| | | |
|---|---|---|
| **DOCKET NO. 480** – SectorSite LLC and T-Mobile Northeast, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility on town-owned property behind the Southwest Fire Station located at 2 Westwoods Drive, Farmington, Connecticut. | } | Connecticut |
| | } | Siting |
| | } | Council |
| | | May 10, 2018 |

## Opinion

On December 22, 2017, SectorSite LLC and T-Mobile Northeast, LLC (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 130-foot flagpole wireless telecommunications facility located at 2 Westwoods Drive in Farmington, Connecticut. The purpose of the proposed facility is to provide wireless in-building service to the south-western section of Farmington, including Tunxis Community College.

The proposed site is located on an approximate 230.6-acre parcel owned by the Town of Farmington. The eastern portion of the parcel contains the Southwest Fire Station, the historic Fagan House, and an active cornfield. The western portion of the property is developed as the Westwoods Golf Course. The tower site is located in an active cornfield behind the firehouse.

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.

SectorSite LLC (SectorSite) develops and leases telecommunications towers throughout the U.S. SectorSite would construct, maintain and own the proposed facility and would be the Certificate Holder. T-Mobile Northeast, LLC (T-Mobile) is licensed by the FCC to provide personal wireless communication service to Hartford County, Connecticut, where the site is located, and would lease space on the tower for their telecommunications equipment.

T-Mobile has nine existing telecommunications facilities within a four-mile radius of the proposed site. None of these sites provide adequate in-building service to the area. T-Mobile would deploy 700 MHz, 1900 MHz, 2100 MHz wireless Long Term Evolution service at the proposed facility. Most of T-Mobile's voice and data traffic would be handled by the 1900 MHz and 2100 MHz frequencies since T-Mobile is limited to 5 MHz of spectrum in the 700 MHz frequency band.

Propagation modeling indicates the proposed site would provide residential in-building coverage at both the 1900 MHz and 2100 MHz service frequencies to a 0.34 square mile area around the site. Although the in-building service area seems small, it would be able to provide service to Tunxis Community College at the intersection of Route 6 and Route 177, approximately 0.3 mile southeast of the site. In addition to the college, the service area contains residential areas with approximately 1,460 residents, and includes portions of the Route 6 and Route 177 travel corridors.

In 2006, the Town and Omnipoint Communications, Inc., the predecessor to T-Mobile, entered into a lease agreement for a 130-foot flagpole telecommunications facility at the site through the Town's local approval process. In June 2017, the site lease was assigned to SectorSite and SectorSite contacted the Town to discuss the site, including other potential locations on the parcel and other tower design options given new advancements in wireless technology since the time of the initial lease agreement. During these discussions, the Town stated it would not make any changes to the lease agreement because such changes would require an entirely new, lengthy public meeting process.

In addition to the proposed site, the Applicant reviewed other potential sites for a facility in the area; however, no suitable tall structures or raw land sites were available. Based on the lack of suitable sites, T-Mobile decided to proceed with the flagpole facility to obtain coverage to Tunxis Community College even though a flagpole design limits the optimization of the antennas causing a reduction in the overall coverage footprint when compared to a monopole-type tower.

As an alternative to a tower, providing wireless service using a distributed antenna system, repeater, microcell or other similar types of technology is not practical or feasible given the in-building residential, commercial and institution service objectives of the site.

The proposed facility consists of a 130-foot flagpole tower, designed to support five levels of internally flush-mounted antennas, with each level accommodating three panel antennas concealed behind a radio-frequency transparent casing. T-Mobile would install three panel antennas at both the 127-foot and 117-foot tower levels, leaving the lower three tower levels available for other carriers to co-locate on the facility, consistent with the Council's charge of promoting tower sharing to avoid the unnecessary proliferation of towers in the state. Cellco Partnership d/b/a Verizon Wireless, although not an intervenor to the proceeding, indicated that it has a need in this area and may seek to locate at the 107-foot and 97-foot levels of the flagpole tower once funding becomes available.

Given the lack of suitable properties and existing structures for co-location, the Council finds a need for a facility to serve the immediate in-building wireless communication needs at the Tunxis Community College and the surrounding residential and commercial area. Although the tower would be designed as a flagpole facility, a design that can reduce wireless service optimization and limit co-location opportunities, the Council recognizes that the Town has previously approved the site through a public process that ultimately specified the tower design and location, and if the site were to be redesigned or substantially relocated, the site would have to go through the Town process for a new lease, potentially delaying deployment of needed wireless services to the area for a long period of time.

A 12-foot by 18-foot flag would be mounted on the tower. In accordance with the site lease, the Town would be responsible for daily etiquette/maintenance of the flag.

A 48-foot by 48-foot compound would be constructed at the base of the facility within a 50-foot by 50-foot lease area. The compound could accommodate T-Mobile's ground equipment and provide space for three other wireless carriers. Access to the proposed site would extend from an existing driveway servicing the firehouse, then utilize a new 55-foot long, 10-foot wide gravel driveway to the compound. Underground utilities would be installed to the compound from an existing utility pole located on the north side of Westwoods Drive.

The Federal Aviation Administration (FAA) requires that the tower be illuminated at night due to the site's proximity to the Robertson Field Airport in Plainville, approximately 1.48 nautical miles to the northwest. To comply with the aircraft hazard lighting requirements, four flood lights with an automatic photocell switch would be mounted 10 feet above grade within the tower compound to illuminate the flag at night. SectorSite would be responsible for maintaining the FAA required floodlights.

The aviation hazard floodlights would have a commercial power source and an emergency battery or generator unit in order to keep the structure lit during loss of power to the site. SectorSite is examining different backup power sources specific to the FAA required floodlights. T-Mobile would rely on a power battery unit and a propane fueled generator for emergency power. The generator would have an estimated 80 hours of run time at average load conditions before refueling is required.

Development of the new access drive and compound area would disturb an approximate 3,600 square-foot area, most of which is within the active cornfield on the property. The cornfield is not designated as prime farmland and the project site is not enrolled in any Department of Agriculture farmland preservation program.

There are no wetlands or watercourses within the construction limits of the new access drive and compound. The site is an open field and generally level, requiring minimal earthwork. The proposed project would be constructed in compliance with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control.*

Two State-listed Species of Special Concern, the eastern box turtle and spotted turtle, occur in the vicinity of the project site. To reduce the likelihood of impacts to turtles during construction, the Applicant would employ standard Department of Energy and Environmental turtle protection measures. The proposed facility is not located near a National Audubon Society designated Important Bird Area and the design of the proposed facility would comply with United States Fish and Wildlife Service guidelines for minimizing the potential impact of telecommunications towers to bird species.

The State Historic Preservation Office (SHPO) determined the project would have no adverse effect on properties listed on or eligible for the National Register of Historic Places. In its determination letter to the Applicant, SHPO recommends that the facility be constructed to be as non-visible as possible.

The proposed tower would be visible year-round from approximately 47.6 acres within a one-mile radius of the site with most of this visibility occurring from agricultural fields and golf course areas within 0.3 mile of the site and from Route 177 that borders the site property and open fields to the east. Two residential lots abutting the site along the north edge of the cornfield and four residential lots abutting the site parcel to the south would have partially obscured views of the tower.

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 T-Mobile's antennas would be 1.9 percent of the FCC's General Public/Uncontrolled Maximum Permissible Exposure, as measured at the base of the tower using a -10 dB reduction to account for the antenna pattern. 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 facility be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers or the Town 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, operation, and maintenance of a 130-foot flagpole 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 to SectorSite LLC for the construction, maintenance, and operation of a 130-foot flagpole telecommunications facility located at 2 Westwoods Drive, in Farmington, Connecticut.