A VIDEO RECORDING OF THE MEETING IN ITS ENTIRETY IS AVAILABLE THROUGH VERMONTCAM.ORG. THE WRITTEN MINUTES ARE A SYNOPSIS OF DISCUSSION AT THE MEETING.MOTIONS ARE AS STATED BY THE MOTION MAKER. MINUTES SUBJECT TO CORRECTION BY THE SHELBURNE PLANNING COMMISSION. CHANGES, IF ANY, WILL BE RECORDED IN THE MINUTES OF THE NEXT MEETING OF THE COMMISSION.

TOWN OF SHELBURNE
TELECOMMUNICATIONS REVIEW BOARD
MINUTES OF MEETING
November 12, 2020

***Meeting held via teleconference.**

MEMBERS PRESENT: Jason Grignon (Chair); Megan McBride (Vice Chair); Steve Kendall, Jean Sirois, Neil Curtis, Deb Estabrook, Stephen Selin.

STAFF PRESENT: Dean Pierce, Planning Director; Brian Monaghan, Town Attorney, Kristen Shamis, Town Attorney.

OTHERS PRESENT: Zach Manganello, Louis Hodgetts, Brian Sullivan, Candice Paige, Lilly Young, Maureen O'Brien, Dana Valentine, Amy Guidice, Breana Killeen, Kevin and Nicki Hawko, Peter Raymond, Michael Buscher.

AGENDA:

1. Call to Order
2. Approval of Minutes (9/10/20)
3. Application(s):
   - Telecommunication Application, "Ham" Radio Facility, 4450 Dorset Street, Manganello (TEL20-01)
4. Adjournment

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1. CALL TO ORDER

Chair Jason Grignon called the teleconference TRB meeting to order at 7:04 PM.

2. MINUTES

September 10, 2020

MOTION by Megan McBride, SECOND by Steve Kendall, to approve the TRB minutes from the 9/10/20 TRB meeting as presented. VOTING: 6 ayes, one abstention (Stephen Selin); motion carried.

3. APPLICATION(S)

TEL20-01: Telecommunication application for a "ham" radio facility at 4450 Dorset Street by Zachary Manganello

MOTION by Steve Kendall, SECOND by Jean Sirois, to open the public hearing on TEL20-01 for two antenna support structures at 4450 Dorset Street by Zachary Manganello. VOTING: unanimous (7-0); motion carried.

The public hearing was opened at 7:05 PM. Jason Grignon gave a brief history of Recess Order #5 and evidence submitted by the applicant and neighbors. The procedure to be followed with the hearing was explained.

TESTIMONY

Brian Sullivan, attorney for the applicant, said the application that was filed attempts to conform to the town's telecommunications ordinance even though the structures are not

telecommunications towers. Changes made to the application since the last hearing include reduction in the height and placement of the towers. Tower 1 is now connected to the house and per 24VSA2291(19) the TRB is precluded from regulation. The town's radio frequency expert testified the proposal submitted in February 2020 with the towers taller than now was reasonable to accomplish the goals of the amateur radio station. If the taller towers were reasonable then the shorter towers now being proposed should be reasonable as well.

Zach Manganello stated the location of the structures was modified to be on slightly higher ground, and to use the existing house and trees for screening. The height of both towers has been reduced, but the towers are still visible. The changes are an attempt to minimize visibility while still having the performance needed. The reasons for the changes are to improve the performance station for long distance and emergency communications, and to minimize impacts. A 35' tall structure vastly underperforms a 50' structure. The two structures are proposed to support multiple antennas. The FAA will do an analysis of any hazards to air navigation (a negative response from the FAA is not anticipated). There is no plan to install lighting on the structures and neither structure is taller than nearby trees. No interference is anticipated with the VOR facility or aircraft in the airspace above the tower locations. The structures are located by existing trees to help mitigate aesthetic impacts. An offer has been made to neighbors to install vegetative screening on their property at a reasonable cost. Anti-climbing devices can be installed on the towers for safety purposes, but this likely is not necessary since the structures are on private property. There will not be use of repeaters, only high frequency shortwave. There was mention of using a telescoping structure, but an enormous amount of concrete underneath would be needed to support the structure and the tower would need to be up most of the time to receive signals for the ongoing reception work that is being conducted to gather data. Regarding RF exposure, there is no exposure even near the maximum amount permissible. Higher towers mean more efficient communications and shorter transmitting time.

Louis Hodgetts, Dubois & King, reviewed the heights and locations of the towers, antennas, and existing trees. A photo-simulation was shown from various viewpoints (Dorset Street, Barstow Road, Sutton Farm Drive) under leaf on and leaf off conditions.

Mike Buscher, town consultant, advised the TRB to get a good understanding of the simulations, noting the effort by the developer to mitigate the concerns of the neighbors. The lower tower is innocuous with regards to visual impact. The taller tower has been reduced in height from the original proposal and is now located at a higher elevation. There is a fair amount of visibility of the project. Relocation near the existing vegetation helps with blending. Any additional landscaping would have to be strategically viewed. A neighbor with direct view of the tower from their house would benefit by landscaping strategically planted in their yard. A retracting tower is another option. There are other towers in the vicinity, but the nearest one is at least two miles away.

The was discussion of the following:

- Anti-climbing device - Louis Hodgetts said the device is designed to prohibit anyone from climbing up the tower.
- Cost of a collapsible tower - Zach Manganello said the difference in cost is hundreds of dollars for the proposed structure versus thousands of dollars, yards of concrete, and specialized material for a collapsible tower. Zach Manganello noted he has already acquired several pieces of tower structure.
- Proposed tower reduced in height from the original 70' versus a 35' tower that meets the ordinance – Zach Manganello explained the reduction in height makes a difference in the frequency bands. Reception is best with higher antennas. Some reception capability is lost by not having the antenna at the same height. The tower height and antennas are to help meet performance objectives.
- Hours of operation per week – Zach Manganello said operation varies to as little as six hours per week. Data gathering is done when not on the radio.
- Using a telescoping tower for the height when needed and collapsing down the tower when not in use – Zach Manganello said the issues are cost and convenience, and because data collection is being done the tower would likely be at full telescoped height all the time.
- Loss with a lower tower versus a retractable tower – Zach Manganello said many signals will be missed if the antennas are not above 35'. The MHz will not be attained.
- Towers falling on surrounding property – Zach Manganello confirmed the fall radius is on his property.
- Impact to drainage patterns and erosion control – Zach Manganello said the work that is proposed is minimal (sonotubes, guide anchors).

PUBLIC COMMENTS

Peter Raymond, attorney for the neighbors, asked about the following:

- Sending/receiving messages with a shorter tower – Zach Manganello said strictly this can occur, but not nearly as well as at the 60' level.
- Antenna running between the towers – Zach Manganello confirmed there will be a thin wire antenna between Tower 1 and Tower 2. The wire is for the 3.5 MHz band. The antenna is not good for talking long distance and most of the signal will be absorbed by the ground or go straight up. The antenna is a compromise to having a 100' tower with an antenna for that frequency band. The wire antenna will be at the 35' level and exempt from the town's communications ordinance.
- Number of ham radio operators in Shelburne with towers over 35' – Zach Manganello said he did not know the answer.
- Acquired sections of tower – Zach Manganello said he has had the sections for Tower 1 for over nine years (the sections are from the tower he had in Charlotte). Sections for Tower 2 were acquired from an estate sale approximately a year ago.
- Emergency services use of ham radio – Zach Manganello said he was on a portable radio transported to a site and set up for an ice storm in Maine. Signals

are relayed from smaller stations to larger stations. Taller towers are needed to communicate.

- Cost of retractable tower – Zach Manganello said he has not investigated the cost of these towers.
- Towers are visible if not obstructed by trees – Louis Hodgetts confirmed the towers can be seen. The photo-simulation showed the towers and guide wires which are a thin diameter.
- Elevation of Tower 2 – Louis Hodgetts said the overall tower structure delta is 24' (84.5' to 60.5'). The reduction in the antenna height is 16'.

DELIBERATION/DECISION

Stephen Selin asked what the benefit would be to the neighbors or the town with a retractable tower and whether the town could require that the tower be retracted when not in use. Peter Raymond said he will provide an analysis of the TRB's ability to regulate the tower. Brian Sullivan said further information can be provided on whether a municipality can dictate hours of operation when operating under a federal license.

MOTION by Steve Kendall, SECOND by Deb Estabrook, to continue the hearing on TEL20-01 for a ham radio facility at 4450 Dorset Street by Zachary Manganello to December 17, 2020. VOTING: unanimous (7-0); motion carried.

4. ADJOURNMENT

MOTION by Steve Kendall, SECOND by Neil Curtis, to adjourn the meeting. VOTING: unanimous (7-0); motion carried.

The meeting was adjourned at 8:56 PM.

RScty: MERiordan