

**DOCKET NO. 464** – Blue Sky Towers, LLC and New Cingular } Connecticut  
Wireless PCS, LLC application for a Certificate of Environmental }  
Compatibility and Public Need for the construction, maintenance, } Siting  
and operation of a telecommunications facility located at Bridgeport }  
Tax Assessor Map 53, Block 1527, Lot 2, 220 Evergreen Street, } Council  
Bridgeport, Connecticut.

April 14, 2016

### Opinion

On December 2, 2015, Blue Sky Towers, LLC (Blue Sky) and New Cingular Wireless PCS, LLC (AT&T), (collectively the 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 135-foot monopole wireless telecommunications facility to be located at 220 Evergreen Street, Bridgeport, Connecticut.

The purpose of the proposed facility is to provide a permanent replacement to an existing AT&T site located at 370 North Avenue, Bridgeport, known as the HI HO Facility (HI HO Facility). The HI HO Facility is an approximately 80-foot concrete and steel coal storage silo facility. AT&T's antennas are co-located at the 83-foot level of the structure. Sprint and MetroPCS are also co-located on this facility. Because of the age of the structure (dating back to circa 1930s) and some coal being left inside the structure, there is excessive structural deterioration of this existing support structure on which AT&T's antennas are located. The entire HI HO Facility structure was deemed a serious hazard after a structural review and inspection. In light of the safety issues, AT&T's technicians are unable to visit the HI HO Facility for upgrades and repairs. Accordingly, AT&T will decommission its equipment from the HI HO Facility.

On July 6, 2015, the Council received a Petition (Petition) from Blue Sky and AT&T for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed installation of a temporary wireless telecommunications facility at the Chapin and Bangs property on 220 Evergreen Street, Bridgeport. The temporary wireless facility was intended to provide an interim solution for AT&T in order to continue providing wireless service until a permanent facility could be leased, permitted, constructed, and brought into operation. The temporary facility is a 120-foot monopole on top of an 8-foot tall ballast base, for a total height of 128 feet above ground level (agl). This temporary facility was approved by the Council on August 6, 2015. The temporary site was expected to be constructed by the end of February.

While this temporary facility meets AT&T's near term needs, the Applicant seeks to have a permanent solution to replace the wireless service lost by the decommissioning of the HI HO Facility. The purpose of the proposed permanent monopole facility is to allow AT&T to continue to provide reliable service to a geographic area including portions of Route 8, Route 127, Route 1, Main Street, Capitol Avenue, Lindley Street, Island Brook Avenue, Noble Avenue, Huntington Road, and other local roads in Bridgeport.

Specifically, AT&T proposes to locate at the 130-foot level of the proposed 135-foot permanent monopole facility. AT&T would install nine panel antennas and 27 remote radio heads on a low-profile platform to provide its wireless service. Blue Sky would be the Certificate Holder for the facility. AT&T would be a tenant on the proposed tower.

The loss of the HI HO Facility would result in the loss of population coverage of 4,172 and 6,741 at in-building and in-vehicle signal strengths, respectively, for 1900 MHz UMTS. With AT&T's antennas at 130 feet, the proposed permanent facility would significantly increase the population coverage to 9,847 and 9,349, respectively, for in-building and in-vehicle coverage. However, if AT&T were to install its antennas 10 feet lower at 120 feet, this could result in lost capacity and the ability to have continuous coverage in some areas.

There are no other existing towers or other sufficiently tall structures available within the Bridgeport area for antenna co-location that would meet AT&T's radio frequency (RF) needs. Repeaters, microcells, transmitters, distributed antenna systems, and other types of transmitting technologies are not viable options to replace the service lost from the decommissioning of the HI HO Facility. Besides the proposed site, AT&T evaluated six sites for a wireless facility development. Also besides the proposed site, Blue Sky performed its own search and evaluated eight sites for a new, permanent wireless telecommunications facility. Collectively, the alternative sites were rejected for various reasons such as lack of interest from the property owner, inability of the site to meet AT&T's RF needs, and/or 100-year flood zone issues. Accordingly, the Council finds that the Applicant conducted a thorough search for properties and alternatives suitable for a replacement facility in the Bridgeport area.

The proposed site at the 220 Evergreen Street property consists of 1.0-acre parcel that is zoned industrial and owned by Chapin & Bangs Company. The property is used for steel fabrication services. This is also the current site of the existing temporary tower. Land use at adjacent properties include developed commercial uses, multi-family residences, and the City of Bridgeport Animal Shelter.

An irregular shaped approximately 3,617.5 square foot fenced equipment compound would be established at the base of the tower. AT&T would install its equipment within an 11-foot 5-inch by 20-foot equipment shelter located within the compound. AT&T's proposed 50-kilowatt diesel backup generator would be located within a 4-foot by 7-foot area inside the fenced compound and adjacent to the equipment shelter. This generator would have a run time of about 48 hours based on its fuel tank capacity.

The proposed backup generator is sized for AT&T's use only. No other wireless carriers expressed an interest in co-locating on the proposed permanent monopole facility at this time. Similarly, no other wireless carriers have expressed an interest in re-locating from the HI HO Facility at this time despite the structural safety concerns about that facility noted by the Applicant. Notwithstanding, the Council will require that Blue Sky reserve space within the tower compound for a larger, future shared generator to accommodate future wireless carrier co-locations. The reserved space will be included in the Development and Management Plan (D&M Plan).

The proposed equipment compound would be surrounded by an eight-foot high chain-link fence. The fence would have a mesh size of 1 ¼ inches. No new access from Evergreen Street to the proposed tower compound is proposed because the tower compound would be located very close to the property line with Evergreen Street.

Utilities would be installed underground to the site from an existing pole located to the north and on the same side of Evergreen Street.

The tower and foundation would be designed to accommodate up to a 20-foot increase in height. At the proposed height of 135 feet, the tower set back radius extends beyond the subject property boundary approximately 97-feet to the southwest onto the abutting Guzman property. The Council will order the Applicant to include a yield point in the final design of the tower as part of the Development and Management Plan (D&M Plan) for the project to ensure the tower would not extend off of the site property in the event of a tower failure.

Development of the site will not adversely affect any wetlands. The nearest wetland is off-site and approximately 0.2 miles to the southeast. Also, there are no trees to be removed to construct the facility.

The Connecticut Department of Energy and Environmental Protection (DEEP) has reviewed the Natural Diversity Database and determined that the project will not adversely impact State-listed species.

The project will not have an adverse impact on resources listed on or eligible for the National Register of Historic Places.

Conservatively neglecting the exemption for emergency generators, with mitigation measures (e.g. noise mats) installed along the fence line parallel to the southwestern property line, noise from the air conditioning units and the backup generator at the proposed facility would not exceed DEEP Noise Control Regulations at the property boundaries. Alternatively, the backup generator could be relocated and the air conditioning units could be moved away from the southern property line closer to the City property to the north. This would achieve compliance with DEEP noise standards without the need for noise mats. The Council prefers this option because it avoids the need for noise mats. Such configuration should be included in the D&M Plan.

The tower site is located above the 100-year flood zone but within the 500-year flood zone. The Council is concerned about equipment within the 500-year flood elevation. Modest adjustments to the equipment shelter height could raise the bottom of the shelter to above the 500-year flood zone to further reduce the flood risk to the equipment inside. As for the backup generator, while the generator itself is currently located above the 500-year flood zone, the fuel tank itself would not be located above the 500-year flood zone. At the proposed location, the generator fuel tank would require roughly 1.3 feet of additional height at a minimum, and the equipment shelter would require at least 0.3 feet of additional height. However, these height adjustments will be subject to change due to the relocation of the shelter and generator for noise compliance (without mitigation) which would slightly alter the ground elevations of such equipment from their originally proposed locations. Accordingly, the Council will require that a flood elevation mitigation plan be included in the D&M Plan with plans to raise the equipment shelter, backup generator and fuel tank above the 500-year flood zone if possible. The Applicant should consult with the electric utility regarding protecting the transformer from flood risk and include the final transformer location in the D&M Plan.

There does not appear to be a mechanism to raise the tower above the 500-year flood zone. At the proposed location, it would require roughly a minimum of 2.3-foot (above grade) taller foundation to elevate the tower to above the 500-year flood zone. Such a modification would be problematic because it would raise the total height of the tower to roughly 137.3 feet agl, and notice of the proposed facility was provided based on a maximum height of 135 feet agl. As such, the tower will remain as proposed, outside the 100-year flood zone, but within the 500-year flood zone. Notwithstanding, the Council will require that the tower be designed to withstand inundation and meet all applicable design codes such as the governing standard in the State of Connecticut for tower design in accordance with the currently adopted International Building Code.

The proposed tower (similar to the existing temporary tower) would be visible along Evergreen Street and in between local buildings and trees within an approximately ¼ mile radius of the proposed site. Select areas of visibility would exist beyond this distance, but visibility would be limited to brief glimpses between and/or above intervening structures. The proposed tower (similar to the existing temporary tower) would be visible to southbound motorists from a portion of Route 8/25 between Chopsey Hill Road and Lindley Street. The opportunity for views from the northbound lanes is brief due to the direction of the travel.

The Council is concerned with the visibility of the proposed tower facility and must balance the need for the tower versus the environmental effects of the tower. In this case, the Applicant seeks to provide a permanent solution to the loss of the HI HO Facility. In doing so, Blue Sky must enter into a lease agreement with a willing landowner on a parcel that also meets AT&T's RF needs. After an exhaustive search, the Applicant found an industrial site that is also the location of the temporary tower. The proposed tower would have a modest height increase from 128 feet agl to 135 feet agl when compared to the existing temporary facility. Views of the permanent facility would be comparable to that of the temporary facility. Furthermore, the tower would be seen within the context of existing manufacturing, warehousing, and commercial buildings. Thus, the tower would be visually consistent with such views. While the context of an industrial zone does not easily lend itself to alternative or stealth tower designs such as a tree tower, the monopole would be a galvanized grey that would eventually weather to a dull grey. Finally, the Council finds that the proposed

facility replaces the lost HI HO Facility coverage, and that the visual impact of the facility would not outweigh the need for wireless service.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the radio frequency power density levels of AT&T's antennas would be 3.98 percent of the FCC's General Public/Uncontrolled Maximum Permissible Exposure, as measured at the base of the tower. 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.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, maintenance and operation of the proposed telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish 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 to Blue Sky for the construction, maintenance, and operation of a 135-foot monopole telecommunications facility at 220 Evergreen Street in Bridgeport, Connecticut.