

September 23, 2021

Town of Rowe Attn: Town Clerk 321 Zoar Road Rowe, MA 01367

RE: Petition for Variance (Zoning Board of Appeals) for Wireless Communications Facility in Rowe, MA (VT-MA-0450A)

Dear Town Clerk,

Enclosed you will find Vertex Towers' Zoning application for County Road, Rowe, MA 01367. If you have any questions, please give me a call at 617-817-8564 or email me at <a href="mailto:Stephen@vertextowers.com">Stephen@vertextowers.com</a>.

Regards,

Stephen Kelleher Vertex Towers, LLC www.vertextowers.com



# PETITION FOR VARIANCE (Zoning Board of Appeals) FOR WIRELESS COMMUNICATIONS FACILITY

Applicant:

Vertex Towers, LLC

Site Id:

VT-MA-0450

**Property Address:** 

County Road, Rowe, MA 01367

Tax Assessors:

203-40

**Property Owner:** 

Christopher M. Brown

Date:

**September 23, 2021** 

- 1. Zoning Board of Adjustment Application for Variance
- 2. Filing Fees
- 3. Abutters List
- 4. Letter of Authorization
- 5. Project Narrative
- 6. TOWAIR (FAA Analysis re No Hazard to Air Navigation)
- 7. Affidavit of Site Acquisition Specialist
- 8. Affidavit of RF Engineer and RF Coverage Maps
- 9. MPE Report
- 10. Site Plans

Respectfully submitted,

Francis D. Parisi, Esq. Parisi Law Associates, PC 225 Dyer Street Providence, RI 02903 (401) 447-8500 cell fparisi@plapc.com

# TOWN OF ROWE, MASSACHUSETTS

# ZONING BOARD OF APPEALS

# APPLICATION TO ZONING BOARD OF APPEALS FOR VARIANCE

Appricanc: vertex lowers, inc
Mailing Address: c/o Parisi Law Associates, P.C., 225 Dyer Street, Providence, RI 02905
Telephone: (401) 447-8500
Application is hereby made for a Variance under Section 2 Paragraph D of the Protective Zoning By-Law of the Town of Rowe.
Premises affected are situated: County Road, Tax Assessor Parcel 203-40
DESCRIPTION OF PROPOSED USE
Current use: <u>undeveloped</u>
Description of existing buildings on affected premises: n/a
Owner of record of premises: Christopher M. Brown
Mailing address: 110 County Road, Rowe, MA 01367
Telephone: (401) 447-8500
Zoning District in which affected premises are located: Residential-Agricultural
Description of proposed changes in use and/or proposed construction or changes in existing buildings:
construction and operation of a telecommunications facility consisting of a 176' tall lattice style tower (186' to top of highest appurtence) inside a 60' x 60' fenced in compound

The principal reasons upon which I base my application are as follows:

See attached Project Narrative

Signature of Owner, Applicant, or their Authorized Agents:

Owner or Agent:

hristopher W. Brown,

By: Francis D Parisi, Esq Authorized Agent

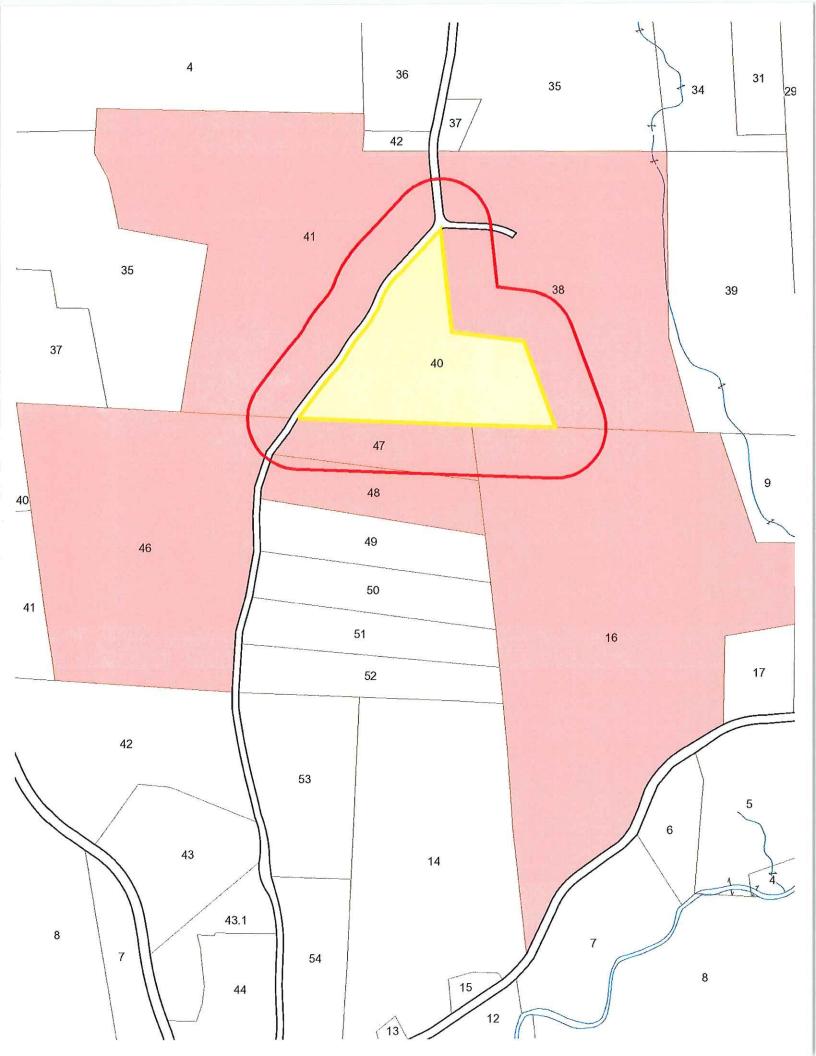
Applicant or Agent:

Vertex Towers, LLC, APPLICANT

By: Francis D Parisi, Esq Authorized Agent

(if different from above)

,



BROWN CHRISTOPHER M 110 COUNTY ROAD ROWE, MA 01367

CITINO LAUREL 5922 WEDDINGTON RD SUITE 5 #53 WESLEY CHAPEL, NC 28104

CLANCY ROBERT J MILLER LISA L 12 COUNTY BRANCH ROAD ROWE, MA 01367

DAVIDSON BARBARA F REVOCA C/O JAMES DAVIDSON 118 BROOKWOOD DR LAGRANGE, GA 30240

HAYDEN JOHN P III PO BOX 33 BUCKLAND, MA 01338

ROWE LAND TRUST C/O FREDERICK WILLIAMS 25 MIDDLETOWN HILL ROAD ROWE, MA 01367



# LETTER OF AUTHORIZATION

I, Christopher M. Brown, am the owner of a certain parcel of land located off County Road in the Town of Rowe, Franklin County, Commonwealth of Massachusetts, which is depicted as Lot 40, on Assessor's Map 203, and being further described as the same real property conveyed by that certain deed recorded in Deed Book 6880 at Page 207 of the Franklin County Registry of Deeds (the "Property").

As owner of the above-referenced property, I hereby authorize Vertex Tower Assets, LLC and any of its designated agents or assigns, to apply for all necessary municipal, state, federal and other permits necessary to accommodate the installation of a wireless telecommunication facility on our property.

Sign: (

Christopher M. Brown

Date:

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# PETITION FOR VARIANCE (Zoning Board of Appeals) FOR WIRELESS COMMUNICATIONS FACILITY

Applicant:

Vertex Towers, LLC

Site Id:

VT-MA-0450

**Property Address:** 

County Road, Rowe, MA 01367

Tax Assessors:

203-40

**Property Owner:** 

Christopher M. Brown

Date:

September 23, 2021

# PROJECT NARRATIVE

#### INTRODUCTION

The Applicant Vertex Tower Assets, LLC, a Massachusetts limited liability company ("Vertex") is a telecommunications infrastructure developer. Vertex develops, manages and owns telecommunications facilities in strategic locations across the country. The Vertex team has been working in the industry since the industry was founded and has the experience and expertise to navigate the challenges of the most complex markets.

Vertex is sometimes herein referred to as the "Applicant".

The Applicant's proposed Wireless Communications Facility is shown on plans submitted with this Application (the "Plans"). The Applicant proposes to construct a 175' tall lattice style tower on top of a 1' foundation (186' to top of highest appurtenance) at County Road, Rowe, MA 01367 Tax Assessors Parcel 203-40 (the "Property") that will structurally accommodate at least 4 wireless broadband telecommunications carriers and associated antennas, electronic equipment and cabling; and fence in the base of the tower to accommodate ground based telecommunications equipment. As shown on the Plans that accompany this Application, it is anticipated that various including AT&T Wireless, Verizon Wireless, telecommunications companies, Mobile/SprintPCS and other wireless communications companies will place panel style antennas and required electronic equipment at heights of approximately 171', 161', 151' and 141' (centerline) on the tower, and each will place telecommunications equipment and backup batteries inside equipment shelter(s) and/or weatherproof cabinets to be located immediately adjacent to the base of the tower. Power/telephone cabinets will be installed just outside the fenced in compound. Applicant's Wireless Communications Facility is similar to other telecommunication facilities already located in the surrounding area and has been designed in accordance with the Town's Zoning Bylaw as much as possible.

The Property is large, 19 acre substantially undeveloped parcel in the Residential-Agricultural on which there is a substantial vegetative buffer.

Because the Town's Zoning Bylaw does not have a use category for wireless communications facilities, the Applicant respectfully requests from the ZONING BOARD OF APPEALS a USE VARIANCE pursuant to Section 2.D of the Zoning Bylaw

#### THE PROJECT

Wireless telecommunications carriers are in the process of independently designing, constructing and upgrading wireless telecommunications networks to serve areas in and around the Town of Rowe. Such a network requires a grid of radio transmitting and receiving cell sites located at varying distances depending on the location of existing and proposed installations in relation to the surrounding topography. The radio transmitting and receiving facilities require a path from the facility to the user on the ground. This requires the antennas to be located in a location above the tree line where the signal is not obstructed or degraded by buildings or topographical features.

Once constructed, the Facility will be unmanned and will involve only periodic maintenance visits. The only utilities required to operate the facility are electrical power as well as telephone service which are currently available at the property. The traffic generated by the facility will be one or two vehicle trips per month by maintenance and technical personnel to ensure the telecommunications site remains in good working order. These visits will not result in any material increase in traffic or disruption to patterns of access or egress that will cause congestion hazards or cause a substantial change in the established neighborhood character. The Applicant's maintenance personnel will make use of the access roads and parking to be constructed at the Property. The proposed Facility will not obstruct existing rights-of-way or pedestrian access and will not change the daily conditions of access, egress, traffic, congestion hazard, or character of he neighborhood. The installation will not require the addition of any new parking or loading spaces.

The construction of the Applicant's Facility will enhance service coverage in the Town of Rowe and surrounding communities. The enhancement of service coverage in the Town of Rowe is desirable to the public convenience for personal use of wireless services and for community safety in times of public crisis and natural disaster. Wireless communications service also provides a convenience to residents and is an attractive feature and service to businesses. In addition, the requested use at this location will not result in a change in the appearance of the surrounding neighborhoods. The use is passive in nature and will not generate any traffic, smoke, dust, heat, glare, discharge of noxious substances, nor will it pollute waterways or groundwater. Once constructed, the facility will comply with all applicable local, state and federal safety regulations.

Moreover and most importantly:

- 1. The proposed Facility will promote and conserve the convenience and general welfare of the inhabitants of Rowe by enhancing telecommunications services within the Town.
- 2. The proposed Facility will lessen the danger from fire and natural disasters by providing emergency communications in the event of such fires and natural disasters.
- 3. The proposed Facility will preserve and increase the amenities of the Town by enhancing telecommunications services.

4. The proposed Facility will facilitate the adequate provision of transportation by improving mobile telecommunications for business, personal and emergency uses.

Wireless service is important to public safety and convenience. As of the end of 2016, there were an estimated 396 million mobile wireless subscribers in the United States. See FCC's Twentieth Report to Congress on the State of Competition in the Commercial Mobile Radio Services Marketplace, p. 5 (September 2017). There are now more wireless subscriptions than landline telephone subscriptions in the United States, and the number of landline telephone subscribers across the nation is declining each year while the number of wireless users increases. Moreover, it is forecasted that wireless connections will become more significant as network service providers facilitate increase connectivity directly between devices, sensors, monitors, etc., and their networks. Id.

For many Americans, wireless devices have become an indispensable replacement for traditional landline telephones. Even when Americans maintain both types of telephone service, Americans are opting increasingly to use wireless devices over their landline telephones. For Americans living in "wireless-only" homes and for those others while away from their homes, cell phones are often their only lifeline in emergencies. Over 95% of Americans now own a cellphone of some kind and more than 77% own smartphones; more importantly, more than 50 percent of American households are now "wireless only." <a href="http://www.pewinternet.org/fact-sheet/mobile/">http://www.pewinternet.org/fact-sheet/mobile/</a> The FCC estimates that approximately 70% of the millions of 911 calls made daily are placed from cell phones, and that percentage is growing. See <a href="http://www.fcc.gov/guides/wireless-911-services">http://www.fcc.gov/guides/wireless-911-services</a>

# COMPLIANCE WITH CRITERIA FOR VARIANCES

#### Section 2

D. Variances. Under the provisions of Section 10 of Chapter 40A, General Laws, use variances may be granted by the Board of Appeals.

MGL c. 40A, Section 10. The permit granting authority shall have the power after public hearing for which notice has been given by publication and posting as provided in section eleven and by mailing to all parties in interest to grant upon appeal or upon petition with respect to particular land or structures a variance from the terms of the applicable zoning ordinance or by-law where such permit granting authority specifically finds that owing to circumstances relating to the soil conditions, shape, or topography of such land or structures and especially affecting such land or structures but not affecting generally the zoning district in which it is located, a literal enforcement of the provisions of the ordinance or by-law would involve substantial hardship, financial or otherwise, to the petitioner or appellant, and that desirable relief may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent or purpose of such ordinance or by-law

The proposed Facility meets all of the requirements of a Variance under the Town of Rowe Zoning Bylaw and respectfully requests that the Zoning Board of Appeals make the requisite findings to issue the requested Variances under those and such other provisions of the Bylaw, if any, that the Board deems necessary to approve the Facility as proposed.

Given technical limitations with respect to:

- (i) the location of the tower relative to the surrounding neighborhoods and other existing telecommunication sites in and around the Town of Rowe;
- (ii) the topography of the surrounding area;
- (iii) the lack of viable alternatives in the area;
- (iv) the height restrictions of the tower imposed by the Bylaw;
- (v) the Town's requirement to accommodate multiple wireless communications companies;
- (vi) the demand for robust and reliable telecommunications coverage; and
- (vii) the requirement to accommodate rapidly evolving technologies;

the Applicant requires the requested Variances to permit construction of the Facility as proposed.

As the Plans indicate, the proposed Facility has been designed to accommodate the antennas at least 4 wireless broadband co-locators. There are no existing or previously approved telecommunications facilities in the area of the proposed Facility, nor are there existing structures of sufficient height in the area of the proposed Facility, that will achieve the coverage objective of the proposed Facility. The Facility has been situated on the Property in such a way to achieve the objectives of the Bylaw in all respects.

The granting of the Variances will not be detrimental to the public safety, health or welfare or injurious to other property and will promote the public interest. The Variances will substantially secure the objectives, standards and requirements of these regulations, and a particular hardship exists and special circumstances warrant the granting of the Variances.

In 1996, the U.S. Congress enacted the Telecommunications Act of 1996, Pub. L. No. 104-104, § 704; 110 Stat. 56 (1996) (the "TCA"). The intent of the TCA enacted by the U.S. Congress was to institute a framework to promote competition and innovation within this telecommunications industry. Under their respective licenses from the FCC, wireless telecommunications providers are obligated to provide a reliable "product" [i.e. wireless communications service] to the population in the metropolitan Boston region, which includes the Town of Rowe. Likewise, consumer expectations for increasingly robust and reliable service requires competing service providers to identify and remedy existing gaps in reliable network coverage, or gaps that result from increasing subscriber voice and data traffic beyond the limits of existing network infrastructure. A carrier's failure to remedy network gaps in a timely fashion can result in a significant loss of subscribers to competing telecommunications carriers. The proposed Facility and corresponding relief requested are necessary to remedy a gap in reliable service coverage within the various wireless carriers' existing network infrastructure.

The Applicant has investigated alternative sites in and around the defined geographic area within which engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within the network of existing and planned facilities. No existing structure or property in or near the vicinity of the proposed Facility is feasible to accommodate the coverage network requirements.

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 enacting the TCA.

Moreover, this hardship is owing to the circumstances relating to topography of the surrounding area. The Property is a large, undeveloped property, and because of the topography surrounding the Property, the surrounding area provides no other feasible location in which to install and operate a wireless telecommunications facility. Existing structures and buildings in the area are insufficient in height to allow wireless carriers to operate thereon and provide adequate coverage to this significant gap in its network. The property provides a unique opportunity, given the location and area topography surrounding the Facility, to minimize any adverse visual impacts to the surrounding area. The proposed design conforms to the existing characteristics of the Property, and utilizes the existing vegetative buffer on the property to screen the proposed Facility, thereby minimizing potential impacts.

The wireless communications systems being developed by the various telecommunications carriers operating in the Rowe area have has been designed employing the most sophisticated radio frequency engineering methods available. Radio frequency engineers determine the placement of network points-of-presence using computer engineering models that simultaneously evaluate are topography and population patterns to identify specific geographic areas to be serviced by each antenna facility in the network. As a result of this modeling, combined with actual coverage data provided by existing "on air" facilities, the carriers' radio frequency engineers have identified a limited geographic area as a necessary location for a communications facility to remedy an existing gap in reliable service coverage in the general vicinity of the Property. Without the requested relief, there would remain a substantial "gap" in reliable service coverage in the carriers' respective networks. Radio frequency coverage maps confirm that a telecommunications facility located at the Property is required to remedy the existing gap in the wireless network coverage in the area. The requested height has been determined by engineers to be the minimum height necessary to connect coverage from the proposed Facility with coverage from adjacent cell sites in the carriers' respective networks (i.e. to remedy the existing "gap" in service and to effect reliable handoffs between adjacent cell sites as a subscriber travels through the area).

Additionally, the Applicant will allow future carriers to co-locate on the Facility hereby minimizing the number of new facilities needed to provide coverage to the Town.

In the context of a utility service where the critical criteria in the development of each facility is its ability to integrate with a network of surrounding sites and subsequently, for each cluster of sites to function within a regional/national network, there is an underlying premise that each site chosen by the Applicant for a facility possesses a unique location and topographical characteristics.

Finally, as noted in Nextel Communications of the Mid-Atlantic, Inc. v. Town of Wayland,231 F.Supp. 2d 396, 406-407 [D. Mass. 2002], the "need for closing a significant gap in coverage, in order to avoid an effective prohibition of wireless services, constitutes another unique circumstance when a zoning variance is required." No existing

structure or property in an allowed zoning district is technically suitable to resolve the existing gap in the wireless service coverage in the area. In addition, the existing structures located near the Property are not at a height sufficient to provide adequate coverage to this significant gap in its network. The Facility will be the minimum height necessary to provide coverage for multiple wireless carriers. Given the location and size of the Property, as well as the proposed design of the Facility, the proposed installation will have a minimal visual impact to the surrounding neighborhood while achieving the carriers' requisite coverage.

- The proposed Facility will reduce the number of new structures ultimately needed to provide wireless communication services in the surrounding area by providing colocation potential;
- The proposed Facility is designed to be at the minimum height necessary to provide adequate coverage to the area and keep potential visual impacts to a minimum;
- The proposed Facility will comply in all respects with radio frequency emission standards established by the FCC;
- The proposed Facility will not have any adverse effect on the value of land and buildings in the neighborhood or on the amenities thereof. The proposed use is passive, requires no employees on the premises, and has no characteristics that are incompatible with the underlying zoning. Specifically, it will generate only about two vehicle trips per month by a service technician for routine maintenance, will be served by standard electrical and telephone service, and requires no water, septic or other town services;
- The proposed Facility will promote and conserve the convenience and general welfare of the inhabitants of the Town by enhancing telecommunications services within the town;
- The proposed Facility will lessen the danger from fire and natural disasters by providing emergency communications in the event of such fires and natural disasters;
- The proposed Facility will involve no overcrowding of land or undue concentration of population because it is an unmanned Facility;
- The proposed Facility will preserve and increase the amenities of the Town by enhancing the telecommunications services and will facilitate the adequate provisions of transportation by improving mobile telecommunications for business, personal and emergency uses;
- The proposed Facility will involve no adverse effects on public and private water supplies and indeed will utilize no water at all;

- The proposed Facility will involve no adverse effects on drainage, schools, parks, open space, or other public requirements, and will involve no excessive noise or pollution to the environment;
- The proposed Facility will have no adverse effect on historic sites; and
- The proposed Facility will be an appropriate use of land within the Town.

Due to the unique size, shape, location and elevation of the subject Property and the topography of the surrounding area as well as the existing zoning of the property and surrounding area, unique circumstances exist to justify the granting of the requested Variance. Moreover, Applicant's proposed Facility will have no impact on adjoining properties and the surrounding neighborhood in that the proposed Facility will produce no objectionable noise, glare, dust, smoke, fumes, odors, of effluent, and will not have any impact of traffic or circulation.

Accordingly, the Applicant requests findings that

- 1. a literal enforcement of the provisions of this chapter would involve a substantial hardship to the Applicant.
- 2. The hardship is owing to circumstances relating to the soil conditions, shape or topography of such land or structures and especially affecting such land or structures but not affecting generally the zoning district in which it is located.
- 3. Desirable relief may be granted without nullifying or substantially derogating from the intent or purpose of the zoning bylaw.

In addition (or in the alternative), the Applicant requests a finding that strict compliance would cause a conflict with the TCA.

## THE TELECOMMUNICATIONS ACT OF 1996

In 1996, the U.S. Congress enacted the Telecommunications Act of 1996, Pub. L. No. 104-104, § 704; 110 Stat. 56 (1996) (the "TCA" or the "Telecommunications Act"). The intent of the TCA as enacted by Congress was to institute a framework to promote competition and innovation within the telecommunications industry. Although this law specifically preserves local zoning authority with respect to the siting of wireless service facilities, it clarifies when the exercise of local zoning authority may be preempted by federal law. Section 704 of the TCA provides, in pertinent part, that

# (7) PRESERVATION OF LOCAL ZONING AUTHORITY-

(A) GENERAL AUTHORITY- Except as provided in this paragraph, nothing in this Act shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless service facilities.

### **(B) LIMITATIONS-**

- (i) The regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof-
- (I) shall not unreasonably discriminate among providers of functionally equivalent services; and
- (II) shall not prohibit or have the effect of prohibiting the provision of personal wireless services.

The intent of the TCA enacted by the U.S. Congress was to institute a framework to promote competition and innovation within this telecommunications industry. Under its respective licenses from the FCC, wireless telecommunications carriers are obligated to provide a reliable "product" [i.e. telecommunications service] to the population in western Massachusetts, which includes the Town of Rowe. Likewise, consumer expectations for increasingly robust and reliable service requires competing service providers to identify and remedy existing gaps in reliable network coverage, or gaps that result from increasing subscriber voice and data traffic beyond the limits of existing network infrastructure. A carrier's failure to remedy network gaps in a timely fashion can result in a significant loss of subscribers to competing telecommunications carriers. As demonstrated in the Application and supplemental materials provided by the Applicant, the proposed Facility and corresponding relief requested are necessary to remedy a gap in reliable service coverage within the existing network infrastructure. In Daniels v. Town of Londonderry, 157 N.H. 519 (2008), the New Hampshire Supreme Court upheld the grant of use and area variances for the construction of a cell tower in an agricultural-residential zone, noting that the Londonderry ZBA correctly treated the TCA as an "umbrella" that preempted local law under certain circumstances.

In a growing number of cases, the federal courts have found that permit denials violate the TCA, even if such denials would be valid under state law. For example, in Omnipoint Telecommunications Facility v. Town of Lincoln, 107 F. Supp. 2d 108 (D. Mass. 2000), the court found that denial of a variance for a location outside of the town's wireless overlay district violated the TCA and ordered the variance to issue despite an Bylaw provision prohibiting use variances. The court in Nextel Telecommunications Facility v. Town of Wayland, 231 F. Supp. 2d 396 (D. Mass 2002) reached the same result. In that case, the court stated: "Although the Board's statement [regarding its lack of authority to issue a use variance] may be correct statement in Massachusetts regarding variances, it is not controlling in the special case of Telecommunications facilities...Under the Telecommunications Act, the Board cannot deny the variance if in so doing it would have the effect of prohibiting wireless services." Wayland at 406-407. Most notably, in Omnipoint Holdings. Inc. v. Town of Cranston, No. 08-2491 (1st Cir. Nov. 3, 2009), the United States Court of Appeals for the First Circuit affirmed a judgment of the United States District Court for the District of Rhode Island, which found that the Cranston Zoning Board of Review violated the TCA by effectively prohibiting the provision of wireless services in Cranston when it denied an application for a special use permit and variance to construct a wireless facility in a residential area. The Court noted that "[t]he effective prohibition clause does not stand alone; it is also part of the TCA's larger goal of encouraging competition to provide consumers with cheaper, higher-quality wireless technology.... As cell phone use increases, carriers need to build more facilities, especially in populated areas, to continue providing reliable coverage, and local regulations can present serious obstacles." Cranston, p. 25. More recently, in New Cingluar Wireless, LLC v. City of Manchester, Case No. 11-cv-334-SM (USDC D. NH Feb. 28, 2014), the United States District Court for the District of New Hampshire indicated that the City of Manchester impermissibly denied a variance to construct a telecommunications tower in a (nonpermitted) residential zone, in that the tower addressed significant coverage gaps and provided competitive and reliable wireless services and there was no feasible alternative. The Court noted that the City must consider the public benefits of wireless services in determining whether to grant a zoning variance for a tower. Id.

The Applicant has investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within the wireless network of existing and planned facilities. No existing structure or property in or near the vicinity of the proposed Facility is feasible to accommodate the wireless network requirements. The proposed Facility is on large substantially undeveloped parcel and provides a substantial vegetative buffer. The wireless communications systems being developed by the various telecommunications carriers operating in the Rowe area have has been designed employing the most sophisticated radio frequency engineering methods available. Radio frequency engineers determine the placement of network points-of-presence using computer engineering models that simultaneously evaluate are topography and population patterns to identify specific geographic areas to be serviced by each antenna facility in the network. As a result of this modeling, combined with actual coverage data provided by existing "on air" facilities, the carriers' radio frequency engineers have identified a limited geographic area as a necessary location for a communications facility to remedy an existing gap in reliable service coverage in the general vicinity of the Property. Without the requested relief, there would remain a substantial "gap" in reliable service coverage in the carriers' respective networks. Radio frequency coverage

### Parisi Law Associates, P.C.

Project Narrative September 23, 2021 Page 12

maps confirm that a telecommunications facility located at the Property is required to remedy the existing gap in the wireless network coverage in the area. The requested height has been determined by engineers to be the minimum height necessary to connect coverage from the proposed Facility with coverage from adjacent cell sites in the carriers' respective networks (i.e. to remedy the existing "gap" in service and to effect reliable handoffs between adjacent cell sites as a subscriber travels through the area).

Accordingly, denial of a permit to construct the Facility would prevent the Applicant from eliminating an existing gap in reliable service coverage, resulting in a potential loss of subscribers for the carriers and the inability to effectively compete for subscribers with other FCC licensed competitors in the market, contrary to the intent of the Bylaw and the U.S. Congress in enacting the TCA.

## **SUMMARY**

Because the proposed facility meets all of the requirements for a Variance for Wireless Communications Facility under the Town of Rowe Zoning Bylaw, and pursuant to §704(a) of the Federal Telecommunications Act of 1996 which provides, among other things, that wireless facilities may not be prohibited in any particular area and that any denial of zoning relief must be based upon substantial evidence, the Applicant respectfully requests that the ZONING BOARD OF APPEALS GRANT THE VARIANCE(s) as requested, and the Town grant such other permits, relief or waivers deemed necessary by the Town of Rowe under the current Bylaw and pending Bylaws amendments, if any, so that the Applicant may construct and operate the Facility as proposed.

Respectfully submitted,

Francis D. Parisi, Esq.
Parisi Law Associates, P.C.
225 Dyer Street
Providence, RI 02903
(401) 447-8500 cell
fparisi@plapc.com

# **TOWAIR Determination Results**

### \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

#### **DETERMINATION Results**

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

Your Specifications

#### **NAD83 Coordinates**

Latitude	42-41-36.3 north
Longitude	072-55-09.7 west

#### **Measurements (Meters)**

Overall Structure Height (AGL)	56.7
Support Structure Height (AGL)	53.6
Site Elevation (AMSL)	474.3

#### **Structure Type**

LTOWER - Lattice Tower

#### **Tower Construction Notifications**

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

# STATEMENT OF BRENDAN GILL Vertex Towers, LLC

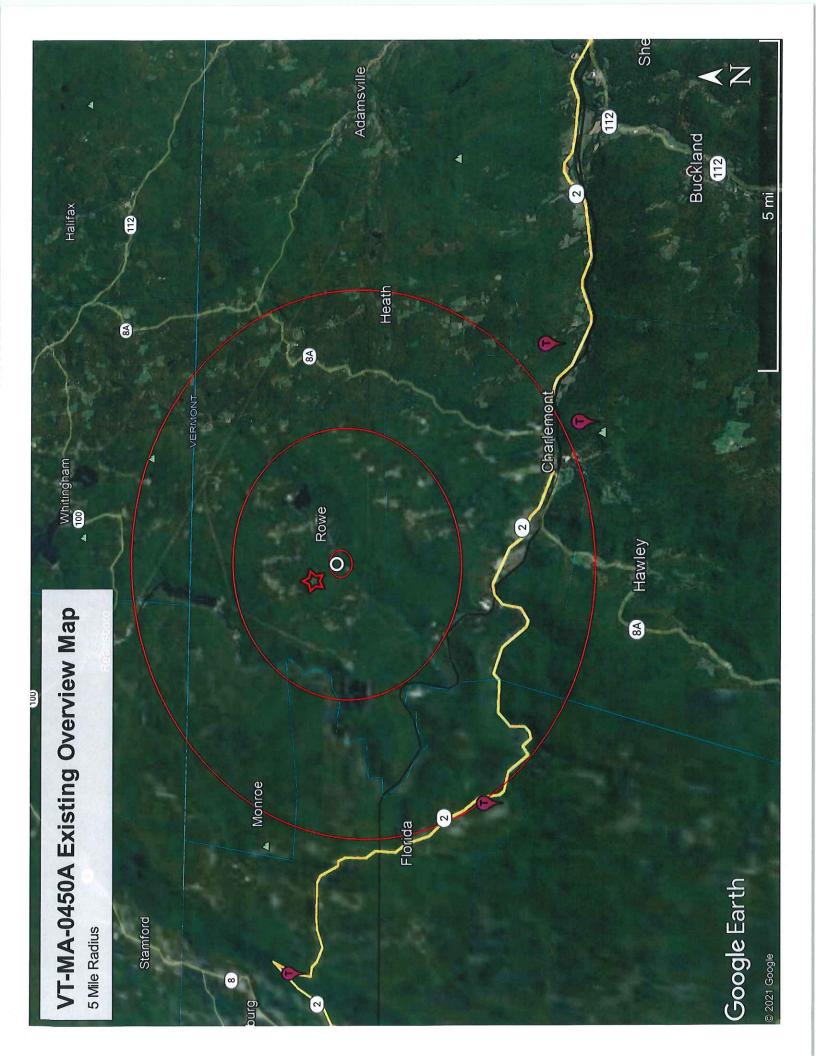
I, Brendan Gill, hereby state the following in support of the application submitted by Vertex Towers, LLC for a multi-user Personal Wireless Service Facility ("PWSF") to be located off of County Road (Map 203 Lot 40), Rowe, MA (the "Property"), consisting of a 175' lattice style tower and related ground equipment contained within a fenced compound (the "Site")

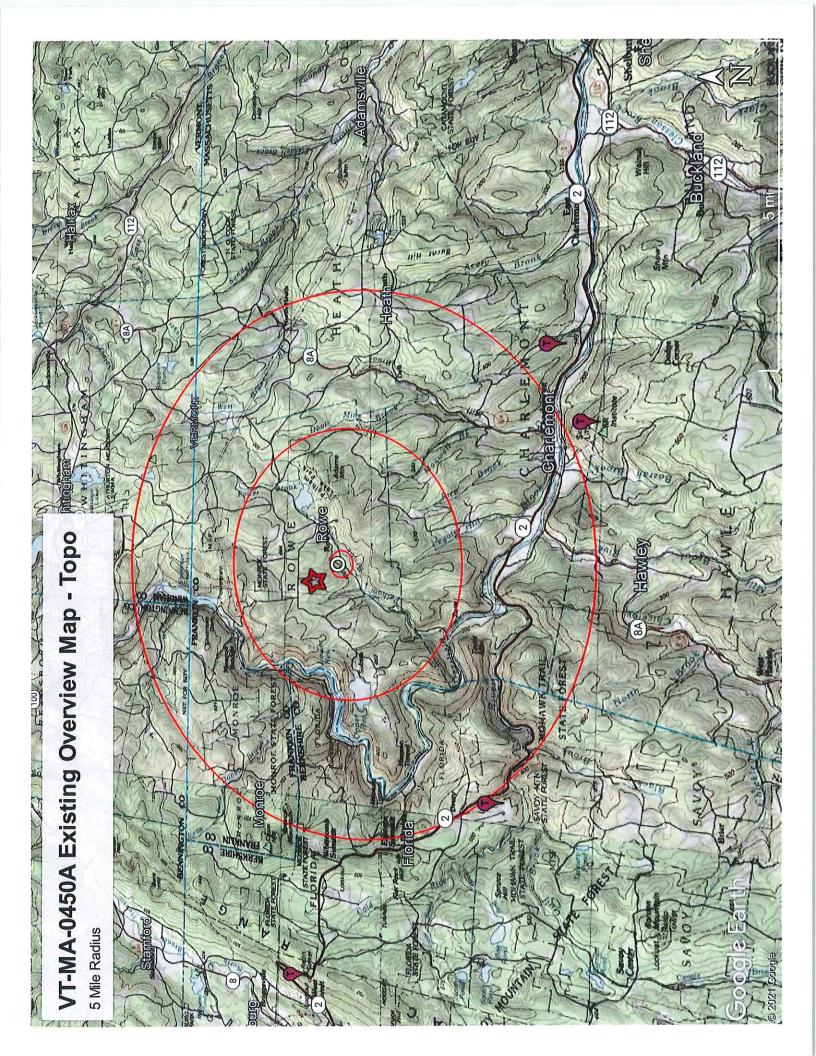
- 1. My name is Brendan Gill and I am the Director of Site Acquisition and Leasing for Vertex Towers, LLC.
- 2. I have worked in the telecommunications industry for 10 years overseeing and assisting in the leasing, zoning, permitting and construction of wireless communications facilities and specifically in the investigation of all feasible alternatives and options locating a wireless communications facility within a search ring which would fill a significant gap in wireless coverage.
- 3. I have participated directly through my present and past employment in the development and analysis of hundreds of such facilities, including wireless communication facilities similar to the proposed Site.
- 4. I have personally visited the Property, and the areas surrounding the Property, on numerous occasions. I submit this affidavit based on my personal knowledge of the Property and the surrounding areas, while also working together with the experience and documentation provided by civil and radio frequency engineers, environmental consultants and based on my professional experience in the development of wireless communication facilities.
- 5. Part of my site acquisition and development duties include identifying potential candidates within an area identified as having a significant gap in coverage. The candidate identification process includes reviewing the applicable zoning ordinance with legal counsel, engineers, wetland scientists, and other professionals to identify areas where the proposed Site is allowed and feasible. First, I explore the area to determine whether there are any existing structures of sufficient height and structural capacity from which an antenna installation on such a structure would provide sufficient coverage. If there are no such existing structures, I identify properties, located within the narrowly defined search area, that appear to be suitable for the installation of a communications facility, while also eliminating certain properties that would not be suitable due various limitations or concerns related but not limited to, parcel size, access issues, landlocked parcels, conservation restrictions, wetlands, visibility, elevation, terrain and constructability. In order to be viable, a candidate must (i) provide adequate coverage to the identified significant gap in coverage and (ii) have a willing landowner with whom commercially reasonable lease terms may be negotiated. Preference is given to locations that closely comply with local zoning ordinances, or in the event no viable candidates are found within the search area, I attempt to identify other potentially suitable properties, with preference always given to existing structures.

- 6. In connection with this site, I have provided site acquisition services, including researching the area, and identifying potential alternative candidates to the leased ground space on the Property.
- 7. Based on my personal knowledge of the proposed Site and the and the surrounding area, there are no potential alternative candidates located within this geographically driven search ring that would be considered superior to the proposed Site. In addition, based on my experience, in my professional opinion, the proposed PWSF to be located off of County Road is the least intrusive and only available and viable alternative to adequate meet the coverage objective to fill this significant gap in coverage.

  Executed this 21th of September, 2021.

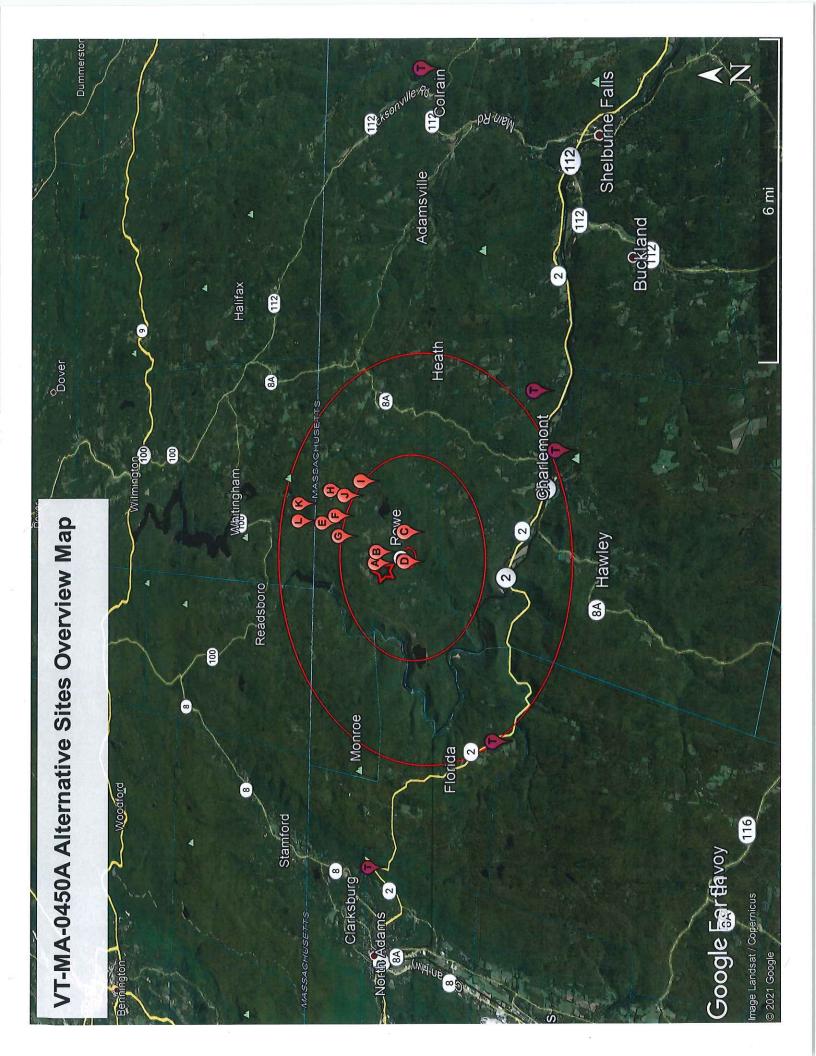
Brendan Gill Vertex Towers, LLC

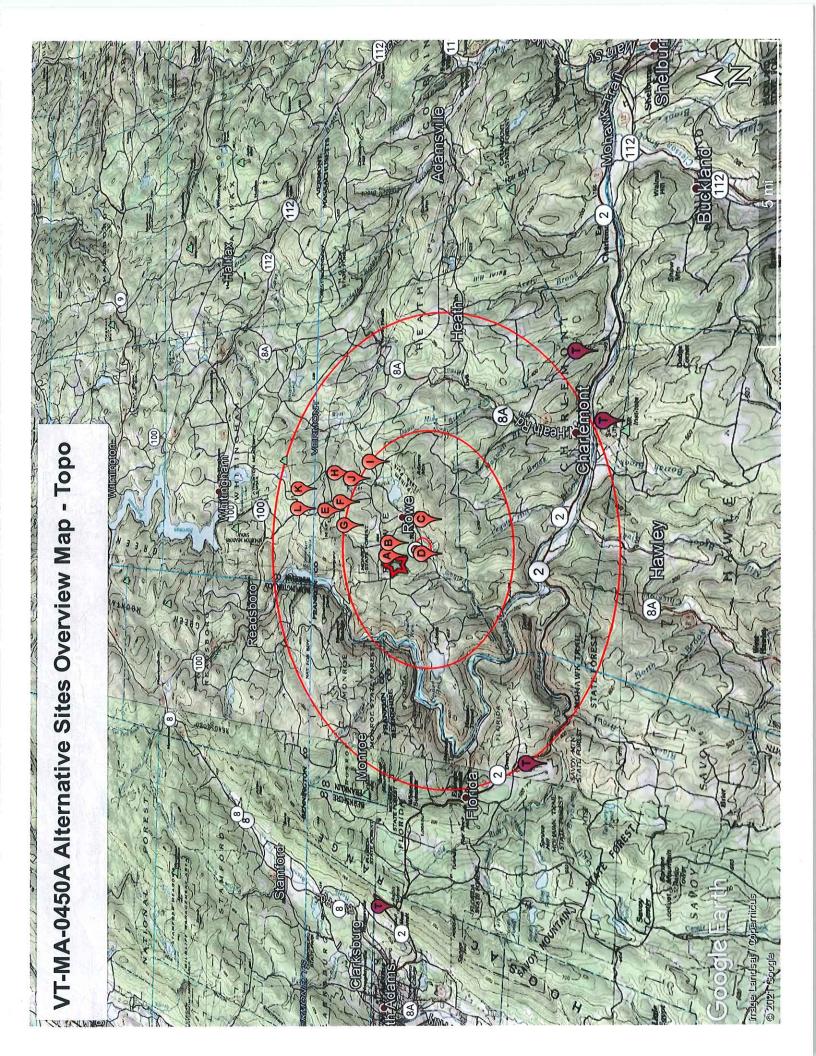




Alternative Site Analysis for Proposed Tower off County Road, Rowe, MA.

₽	Address	Мар	Lot	Block	Block ACRES	Latitude	Longitude	Distance from Proposed Location	Comments
∢	12 County Road, Rowe, MA 01367	203	30	0	43.99	42.694139	-72.915621	0.17	Landowner was not interested. Lower elevation.
ω	Off Zoar Road, Rowe, MA 01367	203	39	0	40.24	42.693411	-72.910194	0,44	Landowner was not interested
ပ	Off Zoar Road, Rowe, MA 01367	205	6	-	86.28	42.679372	-72.900594	1,33	Landowner was not interested.
۵	Off Zoar Road, Rowe, MA 01367	205	11	0	35.42	42.679222	-72.914508	0.99	Landowner was not interested.
ш	0 Potter Road, Rowe, MA 01367	403	9	0	141.35	42,723142	-72,896032	2,37	Outside of the targeted coverage area
ш	0 Potter Road, Rowe, MA 01367	403	£.	0	38.39	42.715751	-72.892503	2.05	Outside of the targeted coverage area
ဖ	G Off Middletown Hill Road, Rowe, MA 01367	404	39	0	9.17	42.713821	-72.902656	1.64	Landowner was not interested
I	H 0 Leshure Road, Rowe, MA 01367	403	56	0	36.13	42.718522	-72.879535	2.65	Landowner was not interested/Outside of Coverage Objective
_	294 Davis Mine Road, Rowe, MA 01367	201	36	0	79.76	42,701938	-72.875642	2.28	Landowner was not interested/Outside of Coverage Objective
-	J 0 Old Cyrus Stage Road	201	28	o	7.92	42.70977526	-72.88196719	2.21	Outside of Coverage Objective
¥	K O Leshure Road, Rowe, MA 01367	402	39	o	67.71	42.736808	-72,885839	3,44	Landowner was not interested/Outside of Coverage Objective
	L 189 Potter Road, Rowe, MA 01367	402	25	0	56.23	42,737161	-72.894902	3.26	Landowner was not interested/Outside of Coverage Objective
M									





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#### AFFIDAVIT OF RF ENGINEER

- I, Jose Hernandez hereby state the following in support of the application for Vertex Tower, LLC ("Vertex") of proposed Monopole at (42.693410, -72.919347), Rowe, MA 01367. (the "Site") and the attachment of antennas, cabling and other telecommunications equipment on and at the base of the Monopole by various wireless broadband telecommunications carriers as proposed in the attached application (the "Facility").
- 1. I am a currently an independent consultant Principal/Manager Radio Frequency Engineer. I have been involved with the wireless telecommunications industry for 20 years, and have held various technical, operational and supervisory positions with Nextel Communications, T-Mobile, AT&T Mobility and Sprint PCS.
- 2. In order to satisfy its obligations under its radio licenses acquired from the FCC and under the Code of Federal Regulations 47 C.F.R. § 27.14(a), wireless broadband telecommunications carriers must have in place a system of strategically deployed "cell sites" to provide wireless communications services to their subscribers' throughout their licensed area. These cell sites generally consist of an antenna support structure such as a telecommunications tower, building, water tank, or other structures used to elevate the antennas to the height necessary for providing adequate service to the targeted area. The antennas are connected via cabling to radio equipment located near the antennas and/or at the base of the support structure. The cell sites operate by transmitting and receiving low power radio frequency signals to and from their subscribers' portable wireless communication devices such as basic handheld phones, smartphones, PDA's, tablets, and laptop aircards. These wireless voice and data signals are then transferred through ground telephone lines, fiber, microwave or other means of backhaul transport, and routed to their destinations by sophisticated electronic equipment.
- 3. Cell sites are a vital and necessary part of carriers' network infrastructure. In order to maintain effective, uninterrupted service throughout a given area, there must be a series of cell sites, interconnected to each other with slightly overlapping coverage areas. This allows for the subscribers to move freely about a geographic area while maintaining a consistent and reliable wireless connection to the network.
- 4. A proposed cell site must consider the locations and coverage provided by the surrounding cell sites in the network, and must be located within a limited geographical area, which is defined by factors such as terrain, land use characteristics, and population density. By locating within this limited area and at a sufficient height, the cell site would have a high probability of meeting the targeted objectives, thereby providing reliable coverage and capacity throughout the cell.
- 5. In compliance with the requirements of its FCC licenses, carriers are actively building their respective networks to provide coverage throughout its licensed area. In order to meet the responsibility of providing seamless, uninterrupted service, carriers must continue to acquire

interest in sites for additional facilities, and is applying for and obtaining local governmental zoning approvals to construct its sites in order to eliminate deficient service areas due to gaps in coverage or insufficient capacity. Any delays severely curtail carriers' ability to satisfy both mandated time requirements, and to achieve a market position that will allow it to compete for customers with other similar companies also issued licenses to operate in this area.

- 6. Using computer simulations to model radio frequency propagation, Vertex has determined that a wireless transmission facility located at or near to the proposed Facility would facilitate wireless communications within the local area along County Rd, Zoar Rd, Hazelton Rd and surrounding areas of Rowe, MA. These simulations model characteristics such as antenna types, antenna height, output power, terrain, ground elevations and RF propagation effects of the frequency utilized.
- 7. In my opinion based upon substantial research and analysis, without a cell site located at or very near the proposed site, this area of Rowe, MA would not meet the typical coverage requirements for multiple wireless carriers, resulting in a substantial gap in wireless coverage.
- 8. Based upon the technologies currently being deployed by wireless carriers, it is my opinion that the proposed Facility is at the minimum height necessary to satisfy the coverage objectives of multiple wireless carriers providing in the area.
- 9. All of the transmitter facilities to be located at the proposed location are required to comply, and when constructed and operational will comply with, all applicable regulations of the FCC regarding radio frequency (RF) exposure as detailed in FCC OET Bulletin 65, Edition 97-1.

Signed and sworn under the pains and penalties of perjury, SEP, 21, 2021.

Jose Hernandez
Jose Hernandez

JNaerowaves.Corp

President / Principal Radio Frequency Engineer

Existing Coverage -108dBm Plot Information Lat: 42.693410 Lon: -72.919347 700 MHz LTE Symbol Key Site: VT-MA-450 Vertex Proposed Site **EGEND** Arshambo Elev: 1,555 ft Site Info Existing Site Hea Deer Run Hawk Hi Newto Aldrich Rd N Oxbow Rd McMi Butter Brook Rd Heath Holland Hill Pratt Ln AVOIN Broo Schoolhous Ben Rd Bassett Rd Wable Hill Dell Brody DY DIEIN Burington Hill Knott Rd DixKA Number 9 R Cheen Po Hurd Ln Davis Mine Stone Rd Py Silved ar Ln Whitingham Piddell Rd IIH JOULEN Cyrus Stag Corse Rd 10900 Cross Rd Ikner Rd Pelham Lak Cherry Pile Phipps Rd Laurel Ln Bonnie Bun od and anot Schaeferw Pike Ln кіей Brown Rd шед Rowe Brittingha QUIDO) helps <u>u</u>n Cold River Rowe Rd Petrie Rd Old aloak? Funnel St Goldring and Market Dr. Shippee Rd ollins Dr Dally All Ro Home Pond Ro Readsboro ThayerRd Davis Rd Monro Smith Rd North Rd KIMA South St Manley Phe Wiley Rd Tilda Hill PH SSIIB Brookside Dr Florida Rd Shelf Rd

RF Existing Coverage Without VT-MA-450@171'

Adamsvin Call Po Founding Stacey Rd Catamount Proposed Coverage -108dBm Plot Information Lat: 42.693410 Lon: -72.919347 PA Piverpo 700 MHz LTE Symbol Key Site: VT-MA-450 Vertex Proposed Site Arshambo R LEGEND Elev: 1,555 ft Site Info **Existing Site** Hea Dwight Rd Burnt Hill Deer Run Apache Dr Hawk Hil Flagg Hill RF Proposed Coverage For VT-MA-450@171' E Hosmer R AL Stetso Colle Aldrich Rd Newto N Oxpow Rd **AcMi** Butter Brook Rd Heath Holland Hill Pratt Ln Heath AVRIY Broo Moodland Aellenura Schoolhous Wable Hill I Ben Rd Bassett Rd Bellor Rd DY DIEIN and Rd Charlemont Burington Knott Rd Number 9 R Cheen Po 4 4 5 5 5 4 6 L ar Ln Whitingham Warner Hil Corse Rd Stone Rd Dennis Rd & TO OR Ikner Rd Riddell Rd Cherry Pie Phips Rd **Bonnie Bun** bog anid anot Whataerics Pike Ln KIGN Brown Rd Dam Rowe Brittingha Pallo Ot helps In Cold River Rowe Rd Petrie Rd Funnel St Colonia sod marica Di ollins Dr Dalli Rolling Home Pond Ro Readsboro Thayer Rd MOHAWA TIL pd launt Davis Rd Wheeler Rd Smith Rd 10 III W North Rd South Rd South St Manley Phe Wiley Rd Sudict 2d Collins Rd Tilda Hill Bog Pond mailes Bliss Rd Savoy Rd olson Rd Brookside Dr Central Sh Blackstone Phelps Rd Florida Rd Shelf Rd East St Rd Sumner Rd Fast Rd

Vertex Proposed Coverage -108dBm Existing Coverage -108dBm Plot Information Lat: 42.693410 Lon: -72.919347 PA 700 MHz LTE Symbol Key Site: VT-MA-450 Vertex Proposed Site LEGEND Arshambo Elev: 1,555 ft Site Info **Existing Site** Hea Deer Run Hawk Hi N Oxbow Rd Aldrich Rd Newto McMi Butler Brook F Heath Holland Hill Pratt Ln AVRIY Broo Holbrook I 100 PD Schoolhous Ben Rd Bassett Rd Wable Hill DY DIEM and Rd Buringto Knott Rd Cheen Ap Number 9 R ar Ln Stone Rd Sto Whitingham Riddell Rd

Neath Po Corse Rd TO SIGNATURE TO STATE OF THE ST Ikner Rd Cherry Pie Pripps Rd **Bonnie Bun** od and anot Whataeros bike Ln күөλ Brown Rd Dam Rowe Brittingha QUIDO) helps In Rowe Rd Cold River Petrie Rd Funnel St Colonia and Marie Parish Shippee Rd ollins Di Pality Pality Polity Home Pond Ro Thayer Rd Readsbord Monroe Wheeler Rd Smith Rd North Rd KOMINA South Rd South St Manley Phe Wiley Rd olling Rd Tilda Hill Brookside Dr Florida Rd

RF Existing Coverage With VT-MA-450@171'

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#### Site Emissions Report For Rowe, MA Date Performed: 09/21/2021

This site emissions analysis was created for Vertex Towers, LLC. The tower analysis was performed to include all 4 major carriers. According to the analysis, this tower located at Rowe, MA 01367 ( 42.69341, -72.919347) does pass the FCC requirements for Radio Frequency emissions. The FCC requirements used in this report were determined from the FCC OET65 documentation and calculations.

The tower assumes the worst-case scenario which would not occur in the real world. It assumes that all 4 carriers are using all frequency bands and are all on the lowest height of the tower.

The approach taken for calculations takes into account the typical antenna used, since a Cell Site antenna is directional

and has different gains at different angles.

At the lowest height of 140ft, the highest emissions does not go above 1.37  $\mu$ W/cm² which is **0.137**% of the Maximum Permissible Emissions requirements, which is less than 1% of the MPE requirements.

Site Name: VT-MA-450

Coordinates: (42.69341/-72.919347)

Location: Rowe, MA 01367 Carrier

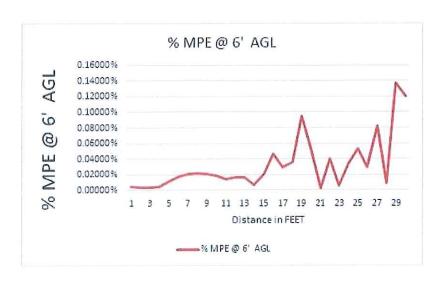
Available Heights (ft): 171,161,151,141

**Equation for Predicting RF Fields:** 

$$S = \frac{EIRP}{4\pi R^2}$$
(4)

where: EIRP = equivalent (or effective) isotropically radiated power S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

Reference: OET Bulletin 65



Wireless Service Provider	Frequency Band	ERP (Watts)
Carrier 1	1900MHz	1250
Carrier 1	700MHz	1000
Carrier 1	850MHz	1000
Carrier 1	2100MHz	2500
Carrier 2	1900MHz	2000
Carrier 2	700MHz	1000
Carrier 2	850MHz	1000
Carrier 2	2100MHz	1000
Carrier 3	1900MHz	1360
Carrier 3	2100MHz	1360
Carrier 3	700MHz	1000
Carrier 4	850MHz	400
Carrier 4	1900MHz	1360

Analysis Performed by: <u>Jose Hernandez</u>

Jose Hernandez – President / Principal. RF Engineer - JNaerowaves.Corp

Jose Hernandez is an independent Radio Frequency Engineer with 20 years of experience as an engineer in the Wireless Telecommunications field. Jose has performed numerous emissions reports for the Wireless Telecommunications Industry.

09/21/2021

### 

## Proposed Cellular Tower

# County Road Rowe, Massachusetts

## Prepared for:

Vertex Towers, LLC 155 South Street, Suite 102 Wrentham, MA 02093

### Date:

August 31, 2021

## Prepared By:



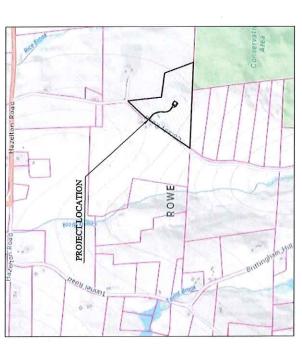
GUNTLOW & ASSOCIATES, INC. ENGINEERS SURVEYORS ARCHITECTS 55 NORTH STRUET WILLIAMSTOWN, MA. 01267 413-458-2198 413-458-2712 PAX

### Sheet Index

2222

Site/Compound Layout Plan Driveway Plan/Profile Compound Plan/Tower Elevation

Site Details



PROPOSED FENCED COMPOUND CONTAINING 175' TALL SELF-SUPPORT (LATTICE) TOWER, GRAVEL DRIVEWAY STRINSION AND IMPROVEMENTS FROM EXISTING DRIVEWAY. UTILITIES FROM EXISTING SOURCES.

SCOPE OF WORK:

ASSESSOR'S TAX ID#: 203-40 (TOWER & ACCESS)

COUNTY RD ROWE, MA 01367

VT-MA-0450

SITE NAME: SITE NUMBER:

ZONING DISTRICT(S): RESIDENTIAL-AGRICULTURAL

LATITUDE:

72° 55' 09.6486"± W 42' 41' 36.2762"± N

PROJECT INFORMATION



Locus Map



CUNTLOW & ASSOCIATES, INC. 55 NORTH ST WILLIAMSTOWN, MA 01267

SITE ENGINEER/ SURVEYOR:

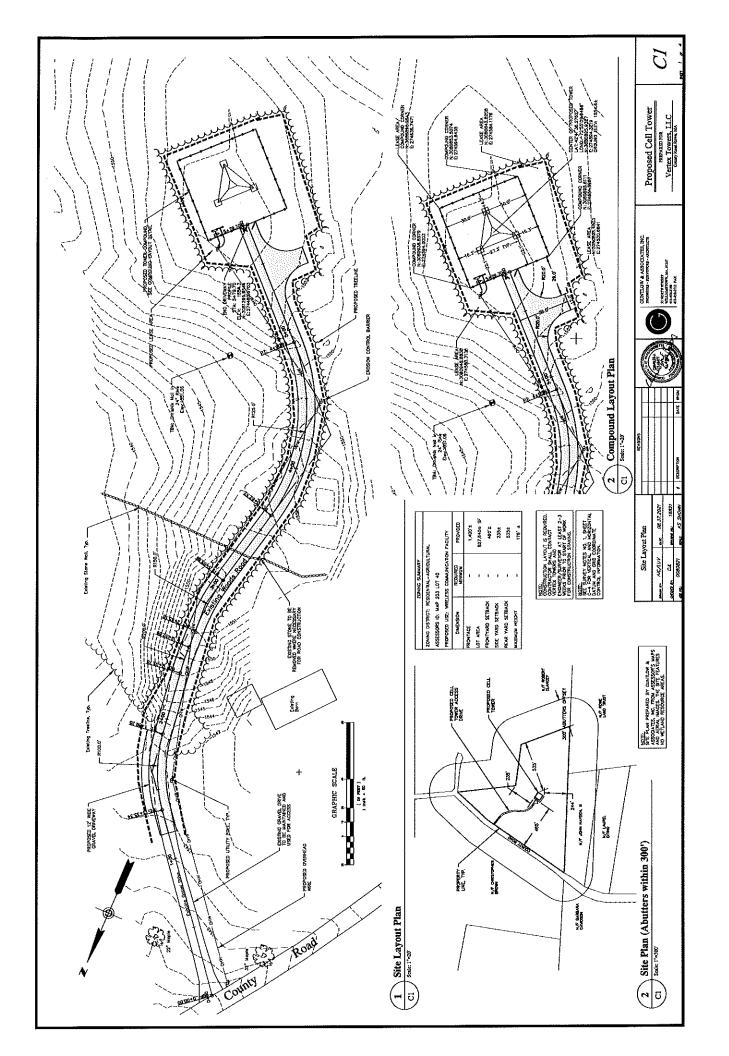
VERTEX TOWERS, LLC 155 SOUTH STREET SUITE 102 WRENTHAM, MA 02093

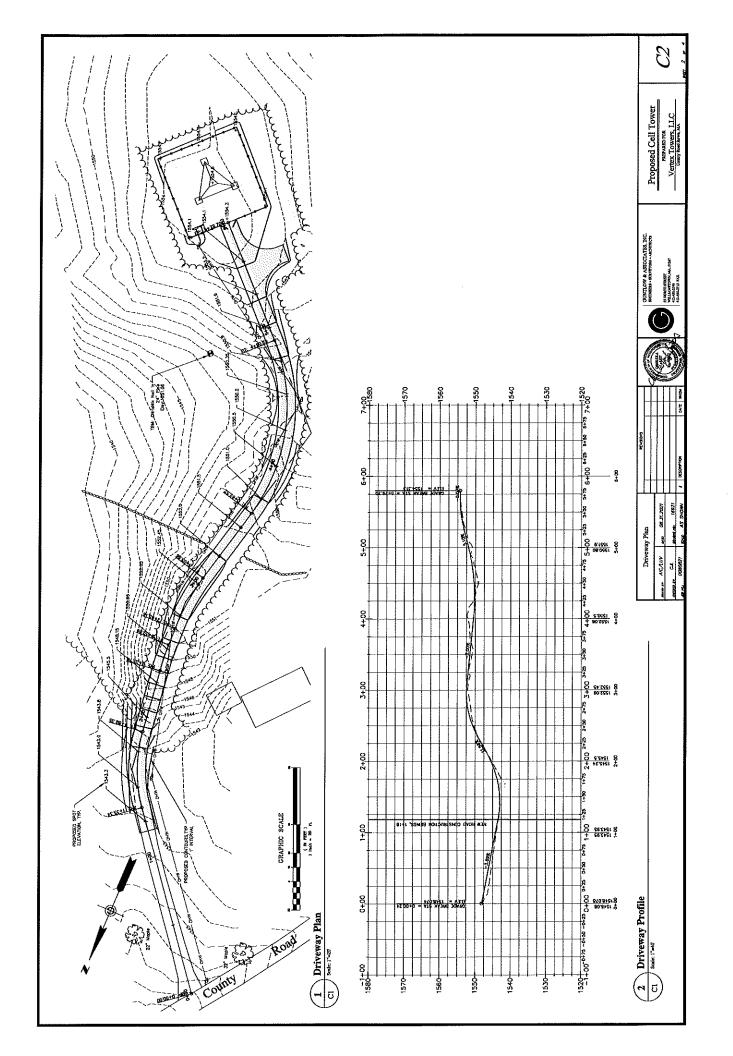
APPLICANT:

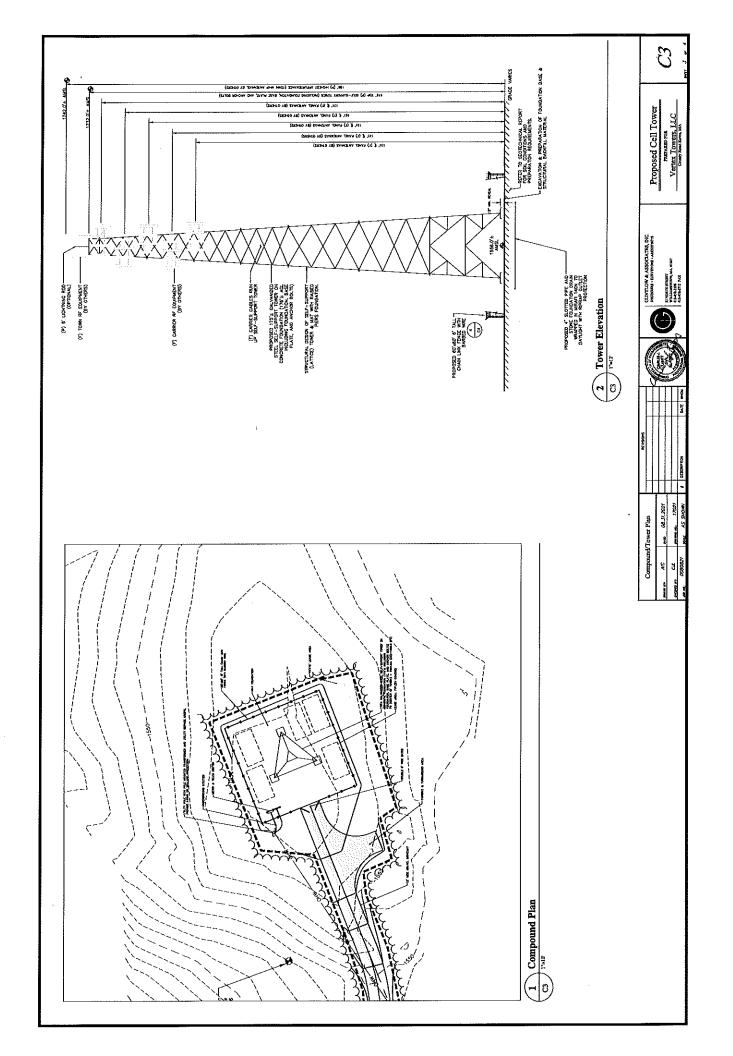
PROPERTY OWNER(S): N/F CHRISTOPHER M BROWN 110 COUNTY RD ROWE, MA 01367

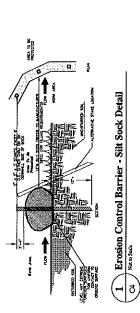
NAD83/NAVD88

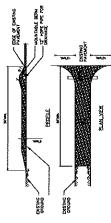
(P) ELEVATION: LONGITUDE:









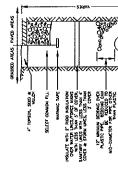


1, STONE SIZE - USE 2" TO A" IN DIMMETER CRUSHED STONE, CONSTRUCTION SPECIFICATIONS

CROTOTIL REQUIREMENTS

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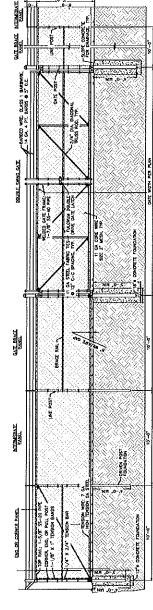
2 Construction Entrance I, PERIODIC HESPECTION AND MEDID MANITENANCE SHALL BE PREVIOUS AFTER TACH BURN.



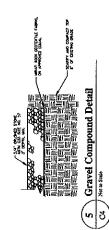
Typical Utility Trench

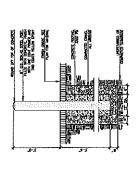
A" WINUS SCHEENED CHANCE OF CRUSHED STONE DEDONG

TRENCH WIDTH
PSP WINNER
DIAMETER WOTH
TO 12" 3"

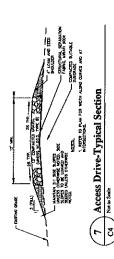


Security Fence Detail





6 Steel Bollard Detail



General Notes

 Topographical times also presents from less survey performed by Carities & Americalists, Inc. in Americal Cost Cost (2021) and (2021) elementars. The Delton is Assessed present State Plane and NAVO. 6. The contrestor shell conethed as communities orthitins will the exposes, owner and term is applicable.
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Erosion Control Notes

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GUNTLOW & ASSOCIATES, INC. INCIDENTE - STANITOR - ASSOCIATION MELLAMETOWN, MA. 01347 413-404-219 413-404-219 413-614-213 FAX

Proposed Cell Tower PREPARED FOR
Vertex Towers, LLC
County Ford from, MA