to ensure the tower setback radius remains within the boundaries of the host parcel.

There are approximately 38 residential structures within 1,000 feet of the proposed and alternate tower locations. The nearest residence is approximately 582 feet northeast of the proposed tower location at 836 Hebron Avenue and 575 feet northeast of the alternate tower location at the same address.

Arx does not anticipate the need for blasting to construct the site. Development of the proposed site location would require about 8 cubic yards of cut, approximately 40 cubic yards of stone and concrete fill for the compound base and 120 cubic yards of cut and fill for a pad and pier foundation. The alternate location would require an additional 25 cubic yards of material. A large pile of excavated material from past development activity with a peak elevation of about 113 feet amsl is located in close proximity to the alternate site and would be relocated during construction or used for grading at the site.

The nearest wetland is previously disturbed and located on an adjacent property approximately 18 feet west of the proposed equipment compound and 10 feet west of its access road. The alternate location would maintain a consistent 50-foot buffer from the equipment compound and access road to the off-site wetland. No trees with a diameter of six inches or greater at breast height would be removed at the proposed or the alternate site location.

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

Neither the proposed location nor the alternate location is within a flood zone, an aquifer protection area, or in an area with mapped prime farmland soils. Operation of the facility at either location would comply with DEEP Noise Control Standards.

The site is not located within a DEEP Natural Diversity Database buffer area. One federally-listed Threatened Species and State Endangered Species, the northern long-eared bat (NLEB), is known to occur in the vicinity of the proposed site. 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 U.S. Fish and Wildlife Service (USFWS) determined that the proposed facility would not have an impact on the NLEB.

The site is approximately 5.0 miles from the nearest Important Bird Area as designated by the National Audubon Society. The proposed facility will comply with the USFWS guidelines for minimizing the potential for telecommunications towers to impact bird species.

The proposed facility would not have an adverse effect on sites listed on or eligible for listing on the National Register of Historic Places.

The Applicant prepared a visual impact assessment of the site utilizing computer modeling 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 one-mile radius of the site (Study Area-2,010.6 acres), the proposed tower would be visible year-round from approximately 24.5 acres (or 1.22%) and seasonally visible (leaf-off conditions) from approximately 28.9 acres (or 1.4%) of the Study Area. The majority of the year-round and seasonal views of the facility would be located within the commercial/ Industrial area surrounding the site. Residences located on Dutton Place would have no year round views of the facility however, residences located on Cavan Lane and Crestdale Road are predicted to have obstructed views of the tower through the existing tree canopy. The alternate tower location would have the same visibility characteristics as the proposed tower location.

Arx determined that a stealth monopine facility would be more visible above the existing tree line due to the lack of existing pine trees and the low heights of the existing tree line. A stealth flagpole would reduce AT&T's wireless service coverage and cost \$100,000 more than a regular monopole.

There are no Connecticut blue-blazed or other hiking trails located within two miles of the proposed 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.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the cumulative worst-case maximum power density from the radio frequency emissions from the operation of AT&T's proposed antennas to be installed on the tower have been calculated to amount to 13.7 % 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 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 at the proposed location to provide the necessary wireless coverage to an underserved area. The Council notes that the off-site wetland to the west has been previously disturbed by earlier commercial development. The site would also offer FirstNet emergency communications service allowing for dedicated on-demand first responder communications service to 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 in the proposed location, 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 115-foot galvanized steel monopole telecommunications facility at the proposed site located at Lot N-4, Sequin Drive, Glastonbury, Connecticut.