

DOCKET NO. 502 - Cellco Partnership d/b/a Verizon Wireless	}	Connecticut
application for a Certificate of Environmental Compatibility and	}	
Public Need for the construction, maintenance, and operation of a	}	Siting
telecommunications facility located at 118 Newton Road,	}	
Woodbridge, Connecticut.	}	Council

December 10, 2021

DRAFT

Opinion

On May 13, 2021, Cellco Partnership d/b/a Verizon Wireless (Cellco), 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 118 Newton Road, Woodbridge, Connecticut. The purpose of the proposed facility is to provide reliable wireless communications services for Cellco customers in a portion of the northern section of Woodbridge. The Town of Woodbridge (Town) is a party to the proceeding. The Woodbridge Newton Neighborhood Environmental Trust (WNNET), Ochsner Place, LLC (OP) and Mark and Michele Greengarden are grouped parties, intervenors and CEPA intervenors 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.

Cellco would construct, maintain and own the proposed facility and would be the Certificate Holder. Cellco is licensed by the FCC to provide personal wireless communications service throughout the state.

Cellco currently has no reliable wireless service in the Route 63, Route 67, and Route 114 areas of northern Woodbridge. Cellco provides wireless service to portions of Woodbridge from 12 existing facilities (9 tower installations and 3 small cells). Two of the existing tower facilities are in the southern portion of Woodbridge (77 Pease Road and 50 Woodfield Road) with the remainder located in surrounding towns, including Seymour, New Haven, Hamden, Ansonia and Bethany. None of these existing facilities provides reliable service to the proposed service area.

Cellco's wireless service objectives for the site include the deployment of reliable in-vehicle service on roads and within buildings in the proposed service areas. Cellco would deploy 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 3700 MHz wireless service at the site, all of which transmit voice and data services. The 700 MHz, 2100 MHz and 3700 MHz bands are designed to carry 5G services.

During the pre-application municipal consultation process with the Town, Cellco initially intended to develop a 140-foot tower at the proposed site to meet the identified service need; however, due to comments received from area residents and the Town during a Virtual Public Information Meeting (VPIM) held on October 22, 2020, Cellco lowered the tower height by 40 feet to reduce visual impacts. Cellco subsequently submitted an application to the Council for a 100-foot tower facility.

The proposed 100-foot tower would provide the following coverage: 5.4 square miles at 700 MHz frequency, 5.2 square miles at 850 MHz, 1.1 square miles at 1900 MHz and 0.6 square miles at 2100 MHz. The proposed facility would provide adequate coverage to the Route 63/Route 67 intersection and to Route 67 south of the intersection and a portion of Route 67 west of the intersection, as well as to surrounding residential areas. The proposed facility would also provide in-building service to the Route 114 and Newton Road areas, including but not limited to, Amity Regional High School and the Meetinghouse Lane area.

Cellco performed a continuous wave (CW) test of proposed coverage, using transmitters attached to a crane at the site. Although the coverage model at 100 feet showed areas of deficient service along Route 67 west of the Route 63 intersection, the CW test confirmed coverage would be sufficient except for an approximate 0.3-mile section of Route 67 and adjacent residential areas. Although not part of this application, Cellco intends to install a small cell facility on a utility pole along Route 67 to serve this specific area of non-reliable service.

In 2014, Cellco issued Site Acquisition Request Form (SARF) for a site in northern Woodbridge to provide reliable service to Route 63, Route 67 and surrounding residential areas. More recent data including, but not limited to, coverage modeling, a drive test of Cellco's existing network, customer complaints, and the deployment of network extenders in residences further confirms a lack of reliable service in the proposed service area.

The SARF identified a preferred search ring that was centered near the Route 63/Route 67 intersection, in an area that is entirely residential. Cellco searched for suitable properties in this area to host a facility but no landowners were willing to lease land for a facility. Due to the lack of available properties to host a facility, Cellco shifted the search ring approximately 0.7 mile to the south, centered in the area of the Prospect Road -Newton Road intersection. Cellco subsequently found a property owner within this search area willing to lease property for a new facility and entered into a lease agreement.

During its site search that began in 2014, Cellco investigated 25 properties, some of which had multiple potential tower sites, and determined the proposed site was the only one that was available that could meet coverage objectives. In addition, several parcels were suggested by the Town and residents at the VPIM but these properties were either not available, too far from the proposed coverage area or were subject to conservation easements that precluded tower development.

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 Town suggested that Cellco install a facility at either 4 Meetinghouse Lane where an existing 90-foot tall municipal communications tower is located adjacent to the police station, or at 15 Meetinghouse Lane where the Town's Public Works garage is located. Both sites are approximately 0.9 miles south of, and approximately 100 to 140 feet lower in ground elevation, than the proposed site.

Coverage modeling performed by Cellco at 4 Meetinghouse Lane using a tower height of 120 feet indicates there would be deficient in-vehicle service along Route 63 north and south of the Route 67 intersection, along Route 67 west of the intersection and in adjacent areas.

Coverage modeling performed by both Cellco and WNNET at 15 Meetinghouse Lane indicates deficient in-vehicle service would occur along Route 63 north and south of the Route 67 intersection, and along

Route 67 west of the intersection and in adjacent areas. In addition, by locating a facility in the Meetinghouse Lane area, Cellco would not be able to optimize its sectors efficiently as it is at the edge of the proposed service area, rather than in the center of it.

WNNET conducted a CW test at 15 Meetinghouse Lane using 850 MHz transmitters attached to a crane raised to a height of 120 feet and 150 feet. Although the CW test at 150 feet indicated there would be reliable in-vehicle service on Route 63 north and south of the Route 67 intersection, weaker coverage would occur on Route 67 west of the intersection and on Route 63 north of the intersection. Additionally, WNNET's CW test was conducted using an omni-directional antenna with no subsequent data adjustments which would be necessary to replicate wireless service provided by a three-sector antenna arrangement, as proposed by Cellco.

During the proceedings, Cellco and WNNET provided information regarding small cells and distributed antenna systems (DAS). Although Cellco intends to install a single small cell to supplement coverage in the area, small cells and DAS systems are not cost effective to provide coverage to the proposed service area and are primarily used for network capacity relief in areas served by a macrosite facility. For example, in Connecticut, Cellco operates approximately 400 small cell facilities, of which, 98 percent are used for capacity enhancement and 2 percent are used for coverage.

Due to the density of residential development in the area with many side roads emanating from main roads, and the relatively small height and limited available space on a utility pole to support a small cell installation, Cellco estimates 20 to 30 small cells would be required to provide reliable service to the area. The Council finds serving the area using small cells would not be cost effective as each small cell installation costs approximately \$70,000 to \$75,000. This would amount to a cost of \$1.4 to \$2.5 million to provide reliable service to the proposed service area. The cost of the proposed 100-foot tower facility is \$425,000, plus an additional \$75,000 for a small cell on Route 63.

The host parcel consists of 6.0 acres, zoned residential, that is owned by the Soufrine Family Trust. The property consists of a residence and outbuildings at its east end, and open fields and a wooded area in the remainder of the parcel. The property has frontage on Newton Road and a cul-de-sac on Soundview Drive. An undeveloped portion of Soundview Drive extends along the west property boundary that was part of a four-lot subdivision, owned by Sanford and Betty Soufrine, that is currently vacant land.

The proposed facility consists of a 100-foot monopole and an associated 50-foot by 50-foot equipment compound located at the edge of an open field in the southwest portion of the property. Cellco proposes to install 12 panel antennas and 9 remote radio heads on an antenna platform at a centerline height of 100 feet above ground level. Cellco would install a 16-foot by 16-foot concrete pad within the compound to support two equipment cabinets and an emergency generator. A propane tank would also be installed within the compound. The compound would be enclosed by an eight-foot high chain link fence.

The site would be accessed from an existing dirt road that extends from the Soundview Dive cul-de-sac. A new 12-foot wide, 246-foot long gravel drive would extend south from the dirt road through a field to the compound location. Utilities would be installed underground to the compound from a utility pole located at the end of Soundview Drive. In the event of the loss of commercial power, the proposed generator and associated tank would provide approximately 5 to 7 days of run time before it requires refueling.

There are approximately 32 residences within 1,000 feet of the proposed tower. The nearest residence is approximately 360 feet to the southwest at 15 Penny Lane.

The nearest property boundary from the proposed tower is approximately 64 feet to the west which is the undeveloped portion of Soundview Drive. The tower is 128 feet to the south property line, 291 feet to the north property line and 304 feet to the east property line.

During the proceeding, an alternate tower location on the host property was proposed in a more central portion of the property. The alternate tower location would be 201 feet from the north and south property lines and 204 feet from the east and west property lines.

Both the proposed and alternate sites are mostly level, but some grading would be required to create the access road and compound area. Blasting is not anticipated. The proposed and alternate sites slope to the south-southeast, away from properties on Soundview Drive. Two catch basins are located on the Soundview Drive cul-de-sac. No construction is planned on the paved portion of Soundview Drive.

There are no wetlands on or adjacent to the host parcel. The host parcel is not within a flood zone or an aquifer protection area. Several trees with a diameter of six inches or greater at breast height and a shrubby area would be removed to develop the compound area for the proposed tower location. No trees would be removed to develop the alternate tower location.

The host parcel is mapped as prime farmland soil. The proposed facility would be constructed in compliance with the 2002 *Connecticut Guidelines for Soil Erosion and Sedimentation Control*.

Operation of the facility 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 Connecticut. 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 determined that the proposed facility would not have an impact on the NLEB.

The site is approximately 1.9 miles east of West Rock Ridge, an Important Bird Area as designated by the National Audubon Society. The proposed facility would comply with the USFWS guidelines for minimizing the potential for telecommunications towers to impact bird species.

No resources listed on the State or National Register of Historic Places were identified within 0.5-mile of the site, and thus, no impact to historic resources are expected. Cellco would file a historic resources report with the State Historic Preservation Office as part of the FCC National Environmental Policy Act review process.

Cellco prepared a visual impact assessment of the site utilizing computer modeling supplemented with in-field studies within a two-mile radius of the site. These analyses were used by the Cellco to generate photo-simulations of the proposed tower. In addition to these analyses, Greengarden took several photographs of the crane Cellco used to conduct their visibility analysis and drive test at the proposed site in March 2021. WNNET produced several tower simulations within a video that were also based on the crane test and an earlier balloon fly conducted by Cellco.

Based on Cellco's 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 11 acres (<1%) and seasonally visible (leaf-off conditions) from approximately 39 acres (<1%) of the Study Area.

Generally, year-round and seasonal views of portions of the facility would occur primarily within 0.25 mile of the site, which includes, but is not limited to residential parcels along Penny Lane, Newton Road and Soundview Drive as well as portions of these roads. Approximately 8 residences, including the landlords, would have year-round views of upper portions of the facility. Photographs submitted by Greengarden and WNNET indicate the tower would be visible year-round from Soundview Drive and abutting properties at 15 Soundview Drive and 110 Newton Road.

Relocation of the site to the alternate tower location on the host property would increase the distance of the tower from the 110 Newton Road property by 73 feet and decrease the distance to the 15 Soundview Drive property by 91 feet. The tower would be 201 feet from both property lines.

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

Cellco could install a stealth monopine facility at the site. It would add approximately \$100,000 to the total project cost.

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 Cellco's proposed antennas to be installed on the tower have been calculated to amount to 17.7 % 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 to provide necessary wireless coverage to an underserved area. The Council notes that the tower height has already been reduced from 140 feet to 100 feet during the pre-application municipal consultation. Although the reduction in tower height does cause a small area of unreliable service on Route 67, Cellco intends to install a small cell in the future to fill in this small gap. The Council finds that a facility in the Meetinghouse Lane area, as suggested by the Town, WNNET and Greengarden, is too far south and too low in elevation to achieve reliable service in the Route 63 and Route 67 area which was one of Cellco's service objectives since the search ring was first issued in 2014.

The Council finds that the proposal would not cause unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state. The Council has considered all reasonable alternatives and finds that the proposal represents the best alternative consistent with the reasonable requirements of the public health, safety and welfare.

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 100-foot monopole telecommunications facility at the proposed site located at 118 Newton Road, Woodbridge, Connecticut.