



**APPLICATION FOR VARIANCES AND  
AND SITE PLAN REVIEW FOR  
WIRELESS COMMUNICATIONS FACILITY**

Applicant: Varsity Wireless Investors, LLC  
Site Id: VW2-NH-0032A  
Property Address: Bumford Road, Barrington, NH 03825  
Tax Assessors: Map 251, Lot 64  
Property Owner: **Steven F. Lenzi** as Trustee of the Steven F. Lenzi Revocable Trust u/d/t  
September 25, 2008 and **Pamela M. Lenzi** as Trustee of the Pamela M.  
Lenzi Revocable Trust u/d/t September 25, 2008  
Date: March 27, 2017

1. Zoning Board of Adjustment Variance Application and Checklist
2. Planning Board Project Application for Site Plan Review and Checklist
3. Planning Board Site Plan Waiver Request Form
4. Filing Fees
5. Abutters List
6. Letter of Authorization
7. Balloon Test Public Notice
8. Project Narrative
9. TOWAIR (FAA Analysis re No Hazard to Air Navigation)
10. Affidavit of Site Acquisition Specialist
11. Affidavit of Radio Frequency Engineer and RF Coverage Maps
12. Photos of Existing Conditions
13. Site Plans

Respectfully submitted,  
Francis D. Parisi, Esq.  
Varsity Wireless Investors, LLC  
290 Congress Street, 7<sup>th</sup> Floor  
Boston, MA 02210  
(401) 447-8500 cell  
(401) 831-8387 fax  
fparisi@varsitywireless.com

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## Barrington Zoning Board of Adjustment Zoning Ordinance Variance and Special Exception Application Checklist

Please schedule a meeting with staff before submitting your application.

This checklist has been prepared to assist you in submitting a complete application to the Town of Barrington. At the Pre-Application meeting, staff will check off the items on this list that are required with your submission.

*This document constitutes a public disclosure under RSA Chapter 91 – A, Access to Governmental Records and Meetings.*

Date 3/27/17 Case No. \_\_\_\_\_  
Owner Varsity Wireless Investors, LLC Mailing Address 290 Congress ST 7<sup>th</sup> FL Boston, MA  
Phone 401 447-8500 Email fparisi@varsitywireless.com 02210

### PART I – GENERAL REQUIREMENTS

*All Graphics shall be to Scale and Dimensioned*

Description of Documents Required for Complete Application. No application shall be accepted without all items marked below.

Req'd	Rec'd
-------	-------

- |                          |                                     |   |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1. Zoning Board of Adjustment Application Checklist ( <i>this form</i> )  |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 2. ZBA General Information (Article(s) and Section(s) of Ordinance)   |
| <input type="checkbox"/> | <input type="checkbox"/>            | 3. Appeal and Decision <u>N/A</u>   |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 4. Fees - \$150.00 Application <input type="checkbox"/><br>\$ 75.00 Legal Notice <input type="checkbox"/><br>\$ 7.00 per US Post Office Certified Letter <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/>            | 5. Completed Project Application Form<br><input checked="" type="checkbox"/> Variance <input type="checkbox"/> Special Exception <input type="checkbox"/> Appeal                  |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 6. Notarized Letter of Authorization (from property owner(s) if property owner did not sign the application form)   |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 7. Project Narrative  |

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- ☐ ☐ 8. HOA Approval (if applicable) *N/A*
- ☐ ☒ 9. Context or Locus Map (Show Surrounding Zoning Districts)
- ☐ ☒ 10. Existing Conditions Site Plan or Recorded Subdivision Plan to include well and septic location (may be found at Strafford County Registry of Deeds).
- ☐ ☒ 11. Existing Conditions Photo Exhibit (See instruction page for submitting photos)  
Up to four photos may be shown per 8 1/2" X 11" page size  
a. Show all existing structures on site
- ☐ ☒ 12. List of Certified Abutters (Include Applicant and all licensed professionals, i.e., engineer, architect, land surveyor, or soil scientist, whose seals are affixed to the plan, as well as any holder of a conservation or agricultural easement)
- ☐ ☒ 13. Mailing Labels (4 sets)

**PART II – REQUIRED PLANS AND RELATED DATA**  
***All Graphics and Plans Shall be to Scale and Dimensioned***

- ☐ ☒ 1. Site Plan - ***Drawn and Stamped by Registered Land Surveyor***  
a. 24" X 36" – 2 Copies  
b. 11' X 17" – 6 Copy  
c. 8 1/2 " X 11" – 1 Copy
- ☐ ☒ 2. Elevations: Show all sides of building and indicate building heights  
a. 24" X 36" – 2 Copies  
b. 11' X 17" – 6 Copy  
c. 8 1/2 " X 11" – 1 Copy
- ☐ ☐ 3. Floor Plans *N/A*  
a. 24" X 36" – 2 Copies  
b. 11' X 17" – 6 Copy  
c. 8 1/2 " X 11" – 1 Copy
- ☐ ☒ 4. All drawings and any revised drawings must be submitted in PDF format
- ☐ ☒ 5. OTHER: application package
- ☐ ☐ 6. Your Appointment Date and Time for Submitting the Complete Application is:

Barbara Irvine  
Staff Signature

3/28/2017  
Date

**Land Use Department**  
**Town of Barrington; 137 Ramsdell Lane; Barrington, NH 03825**  
barrplan@metrocast.net Phone: 603.664.5798

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PART III – PROJECT DESCRIPTION/VARIANCE DETAILS

Case No. 251-64-GR/SDAO-17-ZBA

Project Name Varsity Wireless - Wireless Communications Facility

Location Address Bumford Rd, Barrington, NH

Map and Lot ~~218~~ 251-64

Zoning District (Include Overlay District if Applicable) General Residential  
Stratified Drift Aquifer Overlay

Property Details:

- ☐ Single Family Residential ☐ Multifamily Residential ☐ Manufactured Housing  
☒ Commercial ☐ Mixed Use ☐ Agricultural ☐ Other

Use: Wireless Communication Facility

Number of Buildings: 0 Height: 150'

Setbacks: Front 469'± Back 2089'± Side 155'± Side 1192'±

Description of Request

Cite the Section of the Zoning Ordinance you are requesting a Variance or Special Exception for.

If this is an Appeal from an Administrative Enforcement Order, Planning Board Decision, or Zoning Board of Adjustment Decision, please attach pertinent documentation:

Article 10 - Wireless Communication Facility - 10.4 Dimensional Requirements

Project Narrative: (Please type and attach a separate sheet of paper)

see attached project narrative

Barrington Zoning Ordinance Requirements:

10.4(3) Ground mounted WCF shall not project higher than 20' above tree canopy; no WCF fence shall be constructed within 75' of wetlands

Request: (You may type and attach a separate sheet of paper)

10.4(3) Applicant desires to construct a 150' tall Wireless Communication Facility that will be surrounded by a fence that will be located 60' from wetlands.

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**PART IV – If this is a JUSTIFICATION FOR VARIANCE**

The Zoning Board of Adjustment may not authorize a zoning ordinance variation unless ALL of the following criteria are met. Please provide evidence that the requested Variance complies by addressing the issues below.

- ☒ 1. Special conditions exist such that literal enforcement of the Ordinance will result in unnecessary hardship to the applicant as defined under applicable law.

See attached project narrative

- ☒ 2. Granting the variance would be consistent with the spirit of the Ordinance.

See attached project narrative

- ☒ 3. Granting the variance will not result in diminution of surrounding property values.

See attached project narrative

- ☒ 4. Granting of the variance would do substantial justice.

See attached project narrative

- ☒ 5. Granting of the variance would not be contrary to the public interest.

See attached project narrative

**PART V – If this is a JUSTIFICATION FOR SPECIAL EXCEPTION**

Please provide evidence that the requested Special Exception complies by addressing the issues below.

- ☐ 1. No detriment to property values in the vicinity of the proposed development will result on account of: the location or scale of buildings, structures, parking areas, or other access ways; the emission of odors, smoke, gas, dust, noise, glare, heat, vibration, or other pollutants; or unsightly outdoor storage of equipment, vehicles, or other materials.

\_\_\_\_\_  
\_\_\_\_\_

- ☐ 2. No hazard will be caused to the public or adjacent property on account of potential fire, explosion, or release of toxic materials.

\_\_\_\_\_  
\_\_\_\_\_

☐ 3. No creation of a traffic safety hazard or substantial traffic congestion will result in the vicinity of the proposed development.

☐ 4. No excessive demand on municipal services and facilities, including, but not limited to waste disposal, police and fire protection, and schools.

☐ 5. The proposed use will not result in the degradation of existing surface and groundwater quality standards, nor will it have adverse effects on the natural functions of wetlands on the site that would result in the loss of significant habitat or flood control protection.

In addition to the guiding principles specified above, the ZBA may condition the granting of a special exception upon more stringent standards if the Board determines that such conditions are necessary to protect the health and welfare of the town and its residents. Such conditions may include the following and should be addressed in the Narrative:

- ☐ 1. Front, side, or rear yards in excess of the minimum requirements of this Ordinance.
- ☐ 2. Screening of the premises from the street or adjacent property by walls, fences, or other devices.
- ☐ 3. Limitations on the size of buildings and other structures more stringent than minimum or maximum requirements of this Ordinance.
- ☐ 4. Limitations on the number of occupants and methods and times of operation.
- ☐ 5. Regulation of the design and location of access drives, sidewalks, and other traffic features.
- ☐ 6. Location and amount of parking and loading spaces in excess of existing standards.
- ☐ 7. Regulation of the number, size, and lighting of signs in excess of existing standards.

Varsity Wireless Investments, LLC

By Francis D. Parisi, ESQ. 3/27/17  
Signature of Applicant Date

Steven F. Lenzi, Trustee of the Steven F. Lenzi Revocable Trust  
and Pamela M. Lenzi, Trustee of the Pamela M. Lenzi Revocable Trust

By Francis D. Parisi, ESQ., LWA 3/27/17  
Signature of Owner Date

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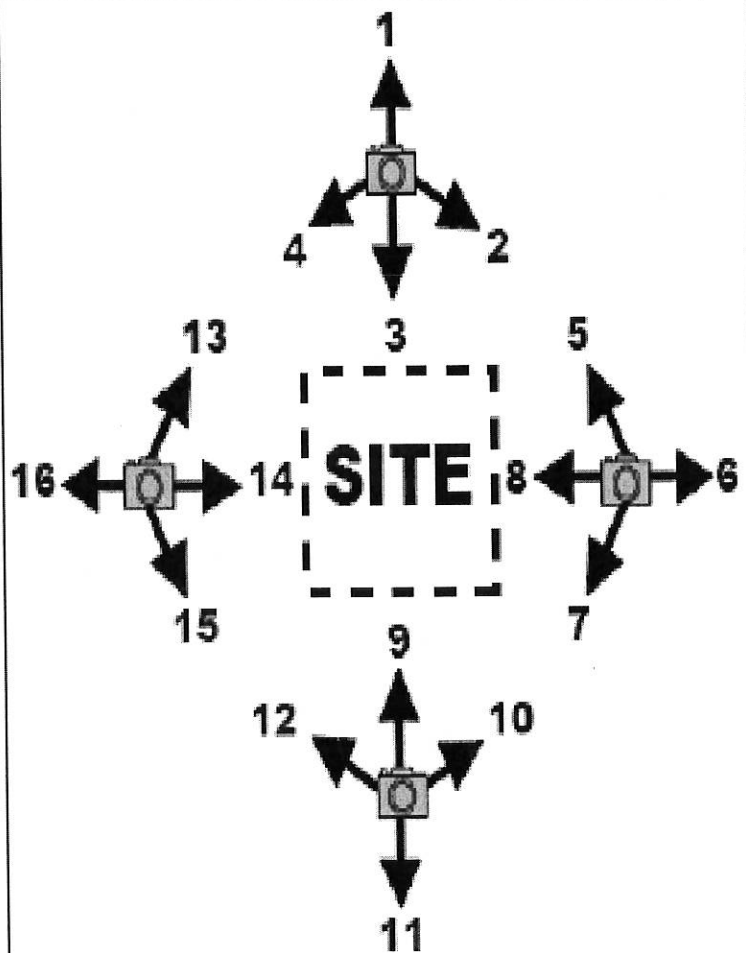
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## SITE / CONTEXT PHOTOS

Using Guidelines Below

Provide color photographs showing the site and surrounding buildings/properties in order to provide staff, boards and commissions with a visual impression of the current site conditions.

1. Photos are to be taken looking toward the site and adjacent to the site.
2. Photos should show adjacent improvements and existing on-site conditions.
3. Number the photographs according to view.



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# Project Application

## Land Use Department

P.O. Box 660; 333 Calef Hwy, Barrington, NH 03825 ♦ Phone: 603-664-5798 ♦ Fax: 603-664-0188

Case Number: \_\_\_\_\_ Project Name: Varsity Wireless-Wireless Communications Facility Date 3/27/17  
Staff Signature required PRIOR to submittal

PRELIMINARY APPLICATION: Preliminary Conceptual Review \_\_\_\_\_ Design Review \_\_\_\_\_ Development of Regional Impact \_\_\_\_\_

### FORMAL APPLICATION:

Subdivision Type: Major \_\_\_\_\_ Minor \_\_\_\_\_ Conventional \_\_\_\_\_ Conservation \_\_\_\_\_  
Site Plan Review: Major \_\_\_\_\_ Minor ☒ \_\_\_\_\_  
Conditional Use Permit \_\_\_\_\_ Sign Permit \_\_\_\_\_ Boundary Line Adjustment \_\_\_\_\_ Special Permit \_\_\_\_\_  
Change of Use \_\_\_\_\_ Extension for Site Plan or Subdivision Completion \_\_\_\_\_  
Amendment to Subdivision/Site Plan Approval \_\_\_\_\_ Other \_\_\_\_\_

Project Name: Varsity Wireless-Wireless Communications Facility Area (Acres or S.F.) 95ac<sup>+</sup>  
Project Address: Bumford Rd SDAO  
Current Zoning District(s): General Residential / Map(s) 251 Lot(s) 64  
Request: Site Plan Review for Wireless Communications Facility

The property owner shall designate an agent for the project. This person (the applicant) shall attend pre-application conferences and public hearings, will receive the agenda, recommendations, and case reports, and will communicate all case information to other parties as required.  
All contacts for this project will be made through the Applicant listed below.

Owner: Steven F. Lenzi, Trustee of the Steven F. Lenzi Revocable Trust AND  
Company Pamela M. Lenzi, Trustee of the Pamela M. Lenzi Revocable Trust  
Phone: 401 447 8500 Fax: 401 831 8387 E-mail: fparisi@varsitywireless.com  
Address: 304 Yamp Rd, Barrington, NH 03825

Applicant (Contact): Francis D. Parisi, Esq.  
Company Varsity Wireless Investors, LLC  
Phone: 617 447 8500 Fax: 401 831 8387 E-mail: fparisi@varsitywireless.com  
Address: 290 Congress St, 7th FL, Boston, MA 02210

Developer: \_\_\_\_\_  
Company \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Address: \_\_\_\_\_

Architect: \_\_\_\_\_  
Company \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Address: \_\_\_\_\_

Engineer: Daniel P. Hannan  
Company Hudson Design Group, LLC andrey.tsikanovsky@  
Phone: 978 557 5553 Fax: 978 557 5553 E-mail: hudsondesigngroupllc.com  
Address: 1600 Osgood St, Bldg 20 Suite 3090, Andover, MA 01845

Owner Signature Barbara Lenzi  
Staff Signature \_\_\_\_\_

Applicant Signature Francis D. Parisi, Esq.  
Date 3/27/17  
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Applicant Varsity Wireless Investor, LLC Map/Lot# 251/64 Case# \_\_\_\_\_

**Site Review Application Checklist  
Barrington Planning Board**

This checklist is intended to assist applicants in preparing a complete application for site review as required by the Barrington Site Review Regulations and must be submitted along with all site review applications. An applicant seeking site review approval shall be responsible for all requirements specified in the Barrington Site Review Regulations even if said requirements are omitted from this checklist.

An applicant seeking site review approval shall be responsible for providing all the information listed in the column below entitled "Site Review" and should place an "x" in each box to indicate that this information has been provided

SITE REVIEW APPLICATION CHECKLIST		Site Review		Waiver(s)
Check the Appropriate Boxes below:		Provided	NA	
<b>Section I. General Requirements</b>				
1. Completed Application Form ( 2.5.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2. Complete abutters list (2.6.3 (5) or 2.5.1 (6) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Payment of all required fees (2.6.3 (4) or 2.5.1 (5) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. Three (3) full size sets of plans and twelve (12) sets of plans 11" by 17", submitted with all required information in accordance with the subdivision regulations and this checklist (2.6.3 (6) or 2.5.1 (7) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
5. Copies of any proposed easement deeds, protective covenants or other legal documents (3.9.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
6. Any waiver request(s) submitted with justification in writing (3.9.8)	<input type="checkbox"/>	<input type="checkbox"/>		
7. Completed Application Checklist (2.5.1 (3) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Section II. General Plan Information</b>				
1. Size and presentation of sheet(s) per registry requirements and the site review regulations (3.1.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2. Title block information: (3.2.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
a. Drawing title (3.2.1 (1) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b. Name of site plan (3.2.1 (2) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c. Location of site plan (3.2.1 (3) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d. Tax map & lot numbers of subject parcel(s) (3.2.1 (4) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e. Name & address of owner(s) (3.2.1 (5) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f. Date of plan (3.2.1 (6) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
g. Scale of plan (3.2.1 (7) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
h. Sheet number (3.2.1 (8) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
i. Name, address, & telephone number of design firm (3.2.1 (9) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
j. Name and address of Applicant (3.2.1 (10) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3. Revision block with provision for amendment dates (3.2.3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4. Planning Board approval block provided on each sheet to be recorded (3.2.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
5. Certification block (for engineer or surveyor) (3.1.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6. Match lines (if any)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
7. Zoning designation of subject parcel(s) including overlay districts (3.2.10 (4) )	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

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SITE REVIEW APPLICATION CHECKLIST		Site Review		Waiver(s)
Check the Appropriate Boxes below:		Provided	NA	
8. Minimum lot area, frontage & setbacks dimensions required for district(s) <b>3.2.10(5)</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. List Federal Emergency Management Agency (FEMA) sheet(s) used to Identify 100-year flood elevation, locate the elevation <b>(3.2.10 (12) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Note the following: "If, during construction, it becomes apparent that deficiencies exist in the approved design drawings, the Contractor shall be required to correct the deficiencies to meet the requirements of the regulations at no expense to the Town." <b>(3.2.10 (16) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Note the following: "Required erosion control measures shall be installed prior to any disturbance of the site's surface area and shall be maintained through the completion of all construction activities. If, during construction, it becomes apparent that additional erosion control measures are required to stop any erosion on the construction site due to actual site conditions, the Owner shall be required to install the necessary erosion protection at no expense to the Town." <b>(3.2.10(17))</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Note identifying which plans are to be recorded and which are on file at the town.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Note the following: "All materials and methods of construction shall conform to Town of Barrington Site Review Regulations and the latest edition of the New Hampshire Department of Transportation's Standard Specifications for Road & Bridge Construction." <b>(3.2.10 (18) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
14. North arrow <b>( 3.2.5 )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
15. Floodplains-Location and elevation(s) of one-hundred (100)-year flood zone per FEMA Flood Insurance Study or as determined by drainage study <b>(3.3 (18) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
16. Plan and deed references <b>(3.2.6)</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
17. The following notes shall be provided:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Purpose of plan <b>(3.2.10 (1) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Existing and proposed use <b>(3.2.10 (6) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Water Supply source (name of provider (company) if offsite) <b>(3.2.10 (10) )</b>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	WOW
d. Zoning variances/special exceptions with conditions <b>(3.2.10 (11) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. List of required permits and permit approval numbers <b>(3.2.10 (13) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f. Vicinity sketch showing 1,000 feet surrounding the site <b>(3.2.8)</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
g. Plan index indicating all sheets <b>(3.2.9)</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
18. Boundary of entire property to be subdivided <b>(3.3 (1) )</b>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
19. Boundary monuments <b>(3.3 (4) )</b>		<input type="checkbox"/>	<input type="checkbox"/>	
a. Monuments found <b>(4.2)</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Map number and lot number, name addresses, and zoning of all abutting land owners <b>(3.3 (5) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Monuments to be set <b>(3.3 (4) &amp; 4.2 )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
20. Existing streets: <b>(3.3 (6) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Name labeled		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Status noted or labeled		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Right-of-way dimensioned		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Pavement width dimensioned		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
21. Municipal boundaries (If any) <b>(3.3 (7) )</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
22. Existing easements (identified by type) <b>( 3.3 (8) )</b>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a. Drainage easement(s)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Slope easement(s)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Utility easement(s)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Temporary easement(s) (Such as temporary turnaround)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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SITE REVIEW APPLICATION CHECKLIST		Site Review		Waiver(s)
Check the Appropriate Boxes below:		Provided	NA	
e. No-cut zone(s) along streams & wetlands (as may be requested by the Conservation Commission)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Vehicular & pedestrian access easements(s)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
g. Visibility easement(s)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Fire pond/cistern(s)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
i. Roadway widening easement(s)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
j. Walking trail easement(s)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a) Other easement(s) Note type(s) <u>utility</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
23. Designation of each proposed lot (by Map & Lot numbers as provided by the assessor)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
24. Area of each lot being developed (in acres & square feet): (3.3 (9) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Existing lot(s) (3.3 (9) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Contiguous upland(s)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
25. Wetland delineation (including Prime Wetlands): (3.3 (13) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Limits of wetlands (3.3 (13) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Wetland delineation criteria (3.3 (13) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Wetland Scientist certification (3.3 (13) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
26. Owner's signature(s) (3.3 (14) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
27. All required setbacks (3.3 (15) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
28. Physical features		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a. Buildings (3.3 (21) )		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Wells (3.3 (16) )		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Septic systems (3.3 (16) )		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Stone walls (3.3 (16) )		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Paved drives (3.3 (16) )		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Gravel drives (3.3 (16) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
29. Location & name (if any) of any streams or water bodies (3.3 (17) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
30. Location of existing overhead utility lines, poles, towers, etc. (3.3 (19) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
31. Two-foot contour interval topography shown over all subject parcel (3.3 (3) )		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
32. Map & Lot #s, name, addresses, & zoning of all abutting land owners (3.3 (5) )		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
33.		<input type="checkbox"/>	<input type="checkbox"/>	

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**APPLICATION AGREEMENT**

I hereby apply for Site Plan Review and acknowledge I will comply with all of the Ordinances of the Town of Barrington, New Hampshire State Laws, as well as any stipulations of the Planning Board, in development and construction of this project. I understand that if any of the Site Plan Review or Application specifications are incomplete, the Application will be considered rejected.

In consideration for approval and the privileges accruing thereto, the subdivider thereby agrees:

- E. To carry out the improvements agreed upon and as shown and intended by said plat, including any work made necessary by unforeseen conditions which become apparent during construction of the site plan review.
- E. To post all streets "Private" until accepted by the Town and to provide and install street signs as approved by the Selectmen of the Town for all street intersections.
- E. To give the Town on demand, proper deeds for land or rights-of-way reserved on the plat for streets, drainage, or other purposes as agreed upon.
- E. To save the Town harmless from any obligation it may incur or repairs it may make, because of my failure to carry out any of the foregoing provisions.
- E. Mr/Mrs Stephen F. Lenzi Steven F. Lenzi, Revocable Trust And of Pamela M. Lenzi Rev Trust The owners, by the communications to the subdivider may be addressed with any proceedings arising out of the agreement herein. Applicant

Signature of Owner: Stephen F. Lenzi

Signature of Developer: By Ryan J. Parnell, LLC

Technical Review Signatures: \_\_\_\_\_

Town Engineer/Planner Approval Signature: \_\_\_\_\_ The owners, by the filing of this application as indicated above, hereby give permission for any member of the Barrington Planning Board, the Town Engineer, The Conservation Commission and such agents or employees of the Town or other person as the Planning Board may authorize, to enter upon the property which is the subject of this application at all reasonable times for the purpose of such examinations, surveys, test and inspections as may be appropriate.

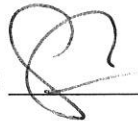
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(Refusal to sign this permission form does not invalidate an application, but the Planning Board may not be able to make an informed decision regarding unseen lands with potential areas of concerns).

Signature of Owner:

 Francis D. Pann, Esq. LON

**Note:** The developer/individual in charge must have control over all project work and be available to the Road Agent and Code Enforcement Officer during the construction phase of the project. The Road Agent and Code Enforcement Officer must be notified within two (2) working days of any change by the individual in charge of the project.

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**Site Plan Waiver Request Form**  
*Under Site Plan Regulations 3.9.8-Waivers and Article 8-Waiver Procedure*

If there is more than one waiver requested, each waiver request is to be individually listed and described, as each waiver is considered individually by the Town of Barrington Planning Board. A petition for waiver shall be submitted in writing by the applicant with the application for review. The request shall fully state the grounds for which the waiver is requested and all facts supporting this request with reference to the applicable Barrington Site Plan Regulations article, section and paragraph. **Each waiver granted shall be listed on the approved site plan.**

Name of Site Plan (See Title Box): Varsity Wireless VW2-NH-0032A Barrington 1

Case Number: \_\_\_\_\_

Site Location: Bumford Road, Tax Assessors Map 251, Lot 64

Zoning District(s): General Residential and Stratified Drift Aquifer Overlay

Owner (s): Steven F. Lenzi, Trustee of the Steven F. Lenzi Revocable Trust and Pamela M. Lenzi, Trustee of the Pamela M. Lenzi Revocable Trust

Address of Owner(s): 304 Young Road, Barrington, NH 03825

Address Line 2: \_\_\_\_\_

Name of Applicant (if different from owner): Varsity Wireless Investors, LLC

Phone Number 401 447-8500 Email fparisi@varsitywireless.com

Land Surveyor: Timothy J. Winings, LS #682

I Varsity Wireless Investors, LLC seek the following waiver to the Town of Barrington Site Plan regulations for the above case submittal:

3.3(3) .....Existing topography - At 2-foot contour interval minimum

and such other provisions of the Town of Barrington Site Plan Review Regulations for which waivers are required as deemed necessary or appropriate by the Town of Barrington Planning Board

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Varsity Wireless Investors, LLC

BY: 

Francis D. Parisi, Esq.

March 27, 2017

Signature of Owner/Applicant

Date

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2377

PARISI LAW ASSOCIATES, P.C.

177 NORTH MAIN STREET  
PROVIDENCE, RI 02903

 Citizens Bank

57-12-115

3/27/17

PAY TO THE  
ORDER OF

Town of Barrington

\$ 150.00

One Hundred Fifty

DOLLARS

Security features. Details on back.

MEMO



AUTHORIZED SIGNATURE

⑈002377⑈ ⑆011500120⑆ 1825 184 6⑈

PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.

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**PARISI LAW ASSOCIATES, P.C.**177 NORTH MAIN STREET  
PROVIDENCE, RI 02903**Citizens Bank**

57-12-115

3/27/17

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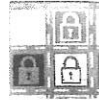
Tamm A Barrington

\$ 75.00

Seventy-Five

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MEMO



AUTHORIZED SIGNATURE

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PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.  
177 NORTH MAIN STREET  
PROVIDENCE, RI 02903

**Citizens Bank**

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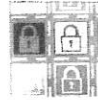
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Tara A. Barrington

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MEMO



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PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.

177 NORTH MAIN STREET  
PROVIDENCE, RI 02903

 Citizens Bank

57-12-115

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ORDER OF

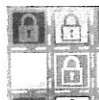
Town of Barrington

\$150.00

One Hundred Fifty

DOLLARS

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AUTHORIZED SIGNATURE

MEMO

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PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.

177 NORTH MAIN STREET  
PROVIDENCE, RI 02903

Citizens Bank

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PAY TO THE  
ORDER OF

Tam A Barry

\$ 75.00

Seventy-Five

DOLLARS

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MEMO



AUTHORIZED SIGNATURE

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PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.  
177 NORTH MAIN STREET  
PROVIDENCE, RI 02903

**Citizens Bank**

57-12-115

3/27/17

PAY TO THE  
ORDER OF

Town of Barrington

\$

DOLLARS

Security features. Details on back.

MEMO



*[Signature]*

AUTHORIZED SIGNATURE

⑈002397⑈ ⑆011500120⑆ 1825 184 6⑈

PARISI LAW ASSOCIATES, P.C.

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PARISI LAW ASSOCIATES, P.C.

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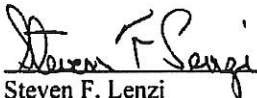
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**LETTER OF AUTHORIZATION**

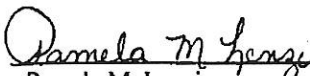
We, **Steven F. Lenzi** as Trustee of the Steven F. Lenzi Revocable Trust u/d/t September 25, 2008 and **Pamela M. Lenzi** as Trustee of the Pamela M. Lenzi Revocable Trust u/d/t September 25, 2008, are owners of a certain parcel of land located at Bumford Road (Map 251, Lots 64, 65 and 66), Barrington, Strafford County, New Hampshire, recorded at the Strafford County Registry of Deeds in Book 3707, Page 826.

As owners of the above-referenced property, we hereby authorize Varsity Wireless, 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.

**STEVEN F. LENZI REVOCABLE TRUST**

By:   
Name: Steven F. Lenzi  
Title: Trustee  
Date: 3/30/16

**PAMELA M. LENZI REVOCABLE TRUST**

By:   
Name: Pamela M. Lenzi  
Title: Trustee  
Date: 3-30-16

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RECORDING REQUESTED BY  
AND WHEN RECORDED MAIL TO:

Varsity Wireless, LLC  
290 Congress Street, 7<sup>th</sup> Floor  
Boston, MA 02210

(space above for Recorder's use only)

### MEMORANDUM OF OPTION AND GROUND LEASE AGREEMENT

THIS MEMORANDUM OF LEASE AGREEMENT, made and entered into on this 31<sup>st</sup> day of March, 2016, by and between **Steven F Lenzi** as Trustee of the Steven F Lenzi Revocable Trust u/d/t September 25, 2008 and **Pamela M. Lenzi** as Trustee of the Pamela M. Lenzi Revocable Trust u/d/t September 25, 2008 ("Lessor") and Varsity Wireless, LLC, a Delaware limited liability company ("Lessee"), is a record of that certain Option and Ground Lease Agreement ("Lease") between Lessor and Lessee dated as of March 31, 2016, which Lease contains, among other things, the following terms:

1. **Description of Premises.** The Lease pertains to those certain real property (the "Property") and certain premises thereupon, which premises are hereinafter referred to as the "Leased Premises." The said Property is described in Exhibit A, which Exhibit is attached hereto and incorporated herein by reference.
2. **Term.** The Initial Term of the Lease is five (5) years beginning on the date of the exercise of the Option (as defined in such Lease) by Lessee to lease the Leased Premises (the "Commencement Date").
3. **Renewal Terms.** Lessee has the right to extend the Term of the Lease for nine (9) successive terms of five (5) years each.
4. **Subletting.** Lessee has the right, at any time during the Term of this Lease, to sublet any portion of the Leased Premises or permit any portion of the Leased Premises to be occupied or used by subtenants, licensees or customers (including agents, contractors and subcontractors thereof) in connection with the provision of wireless communications services.
5. **Right of First Refusal.** Pursuant to the Lease, Lessor has granted a Lessee a right of first refusal in connection with all requests, proposals or offers from any third party other than the Lessee to acquire, lease or obtain an easement (or other right of way) under all or any portion of the Leased Premises.
6. **Ratification of Lease.** By this Memorandum, the parties intend to record a reference to the Lease and do hereby ratify and confirm all of the terms and conditions of the Lease and declare that the Leased Premises are subject to all of the applicable provisions of the Lease.

IN WITNESS WHEREOF, Lessor and Lessee have executed this Memorandum as of the date first above written.

Lessor: **Steven F. Lenzi Revocable Trust**

By: Steven F. Lenzi

Name: Steven F. Lenzi, Trustee

**Pamela M. Lenzi Revocable Trust**

By: Pamela M. Lenzi

Name: Pamela M. Lenzi, Trustee

Lessee: **Varsity Wireless, LLC**

By: Christopher J. Davis

Name: Christopher J. Davis  
Its: President



**LESSOR**

STATE OF NEW HAMPSHIRE:  
COUNTY OF STRAFFORD:

The foregoing Memorandum of Option and Ground Lease Agreement was signed and acknowledged before me by **Steven F Lenzi** as Trustee of the Steven F Lenzi Revocable Trust u/d/t September 25, 2008, acting in his capacity of Owner and Trustee for the property located at Bumford Road, Barrington, NH to be the act and deed of said Steven F. Lenzi, Trustee for the purposes therein stated, on this 30 day of March, 2016.

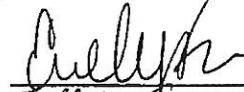
  
\_\_\_\_\_  
Evelyn French Notary Public

**EVELYN FRENCH**  
NOTARY PUBLIC  
State of New Hampshire  
My Commission Expires  
October 1, 2019

My Commission Expires: 10/1/19

STATE OF NEW HAMPSHIRE:  
COUNTY OF STRAFFORD:

The foregoing Memorandum of Option and Ground Lease Agreement was signed and acknowledged before me by **Pamela M. Lenzi** as Trustee of the Pamela M. Lenzi Revocable Trust u/d/t September 25, 2008, acting in her capacity of Owner and Trustee for the property located at Bumford Road, Barrington, NH to be the act and deed of said Pamela M. Lenzi, Trustee for the purposes therein stated, on this 30 day of March, 2016.

  
\_\_\_\_\_  
Evelyn French Notary Public

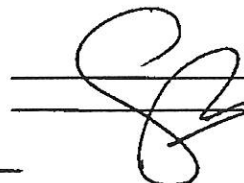
**EVELYN FRENCH**  
NOTARY PUBLIC  
State of New Hampshire  
My Commission Expires  
October 1, 2019

My Commission Expires: 10/1/19

**LESSEE**

COMMONWEALTH OF MASSACHUSETTS:  
COUNTY OF SUFFOLK:

The foregoing Memorandum of Option and Ground Lease Agreement was signed and acknowledged before me by Christopher J. Davis, acting in his capacity of President, on behalf of Varsity Wireless, LLC, LESSEE, to be the act and deed of said company for the purposes therein stated, on this 31<sup>st</sup> day of March, 2016.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**Francis D. Parisi**  
Notary Public  
My Commission Expires 10/09/20

Site Number: VW2-NH-0032A  
Site Name: Barrington I

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**Francis D. Parisi**  
Notary Public  
My Commission Expires 10/09/20

**EXHIBIT A TO MEMORANDUM OF OPTION AND GROUND LEASE AGREEMENT**

**LEGAL DESCRIPTION OF REAL PROPERTY**

Three certain tracts or parcels of land, with the buildings thereon, if any, all being situate in Barrington, County of Strafford and State of New Hampshire and being bounded and described in the Quitclaim Deed of Steven F. Lenzi and Pamela M. Lenzi dated January 9, 2009 to Steven F. Lenzi, Trustee of the Steven F. Lenzi Revocable Trust dated September 25, 2008 and Pamela M. Lenzi, Trustee of the Pamela M. Lenzi Revocable Trust dated September 25, 2008, which Deed was recorded in the Strafford County Registry of Deeds in Book 3707, Page 826.

Address of Property: Bumford Road, Barrington, NH (Tax Assessor Parcel 251, Lot 64)  
49 Bumford Road, Barrington, NH (Tax Assessor Parcel 251, Lot 65)  
Calef Highway, Barrington, NH (Tax Assessor Parcel 251, Lot 66)

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PUBLIC NOTICE  
TOWN OF BARRINGTON

Varsity Wireless Investors, LLC (the "Applicant") has applied for Variances from the Barrington Zoning Board of Adjustment and Site Plan Review from Barrington Planning Board to construct a 150 foot tall Wireless Communications Facility at Bumford Road, Barrington, NH, Tax Assessors Map 251, Lot 64. The Applicant will conduct a Visual Demonstration to illustrate the location and height of the proposed Facility by means of a balloon raised at and to the height of the proposed Facility. Said Visual Demonstration will be held SATURDAY, APRIL 15, 2017 from 9:00 am to 12:00 Noon, weather and wind conditions permitting. In the event of inclement weather on April 15, 2017, the Visual Demonstration will be rescheduled to MONDAY, APRIL 17, 2017 from 9:00 am to 12:00 Noon. In the event of inclement weather on both April 15, 2017 and April 17, 2017, the Visual Demonstration will be rescheduled until the next day and each successive day until the weather permits. If you have any questions concerning said Visual Demonstration, please contact Marsha Gasses, Planner and Land Use Administrator, Town of Barrington, 333 Calef Highway, Barrington, NH 03825, (603) 664-0195, OR Francis D. Parisi, Esq., Varsity Wireless Investors, LLC, 290 Congress Street, 7<sup>th</sup> Floor, Boston, MA 02210, (401) 447-8500, [fparisi@varsitywireless.com](mailto:fparisi@varsitywireless.com)

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**APPLICATION FOR VARIANCE AND  
AND SITE PLAN REVIEW FOR  
WIRELESS COMMUNICATIONS FACILITY**

Applicant: Varsity Wireless Investors, LLC  
Site Id: VW2-NH-0032A  
Property Address: Bumford Road, Barrington, NH 03825  
Tax Assessors: Map 251, Lot 64  
Property Owner: **Steven F. Lenzi** as Trustee of the Steven F. Lenzi Revocable Trust u/d/t  
September 25, 2008 and **Pamela M. Lenzi** as Trustee of the Pamela M.  
Lenzi Revocable Trust u/d/t September 25, 2008  
Date: March 27, 2017

**PROJECT NARRATIVE**

**INTRODUCTION**

The Applicant Varsity Wireless Investors, LLC, a Delaware limited liability company ("Varsity") builds, owns and operates the infrastructure that supports wireless telecommunications services. We provide our customers, and the communities they serve, with creative, cost efficient solutions to the ever-growing demand for wireless ubiquity and bandwidth.

Varsity's founders, senior management and staff bring more than 50 years of wireless industry experience to the company, including leadership positions with wireless operators, tower companies, telecommunication infrastructure developers and the FCC. Varsity's exceptional human resources are augmented with equity capital from investors who share the long-term view of investing in responsible communications infrastructure.

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

Applicant's proposed Wireless Communications Facility is shown on plans submitted with this Application (the "Plans"). Varsity proposes to construct a 150' monopole tower at Bumford Road, Barrington, NH 03825, Tax Assessors Map 251, Lot 64 (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 other telecommunications companies, including AT&T Wireless, T-Mobile, Verizon Wireless, and SprintPCS, will place panel style antennas and required electronic equipment at heights of approximately 145', 135', 125 and 115' (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

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Town of Barrington  
March 28, 2017  
Page 2

fenced in compound. Applicant's Wireless Communications is similar to the other telecommunication facilities already located in Barrington and the surrounding area and has been designed in accordance with the Town's Ordinance as much as possible.

The subject Property is a very large 95 acre commercially used parcel located in the General Residential Zoning District.

### **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 Barrington. 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 Wireless Communications 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 the neighborhood. The installation will not require the addition of any new parking or loading spaces.

The construction of the Applicant's Wireless Communications will enhance service coverage in the Town of Barrington and surrounding communities. The enhancement of service coverage in the Town of Barrington 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.

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Town of Barrington  
March 28, 2017  
Page 3

Moreover and most importantly:

1. The proposed Wireless Communications will promote and conserve the convenience and general welfare of the inhabitants of the Town of Barrington by enhancing telecommunications services within the Town.
2. The proposed Wireless Communications 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 Wireless Communications will preserve and increase the amenities of the Town by enhancing telecommunications services.
4. The proposed Wireless Communications 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 2015, there were an estimated 375 million wireless telephone users in the United States. *See FCC's Nineteenth Report to Congress on the State of Competition in the Commercial Mobile Radio Services Marketplace*, p. 8 (September, 2016). 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. at p. 9.*

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. More than 40 percent of American households are now "wireless only." *Id. at p. 9.* 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 <http://www.fcc.gov/guides/wireless-911-services>

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**COMPLIANCE WITH SITING CRITERIA FOR  
WIRELESS COMMUNICATIONS FACILITIES**

**ARTICLE 10 - WIRELESS COMMUNICATION FACILITIES OVERLAY (WCO)**

**10.1 Purpose and Intent**

It is the purpose of this ordinance to permit carriers to locate personal Wireless Communication Facilities within the Town of Barrington according to the provisions of the Federal Telecommunications Act of 1996, and to ensure that such facilities have the least impact on residential neighborhoods, scenic features, and the general safety and appearance of the town.

**The proposed Facility has been designed to fulfill the purpose and intent goals of the Town's Ordinance as much as possible. The location of the proposed Facility is on a large (95 acre) commercially used lot, and will be amply setback from residential neighborhoods. As a wireless infrastructure developer, Varsity encourages co-location and has relationships with all of the existing wireless telecommunications carriers licensed in this market, and intends to provide space on the proposed Facility at commercially reasonable rates, which will minimize the total number of towers in the community. Once constructed, the proposed Facility will have no impact on the Town's scenic and historic assets, safety, health, environment, general welfare, values and quality of life, and will facilitate the provision of telecommunications services throughout the municipality and enhance the ability of wireless carriers to provide telecommunications services to the community quickly, effectively and efficiently.**

**10.2 Standards**

Wireless Communication Facilities shall be permitted in all Districts, and shall be subject to Subsection 7.1 (Performance Standards) of this Ordinance as well as the standards listed below.

- o The use poses no unreasonable risk of harm to the health, safety or welfare of abutters or the public; and
- o The use will not diminish the value of neighboring properties; and
- o By its nature and design or by the use of visual buffers (vegetative or topographical), the use will not substantially alter the character of the area where applicable, or its utility for residential uses; and
- o The use will be consistent with the spirit and intent of this Ordinance.

**The proposed Facility will be located in the General Residential Zoning District, and has been designed to meet all of the**

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**Subsection 7.1 (Performance Standards) of this Ordinance as well as the standards listed below as much as technically possible. 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. Numerous studies and market analysis have shown that an existing or proposed communications tower has no measurable impact on nearby property values. There are already other located in the Town of Barrington and surrounding communities. Although many of these towers have been in existence for several years, the Town of Barrington does not appear to have granted lower assessments or abatement requests due to the proximity to or visibility of a communications tower. Once constructed, the Facility has been designed to and will comply with all applicable local, state and federal safety regulations.**

### **10.3 Location of Facilities**

Wherever feasible, Wireless Communication Facilities shall be located or co-located in or on existing structures, including but not limited to buildings, water towers, existing telecommunication facilities, utility poles and towers and related facilities, providing that such installations will not adversely affect the character or integrity of an existing structure.

**As is evidenced by the Affidavits of Radio Frequency Engineers, the Affidavit of Site Acquisition Specialist and the supporting materials that accompany this Application, there are no existing wireless communication facility towers or any other structure anywhere near the proposed Facility that have the height and structural integrity to support wireless communications antennas and meet the coverage objective of the proposed Facility. Said engineers and experts will be available to answer questions at the public hearing on this Application if necessary. Given the height and density of the area tree canopy and the area terrain relative to the height and structural capacity of the existing utility infrastructure as well as the technical requirements of wireless carriers, the proposed Facility represents the only technically viable alternative to achieve the coverage objectives and satisfy all of the other requirements of the Ordinance, including facilitating site-sharing and co-location.**

#### **10.3.1 Burden of Proof**

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March 28, 2017

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The applicant shall have the burden to prove that there is no existing and available structure upon which it is feasible to locate the proposed facility. If the applicant makes such a showing, the proposed new structure shall be located and designed so as to minimize any adverse impacts to the greatest extent possible, which shall include but not be limited to the use of building materials and colors that are compatible with those in the surrounding area, screening, landscaping, proportional sizing and placement within trees.

**As is evidenced by the Affidavits of Radio Frequency Engineers, the Affidavit of Site Acquisition Specialist and the supporting materials that accompany this Application, there are no existing wireless communication facility towers or any other structure anywhere near the proposed Facility that have the height and structural integrity to support wireless communications antennas and meet the coverage objective of the proposed Facility. Said engineers and experts will be available to answer questions at the public hearing on this Application if necessary. Given the height and density of the area tree canopy and the area terrain relative to the height and structural capacity of the existing utility infrastructure as well as the technical requirements of wireless carriers, the proposed Facility represents the only technically viable alternative to achieve the coverage objectives and satisfy all of the other requirements of the Ordinance, including facilitating site-sharing and co-location. Moreover, the proposed Facility will be sited so as to minimize the visibility of the Facility as much as possible from adjacent properties and shall be suitably screened from abutters and public rights of way. The monopole will be a non-reflective galvanized steel color to minimize the visual impact of the Facility. The proposed Facility will be placed in a previously undeveloped portion of the Property, and will be amply buffered by a dense stand of existing trees and bushes, and as such will be suitably camouflaged to reduce the visual impact on the surrounding property uses.**

#### **10.3.2 Contact List**

The applicant shall submit to the Planning Board, a list of all contacts made with the owners of potential sites regarding the availability of space required for their service. The Planning Board may suggest other additional existing structures that may be available and it will be the responsibility of the applicant to contact owners of those properties.

**As is evidenced by the Affidavits of Radio Frequency Engineers, the Affidavit of Site Acquisition Specialist and the supporting materials that accompany this Application, there are no existing wireless communication facility towers or any other structure anywhere near the proposed Facility that have the height and structural integrity to support wireless communications antennas and meet the coverage objective of the proposed Facility. Said engineers and experts will be available to answer questions at the public hearing on this Application if necessary.**

#### **10.3.3 Letters of Inquiry**

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The applicant shall provide copies of letters of inquiry made to owners of existing structures and letters of rejection. If letters of rejection are not provided, unanswered "Return Receipt Requested" forms from the United States Postal Service shall be provided for each owner contacted. Adopted 03/08/05 Town of Barrington Zoning Ordinance Amended 03/08/12 45 of 97

**As is evidenced by the Affidavits of Radio Frequency Engineers, the Affidavit of Site Acquisition Specialist and the supporting materials that accompany this Application, there are no existing wireless communication facility towers or any other structure anywhere near the proposed Facility that have the height and structural integrity to support wireless communications antennas and meet the coverage objective of the proposed Facility. Said engineers and experts will be available to answer questions at the public hearing on this Application if necessary.**

#### **10.4 Dimensional Requirements**

o The maximum height of any new Wireless Communication Facility will not exceed one hundred and fifty (150) feet.

**The height of the proposed Facility will not exceed 150'**

o The height of any Wireless Communication Facility shall not increase the height of any existing structure by more than ten (10) feet unless it is completely camouflaged. The increase in height shall be in scale and proportion to the existing structure.

**Not applicable.**

o Ground mounted Wireless Communication Facilities shall not project higher than twenty (20) feet above the top of the tree canopy and one hundred (100) foot perimeter of the mount shown on the accepted application in an effort to more effectively blend into the surrounding terrain by not projecting above the surrounding tree canopy. The measurement will begin from the cleared area of the accepted application plan. A stamped as-built plan certifying the top of the tree canopy will be required before final approval of the plan. The buffer around the cleared area must be located on the property where the tower is to be located or an easement for the buffer must be put in place to ensure that it remains as represented at the time of approval. This easement could be on abutting properties where the buffer shown on the plan was located.

**The proposed Facility has been designed to be the minimum height necessary to achieve the coverage objective and also facility site-sharing and co-location. Given the height and density of the area tree canopy and the area terrain relative to the height and structural capacity of the existing utility infrastructure as well at the technical requirements of wireless carriers, the proposed monopole Facility represents the only technically viable alternative to achieve the coverage objectives**

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**and satisfy all of the other requirements of the Ordinance, including facilitating site-sharing and co-location. To achieve the requisite coverage objective wireless carriers, the proposed Facility will be 150'. Accordingly, the Applicant has respectfully requested a VARIANCE from this provision of the Ordinance so that the Applicant can construct the Facility as proposed.**

o All Wireless Communication Facilities, equipment shelters, and fences shall comply with the setback requirements of the district in which they are located, unless otherwise stated. Any Wireless Communication Facilities requiring structures such as shelters, cabinets or other buildings must put crushed gravel, stone, or stone base within the fenced in area and at least fifteen (15) feet beyond the fence on all sides. This restricted area must be free of all vegetation.

**The proposed Facility will be setback amply more than the setback requirements in the General Residential Zoning District, and base of the compound has been designed to comply with the requirements of this section. Accordingly, the Applicant has respectfully requested a VARIANCE from this provision of the Ordinance so that the Applicant can construct the Facility as proposed.**

o No Wireless Communication Facility, equipment shelter or fence shall be constructed within seventy-five (75) feet of any wetlands.

Given the existing use of the property, the other setback requirements of this section and the goal of utilizing the existing vegetation to minimize the visual impact of the tower, the fence will be located 60' from wetlands.

o In order to ensure public safety, the minimum distance from the base ground-mount of a Wireless Communication Facility to any property line, public road, dwelling, business or recreational use shall be at a minimum, the distance equal to the fall zone. This distance may cross property lines, so long as applicant secures an easement from the affected property owners. The area of the easement shall be shown on all applicable plans submitted to the town, and the terms of the easement shall be provided as part of the site plan.

**The proposed Facility will be setback from all property line, public road, dwelling, business or recreational use by more than the height of the tower.**

#### **10.5 Lighting Signage**

o The lighting on the mount of Wireless Communication Facilities shall be allowed only if, and as, required by the Federal Aviation Administration (FAA).

**As designed, the proposed Facility will not require FAA lighting or marking.**

o Any lighting of equipment structures or other facilities on site shall be completely shielded from above and from abutting properties.

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**As designed, the proposed Facility will not have any permanent ground based lighting, and there is an ample vegetative buffer that will amply shield any lighting from abutting properties.**

o Signage shall be limited to those needed to identify the property and owners, and to warn of danger. Signs warning of danger shall be mounted on the security fence as needed. A sign identifying the owner along with an emergency phone number shall be mounted on the fence by the entrance door. These signs shall not exceed four (4) square feet. No lighting shall be allowed on fences or signs.

**All signage has been designed to comply with the all applicable safety standards and also the requirements of this Ordinance.**

#### **10.6 Bonding**

Recognizing the extremely hazardous situation presented by abandoned and unmonitored towers, the Planning Board shall set the form and the amount of security that represents the cost for removal and disposal of towers in the event that the tower is abandoned and the tower owner is incapable or unwilling to remove the tower. The amount of the security shall be based upon the removal cost plus fifteen (15) percent. A professional civil engineer, licensed by the State of New Hampshire, shall determine this amount. The owner of the facility shall provide the Planning Board with a revised removal estimate and structural evaluation every five (5) years from the date of the approval of the site plan. If the cost of removal has increased more than fifteen (15) percent, the owner shall provide additional security in the amount of the increase.

**The Applicant agrees to comply with all reasonably and lawfully required procedural and other conditions generally or uniformly and lawfully imposed and applied by the Planning Board with respect to abandonment and removal of the proposed Facility**

#### **10.7 Removal of Abandoned Antennas and Towers**

Any antenna or tower that is not operated for a continuous period of twelve (12) months shall be considered abandoned and hazardous to public health and safety. The owner shall notify the town by certified mail of his intent to abandon or discontinue use of this facility, thirty (30) days prior to the intended date of end of service. Upon abandonment or discontinued use, the owner of the facility shall physically remove the personal wireless facility within ninety (90) days.

“Physically remove” shall include, but not be limited to the following:

- o Removal of antennas, mounts, equipment shelters, foundations and security barriers from the property; and
- o Properly dispose of the waste materials from the site in accordance with local and state waste disposal regulations; and
- o Restoring the location of the facility to its natural condition, except that any landscaping and grading shall remain in the after condition.

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**The Applicant agrees to comply with all reasonably and lawfully required procedural and other conditions generally or uniformly and lawfully imposed and applied by the Planning Board with respect to abandonment and removal of the proposed Facility**

#### **10.8 Failure to Remove**

If the owner fails to voluntarily remove the facility as required under Section 9.7, the Board of Selectmen shall have the authority to declare a default under any security given to ensure such removal, and may seek all other available equitable or legal remedies as the Board deems necessary.

**The Applicant agrees to comply with all reasonably and lawfully required procedural and other conditions generally or uniformly and lawfully imposed and applied by the Planning Board with respect to abandonment and removal of the proposed Facility.**

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## **ARTICLE 7 - SUPPLEMENTAL REGULATIONS**

### **7.1 Performance Standards**

The intent of this section is to prevent land or buildings from being used or occupied in any manner that would create any dangerous, injurious, noxious, hazardous or nuisance conditions. No use or structure otherwise permitted under this Ordinance shall be permitted by right or special exception which unreasonably and adversely affects the quality of air, water supplies, water bodies or courses, or other significant natural or artificial resources of the Town of Barrington.

The burden of establishing compliance with these Performance Standards shall be on the applicant and/or property owner. The town, through an appropriate regulatory official or body, may require an environmental assessment or other appropriate studies, at the applicant's or property owner's expense, to aid in the determination of compliance with the following standards:

#### **7.1.1 Vibration**

#### **7.1.2 Noise**

#### **7.1.3 Odors**

#### **7.1.4 Air Quality**

#### **7.1.5 Glare**

#### **7.1.6 Heat**

#### **7.1.7 Waste Disposal**

#### **7.1.8 Vision Clearance**

**The proposed Facility will meet all of the Subsection 7.1 Performance Standards. The Facility will be passive in nature and will not generate any vibration, odor, smoke, dust, glare, heat, discharge of noxious substances or traffic. The Facility has been designed to comply and when constructed will comply, with all applicable local, state and federal health and safety regulations.**

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### **15.2.3 Criteria for Granting Variances**

In accordance with state statute, the Zoning Board of Adjustment is authorized to grant variances from the terms of this Ordinance if the request for said variance conforms to the provisions specified in Subsection 15.1.2 Paragraph 3) above. In addition to these provisions the Board shall also be guided by the following specific criteria in determining whether the granting of a variance is appropriate under the terms of this Ordinance.

The Zoning Board of Adjustment shall, when considering a request for a variance, make findings of fact that consider the following factors.

1) Special conditions exist such that literal enforcement of the Ordinance will result in unnecessary hardship to the applicant as defined under applicable law.

(A) For purposes of this subparagraph, "unnecessary hardship" means that, owing to special conditions of the property that distinguish it from other properties in the area: (i) No fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of that provision to the property; and (ii) The proposed use is a reasonable one. (B) If the criteria in subparagraph (A) are not established, an unnecessary hardship will be deemed to exist if, and only if, owing to special conditions of the property that distinguish it from other properties in the area, the property cannot be reasonably used in strict conformance with the ordinance, and a variance is therefore necessary to enable a reasonable use of it. The definition of "unnecessary hardship" set forth in subparagraph (1) shall apply whether the provision of the ordinance from which a variance is sought is a restriction on use, a dimensional or other limitation on a permitted use, or any other requirement of the ordinance

#### **Given technical limitations with respect to:**

- (i) the location of the tower relative to Route 125, the surrounding neighborhoods and other existing telecommunication sites in and around the Town of Barrington;**
- (ii) the topography of the surrounding area;**
- (iii) the lack of viable alternatives in the area;**
- (iv) the height and setback restrictions of the tower imposed by the Ordinance;**
- (v) the Town's requirement to accommodate multiple wireless communications companies;**

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- (vi) the demand for robust and reliable telecommunications coverage; and
- (vii) the requirement to accommodate rapidly evolving technologies;

**literal enforcement of the provisions of the ordinance would result in an unnecessary hardship to the Applicant.**

**As the Plans indicate, the proposed Facility has been designed to accommodate the antennas of 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 Ordinance by minimizing the visibility from abutting landowners as much as possible.**

**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 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 Seacoast region, which includes the Town of Barrington. 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 Ordinance would prevent the Applicant from eliminating an existing gap in reliable service coverage, resulting**

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**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 Ordinance 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 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 satisfy the coverage objective and minimize any adverse visual impacts to the surrounding area. The proposed design conforms to the existing characteristics of the Property, and utilizes the existing structures and vegetation 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 Barrington 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 requested height 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**

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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. Consequently, the proposal to install the Facility is required. Given the non-residential nature and the 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 co-location potential;
- The proposed location is reasonably adaptable to the proposed Facility;
- 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 be located on a lot already used for commercial purposes;
- 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;

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- 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;
- 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 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 drainage, schools, parks, open space, or other public requirements;
- The proposed Facility 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 commercial use of the property, unique circumstances exist to justify the granting of the requested Variances. 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, or effluent, and will not have any impact of traffic or circulation.

Accordingly, a hardship exists which is inherent in the land in question; no fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of that provision of the property, and the proposed use is a reasonable one.

2) Granting the variance would be consistent with the spirit of the Ordinance.

The proposed Facility has been designed to fulfill the stated goals of the Town of Barrington's Zoning Ordinance regulating Wireless Communications Facilities as much as possible. The location of the proposed Facility is a large commercially used parcel; however, the Facility will be located on a previously undisturbed portion of the property with an ample vegetative buffer. As a wireless infrastructure

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**developer, Varsity encourages co-location and has relationships with all of the existing wireless telecommunications carriers licensed in this market, and intends to provide space on the proposed Facility at commercially reasonable rates, which will minimize the total number of towers in the community. Once constructed, the proposed Facility will facilitate the provision of telecommunications services throughout the municipality and enhance the ability of wireless carriers to provide telecommunications services to the community quickly, effectively and efficiently.**

3) Granting the variance will not result in diminution of surrounding property values.

**Numerous studies and market analysis have shown that an existing or proposed communications tower has no measurable impact on nearby property values. As noted earlier, there are already other located in the Town of Barrington and surrounding communities. Although many of these towers have been in existence for several years, the Town of Barrington does not appear to have granted lower assessments or abatement requests due to the proximity to or visibility of a communications tower.**

**Many other facts support a finding that the grant of the requested variance will not diminish the value of surrounding properties:**

- **The property is a large, 95 acre commercially used parcel; and the facility will be amply set back from the public street and all abutting properties and surrounded by a substantial vegetative buffer;**
- **The property is near Route 125 and several nearby properties are already used for commercial purposes;**
- **The use of a monopole design with a non-reflective galvanized finish and internal cabling and minimizes the visual impact of the facility;**
- **The proposed Facility will produce no objectionable noise, glare, dust, smoke, fumes, odors, or effluent, and will not have any impact of traffic or circulation; and**
- **The proposed Facility does not require FAA lighting or marking.**

4) Granting of the variance would do substantial justice.

**There are already other similar towers located in the Town of Barrington, all comparative in height to the proposed Facility. The proposed location meets all of the other requirements for a wireless communications facility. The location of the proposed Facility is a large commercially used parcel; however, the Facility will be located on a previously undisturbed portion of the property with an ample vegetative buffer. Moreover, the proposed Facility has been designed to mitigate the visual and other impact of the facility as much as possible. Given the great public**

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**benefit and the minimal if any impact on the surrounding area, it would be a substantial injustice if the requested variances are denied.**

5) Granting of the variance would not be contrary to the public interest.

**The construction of the Applicant's Facility will enhance service coverage in the Town of Barrington and surrounding communities. The enhancement of service coverage in the Town of Barrington 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:**

**The proposed Facility will promote and conserve the convenience and general welfare of the inhabitants of the Town of Barrington 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 preserve and increase the amenities of the Town by enhancing telecommunications services.**

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

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**CRITERIA FOR SITE PLAN APPROVAL**

The Applicant respectfully that the Planning Board approve the Site Plan as proposed.

As the Plans indicate, the proposed Facility has been designed to accommodate the antennas of 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 Ordinance by minimizing the visibility from abutting landowners as much as possible. As has been shown throughout this Project Narrative, approval of the Site Plan will not be detrimental to the public safety, health or welfare or injurious to other property and will promote the public interest. Site Plan Approval will not in any manner vary other provisions of the Barrington Zoning Ordinance. The Facility will substantially secure the objectives, standards and requirements of these regulations, and special circumstances warrant approval of the Site Plan as proposed. The proposed Facility is minor in scope to other commercial developments, the location is reasonably adaptable to the proposed Facility; and the proposed use is passive and will have no impact on traffic, parking, public safety, drainage, schools, parks, open space, or other public requirements.

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#### **12.4.2 Performance Standards within Stratified Drift Aquifer Area Boundaries**

All non-residential land uses located within the boundaries of the Stratified Drift Aquifer are subject to the following performance standards, in addition to those listed in Subsection 12.4.1.

1) For any use that will render impervious more than fifteen percent (15%) or more than 2,500 square feet of any lot, whichever is greater, a stormwater management plan shall be prepared based on the standards set forth in Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire, Rockingham County Conservation District (August 1992 or as amended) and Best Management Practices for Urban Stormwater Runoff, New Hampshire Department of Environmental Services (January 1996 or as updated). The Planning Board shall make the determination as to whether or not the stormwater management plan is in compliance with these standards.

2) Stormwater management plans prepared pursuant to Paragraph 1) shall demonstrate the stormwater recharged to groundwater will not result in violation the standards set forth in Ambient Groundwater Quality Standards of the Department of Environmental Services (ENV-Ws 410.05 as amended), at the property boundary and additional standards subsequently deemed applicable by the Department.

3) Businesses located in the Stratified Drift Aquifer area may be required to perform additional studies, and or provide additional information, as required by the Planning Board.

**Not applicable: the proposed Facility will not render impervious more than fifteen percent (15%) or more than 2,500 square feet of any lot.**

#### **12.5 Maintenance Requirements**

For uses requiring Planning Board approval for any reason, a narrative description of maintenance requirements for structures required to comply with the necessary Performance Standards, shall be recorded so as to run with the land on which such structures are located at the Registry of Deeds for Strafford County. The description so prepared shall comply with the requirements of RSA 478:4A, as amended.

**Not applicable.**

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## 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 northern New Hampshire, which includes the Town of Barrington. 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 LondonBarrington, 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 LondonBarrington ZBA correctly treated the TCA as an "umbrella" that preempted local law under certain circumstances.

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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 Communications 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 Ordinance provision prohibiting use variances. The court in Nextel Communications 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 recently 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 Cingular 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 (non-permitted) 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 land which already is commercially used.

Accordingly, denial of a permit to construct a Telecommunication Facility 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 Ordinance and the U.S. Congress in enacting the TCA.

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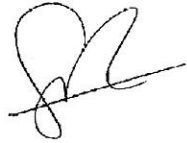
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**SUMMARY**

Because the proposed facility meets all of the requirements for a Wireless Communications Facility under the Barrington Zoning Ordinance except for those provisions for which Variances have been requested, 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 (i) the Zoning Board approve the requested Variances and (ii) the Planning Board approve the Site Plans as proposed, and the Town grant such other relief, relief or waivers deemed necessary by the Town of Barrington under the current Ordinance and pending Ordinance amendments, if any, so that the Applicant may construct and operate the Wireless Communications Facility as proposed.

Respectfully submitted,



Francis D. Parisi, Esq.  
Varsity Wireless, LLC  
290 Congress Street, 7<sup>th</sup> Floor  
Boston, MA 02210  
(401) 447-8500 cell  
(401) 831-8387 fax  
fparisi@varsitywireless.com

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## Antenna Structure Registration

[FCC](#) > [WTB](#) > [ASR](#) > [Online Systems](#) > TOWAIR[FCC Site Map](#)

### TOWAIR Determination Results

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#### \*\*\* 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	43-11-40.1 north
Longitude	070-59-30.0 west

##### Measurements (Meters)

Overall Structure Height (AGL)	51.8
Support Structure Height (AGL)	51.8
Site Elevation (AMSL)	51.5

##### Structure Type

MTOWER - Monopole

#### Tower Construction Notifications

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

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**STATEMENT OF STEPHEN KELLEHER**  
**Director of Development**  
**Varsity Wireless Investors, LLC**

I, Stephen Kelleher, hereby state the following in support of the application submitted by Varsity Wireless Investors, LLC for a multi-user Personal Wireless Service Facility ("PWSF") to be located at Tax Map 251 Lot 64 in Barrington, New Hampshire, consisting of a monopole tower and related ground equipment contained within a fenced compound.

1. My name is Stephen Kelleher and I am the Director of Development for Varsity Wireless Investors, LLC.
2. I have worked in the telecommunications industry for 10 years assisting in the leasing, zoning, permitting and construction of wireless facilities and specifically in the investigation of all feasible alternatives for the location of a wireless facility within a telecommunications provider's search ring which would fill a significant gap in that carrier's wireless coverage.
3. I have participated directly through my present and past employment in the development of hundreds of such facilities, including wireless communication facilities similar to the facility proposed for the site.
4. I have personally visited the site located at Tax Map 251 Lot 64 and the area surrounding the site on numerous occasions. I submit this affidavit based on my personal knowledge of the site and the surrounding area working together with the experience and documentation provided by the civil and radio frequency engineers and 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 the areas 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 use is allowed and feasible. First, I explore to determine whether there are any viable candidates of existing structures of sufficient height from which an antenna installation can provide sufficient coverage. If there are no existing tall structures which will close the significant gap in coverage, I look to parcels located within the narrowly defined search area upon which a tower may be constructed to a sufficient height to close the gap. In order to be viable, a candidate must provide adequate coverage to the identified significant gap in coverage. In addition, all viable candidates must 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 locations with preference always given to existing structures.


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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 at Tax Map 251 Lot 64.
7. Based on my personal knowledge of the Site and the surrounding area, there are no viable alternative candidates located within this search ring that would be considered superior to the proposed Site. In addition, based on my experience, in my professional opinion, the Site location at Tax Map 251 Lot 64 is the least intrusive and available alternative to provide adequate coverage to this significant gap in coverage.

Executed this 27<sup>th</sup> of March 2017.

  
\_\_\_\_\_  
Stephen Kelleher  
Director of Development

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**Macro Site  
RF Analysis**

**Bumford Road, Barrington, NH**



**Provided by:**



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**February, 10<sup>th</sup> 2017**

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- II. Analysis, Tools and Viability
- III. Coverage vs Capacity
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# I. Introduction

MOD Data Tech Inc, is a RF Services company with over 17 years of experience in the wireless telecommunications industry. The experience includes over 10 years working for major wireless carriers as well as providing services to the carriers directly and indirectly. This experience gives MOD Data Tech Inc an understanding of the technologies, carrier requirements and necessities. Not working directly for any company, gives MOD Data Tech Inc an unbiased vantage point.

MOD Data Tech Inc. was approached by Varsity Wireless LLC to perform a Radio Frequency Analysis. The Analysis consists of using industry standard prediction tools that uses Elevation and Clutter data to determine coverage created by a cellular network. The network input includes site heights, antenna types, power output which is then used by the software to determine coverage.

MOD Data Tech Inc. uses data collected from the field as well as working with the carrier to determine existing coverage. We also use years of experience to understand the needs and requirements of the carrier.

## II. Design, Analysis, Tools and Viability

Analysis of a macro site requires multiple variables to determine viability. The main ones are terrain and foliage, as well as location in the existing network to address a problem. Cell-sites have a limitation that plays a major part in selection. The limitation is that of user equipment or cellphones. Cellphones signal cannot travel very far with obstacles in the way, such as terrain and foliage; therefore, the macro site coverage can only be created to cover so far. Simply adding more power to sites will improve coverage getting to the phone, but will not improve transmission from the device to the Macro-Site. Also, adding power will cause the radio frequencies to go too far. Carriers have the limitation of frequencies, which means that carriers need to reuse frequencies, in order to reuse, the carriers need to make sure that they re-use carefully, since re-using causes interference on the system, which cause poor quality and dropped calls. All of these factors have to be taken into account when designing a system to create a good balance.

In order to determine the existing coverage and how well a location will do, a prediction tool is used. The prediction tool will use data such as terrain and foliage as well as input data of the Cell-sites to create predictions to determine coverage footprints. The prediction tool uses Radio Frequency propagation modelling to determine how the signal propagates.

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MOD Data Tech Inc, uses an industry standard prediction software used by major carriers. The data of the existing Cell-sites are gathered from public tower info, field visits as well as site data provided by the carrier. MOD Data Tech Inc, uses experience in designing of major systems to determine data required to create a prediction model. Although we cannot know all of the specifics to all of the carriers including antenna model, exact power output. We can approximate general information to create an approximate coverage modelling to determine coverage needs. We also use data from previous projects to tune our modelling.

At the end, all modelling is an approximation since there are many variables in the real world. Predictive modelling gives us a good coverage approximation for cell planning. Decades of real world data collection and performance along with prediction is what is used to determine viability of the prediction model.

### III. Coverage vs Capacity

There are two main reasons that new cell-sites are needed: Coverage and/or Capacity. Coverage is what the general public understands as having better signal to make calls. In an area that does not get enough Radio Frequencies, adding a new cell-site is the best solution.

Besides having enough Radio Frequencies to make a call, Cell-Sites need enough resources to accept many users, this is called capacity. If a cell-site does not have enough capacity, the site will block users from coming on, making the user experience degrade. Capacity can be achieved by adding more equipment, which requires additional frequency channels. Since channels are scarce, many times a carrier cannot add more equipment due to lack of channels, in which case they would need to add more cell-sites to offload the site(s) that are having capacity issues. By adding more cell-sites, the carrier is serving a specific area. Cell-sites need to be strategically placed to offload in the best areas. Capacity sites generally cannot be placed on top of or too close to existing cell-sites or else you providing redundant coverage which would cause devices to bounce back and forth (ping-ponging) too often which can also cause capacity and performance issues. Therefore sites are placed equidistant from each other or in a specific location to serve a specific area of devices.

Fringe coverage is another issue. Fringe coverage is when an area sits between multiple cell-sites. An area that has more than three cell-sites covering the area with the same power, then interference occurs know as pilot pollution. Since there is no dominant server, the signals end up interfering with each other. The more pilots that come in, the worse the interference. Therefore, if an area is suffering from pilot pollution it needs dominance. If the area has heavy traffic, it makes things worse.

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## IV. Technology: 2G, 3G, 4G, 5G... beyond

Many users have experienced the degradation of their cell phone service where they once had good service. There are two main reasons for this: Higher Frequencies and Newer technologies have shorter ranges.

In the past, carriers were given the lower frequency bands in the 800MHz range. These frequencies had a large coverage footprint, also the technology was 1<sup>st</sup> Generation which used the full channel, using the full channel means you are transmitting power over the whole channel. As 2G came in, 1900 MHz also came in. 1900MHz less than 25% the range of 800MHz has, but it allows for more data throughput which is why there are advantages to higher frequencies. The disadvantage is that Cell-sites were designed for the low frequencies which now create coverage gaps, to which the carriers added more sites to help.

3G technology is more advanced than 2G. The new technology allows for more users using a different technique. The 3G technology does not utilize the full channel all of the time. The coverage footprint therefore decreases to 15% or less of the full power to allow for more capacity. With 3G, the coverage dropped even more than before, to which carriers needed to build even more cell-sites. At the same time, capacity was becoming more of an issue, since more and more people were buying devices and data use skyrocketed.

4G technology came in to allow for even more capacity and data throughputs. 4G technology utilizes even less of the full channel. It can go down to 0.10% of the full channel. This greatly decreases the power to a tenth of a percent. On top of that, higher frequencies are now being used including 2100MHz and 2300MHz.

5G technology uses the same technology as 4G, but they are looking to utilize more of the frequency bandwidth which makes the power even less, and higher frequencies will be introduced as well.

700MHz and 600MHz are also coming into play. Although they do have a farther range than the higher frequencies, by limiting a system to only utilize low frequencies, you are limiting capacity to just those frequencies.

Radio Access Network Engineers use all of these factors when determine the need for new cell-sites. New Cell-sites are very expensive and take a long time to build due. Carriers have a limited budget and must choose where to build wisely. Areas with coverage and/or capacity issues are given priorities based on customer experience and other factors related to the performance of the network. When a carrier is looking to build a new cell-site it means that it is a high priority area that needs attention.

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## V. Coverage plots 700 MHz

The 700 MHz band is now the low band that most carriers are using. These predictions will show stronger coverage and covers a longer distance. Although this frequency may show good coverage, by not considering the higher bands, the capacity needs may not be met and will limit the area coverage resources.

CH. 52	CH. 53	CH. 54	CH. 55	CH. 56	CH. 57	CH. 58	CH. 59	CH. 60	CH. 61	CH. 62	CH. 63	CH. 64	CH. 65	CH. 66	CH. 67	CH. 68	CH. 69				
<div>Band 12</div> <div>Band 17</div>									<div>Band 12</div>		<div>Band 13</div>			<div>Band 14</div>			<div>Band 13</div>			<div>Band 14</div>	
A	B	C	D	E	A	B	C	C1 (5MHz)	C2 (5MHz)	Public Safety			C1 (5MHz)	C2 (5MHz)	Public Safety						
MOBILE TX			BASE TX					BASE TX		BASE TX			MOBILE TX			MOBILE TX					
698 MHz	704 MHz	710 MHz	716 MHz	722 MHz	728 MHz	729 MHz	734 MHz	740 MHz	746 MHz	751 MHz	756 MHz	762 MHz	768 MHz	774 MHz	780 MHz	786 MHz	792 MHz	798 MHz			

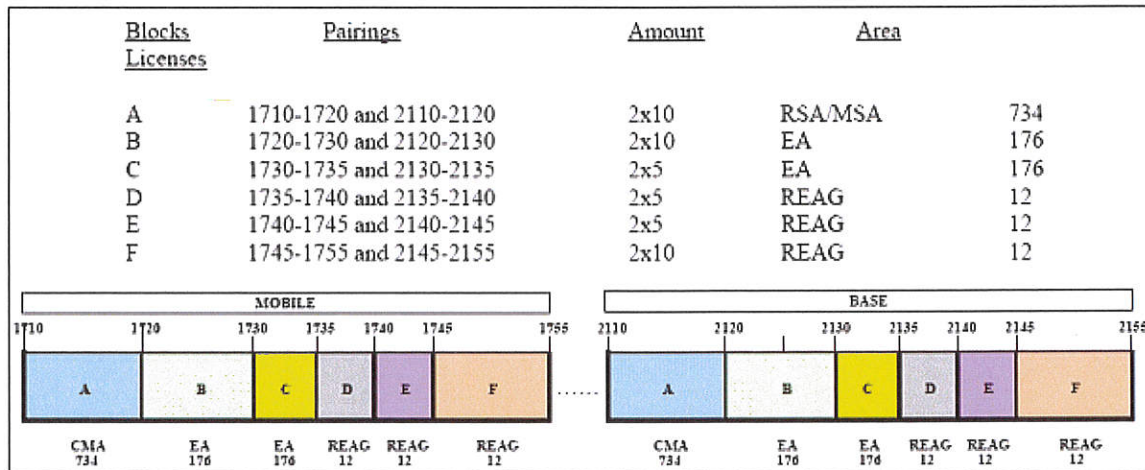
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## VI. Coverage plots 2100 MHz

The 2100 MHz Band, Advanced Wireless Services band (AWS), is one of the higher frequencies used by most carriers. The coverage footprint is smaller than that of the low bands. The high bands will allow for more data throughputs as well as additional voice calls. Higher frequencies are being utilized by some carriers but AWS is used by more carriers.



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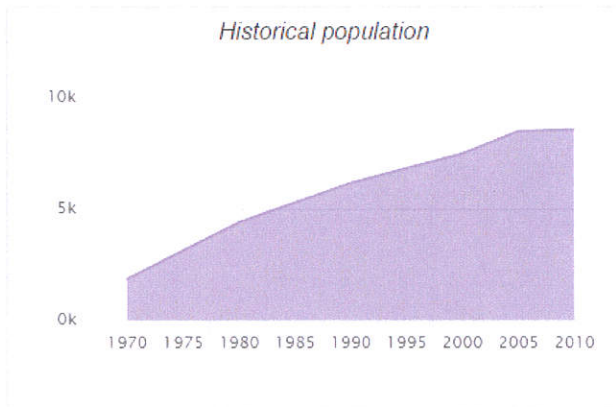
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## VII Town Information

Barrington is a town in Rockingham County, New Hampshire, United States.

Population: 8,576 (2010)

Area: 48.49mi<sup>2</sup>



<http://www.city-data.com/city/Barrington-New-Hampshire.html>

Google Maps

**Table 1**  
**PEAK-MONTH TRAFFIC-VOLUME COMPARISON**

Location/ Time Period	(A) 2014 Existing Peak-Month Traffic Volumes	(B) 2004 December TIA Peak-Month Traffic Volumes
<i>Route 126, north of Province Road:</i>		
Weekday Daily <sup>a</sup>	1,240	1,900
Weekday Morning Peak-1 Hour <sup>b</sup>	143	205
Weekday Evening Peak-1 Hour <sup>b</sup>	94	185
<i>Province Road, west of Route 126:</i>		
Weekday Daily <sup>a</sup>	1,235	1,565
Weekday Morning Peak-1 Hour <sup>b</sup>	108	76
Weekday Evening Peak-1 Hour <sup>b</sup>	114	98

<sup>a</sup>Average weekday traffic in vehicles per day.  
<sup>b</sup>Vehicles per hour.

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC Bureau of Planning, Traffic Section, Traffic Reports					
Town: BARRINGTON	2008	2010	2011	2013	2014
US 202 (WASHINGTON ST)	4700	*	4600	*	6200
NH 202A AT ROCHESTER	*	2200	*	2000	*
NH 9 (CENTRAL RD) AT MADBURY	*	7400	*	7400	*
NH 9 (CENTRAL RD) EAST OF NH 125	*	7200	*	7100	*
NH 125 (CALEF RD) SOUTH OF NH 9	14000	*	14000	*	14000
NH 9 (CENTRAL RD) WEST OF NH 125	*	6700	*	6400	*
SECOND CROWN POINT RD WEST OF POND HILL RD	1100	*	1100	*	1100
WOODS RD AT NOTTINGHAM	300	*	190	*	380
PROVINCE RD WEST OF NH 126	1400	*	1400	*	1100
NH 126 (LOCKS HILL RD) WEST OF WATERHOUSE RD	*	2800	*	2700	*
GREEN HILL RD OVER ISINGLASS RIVER	1700	*	1800	*	1600
MALEGO RD OVER MALEGO BROOK	1000	*	1100	*	1000

(2014) <http://www.barrington.nh.gov>

(2016) [www.nh.gov](http://www.nh.gov)

### Summary:

Barrington, NH population has been growing over the last 40 years. Traffic in the area is in the thousands. In reviewing the Prediction mapping, the coverage has a mix of fair and poor coverage, but the area is in the fringe of existing coverage. The fringe can produce poor performance for both data and voice.

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## VIII Proposed Site Analysis

The proposed site is for a monopole tower located at *Bumford Road, Barrington, NH*. The location provides coverage improvement as well as capacity offload for the area. In reviewing the data, this location serves the area with improved coverage and capacity.

Barrington has varying terrain elevation as well as tall tree line. The terrain and foliage is what causes gaps in coverage. At low frequencies, the coverage is good although the target area sits in fringe coverage which needs dominance.

USGS Top Map

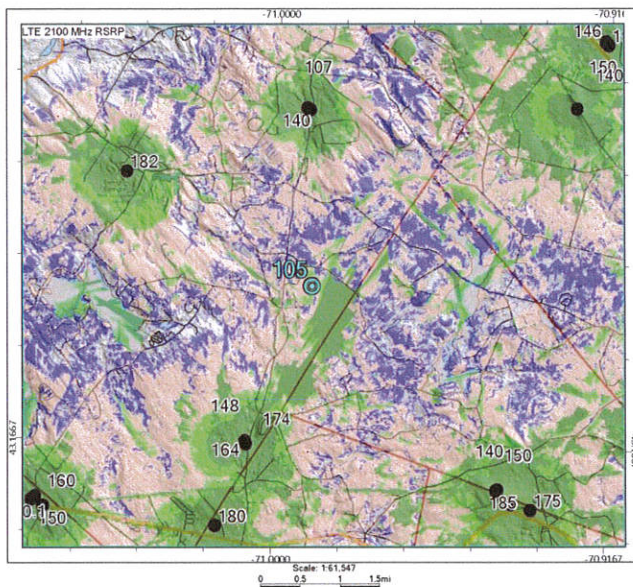


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The predictions that we produce include all of the carrier cell-sites in the area. We target all carriers so that a single cell-site can accommodate a single location rather than build multiple cell-site in the vicinity. We target locations where all carriers can benefit and the town in-turn can also benefit from less cell-sites.



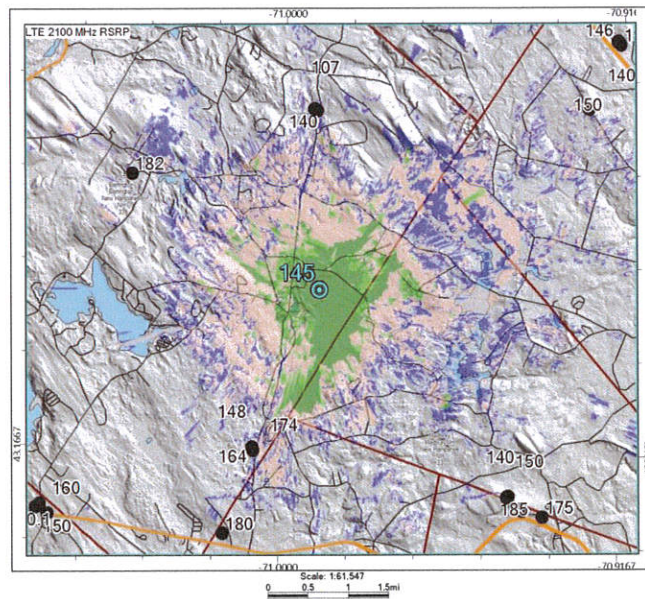
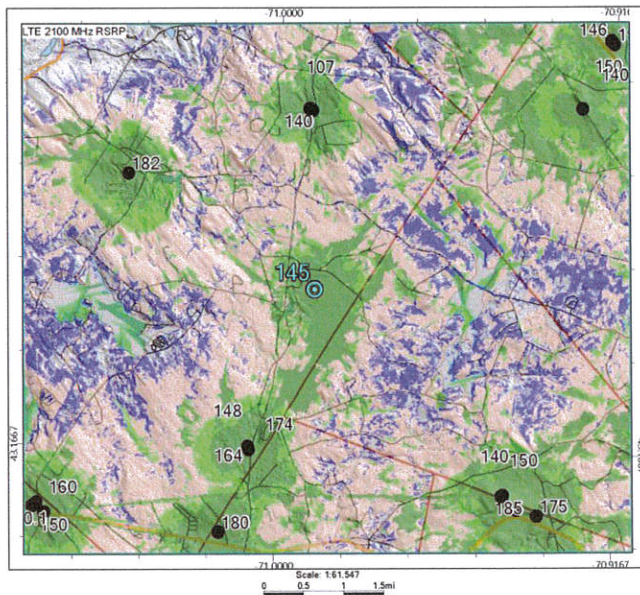
The cell-site optimal height is determined by using the prediction tool along with terrain, foliage and power data. Too much height would create interference problems with reuse and too low of a height would not cover enough. 145ft would help improve the area's coverage needs for both 2100MHz and 700MHz.

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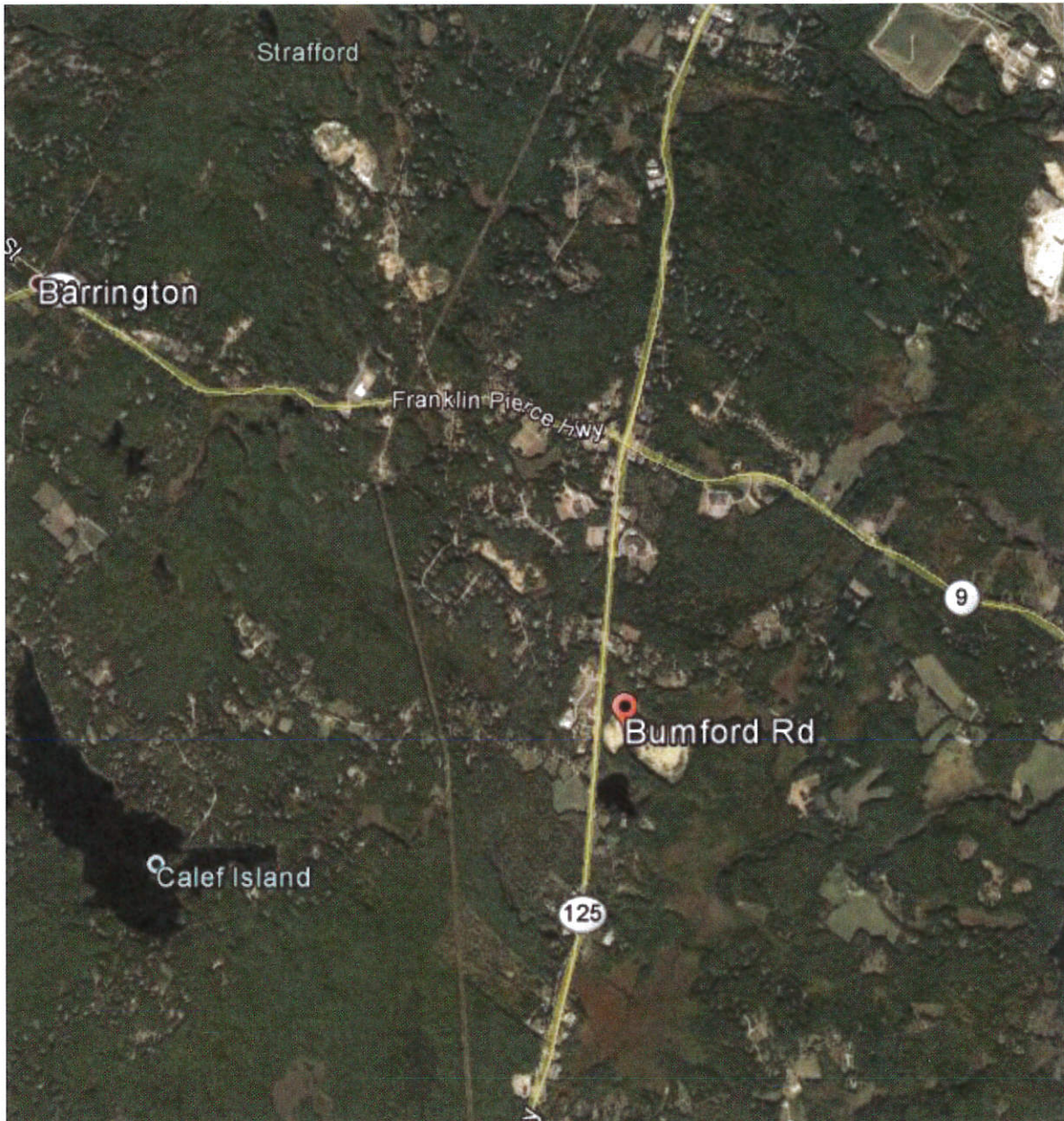
For 2100 MHz, 105 ft. does not cover as well as 145 ft but, it does provide suffiecient improvement to the target area. For 700 MHz, 105 ft. does cover enough between existing sites and future proposed sites.

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Google Earth Map



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## AFFIDAVIT OF RF ENGINEER

I, Marlon DePaz hereby state the following in support of the application for Varsity Wireless, LLC ("Varsity") of proposed monopole located Bumford Road, Tax Assessor 251-64, Barrington, NH (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 Senior/Manager Radio Frequency Engineer. I have been involved with the wireless telecommunications industry for the 17 years, and have held various technical, operational and supervisory positions with Nextel Communications, T-Mobile, Extenet Systems, AT&T; As well as indirectly for Verizon, MetroPCS and Sprint.
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

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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.

4. Using computer simulations to model radio frequency propagation, Varsity has determined that a wireless transmission facility located at or near to the proposed Facility would facilitate wireless communications within the local area along Bumford Road and surrounding areas of Barrington. These simulations model characteristics such as antenna types, antenna height, output power, terrain, ground elevations and RF propagation effects of the frequency utilized.
5. In my opinion based upon substantial research and analysis, without a cell site located at or very near the proposed site, this area of Barrington would not meet the typical coverage requirements for multiple wireless carriers, resulting in a substantial gap in wireless coverage.
6. 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, February 10<sup>th</sup>, 2017.



---

Marlon Depaz

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Aerial Photo

Legend

Proposed Location

Google earth

© 2016 Google

900 ft

N

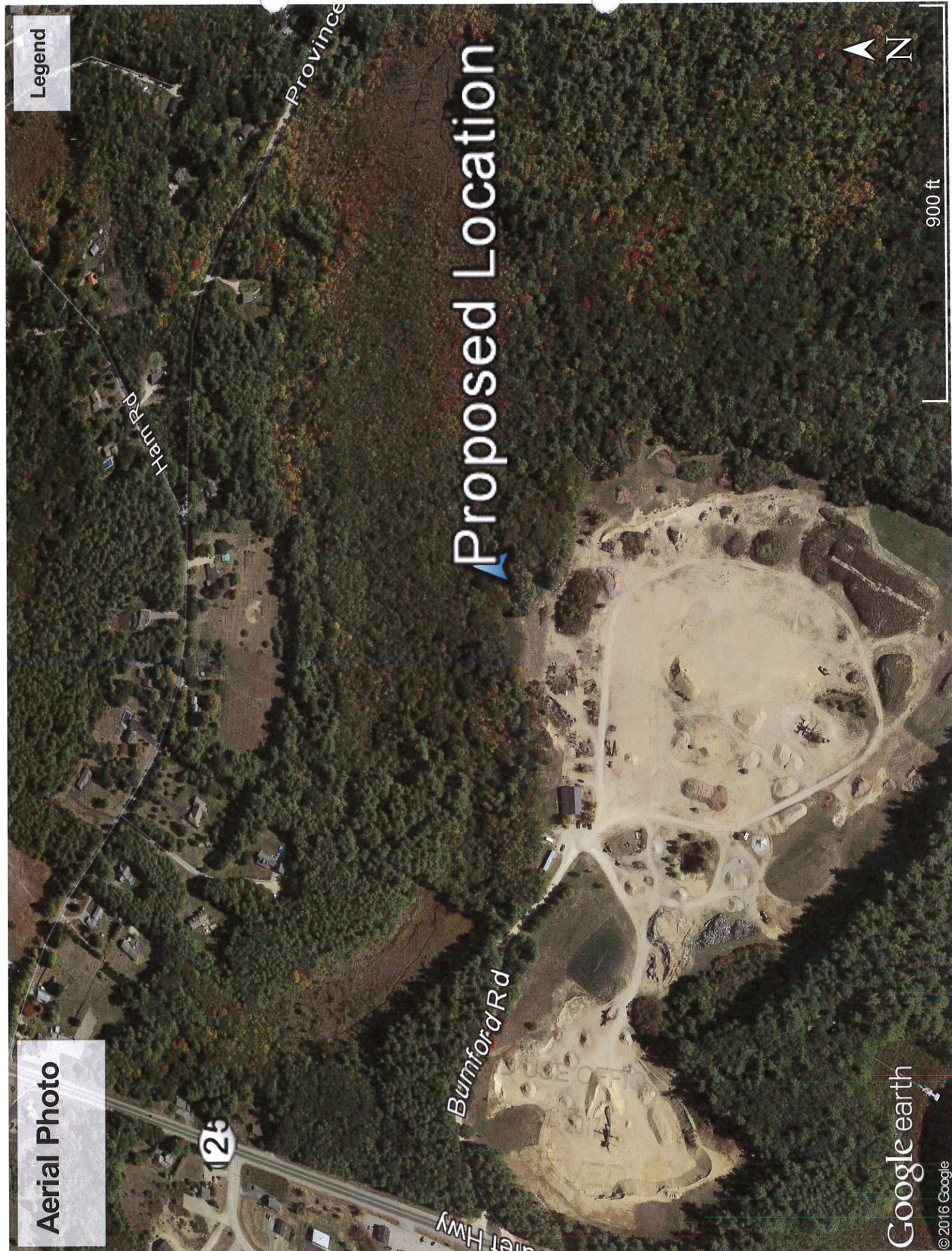
Province

Ham Rd

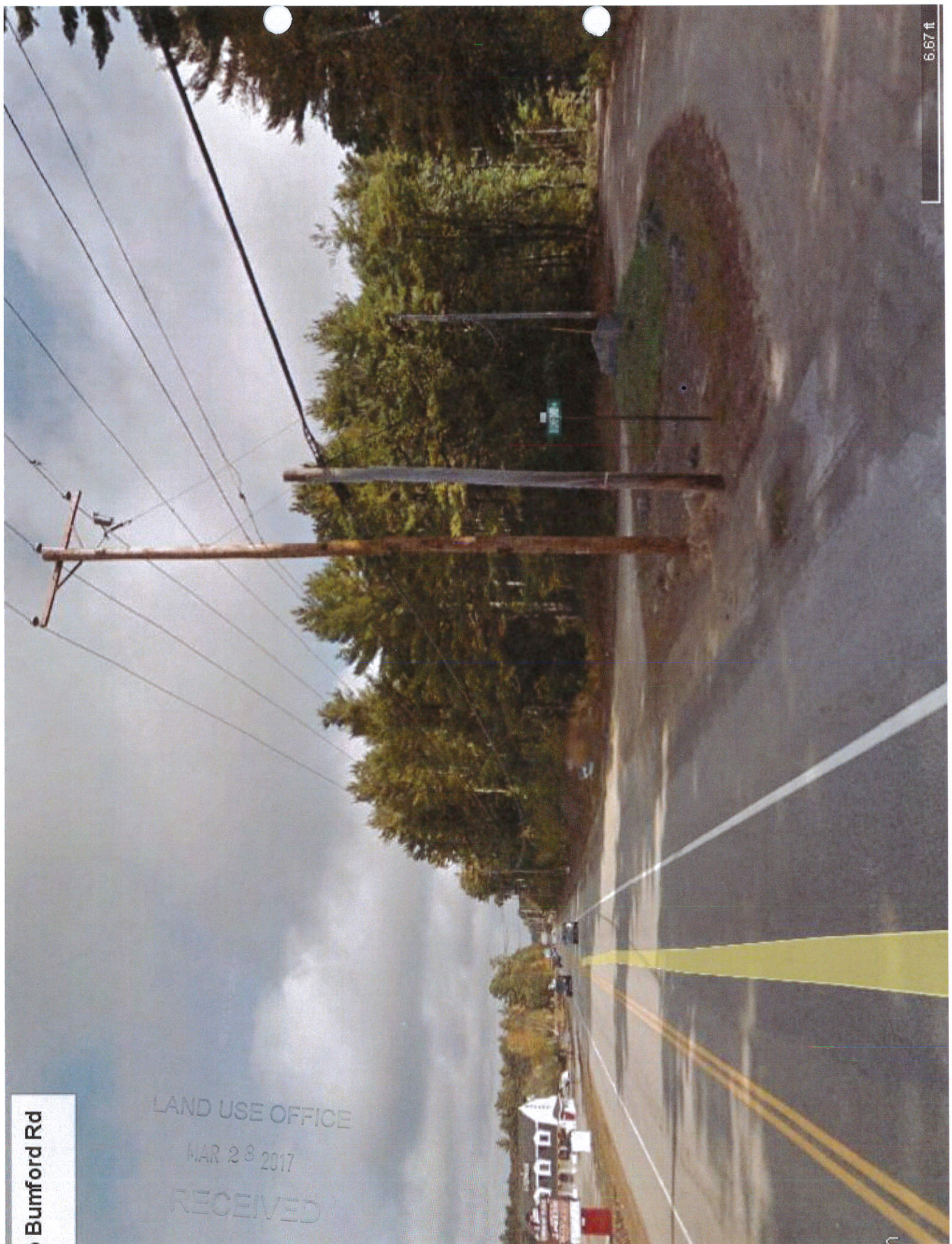
Bumford Rd

125

State Hwy







6.67 ft

Bumford Rd

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