

DRAFT

Petition No. 1547
SBA Communications Corporation
277 Huckleberry Hill Road, Avon, Connecticut

Staff Report
February 24, 2023

Introduction

On November 9, 2022, SBA Communications Corporation (SBA) submitted a petition to the Connecticut Siting Council (Council) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k for the proposed replacement and extension of an existing telecommunications facility located at 277 Huckleberry Hill Road, Connecticut (Petition or Project).

Specifically, SBA proposes to replace and extend the height of the existing telecommunications facility and expand the existing compound/lease area at the site to accommodate the co-location of Cellco Partnership d/b/a Verizon Wireless (Cellco) and the Town of Avon (Town). The existing 100-foot wood laminate monopole has limited structural capacity and is not tall enough to support Cellco's or the Town's co-location.

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40, on or about November 9, 2022, SBA provided notice to the abutting property owners and Town officials.

On November 10, 2022, the Council sent correspondence to the Town stating that the Council has received the Petition and invited the Town to contact the Council with any questions or comments by December 9, 2022. The Town Fire Chief, Town Manager, Town Council, Police Chief and Superintendent of Schools submitted correspondence in support of the Project on November 15, 16, 18, 23, and December 2, 2022, respectively.

On November 14, 2022, Cellco requested intervenor status. The Council granted Cellco intervenor status during a public meeting held on December 9, 2022.

The Council issued interrogatories to SBA and Cellco on December 9, 2022. Cellco and SBA submitted responses to the Council's interrogatories on December 14, 2022 and January 13, 2023, respectively. The Council issued a second set of interrogatories to SBA on January 23, 2023. SBA responded to the second set of interrogatories on February 2, 2023.

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take an action on a petition for a declaratory ruling within 60 days of receipt. On December 22, 2022, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision on the Petition as no later than May 8, 2023, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

Jurisdiction

Pursuant to CGS §§16-50i(a)(6) and 16-50x, the Council has exclusive jurisdiction over telecommunications towers, including associated equipment, owned or operated by the state, a public service company or a certified telecommunications provider or used in a cellular system.

Under RCSA §16-50j-2a (30), “Tower” means a structure, whether free standing or attached to a building or another structure, that has a height greater than its diameter and that is high relative to its surroundings, or that is used to support antennas for sending or receiving radio frequency signals, or for sending or receiving signals to or from satellites, or any of these, which is or is to be:

- a) **Used principally to support one or more antennas** for receiving or sending radio frequency signals, or for sending or receiving signals to or from satellites, or any of these, and
- b) Owned or operated by the state, a public service company as defined in Section 16-1 of the Connecticut General Statutes, or a certified telecommunications provider, or used in a cellular system, as defined in Section 16-50i(a) of the Connecticut General Statutes.

Like the existing facility, the proposed replacement tower will be used principally to support antennas and used in a cellular system. Unlike the existing facility, the proposed replacement tower will host municipal communications equipment in addition to telecommunications carrier equipment. The Connecticut Supreme Court determined the Council has exclusive jurisdiction over facilities that would host both cellular and non-cellular attachments.¹ Thus, the Council has jurisdiction over the proposed replacement facility.

Pursuant to the tower sharing policy of the state under CGS §16-50aa, the Council must examine whether the proposed replacement facility may be shared with any public or private entity that provides service to the public, provided such shared use is technically, legally, environmentally and economically feasible and meets public safety concerns, to promote the immediate and shared use of telecommunications facilities and avoid the unnecessary proliferation of such facilities in the state. The proposed replacement facility is designed to accommodate five wireless carriers and municipal antennas.

Existing Facility

The Council issued a Certificate of Environmental Compatibility and Public Need (Certificate) to Sprint Spectrum, L.P. (Sprint) for this facility on January 24, 2005 in Docket No. 297, and included a condition that “the tower shall be designed as a laminated wood monopole and shall be constructed no taller than 100 feet above ground level (agl) to provide telecommunications services to both public and private entities.” The Certificate was transferred from Sprint to TowerCo Assets LLC on January 23, 2009. SBA acquired TowerCo’s tower sites in Connecticut on October 1, 2012.

The existing 100-foot monopole is located on the central portion of an approximately 73-acre parcel owned by the Town. The parcel, zoned residential, contains a former landfill and serves as the Town’s Transfer Station. Abutting property to the west is owned by the Town. Abutting property to the north is developed residential. Abutting property to the east and south consists of a mix of Town property and residential development.

The existing tower currently supports Sprint at 100 feet agl, AT&T at 90-feet agl and T-Mobile at 80 feet agl. The existing tower is located in the northern corner of a 40-foot by 38-foot equipment compound. The compound contains an AT&T equipment shelter and equipment cabinets on concrete pads for T-Mobile and Sprint.

Proposed Project

SBA intends to replace the existing 100-foot tall wood laminate tower with a 130-foot tall steel monopole within the existing compound to accommodate Cellco, AT&T, T-Mobile, and municipal antennas, as well as provide space for future collocation. Sprint’s equipment would be decommissioned and removed from the tower and compound as part of the Project.

¹ *Town of Westport v. Conn. Siting Council*, 260 Conn. 266 (2002).

The proposed replacement tower would be installed 34 feet from the existing tower. It would have a diameter of 51 inches at the base and 26 inches at the top. The existing tower has a diameter of 30 inches at the base and 26 inches at the top.

Cellco would install 9 antennas and 12 remote radio heads on an antenna platform at a tower height of 110 feet agl. Cellco's proposed antennas would provide services in the 700 MHz, 850 MHz, 1900 MHz, 2100 MHz, 3550 MHz, and 3700 MHz frequencies. The 850 MHz, and 3700 MHz frequencies are capable of supporting 5G services.

Cellco's installation would improve 700 MHz service to residential areas north and south of the site and to the Route 4 and Route 179 corridors west of the site, and provide 850 MHz, 1900 MHz, 2100 MHz and 5G services to the surrounding area. In addition to coverage improvements, the site would provide capacity relief to Cellco's adjacent sites to the north and east.

The Town would install three 16-foot tall whip antennas (one transmit and two receive) at the top of the tower as part of a new town-wide communication system. The Town's communication network would operate at the 770 MHz and 805 MHz frequencies. It was designed by Motorola Solutions and would achieve a minimum 95 percent coverage throughout Town by locating on the replacement tower and at two other existing towers in the Avon area.

The Department of Emergency Services and Public Protection received a grant from the State Bond Commission to purchase public safety equipment for installation on the tower, which will enhance coverage of the Connecticut Land Mobile Radio Network (CLMRN) and provide communication services for the Town. The CLMRN offers interoperability with other emergency response agencies such as the Connecticut State Police. The CLMRN would operate from the Town antennas and would utilize a fiber connection. A dish antenna would not be required.

AT&T and T-Mobile would relocate to the replacement tower, maintaining their existing antenna heights of 90 and 80-feet agl, respectively. The 120-foot, 100-foot and 70-foot levels would be available for future collocation.

The compound would be expanded by 160 feet along the length of the north side and expanded by 390 square feet along the southeast side, enclosed by a new 6-foot tall perimeter fence. SBA would utilize existing access and utilities to the site. The concrete pad previously used by Sprint would be resurfaced and expanded to accommodate the Town's 12-foot by 20-foot equipment shelter. A new access gate would be installed along the northwest side to access the Town's shelter. Cellco would install one radio and one battery cabinet on a concrete pad within the expanded portion of the compound. There would be no changes to AT&T's or T-Mobile's existing ground equipment.

The existing 100-foot wood laminate monopole would be decommissioned and removed within 90 days of operation of AT&T, T-Mobile's and Cellco's equipment on the replacement facility. No disruption to AT&T's and T-Mobile's wireless services are anticipated. The Town would locate its equipment at the site as soon as possible and would coordinate work within the compound with SBA and the carriers.

The Town would install a 40-kW diesel-fueled emergency backup generator within the compound. The generator includes a 275-gallon double walled fuel tank that would provide approximately 74 hours of run time before refueling is required. Cellco proposes to install a backup power battery on its proposed concrete pad at the site that would provide approximately 4 to 8 hours of run time before recharging is necessary. Both AT&T and T-Mobile have existing backup power sources at the site.

Commercial Mobile Radio Service (CMRS) providers are licensed by and are under the jurisdiction and authority of the Federal Communications Commission (FCC). At present, no standards for backup power for CMRS providers have been promulgated by the FCC.

The nearest property line and residence from the replacement tower is approximately 270 feet and 295 feet, respectively, to the south at 19 Berkshire Crossing. There are approximately 18 residences within 1,000 feet of the proposed replacement tower.

The estimated cost of the proposed replacement facility is \$550,000, excluding the Town's and Cellco's installations, and AT&T's and T-Mobile's relocation costs. If the tower was designed to a height of 110 feet with the capability of supporting a 20-foot extension, the Project cost would increase to \$650,000. Fabrication and installation of a 20-foot extension at a later date would be an additional \$125,000.

Neither the Project, nor any portion thereof, is proposed to be undertaken by state departments, institutions or agencies, or funded in whole or in part by the state through any grant or contract. SBA is a private entity.

Facility Construction

Construction would occur over a 4 to 6 month period. Typical construction hours and workdays of the week are as follows: Monday through Saturday. 7:00 AM to 7:00 PM.

Environmental

Construction would occur within the existing compound and adjacent transfer station areas. Three existing trees would be removed to facilitate the expansion of the compound.

The Project site is not located within a Connecticut Department of Energy and Environmental Protection (DEEP) Natural Diversity Database buffered area. The proposed facility is not within a DEEP designated Aquifer Protection Area.

There are no Audubon-designated Important Bird Areas within two miles of the site. The proposed replacement tower would comply with the USFWS recommended best practices for Communication Tower Design, Siting, Construction, Operation, Maintenance and Decommissioning.

The existing compound is not located within a flood zone or within 200 feet of a wetland.

The foundation of the existing tower would be partially removed to a depth of two feet below grade. Approximately 53 cubic yards of material would be excavated to install a mat foundation for the replacement tower. Excess material would be spread within the expanded compound area or removed from the site. The installation of the replacement tower foundation would not interfere with any subsurface utilities or infrastructure. These areas would be marked prior to excavation.

SBA would incorporate appropriate soil erosion and sedimentation control measures consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* prior to the commencement of construction.

A visibility study within a two-mile radius (8,042 acres) of the site determined the proposed 130-foot replacement tower would be visible year-round from 27 acres (0.3%) compared to 11 acres (0.1%) for the existing tower. Most of the year-round visibility occurs within 0.5 mile of the site.

The replacement tower would be visible year-round from residential yards along Berkshire Way and Camden Crossing, approximately 480 feet to 0.25 mile to the south/southeast. It would also be visible year-round from the adjacent transfer station and ballfields within the Town's Buckingham Park, approximately 0.1 mile to the southeast. The replacement tower would be seasonally visible through the trees from adjacent residential areas along the edge of the host parcel to the north and residential areas to the south/southeast, out to a distance of approximately 0.4 mile.

The replacement tower would not be visible from the Farmington River, a designated Wild & Scenic River, or the Farmington River Recreation Trail, both approximately 1,700 feet to the west of the site at their closest point.

Whip antennas are generally not discernable when viewed from a distance beyond 1,300 feet. To reduce visibility of the whip antennas from areas closer to the tower, the antennas would be painted "horizon blue."

A steel monopole was selected over a wood laminate tower in order to provide the structural capacity to support tower sharing to the greatest extent practical. A galvanized tower would dull and blend in with the wooded surroundings and would soften views similar to a tower that was painted brown. A monopine design was not considered given the distance of the tower to neighboring parcels, the presence of intervening vegetation that would screen most views of the tower and additional cost.

Public Safety

The Project would be constructed in accordance with the Connecticut State Building Code, revised October 2022, Telecommunications Industry Association (TIA) 222-H Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the National Electrical Code, the Connecticut State Fire Safety Code, and the Occupational Safety and Health Administration standards (OSHA).

Access to the facility is restricted to the Town, tower tenant and SBA personnel. Carrier equipment would be fitted with silent intrusion alarms. Climbing pegs on the lower portion of the tower would be removed to deter unauthorized climbing of the tower. The expanded compound would be enclosed by a six-foot tall chain link fence with barbed wire on top.

Construction of the replacement tower would not impact or interfere with any existing nearby public utilities. Prior to commencement of construction, all existing utilities and infrastructure locations will be identified to ensure that proper construction measures can be incorporated to avoid impacts and interference.

The replacement tower would not constitute an obstruction or hazard to air navigation. Notice to the Federal Aviation Administration is not required.

The proposed replacement facility and associated equipment would comply with DEEP Noise Control Standards. Emergency backup generators are exempt from DEEP Noise Control Regulations §22a-69-1.8.

Cellco's antennas would support text-to-911 service and would comply with E911 requirements and the intent of the Warning, Alert and Response Network Act of 2006.

AT&T does not provide FirstNet Services² from the existing tower at this time.

² FirstNet is a subscriber service available to local emergency response entities that would allow preferred wireless service on AT&T's 700 MHz system during emergencies.

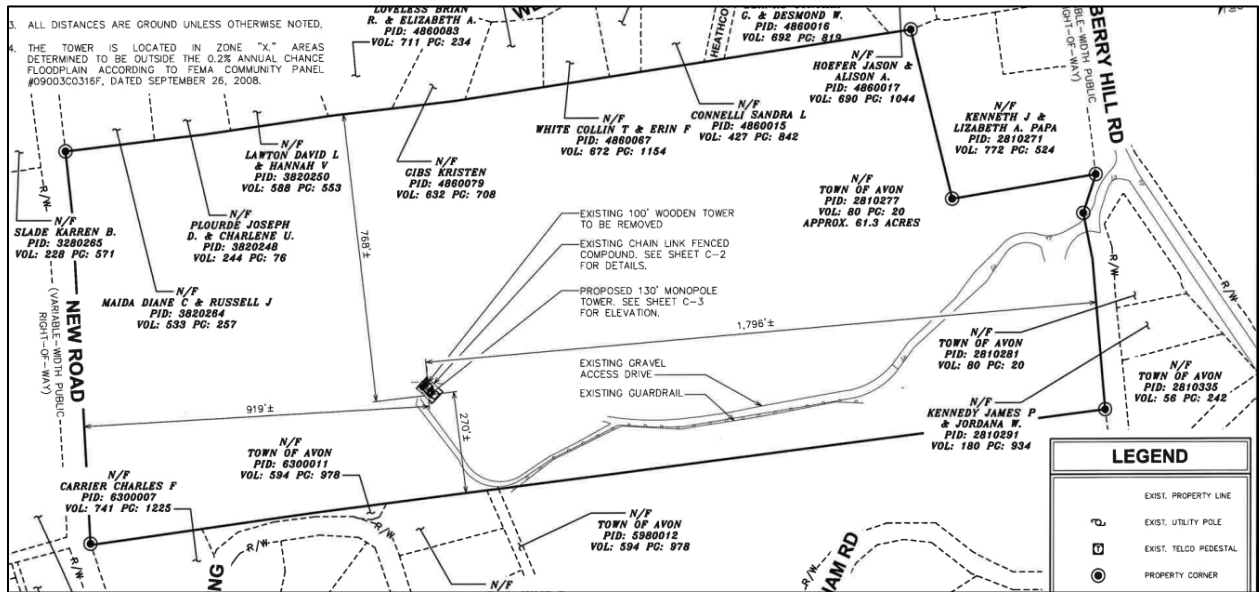
The calculated cumulative worst-case power density from the operation of the Town's, Cellco's AT&T's, and T-Mobile's antennas would be 11.4% of the applicable exposure limit established by the Federal Communications Commission at ground level using a far field approximation.

Conclusion

If approved, staff recommends the following conditions:

- 1) Approval of any project changes be delegated to Council staff;
- 2) Radio frequency access restriction and caution signage shall be installed at the site in compliance with FCC guidance;
- 3) Deployment of any 5G services must comply with FCC and FAA guidance relative to air navigation, as applicable;
- 4) Submission of final construction drawings stamped and signed by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction;
- 5) Submission of a structural analysis for the replacement tower/antenna mounts and foundation stamped and signed by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction; and
- 6) Submission of written notification from the Town as to when it plans to commence its equipment installation, prior to the commencement of construction.

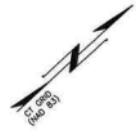
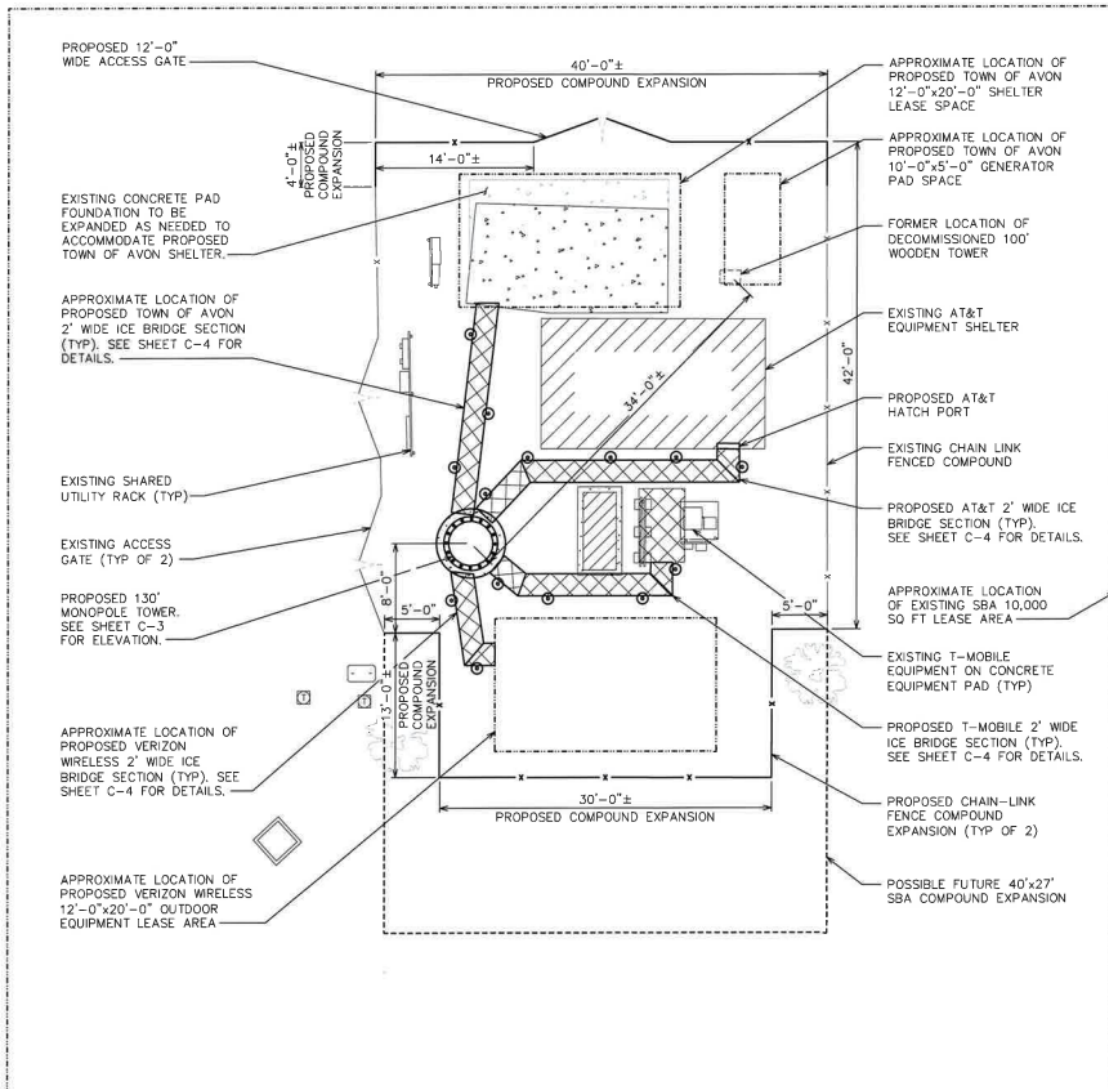
Existing Site Parcel and Site Location



Proposed South Compound Expansion Area (red paint/stakes)



Proposed Site Plan



D LAYOUT

0 8 16

Proposed Replacement Tower Elevation Drawing

