

**Town of Cornish, New Hampshire
Zoning Board of Adjustment
Case 19-01
Public Hearing
April 1, 2019**

The Cornish Zoning Board of Adjustment met on Monday, April 1, 2019, at 6:30 pm in the Cornish Town Offices. Members present were Caroline Storrs, Chair, Bill Balch and Jason Bourne. All present were voting members.

Also present were attorney for Viridi Wireless, Will Dodge of Downs, Rachlin and Martin; George Chianis of Viridi Wireless, David Duplissis of Viridi Wireless. And Keith Vellante of C² Systems for AT&T.

Gladys Berry, Adam Blue, Cara Decato, Larry Dingee, Janice Orion, Robert Rice, William Wall Nancy Wightman, and Heidi Jaarsma (recording secretary) also attended the meeting.

Caroline Storrs called the meeting to order at 6:30 pm.

Case 19-01

Viridi Wireless, LLC, has applied for a Special Exception concerning Article VI-A. A-D, and a Variance concerning Article V. D.2. The applicant proposes to establish a Wireless Communications Facility (Tower) on property located at 200 Burr Road, Map 16, Lot 20, located in the Rural Zoning District in Cornish, New Hampshire, which exceeds height regulations per Article V of the Cornish Zoning Ordinance.

Background

Will Dodge, an attorney representing Viridi Wireless, introduced himself to the Board. Mr. Dodge had prepared the application on behalf of Viridi Wireless and would represent Viridi Wireless in the application. George Chianis, David Duplissis, and Keith Vellante also were present to assist in the presentation of application. The applicant, Viridi Wireless, seeks a special exception and a 53' height variance. Mr. Dodge asserted that the granting of a variance would aid in the establishment of FirstNet, a nationwide broadband network for first responders. Additionally, the proposal would provide coverage to underserved areas of Cornish. And, the opportunity for collocation on the proposed tower would preclude the need to construct additional towers in the vicinity. Ms. Storrs asked if the current applicant had any kind of business relationship with existing tower on Town House Road, which is out of compliance. The applicant responded that there was no relationship at all between the two companies.

Caroline Storrs directed the Board to Article VI-A, Section B. She noted that new tower construction is allowed in the Rural Zone under special exception. She also directed the Board to the setback requirements and height requirements. Ms. Storrs and Board members read Article VI-A aloud.

Mr. Dodge gave a PowerPoint presentation outlining the application. Mr. Dodge stated that the construction of the tower will support FirstNet, which is an independent authority within the U.S.

Department of Commerce. Authorized by Congress in 2012, its mission is to develop, build and operate the nationwide, broadband network for first responders. FirstNet gives priority to first responders' cell signals in case of an emergency. The network is built by AT&T, a private carrier which won the bid from Federal government. States have the ability to opt in or out of AT&T FirstNet. New Hampshire, after an initial decision to opt out, has subsequently decided to opt in. Rural locations as well as urban are targeted for coverage by FirstNet. There is an emphasis on remote areas in NH without coverage today. Service to areas without coverage is generally provided through new towers on private or municipal properties due to a lack of collocation opportunities. An informational video produced by FirstNet was included in the presentation.

Mr. Dodge stated that the AT&T network to be located on the tower would provide both commercial service and the FirstNet network. The proposed location was a priority site.

Adam Blue asked Mr. Dodge to articulate the relationship between the Viridi Wireless (the applicant), AT&T, and FirstNet. Mr. Dodge responded that Viridi wireless is a private company development company. AT&T will lease space on the tower. Viridi Wireless, Mr. Dodge added, has offered the fire and police chief the ability to place equipment on the tower.

Bill Wall asked whether the proposed tower was high enough to provide service. Mr. Dodge said that he would prefer to address tower height in the variance section of the presentation. Mr. Wall stated that there were two accidents in Cornish Flat where the lack of cell coverage was a problem.

Mr. Dodge reviewed the plans for the facility. The Map 16, Lot 20, 11+/- acres, will be accessed through an existing driveway over the abutting Rice property. A 75x75 foot gated area, or compound, will contain the tower, related equipment, and generator. Space is reserved for related equipment for potential collocators. The tower compound will be located in a wooded area behind an existing residence. As many of the existing trees as possible will be retained. Mr. Dodge highlighted four pines within the gated compound which are slated for removal. The average height of the tallest 10% of trees within a 150' radius of the tower is 93'. Utilities to the site will be run underground to a single pole located south of the compound. A small portion of the existing stone wall will be relocated. Mr. Dodge stated that a small perennial stream shown on the plan is not within the setback as described in the Zoning Ordinance. The tower will not be lit. The tower is designed to support up to four additional carriers. Mr. Dodge stated that each set of antennae requires 10 feet of vertical space. The additional height requested by the applicant will also give local first responders space on the tower. The tower will meet Rev G industry standards for wind and ice loading.

Mr. Dodge presented maps of coverage with the proposed site. The tower will provide service to areas of NH Route 120, Cornish Stage Road, Burr Road, and Leavitt Hill Road. Additionally, Cornish Flat will receive cell coverage. Approximately two hundred fifteen residents would be served in Plainfield and Cornish, according to the RF analysis by C² Systems. Three hundred forty-four additional residents would be served at a lower level of coverage. The only existing tower in Cornish is five to six miles away from the proposed area thus making collocation unfeasible.

Results of a March 1 balloon float and visibility survey were presented, Application Exhibit C. The balloon was run at a 170' elevation. Mr. Dodge showed several photographic simulations of the tower from locations where the tower would be visible. Mr. Dodge also included a map showing roadways from which the tower would be visible highlighted in yellow.

Heidi Jaarsma, as a member of the public, asked Mr. Dodge if the tower would be visible from Plainfield. Mr. Dodge highlighted a section of road in Plainfield from which the visibility survey predicted that the tower would be visible. Ms. Jaarsma asked if the Board had considered whether or not the proposal was a Development of Regional Impact. Mr. Dodge stated he had addressed regional notice and had submitted to the town an abutters list and labels which included municipalities within a 20-mile radius of the site. He referred to RSA 12-K:7, which requires that a regional notice go out at some point in the process. He added that different towns notice in different ways and that often the regional notice goes out before site plan review.

Mr. Dodge continued his presentation by reviewing the criteria for special exception and made the following points with regard to the application:

- Aesthetic: No lighting or marking required.
- Noise: Noise study provided showing 37 dBA at the boundary.
- Design: Proposed galvanized steel finish for the monopole.
- Screening: Maintains existing vegetation, slats around fence.
- Compound Setback: Meets the 30 feet front, side, and rear setback.
- Tower Setback: 212.5 ft. from boundary (125% height of tower).
- Structural: Designed to Rev. G
- Signs: No signage except for RF information.
- RF Emissions: Complies with the FCC Standards.
- Other Existing Structures: No Collocation opportunities.
- Intent to Collocate: Declaration included with the application.
- Ridgeline Effects: None based on simulations.
- Natural Features: Intermittent stream – silt fences to be used.
- NEPA: Report has been commenced – delay due to government shut down.

Mr. Bourne asked about the delay in the NEPA (National Environmental Policy Act) report. Mr. Dodge said that while the report was required by the Zoning Ordinance, an EA (Environmental Assessment) and EIS (Environmental Impact Statement) are not required by the town unless also required by the FCC. Mr. Bourne reiterated that the NEPA report was an application requirement for consideration of a special exception. Mr. Dodge suggested that an approval could be conditional upon the completion and submission to the Board of the NEPA report.

Ms. Storrs asked the Board to review the Article VI-A.1-6, Telecommunication Facilities, Authority Purpose and Goals, with regard to the proposal:

1. *Preserve the authority of Cornish to regulate and to provide for reasonable opportunity for the siting of telecommunications facilities, by enhancing the ability of providers of telecommunications services to provide such services to the community quickly, effectively, and efficiently.*

There were no questions from the Board.

2. *Reduce adverse impacts such facilities may create, including, but not limited, to impacts on aesthetics, environmentally sensitive areas, historically significant locations, flight corridors, health and safety by injurious accidents to person and property, and prosperity through protection of property values.*

Jason Bourne questioned the impact of the proposal on aesthetics, particularly with regard to the tower height. He asked how the decision was made to not use a tree-form. Mr. Dodge said that from the vantage on Burr Road, there is no backdrop to camouflage a monopine. He also pointed out sections of NH Route 120 from which a monopine would be very conspicuous. Jason Bourne asked if the height made a monopine unfeasible. Mr. Dodge asked to defer the height discussion to the variance. Ms. Storrs stated that she felt a galvanized gray monopole would blend better with the environs.

3. *Provide for co-location and minimal impact siting options through an assessment of technology, current locational options, future available locations, innovative siting techniques, and siting possibilities beyond the political jurisdiction of the Town.*

The Board did not see a problem with collocation. Mr. Bourne asked if the specific siting was driven by the 125% setback requirement in the ordinance. Mr. Dodge said that the site and height were driven by radio frequency concerns.

4. *Permit the construction of new towers only where all other reasonable opportunities have been exhausted, and to encourage the users of towers and antennas to configure them in a way that minimizes the adverse visual impact of the towers and antennas.*

The Board had no questions.

5. *Require cooperation and co-locations, to the highest extent possible, between telecommunication service providers in order to reduce cumulative negative impacts upon Cornish.*

Mr. Dodge directed the board to the Collocation Agreement Letter included with the application. The letter stated that Viridi Wireless 'intends to maximize opportunities for collocation by other future tenants in addition to AT&T to the maximum possible extent' with provisions.

6. *Provide constant maintenance and safety inspections for any and all facilities.*

Ms. Storrs noted the ordinance requirement that quarterly reports be submitted to the Selectboard and asked which entity, AT&T or Viridi, was responsible for the reports. Mr. Chianis stated that Viridi was responsible for safety inspections and reports.

Mr. Dodge noted, with regard to VI-A.B., that the tower will be a secondary use. The primary use of Map 16, Lot 20 is residential.

Ms. Storrs asked for a consensus of the Board regarding the galvanized steel tower design. The sense of the Board was that galvanized steel would be an appropriate design. The Board also discussed landscaping and agreed that the existing trees and vegetation provided adequate screening.

The Board asked Mr. Dodge to address Article VI-A.2, Federal Requirements: ‘All towers must meet or exceed current standards and regulations of the FAA, FCC, and other agency of Federal government with the authority to regulate towers and antennas...’

Mr. Dodge referenced Application Exhibit F, *RF Emissions Report*, and deferred to Keith Vellante, of C² systems. Mr. Vellante had prepared the Radio Frequency Emissions report on behalf of Viridi wireless. Ms. Vellante described the method used to calculate predicted RF exposure. The report concluded that RF exposure levels from the site would be well below the maximum permissible levels as outlined by the FCC. Jason Bourne asked what the worst case scenario would be. Mr. Vellante discussed 100% reflection of radio waves and posited that the predicted exposure would remain well within permissible FCC levels.

Adam Blue asked if collocations were calculated into the RF analysis. Mr. Vellante stated that the calculations were based only on AT&T’s antenna. Mr. Vellante estimated that four additional collocations would increase RF emissions by ten percent and would remain well below the FCC threshold.

Nancy Wightman asked what the exposure was that was being calculated. Mr. Vellante explained radio frequency exposure. Mr. Dodge referenced of the recommended Maximum Permissible Exposure limits adopted by the FCC in 1996.

Ms. Storrs asked Mr. Dodge what the calculated removal fee would be if the tower failed. Mr. Chianis said that he would need to have an estimate generated upon approval. Mr. Dodge suggested that the bond could be conditional upon approval. Ms. Decato stated that the lease contains language regarding the removal of the tower. Ms. Storrs responded that the Ordinance requires the posting of a bond.

The Board continued its review of Article VI-A.C, *Performance Requirements*. The Board agreed that the existing natural landscape as shown on the application provided a sufficient visual buffer and met the requirements of .VI-A.C.4.(c).

Ms. Storrs asked the Board to turn to Article X.F. *Special Exception*. The Board determined that the proposed use would conform to the requirements of X.F.1(a)-(c): The required plan had been submitted. The applicant understood that the permit would expire if the use were to cease for more than one year; and, there were not existing violations of the ordinance on the property.

The Board reviewed X.F.1(d)1-6, *Criteria for a Special Exception*:

1. The capacity of existing or planned community facilities.

The Board found that the proposal would not adversely affect the capacity of existing or planned community facilities.

2. The character of the area affected.

Jason Bourne did not believe the tower would diminish the rural character of the area. Bill Balch agreed.

3. *Traffic on roads and highways in the immediate vicinity.*

Mr. Dodge stated that at maximum collocation five additional trips per month would be generated.

4. *Town services and facilities.*

The Board found that there may be positive effect for emergency services.

5. *Neighboring land uses present and prospective.*

The Board found that the proposal would not adversely affect the capacity of existing or planned community facilities.

6. *Significant wildlife habitat, trails, natural, scenic or historic features.*

The above would be addressed by the NEPA report; however, Mr. Dodge stated that the draft summary found no adverse effect from the proposal.

X.F(e)1. *Appropriate location for the use.* Jason Bourne asked if the proposal was located at the best site, or if there were a better site in town. Mr. Dodge stated that there was no better place. The same coverage would require a much higher tower in a different location. Mr. Dodge illustrated other areas that had been investigated by Viridi Wireless including a location on Burr Road which would have required a 300' tower to provide the same level of coverage. Viridi had also explored the possibility of collocating on an existing structure in Cornish Flat; however, the elevation in Cornish Flat was too low to provide adequate coverage. The Board found that the site was an appropriate location for the use.

X.F(e)2 *Excessive production of traffic, noise, smoke, fumes, glare or odors.* Mr. Dodge made reference to Application Exhibit G, *Environmental Sound Evaluation*. The only equipment at the proposed site that would produce environmental sound was the generator. The operating sounds from the proposed generator would be 47 dBA or less at the property line. Jason Bourne asked regarding fumes from the diesel generators. Mr. Dodge stated that the fumes would dissipate quickly and added that the generators would cycle on and off once daily; otherwise, the generator would only run in case of a power outage.

Public Discussion

Adam Blue asked if proposed tower would lead the power company to improve service in the case of a power outage. Mr. Dodge doubted the presence of the tower would leverage an improvement of the power system. However, Mr. Dodge added that frequent power outages possibly could lead to communication between AT&T and the power company

Gladys Berry supported the application.

Janice Orion supported the application.

Adam Blue asked if the PowerPoint presentation and the maps would be made available to the public. Mr. Dodge said that he would email a copy to the Board. Mr. Blue was given a copy of the application by Mr. Balch. He received permission from the applicant to take photographs of the application.

Closed Discussion

Jason Bourne moved to approve the application for special exception conditional upon the following conditions:

1. The posting of a removal bond – amount to be determined.
2. The submission of the NEPA report to the Board.

Bill Balch seconded the motion. The Board considered Article X.F.3(a) *Conditions Applicable to Telecommunications Facilities* and did not find the need to apply any further conditions to the decision.

The Board found that the requirements of X.F.3(b) had been met with the exception of the NEPA report which was addressed in Condition #2.

Mr. Chianis asked whether reports could be done yearly as opposed to quarterly as required in VI-A.E. He stated that yearly reports are the industry standard. Mr. Bourne said that he did not feel the Board had the authority to waive the quarterly reports. Mr. Dodge stated that he would petition the Selectboard to accept yearly reports.

Mr. Bourne asked that the submission of a certificate of insurance as required by the Cornish Zoning Ordinance Article VI-A.D be added to the conditions. Jason Bourne moved the amend the conditions to the following:

1. The posting of a removal bond – amount to be determined.
2. The submission of the NEPA report to the Board.
3. The submission of a certificate of insurance as required by Cornish Zoning Ordinance Article VI-A.D

Bill Balch seconded. Ms. Storrs called for a vote to approve the application for Special Exceptions subject to conditions 1-3, above, and the vote of the board was in the affirmative 3-0.

Variance

Mr. Dodge noted that he had misspoken earlier when he had requested a variance to exceed the maximum tower height by 53'. The applicant seeks a variance in order to exceed the maximum tower height by 57'. Mr. Dodge cited NH Supreme Court case, *Daniels v. Londonderry*, which found that variances may be granted to telecommunication facilities to remedy a significant gap in coverage. The ruling also took into consideration whether the applicant had sufficiently explored alternatives.

He reviewed the criteria for a variance and responded to each.

1. The variance will not be contrary to the public interest;

Per Mr. Dodge, the availability of FirstNet and the remedy of a significant gap in coverage were both in the public interest.

2. The spirit of the ordinance is observed;

Per Mr. Dodge, the site will be screened by conifers thus maintaining the rural character of the property.

3. Substantial justice is done;

Per Mr. Dodge, the gap in coverage cannot be remedied without the additional 57' of tower height requested. Coverage at 170' is optimal and allows for collocation in accordance with the requirements of the Cornish Zoning Ordinance. Twenty feet above the average height of the tallest 10% of the trees in a 150' radius would give 113' which would not be sufficient to remedy the gap in coverage.

4. The values of the surrounding properties are not diminished; and

Mr. Dodge referred to Application Exhibit J *Property Values Report* which found that the values of surrounding properties would not be diminished. The proposal will allow for wireless service without a detrimental effect on the value of the Decato and surrounding properties.

5. Literal enforcement of the provisions of the ordinance would result in an unnecessary hardship.

Mr. Dodge reviewed alternative sites in Plainfield which provided coverage too far off the target area. Another property was explored, and the necessary tower height would have been 300' and would have required lighting. A potential 130' tower at Saint Gaudens was rejected by RF engineers because the elevation was too low. Cornish Flat was examined. Elevation was too low to provide the target service on NH Route 120. Two locations on Leavitt Hill and Hopkins Road also were rejected by RF engineers. Topographic features, existing vegetation, and existing access road made the current location feasible.

Mr. Dodge summarized his argument with the following three points: first, the proposal would enhance first responder safety; second, the proposal would meet the requirements for collocation in the Cornish Zoning Ordinance; and third, collocation at the current proposed tower site would eliminate the need for additional tower construction in the future.

Caroline Storrs asked if a reduction in the number of potential collocations would reduce the overall height of the tower. Mr. Dodge said that such a reduction would make the project less optimal for FirstNet and AT&T. Jason Bourne asked if there were RF simulation maps at decreased heights. Keith Vellante stated that while he did not include that information with the application, an analysis was run at 113'. A reduction in tower height to 113' would result in the loss of half a mile of coverage on Burr Road and a corresponding loss of coverage for 100 people. Mr. Bourne said that it would be useful to have RF coverage calculations at varying heights. Mr. Dodge encouraged the Board to consider the improved coverage at 170'. Bill Balch said that the average citizen driving through town would not see a difference between 160' and 170'. Ms. Storrs said that in retrospect, she felt that the 10 feet by which the other tower was lowered did not make a difference visually. Bill Balch asked if the proposal would provide service to Cornish Flat. He was told that it would. Mr. Bourne and Ms. Storrs said that they had not heard any objections from the public. Bob Rice stated that, in his experience as fire chief, the worst point of radio communication with radios is in the area of the general store. The

repeater cannot be hit on the portable or 100 watt radios; however, he continued, moving up in height by 10' could make a difference in reception. Mr. Bourne asked where the town equipment would be relocated on the tower. Mr. Chianis stated that emergency services currently are investigating whether their repeaters or other equipment would interfere with AT&T equipment. Local emergency service equipment could fit in between collocations. Viridi Wireless has given the town a verbal guarantee that local services would have a location on the tower. Mr. Dodge said the whip end towers used by emergency services can function well at lower heights and added that interference is less likely on vertical space.

Ms. Storrs asked the Board to review the criteria for a variance, Article X.G.1-5. The applicant seeks a variance to construct the tower 57 feet beyond the height limit as given in the Cornish Zoning Ordinance.

1. *The variance will not be contrary to the public interest;*

Jason Bourne stated that the applicant had shown that the proposal serves public interest.

2. *The spirit of the ordinance is observed;*

Bill Balch and Jason Bourne agreed that the spirit of the ordinance was observed. Caroline Storrs agreed that the location, contours and topography all worked. Jason Bourne stated that the location was an excellent one in that it was not highly visible.

3. *Substantial justice is done;*

Jason Bourne stated that the provision of cellular service to Cornish Flat was in the public interest.

4. *The values of the surrounding properties are not diminished;*

Jason Bourne agreed that property values would not be diminished. Caroline Storrs found the Property Values Report submitted with the application very thorough.

5. *Literal enforcement of the provisions of the ordinance would result in an unnecessary hardship.*

The Board found that alternatives which were explored and rejected contributed to the uniqueness to the property. Jason Bourne stated that given the ability of the site to provide coverage in order to best serve the community, limiting the applicant to 20' above the existing average tree canopy as given Article V of the Zoning Ordinance would result in an unnecessary hardship. Bill Balch agreed.

There was no comment from the public.

Bill Balch made a motion that the application for a variance be approved as presented. Jason Bourne seconded the motion, and the vote of the Board was in the affirmative, 3-0. George Chianis thanked Mr. Balch for his availability to assist the applicant.

The public hearing was closed at 9:25 pm.

Other Business

Bill Balch moved to approve the minutes of Cases 18-01 and 18-02 as presented. Jason Bourne seconded the motion, and the vote of the Board was in the affirmative, 3-0.

Jason Bourne mad a motion to adjourn. Caroline Storrs seconded the motion, and the vote of the Board was in the affirmative, 3-0. The meeting was adjourned at 9:35 pm.

Respectfully submitted,
Heidi Jaarsma, Recording Secretary