

DOCKET NO. 309 - 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
wireless telecommunications facility located at the Round Hill }
Community Church, 395 Round Hill Road, Greenwich, } Council
Connecticut. February 6, 2007

Opinion

On November 9, 2005, 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, operation, and maintenance of a wireless telecommunications facility at 395 Round Hill Road, Greenwich, Connecticut. The proposed facility would provide wireless coverage to the Merritt Parkway and surrounding roads in the Round Hill area of Greenwich.

On August 31, 2006, the Council denied Cellco's application without prejudice in order to best determine if the installation of a Distributed Antenna System (DAS) on the Merritt Parkway, if such a system were installed, might interrelate with or otherwise duplicate the represented benefit of the proposed Round Hill Road facility. On September 16, 2006, the Council, pursuant to Connecticut General Statutes Section 4-181a (a), voted to reconsider the denial without prejudice and reopen the record. The Council conducted a hearing on November 9, 2006 to hear testimony from the applicants, parties and intervenors, and a DAS representative regarding coverage objectives and wireless system design limitations in the Round Hill area.

Intervenors to the proceeding are Omnipoint Communications, Inc. (T-Mobile), New Cingular Wireless PCS LLC (New Cingular), Sprint Nextel Corporation (Sprint Nextel) and local residents Elizabeth Galt and Cliff Berger.

Cellco proposes to construct two 115-foot telecommunications towers on an 8.1-acre parcel owned by the Round Hill Community Church at 395 Round Hill Road in Greenwich. On the westerly tower, Cellco would locate PCS antennas at a height of 110 feet and cellular antennas at 100 feet. New Cingular would install dual band antennas at a height of 90 feet. On the easterly tower, T-Mobile would install antennas at the 110 foot level, and Sprint Nextel would install antennas at the 100-foot and 90-foot levels. A U-shaped equipment building would be constructed at the base of the facility. The facility would be located within a wooded area on the eastern portion of the parcel. The western portion of the parcel is developed with church-related buildings.

The Council has carefully analyzed the record in this proceeding, evaluating the proposed coverage objectives, existing facilities in the area, alternative properties and structures, and alternative technologies, including DAS. All four carriers seek to provide coverage to the Merritt Parkway and surrounding residential areas of the Round Hill section of Greenwich. The nearest existing tower facilities to the Round Hill area are located 1.1 miles east and 2.0 miles south of the proposed site. Propagation modeling for all of the carriers indicates these facilities are too far from the target service area to provide adequate coverage.

The Round Hill area is primarily a low density residential area that lacks commercial and industrially zoned parcels except for a gas station near the Round Hill Community Church site and CL&P distribution switchyard adjacent to the Merritt parkway. These parcels are not available due to property size constraints. T-Mobile attempted to develop a tower at the Round Hill Fire Department but ultimately did not pursue the site after receiving significant neighborhood opposition. Two church steeples exist in the area but are not of sufficient height to allow for adequate coverage throughout the area, and the owners of these properties were not interested in lease arrangements. No other suitable structures are within the Round Hill area.

All four carriers examined the feasibility of using a DAS to provide coverage to the area. None of the carriers would locate on a DAS, since the DAS would be designed for the sole purpose of providing coverage to the Merritt Parkway. Areas within 500 to 1,000 feet of the highway may receive incidental coverage from the DAS; however, residential areas north and south of the Merritt Parkway would not have adequate coverage.

Based on the substantial gaps in existing coverage for all four wireless telecommunications carriers, the limited coverage provided by a DAS, and the lack of suitable existing structures, the Council finds a technical need for a new tower in the Round Hill area.

The Council finds the site appropriate for telecommunications use due to the wooded nature of the site and the low density residential development in the surrounding area. The site itself is surrounded by trees ranging in height from 55 feet to 90 feet. The average tree height in the surrounding area is 60 feet.

The visual impact of the facility is mitigated by the relatively short height of the towers, existing wooded vegetation throughout the Round Hill area, low density residential development and a facility design that uses internally mounted antennas rather than antenna platforms. Although a single tower could provide coverage, a significantly higher tower than the one proposed would be required and antennas would need to be mounted on platforms to meet coverage objectives. Additionally, the lessor did not want this type of facility on the property, believing a higher tower with platforms would have a greater visual impact than two 115-foot towers.

The proposed facility would be visible year-round from approximately 18-acres within two-miles of the site. Approximately 17 residences may have views of the upper portions of the facility. Three residences adjacent to the site may have views of the lower portions of the facility. No abutting property would have year-round views of the entire facility. The Council believes the 115-foot height of the facility is not visually excessive to the surrounding area. Photo-documentation of the site indicates the surrounding area is mostly wooded, limiting open views of the structure.

The Council examined the coverage needs of all four carriers, analyzing coverage attained at various antenna heights to best determine the proper height of the facility. Cellco is designing the site with a signal level threshold of -85 dBm and seeks to install three PCS antennas at the 110-foot level of the westerly tower. If antennas were installed at a height of 100 feet, the signal would degrade to -86 to -90 dBm on a 0.2-mile section of the Merritt Parkway east of Round Hill Road. This degradation would not allow the site to operate at Cellco's design standard of 99% reliability.

New Cingular would meet coverage objectives with an antenna height of 90 feet on the westerly tower. Lowering the antenna height would cause vegetation induced signal interference to the residential areas to the northwest.

T-Mobile seeks to install three PCS antennas at the 110-foot level of the easterly tower. T-Mobile's network design uses a signal level threshold of -84 dBm. If T-Mobile installed antennas at 100 feet, the signal would degrade to -86 to -90 dBm on a 0.25-mile section of the Merritt Parkway. Although a call would be maintained through the degraded signal area, a caller would experience call clarity issues and the cell site might have difficulty assigning the call to the proper sector.

Sprint Nextel has designed its coverage objectives for its iDEN network with antennas at 100 feet and its PCS network with antennas at 90 feet on the easterly tower. Coverage objectives for both networks would be met with a tower height of 115 feet.

The Council believes the requested height of 115 feet for both towers is justified when balanced with the visual impact of the facility. Lowering the height of one or both facility towers would compromise wireless coverage on the Merritt Parkway and the surrounding residential areas of Round Hill for only a minor reduction in visual impact.

Development of the proposed facility would not affect any wetlands or watercourses, or any rare, endangered, or special concern species. The proposed facility would have no effect on archaeological or historic resources.

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 level of all the carriers has been calculated to amount to 57.8% of the FCC's Maximum Permissible Exposure at the base of the facility. This percentage is well below federal and state standards established for the frequencies used by wireless companies. If federal or state 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 add antennas to the facility. 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.

Based on the record in this proceeding, we find that the effects associated with the construction, operation, and maintenance of a telecommunications facility at the proposed site, 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, we will issue a Certificate for the construction, operation, and maintenance of a 115-foot two tower telecommunications facility at 395 Round Hill Road, Greenwich, Connecticut.