

Apr 17, 2022

Dear members of the board:

I am writing today regarding the cell tower application for Martin Road (“APPLICATION FOR SPECIAL PERMIT AND SITE PLAN APPROVAL”). I would like to ask the board to reject the application as incomplete because it does not meet the existing bylaws, which were legally established by the people of Buckland and approved by the Massachusetts Attorney General. The application fails to meet the Filing Requirements as outlined in section 10-15.1(c) of the town bylaws:

c) A licensed carrier shall either be an applicant or a co applicant

The applicant claims that “changes in and the practical reality of the wireless infrastructure market” make this condition burdensome; however a licensed carrier (AT&T) has been actively applying for cell towers in neighboring towns, which indicates that this is still very much a practical reality. The proposed project represents *potential* devaluation of nearby properties, occupies scenic land that could be used for recreation and housing, introduces apparent security risks (since the applicant claims it will need barbed-wire fence to protect its facilities) and fire safety risks to town (a fire on this tall structure could set the hillside ablaze during on a dry summer as we have been seeing more frequently, and given the steep slope would be challenging to manage). The proposed benefit of this application to the town is that existing cell coverage will be improved, and so my point is that outside of that benefit, it presents risks; therefore, at the very least, the applicant should be required to comply with the language of the Bylaw and partner with duly licensed co-applicant so that we can see they are serious about providing the improved coverage they claim they will provide. Anything else is merely speculation and does not justify the burden of processing the application to the town.

The applicant states on “Page 32” (PDF Page 46) of the application that:

“Accordingly, a literal enforcement of the provisions of the Bylaw would prevent the Applicant from eliminating an existing gap in reliable service coverage, resulting in a potential loss of subscribers and the inability to effectively compete for subscribers with FCC licensed competitors in the market, contrary to the intent of the Bylaw and the U.S. Congress in enactingthe [sic] TCA.”

However, since the applicant is not a licensed carrier it has no subscribers to potentially lose, nor does it have any risk of competition for said subscribers. This is another reason why the applicant must be a licensed carrier. Almost to confirm the fact, the applicant has a lengthy, threatening preamble of variance-denial litigations littered with editing errors and, most importantly, only show carriers who were successful in enforcement of the TCA.

It is critical that the town enforce the laws as they were passed by the people, and this provision specifically protects the town from bullying behavior of non-carriers and their lawyers attempting

to improperly enforce provisions of the TCA for their financial gain and at the expense of rural communities to get ahead of licensed carriers who would be subsequently forced to lease space on the applicant's infrastructure should its application be approved.

Sincerely,

John Holden
Orcutt Hill Rd.

Fwd: Vertex Towers Application

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Monday, April 18, 2022, 02:28 PM EDT

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From: [REDACTED]
Sent: Monday, April 18, 2022 1:44 PM
To: Planning Board <PlanningBoard@town.buckland.ma.us>; Zoning Board of Appeals <zoning@town.buckland.ma.us>
Cc: [REDACTED]
Subject: Vertex Towers Application

Dear members of the Buckland Planning and Zoning Boards,

I am writing to the boards today in regard to Vertex Tower, LLC's Application for Special Permit and Site Plan Approval and Variances for Personal Wireless Service Facility, at 26 Martin Road, Buckland, Ma 01338.

I have compiled a list of details that I believe the applicant has not provided to the Boards as required by the Buckland Zoning Bylaws.

I believe that some of the items on the list are basic to a proper application. Because the application does not meet the basic requirements as set forth in the Buckland Zoning Bylaws I believe that the Planning and Zoning should cease reviewing the application, until these issues are resolved..

I will list the points that I believe require the immediate attention of the Boards in chronological order rather than in order of importance in the hope that you will consider all of the points. All of the listed points are in Section X: Bylaw for Personal Wireless Service Facilities in Buckland, Ma of the Bylaws presently posted on the Buckland Town website.

- 1] 10-3 Regulations Governing Personal Wireless Service Facilities
 - b] The carrier must

The applicant is not a carrier

- 2] 10-5 Dimensional Requirements
 - a] Height
 2. Ground Mounted Facilities.,these facilities shall not project higher than ten feet above the average tree canopy height,.....

The applicant has not provided factual information regarding the, " average tree canopy height".

5. Setback from designated wetlands,.....

To the extent that the road is part of the," personal wireless facility", this requirement does not appear to be meet.

- 3] 10-6 Design Standards
 - ... Siting shall be such that the view of the personal wireless service facility from other areas of Town shall be minimal as possible.

This tower is proposing to be in full view of the Robert Strong Woodward House, which is listed on the National Registry of Historic Places because of his paintings many of which are views of the very hillside the tower is proposed to be built on.

It will be visible from the Wilder Homestead, also a list property

It will be in full view Of Rt112 which is a Designated Scenic Byway.

It is in full view from Orcutt Hill Rd which is listed in Bucklands Open Space Plan as a valubale scenic asset.

4] 10-10 Historic Buildings

- a]near historic buildings is subject to the Planning Board approval.

See notes under section 10-6

5] 10-12 Environmental Standards

- d] Storm water runoff shall be contained.

It appears that the plans include controlling where storm run off goes, but not, " containing" it.

6] 10-15.1 General Filing Requirements

- c]A licensed carrier shall.....

This is a clause that was added by the Planning Board. Vetted by Town counsel. Vetted again by the State Attorney Generals Office. And finally voted on by the residents of Buckland at Town Meeting. I believe that this issue must be dealt with before you entertain this application, otherwise the residents of Buckland have been forced to remain focused on this application although in may end up rejected on this one point.

7] 10-15.2 Filing Requirements

- b]

6. A locus map,.....,which shall show,....., bodies of water,, habitats for endangered species within 1000 feet,..... .

There is no mention of the status of the property regarding endangered species.

8] 10-15.3 Siting Filing Requirements

A site plan by a professional engineer at scale of 1:40 which will show the following

- 9]Tree cover on the subject property and adjacent properties within 330feet, by dominant species and average height, as measured by or available from a verifiable source.

This is an important document. The request for a height variance could not be dealt with without this site plan. I believe that the use of a VERIFIABLE SOURCE is very important.

9] 10-15.4 Design Filing Requirements

a] Equipment brochures for the proposed personal wireless service facility such as manufacturer's specifications or trade journal reprints shall be provided for the antennas, mounts, equipment shelters, cables as well as cable runs and security barrier, if any.

e] Appearance shown by at least two photographic superimpositions of the PWSF within the subject property. The photographic superimpositions shall be provided for the antennas, mounts, equipment shelters, cables as well as cable runs and security barrier, if any, for total height, width, and breath.

Once again. This is required in the application and NOT PROVIDED.

10] 10-15.5 Noise filing Requirements

The applicant shall provide....., for the following.

- 1.Existing, or ambient; the measurements of existing noise.

And again. This is required and NOT PROVIDED.

11] 10-15.6 Radio Frequency Radiation [RFR] Filing Requirements

The applicant shall provide.....

- a] Existing, or ambient; the measurements of existing RFR.

Once more. This is required and NOT PROVIDED.

12] 10-15-7 Environmental Filing Requirements

a] The FCC requires that an environmental assessment [EA] be filed with th e FCC prior to beginning operations for any PWSF proposed in, or involving ang of the following:, Wetland,..... .

b] At the time of the filing, an EA that meets FCC requirements, shall be submitted to the Town SPGA..... .

This is required and NOT PROVIDED.

It is my hope that the Planning and Zoning Boards will slow down and demand that the applicant provide the boards with ALL of the requirements of The Town of Bucklands Bylaw for Personal Wireless Service Facilities.

It is my hope that the Planning and Zoning boards will remember first and foremost that these bylaws were carefully crafted by a previous Planning Board and then vetted by the Town Counsel and the State Attorney Generals Office. Finally it was brought before Town Meeting and approved by the residents of Buckland. The residents approval has always assumed that the bylaw will be carefully vetted by the boards. Because the application is incomplete, I do not believe that the boards can uphold that trust if they proceed.

This application in it's present form should be rejected.

Respectfully,

David Christopher Lenaerts
Buckland Resident

Fwd: Cell tower application in Buckland - 26 Martin Road

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Monday, April 18, 2022, 02:27 PM EDT

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From: Susan Silvester Samoriski [REDACTED]

Sent: Monday, April 18, 2022 2:06:21 PM

To: Planning Board <PlanningBoard@town.buckland.ma.us>

Cc: [REDACTED]

Subject: Re: Cell tower application in Buckland - 26 Martin Road

Dear Members of the Planning Board,

I will be brief because so many others from our neighborhood have already articulately voiced their similar concerns regarding the recent application for the construction of a cell phone tower on Martin Road. The applicant is not a licensed carrier and therefore the application should not be considered until such time as the applicant meets all the requirements as outlined in the existing town bylaws. There has not yet been a balloon floated above the proposed site, and the timeline should be respected. Barbed wire as a barrier to the structure is dangerous and unnecessary, and I

urge that a waiver not be granted. Other considerations include potential devaluation of nearby property, aesthetic considerations should the structure abnormally project above the tree line and the fact that significant improvement has already been made in the establishment of communication along that road.

Thank you for the time and effort that you invest in this application process.

Susan Samoriski
8 Old Upper Street
Buckland MA 01338

Fwd: Another resource regarding the Vertex tower

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Monday, April 18, 2022, 03:58 PM EDT

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From: Rick Leskowitz [REDACTED]
Sent: Monday, April 18, 2022 3:45:54 PM
To: Michael Hoberman [REDACTED]
Cc: Planning Board <PlanningBoard@town.buckland.ma.us>
Subject: Another resource regarding the Vertex tower

I know that the health impact of cell tower radiation cannot be cited as the reason for denial of a license, but I think the info in this 20-minute video is extremely important. The presenter was the Chair of the Department of Electrical Engineering at UNH, and his testimony was instrumental in NH's recent decision to increase the setbacks from all cell towers statewide.

<https://www.youtube.com/watch?v=DWK74ie7krc>

It may be too late to review this clip before tonight's meeting, but I think it's crucial information to take into account, especially in the light of so much widely-disseminated industry-sponsored material that is clearly one-sided.

Best,
Rick

Re: Cell tower application in Buckland - 26 Martin Road

From: Kathy Lytle ([REDACTED])

To: [REDACTED]

Cc: PlanningBoard@town.buckland.ma.us; [REDACTED]

Date: Tuesday, April 19, 2022, 07:51 AM EDT

Dear Members of the Planning Board,
Curtis Rich and I, Kathleen Lytle., strongly oppose the building of the 5 G cell tower on Martin Rd for all the reasons that are explained in the above emails of residents.
Thank you for all the hard work you do. It's endless isn't it?
Kathy Lytle
Curtis Rich
22 Upper St.
Buckland, Ma. 01338

On Mon, Apr 18, 2022 at 2:06 PM Susan Silvester Samoriski ([REDACTED]) wrote:

Dear Members of the Planning Board,

I will be brief because so many others from our neighborhood have already articulately voiced their similar concerns regarding the recent application for the construction of a cell phone tower on Martin Road. The applicant is not a licensed carrier and therefore the application should not be considered until such time as the applicant meets all the requirements as outlined in the existing town bylaws. There has not yet been a balloon floated above the proposed site, and the timeline should be respected. Barbed wire as a barrier to the structure is dangerous and unnecessary, and I urge that a waiver not be granted. Other considerations include potential devaluation of nearby property, aesthetic considerations should the structure abnormally project above the tree line and the fact that significant improvement has already been made in the establishment of communication along that road.

Thank you for the time and effort that you invest in this application process.

Susan Samoriski
8 Old Upper Street

Buckland MA 01338

Fwd: Vertex Application: Standing and Tonight's Meeting

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Monday, April 18, 2022, 02:28 PM EDT

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From: Jonathan Mirin [REDACTED]
Sent: Monday, April 18, 2022 10:14:21 AM
To: Planning Board <PlanningBoard@town.buckland.ma.us>
Subject: Vertex Application: Standing and Tonight's Meeting

Dear Planning Board Members,

Thank you for your thoughtful meeting last Thursday and your attention to the new cell tower application from Vertex. My understanding is that Buckland's current telecom by law requires that applicants who would like to put up a cell tower must either be a carrier or already be partnered with a carrier. I also understand that since Vertex is neither of these, you have sent their application to town counsel to discern a way to proceed. I also understand that Vertex is holding up the town of Rowe as an example where they waived this requirement with the condition that the tower will not be built, following approval, unless Vertex has an agreement with a carrier.

While I understand your wish to be accommodating to the applicant, in this case, I urge you to follow the by law as it was written and intended. Please instruct Vertex to re-apply after they have an agreement with a carrier. This is not to be "punitive" but is simply acting in the best interest of your constituents. A cell tower hearing, as evidenced by hearings over the last couple of years in Ashfield (two hearings), Heath, Colrain and Rowe is a long, time consuming, divisive and expensive process. It is particularly expensive for residents who decide they actually don't want to live near a tower given evidence about [lowered property value](#) and [negative health impacts](#).

Abutters in Ashfield and Heath have both recently spent thousands of dollars in legal fees fighting a lopsided, uphill battle and dozens of hours trying to protect their families. Indeed, several years ago the residents of Upper Buckland spent thousands of dollars and dozens of hours fighting a cell tower application. This is an environmental justice issue. If abutters do not have the financial resources to hire a lawyer, the tower, more than likely, goes up. This was the case with the second Ashfield tower. The abutters simply could not afford to keep fighting. Given that COVID has put many in a precarious financial situation and some are still wary of attending in-person meetings, why put your residents through this again when the applicant clearly does not have standing? Even if you went ahead and the tower was approved, skipping the standing step puts the town in legal jeopardy in the event residents muster together even more resources for litigation.

Executing the by law as written and making sure residents do not have to empty their coffers (if they have them) will also mean residents do not unnecessarily take time away from their families to accommodate an out of state company who has been systematically applying throughout the Hilltowns while cashing in on federal First Net money offered through the FCC, a "[captured agency](#)" according to a Harvard Ethics Report. I also urge you to stand up for Buckland at this moment, before accepting the application, given the other aspects of the application which are incomplete as I believe have been described in other letters to the Board.

Lastly, I am confused about tonight's meeting with Fred Goldstein. Having witnessed quite a few cell tower hearings and meetings with consultants, including Mr. Goldstein, I have never seen the consultant appear outside of the formal hearing process. Given that Buckland residents have not been formally notified that there is a cell tower application and are likely unaware of tonight's meeting, does it make sense to proceed? I am particularly thinking of Mr. Parisi's comment at the last meeting, shutting down discussion of the tower by saying he that the Board should not discuss the issues with a local resident before the hearing started. All of the issues around height and coverage which Mr. Goldstein will be weighing in on are directly relevant to Buckland residents who are the ones who may be living next to it for the rest of their days. Shouldn't they be part of the discussion and be able to ask questions? My suggestion is that tonight's meeting be rescheduled and devoted to the question of standing.

Thank you for your consideration.

Sincerely,

Jonathan Mirin, Charlemont

Sent with [ProtonMail](#) secure email.

Fwd: Vertex Cell Tower

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Wednesday, April 20, 2022, 06:05 PM EDT

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From: Devorah Edythe [REDACTED]
Sent: Wednesday, April 20, 2022 12:11:44 PM
To: Planning Board <PlanningBoard@town.buckland.ma.us>
Subject: Vertex Cell Tower

Dear Planning Board Members,

Please reject the pending Vertex application as incomplete. The applicant does not have standing because they are not a licensed carrier nor partnered with one. If Vertex feels our by laws are problematic, please direct them to take up their issue with the Attorney General or bring their proposed revision to the Planning Board just like your constituents have to if they have a suggested revision.

Buckland residents should not have the burden on financial resources and time to hire lawyers to defend the rural character of our town or protect our neighbors, as families in both Ashfield and Heath have had to do. Sadly, the litigious nature of Vertex precedes them (<https://www.nhpr.org/business-and-economy/2021-05-28/cell-tower-developer-sues-thornton-for-denying-proposal-on-sununu-owned-land>).

Please let Vertex know that we would like them to have a carrier (or carriers) that helps the residents to have better service, and that they can share their full plan ahead of time with residents, along with, hopefully, a study of bird flight paths and other potential impacts. Please put the leg work of finding a carrier partner on Vertex, not the financial and time burden of defending ourselves on Buckland residents.

Sincerely,

Deborah Bruml
88 Elm Street, Buckland

P.S. On a personal note, I am currently taking care of family out of state. Coming from Ohio, it really is special and beautiful to not have cell towers around every turn. I always love returning to Buckland.

Fwd: Please reject the Vertex cell tower application

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Wednesday, April 20, 2022, 06:05 PM EDT

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From: Dawn Grignaffini [REDACTED]
Sent: Wednesday, April 20, 2022 12:37:53 PM
To: Planning Board <PlanningBoard@town.buckland.ma.us>
Subject: Please reject the Vertex cell tower application

Dear Planning Board Members,

My name is Dawn Grignaffini. I am concerned about the Vertex cell tower application because of the negative health impacts of the families living near the tower as well as the lowering property value to the residents of Buckland.

Please reject the pending Vertex application as incomplete at your next meeting. The applicant does not have standing because they are not a licensed carrier nor partnered with one. If Vertex feels our by laws are problematic, please direct them to take up their issue with the Attorney General or bring their proposed revision to the Planning Board just like your constituents have to if they have a suggested revision.

Our family does not have the financial resources at the moment to hire a lawyer to defend the rural character of our town or protect our neighbors. Please put the leg work of finding a carrier partner on Vertex, not the financial and time burden of defending ourselves from an opportunistic out of state wireless company making serial applications in the Hilltowns (recent applications in Ashfield, Conway, Colrain and Rowe) on Buckland residents.

Sincerely,

Dawn Grignaffini
30 Crittenden Hill Rd

Fwd: Public Hearing/Vertex

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Thursday, April 21, 2022, 09:52 PM EDT

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From: Kate Davenport [REDACTED]
Sent: Thursday, April 21, 2022 9:10:46 PM
To: Planning Board <PlanningBoard@town.buckland.ma.us>
Subject: Public Hearing/Vertex

Dear PB Members,

After being present at the last two PB meetings regarding the cell tower application with Vertex Counsel and witnessing the intimidation by Vertex Counsel regarding appropriateness of process and public questions, I respectfully request that we have Buckland Counsel present at the upcoming Public Hearing and any further PB meetings to represent the PB and Buckland Residents equitably. It is essential, in my opinion, to have a fair and just public discussion. We have not been through this before; they have, and they know the drill.

Sincerely,
Kate Davenport
26 Upper Street
Buckland, MA 01338

Sent from my iPhone

Fwd: A question about future Planning Board meetings

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Thursday, April 21, 2022, 09:42 PM EDT

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From: Rick Leskowitz [REDACTED]

Sent: Thursday, April 21, 2022 8:53 PM

To: Planning Board <PlanningBoard@town.buckland.ma.us>

Cc: [REDACTED]

Subject: A question about future Planning Board meetings

First off, thank you to the Board members for the time and energy you've been putting into this issue. Much appreciated!

My question arises because the interests of Vertex do not necessarily align with the interests of Buckland. Mr. Goldstein and Mr. Parisi are experts representing Vertex's interests, but we have no one of similar expertise representing ours. For example, would it be possible to have Town Counsel present at the next meeting to answer procedural questions like the one that Mr. Parisi answered? Perhaps Town Counsel would not have had such a rigid interpretation of our procedural by-laws as Mr. Parisi had.

Similarly, it would be helpful to have an engineering expert be available to counter some of the outright falsehoods asserted by Mr. Goldstein, especially regarding the health aspects of microwave radiation. Christopher alluded to this issue of area of expertise, and I think it's quite important that Mr. Goldstein not be regarded as our resident expert in areas where he is not, in fact, an expert.

Jonathan and I have worked with the professor from UNH who was active in New Hampshire's recent tightening of cell tower regulations. He has indicated a willingness to assist us, though the form of that assistance hasn't been determined - it could be a Zoom consultation with the Board, it could be direct participation in the next open meeting, it could even be a Point/Counter-Point with Mr. Goldstein.

Thanks again for your work, and thanks in advance for your consideration of these issues.

Best,
Rick

Fwd: Buckland Residents MUST be informed!

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Thursday, April 21, 2022, 09:41 PM EDT

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From: Dianna Dapkins [REDACTED]

Sent: Thursday, April 21, 2022 6:45:53 PM

To: Planning Board <PlanningBoard@town.buckland.ma.us>

Subject: Buckland Residents MUST be informed!

Dear Planning Board Members,

My name is Dianna Dapkins and I live right next door in Shelburne.

I am concerned about the Vertex cell tower application because

I am now surrounded by 4 high powered cell towers. I have suffered from EMF Sickness* due to the rampant increase in EMF's over the past 18 months. We live in a gorgeous rural area. There is now enough cell coverage that people on any major road can call for 911 help. These companies want to make us have 5G / Urban levels of cell reception and it just doesn't work in our topography without hyper irradiating people and wildlife. We don't need another tower to this end.

Please reject the pending Vertex application as incomplete at your next meeting.

The applicant does not have standing because they are not a licensed carrier nor partnered with one. If Vertex feels our bylaws are problematic, please direct them to take up their issue with the Attorney General or bring their proposed revision to the Planning Board just like your constituents have to if they have a suggested revision.

I own a small business and due to the pandemic ravages, I do not have the financial resources to hire a lawyer to defend the rural character of our town or protect our neighbors. I wish that I could. Please put the leg work of finding a carrier partner on Vertex, not the financial and time burden of defending ourselves from an opportunistic out of state wireless company making serial applications in the Hilltowns (recent applications in Ashfield, Conway, Colrain and Rowe) on Buckland residents.

Sincerely,

Dianna Dapkins
336 Patten Rd.
Shelburne, MA 01370



*Electromagnetic Frequency = Radiation

Fwd: Fred Goldstein Heads Up

From: Planning Board (planningboard@town.buckland.ma.us)

To: [REDACTED]

Date: Thursday, April 21, 2022, 09:41 PM EDT

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From: Jonathan Mirin [REDACTED]
Sent: Thursday, April 21, 2022 3:47:31 PM
To: Planning Board <PlanningBoard@town.buckland.ma.us>
Subject: Fred Goldstein Heads Up

Dear Planning Board,

In anticipation of this evening's meeting, I realized that the letter and accompanying documentation I had prepared some time ago for Ashfield's Planning Board re: Fred Goldstein's comments about health effects of a proposed tower there may be of interest. **They are attached.**

I understand you will likely not have time to review this before this evening so the gist is that Mr. Goldstein, while perfectly qualified to discuss many technical aspects of the application, has no relevant training in biology or epidemiology that would allow him to make informed comments about the safety of the tower beyond whether or not it is likely to fall down, etc. In fact, his [work history](#) has largely been focused on getting wireless infrastructure deployed in one setting or another.

I mention this because I understand you or the public might want relevant public safety information and Mr. Goldstein often appears a likely suspect for getting answers in the setting of a public meeting.

Thank you for your service,
Jonathan Mirin, Charlemont

Sent with [ProtonMail](#) secure email.



Letter to Ashfield Planning Board.Resent to Buckland Planning Board re Fred Goldstein.pdf

241.9kB



Hilltown Health

February 2, 2021

Dear Ashfield Planning Board Members,

Thank you for your well run and thorough most recent meeting about the proposed cell tower on the Robertson Farm.

I wanted to clarify and provide some scientific background about my two comments. I understand, as I know you do as well, that the 1996 Telecom Act precludes your making a decision about this tower based on health impacts. Nevertheless, my understanding is that you have asked Fred Goldstein twice about his opinion on the health impacts – once during his first appearance at a Planning Board meeting in relation to the tower and again at the most recent meeting which I attended. Both times, he essentially stated that in his opinion there would be no negative health impacts.

I have witnessed Mr. Goldstein's consulting before when he worked with the Town of Hawley to help install their fixed wireless system. It is clear he brings a lot of expertise and experience around telecom issues which are evident in his report. However, as I pointed out at the meeting, he is not a doctor or a scientist with a background in environmental health. His [work history](#) has focused more on facilitating the installation of wireless facilities than on voicing concern about their health and environmental impacts. In Hawley, for example, when residents raised concerns about the health and environmental impacts, local elected officials turned to Mr. Goldstein who offered the attached document "Some Questions and Answers about Wireless Safety". I do not know if he wrote it himself. It is an interesting document in that it compares the health impacts of fixed wireless favorably to those of cell towers (see highlighted sections). Usually wireless providers are careful to couch their statements about health in the generic, but less liability-producing "more research is necessary" mantra but here we see blanket assertions of complete safety and an emphasis on the power levels as opposed to the pulsed nature of low frequency microwave radiation which scientists have [linked to biological effects](#) (scroll down on linked page to "Physicists State RF Energy is Not High Enough to Cause Damage but Now Explained by Dielectric Permittivity, Radical Pairs and Oxidation").

Unfortunately for Big Wireless, but more unfortunately for all of us, the myth that non-thermal (non-ionizing) radiation can not damage cells has been disproven by our own government's gold standard [study conducted by the National Toxicology Program](#). The results of that study were echoed a few months later **at much lower RF levels** by the [Ramazzini study in Italy](#). This is an inconvenient truth and the Federal Communication Commission is currently [being sued in Federal court for failing to update their "safety standards" in light of these studies](#) as well as thousands of others over the last 20 years, amounting to 11,000 pages of submitted scientific

documentation. In the opening arguments last week, one of the Federal judges told the FCC's lawyer "I am inclined to rule against you."

As I said in the meeting, with all due respect to the former Planning Board member who seemed to think you "had to say yes", Ashfield's by-laws clearly provide grounds for denying this application for all the reasons elucidated in the memorandum of opposition. The additional factor of the letter from Ms. Melville declaring her intention to lease her land in Conway which would put a tower further from children and families than the Robertson tower and would cover the same area of 116 further strengthens the case for denial.

However, given that there are two young children who would live within 1500 feet of the tower whose developing nervous systems are more vulnerable to RF than healthy adults, you may wish to consult with a medical doctor and scientist who has expertise in the subject. I have contacted [Dr. David Carpenter](#) and he is available to answer any questions you may have this coming Wednesday, Feb. 10. As you can imagine, he is extremely busy and so would appreciate knowing in advance what time you would like him to log on.

Thank you for considering it and again congratulations again on your thorough approach to this process.

Sincerely,

Jonathan Mirin, Shelburne Falls
For Hilltown Health

PS. One last point of clarification around the discussion of satellites and the way in which motorists will have access to a global network of satellites providing high speed wi-fi to every inch of the globe, including in their vehicles. Mr. Goldstein is correct that Starlink, which has already launched 1000+ satellites and is offering beta-testers service across North America, uses ground stations to spread their signal. But this does not mean that cars will not be able to connect to the service, as SpaceX CEO Elon Musk suggests in this article:

<https://www.pcmag.com/news/musk-spacexs-starlink-internet-service-will-work-in-high-speed-moving-vehicles>

PPS: You may also be interested in this related resource page for [municipal leaders](#).

Some Questions and Answers about Wireless Internet Safety

[\[See the Glossary of Terms and Acronyms on the Last Page\]](#)

*Note: The Internet system that is planned for Florida, Hawley, Monroe and Savoy using MBI funding is a **Fixed Wireless Network**. It is different from Wi-Fi, Mi-Fi, Cell Phone and Satellite-based systems in that it generally uses lower-strength signals and focuses them carefully from point to point, rather than spraying them in all directions over a wide area.*

- Q.** Does a fixed wireless system actually use microwaves?
- A.** Yes, as do many other devices and networks. The term “microwave” simply refers to radio waves at a frequency over about 1000 MHz (1 GHz). Cell phones, Bluetooth, Wi-Fi, Mi-Fi, cordless phones, baby monitors, satellite TV and radio, satellite Internet, garage door openers and many other devices also use the microwave radio spectrum.
- Q.** Is there a risk to health from the microwave radiation in a **fixed wireless network**?
- A.** No. The power levels and antenna placement of a wireless ISP network ensure that there is no risk to anyone from its microwave signals.
- Q.** How much transmitter power will a fixed wireless network use?
- A.** According to FCC standards, no network can have a transmitter power higher than one watt, and most will be lower, between a tenth and half a watt. A radio interconnecting sites is allowed to transmit with up to 0.179 watt – which is less power than it takes to run a night light.
- Q.** How much power is that, compared to other personal radio devices and systems?
- A.** Wireless ISP transmitters are all much weaker than a CB radio and various other “personal” devices, which are approved for use right next to your head or body.
- Q.** How much power does an indoor Wi-Fi system generate?
- A.** Wi-Fi is allowed up to one watt, and some systems use that, though typical home systems generally use about a tenth of that. But many office systems, and even some home systems, do come close to the full watt.

- Q.** Would a cable TV-Internet system subject us to less microwave radiation?
A. Probably not. The amount reaching the inside of a house, or ground level, from a fixed wireless system is extremely low.

On the other hand, while a cable itself doesn't radiate, Comcast's current Wireless Gateway, their standard cable modem/telephone/Wi-Fi system, transmits indoors, on two bands, with nearly a full watt. That way it broadcasts its Xfinity Wi-Fi as widely as possible, and can also use Wi-Fi to distribute TV to rooms that aren't wired for cable, using a Wi-Fi cable box. A fixed wireless system, in contrast, is outdoors, and the home antenna is always pointing away from the house.

Cable systems also sometimes hang outdoor Wi-Fi access points from their cable. The cable companies are also going into the mobile business, using small cells attached to their cables or to poles in areas they serve. That reduces the amount of airtime they have to purchase from national mobile carriers.

- Q.** Will you be putting up a microwave tower?
A. We will have one new "tower," in Savoy, though it's really just a fiberglass pole, called a monopole. All of the other vertical structures we will add are ordinary wooden utility poles. They look nothing like big microwave towers or cell towers. They will not be more than 70' high; most will be shorter. The height of the pole generally depends on the nearby tree cover.
- Q.** What about the antennas – don't they make the signal more powerful?
A. A fixed wireless system's antennas are all directional. What they do is focus the signal to put it where it is needed, keeping most of it away from where it isn't, like downward, or at houses.
- Q.** How high up will your pole-mounted antennas be?
A. They will be in the upper reaches of the poles. The shortest poles with antennas on them will be at least 35 feet up. The tallest poles will reach about 70 feet, keeping the antennas 60 feet above ground.
- Q.** What will the home antennas be and how high will they be mounted?
A. The customer premise antennas will all be directional, point-to-point type antennas aimed at the serving site, and ***aimed away from the house.***
- Q.** How much microwave radiation will the customer premise antennas put into the home?
A. Virtually none. The walls of a house substantially weaken the signal. The antenna always points away from the house, so the power level in the direction of the house is minimal.

- Q.** Will the transmitters be running all the time?
- A.** The customer-premise radios will only transmit when they are being actively used by someone in the house, except for some management transmissions.
- Q.** How are the locations of base stations determined?
- A.** The design of the network is based on the terrain. Hills totally block the signals and trees severely weaken them. In the rough terrain of western New England, sites are selected to shoot across valleys, or to serve an immediate neighborhood. Base station siting is a very painstaking process.
- Q.** Does the government have standards for radiation safety?
- A.** Yes. There are very specific limits on exposure set by the FCC, which all wireless providers must meet.

Want more details?

Visit <http://www.townofhawley.com/wp-content/uploads/docs/Broadband/FAQ-s.html>

Observations on Fixed Wireless Internet Systems

1. The American Cancer Society lists 188 proven carcinogens. Of those, three, or 1.596% of the total list, are related to radiation -- ultraviolet types A, B, and C (UV). Their major sources are certain types of welding, lightning storms and the Sun, not low-power microwave transmissions.
2. Aside from fiber, which costs almost three times as much to build and maintain, **fixed wireless** is the only type of Internet system which focuses its transmissions on specific receivers. **Cell, satellite Internet and satellite TV all broadcast their signals in every direction, making them less safe and more difficult to manage.**
3. In the event of a catastrophic storm, because it is deployed on every telephone pole, a fiber system is much more vulnerable to damage than a fixed wireless network. This is because there is nothing strung between the poles in a wireless network that falling trees can knock down.
4. The radio waves that the fixed wireless network uses are called "RF Energy." **These occupy the "non-ionizing" part of the electromagnetic spectrum and cannot change cells at the molecular level, as can ionizing electromagnetic waves, like X-Rays and Gamma Rays.** See ehtrust.org>science>medical consensus (JM)
5. From the point of view of continuity of service, a fixed wireless network is more reliable than both satellite- and cell-based systems, as it is less affected by weather events like thunderstorms, sleet and fog.

Glossary of Terms and Acronyms

Term	Definition
Bluetooth	A wireless technology standard for exchanging data over short distances.
GHz	Gigahertz. Also a unit of measure for electronic signal frequency. 1 GHz = 1000 MHz.
ISP	Internet System Provider. Any group or individual that provides Internet services to a group of users, usually for a fee.
MHz	Megahertz. Unit of measure for electronic signal frequency.
Mi-Fi	A wireless router that acts as mobile Wi-Fi hotspot. There are a few of these in Hawley, and their performance at your home will be about like that of your cell phone.
Milliwatt	Electrical measurement equaling one one-thousandth of a watt.
Monopole	Tapered or tubular metal or fiberglass poles that can typically be erected in one day.
Point-to-Point	Signal is focused and directed from one point (or antenna) to another.
Radio	In this context, a generic term for a device that sends or receives Internet signals from one point to another.
RF Energy	Radio Frequency energy. A form of non-ionizing electromagnetic radiation, e.g., radio waves and cell signals. Non-cancer-causing.
UV	Ultraviolet radiation. Main source is sunlight. Often referred to by type: UVA, UVB, and UVC.
Wi-Fi	Technology for radio wireless local area networking of devices. Omnidirectional. Most likely use would be for distributing an internet signal within a home, office or business.