

**PLANNING BOARD of the  
TOWN OF MARLBOROUGH, ULSTER COUNTY, NEW YORK**

In the Matter of the Application of

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**CELLCO PARTNERSHIP d/b/a Verizon Wireless**

Premises: n/f Marlborough Central School District  
50 Cross Road  
Town of Marlborough, Ulster County, New York  
Tax Map No.: 108.4-2-71.100

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**APPLICATION FOR SPECIAL USE PERMIT, SITE PLAN APPROVAL AND  
WAIVERS PURSUANT TO TOWN OF MARLBOROUGH CODE  
and STATEMENT OF INTENT**

Submitted by:

Verizon Wireless  
Kathy Pomponio – Principal Engineer – Real Estate/Regulatory  
1275 John Street, Suite 100  
West Henrietta, New York 14586  
(585) 321-5390

Tectonic Engineering & Surveying Consultants, P.C.  
Steven Matthews, P.E.  
36 British American Blvd, Suite 101  
Latham, New York 12110  
(518) 783-1630

Tectonic Engineering & Surveying Consultants, P.C.  
Frank Murray, Site Acquisition Specialist  
36 British American Blvd, Suite 101  
Latham, New York 12110  
(518) 785-1630

Young/Sommer LLC  
Scott P. Olson, Esq.  
Executive Woods  
Five Palisades Drive  
Albany, New York 12205  
(518) 438-9907

Dated: December 9, 2021

**Town of Marlborough Planning Board**  
**Site Plan Application Rev. 6-22-2021**

Application #

Please refer to the Town of Marlborough Town Code Section 155-31 <https://www.ecode360.com/8667578#8667578> to review all relevant local legislation with regards to Site Plan Review.

Please refer to Town of Marlborough Route 9W Corridor Building and Site Design Guidelines for New Commercial Construction and Rehabilitation of Existing Buildings.

[<https://www.townofmarlboroughny.org/Search?searchPhrase=Route%209W%20Corridor%20Building%20and%20Site%20Design%20Guidelines>]

Failure to accurately complete this application in its entirety may result in delays and additional review costs.

Date of Initial Submission and Latest Revision	
Name of Project	Verizon Wireless - Marlboro HS
Address of Project	50 Cross Road
Tax Section, Block, and Lot Number	108.4-2-71.1
Zoning District	R-1 Residential
Number of Acres	
Square Footage of Each Building	N/A

Reason For Application:

Section 152-6 of the Town's Wireless Telecommunications Facilities Law requires applicants to obtain a Special Use Permit and Site Plan Approval for new wireless communications facilities in the Town.

Description of Proposal 155-31 E (3) (a):

Verizon Wireless proposes to install and operate a new personal wireless service facility on the above property to resolve significant coverage gaps and capacity issues. The project includes the installation of a new 96' (94' w/ four foot lightning rod) and related antennas and equipment.



CONTACT INFORMATION	
Name of Property Owner	Marlboro Central School District 1
Address of Property Owner	21 Milton Pike, Milton, NY
Telephone Number of Property Owner:	
Email of Property Owner	
Name of Applicant	Cello Partnership d/b/k Verizon Wireless
Address of Applicant	1275 John Street, West Henrietta, NY
Telephone Number of Applicant	585-321-5435 14586
Email Address of Applicant	c/o Solon@youngsummer.com
Name of Surveyor	Tectonic Engineering
Address of Surveyor	36 British American Blvd., Latham, NY
Telephone Number of Surveyor	518-783-1630 12110
Email Address of Surveyor	
Name of Engineer	Same as Surveyor
Address of Engineer	
Telephone Number of Engineer	
Email Address of Engineer	
Name of Attorney	Young Summer LLC (Attn: Scott Olson)
Address of Attorney	5 Palisades Dr., Albany, NY 12205
Telephone Number of Attorney	518-438-9907 Ext. 258
Email Address of Attorney	Solon@youngsummer.com
Name & Profession of Other Involved Personnel	N/A
Address of Other Involved Personnel	
Telephone Number of Other Involved Personnel	
Email of Other Involved Personnel	

## Town of Marlborough Planning Board

### Checklist For Site Plan Application

#### Revision 6-22-2021

The following items shall be submitted for a Planning Board Site Plan Application to be considered complete.

Site plans and Checklist shall be prepared by a licensed professional engineer, architect, land surveyor or landscape architect. Additional Town Codes apply to all site plans.

Please check each required item. Y for yes provided, N for not provided, or RW for Request Waiver. **Provide a written explanation for any requested waivers from the checklist.** After final approval is given by the Planning Board, the Building Department should be contacted for further guidance.

Y/N/RW	Required Items To Be Submitted
1	Complete application with below information and 12 copies of plans. Site plans SHALL be prepared by licensed professional (155-31 E) and shall refer to specific data sources.
2	Completed Site Plan Application form (Pages 1 and 2) 155-31 E (1).
3	Site Plan Application Checklist Complete (Automatic application rejection without checklist) pages 3 to 6.
4	Ethics code Town of Marlborough Disclosure of Interest (where applicable) Pages 8-10
5	Application Fee Paid (Separate check from Escrow Fee) see page 11.
6	Initial Escrow Fee Paid (Separate check from Application Fee) see page 11, also 155-31 J.
7	Disclaimer Forms Provided See Page 12.
8	Letter of Agent Statement Page 13.
9	A location map, at a scale of 2,000 feet to the inch or larger, showing the applicant's entire property and all easements and streets and existing structures within 500 feet of the applicant's property as well as the Tax Map and section on of USGS (United States Geological Survey) mapping. 155-31 E (2).
10	Project Narrative. Complete Brief document 155-31 E (3) (a) A description of proposed project (bottom of page 1 of Site Plan Application) (b) A description of whether the site design includes the possibility for interconnections with adjoining sites and, if no such interconnection is provided, a thorough narrative as to why an interconnection is not feasible. (c) An analysis of how the project complies with the requirements contained within this Chapter 15 5, Zoning, is included. (d) Any waivers or variances needed have been identified. 155-31 F Waivers shall be discussed in the briefing document to be submitted by the applicant.
11	Title of the drawing, including the name and address of the owner of record, applicant, and licensed professional(s) responsible for the preparation of such drawing, including seal and signature. 155-31 E(4)(a).

12	Map of the site includes North arrow, scale, and date. 155-31 E (4) (b).
13	Map of the site depicts boundaries of the property with surveyed dimensions. 155-31 E (4) (c).
14	Names of all owners of record adjacent to the applicant's property are indicated. 155-31 E (4) (d).
15	Existing school district (if applicable), zoning district, and overlay district boundaries (if applicable), within 500 feet of the site's perimeter is indicated. 155-31 E (4)(e).
16	Map of the site depicts acreage of each distinct existing and proposed land use on the applicant's property, and the proposed density of each if residential uses are proposed. 155-31 E (4) (f).
17	Grading and drainage plan showing existing and proposed contours with intervals of two feet extending 50 feet beyond the tract. If any portion of the parcel is within a one-hundred-year floodplain as determined by the Federal Emergency Management Agency (FEMA), the area will be shown and base flood elevations given. 155-31 E (4) (g).
18	Map of the site depicts location and boundaries of all existing natural land features on the property, including rock outcrops, isolated trees 12 inches or more in diameter at breast height (dbh) and all trees over 24 inches in dbh (whether isolated or in a forested area), existing vegetative and forest cover, orchards, hedgerows and other ornamental landscaping, stone walls, soil types and boundaries, active farmlands, visually prominent agricultural landscape features, such as fields, pastures, and meadows on knolls and hilltops, woodlands along roadways, property lines, and streams, steep slopes in excess of 15%, and water sources. Water sources include ponds, lakes, wetlands and watercourses, primary aquifers and primary aquifer recharge areas, floodplains, and drainage retention/detention areas. The plan shall show locally significant trees which include rare or unusual species, trees associated with historic events or persons, or trees that significantly contribute to a unique scenic viewshed. 155 E (4) (h).
19	Location of all existing buildings, structures, signs, and agricultural lands, on adjacent property within 100 feet of the subject lot lines is shown. 155-31 E (4) (i).
20	Map of the site depicts location, proposed use, height, and setback measurements of all existing and proposed buildings, structures and signs on the applicant's property, including floor plans, and plans for exterior elevations, at a scale of 1/4 inch equals one foot, showing the structure's mass and architectural features, and indicating the type and color of materials to be used. A table indicating square footage of building areas to be used for a particular use, such as retail operation, office use, warehousing, or other commercial activity; maximum number of employees; maximum seating capacity, where applicable; and number of parking spaces existing and required for the intended use. 155-31 E (4) (j).
21	Traffic flow patterns within the site, entrances and exits, the location of potential interconnections between the project site and adjoining sites, truck/commercial vehicle loading and service areas, curb cuts on the site and within 100 feet of the site, and all streets which are either proposed, mapped or built are indicated. 155-31 E (4) (k). The Town requires right-of-way of 25 feet from the center line of Town roads along the property frontage. See also 155-31 G (8).
22	Any cross-access easements, walkways, and bicycle path opportunities associated with the project are indicated. 155-31 E (4) (l).

23	The location, design (including size of spaces, and accessible parking information) and construction materials of all off-street parking areas (open and enclosed, if any), including the number of parking spaces required and to be provided is indicated. 155-31 E (4) (m) and 155-31 G (9) (c) Off-street parking spaces are a minimum of 200 square feet each. See 155-27 A (1) (a).
24	The location, design and construction materials of all present and proposed walkways, bicycle paths and bicycle parking, benches, ramps, outdoor storage or display areas, retaining and/or landscaping walls and fences is indicated. 155-31 E (4) (n).
25	A general and conceptual landscape plan showing proposed changes to existing natural land features. Trees to be saved shall be noted on site plans, and appropriate measures shall be outlined to protect the tree stock from damage during construction. 155-31 E (4) (o). Native species are encouraged. 155-31 G (17) (b).
26	Map of the site depicts the location, design and construction materials of all existing and proposed water supply system. 155-31 E (4) (p) [1].
27	Map of the site depicts the location, design and construction materials of all existing and proposed sewage disposal system. 155-31 E (4) (p) [2].
28	Map of the site depicts the location, design and construction materials of all existing and proposed telephone, cable and energy systems, including electric, oil, gas, solar, or other energy systems. 155-31 E (4) (p) [3].
29	Map of the site depicts the location, design and construction materials of all existing and proposed storm drainage system, including but not limited to existing and proposed drain lines, culverts, catch basins, headwalls, endwalls, manholes, and drainage swales. 155-31 E (4) (p) [4] Identify a distance off site to show drainage structures or a natural discharge location.
30	The location of fire and emergency access ways and zones, including the location of fire hydrants or of the nearest alternative water supply for fire emergencies are indicated. 155-31 E 4 (q) Discussed lock box provision with fire department (see Milton or Marlboro Fire District) except on single family detached residential dwellings See also 155-31 G (13).
31	The location, type, and screening details for solid waste disposal facilities and containers is indicated. 155-31 E (4) (r).
32	The proposed location, height, orientation, type of illuminating device, bulb type and wattage, and photometric data of all outdoor lighting fixtures is indicated. 155-31 E (4) (s). See also 155-31 G (14)
33	The location, height, size, materials, design, and illumination of all present and proposed signs and other advertising or instructional devices are indicated. 155-31 E (4) (t) See also 155-28.
34	Estimates of noise generation at the source and property line are provided. 155-31 E (4) (u). See also 155-31 G (16).
35	Inventory and quantity of hazardous materials anticipated for on-site storage and/or use, if applicable, are provided. 155-31 E (4) (v).
36	Plans for the disposal of construction and demolition, waste, whether on-site or at a New York State approved solid waste management facility are indicated. 155-31 E (4) (w).
37	A park or open space is being provided see 155-31 E (4) (x).
38	For projects involving more than one phase, a site plan showing each phase of the project is included. 155-31 E (4) (y)

39	Proposed days and hours of operation are indicated. 155-31 E (4) (z).
40	A copy of the deed to the property as most recently filed and/or a copy of the executed contract of sale is included 155-31 E (4) (aa) [1].
41	A copy of each covenant, easement or deed restriction in effect or intended to cover all or part of the tract is included 155-31 E (4) (aa) [2].
42	Enforceable map notes of stormwater drainage, utility rights-of-way, etc., are indicated 155-31 E (4) (aa) [3].
43	Identification, and submittal when available, of all necessary permits from federal, state, county or local agencies, approvals required from said agencies for the project's execution, and proof of special permit and/or variance approvals, if applicable, are included 155-31 E (4) (aa) [4].
44	Short-unlisted actions or full EAF Type one action, as required by the lead agency under the Environmental Conservation Law, is complete and included. See 155-31 E (4) (aa) [6] Environmental Assessment Form. Applicants must use NYSDEC* web based system EAF mapper Application. <a href="https://www.dec.ny.gov/permits/6191.htm">https://www.dec.ny.gov/permits/6191.htm</a> Make sure to unblock popups.
45	Twelve (12) copies of all maps, plans, reports, and a PDF file of all documentation submitted. Plan sets must be submitted in collated packages. (155 E, 155-31 E (5)). (See section 75-6 B. (6) regarding plan stamp requirements of licensed professional).
46	Agricultural Data Statement (If applicable). See also 155-52 Setbacks and buffers from active agricultural lands.
47	Off-street parking spaces are a minimum of 200 square feet each. See 155-27 A (1) (a).

The plat for the proposed Site Plan has been prepared in accordance with this checklist. A waiver request must be submitted by design professional for any items which are not provided.

By: \_\_\_\_\_

Licensed Professional

\_\_\_\_\_

Stamp

\_\_\_\_\_

Date



# Ethics Code

## TOWN OF MARLBOROUGH NOTICE OF DISCLOSURE OF INTEREST

In accordance with the Town of Marlborough Code of Ethics, Article 13-3 (E) and Public Officers Law § 209, the following disclosure notice ("notice") must be completed and signed by any individual, including any officer or employee of the Town of Marlborough, who has an application, petition or request submitted for a variance, amendment, change of zoning, approval of a plat, special use permit, site plan, subdivision, exemption from a plat or official map, license or permit, pursuant to the provisions of the zoning and planning regulations of the Town of Marlborough before any Town of Marlborough Board, Agency or Department ("decision-making authority"), in which a Town officer or employee has an interest in the subject of the application. The purpose of the disclosure notice is to identify and disclose any potential or actual conflict of interest for the Town employee or officer, which may compromise his/her ability to make decisions solely in the public interest. Please refer to the Town of Marlborough Code of Ethics for further information.

Under the Town of Marlborough Code of Ethics an interest is defined as: a participation, connection or involvement of any sort whether direct or indirect, pecuniary or non-pecuniary, personal or professional, which may result in a benefit. For the purposes of the Town of Marlborough Code of Ethics, the "interests" of a Town officer or employee shall be deemed to include the "interest" of:

- A. An immediate family member. Immediate family member is defined as: grandparents, parents, spouse, significant other, children, grandchildren, brother, sister, dependent, or any household member of a Town officer, Town Board member or employee.
- B. Any person other than a bank, trust company or other lending institution with whom he/she has a substantial debtor-creditor or other financial relationship.
- C. Any person by whom he/she is employed or of which he/she is an officer, director or member having a controlling interest in any business or enterprise in which the Town employee or officer holds stock or has any other profit-bearing or beneficial relationship.
- D. An officer or employee shall also be deemed to have an interest in a matter if he/she or any person described in A through C above is a party to an agreement, expressed or implied, with any applicant before any Board of the Town, whereby he/she may receive any payment or other benefit whether or not for services rendered, dependent or contingent upon the favorable approval of any such application, petition or request by any Town body.

This notice must be completed and included with the application, petition or request to the appropriate Town of Marlborough Board, Agency or Department.

I, Scott Olson, residing at 5 Palisades Dr. Albany NY, make the following statements about interests in the real property which is the subject of this

application, petition or request for a Special Use Permit and Site Plan Approval

before the Planning Board of The Town of Marlborough.

**PART I:** Except as otherwise set forth in Part II below:

**A. Individuals with an interest in the property.**

1. No individual, having an ownership interest in or has an interest in a contract to purchase the subject property is an officer or employee of the Town of Marlborough, Ulster County, New York.
2. No person having an ownership interest in or has an interest in a contract to purchase the subject property is a relative of any individual who is an officer or employee of the Town of Marlborough, Ulster County, New York.

**B. Corporations or other entities with an interest in the property.**

1. No officer, director, partner, or employee of any corporation, partnership, company, trust, association, or other legal entity, which has an ownership interest in or has an interest in a contract to purchase the subject property is an officer or employee of the Town of Marlborough, Ulster County, New York.
2. No officer, director, partner, or employee of any corporation, partnership, company, trust, association, or other legal entity which has an ownership interest in or has an interest in a contract to purchase the subject property is a relative of any individual who is an officer or employee of the Town of Marlborough, Ulster County, New York.

**C. Stockholder or controlling interest**

1. No person who has a legal or beneficial ownership or control stock of a corporate applicant or is a member of a partnership or association with the applicant for the subject property is an officer or employee of the Town of Marlborough, Ulster County, New York.
2. No person who has a legal or beneficial ownership or control stock of a corporate applicant or is a member of a partnership or association with the applicant for the subject property is a relative of any individual who is an officer or employee of the Town of Marlborough, Ulster County, New York.

**D. Party to an agreement with the applicant**

1. No person is a party to an agreement with an applicant, express or implied, or may receive any payment or other benefit, whether or not for services rendered, dependent or contingent upon the favorable approval of such application; petition or request for the subject property is an officer or employee of the Town of Marlborough, Ulster County, New York.
2. No person is a party to an agreement with an applicant, express or implied, or may receive any payment or other benefit, whether or not for services rendered, dependent, or contingent upon the favorable approval of such application, petition or request for the subject property is an immediate family member of any individual who is an officer or employee of the Town of Marlborough, Ulster County, New York.

**Town of Marlborough Planning Board**  
**Letter of Agent**

I (We), Marlborough Central School District 1 am (are) the owner(s) of  
a parcel of land located  
on 50 Cross Street in the Town  
of Marlborough, Tax Map Designation: Section 108.4 Block 2 Lot 71.1.

I (We) hereby authorize Verizon Wireless and its attorney and representatives to act as my (our) agent  
to represent my (our) interest in applying to the Town of Marlborough Planning Board for  
a ☐ Lot Subdivision ☒ Site Plan ☐ Minor Site Plan ☐ Lot Line Revision Application. (check one)

Signature: John J. Cantore Date: 10/7/2021

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

State Of New York  
County of Ulster

On the 7<sup>th</sup> day of October in the year 2021 before me, the undersigned, a Notary Public in and for said

State, personally appeared John Cantore,  
personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is  
(are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their  
capacity, and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which  
the individual(s) acted, executed the instrument.

Susan Canfield  
Notary Public

SUSAN CANFIELD  
Notary Public, State of New York  
No. 01CA6250972  
Qualified in Orange County  
Term Expires November 14, 2023



## Disclaimer

The applicant is advised that the Town of Marlborough Town Code, which contains the Town's Zoning Regulations, is subject to amendment. Submission of an application to the Planning Board does not grant the applicant any right to continued review under the code's current standards and requirements. It is possible that the applicant will be required to meet changed standards or new code requirements made while the application is pending.

An approval by the Planning Board does not constitute permission, nor grant any right to connect to or use municipal services such as sewer or water. It is the applicant's responsibility to apply for and obtain Town of Marlborough and other agency approvals not within this Board's authority to grant.

**AFTER FINAL APPROVAL IS GIVEN BY THE PLANNING BOARD, THE BUILDING DEPT. MUST BE CONTACTED FOR FURTHER GUIDANCE.**

The Town of Marlborough Town Board sets forth the schedule of fees for applications to the Planning Board. The signing of this application indicates your acknowledgment of responsibility for payment of these fees to the Planning Board for review of this application including, but not limited to, fees for professional services (Planners/Consultants, Engineers, Attorneys,) public hearings and site inspections.\* Applicant's submissions and re-submissions that are not complete will not be considered by the Planning Board or placed upon its agenda unless all outstanding fees have been paid.

The undersigned applies for subdivision, site plan, or lot line approval as described above under the rules and procedures of the Town of Marlborough, New York as duly authorized by the Town Board of Marlborough, New York.

The undersigned also acknowledges receipt of the "Disclaimer" above.

Applicant's Name (Print): Verizon Wireless

Applicant's Signature: Scott Olson, Attorney for Applicant

Date: 11/30/21

**\*\*Application will not be accepted if not signed and filled out completely\*\***

\* Subject to Applicable NYS Law.

Town of Marlborough Planning Board

Letter of Agent

I (We), Marlboro Central School District 1 am (are) the owner(s) of a parcel of land located on 50 Cross St Road in the Town of Marlborough, Tax Map Designation: Section 108.4 Block 2 Lot 71.1.

I (We) hereby authorize Verizon Wireless to act as my (our) agent to represent my (our) interest in applying to the Town of Marlborough Planning Board for a \_\_\_\_\_ Lot Subdivision, Site Plan Minor Site Plan, or Lot Line Revision Application. (circle one) Ord. Special Use Permit

Rosanne Mele  
Signature

12/3/2021  
Date

Signature

Date

State Of New York

County of Wester

On the 3<sup>rd</sup> day of December in the year 2021 before me, the undersigned, a Notary Public in and for said State, personally appeared

Rosanne Mele

\_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity, and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

SUSAN CANFIELD  
Notary Public, State of New York  
No. 01CA6250972  
Qualified in Orange County  
Term Expires November 14, 2023

Susan Canfield  
Notary Public



Subject to the 150-day FCC Shot Clock Timeframe Set Forth in 47 CFR § 1.6003(c)(1)(iv)

PLANNING BOARD of the TOWN of MARLBOROUGH,  
ULSTER COUNTY, NEW YORK

In the Matter of the Special Use Permit and Site Plan Review Application of

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CELLCO PARTNERSHIP d/b/a Verizon Wireless

Premises: 50 Cross Road  
Marlborough, Ulster County, New York  
Tax Map No.: 108.4-2-71.100

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STATEMENT OF INTENT and  
APPLICATION FOR SPECIAL USE PERMIT, SITE PLAN REVIEW and  
WAIVERS PURSUANT TO TOWN OF MARLBOROUGH CODE

I. Introduction

Cellco Partnership d/b/a Verizon Wireless ("Verizon Wireless" or the "Applicant") proposes to install a new personal wireless service facility, inclusive of a ninety-foot (90') monopole tower structure and antennas and related equipment on property located at 50 Cross Road ("Project"). The proposed improvements are detailed on the plans prepared by Tectonic Engineering as provided in Exhibit 1. The property is currently owned by the Marlboro Central School District.

Verizon Wireless is considered a public utility for zoning purposes under New York decisional law (*Cellular Telephone Company v. Rosenberg*, 82 N.Y.2d 364 (1993)) [Exhibit 2], and a provider of "personal wireless services" under the federal Telecommunications Act of 1996 (the "TCA") [Exhibit 3]. Verizon Wireless' equipment will be in operation twenty-four (24) hours a day, seven (7) days a week, three hundred sixty-five (365) days a year. Copies of the applicable Verizon Wireless FCC licenses are included herewith in Exhibit 4.

II. The Project is Subject to the FCC Shot Clock Requirement That All Applications be Decided on within 150 Days of Submission of the Application

To assist with the implementation of the Telecommunications Act of 1996, the Federal Communications Commission ("FCC") promulgated regulations commonly referred to as the "shot clock" regulations which establish a presumptively reasonable period within which certain applications must be decided by local governmental agencies. For example, the local review of an application for a new wireless facility that is not classified as a small wireless facility and that involves a new tower must be decided within 150 days of receipt of the initial application. See, 47 CFR Section 1.6003(c)(iv). The FCC has made it clear that the time starts to run upon receipt of the application and not a determination of completeness.

The shot clock period also applies to all required permits necessary to install and operate the facility. In this case, the federal regulations require the Town of Marlborough Planning Board and Building Department to issue determinations concerning the Special Use Permit, Site Plan and, to the extent applicable, Building Permit Applications<sup>1</sup> within 150 days of receipt of same.

### **III. Purpose of Marlboro HS Communications Facility**

The purpose of the Project (referred to internally as the "Marlboro HS" site) is to provide coverage and capacity for its existing wireless network to an area of the Town, including the existing High School, currently not served or under-served.

Enclosed in Exhibit 5 is a RF Analysis prepared by a qualified radio frequency consultant which analysis describes in detail the need for this new site at this location. Exhibit 6 includes a Site Selection Analysis that describes the methodology of identifying the proposed location for the Project.

### **III. Additional Supporting Materials**

1. Public Necessity of Facility. The Applicant has provided expert proof in the form of a report from its Radio Frequency (RF) Design Engineer depicting the area within which Verizon Wireless' communications facility needs to be located (the "search area") in order to provide adequate and safe service to the Town of Marlborough, particularly in the area near the proposed facility. This report clearly demonstrates that (i) there is an inadequate and "unsafe" (i.e., significant coverage gaps and network capacity deficiencies) level of service in the targeted area of the Town of Marlborough, and (ii) a new communications facility is necessary to provide an adequate and safe level of wireless service to this area. See, Exhibit 5.

As noted above and in Exhibits 2 and 3, Verizon Wireless is recognized as a public utility under New York law for purposes of zoning and a provider of personal wireless services under the federal Telecommunications Act of 1996. This project is a public necessity in that it is required to render adequate and safe coverage (mobile and in-building) to a significant portion of the Town of Marlborough. This, combined with the federal mandate to expeditiously deploy advanced wireless services across the nation and Verizon Wireless' FCC licenses to provide such services in the Town of Marlborough, demonstrates that Verizon Wireless' facility is a public necessity. Without the construction of the communications facility proposed, the public would be deprived of an essential means of communication, which, in turn, would jeopardize the safety and welfare of the community and traveling public.

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<sup>1</sup> Section 101.5 of the New York State Uniform Fire Prevention and Building Code expressly exempts "structures, such as radio and television transmission, communication and wind generation towers not attached to buildings."

2. The Application conforms with all applicable regulations promulgated by the Federal Communications Commission, the Federal Aviation Administration and other federal agencies. The proposed facility will not require FAA lighting and/or tower marking.
3. As set forth above, Verizon Wireless and the proposed facility are considered public utilities for purposes of zoning under existing New York decisional law.
4. Operation of the facility will not involve any objectionable noise, fumes, vibration or other characteristics.
5. The facility will be operated on a 24/7 basis 365 days a year with minimal maintenance required. Adequate access and parking has been incorporated into the facility design.
6. The facility will not increase or otherwise impact any existing traffic patterns, nor will it impair pedestrian or vehicular safety or overload existing roads. Additionally, the facility will be fully accessible to fire, police and other emergency vehicles.
7. Because the facility will be unmanned, it will not involve the use of any public water, drainage or sewer system, or any other municipal facility, or degrade any act or for, natural resource or ecosystem.
8. Visual/ Aesthetics. To illustrate the minor nature of the proposed installation on the existing viewshed, the Applicant has prepared photosimulations which depict both before and after photographs and simulations of the proposed facility. See, Exhibit 7.
9. To assist the town to fulfill its obligations under the NYS Environmental Quality Review Act ("SEQRA"), a Full Environmental Assessment Form ("EAF") has been prepared by Tectonic Engineering and is provided in Exhibit 8.
10. The proposed Facility will fully comply with the FCC regulations concerning RF emissions. Exhibit 9 includes an analysis prepared by a NYS licensed engineer which confirms that the Facility will comply with all safety standards and no signage or barriers are required.
11. Exhibit 10 includes a letter dated November 30, 2021 from Verizon Wireless which commits Verizon Wireless to design the proposed facility to accommodate two additional carriers and to allow future collocation on the tower.

12. Enclosed in Exhibit 11 is an analysis which confirms that the proposed tower will not be required to have FCC lighting or markings.

Pursuant to Section 152-30 of the Wireless Telecommunications Law, Verizon Wireless respectfully requests a wavier or exemption from the following requirements:

1. §152-6(F) - A waiver is requested from the requirement to provide one certified report containing the requested information. Instead, such information is provided in separate reports and analyses.
2. §152-6(F)(22) - A waiver is requested from the requirement to provide a topographic and geomorphic analysis with the Special Use Permit application. In the event the permit is granted, Verizon Wireless agrees to perform such analysis as a condition of such approval.
3. §152-6(Y) - A waiver is requested from the requirement to perform a publicly noticed balloon test. During the initial meeting, the Planning Board confirmed that the visual analysis (i.e., balloon test) can be conducted without the need for a publicly noticed balloon test.
4. §152-19 - A waiver is requested from the requirement to seek recertification every five (5) years. The nature of these facilities are such that once constructed, they are rarely, if ever, decommissioned. Moreover, there are tower inspection requirements imposed by the industry which are intended to ensure regular safety inspections during the life of the tower structure.
5. §152-22 - A waiver is requested from the requirement for the property owner to co-sign the performance security. Standard industry practice requires the tower owner to be wholly responsible for such security.
6. §152-24 - A waiver is requested from the requirement to provide an annual NIER report concerning the emissions. The FCC is the federal agency with sole and exclusive jurisdiction to regulate wireless signals. Additionally, due to the height of the proposed antennas (being more than 10 meters above the ground), the signal strength will always be in compliance with FCC mandates. In fact, it is anticipated that the proposed facility will be categorically exempt from routine FCC monitoring.
7. §152-25 - A waiver is requested from the requirements of this section concerning insurance. We believe that many of the requirements contained in such section exceed the jurisdiction of the Town's authority. For instance, the Town is NOT legally entitled to be a "named" insured on the policy. A named insured would give the Town the same rights and obligations as Verizon Wireless under the policy, including the obligation of the Town to be liable for the insurance premium. Additionally, Verizon Wireless is not authorized to provide the Town with a copy of its insurance policy. Such policy is considered confidential proprietary information. Nevertheless,

Verizon Wireless maintains acceptable levels of insurance coverage for all of its sites and will do so for the proposed site.

8. §152-26 - A waiver is requested from the requirement to indemnify the Town relative to the land use and permitting process. This is generally not considered a zoning issue. Moreover, as part of the lease with the school district, Verizon Wireless has agreed to indemnify the school.

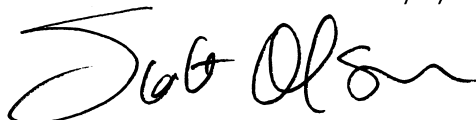
#### IV. Conclusion

Approval of the Project will enable Verizon Wireless to provide an adequate and safe level of wireless telephone service to the area of the Town of Marlborough and surrounding environs, within the confines of applicable technological and land use limitations. Such approval will also be in the public interest, in that it will allow Verizon Wireless to comply with its statutory mandate to build out its network and provide local businesses, residents and public service entities with safe and reliable wireless communications services. Based upon the foregoing, Verizon Wireless respectfully submits that this project complies in all material respects with the Special Use Permit and Site Plan Review requirements of the Town of Marlborough's Zoning Code, and any potential impact on the community created by this approval may properly be considered to be minimal and of no significant adverse effect.

If you should have any questions or require any additional information, I can be reached at (518) 438-9907, Ext. 258.

Thank you for your consideration.

Respectfully submitted,  
CELLCO PARTNERSHIP d/b/a Verizon Wireless

A handwritten signature in black ink, appearing to read "Scott Olson", written over a horizontal line.

Scott P. Olson, Esq.  
Regional Local Counsel

Dated: December 7, 2021



The Verizon logo, consisting of the word "verizon" in a bold, black, sans-serif font, followed by a red checkmark symbol.

RE PROJECT NUMBER: 20161555323  
LOCATION CODE: 442361



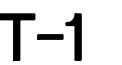
FROM NORTH GREENBUSH, TURN RIGHT ONTO US-4 S AND FOLLOW FOR 1.5+ MILES. TURN RIGHT ONTO NY-43 W AND FOLLOW FOR 1.1+ MILES. MERGE ONTO I-90 W AND FOLLOW FOR 1.4+ MILES. TAKE EXIT 6A FOR I-787 S AND FOLLOW FOR 3.5+ MILES. TAKE EXIT 1 TO MERGE ONTO I-87 S AND FOLLOW FOR 66.9+ MILES. TAKE EXIT 18 FOR NY-299 E AND FOLLOW FOR 5.1+ MILES. TURN RIGHT ONTO RTE 9W S AND FOLLOW FOR 9.7+ MILES. TURN RIGHT ONTO WESTERN AVE AND FOLLOW FOR 0.6+ MILES. CONTINUE ONT PLATTEKILL RD AND FOLLOW FOR 0.3+ MILES. TURN LEFT ONTO CROSS RD AND FOLLOW FOR 0.1+ MILES. SITE WILL BE ON THE LEFT.

## PROJECT SUMMARY

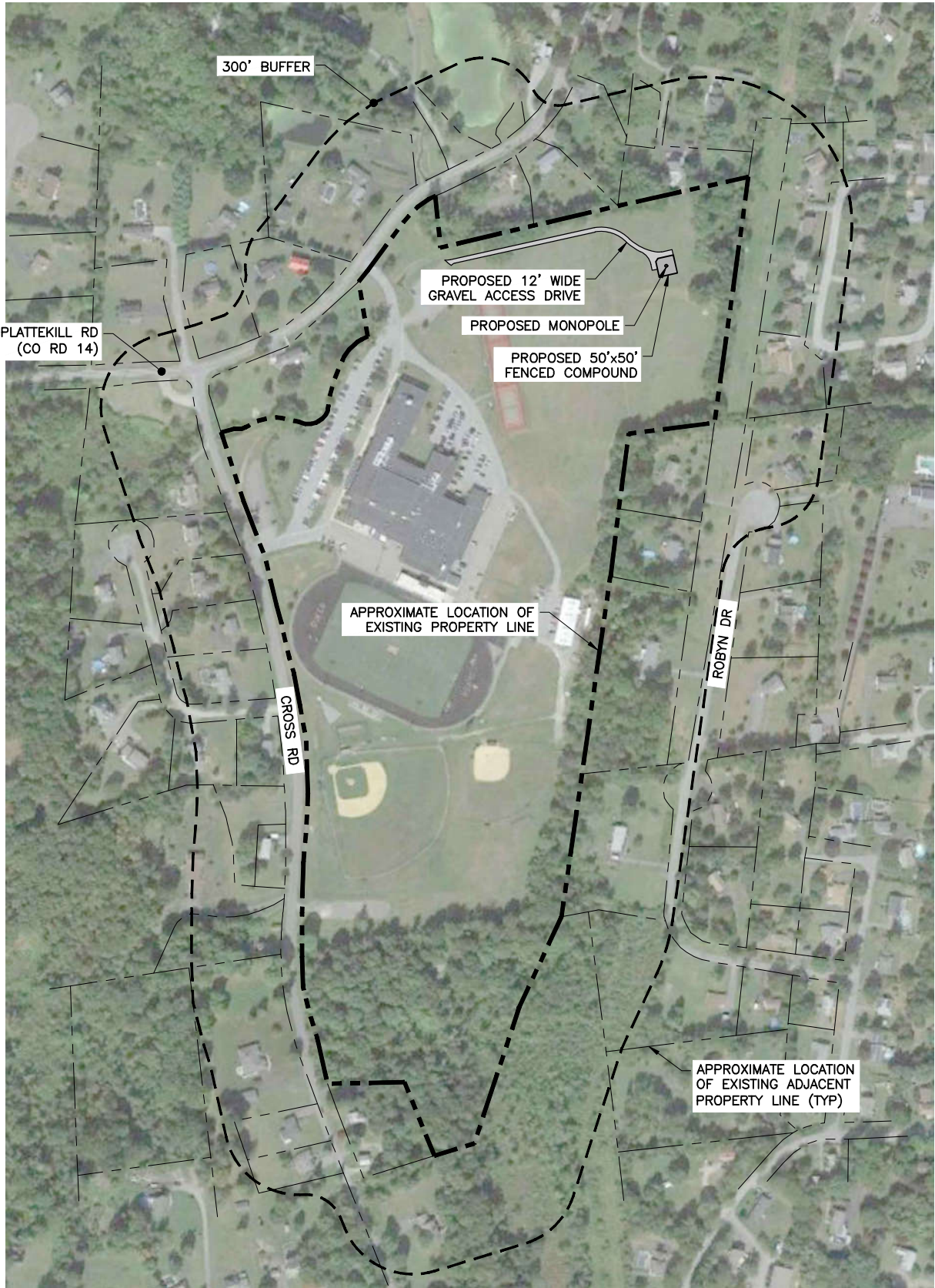
THE PROPOSED WORK CONSISTS OF INSTALLING CELLULAR ANTENNAS AND RELATED EQUIPMENT ON A PROPOSED MONOPOLE AND THE INSTALLATION OF EQUIPMENT AT GRADE WITHIN A PROPOSED FENCED COMPOUND. PROJECT INCLUDES UNDERGROUND POWER AND FIBER UTILITIES TO SERVICE THE FACILITY.

THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS  
UNTIL ALL ITEMS OF CONCERN HAVE BEEN ADDRESSED AND EACH OF THE  
DRAWINGS HAS BEEN REVISED AND ISSUED "FOR CONSTRUCTION".

THESE DRAWINGS ARE FORMATTED FOR 22"x34" FULL SIZE AND 11"x17" HALF SIZE. OTHER SIZED VERSIONS ARE NOT PRINTED TO THE SCALE SHOWN. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.







NOTE:

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1 ADJOINERS PLAN  
SCALE: 1" = 400' (11x17 SIZE)  
1" = 200' (22x34 SIZE)

SBL	OWNER	ADDRESS	CITY/STATE	ZIP
108.4-2-71.100	Marlboro Central School Dist 1	21 Milton Tpke	Milton NY	12547
108.4-1-27.300	Albert J Pagano Jr	17 Cross Rd	Marlboro NY	12542
108.4-1-33.100	Anthony Pagano Jr	126 Hurley Rd	Salt Point NY	12578
108.2-7-40.100	Vincent J Certo	58 Plattekill Rd	Marlboro NY	12542
108.4-2-7	Thomas R Branning	50 Breezy Heights Dr	Marlboro NY	12542
108.2-7-40.200	Michelle M Mylie	4 Chillura Ln	Marlboro NY	12542
108.4-2-34.440	Jiezhuma Shi	16 Center St	Marlboro NY	12542
108.4-2-63	Pano Harpolis	7 Robyn Dr	Marlboro NY	12542
108.4-1-12	Ann Rose Scaturro	55 Cross Rd	Marlboro NY	12542
108.4-2-3	Casimiro Saverino	33 Plattekill Rd	Marlboro NY	12542
108.4-2-2	Michael Felicello	39 Plattekill Rd	Marlboro NY	12542
108.4-2-62	Melissa A Drake	48 South St	Marlboro NY	12542
108.4-1-25	Frank Bolognese	27 Cross Rd	Marlboro NY	12542
108.4-2-1	Edward Rhoden	55 Plattekill Rd	Marlborough NY	12542
108.4-2-6	Lois D Diorio	54 Breezy Hts	Marlboro NY	12542
108.4-2-72.300	Stephen Leechow	17 Robyn Dr	Marlboro NY	12542
108.2-6-31.200	Paul Schmelz	15 Elliott Ln	Marlboro NY	12542
108.2-6-33	Luciano Locascio	27 Plattekill Rd	Marlboro NY	12542
108.4-1-26	Alma Pleasant	23 Cross Rd	Marlboro NY	12542
108.4-1-22	Dean F Roberts	35 Cross Rd	Marlboro NY	12542
108.4-1-21	James E Marquis	39 Cross Rd	Marlboro NY	12542
108.4-1-23	John E Johnston	31 Cross Rd	Marlboro NY	12542
108.4-1-24	John E Johnston	31 Cross Rd	Marlboro NY	12542
108.2-6-3	Marlboro Property Inc Management Inc	97 Cedar Valley Road	Poughkeepsie NY	12603
108.4-2-5	Andrea E Burke	60 Breezy Hts	Marlboro NY	12542
108.4-2-13	Suzanne Ellis	49 Breezy Height	Marlboro NY	12542
108.2-6-32	Frederick L Schmelz	P.O. Box 892	Marlboro NY	12542
108.2-6-31.100	Frederick Schmelz	21 Elliott Ln	Marlboro NY	12542
108.4-2-34.310	Robert A DiLello	20 Robyn Dr	Marlboro NY	12542
108.4-2-72.200	Octavid Santiago	19 Robyn Dr	Marlboro NY	12542
108.2-6-34	Tyler Daniels	23 Plattekill Road	Marlboro NY	12542
108.2-7-32.210	Michael Presutti Jr	26 Plattekill Rd	Marlboro NY	12542
108.4-2-11	Jonathan W Robertson	30 Breezy Heights	Marlboro NY	12542
108.4-2-10	Tibor Ban	34 Breezy Hts	Marlboro NY	12542
108.4-2-9	Tibor Ban	34 Breezy Hts	Marlboro NY	12542
108.4-2-12	William J Pezzo	45 Breezy Hts Dr	Marlboro NY	12542
108.4-2-8	Michael Carofano	46 Breezy Heights	Marlboro NY	12542
108.2-7-40.500	John A Darmiento	5 Chillura Ln	Marlboro NY	12542
108.4-2-32	John Casullo	P.O. Box 73	Marlboro NY	12542
108.4-1-17	Theresa R Morehead	41 Cross Rd	Marlboro NY	12542
108.4-2-34.210	Gregory Herd	24 Robyn Dr	Marlboro NY	12542
108.4-2-72.100	John E Lynn	21 Robyn Dr	Marlboro NY	12542
108.4-1-14	Kevin Doherty	12 Rose Ann Dr	Marlboro NY	12542
108.4-1-15	Jonathan R Callaizakis	14 Rose Ann Dr	Marlboro NY	12542
108.4-1-16	Sheldon Chevers	2 Fairview Avenue Apt 3	Poughkeepsie NY	12601
108.4-2-69	Ermelinda Pagan Living Trust (Trust)	11 Robyn Dr	Marlboro NY	12542
108.4-1-28	Albert Pagano	13 Cross Rd	Marlboro NY	12542
108.4-1-29	Jean Pagano	9 Cross Rd	Marlboro NY	12542
108.4-1-27.200	Anthony Pagano	126 Hurley Rd	Salt Point NY	12578
108.4-1-27.100	Robert Bogle	88 South St	Marlboro NY	12542
108.4-7-16.100	Estelle Festa	6 Cross Rd	Marlboro NY	12542
108.4-2-70.100	Christopher Ryan	16 Cross Rd	Marlboro NY	12542
108.4-2-4.100	Central Hudson Gas & Electric	284 South Rd	Poughkeepsie NY	12602
108.2-7-40.300	Scott Oliver	8 Chillura Ln	Marlboro NY	12542
108.2-7-39	Joseph M Noto	44 Plattekill Rd	Marlboro NY	12542
108.2-7-40.400	Michael Morehead	9 Chillura Ln	Marlboro NY	12542
108.2-7-38.100	Steven Markle	30 Partington Ln	Marlboro NY	12542
108.2-7-32.110	William Gephard	115 Western Ave	Marlboro NY	12542
108.2-7-38.200	Brett Allan Partington Jr	5000 Landmakr Dr Unit 5310	Aliquippa PA	15001

2 ADJOINERS LIST  
SCALE: NTS



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Project Contact Info  
36 British American Blvd.  
Suite 101  
Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER	DRAWN BY
10272.78	TRR

NO.	DATE	ISSUE
0	8/13/21	FOR COMMENT
1	8/30/21	PER COMMENTS
2	10/22/21	FOR ZONING

RELEASED BY	DATE



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ORIGINAL SIZE IN INCHES

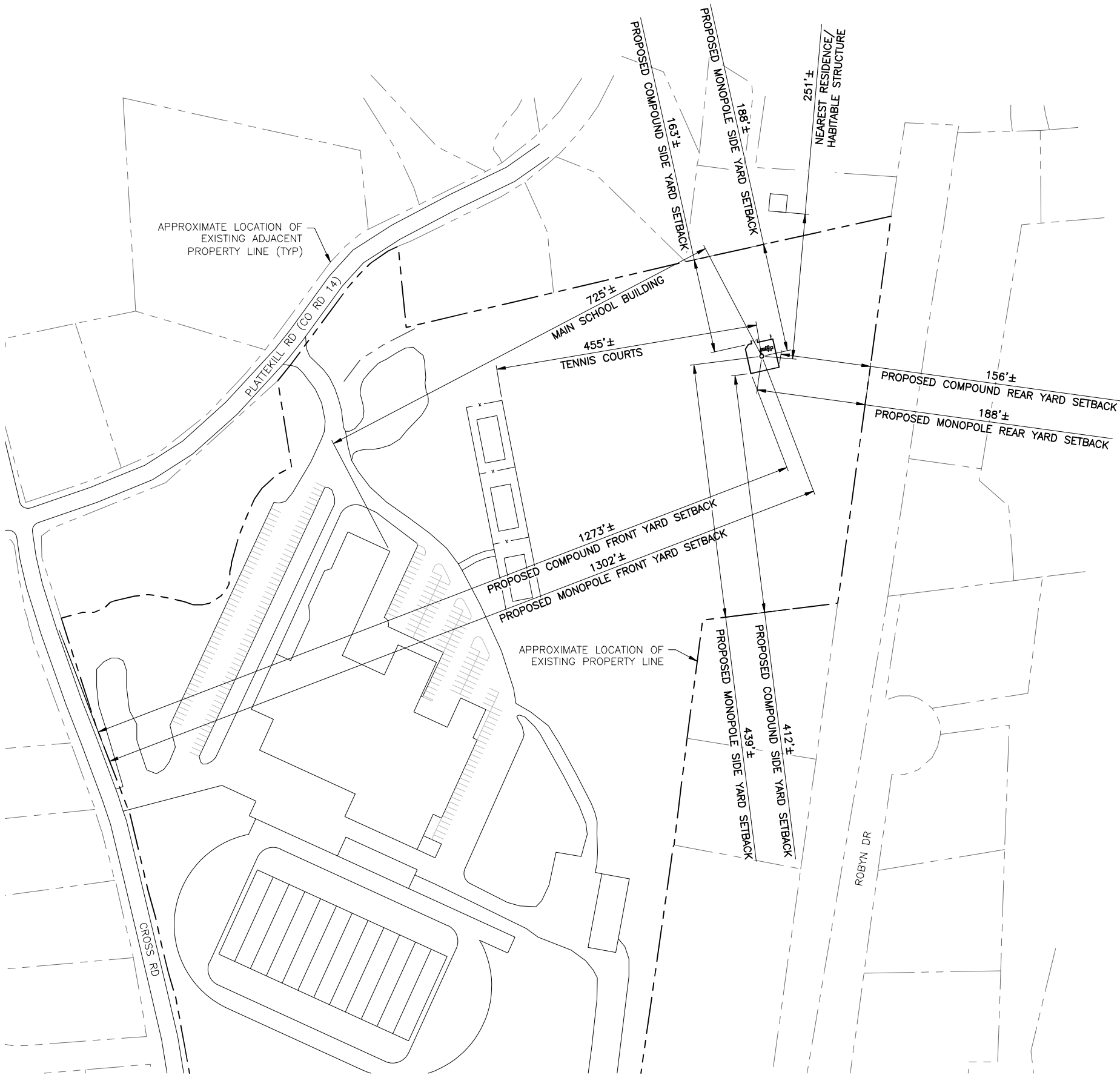
SITE INFORMATION  
MARLBORO HS  
RE PN: 20161555323  
LC: 442361

SITE ADDRESS  
50 CROSS RD  
TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NY 12542

SHEET TITLE  
ADJOINERS PLAN

SHEET NUMBER  
AD-1





NOTE:

1. THE PROPERTY LINES HEREON ARE APPROXIMATE BASED ON GIS DATA AND ARE FOR ORIENTATION PURPOSES ONLY. THEY DO NOT REPRESENT A PROPERTY/BOUNDARY DECISION BY A LAND SURVEYOR.



SETBACK PLAN

SCALE: 1" = 200' (11x17 SIZE)  
1" = 100' (22x34 SIZE)

BULK REQUIREMENTS

TOWN OF MARLBOROUGH  
ZONING DISTRICT: R-1 RESIDENTIAL

	REQUIRED	EXISTING	PROPOSED
MINIMUM YARDS (TOWER)			
FRONT:	188 FT	—	1302 FT
SIDE:	188 FT	—	188 FT
REAR:	188 FT	—	188 FT
MINIMUM YARDS (COMPOUND)			
FRONT:	35 FT	—	1273 FT
SIDE:	35 FT	—	163 FT
REAR:	50 FT	—	156 FT
MAXIMUM TOWER HEIGHT:	BASED ON RF NEED	—	94 FT

verizon

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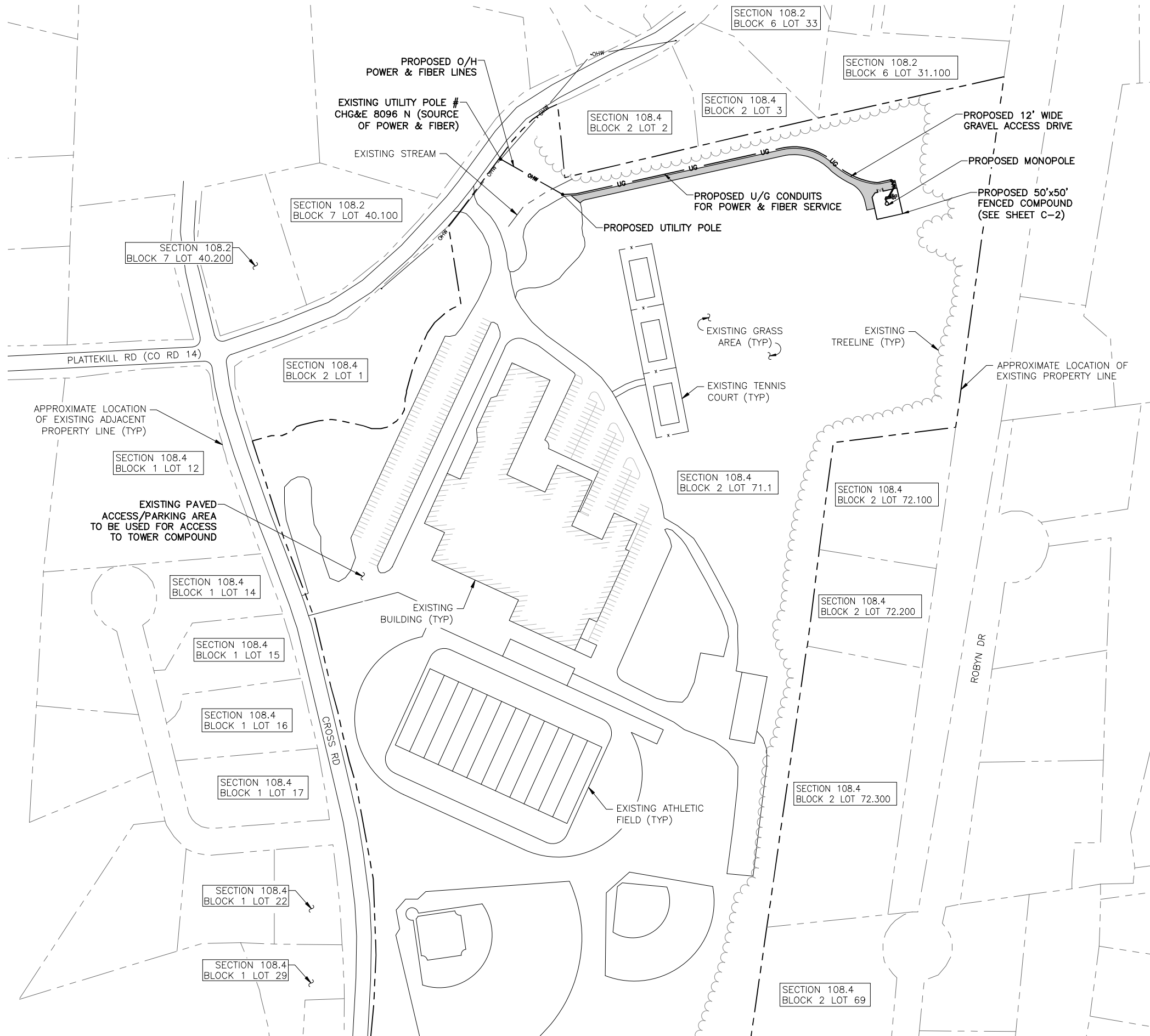
50 CROSS RD  
TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NY 12542

SHEET TITLE

SETBACK PLAN & BULK  
REQUIREMENTS

SHEET NUMBER

SB-1



1  
C-1  
OVERALL SITE PLAN

SCALE: 1" = 200' (11x17 SIZE)  
1" = 100' (22x34 SIZE)

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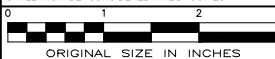
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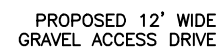
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TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NY 12542

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

C-1



PROPOSED 12'  
WIDE DOUBLE GATE

PROPOSED 15' WIDE  
GRAVEL PARKING AND  
TURNAROUND AREA

PROPOSED VERIZON WIRELESS  
UNDERGROUND POWER & FIBER  
CONDUITS ROUTED TO H-FRAME

PROPOSED VERIZON WIRELESS UTILITY  
& RF EQUIPMENT ON H-FRAME

PROPOSED VERIZON  
WIRELESS CABLE BRIDGE

— PROPOSED MONOPOLE

— PROPOSED VERIZON  
WIRELESS UNDERGROUND  
POWER & FIBER CONDUITS

— PROPOSED  
TRANSFORMER

— PROPOSED BOLLARD (TYP)

— PROPOSED UTILITY BACKBOARD

PROPOSED VERIZON WIRELESS EQUIPMENT  
CABINET ON 4'x11'-6" CONCRETE PAD

— PROPOSED VERIZON WIRELESS BATTERY CABINET ON 4'x11'-6" CONCRETE PAD

— PROPOSED VERIZON WIRELESS GPS UNIT  
MOUNTED TO H-FRAME SUPPORT POST

PROPOSED 50'x50'  
FENCED COMPOUND

PROPOSED GRAVEL SURFACING  
THROUGHOUT COMPOUND

1 SITE DETAIL PLAN  
C-2  
SCALE: 1" = 10' (11x17 SIZE)  
1" = 5' (22x34 SIZE)



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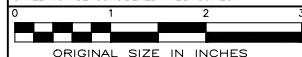
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DATE \_\_\_\_\_



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN  
BEARING THE SEAL OF A LICENSED ENGINEER OR LAND  
SURVEYOR IS A VIOLATION OF SECTION 7209  
SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION  
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### SITE INFORMATION

MARLBORO HS  
RE PN: 20161555323  
LC: 442361

SITE ADDRESS

50 CROSS RD  
TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NY 12542

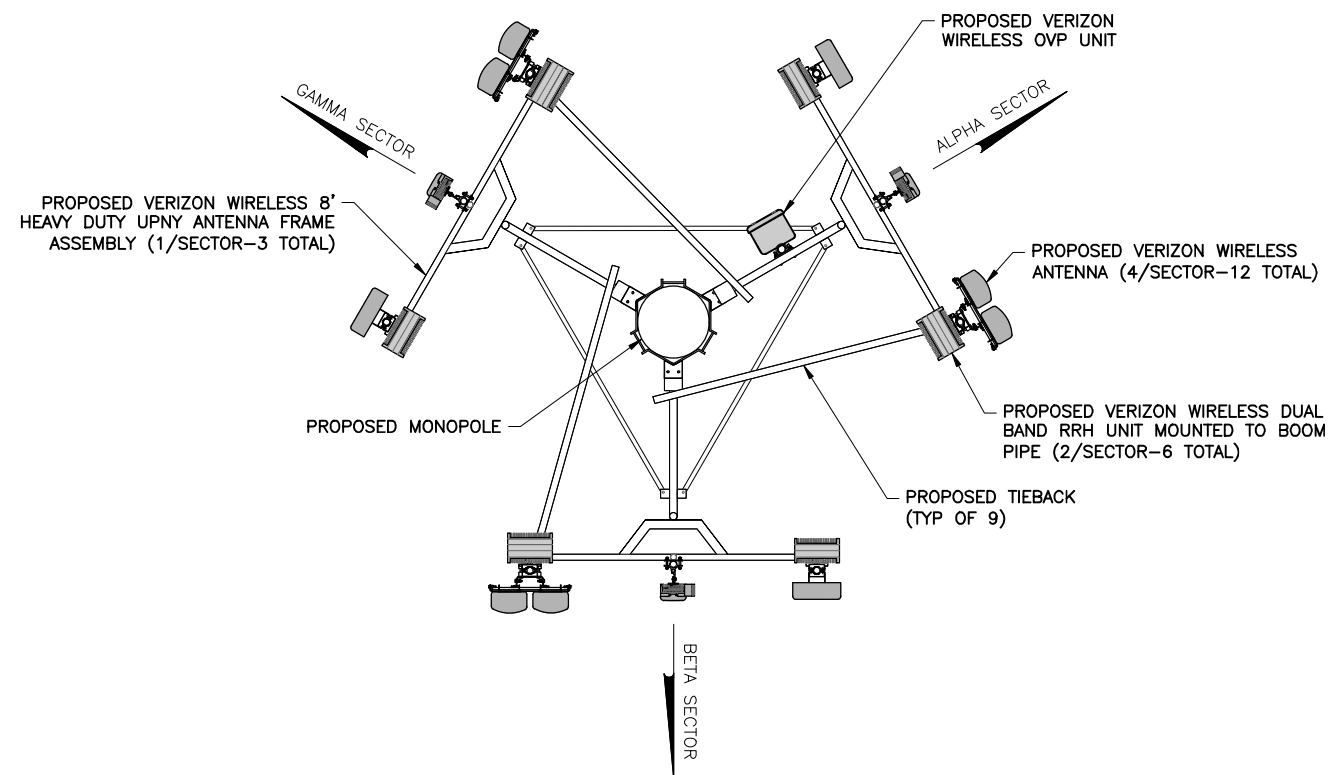
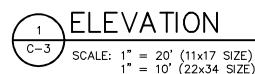
**SHEET TITLE**

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**SHEET NUMBER**

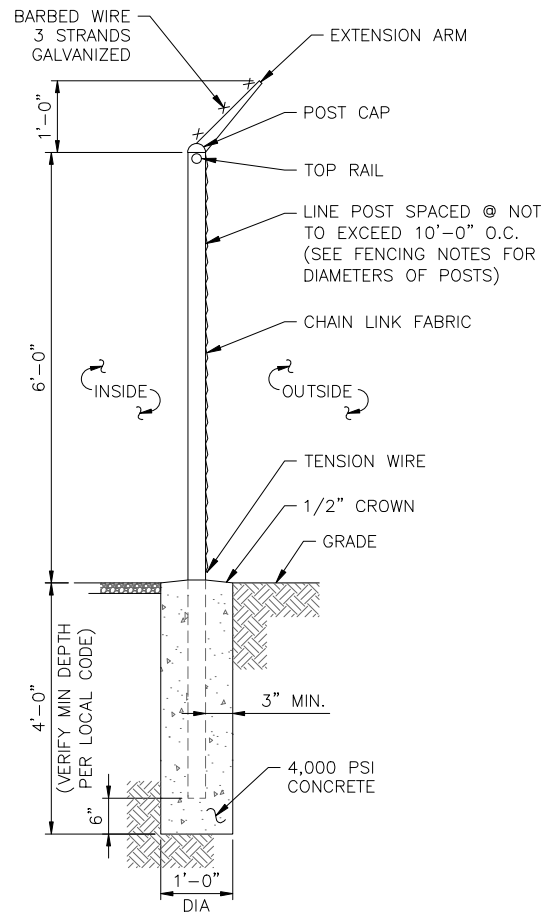
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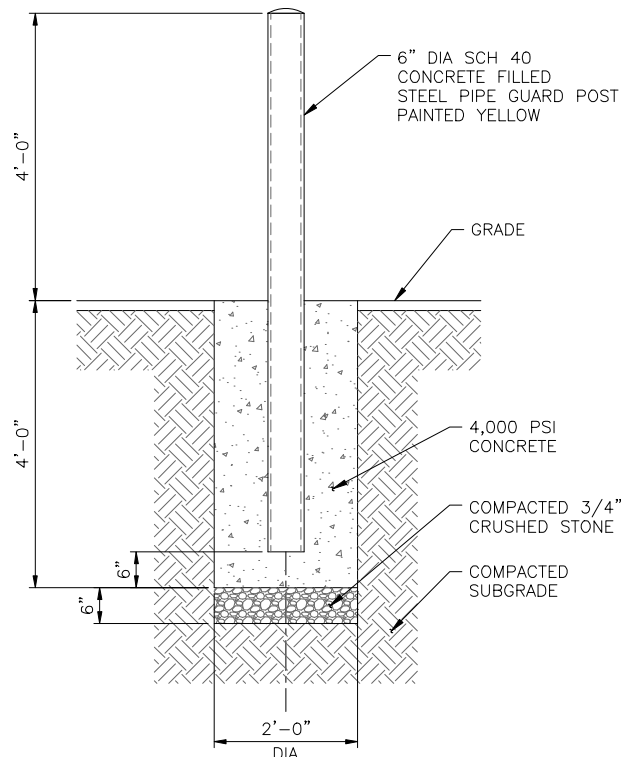


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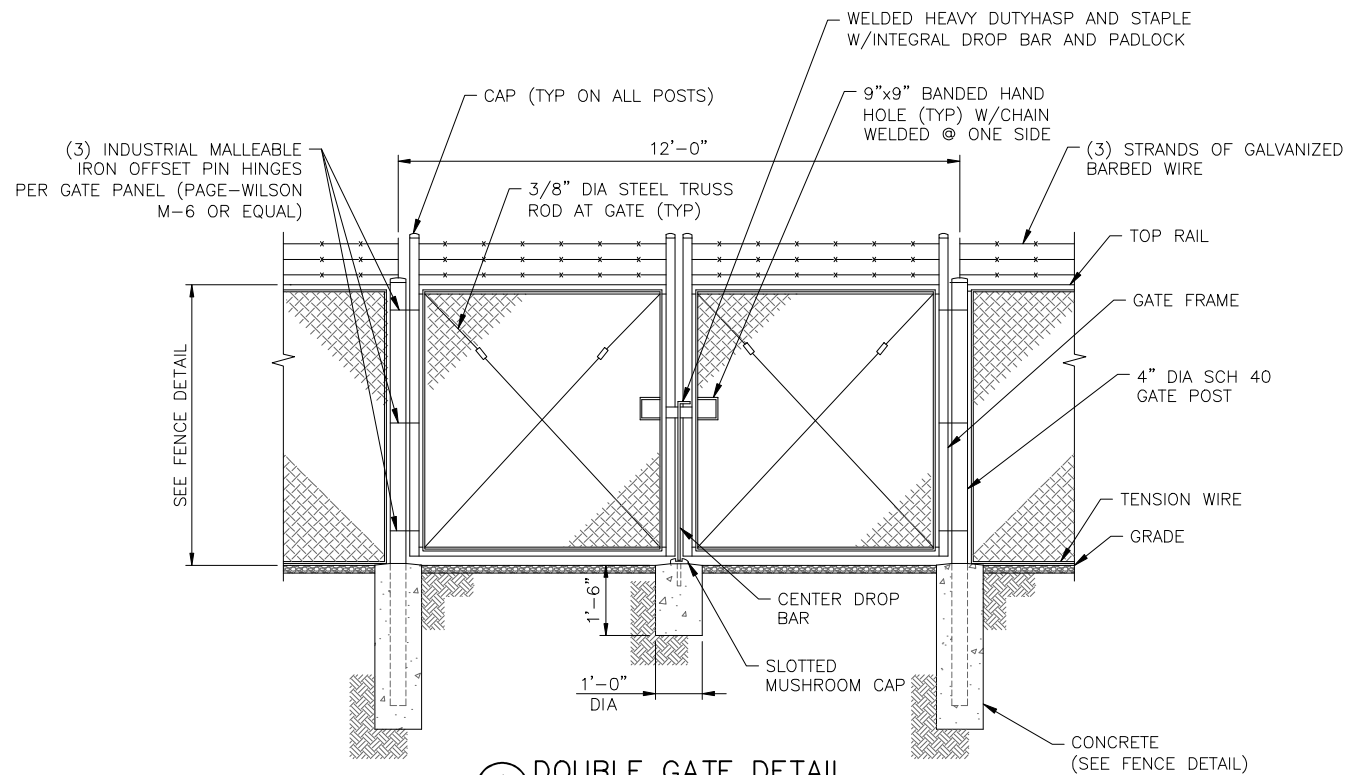




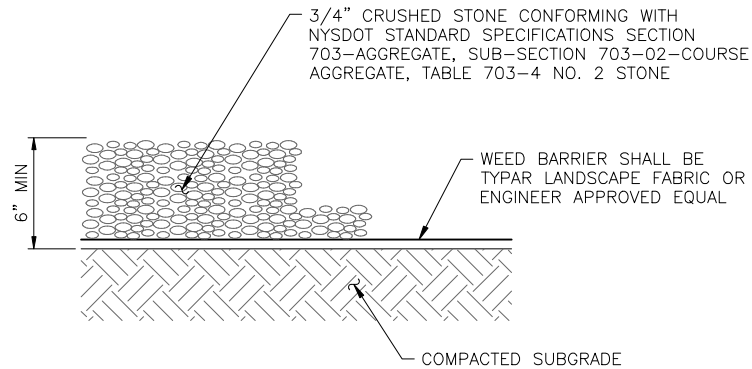
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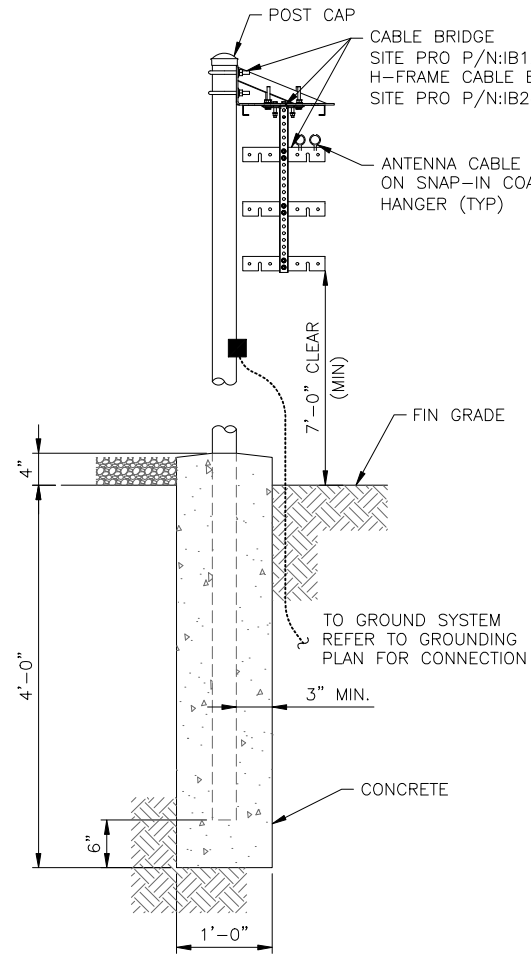
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3 GRAVEL SURFACING TREATMENT  
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5 CABLE BRIDGE  
SCALE: 1/2" = 1'-0" (11x17 SIZE)  
1" = 1'-0" (22x34 SIZE)

verizon

1275 JOHN STREET, SUITE 100  
WEST HENRIETTA, NY 14586

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Mountainsville, NY 10953 www.tectonicengineering.com  
Project Contact Info  
30 Britton American Blvd.  
Suite 101  
Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER 10272.78  
DRAWN BY TRR

NO.	DATE	ISSUE
0	8/13/21	FOR COMMENT
1	8/30/21	PER COMMENTS
2	10/22/21	FOR ZONING

RELEASED BY  
DATE



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0 1 2 3  
ORIGINAL SIZE IN INCHES

SITE INFORMATION

MARLBORO HS  
RE PN: 20161555323  
LC: 442361

SITE ADDRESS

50 CROSS RD  
TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NY 12542

SHEET TITLE

SITE DETAILS

SHEET NUMBER

C-4



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WEST HENRIETTA, NY 14586



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SITE INFORMATION

MARLBORO HS  
RE PN: 20161555323  
LC: 442361

SITE ADDRESS

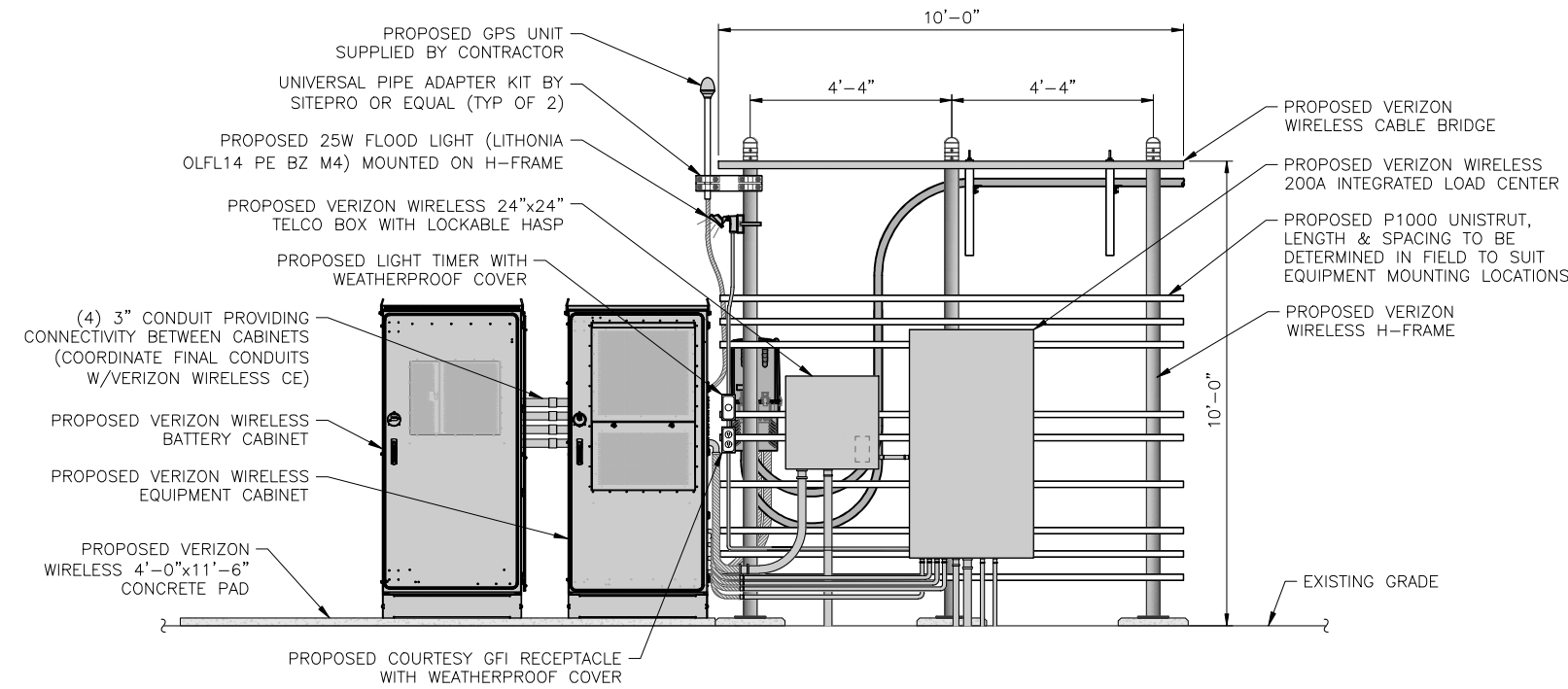
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TOWN OF MARLBOROUGH  
ULSTER COUNTY  
NY 12542

SHEET TITLE

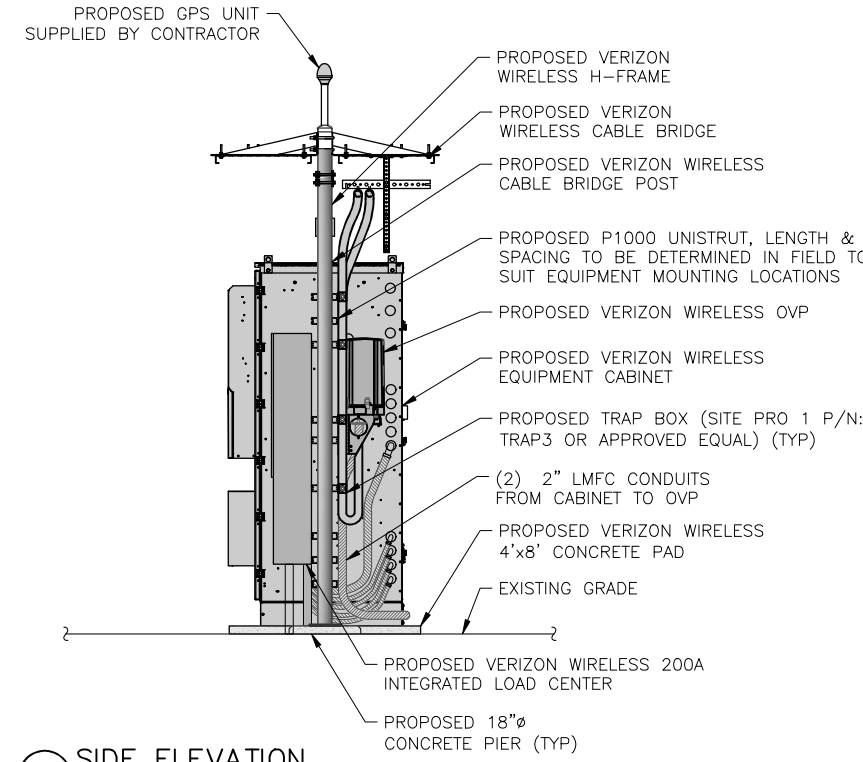
EQUIPMENT ELEVATIONS

SHEET NUMBER

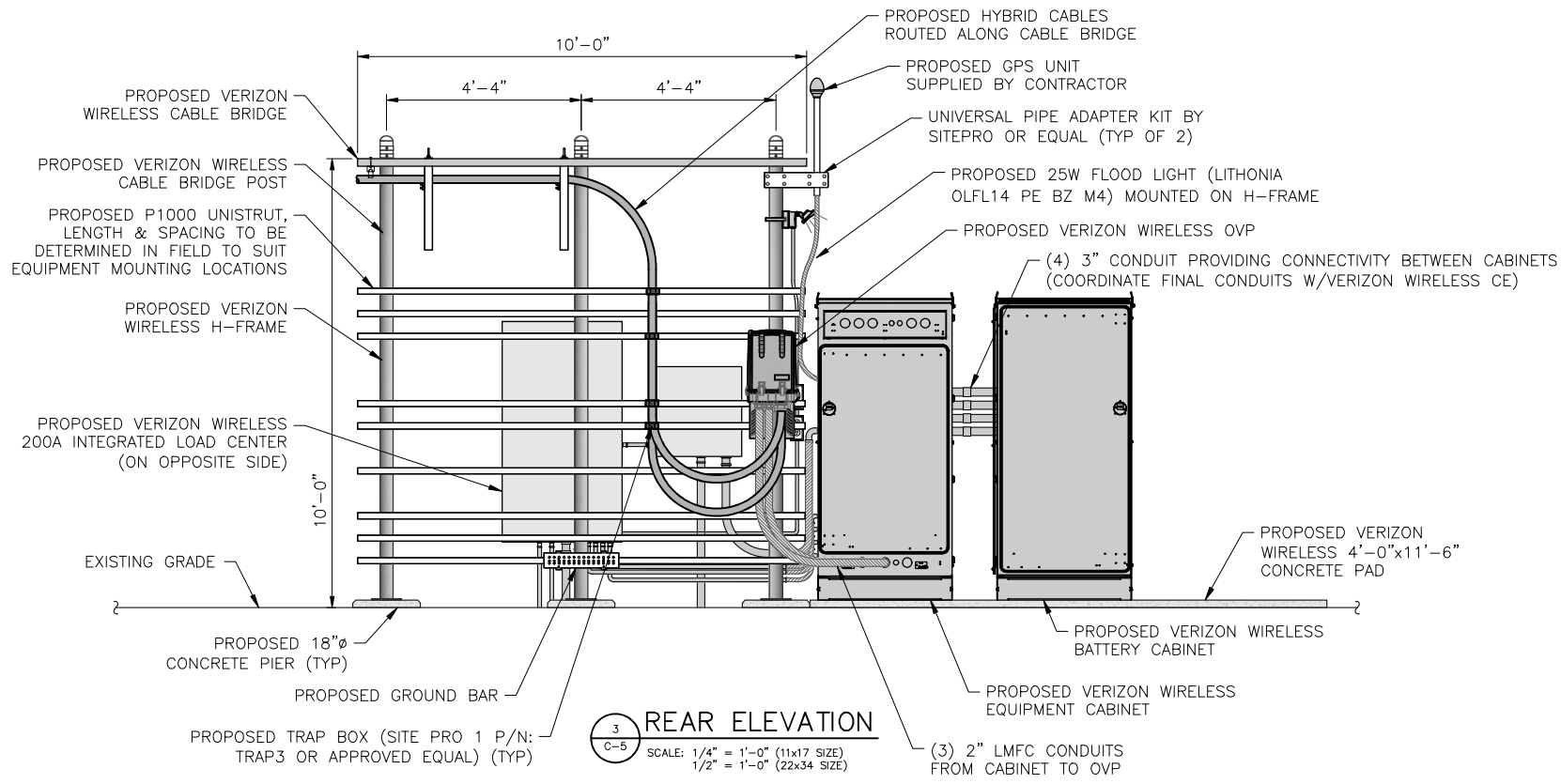
C-5



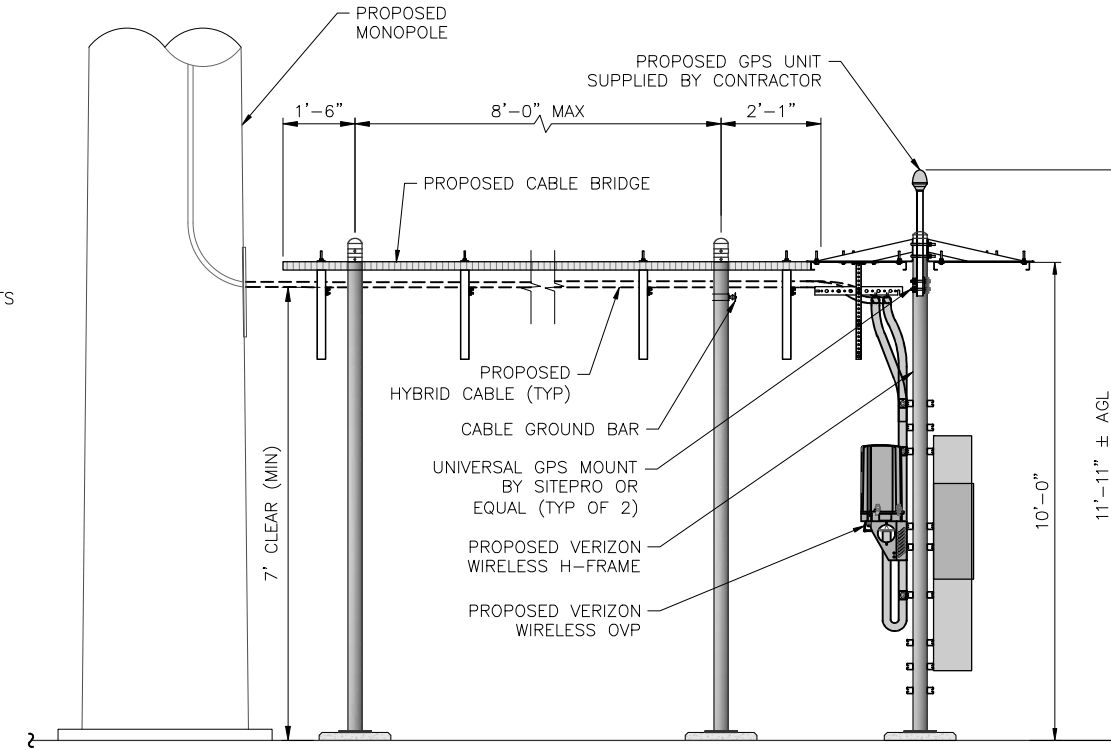
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1/2" = 1'-0" (22x34 SIZE)



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1/2" = 1'-0" (22x34 SIZE)



3 REAR ELEVATION  
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4 EQUIPMENT ELEVATION  
C-5 SCALE: 1/4" = 1'-0" (11x17 SIZE)  
1/2" = 1'-0" (22x34 SIZE)

**DOCUMENTATION OF PUBLIC UTILITY STATUS  
and  
OVERVIEW OF ROSENBERG DECISION**

In *Cellular Tel. Co. v. Rosenberg*, 82 N.Y.2d 364 (1993), the New York Court of Appeals determined that cellular telephone companies are public utilities. The Court held that proposed cellular telephone installations are to be reviewed by zoning boards pursuant to the traditional standard afforded to public utilities, rather than the standards generally required for the necessary approvals:

It has long been held that a zoning board may not exclude a utility from a community where the utility has shown a need for its facilities. There can be no question of [the carrier's] need to erect the cell site to eliminate service gaps in its cellular telephone service area. The proposed cell site will also improve the transmission and reception of existing service. Application of our holding in *Matter of Consolidated Edison* to sitings of cellular telephone companies, such as [the applicant], permits those companies to construct structures necessary for their operation which are prohibited because of existing zoning laws and to provide the desired services to the surrounding community. . . . Moreover, the record supports the conclusion that [the applicant] sustained its burden of proving the requisite public necessity. [The applicant] established that the erection of the cell site would enable it to remedy gaps in its service area that currently prevent it from providing adequate service to its customers in the . . . area.

*Rosenberg*, 82 N.Y.2d at 372-74 (citing *Consolidated Edison Co. v. Hoffman*, 43 N.Y.2d 598 (1978)).

This special treatment of a public utility stems from the essential nature of its service, and the fact that a public utility transmitting facility must be located in a particular area in order to provide service. For instance, water towers, electric switching stations, water pumping stations and telephone poles must be in particular locations (including within residential districts) in order to provide the utility to a specific area:

[Public] utility services are needed in all districts; the service can be provided only if certain facilities (for example, substations) can be located in commercial and even in residential districts. To exclude such use would result in an impairment of an essential service.

Anderson, *New York Zoning Law Practice*, 3d ed., p. 411 (1984) (hereafter "Anderson"). See also, *Cellular Tel. Co. v. Rosenberg*, 82 N.Y.2d 364 (1993); *Payne v. Taylor*, 178 A.D.2d 979 (4th Dep't 1991).

Accordingly, the law in New York is that a municipality may not prohibit facilities, including towers, necessary for the transmission of a public utility. In *Rosenberg*, 82 N.Y.2d at 371, the court found that "the construction of an antenna tower... to facilitate the supply of cellular telephone service is a 'public utility building' within the meaning of a zoning ordinance." See also *Long Island Lighting Co. v. Griffin*, 272 A.D. 551 (2d Dep't 1947) (a municipal corporation may not prohibit the expansion of a public utility where such expansion is necessary to the maintenance of essential services).



## DOCUMENTATION OF PERSONAL WIRELESS SERVICE FACILITY STATUS and FEDERAL TELECOMMUNICATIONS ACT OF 1996

In addition to being considered a public utility under New York decisional law, Verizon Wireless is classified as a provider of “personal wireless services” under the federal Telecommunications Act of 1996 (the “TCA”).

As stated in the long title of the Act, the goal of the TCA is to “promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.” *Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56 (1996)*.

The TCA mandates a process designed to achieve competitive telecommunications markets. In keeping with the central goals of the TCA, the authors specify in Section 253(a) that “[n]o State or local statute or regulation...may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.” *TCA Section 253(a), emphasis added*.

Section 332(c) of the TCA preserves the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction and modification of personal wireless service facilities, subject to several important limitations:

- the “regulation of the placement...of personal wireless service facilities by any State or local government or instrumentality thereof shall not unreasonably discriminate among providers of functionally equivalent services” (*TCA §332(c)(7)(B)(i)(I)*);
- the “regulation of the placement...of personal wireless service facilities by any State or local government or instrumentality thereof shall not prohibit or have the effect of prohibiting the provision of personal wireless services” (*TCA §332(c)(7)(B)(i)(II)*);
- Applications must be processed within a reasonable period of time, and any decision to deny a request for placement of personal wireless service facilities must be in writing and supported by substantial evidence contained in a written record (*TCA §§332(c)(7)(B)(ii) and (iii)*); and
- regulations based upon the perceived environmental effects of radio frequency emissions are prohibited, so long as the proposed personal wireless service facility complies with FCC regulations concerning such emissions (*TCA §332(c)(7)(B)(iv)*).

A reference copy of the Telecommunications Act of 1996 is included herewith.

## TELECOMMUNICATIONS ACT OF 1996

JANUARY 31, 1996. Ordered to be printed

Mr. BAILEY, from the committee of conference,  
submitted the following

### CONFERENCE REPORT

[To accompany S. 652]

The committee of conference on the disagreeing votes of the two Houses on the amendments of the House to the bill (S. 652), to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition, and for other purposes, having met, after full and free conference, have agreed to recommend and do recommend to their respective Houses as follows:

That the Senate recede from its disagreement to the amendment of the House to the text of the bill and agree to the same with an amendment as follows:

In lieu of the matter proposed to be inserted by the House amendment, insert the following:

#### SECTION 1. SHORT TITLE; REFERENCES.

(a) *SHORT TITLE.*—This Act may be cited as the “Telecommunications Act of 1996”.

(b) *REFERENCES.*—Except as otherwise expressly provided, whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Communications Act of 1934 (47 U.S.C. 151 et seq.).

#### SEC. 2. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

- Sec. 1. Short title; references.
- Sec. 2. Table of contents.
- Sec. 3. Definitions.

~~The owner shall provide written notification of such addition to the entity that has obtained an attachment to such conduit or right-of-way so that such entity may have a reasonable opportunity to add to or modify its existing attachment. Any entity that adds to or modifies its existing attachment after receiving such notification shall bear a proportionate share of the costs incurred by the owner in making such pole, duct, conduit, or right-of-way accessible.~~

~~(4) An entity that obtains an attachment to a pole, conduit, or right-of-way shall not be required to bear any of the costs of rearranging or replacing its attachment if such rearrangement or replacement is required as a result of an additional attachment or the modification of an existing attachment sought by any other entity (including the owner of each pole, duct, conduit, or right-of-way).~~

**SEC. 704. FACILITIES SITING; RADIO FREQUENCY EMISSION STANDARDS.**

(a) NATIONAL WIRELESS TELECOMMUNICATIONS SITING POLICY.—Section 332(c) (47 U.S.C. 332(c)) is amended by adding at the end the following new paragraph:

“(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.

“(ii) A State or local government or instrumentality thereof shall act on any request for authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time after the request is duly filed with such government or instrumentality, taking into account the nature and scope of such request.

“(iii) Any decision by a State or local government or instrumentality thereof to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record.

“(iv) No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.

"(v) Any person adversely affected by any final action or failure to act by a State or local government or any instrumentality thereof that is inconsistent with this subparagraph may, within 30 days after such action or failure to act, commence an action in any court of competent jurisdiction. The court shall hear and decide such action on an expedited basis. Any person adversely affected by an act or failure to act by a State or local government or any instrumentality thereof that is inconsistent with clause (iv) may petition the Commission for relief.

"(C) DEFINITIONS.—For purposes of this paragraph—

"(i) the term 'personal wireless services' means commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services;

"(ii) the term 'personal wireless service facilities' means facilities for the provision of personal wireless services; and

"(iii) the term 'unlicensed wireless service' means the offering of telecommunications services using duly authorized devices which do not require individual licenses, but does not mean the provision of direct-to-home satellite services (as defined in section 303(v))."

(b) RADIO FREQUENCY EMISSIONS.—Within 180 days after the enactment of this Act, the Commission shall complete action in ET Docket 93-62 to prescribe and make effective rules regarding the environmental effects of radio frequency emissions.

(c) AVAILABILITY OF PROPERTY.—Within 180 days of the enactment of this Act, the President or his designee shall prescribe procedures by which Federal departments and agencies may make available on a fair, reasonable, and nondiscriminatory basis, property, rights-of-way, and easements under their control for the placement of new telecommunications services that are dependent, in whole or in part, upon the utilization of Federal spectrum rights for the transmission or reception of such services. These procedures may establish a presumption that requests for the use of property, rights-of-way, and easements by duly authorized providers should be granted absent unavoidable direct conflict with the department or agency's mission, or the current or planned use of the property, rights-of-way, and easements in question. Reasonable fees may be charged to providers of such telecommunications services for use of property, rights-of-way, and easements. The Commission shall provide technical support to States to encourage them to make property, rights-of-way, and easements under their jurisdiction available for such purposes.

~~SEC. 303. MOBILE SERVICES DIRECT ACCESS TO BROADCASTERS.~~

**RIERS.**

Section 332(c) (47 U.S.C. 332(c)) is amended by adding at the end the following new paragraph:

"(8) MOBILE SERVICES ACCESS.—A person engaged in the provision of commercial mobile services, insofar as such person is engaged, shall not be required to provide equal access to common carriers for the provision of commercial mobile services."

portionate share of the costs incurred by the owner in making such conduit or right-of-way accessible.

*Conference agreement*

The conference agreement adopts the Senate provision with modifications. The conference agreement amends section 224 of the Communications Act by adding new subsection (e)(1) to allow parties to negotiate the rates, terms, and conditions for attaching to poles, ducts, conduits, and rights-of-way owned or controlled by utilities. New subsection 224(e)(2) establishes a new rate formula charged to telecommunications carriers for the non-useable space of each pole. Such rate shall be based upon the number of attaching entities. The conferees also agree to three additional provisions from the House amendment. First, subsection (g) requires utilities that engage in the provision of telecommunications services or cable services to impute to its costs of providing such service an equal amount to the pole attachment rate for which such company would be liable under section 224. Second, new subsection 224(h) requires utilities to provide written notification to attaching entities of any plans to modify or alter its poles, ducts, conduit, or rights-of-way. New subsection 224(h) also requires any attaching entity that takes advantage of such opportunity to modify its own attachments shall bear a proportionate share of the costs of such alterations. Third, new subsection 224(i) prevents a utility from imposing the cost of rearrangements to other attaching entities if done solely for the benefit of the utility.

SECTION 704—FACILITIES SITING; RADIO FREQUENCY EMISSION STANDARDS

*Senate bill*

No provision.

*House amendment*

Section 108 of the House amendment required the Commission to issue regulations within 180 days of enactment for siting of CMS. A negotiated rulemaking committee comprised of State and local governments, public safety agencies and the affected industries were to have attempted to develop a uniform policy to propose to the Commission for the siting of wireless tower sites.

The House amendment also required the Commission to complete its pending Radio Frequency (RF) emission exposure standards within 180 days of enactment. The siting of facilities could not be denied on the basis of RF emission levels for facilities that were in compliance with the Commission standard.

The House amendment also required that to the greatest extent possible the Federal government make available to use of Federal property, rights-of-way, easements and any other physical instruments in the siting of wireless telecommunications facilities.

*Conference agreement*

The conference agreement creates a new section 704 which prevents Commission preemption of local and State land use decisions and preserves the authority of State and local governments over



zoning and land use matters except in the limited circumstances set forth in the conference agreement. The conference agreement also provides a mechanism for judicial relief from zoning decisions that fail to comply with the provisions of this section. It is the intent of the conferees that other than under section 332(c)(7)(B)(iv) of the Communications Act of 1934 as amended by this Act and section 704 of the Telecommunications Act of 1996 the courts shall have exclusive jurisdiction over all other disputes arising under this section. Any pending Commission rulemaking concerning the preemption of local zoning authority over the placement, construction or modification of CMS facilities should be terminated.

When utilizing the term “functionally equivalent services” the conferees are referring only to personal wireless services as defined in this section that directly compete against one another. The intent of the conferees is to ensure that a State or local government does not in making a decision regarding the placement, construction and modification of facilities of personal wireless services described in this section unreasonably favor one competitor over another. The conferees also intend that the phrase “unreasonably discriminate among providers of functionally equivalent services” will provide localities with the flexibility to treat facilities that create different visual, aesthetic, or safety concerns differently to the extent permitted under generally applicable zoning requirements even if those facilities provide functionally equivalent services. For example, the conferees do not intend that if a State or local government grants a permit in a commercial district, it must also grant a permit for a competitor’s 50-foot tower in a residential district.

Actions taken by State or local governments shall not prohibit or have the effect of prohibiting the placement, construction or modification of personal wireless services. It is the intent of this section that bans or policies that have the effect of banning personal wireless services or facilities not be allowed and that decisions be made on a case-by-case basis.

Under subsection (c)(7)(B)(ii), decisions are to be rendered in a reasonable period of time, taking into account the nature and scope of each request. If a request for placement of a personal wireless service facility involves a zoning variance or a public hearing or comment process, the time period for rendering a decision will be the usual period under such circumstances. It is not the intent of this provision to give preferential treatment to the personal wireless service industry in the processing of requests, or to subject their requests to any but the generally applicable time frames for zoning decision.

The phrase “substantial evidence contained in a written record” is the traditional standard used for judicial review of agency actions.

The conferees intend section 332(c)(7)(B)(iv) to prevent a State or local government or its instrumentalities from basing the regulation of the placement, construction or modification of CMS facilities directly or indirectly on the environmental effects of radio frequency emissions if those facilities comply with the Commission’s regulations adopted pursuant to section 704(b) concerning such emissions.

The limitations on the role and powers of the Commission under this subparagraph relate to local land use regulations and are not intended to limit or affect the Commission's general authority over radio telecommunications, including the authority to regulate the construction, modification and operation of radio facilities.

The conferees intend that the court to which a party appeals a decision under section 332(c)(7)(B)(v) may be the Federal district court in which the facilities are located or a State court of competent jurisdiction, at the option of the party making the appeal, and that the courts act expeditiously in deciding such cases. The term "final action" of that new subparagraph means final administrative action at the State or local government level so that a party can commence action under the subparagraph rather than waiting for the exhaustion of any independent State court remedy otherwise required.

With respect to the availability of Federal property for the use of wireless telecommunications infrastructure sites under section 704(c), the conferees generally adopt the House provisions, but substitute the President or his designee for the Commission.

It should be noted that the provisions relating to telecommunications facilities are not limited to commercial mobile radio licensees, but also will include other Commission licensed wireless common carriers such as point to point microwave in the extremely high frequency portion of the electromagnetic spectrum which rely on line of sight for transmitting communication services.

~~SECTION 705 MOBILE SERVICE DIRECT ACCESS TO LONG DISTANCE CARRIERS~~

*Senate bill*

Subsection (b) of section 221 of the Senate bill, as passed, states that notwithstanding the MFJ or any other consent decree, no CMS provider will be required by court order or otherwise to provide long distance equal access. The Commission may only order equal access if a CMS provider is subject to the interconnection obligations of section 251 and if the Commission finds that such a requirement is in the public interest. CMS providers shall ensure that its subscribers can obtain unblocked access to the interexchange carrier of their choice through the use of interexchange carrier identification codes, except that the unblocking requirement shall not apply to mobile satellite services unless the Commission finds it is in the public interest.

*House amendment*

Under section 109 of the House amendment, the Commission shall require providers of two-way switched voice CMS to allow their subscribers to access the telephone toll services provider of their choice through the use of carrier identification codes. The Commission rules will supersede the equal access, balloting and prescription requirements imposed by the MFJ and the AT&T-McCaw consent decree. The Commission may exempt carriers or classes of carriers from the requirements of this section if it is consistent with the public interest, convenience, and necessity, and the

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# **Federal Communications Commission**

## **Wireless Telecommunications Bureau**

### **RADIO STATION AUTHORIZATION**

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING  
ALPHARETTA, GA 30022

<b>Call Sign</b> WQJQ689	<b>File Number</b>
<b>Radio Service</b> WU - 700 MHz Upper Band (Block C)	

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 09-11-2019	<b>Effective Date</b> 07-15-2020	<b>Expiration Date</b> 06-13-2029	<b>Print Date</b>
<b>Market Number</b> REA001	<b>Channel Block</b> C	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Northeast			
<b>1st Build-out Date</b> 06-13-2013	<b>2nd Build-out Date</b> 06-13-2019	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

#### **Waivers/Conditions:**

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

#### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

**Licensee Name:** CELLCO PARTNERSHIP

**Call Sign:** WQJQ689

**File Number:**

**Print Date:**

**700 MHz Relicensed Area Information:**

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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## Federal Communications Commission

### Wireless Telecommunications Bureau

#### RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING  
ALPHARETTA, GA 30022

Call Sign	File Number
WQGA715	
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 11-29-2006	<b>Effective Date</b> 11-30-2017	<b>Expiration Date</b> 11-29-2021	<b>Print Date</b>
<b>Market Number</b> REA001	<b>Channel Block</b> F	<b>Sub-Market Designator</b> 21	
<b>Market Name</b> Northeast			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

#### Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

AWS operations must not cause harmful interference across the Canadian or Mexican Border. The authority granted herein is subject to future international agreements with Canada or Mexico, as applicable.

#### Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGA715

File Number:

Print Date:

**700 MHz Relicensed Area Information:**

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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# **Federal Communications Commission**

## **Wireless Telecommunications Bureau**

### **RADIO STATION AUTHORIZATION**

**LICENSEE: CELLCO PARTNERSHIP**

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING  
ALPHARETTA, GA 30022

<b>Call Sign</b> WQVP284	<b>File Number</b>
<b>Radio Service</b> AT - AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz)	

**FCC Registration Number (FRN): 0003290673**

<b>Grant Date</b> 04-08-2015	<b>Effective Date</b> 11-01-2016	<b>Expiration Date</b> 04-08-2027	<b>Print Date</b>
<b>Market Number</b> CMA563	<b>Channel Block</b> G	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> New York 5 - Otsego			
<b>1st Build-out Date</b> 04-08-2021	<b>2nd Build-out Date</b> 04-08-2027	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

**Waivers/Conditions:**

NONE

**Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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**Licensee Name:** CELLCO PARTNERSHIP

**Call Sign:** WQVP284

**File Number:**

**Print Date:**

**700 MHz Relicensed Area Information:**

<b>Market</b>	<b>Market Name</b>	<b>Buildout Deadline</b>	<b>Buildout Notification</b>	<b>Status</b>
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# **Federal Communications Commission**

## **Wireless Telecommunications Bureau**

### **RADIO STATION AUTHORIZATION**

**LICENSEE: CELLCO PARTNERSHIP**

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING  
ALPHARETTA, GA 30022

<b>Call Sign</b> WQPZ962	<b>File Number</b>
<b>Radio Service</b> AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

**FCC Registration Number (FRN): 0003290673**

<b>Grant Date</b> 08-23-2012	<b>Effective Date</b> 11-30-2017	<b>Expiration Date</b> 11-29-2021	<b>Print Date</b>
<b>Market Number</b> REA001	<b>Channel Block</b> E	<b>Sub-Market Designator</b> 13	
<b>Market Name</b> Northeast			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

#### **Waivers/Conditions:**

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

#### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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**Licensee Name:** CELLCO PARTNERSHIP

**Call Sign:** WQPZ962

**File Number:**

**Print Date:**

The license is subject to compliance with the provisions of the January 12, 2001 Agreement between Deutsche Telekom AG, VoiceStream Wireless Corporation, VoiceStream Wireless Holding Corporation and the Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI), which addresses national security, law enforcement, and public safety issues of the FBI and the DOJ regarding the authority granted by this license. Nothing in the Agreement is intended to limit any obligation imposed by Federal law or regulation including, but not limited to, 47 U.S.C. Section 222(a) and (c)(1) and the FCC's implementing regulations. The Agreement is published at VoiceStream-DT Order, IB Docket No. 00-187, FCC 01-142, 16 FCC Rcd 9779, 9853 (2001).

AWS operations must not cause harmful interference across the Canadian or Mexican Border. The authority granted herein is subject to future international agreements with Canada or Mexico, as applicable.

**Licensee Name:** CELLCO PARTNERSHIP

**Call Sign:** WQPZ962

**File Number:**

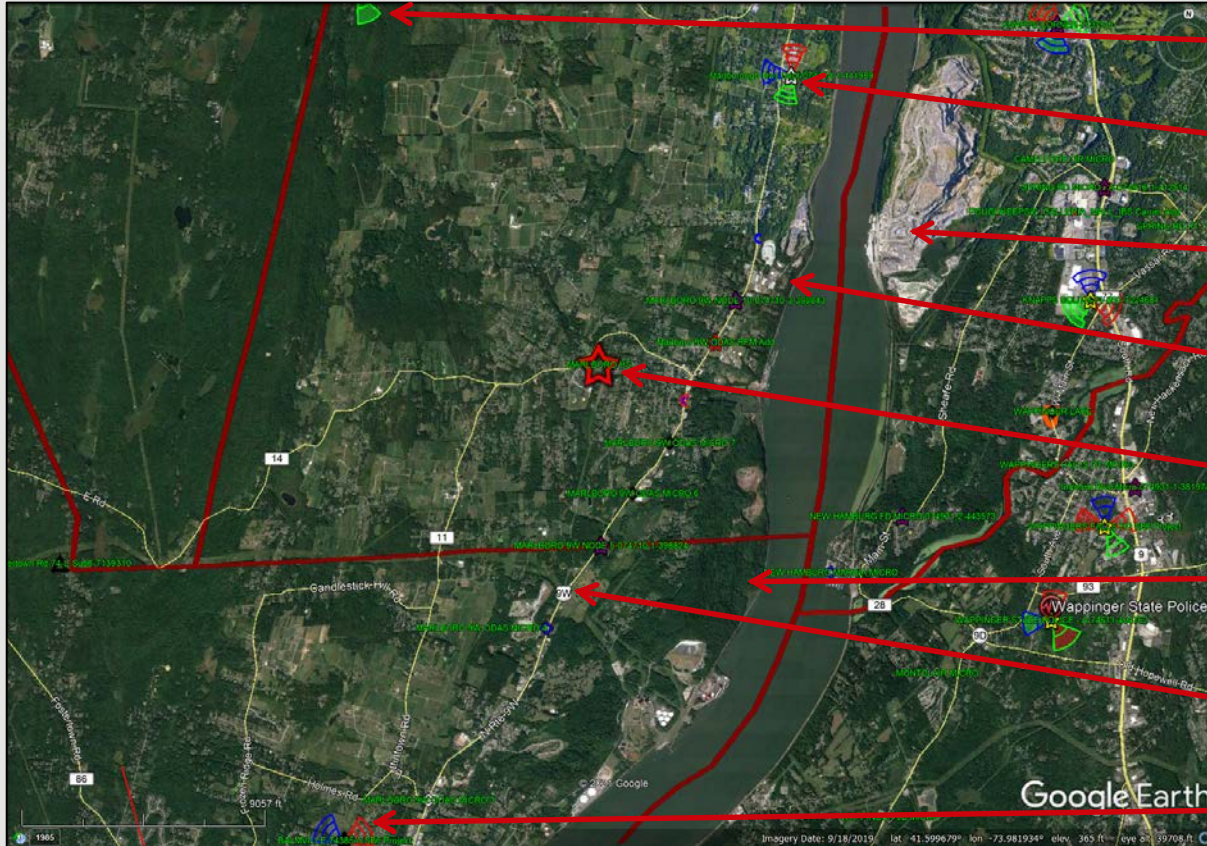
**Print Date:**

**700 MHz Relicensed Area Information:**

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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# Verizon Wireless Communications Facility

## Engineering Necessity Case – “Marlboro HS”



Mt. Zion Site

Marlborough Hwy Site

Town of Poughkeepsie

Town of Marlborough

Project location (Marlboro HS)

Town of Newburgh

Rt. 9W

Balmville Site

Prepared by: Michael R. Crosby

**Project:** The project is the installation and operation of a new monopole co-located wireless telecommunications site in the town of Marlborough (the “Project Facility”).

**verizon**✓

August 16<sup>th</sup>, 2021

# Introduction

The purpose of this subsequent analysis is to summarize and communicate the technical radio frequency (RF) information used in the justification of this new site.

Coverage and/or capacity deficiencies are the two main drivers that prompt the need for a new wireless communications facility/site. All sites provide a mixture of both capacity and coverage for the benefit of the end user.

**Coverage** can be defined as the existence of signal of usable strength and quality in an area, including but not limited to in-vehicles or in-buildings.

The need for improved coverage is identified by RF Engineers that are responsible for developing and maintaining the network. RF Engineers utilize both theoretical and empirical data sets (propagation maps and real world coverage measurements). Historically, coverage improvements have been the primary justification of new sites.

**Capacity** can be defined as the amount of traffic (voice and data) a given site can process before significant performance degradation occurs.

When traffic volume exceeds the capacity limits of a site serving a given area, network reliability and user experience degrades. Ultimately this prevents customers from making/receiving calls, applications cease functioning, internet connections time out and data speeds fail. This critical condition is more important than just a simple nuisance for some users. Degradation of network reliability and user experience can affect emergency responders and to persons in a real emergency situation can literally mean life or death.

# Project Need Overview

The project area, located in the southern portion of the town of **Marlborough** is currently served by two sites. These sites are overloaded requiring capacity relief. Additionally the project area is subject to significant terrain challenges for RF (signal) propagation. This terrain combined with area foliage and long distance prevent effective propagation of Verizon's RF signals into this area compounding the capacity issue with areas of variable coverage creating significant gaps in coverage.

The first serving site is **Mt. Zion**, located in the town of Marlborough, is approximately three miles northwest (of the project location) situated on an existing tower off Mt. Zion Rd. While this site provides weak/variable coverage in portions of the project area, it does so from a terrain and distance challenged position making the site not capable of efficiently or effectively providing adequate coverage or capacity.

The second serving site is **Wappingers Falls**, located in the town of Wappinger, is approximately four miles east (of the project location) situated on an existing water tank located off Wenliss Terrace. While this site provides weak/variable coverage in portions of the project area, it does so from a terrain and distance challenged position making the site not capable of efficiently or effectively providing adequate coverage or capacity.

Available (mid band AWS) carriers at these and other area sites are not capable of effectively serving/offloading the project area due to inherent propagation losses from distance, challenging terrain and in building coverage losses negatively impacting high band coverage and capacity offload capabilities. There are other Verizon sites in this general area but due to distance and terrain they also do not provide any significant overlapping coverage in the area in question that could allow for increased capacity and improved coverage from other sources.

The primary objectives for this project are to increase capacity and improve coverage throughout portions of the town of Marlborough, more specifically portions of Plattekill Rd, Rt. 9W, Western Ave, Prospect St, Lattintown Rd, South St, Highland Ave, Marlboro HS and MS as well as neighboring residential and commercial areas along and near these roads. In order to offload capacity from Mt. Zion and Wappingers Falls a new dominant server must be created. This new dominant coverage will effectively offload the existing overloaded sites/cells as well as provide improved coverage where significant gaps exist today.

Following the search for co-locatable structures to resolve the aforementioned challenges and finding none available, Verizon proposes to attach the necessary antenna(s) to a new 90' tall monopole structure located at 50 Cross Rd, Marlborough, NY. Verizon's antennas will utilize 86' for the ACL (Antenna Center Line) with a top of antenna height of 90'. This solution will provide the necessary coverage and capacity improvements needed.



# Wireless LTE (Voice and Data) Growth



Wireless smart city solutions are being used to track available parking and minimize pollution and wasted time.



These same solutions are being used to track pedestrian and bike traffic to help planning and minimize accidents.



Smart, wireless connected lighting enables cities to control lighting remotely, saving energy and reducing energy costs by 20%.



4G technology is utilized to track and plan vehicle deliveries to minimize travel, maximize efficiency, and minimize carbon footprint.



4G technology is also used to monitor building power usage down to the circuit level remotely, preventing energy waste and supporting predictive maintenance on machines and equipment.



Wireless sensors placed in shipments are being used to track temperature-sensitive medications, equipment, and food. This is important for preventing the spread of food-borne diseases that kill 3,000 Americans each year.

Source: Verizon Innovation Center, February, 2018

Wireless is a critical component in schools and for today's students.



**20,000 learning apps are available for iPads. 72% of iTunes top selling educational apps are designed for preschoolers and elementary students.**



**600+ school districts replaced text books with tablets in classrooms.**



**77% of parents think tablets are beneficial to kids.**

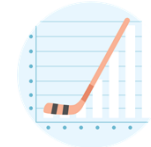


**74% of school administrators feel digital content increases student engagement.**

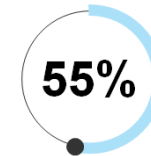


**70% of teens use cellphones to help with homework.**

Source: CTIA's Infographics Today's Wireless Family, October, 2017



**The average North American smartphone user will consume 48 GB of data per month in 2023, up from just 5.2 GB per month in 2016 and 7.1 GB per month in 2017 .<sup>1</sup>**



**Of American homes are wireless only.<sup>2</sup>**



**In North America, the average household has 13 connected devices with smartphones outnumbering tablets 6 to 1.<sup>3</sup>**

1. Ericsson Mobility Report, November 2017

2. CDC's 2018 Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-July, 2018

3. IHS Market Connected Device Market Monitor: Q1 2016, June 7, 2016



**With over 80% of 9-1-1 calls now coming from cell phones...<sup>1</sup>**

**240 million**

**911 calls are made annually. In many areas, 80% or more are from wireless devices.<sup>1</sup>**

1. National Emergency Number Association, Enhancing 9-1-1 Operations With Automated Abandoned Callback & Location Accuracy (Motorola Solutions) (August 23, 2018)

**A wireless network is like a highway system...**



US, mobile data traffic was 1.3 Exabytes per month in 2016, the equivalent of 334 million DVDs each month or 3,687 million text messages each second **according to Cisco VNI Mobile Forecast Highlights, 2016-2021, Feb 2017**

**verizon**

**Wireless facilities and property values.**

**Cell service in and around the home has emerged as a critical factor in home-buying decisions.**



National studies demonstrate that most home buyers value good cell service over many other factors including the proximity of schools when purchasing a home.

**75%**

More than 75% of prospective home buyers said a good cellular connection was important to them.<sup>1</sup>

**83%**

The same study showed that 83% of Millennials (those born between 1982 and 2004) said cell service was the most important fact in purchasing a home.

**90%**

90% of U.S. households use wireless service. Citizens need access to 911 and reverse 911 and wireless may be their only connection.<sup>2</sup>

1. RootMetrics/Money, The Surprising Thing Home Buyers Care About More than Schools, June 2, 2015

2. CTIA, June 2015

# Explanation of Wireless Capacity



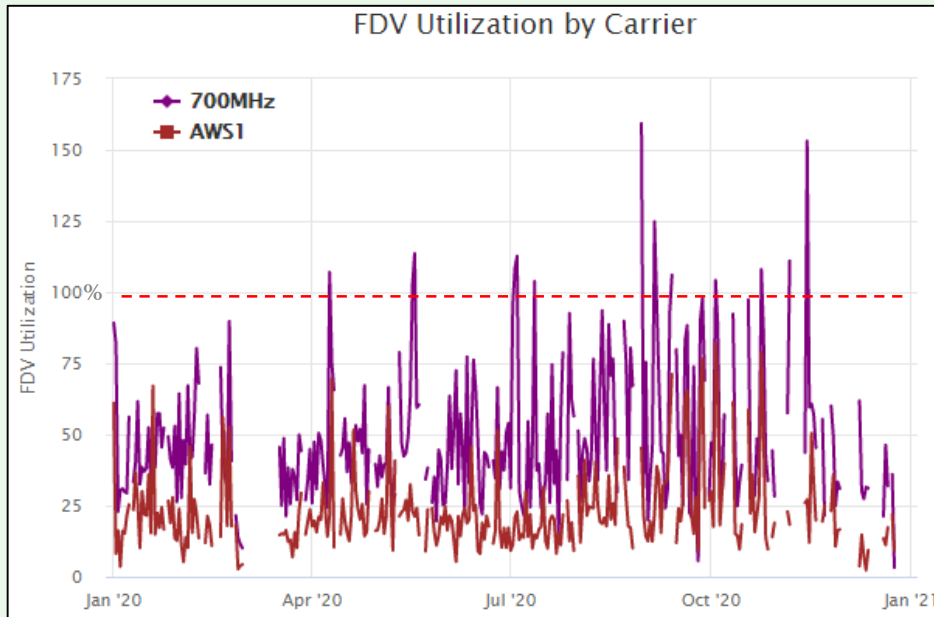
**Capacity** in this analysis is evaluated with up to three metrics further explained below. These metrics assist in determining actual usage for a given site as well as are used to project when a site is expected to run out of capacity (i.e. reach a point of exhaustion where it can no longer process the volume of voice and data requested by local wireless devices, thus no longer providing adequate service).

- Forward Data Volume (“**FDV**”), is a measurement of usage (data throughput) on a particular site over a given period of time.
- Average Schedule Eligible User (“**ASEU**”), is a measurement of the loading of the control channels and systems of a given site.
- Average Active Connections (“**AvgAC**”) is a measurement of the number of devices actively connected to a site in any given time slot.

Verizon Wireless uses proprietary algorithms developed by a task force of engineers and computer programmers to monitor each site in the network and accurately project and identify when sites will approach their capacity limits. Using a rolling two-year window for projected exhaustion dates allows enough time, in most cases, to develop and activate a new site. It is critical that these capacity approaching sectors are identified early and the process gets started and completed in time for new solutions (sites) to be on air before network issues impact the customers.

# Capacity Utilization

## FDV (Mt. Zion Beta)

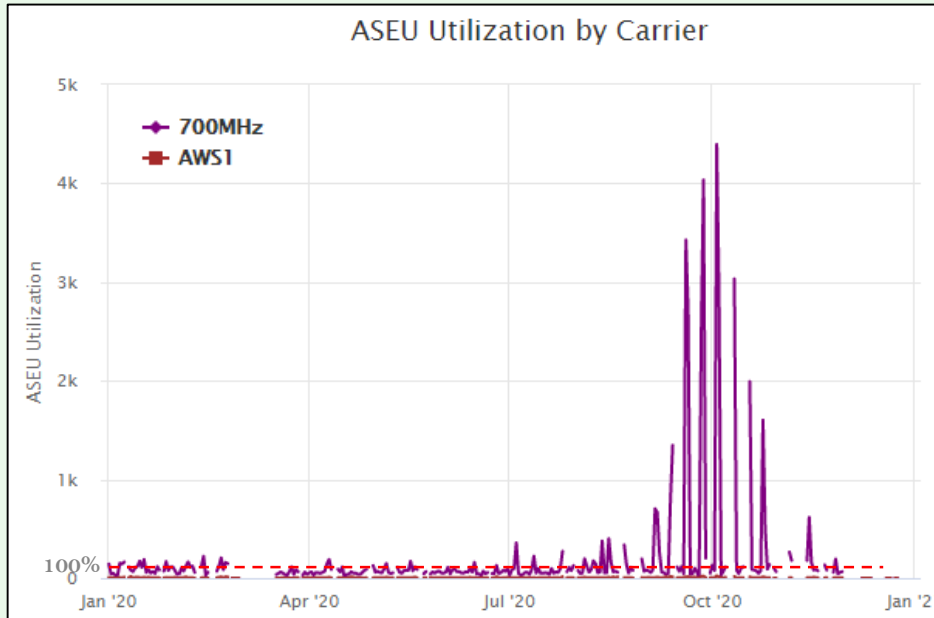


**Summary:** This graph shows FDV (**F**orward **D**ata **V**olume) which is a measurement of the customer data usage that this sector currently serves. As this limit is approached, data rates slow to unacceptable levels, potentially causing unreliable service for Verizon Wireless customers.

The purple line represents the daily max busy hour 700MHz utilization and the dark red line is daily max busy hour AWS utilization on the **Beta** sector of the **Mt. Zion** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

**Detail:** The existing **Mt. Zion** sector shown above has exceeded its capability of supporting FDV requirements as shown by the purple line exceeding the max utilization threshold (red dashed line). FDV is one of three metrics used in this presentation to evaluate capacity capability in this area.

# Capacity Utilization ASEU (Mt. Zion Beta)



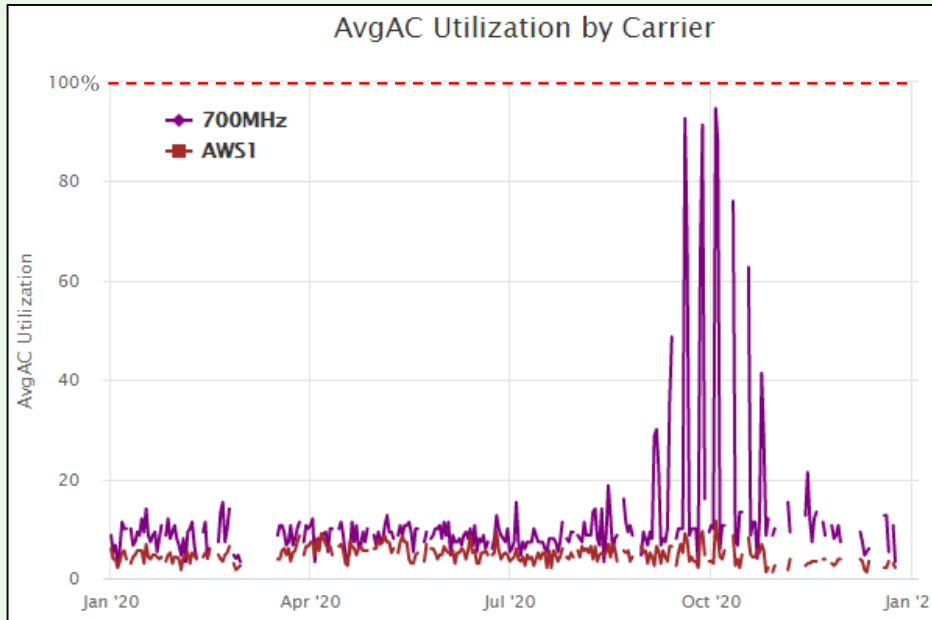
**Summary:** This graph shows ASEU (**A**verage **S**chedule **E**ligible **U**ser). ASEU is a measurement of the loading of the control channels and systems of a given site. The ASEU load is heavily impacted by distant users or those in poor RF conditions.

The purple line represents the daily max busy hour 700MHz utilization and the dark red line is daily max busy hour AWS utilization on the **Beta** sector of the **Mt. Zion** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

**Detail:** The existing **Mt. Zion** sector cannot support the traffic demand throughout the extent of the large geographic area it covers. **Mt. Zion** is overloaded, as shown by the purple actual use line exceeding the red dashed exhaustion threshold. This graph also reveals the inability of the AWS carrier (dark red line) to provide the necessary capacity offload for the low band carrier due to differences in RF propagation characteristics. The solution is network densification.

# Capacity Utilization

## AvgAC (Mt. Zion Beta)



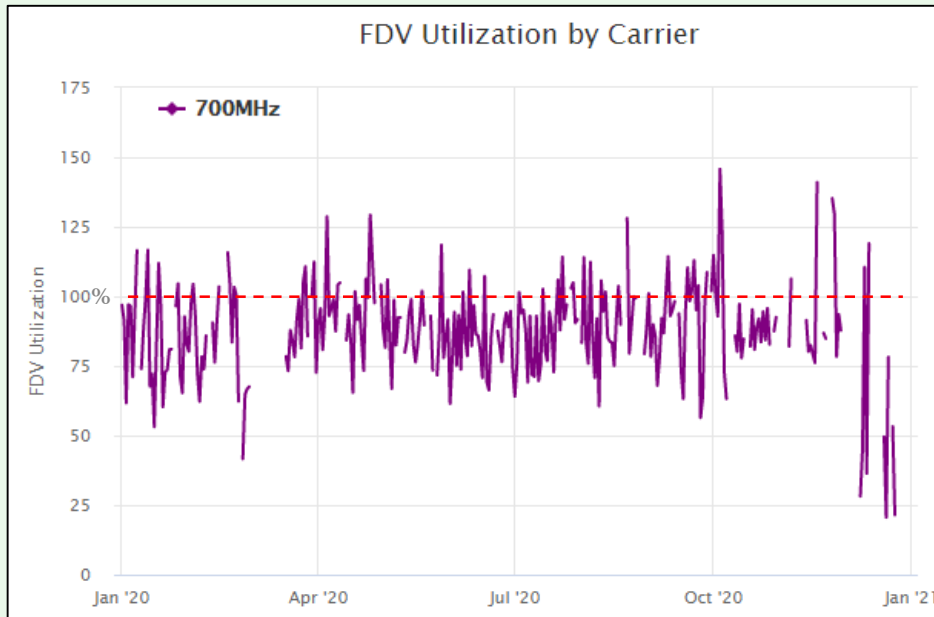
**Summary:** This graph shows AvgAC (**A**verage **A**ctive **C**onnections). AvgAC utilization by carrier is a measurement of max active connection capacity per sector in any given time slot. When this limit is reached, no additional devices will be able to connect to the site, resulting in connection failures and dropped calls.

The purple line represents the daily max busy hour 700MHz utilization and the dark red line is daily max busy hour AWS utilization on the **Beta** sector of the **Mt. Zion** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

**Detail:** The existing **Mt. Zion** sector shown above is working normally for this metric. AvgAc is one of three metrics used in this presentation to evaluate capacity capability in this area.



# Capacity Utilization FDV (Wappingers Falls Delta)



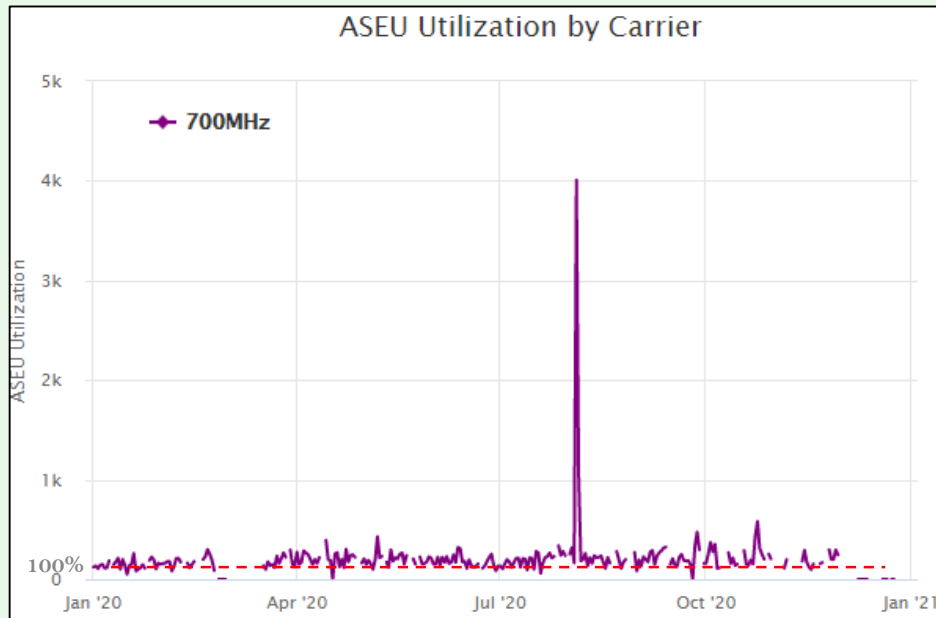
**Summary:** This graph shows FDV (**F**orward **D**ata **V**olume) which is a measurement of the customer data usage that this sector currently serves. As this limit is approached, data rates slow to unacceptable levels, potentially causing unreliable service for Verizon Wireless customers.

The purple line represents the daily max busy hour 700MHz utilization on the **Delta** sector of the **Wappingers Falls** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

**Detail:** The existing **Wappingers Falls** sector shown above has exceeded its capability of supporting FDV requirements as shown by the purple line exceeding the max utilization threshold (red dashed line). FDV is one of three metrics used in this presentation to evaluate capacity capability in this area.

# Capacity Utilization

## ASEU (Wappingers Falls Delta)

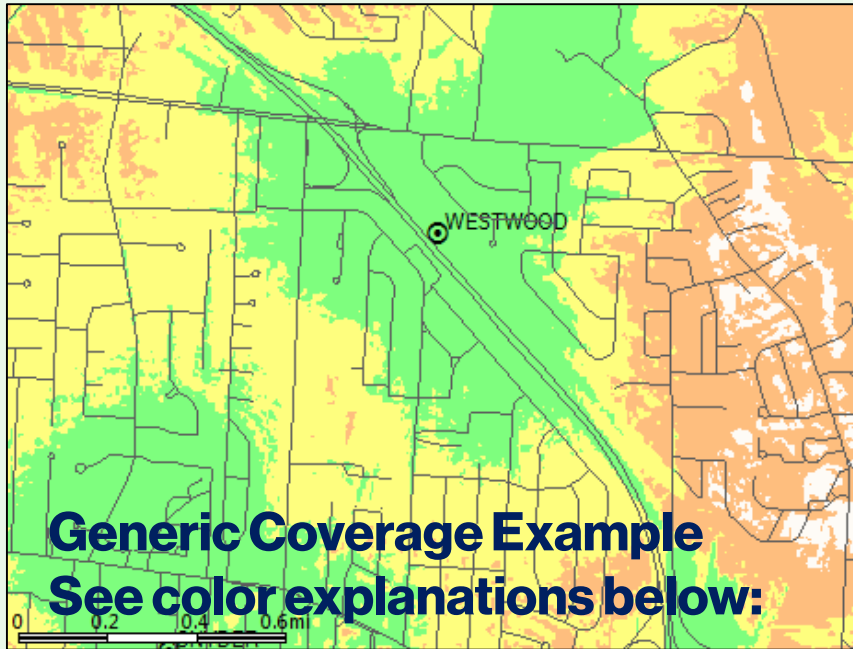


**Summary:** This graph shows ASEU (**A**verage **S**chedule **E**ligible **U**ser). ASEU is a measurement of the loading of the control channels and systems of a given site. The ASEU load is heavily impacted by distant users or those in poor RF conditions.

The purple line represents the daily max busy hour 700MHz utilization on the **Delta** sector of the **Wappingers Falls** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

**Detail:** The existing **Wappingers Falls** sector cannot support the traffic demand throughout the extent of the large geographic area it covers. **Wappingers Falls** is overloaded, as shown by the purple actual use line exceeding the red dashed exhaustion threshold. The solution is network densification.

# Explanation of Wireless Coverage



Note the affect of clutter on the predicted coverage footprint above

\*\*Dark Green  $\geq$  -75dBm RSRP, typically serves dense urban areas as well as areas of substantial construction (colleges, hospitals, dense multi family etc.)  
Green  $\geq$  -85dBm RSRP, typically serves suburban single family residential and light commercial buildings  
Yellow  $\geq$  -95dBm RSRP, typically serves most rural/suburban-residential and in car applications  
Orange  $\geq$  -105dBm RSRP, rural highway coverage, subject to variable conditions including fading and seasonality gaps  
White =  $<$  -105dBm RSRP, variable to no reliable coverage gap area

More detailed, site-specific coverage slides are later in the presentation

\*Signal strength requirements vary as dictated by specific market conditions

\*\* Not displayed in example map, layer not used in all site justifications

**Coverage** is best shown via coverage maps. RF engineers use computer simulation tools that take into account terrain, vegetation, building types, and site specifics to model the RF environment. This model is used to simulate the real world network and assist engineers to evaluate the impact of a proposed site (along with industry experience and other tools).

Many Verizon Wireless sites provide 3G CDMA at 850 MHz and 4G LTE at 700 MHz. As capacity requirements increase, higher frequency PCS (1900 MHz) and AWS (2100 MHz) carriers are added. In some mountaintop situations the mid band (higher frequency) AWS and PCS carriers are not fully effective due to excessive distance from the user population.

Coverage provided by a given site is affected by the frequencies used. Lower frequencies propagate further distances, and are less attenuated by clutter than higher frequencies. To provide similar coverage levels at higher frequencies, a denser network of sites is required (network densification).

# Explanation of this Search Area



## Marlboro HS Search Area

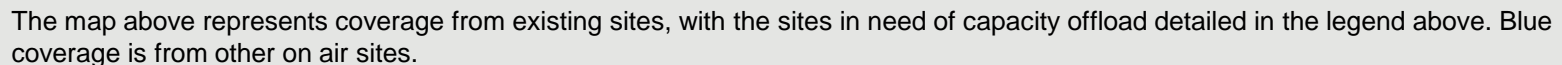
To resolve the coverage and capacity deficiencies previously detailed, Verizon Wireless is seeking to add one new cell facility within this area to improve wireless service capacity and coverage. By offloading traffic from **Mt. Zion and Wappingers Falls** with the proposed site, adequate and reliable service will be restored. The new **Marlboro HS** site will provide dominant and dedicated signal to the identified portions of the town of **Marlborough**. This helps to improve not only the **Marlboro HS** project area but will also indirectly result with significant improvements in this portion of the town of **Marlborough** and southeastern **Ulster County**.

A **Search Area** is the geographical area within which a new site is targeted to solve a coverage or capacity deficiency. Three of the factors taken into consideration when defining a search area are topography, user density, and the existing network.

- **Topography** must be considered to minimize the obstacles between the proposed site and the target coverage area. For example, a site at the bottom of a ridge will not be able to cover the other side from a certain height.
- In general, the farther from a site the **User Population** is, the weaker the RF conditions are and the worse their experience is likely to be. These distant users also have an increased impact on the serving site's capacity. In the case of a multi sector site, centralized proximity is essential to allow users to be evenly distributed and allow efficient utilization of the site's resources.
- The existing **Network Conditions** also guide the design of a new site. Sites placed too close together create interference due to overlap and are an inefficient use of resources. Sites that are too tall or not properly integrated with existing sites cause interference and degrade service for existing users.
- Existing co-locatable structures inside the search area as well as within a reasonable distance of the search area are submitted by site acquisition and reviewed by RF Engineering. If possible, RF will make use of existing or nearby structures before proposing to build new towers.



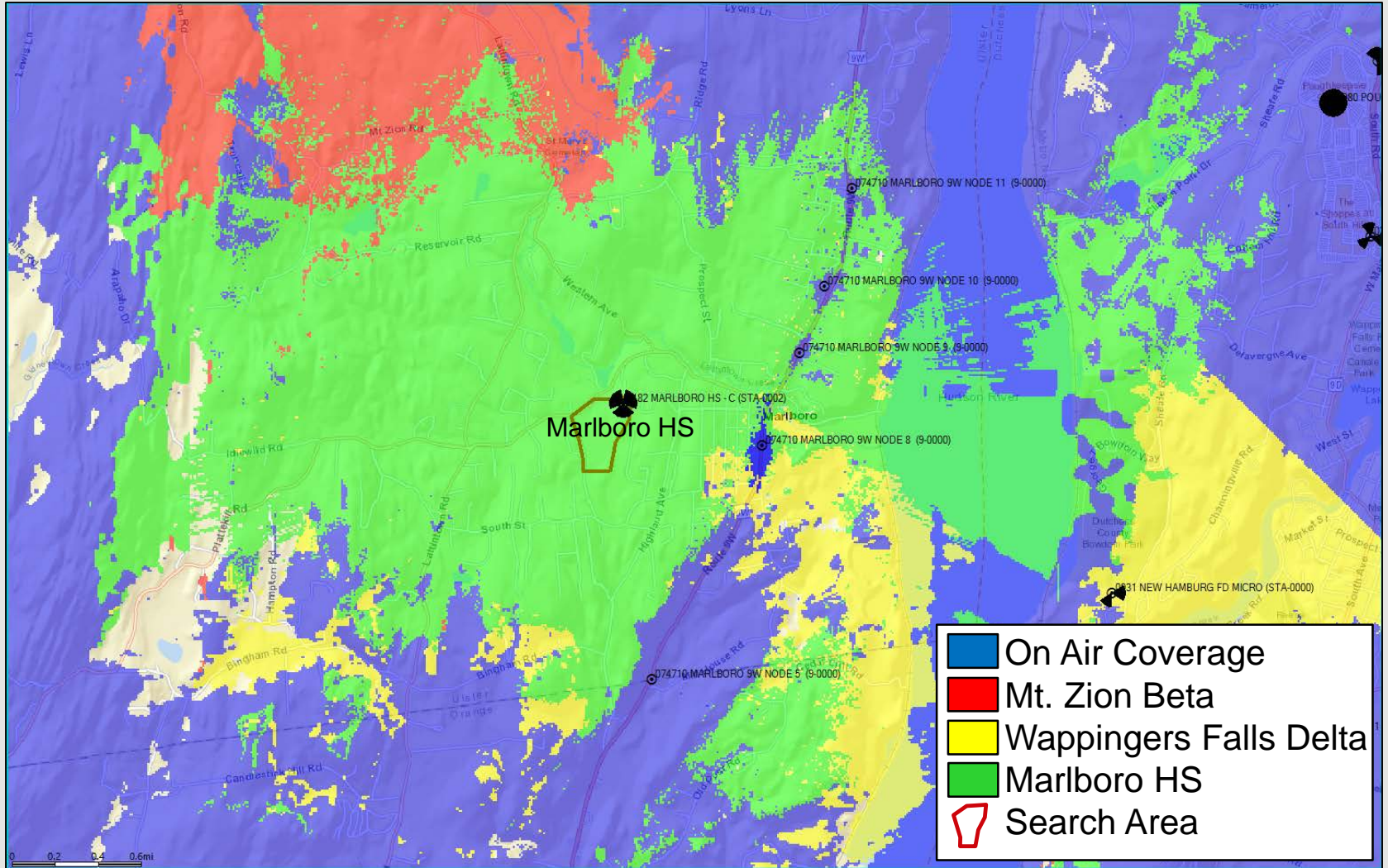
Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area.





## Existing 700MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area (at 86' ACL).

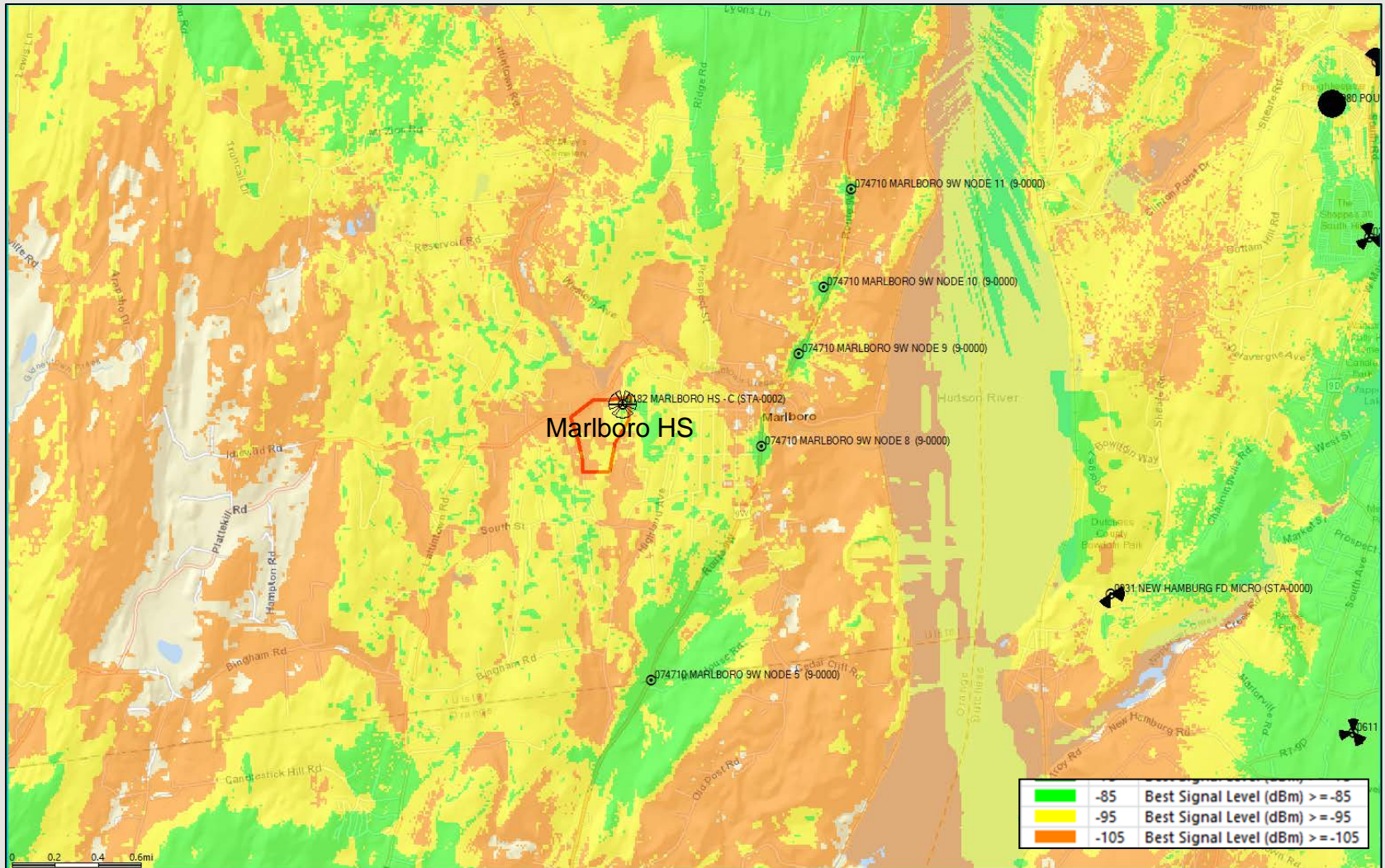


The map above adds the footprint of the proposed Marlboro HS site in green. The green best server footprint provides improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the Mt. Zion Beta and Wappingers Falls Delta sectors.



# Existing 700MHz Coverage

This coverage map shows how weak the RF conditions are in and around the Marlboro HS site area. Refer to slide 11 for further explanation of these color thresholds

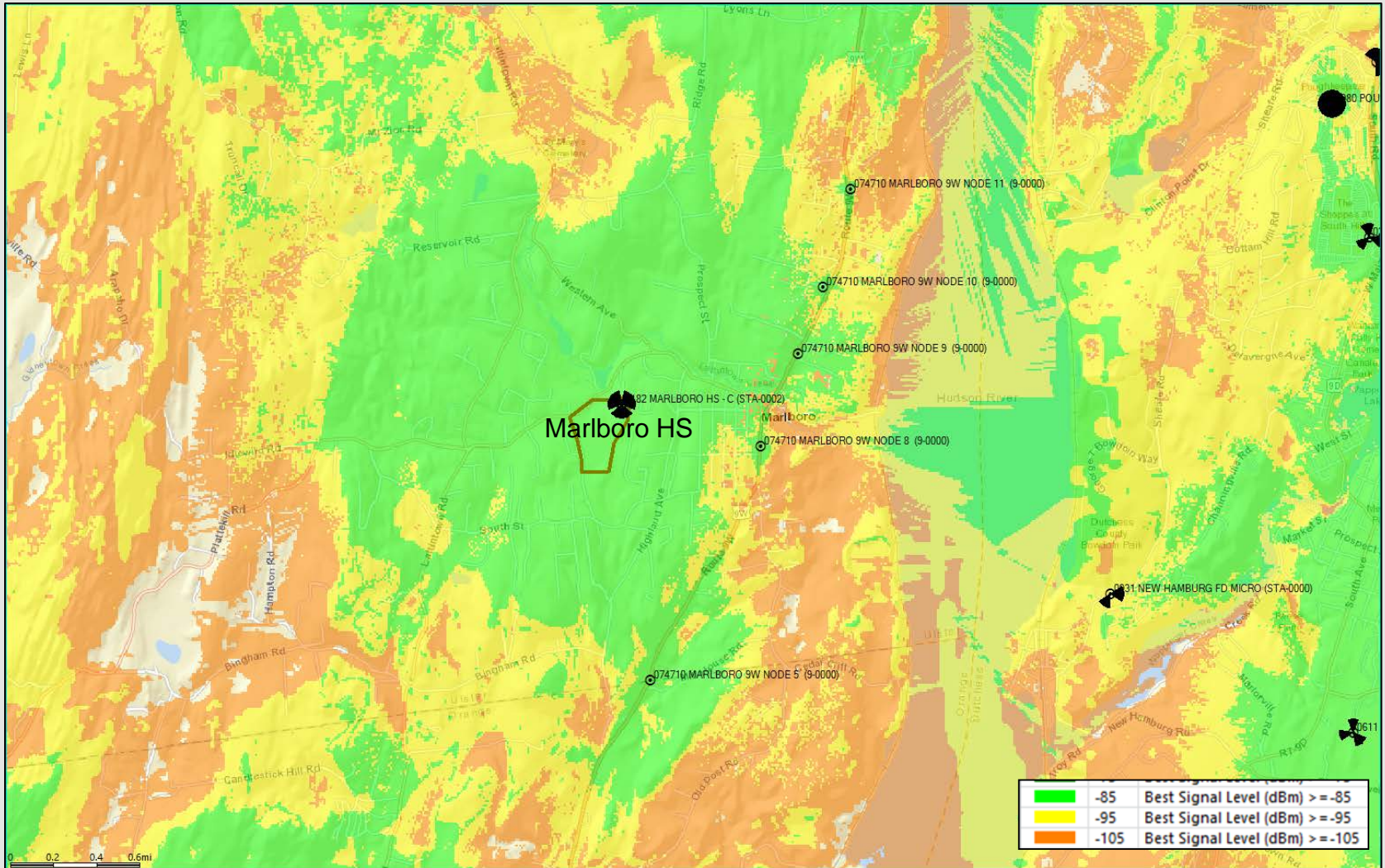


The map above represents coverage from existing sites. This 700MHz signal is very weak throughout the project area which is a contributing factor to the overloaded conditions as explained in the capacity slides especially the ASEU slides on p7 and 10. Additional low band network densification is required to resolve these conditions.



# Proposed 700MHz Coverage

This coverage map shows how improved the RF conditions will be in and around the Marlboro HS site area (at 86'ACL).  
*Refer to slide 11 for further explanation of these color thresholds*



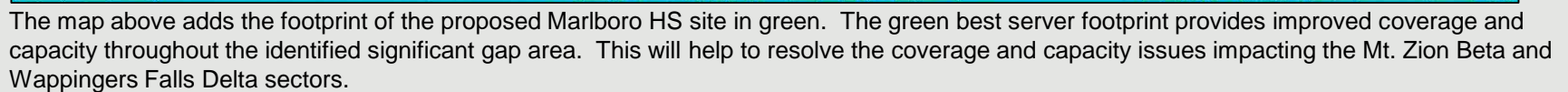
The map above adds the footprint of the proposed Marlboro HS site. The significantly improved signal strength corresponds to improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the Mt. Zion Beta and Wappingers Falls Delta sectors.







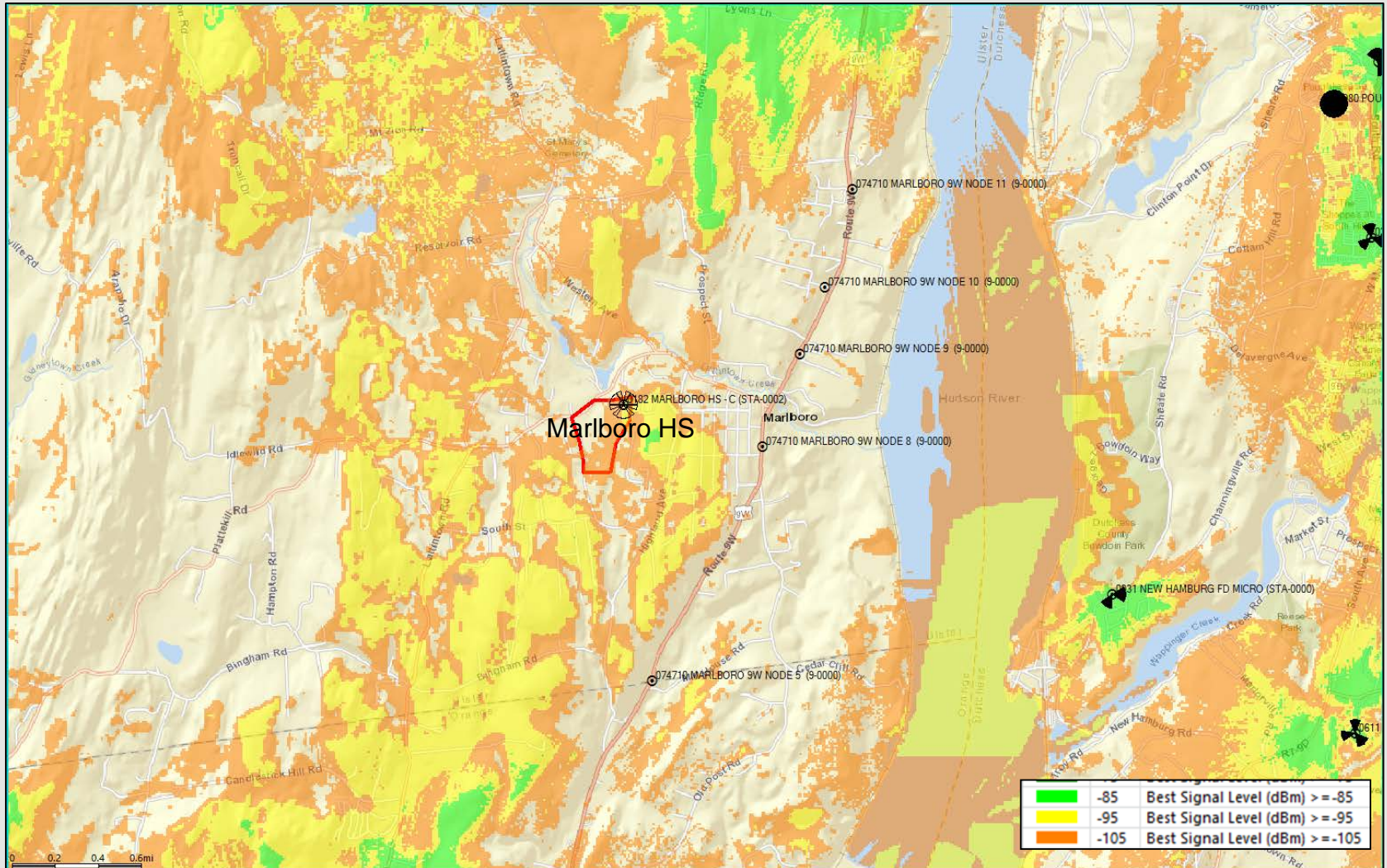
Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area (at 86' ACL).





# Existing 2100MHz Coverage

This coverage map shows the RF conditions in and around the Marlboro HS site area.  
*Refer to slide 11 for further explanation of these color thresholds*

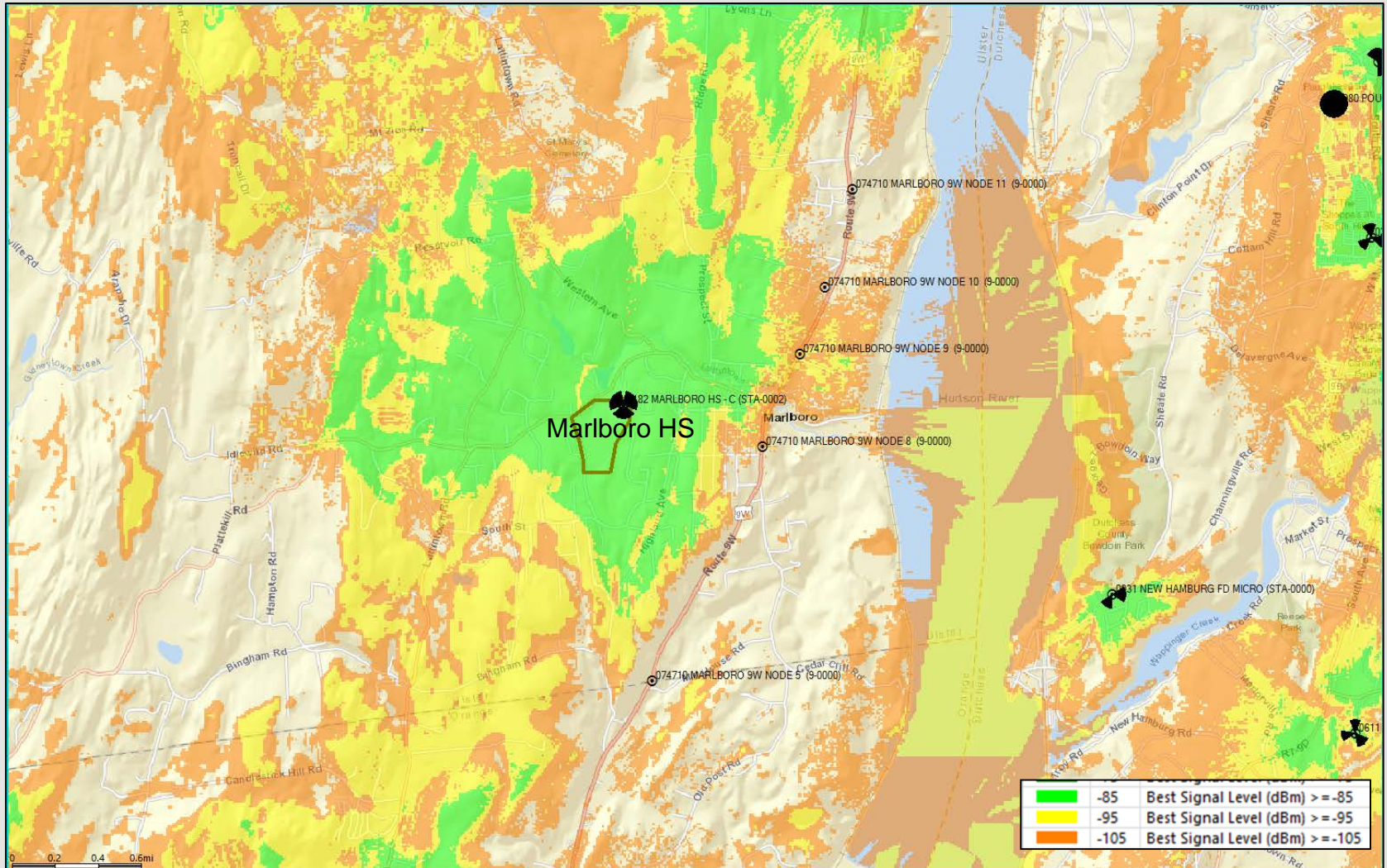


The map above represents coverage from existing sites. This 2100MHz signal is very weak throughout the project area which is a contributing factor to the overloaded conditions as explained in the capacity slides especially the ASEU slides on p7 and 10. Additional mid band network densification is required to resolve these conditions.



# Proposed 2100MHz Coverage

This coverage map shows how improved the RF conditions will be in and around the Marlboro HS site area (at 86' ACL).  
*Refer to slide 11 for further explanation of these color thresholds*

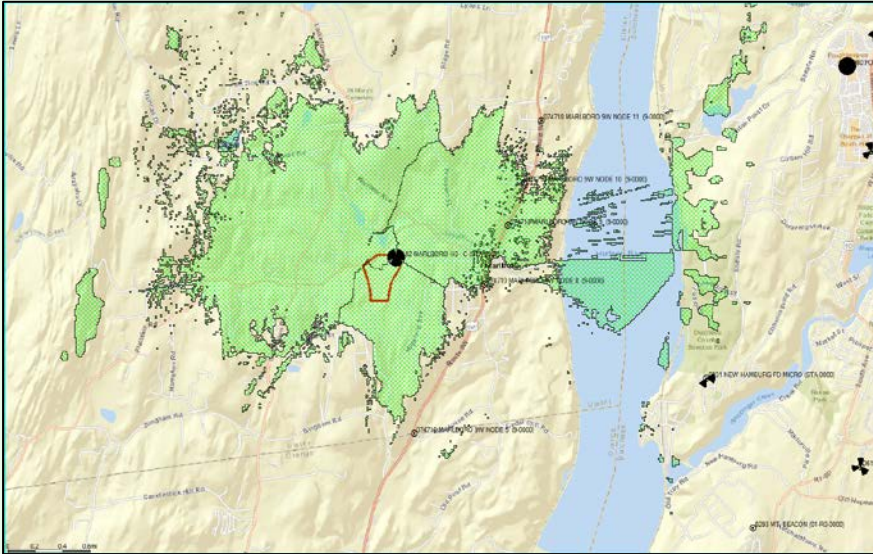


The map above adds the footprint of the proposed Marlboro HS site. The improved signal strength corresponds to improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the Mt. Zion Beta and Wappingers Falls Delta sectors.

# RF Justification Summary

The network was analyzed to determine whether there is sufficient **RF coverage and capacity** in the **town of Marlborough**. It was determined that there are significant gaps in adequate LTE service for Verizon Wireless in the 700 and 2100MHz frequency bands. In addition to the coverage deficiencies, Verizon Wireless' network does not have sufficient capacity (low band or mid band) to handle the existing and projected LTE voice and data traffic in the area near and neighboring the proposed **Marlboro HS** facility ("targeted service improvement area"). Based on the need for additional coverage and capacity while considering the topography and specific area requiring service, any further addition of capacity to distant existing sites does not remedy Verizon's significant gap in reliable service. Therefore, the proposed facility is also needed to provide "**capacity relief**" to the existing nearby Verizon Wireless sites, allowing the proposed facility and those neighboring sites to adequately serve the existing and projected capacity demand in this area.

With the existing network configuration there are significant gaps in service which restricts Verizon Wireless customers from originating, maintaining or receiving reliable calls and network access. It is our expert opinion that the proposed height will satisfy the coverage and capacity needs of Verizon Wireless and its subscribers in this portion of the **town of Marlborough** and the **Marlboro HS** project area. The proposed location depicted herein satisfies the identified service gaps and is proposed at the minimum height necessary for adequate service.



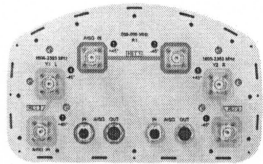
The proposed site at 86' ACL resolves the substantial and significant gaps in coverage and capacity impacting the Marlboro HS site area. This gap is shown above: The green shaded area represents the gap in coverage and capacity that Marlboro HS (site) will resolve.

*Michael R. Crosby*

Michael R. Crosby  
Engineer IV – RF Design  
Verizon Wireless



# NHH-65C-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

## General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Copper   Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

## Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female   8-pin DIN Male
RET Interface, quantity	2 female   2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1   Port 3
Internal RET	High band (1)   Low band (1)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W

# NHH-65C-R2B

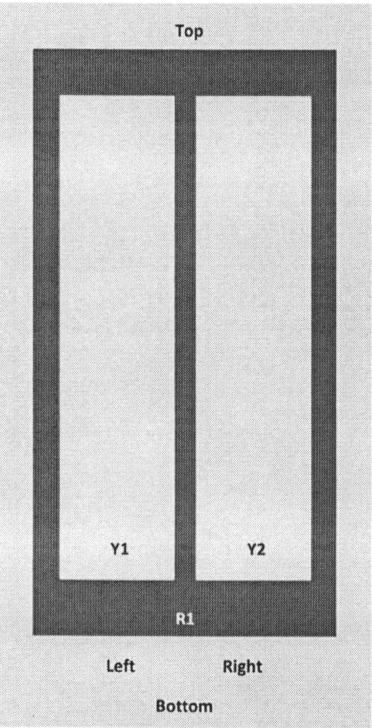
Protocol 3GPP/AISG 2.0 (Single RET)

## Dimensions

Width 301 mm | 11.85 in  
Depth 180 mm | 7.087 in  
Length 2438 mm | 95.984 in  
Net Weight, without mounting kit 23.4 kg | 51.588 lb

## Array Layout

NHH



Array	Freq (MHz)	Conn	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxx1
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxx2
Y2	1695-2360	5-6		

View from the front of the antenna  
(Sizes of colored boxes are not true depictions of array sizes)

## Electrical Specifications

Impedance 50 ohm  
Operating Frequency Band 1695 – 2360 MHz | 698 – 896 MHz



# NHH-65C-R2B

Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	16	16.1	17.3	17.7	18.3	18.2
Beamwidth, Horizontal, degrees	65	62	74	66	62	59
Beamwidth, Vertical, degrees	9	7.9	5.6	5.2	4.9	4.5
Beam Tilt, degrees	0–11	0–11	0–7	0–7	0–7	0–7
USLS (First Lobe), dB	21	18	19	20	22	18
Front-to-Back Ratio at 180°, dB	35	31	33	29	29	30
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30	30
VSWR   Return loss, dB	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	400	400	350	350	350	300

## Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	15.8	15.9	16.9	17.5	18	17.9
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.4	±0.3	±0.6	±0.4
Gain by Beam Tilt, average, dBi	0°   15.9 5°   15.9 11°   15.5	0°   15.8 5°   16.0 11°   15.7	0°   16.9 4°   17.0 7°   16.9	0°   17.4 4°   17.5 7°   17.4	0°   17.9 4°   18.0 7°   18.0	0°   17.8 4°   17.9 7°   17.9
Beamwidth, Horizontal Tolerance, degrees	±1.2	±1.6	±5.3	±3.4	±6	±3.1
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.4	±0.3	±0.2	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	15	14	17	16	17	15
Front-to-Back Total Power at 180° ± 30°, dB	25.6	23.8	28	25	25	24
CPR at Boresight, dB	18	26	20	25	20	17

# NHH-65C-R2B

CPR at Sector, dB	15	9	11	10	8	2
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## Mechanical Specifications

Effective Projective Area (EPA), frontal	0.37 m <sup>2</sup>   3.983 ft <sup>2</sup>
Effective Projective Area (EPA), lateral	0.31 m <sup>2</sup>   3.337 ft <sup>2</sup>
Wind Loading @ Velocity, frontal	393.0 N @ 150 km/h (88.3 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	330.0 N @ 150 km/h (74.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	757.0 N @ 150 km/h (170.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	398.0 N @ 150 km/h (89.5 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h   149.75 mph

## Packaging and Weights

Width, packed	409 mm   16.102 in
Depth, packed	299 mm   11.772 in
Length, packed	2561 mm   100.827 in
Weight, gross	36.1 kg   79.587 lb

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted



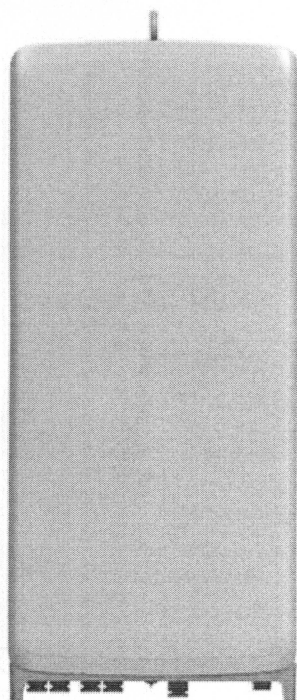
## Included Products

BSAMNT-3	-	Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.
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## \* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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# C-band 64T64R MMU



\* Preliminary Design

Specifications are subject to change.

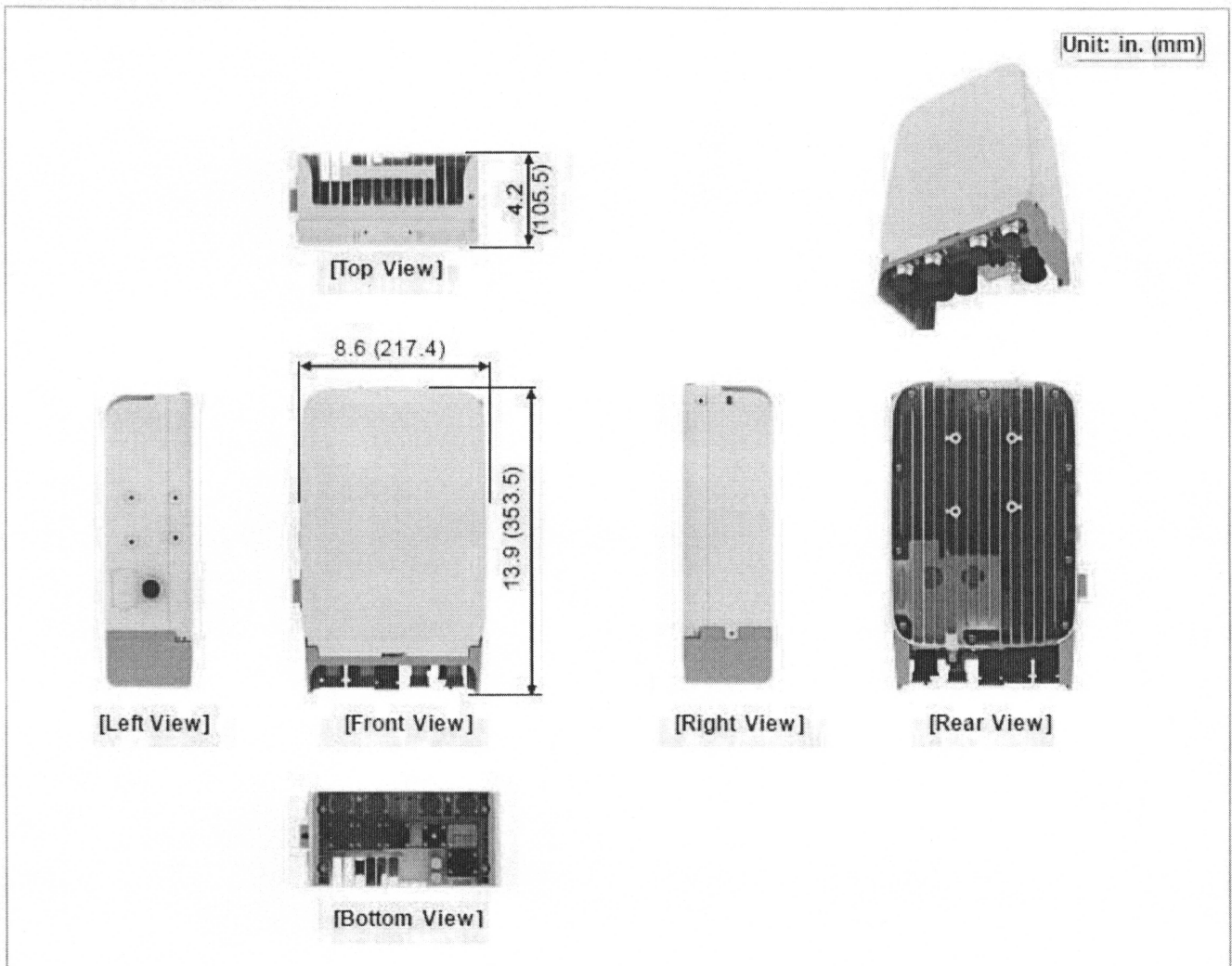
Air Technology	NR
Frequency	3700 – 3980 MHz
IBW	280 MHz
OBW	200 MHz
Carrier Bandwidth	20/40/60/80/100 MHz
# of Carriers	2 carriers
Layer	DL : 16L, UL : 16RX (8L)
RF Chain	64T64R
Antenna Configuration	4V16H with 192 AE
EIRP	78.5 dBm (53 dBm + 25.5 dBi)
Conductive Power	200W
Spectrum Analyzer	TX/RX support
RX Sensitivity	Typical -97.8dBm @(1Rx, 18.36MHz with 30kHz, 51RBs)
EIS Sensitivity	Typical -125.9dBm @(16Rx, BLER 5%, excluding polarization loss, 18.36MHz with 30kHz, 51RBs)
Modulation	DL 256QAM support, (DL 1024QAM with 1~2dB power back-off)
Function Split	DL/UL option 7-2x
Input Power	-48 VDC (-38 VDC to -57 VDC)
Power Consumption	1,395 W @ 100% RF load, room temperature
	1,428 W @ 100% RF load, all temperature
	1,003 W @ 40% RF load, room temperature
Size (WHD)	408 x 892 x 140 mm (16.06 x 35.12 x 5.51 inch)
Volume	50.95L
Weight	39.5kg (87.1 lb)
Operating Temperature	-40°C - 55°C (w/o solar load)
Cooling	Natural convection
Unwanted Emission	3GPP 38.104
	FCC 47 CFR 27.53 : < -13dBm/MHz
	< -40 dBm/MHz @ above 4 GHz
Optic Interface	15km, 4 ports (25Gbps x 4), SFP28, single mode, Bi-di (Option: Duplex)
Mounting Options	Pole, wall
NB-IoT	Not support
External Alarm	4RX
Fronthaul Interface	eCPRI

# CBRS

## RRH View

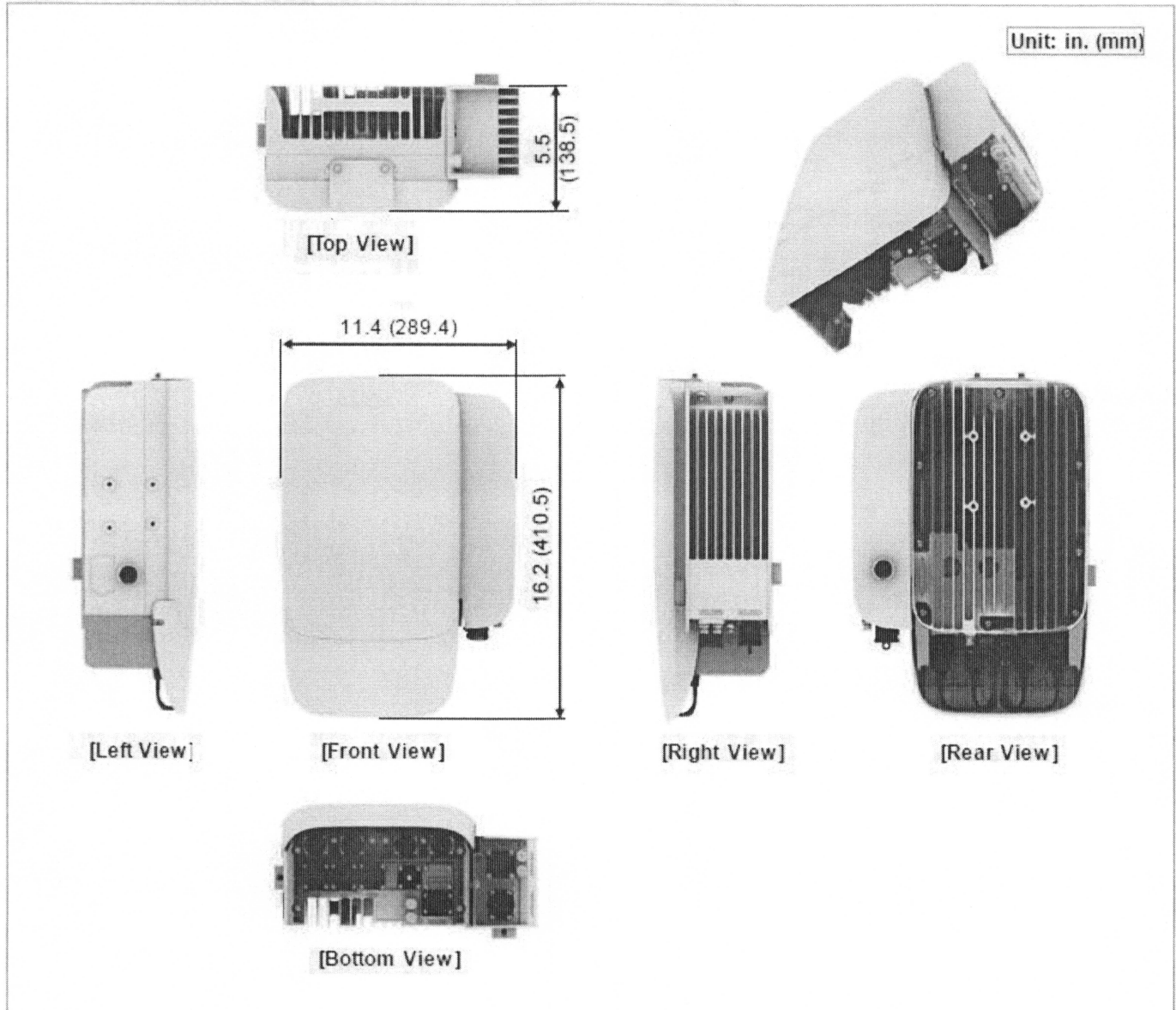
The following figures depict the physical structure of the RRH.

Figure 1. RRH View



# CBRS

Figure 3. System View (with Clip-on: Antenna + AC-DC Power Unit)





# CBRS

**Table 3. RRH (RT4401-48A) Specifications**

Parameter	RT4401-48A
Air Technology	LTE
Band	Band 48 (3.5 GHz)
Operating Frequency (MHz)	3550 to 3700
Instantaneous Bandwidth (IBW)/ Occupied Bandwidth (OBW)	150 MHz/80 MHz
Carriers	5/10/15/20 MHz × 4 carriers
RF Chain	4TX/4RX
RF Output Power/ERP	4 path × 5 W (Total: 20 W = 43 dBm) (ERP: 47 dBm/10 MHz)
RX Sensitivity	Typical: -101.5 dBm @ 1 Rx (3GPP 36.104, Wide Area)
Modulation	256-QAM support (1024-QAM with 1 to 2 dB power back-off)
Input Power	-48 VDC (-38 to -57 VDC, 1 SKU), with clip-on AC-DC converter (Option)
Power Consumption	About 160 Watt @ 100% RF load, typical conditions
Dimension (W × D × H) (mm)	8.55 in. (217.4) × 4.15 in. (105.5) × 13.91 in. (353.5) * RRH only 11.39 in. (289.4) × 5.45 in. (138.5) × 16.16 in. (410.5) * with Clip-on antenna, AC-DC power unit
Volume	< 7 L (without antenna), < 9.6 L (with antenna)
Weight	< 18.64 lb (8 kg), (without antenna) < 23.14 lb (10.5 kg), (with antenna)
Operating Temperature	-40°C to +55°C (without solar load)
Cooling	Natural convection
Unwanted Emission	3GPP 36.104 Category A [B48]: FCC 47 CFR 96.41 e)
Spectrum Analyzer	TX/RX Support
Antenna Type	Integrated (Clip-on) antenna (Option), External antenna (Option)
Operating Humidity	5 to 100 [%] (RH), condensing, not to exceed 30 g/m3 absolute humidity
Altitude	-60 to 1,800 m
Earthquake	Telcordia Earthquake Risk Zone4 (Telcordia GR-63-CORE)
Vibration in Use	Office Vibration
Transportation Vibration	Transportation Vibration
Noise	Fanless (natural convection cooling)

# CBRS

## RRH External Interface

The following figures depict the external interface structure of the RRH.

Figure 2. RRH External Interface

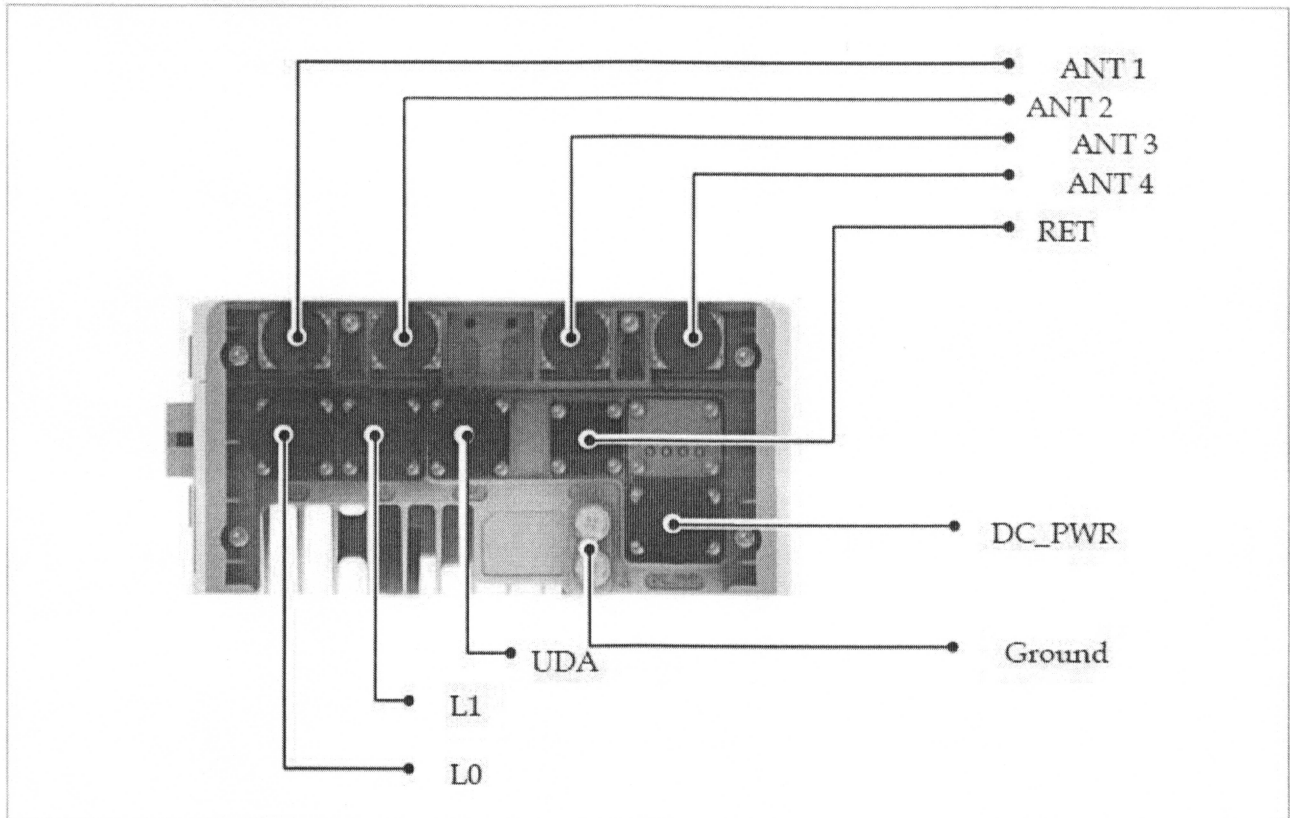


Table 1. RRH External Interface Specifications

Interface	Description
ANT1 , ANT2, ANT3 ,ANT4	External Antenna ports
AISG	AISG interface for RET connection
L0,L1	L0(CPRI_0) , L1(CPRI_1) CPRI ports
DC_PWR	DC power supply connection
Ground Terminal	surge protection
UDA	External UDA alarms



**CELLCO PARTNERSHIP D/B/A  
VERIZON WIRELESS**

**Marlboro HS SITE**

**50 Cross Road  
Marlboro (Town of Marlborough), New York 12542**

**SITE SELECTION ANALYSIS  
NOVEMBER 23, 2021**

## SITE SELECTION ANALYSIS

Verizon Wireless proposes to install and operate a new wireless telecommunications facility, including a new tower, associated antennas, ground equipment and related appurtenances, at 50 Cross Road in the Town of Marlborough, Ulster County, New York. The property, which is located in the Town's – R-1 District, is currently a 46.5 acre parcel, used as school property.

### 1. NEED FOR FACILITY

#### (a) Problem

The process of identifying a technologically appropriate location, as well as the need for this communications facility are as provided in the **RF SEARCH RING JUSTIFICATION**. As indicated in that report, when a Verizon Wireless Radio Frequency Engineer identifies coverage gaps in the system or sites that have or will reach data capacity exhaustion, they issue a "search area." A search area is a geographical area located within the inadequately serviced area, and it is designed such that if a wireless telecommunications facility is located within the search area, and at an appropriate height, it will likely provide the required coverage. For the most part, locations outside of the search area will fail to provide adequate service to the cell. Due to technological constraints, there is limited flexibility as to where a new facility can be located, and still function properly. The goal of the search area is to define the permissible location for placement of a cell site that will provide adequate service in the subject cell, and also work properly as part of the overall network.

#### (b) Solution

A search area was developed based on the problems identified in the **RF SEARCH RING JUSTIFICATION** and is attached herein as **Attachment 1**. This is the geographical area within which a new wireless telecommunications facility is likely to provide the required coverage (at an appropriate height).

### 2. SEARCH RING ANALYSIS

#### (a) Geography & Topography

The Marlboro HS search area has varying topography throughout this parcel.

#### (b) Land Use

The Search Area is made up of the Marlboro School District High School parcel.

### 3. ZONING CONSIDERATIONS

The site selection process for this site is consistent with the priorities set forth in §152-7 of the Marlborough Wireless Telecommunications Facilities Law ("WTF Law"). The WTF Law requires new facilities to be located pursuant to the following siting priorities:

- (1) on existing telecommunications towers or other tall structures on Town property;

- (2) collocation on a site with existing wireless telecommunications facilities or other tall structures in the Town;
- (3) on lands owned or controlled by the Town of Marlborough or another municipal corporation located within the Town of Marlborough;
- (4) on industrial zoned or highway development zoned lands;
- (5) on property zoned RAG-1, R-1 or with a minimum four-acre lot size. No tower shall be sited in the RAG-1 district above an elevation of 700' based on the NGVD 1929;
- (6) No wireless telecommunications facilities shall be permitted in the C-1, C-2 or R zones in the Town; and
- (7) DAS and small cell sites are permitted without special use permit, where such facilities are situated on existing or new poles not exceeding 50' in height in the public rights-of-way or where situated on existing or new utility poles not exceeding 35' in height on property of the Town.

After a comprehensive review of the search area, it was determined that the first two priorities could not be achieved. For example, there are no existing telecommunications towers or other tall structures on Town property (§152-7(A)(1)) located in the identified search area. Similarly, no collocation opportunities on an existing telecommunications facility or other tall structures in the Town exist in the search area.

As set forth below, the location on the school property is the only viable alternative available to resolve the significant coverage gaps and capacity issues. Because the location is on property owned by the Marlborough Central School District it complies with siting priority number 3 set forth in §152-7(A).

#### **4. SEARCH RING ANALYSIS**

After a comprehensive investigation of the Search Ring, no feasible towers or tall structures were identified for collocation within or adjacent to the search area. The closest Town owned parcel is located 1.3 miles to the northwest of the search area on Reservoir Rd. (Tax Parcel ID# 108.2-1-18). This Town parcel is located too far from the search area to be considered a viable candidate.

#### **5. CANDIDATE / ALTERNATIVES ANALYSIS**

One (1) property fell within the search area for a new wireless telecommunications facility. The parcel is shown on **Attachment 2**. A summary of this property is detailed below.

##### **A) Marlboro High School (Tax Parcel ID# 108.4-2-71.1) – 50 Cross Road**

This 46.5 acre property, owned by the Marlboro School District is the only parcel located within the search area provided by the Verizon RF Engineer. The property is large enough to site



a tower that will meet the zoning setbacks as well as being a municipal property considered a siting priority indicated in the Zoning Code.

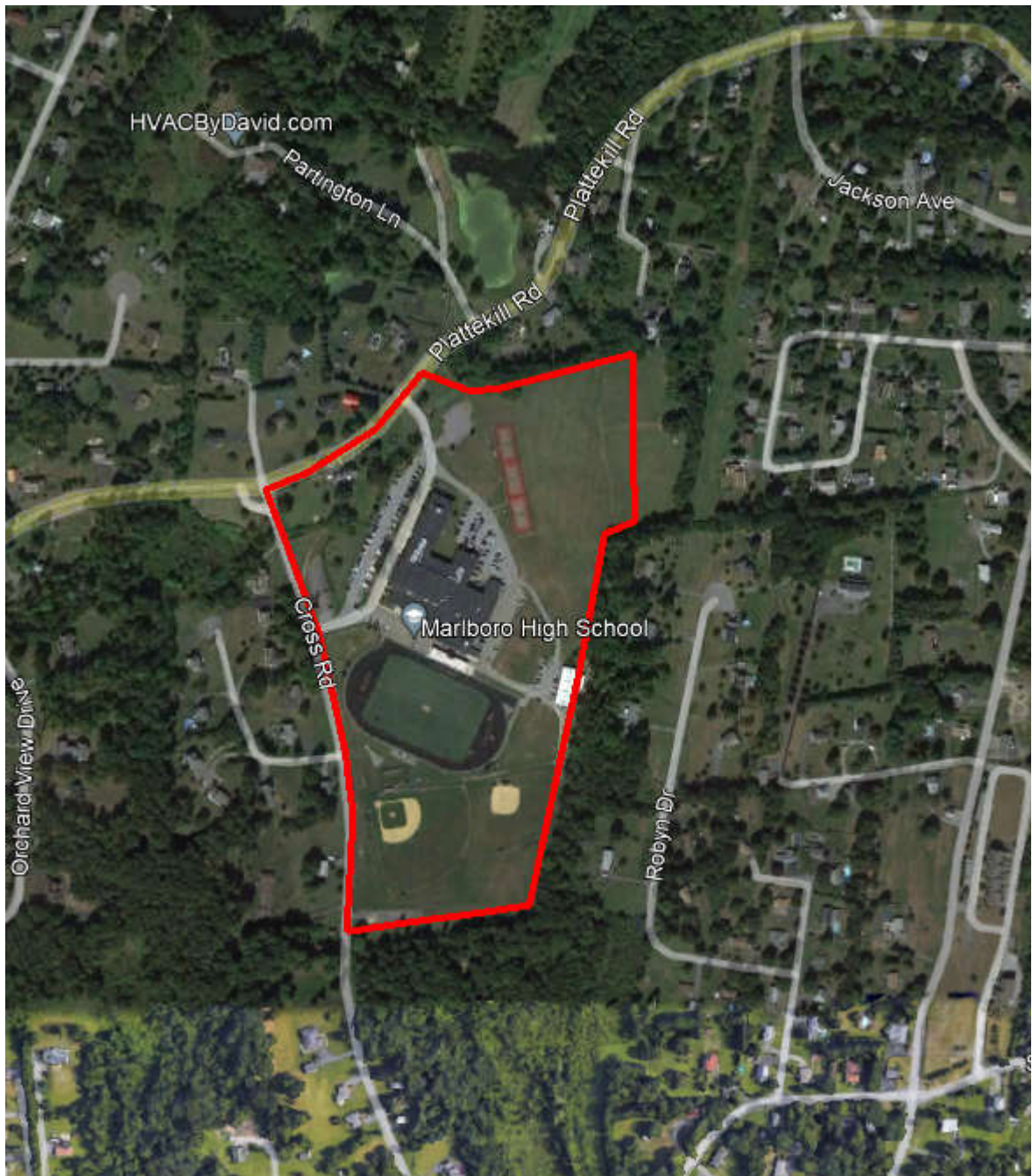
## **6. CONCLUSION**

Based on the requirements of the town code, the existing land use, as well as the results of the RF review and analysis, we believe the Marlboro High School parcel is the best location for the proposed facility.

**Prepared by:**

Frank Murray  
Tectonic Engineering  
Consultant to Verizon Wireless

**ATTACHMENT 1  
VERIZON WIRELESS  
MARLBORO HS SEARCH RING**



**ATTACHMENT 2**  
**VERIZON WIRELESS**  
**MARLBORO HS PARCEL IDENTIFIED & INVESTIGATED**





# **VISUAL RESOURCE EVALUATION**

## **PROPOSED 90' TALL TELECOMMUNICATIONS STRUCTURE**

**Marlboro HS  
50 Cross Road  
Town of Marlborough  
Ulster County  
New York, 12542**

Submitted by:



1275 John Street, Suite 100  
West Henrietta, NY 14586

Prepared by:



PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.  
36 British American Blvd., Suite 101  
Latham, New York 12110  
518-783-1630  
518-783-1544 FAX

**December 7, 2021**



## **VISUAL RESOURCE EVALUATION**

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C., was contracted by Verizon Wireless to conduct a “Visual Resource Evaluation” to determine which areas within the Town of Marlborough will contain views of the proposed 90 foot tall wireless telecommunications structure.

### **Setting:**

The proposed site is located on the Marlboro High School parcel at 50 Cross Road in the Town of Marlborough, Ulster County, New York. The surrounding land use is primarily residential with some small wooded areas. Within the study area the topography ranges in elevation from 3' +/- AMSL (Above Mean Sea Level) to 550' +/- AMSL. The predominant forest species are mixed deciduous and coniferous, with an estimated height of 40 to 60 feet. The field study for this visual resource evaluation was conducted in the late fall season during 100% leaf off conditions. The leaf off condition represents a worst case scenario in that it is a scenario in which the visibility of the structure is maximized due to the lack of leaves on existing deciduous vegetation.

### **Methodology:**

On Thursday, November 18, 2021, Tectonic conducted a field investigation for the purpose of evaluating the viewshed associated with the proposed installation of the 90 foot tall monopole tower (structure). Conditions were mostly to partly sunny with a temperature of approximately 60°, and with wind speeds of approximately 10-12 mph. The study area consisted of a one (1) mile radius from the project site. Analyzing a viewshed greater than a one (1) mile radius for a proposed structure of this height is generally unwarranted. Due to the fact that objects tend to appear smaller the farther they are from the viewer, in this case, the structure would appear very small, if visible at all, from a distance of more than one (1) mile.

The methodology utilized during this field investigation is referred to as a “balloon test.” The height of the proposed structure was simulated by floating a 4' diameter, helium-filled weather balloon at 90 feet above ground level (AGL). The balloon provided reference points for height as well as location and also provides a known dimension that later aids in the production of photo simulations.

The participants then proceeded with a review of the proposed structure's visual impact by noting those areas on a USGS 7.5 Minute Series Topographic Quadrangles Map that fall within the study area and marking those points from which, in theory, one might see the structure upon its completion. The terrain represented in the topographic map, was then analyzed to determine those areas from which views would be “blocked by topography,” and therefore from which one would not see the structure upon its completion.

Tectonic drove the study area to confirm the potential visibility of the structure based on the viewshed map. Areas delineated as “blocked by topography” were confirmed by viewing the site from public roadways within the one (1) mile radius and it was found that the topography only viewshed map first produced was correct and accurate, and that the balloon was in fact not visible from areas indicated to be blocked by topography. During the “in field” review, the participants conducted a second analysis to determine those areas from which views of the structure may be “visible” or “concealed by vegetation or

structures.” The resulting data from this second analysis was reviewed and referenced on the “Photo Log & Viewshed Map” attached. The colors on the map delineate which areas have a line of sight to the structure and those areas that have no line of sight to the structure due to blockage by topography, vegetation, or structures. The viewshed analysis resulted in the discovery that the proposed structure would be visible from a few locations within the Town. Specifically, the structure will be visible from the Marlboro HS property and adjacent roadways, and will have limited visibility from Chillura Lane, Felicello Drive, Prospect Street, South Street, Hillcrest Drive, Robyn Drive, and Breezy Heights.

Photographs were taken from various vantage points within the study area to document the actual view towards the proposed structure, as well as the general character of the viewshed. Each photograph attached includes a brief description of the location and orientation from which it was taken, and the photo number corresponds to the key number on the viewshed map. Three locations were photographed at the Town’s request (Gomez Mill House, Bowdoin Park, Samuel Morse House) and the balloon was not visible from any of these locations proving none of them will have a sight line to the structure.

### **Process:**

Photographs of the weather balloon from the viewpoints noted were taken with a Nikon D5300 Digital 24 megapixel camera using a 55mm focal length lens to mimic the view as observed from the human eye. A 4-foot diameter red helium filled balloon was floated to a height of 90’.

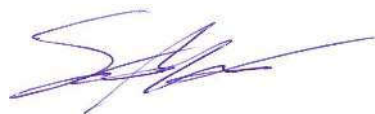
In order to analyze the potential visual impacts of the proposed structure, Tectonic took photographs of the balloon from locations within the search area for the purpose of preparing simulations of the proposed structure. Photographs for which there is a corresponding simulated view (#3, 4, 5, 7, 9) of the proposed structure were produced by first photographing an existing similar type structure, then photographing the view towards the proposed site where the marker balloon was set to a height of 90’ AGL. The digital images of the balloons and similar structure were then merged and scaled through the use of the image editing software, “Adobe Photoshop CS5.” With this process, the structure is scaled to the correct height and width by scaling the similar type structure using measurements from the marker balloon. The similar type structure used has an antenna array that spans eight feet (8’). By measuring the balloon width of 4’, one can determine the proper width of the antenna array by multiplying the balloon width by a factor of 2. The composite is printed out directly on a color printer, producing the final image.

### **Conclusion:**

The Viewshed Analysis Map presents a conservative delineation of the viewshed within the study area and along public roadway, parks, and schools. The photo simulations have been prepared per the methodology described above and provide a general depiction of the appearance of the structure from the photographed viewpoints.

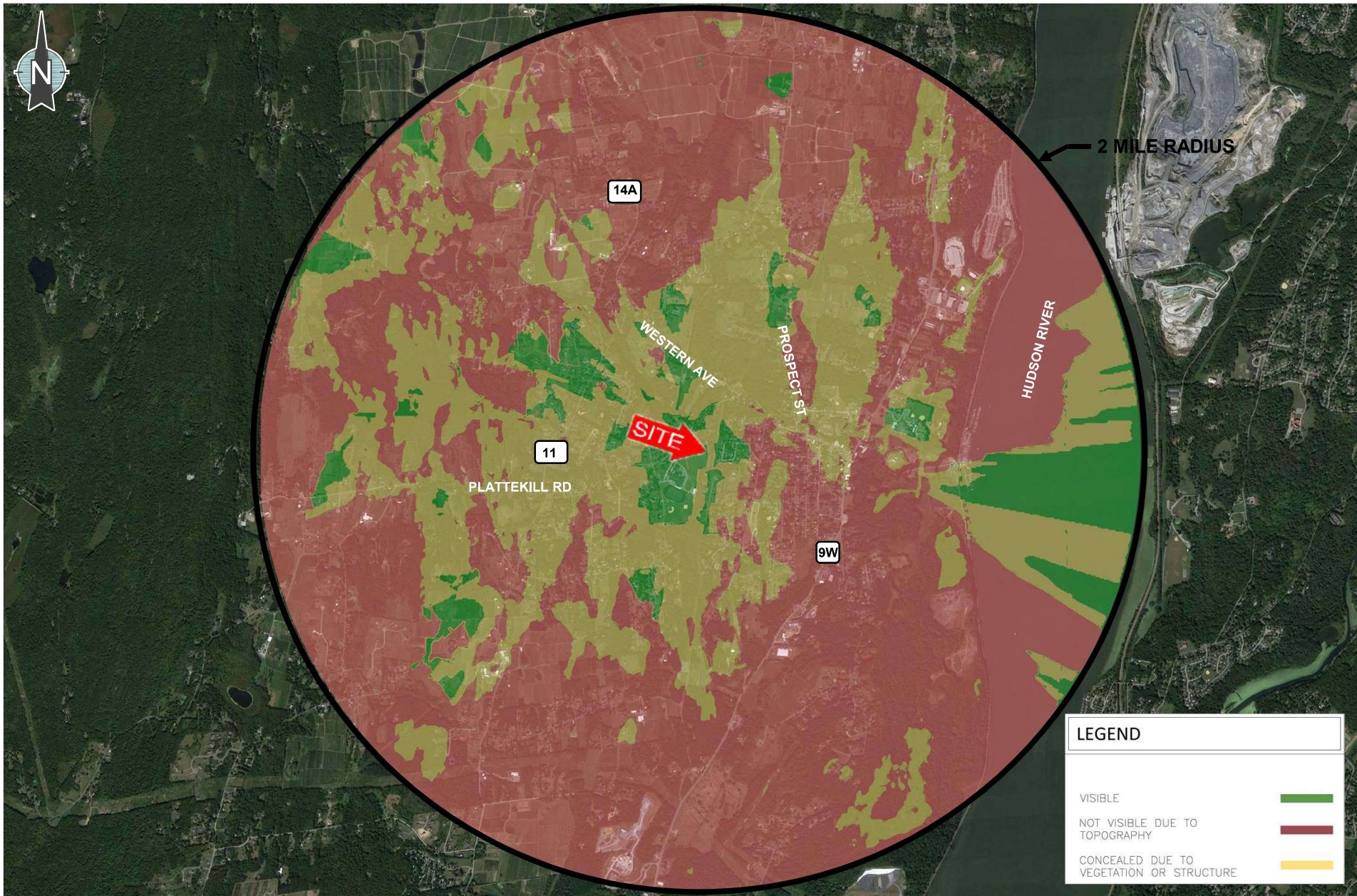
Sincerely,

TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C.

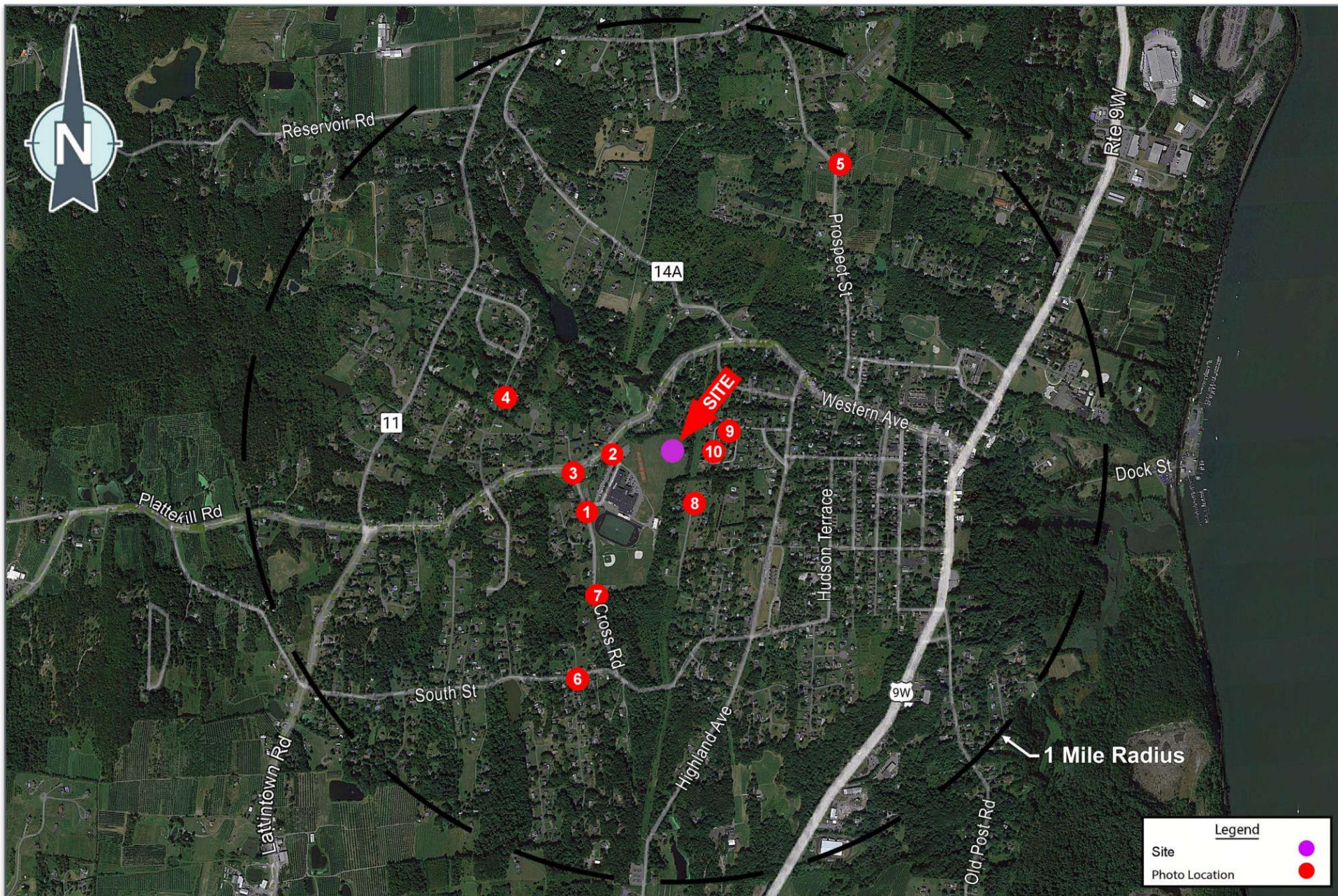


Steven M. Matthews, PE  
Director of Engineering

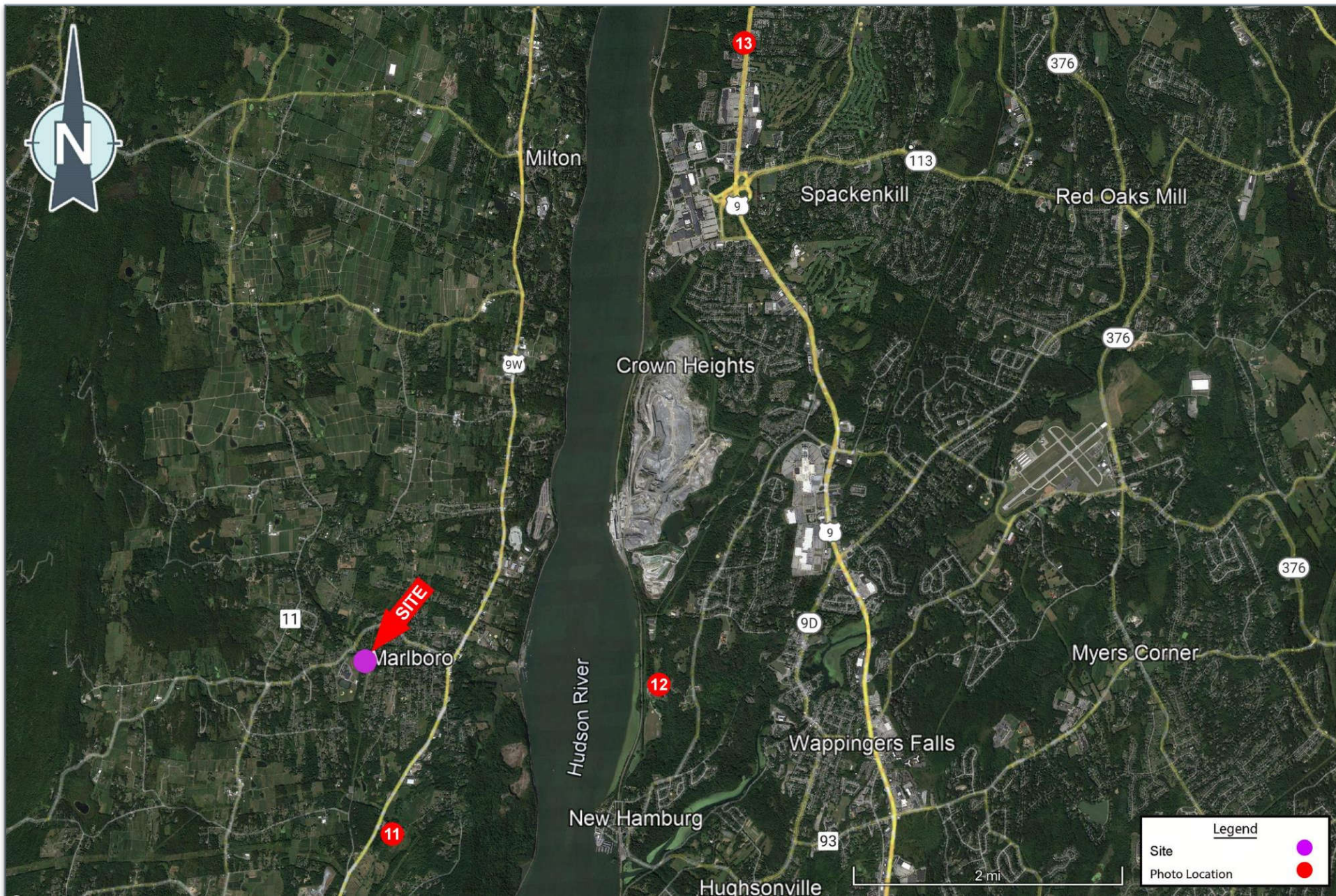




















































































**Full Environmental Assessment Form**  
**Part 1 - Project and Setting**

**Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

**A. Project and Applicant/Sponsor Information.**

Name of Action or Project: Cellco Partnership, d/b/a Verizon Wireless - Unmanned Wireless Communications Facility - "Marlboro HS"		
Project Location (describe, and attach a general location map): 50 Cross Rd, Marlborough, New York 12542		
Brief Description of Proposed Action (include purpose or need):  Cellco Partnership, d/b/a Verizon Wireless ("Verizon Wireless" or the "Applicant") proposes the installation of an unmanned wireless communications facility located on the existing property. Said property being located on Cross Rd approximately 525' South East of Plattekill Rd. Access to the proposed facility will originate from Cross Rd, continuing through existing parking lot, then utilizing a new 12' wide gravel driveway.  In general, the installation will consist of the following: an 90' tall monopole (94' including 4' lightning rod), nine (9) antennas and related equipment to be mounted to the monopole tower at a center-line height of 86', cellular and utility equipment at grade in a proposed 50'x50' fenced compound. The project also includes the installation of underground power and fiber utilities to service the facility.		
Name of Applicant/Sponsor: Cellco Partnership, d/b/a Verizon Wireless	Telephone: (585) 321-5435 E-Mail: Kathy.Pomponio@Verizon.Wireless.com	
Address: 1275 John Street, Suite 100		
City/PO: West Henrietta	State: NY	Zip Code: 14586
Project Contact (if not same as sponsor; give name and title/role): Young/Sommer LLC, attn: Scott Olson	Telephone: (518) 438-9907 E-Mail: solson@youngsommer.com	
Address: Executive Woods, Five Palisades Drive		
City/PO: Albany	State: New York	Zip Code: 12205
Property Owner (if not same as sponsor): Marlboro Central School District 1	Telephone: E-Mail:	
Address: 21 Milton TPKE		
City/PO: Milton	State: NY	Zip Code: 12547

## B. Government Approvals

**B. Government Approvals, Funding, or Sponsorship.** (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Planning Board or Commission	Planning Board - Special Use Permit and Site Plan approval	TBD
c. City, Town or <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Village Zoning Board of Appeals		
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Building Department - Building/Work Permit	TBD
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	County Planning Referral	TBD
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

## C. Planning and Zoning

<b>C.1. Planning and zoning actions.</b>	
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li><b>If Yes,</b> complete sections C, F and G.</li> <li><b>If No,</b> proceed to question C.2 and complete all remaining sections and questions in Part 1</li> </ul>	
<b>C.2. Adopted land use plans.</b>	
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes, identify the plan(s):	
<hr/> <hr/> <hr/>	
c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes, identify the plan(s):	
<hr/> <hr/> <hr/>	

### C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☒ Yes ☐ No  
If Yes, what is the zoning classification(s) including any applicable overlay district?

R-1 - Residential

b. Is the use permitted or allowed by a special or conditional use permit? ☒ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☒ No

If Yes,

i. What is the proposed new zoning for the site? \_\_\_\_\_

### C.4. Existing community services.

a. In what school district is the project site located? Marlboro Central School District

b. What police or other public protection forces serve the project site?

Newburgh Police Department, Milton Police Department, County Sheriff

c. Which fire protection and emergency medical services serve the project site?

Marlboro Fire Commissioners, Marlboro Hose Co No 1

d. What parks serve the project site?

Bowdoin Park, Cluett Schantz Park, Cronomer Hill Park, Algonquin Park

### D. Project Details

#### D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Unmanned telecommunications facility

b. a. Total acreage of the site of the proposed action? 46.50 acres

b. Total acreage to be physically disturbed? 0.50 acres

c. Total acreage (project site and any contiguous properties) owned  
or controlled by the applicant or project sponsor? 0.23 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☒ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % \_\_\_\_\_ Units: \_\_\_\_\_

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☒ No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) \_\_\_\_\_

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No

iii. Number of lots proposed? \_\_\_\_\_

iv. Minimum and maximum proposed lot sizes? Minimum \_\_\_\_\_ Maximum \_\_\_\_\_

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☒ No

i. If No, anticipated period of construction: 2 months

ii. If Yes:

- Total number of phases anticipated \_\_\_\_\_

- Anticipated commencement date of phase 1 (including demolition) \_\_\_\_\_ month \_\_\_\_\_ year

- Anticipated completion date of final phase \_\_\_\_\_ month \_\_\_\_\_ year

- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: \_\_\_\_\_



f. Does the project include new residential uses? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>				
If Yes, show numbers of units proposed.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span>	
If Yes,	
i. Total number of structures <u>1 (tower)</u>	
ii. Dimensions (in feet) of largest proposed structure: <u>94'</u> height; <u>5'</u> width; and _____ length	
iii. Approximate extent of building space to be heated or cooled: _____ <u>0</u> square feet	

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
If Yes,	
i. Purpose of the impoundment: _____	
ii. If a water impoundment, the principal source of the water: <span style="float: right;"><input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify:</span>	
_____	
iii. If other than water, identify the type of impounded/contained liquids and their source.	
_____	
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres	
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length	
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):	
_____	

**D.2. Project Operations**

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
If Yes:	
i. What is the purpose of the excavation or dredging? _____	
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?	
<ul style="list-style-type: none"> <li>• Volume (specify tons or cubic yards): _____</li> <li>• Over what duration of time? _____</li> </ul>	
iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.	
_____	
iv. Will there be onsite dewatering or processing of excavated materials? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
If yes, describe. _____	
_____	
v. What is the total area to be dredged or excavated? _____ acres	
vi. What is the maximum area to be worked at any one time? _____ acres	
vii. What would be the maximum depth of excavation or dredging? _____ feet	
viii. Will the excavation require blasting? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
ix. Summarize site reclamation goals and plan: _____	
_____	
_____	

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
If Yes:	
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____	
_____	

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

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

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No

If Yes, describe: \_\_\_\_\_

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No

If Yes:

- acres of aquatic vegetation proposed to be removed: \_\_\_\_\_
- expected acreage of aquatic vegetation remaining after project completion: \_\_\_\_\_
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): \_\_\_\_\_
- proposed method of plant removal: \_\_\_\_\_
- if chemical/herbicide treatment will be used, specify product(s): \_\_\_\_\_

v. Describe any proposed reclamation/mitigation following disturbance: \_\_\_\_\_

c. Will the proposed action use, or create a new demand for water? ☐ Yes ☒ No

If Yes:

i. Total anticipated water usage/demand per day: \_\_\_\_\_ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐ Yes ☐ No

If Yes:

- Name of district or service area: \_\_\_\_\_
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No
- Do existing lines serve the project site? ☐ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☐ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_
- Source(s) of supply for the district: \_\_\_\_\_

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No

If Yes:

- Applicant/sponsor for new district: \_\_\_\_\_
- Date application submitted or anticipated: \_\_\_\_\_
- Proposed source(s) of supply for new district: \_\_\_\_\_

v. If a public water supply will not be used, describe plans to provide water supply for the project: \_\_\_\_\_

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: \_\_\_\_\_ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐ Yes ☒ No

If Yes:

i. Total anticipated liquid waste generation per day: \_\_\_\_\_ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): \_\_\_\_\_

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

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☐ No

If Yes:

- Name of wastewater treatment plant to be used: \_\_\_\_\_
- Name of district: \_\_\_\_\_
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No

<ul style="list-style-type: none"> <li>• Do existing sewer lines serve the project site? _____</li> <li>• Will a line extension within an existing district be necessary to serve the project? _____</li> </ul> <p>If Yes:</p> <ul style="list-style-type: none"> <li>• Describe extensions or capacity expansions proposed to serve this project: _____            _____            _____</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> <li>• Applicant/sponsor for new district: _____</li> <li>• Date application submitted or anticipated: _____</li> <li>• What is the receiving water for the wastewater discharge? _____</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans): _____            _____            _____</p>		
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____            _____            _____</p>		
<p>e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel?</p> <p style="padding-left: 40px;">_____ Square feet or _____ acres (impervious surface)</p> <p style="padding-left: 40px;">_____ Square feet or _____ acres (parcel size)</p> <p>ii. Describe types of new point sources. _____</p> <p>iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? _____            _____</p> <p style="padding-left: 40px;">• If to surface waters, identify receiving water bodies or wetlands: _____            _____</p> <p style="padding-left: 40px;">• Will stormwater runoff flow to adjacent properties? _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	
<p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p>		
<p>f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)  <u>Construction equipment</u></p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)  <u>N/A</u></p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)  <u>N/A</u></p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<p>g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? _____</p> <p>If Yes:</p> <p>i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> <li>• _____ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)</li> <li>• _____ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)</li> <li>• _____ Tons/year (short tons) of Perfluorocarbons (PFCs)</li> <li>• _____ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)</li> <li>• _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)</li> <li>• _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)</li> </ul>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No



<p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p>			
<p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p>			
<p>j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend  <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____</p> <p>iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>			
<p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____  Minimal increase in electrical power usage as necessary to operate the facility. _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):  <u>Local utility</u> _____</p> <p>iii. Will the proposed action require a new, or an upgrade, to an existing substation? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p>			
<p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 8am-5pm</li> <li>• Saturday: _____</li> <li>• Sunday: _____</li> <li>• Holidays: _____</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 24 hours</li> <li>• Saturday: _____ 24 hours</li> <li>• Sunday: _____ 24 hours</li> <li>• Holidays: _____ 24 hours</li> </ul> </td> </tr> </table>		<p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 8am-5pm</li> <li>• Saturday: _____</li> <li>• Sunday: _____</li> <li>• Holidays: _____</li> </ul>	<p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 24 hours</li> <li>• Saturday: _____ 24 hours</li> <li>• Sunday: _____ 24 hours</li> <li>• Holidays: _____ 24 hours</li> </ul>
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<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:  <u>During construction, noise associated with the operation of construction equipment.</u></p>	
<p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>Describe: _____</p>	
<p>n. Will the proposed action have outdoor lighting? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:  <u>One (1) switch operated LED light fixture attached to the h-frame at grade, designed to illuminate the area in and around the Verizon equipment only.</u></p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>Describe: _____</p>	
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p>	
<p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p>	
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):          _____          _____          _____</p>	
<p>ii. Will the proposed action use Integrated Pest Management Practices? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>	
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> <li>• Construction: _____ tons per _____ (unit of time)</li> <li>• Operation : _____ tons per _____ (unit of time)</li> </ul> <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</li> </ul> <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</li> </ul>	

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): \_\_\_\_\_

ii. Anticipated rate of disposal/processing:

• \_\_\_\_\_ Tons/month, if transfer or other non-combustion/thermal treatment, or

• \_\_\_\_\_ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: \_\_\_\_\_ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☒ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: \_\_\_\_\_

ii. Generally describe processes or activities involving hazardous wastes or constituents: \_\_\_\_\_

iii. Specify amount to be handled or generated \_\_\_\_\_ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: \_\_\_\_\_

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: \_\_\_\_\_

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: \_\_\_\_\_

## E. Site and Setting of Proposed Action

### E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☒ Residential (suburban) ☐ Rural (non-farm)

☒ Forest ☐ Agriculture ☐ Aquatic ☒ Other (specify): School Campus

ii. If mix of uses, generally describe: \_\_\_\_\_

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	11.9	12.25	+0.35
• Forested	9.2	9.2	0.00
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	25.4	25.05	-0.35
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____			



c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☒ No  
i. If Yes: explain: \_\_\_\_\_

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☒ Yes ☐ No  
If Yes,  
i. Identify Facilities:  
Marlboro High School, Madison Square Daycare  
\_\_\_\_\_

e. Does the project site contain an existing dam? ☐ Yes ☒ No  
If Yes:  
i. Dimensions of the dam and impoundment:  
• Dam height: \_\_\_\_\_ feet  
• Dam length: \_\_\_\_\_ feet  
• Surface area: \_\_\_\_\_ acres  
• Volume impounded: \_\_\_\_\_ gallons OR acre-feet  
ii. Dam's existing hazard classification: \_\_\_\_\_  
iii. Provide date and summarize results of last inspection: \_\_\_\_\_  
\_\_\_\_\_

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☒ No  
If Yes:  
i. Has the facility been formally closed? ☐ Yes ☐ No  
• If yes, cite sources/documentation:  
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:  
\_\_\_\_\_  
\_\_\_\_\_  
iii. Describe any development constraints due to the prior solid waste activities: \_\_\_\_\_  
\_\_\_\_\_

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☒ No  
If Yes:  
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:  
\_\_\_\_\_  
\_\_\_\_\_

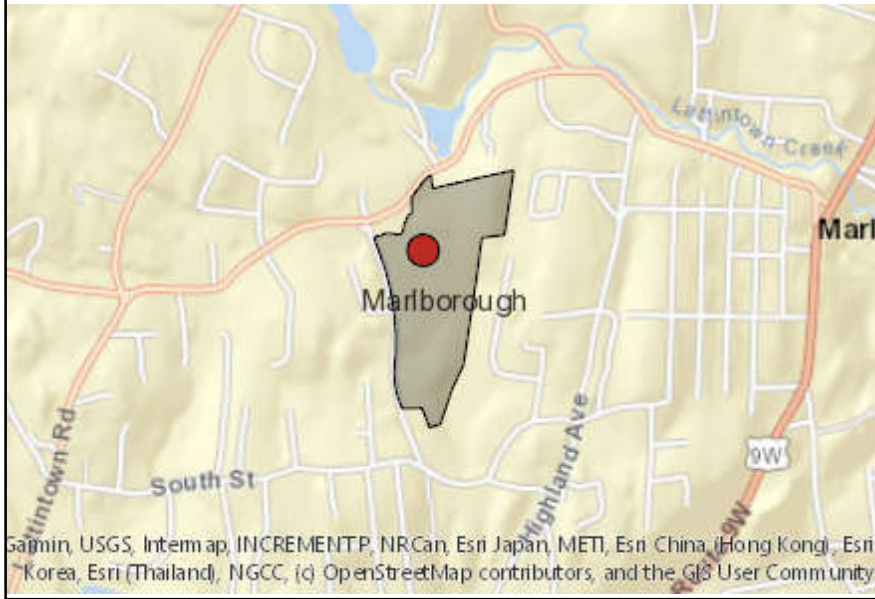
h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☒ No  
If Yes:  
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No  
☐ Yes – Spills Incidents database Provide DEC ID number(s): \_\_\_\_\_  
☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): \_\_\_\_\_  
☐ Neither database  
ii. If site has been subject of RCRA corrective activities, describe control measures: \_\_\_\_\_  
\_\_\_\_\_  
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☐ No  
If yes, provide DEC ID number(s): \_\_\_\_\_  
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

v. Is the project site subject to an institutional control limiting property uses? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>													
<ul style="list-style-type: none"> <li>• If yes, DEC site ID number: _____</li> <li>• Describe the type of institutional control (e.g., deed restriction or easement): _____</li> <li>• Describe any use limitations: _____</li> <li>• Describe any engineering controls: _____</li> <li>• Will the project affect the institutional or engineering controls in place? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>• Explain: _____</li> </ul>													
<b>E.2. Natural Resources On or Near Project Site</b>													
a. What is the average depth to bedrock on the project site? _____ 7+ feet													
b. Are there bedrock outcroppings on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %													
c. Predominant soil type(s) present on project site: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; border-bottom: 1px solid black;">MgB</td> <td style="width: 40%; text-align: right; border-bottom: 1px solid black;">67.1 %</td> </tr> <tr> <td style="border-bottom: 1px solid black;">BnC</td> <td style="text-align: right; border-bottom: 1px solid black;">23.2 %</td> </tr> <tr> <td style="border-bottom: 1px solid black;">HgC</td> <td style="text-align: right; border-bottom: 1px solid black;">6.8 %</td> </tr> </table>		MgB	67.1 %	BnC	23.2 %	HgC	6.8 %						
MgB	67.1 %												
BnC	23.2 %												
HgC	6.8 %												
d. What is the average depth to the water table on the project site? Average: _____ 7+ feet													
e. Drainage status of project site soils: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"><input checked="" type="checkbox"/> Well Drained:</td> <td style="width: 70%; text-align: right;">100 % of site</td> </tr> <tr> <td><input type="checkbox"/> Moderately Well Drained:</td> <td style="text-align: right;">_____ % of site</td> </tr> <tr> <td><input type="checkbox"/> Poorly Drained</td> <td style="text-align: right;">_____ % of site</td> </tr> </table>		<input checked="" type="checkbox"/> Well Drained:	100 % of site	<input type="checkbox"/> Moderately Well Drained:	_____ % of site	<input type="checkbox"/> Poorly Drained	_____ % of site						
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f. Approximate proportion of proposed action site with slopes: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"><input checked="" type="checkbox"/> 0-10%:</td> <td style="width: 60%; text-align: right;">67 % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> 10-15%:</td> <td style="text-align: right;">23 % of site</td> </tr> <tr> <td><input type="checkbox"/> 15% or greater:</td> <td style="text-align: right;">_____ % of site</td> </tr> </table>		<input checked="" type="checkbox"/> 0-10%:	67 % of site	<input checked="" type="checkbox"/> 10-15%:	23 % of site	<input type="checkbox"/> 15% or greater:	_____ % of site						
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<input checked="" type="checkbox"/> 10-15%:	23 % of site												
<input type="checkbox"/> 15% or greater:	_____ % of site												
g. Are there any unique geologic features on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, describe: _____													
h. Surface water features. <ul style="list-style-type: none"> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>ii. Do any wetlands or other waterbodies adjoin the project site? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></li> </ul> If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i. <ul style="list-style-type: none"> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the following information:             <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">• Streams:</td> <td style="width: 40%;">Name <u>862-375</u></td> <td style="width: 50%;">Classification <u>C</u></td> </tr> <tr> <td>• Lakes or Ponds:</td> <td>Name _____</td> <td>Classification _____</td> </tr> <tr> <td>• Wetlands:</td> <td>Name <u>Federal Waters</u></td> <td>Approximate Size <u>0.01 acre</u></td> </tr> <tr> <td>• Wetland No. (if regulated by DEC)</td> <td colspan="2">_____</td> </tr> </table> </li> </ul>		• Streams:	Name <u>862-375</u>	Classification <u>C</u>	• Lakes or Ponds:	Name _____	Classification _____	• Wetlands:	Name <u>Federal Waters</u>	Approximate Size <u>0.01 acre</u>	• Wetland No. (if regulated by DEC)	_____	
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• Wetland No. (if regulated by DEC)	_____												
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If yes, name of impaired water body/bodies and basis for listing as impaired: _____													
i. Is the project site in a designated Floodway? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
j. Is the project site in the 100-year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
k. Is the project site in the 500-year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: <ul style="list-style-type: none"> <li>i. Name of aquifer: _____</li> </ul>													

m. Identify the predominant wildlife species that occupy or use the project site:		
Rabbits _____ Chipmunks _____ Birds _____	Squirrels _____ Opposums _____ Raccoons _____	Skunks _____ Foxes _____ Deer _____
n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes:		
i. Describe the habitat/community (composition, function, and basis for designation): _____ _____		
ii. Source(s) of description or evaluation: _____		
iii. Extent of community/habitat:		
<ul style="list-style-type: none"> <li>• Currently: _____ acres</li> <li>• Following completion of project as proposed: _____ acres</li> <li>• Gain or loss (indicate + or -): _____ acres</li> </ul>		
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes:		
i. Species and listing (endangered or threatened): _____ _____ _____		
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes:		
i. Species and listing: _____ _____		
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If yes, give a brief description of how the proposed action may affect that use: _____ _____		
<b>E.3. Designated Public Resources On or Near Project Site</b>		
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, provide county plus district name/number: _____		
b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> i. If Yes: acreage(s) on project site? _____ ii. Source(s) of soil rating(s): _____		
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes:		
i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature		
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____		
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes:		
i. CEA name: _____		
ii. Basis for designation: _____		
iii. Designating agency and date: _____		



e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes: <ul style="list-style-type: none"> <li>i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District</li> <li>ii. Name: _____</li> <li>iii. Brief description of attributes on which listing is based: _____</li> </ul>	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
g. Have additional archaeological or historic site(s) or resources been identified on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes: <ul style="list-style-type: none"> <li>i. Describe possible resource(s): _____</li> <li>ii. Basis for identification: _____</li> </ul>	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes: <ul style="list-style-type: none"> <li>i. Identify resource: Bowdoin Park, Cluett Schantz Park, Cronomer Hill Park, Algonquin Park</li> <li>ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): <u>State Recreation, Designated Greenway Trails</u></li> <li>iii. Distance between project and resource: _____ 5 miles.</li> </ul>	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes: <ul style="list-style-type: none"> <li>i. Identify the name of the river and its designation: _____</li> <li>ii. Is the activity consistent with development restrictions contained in 6 NYCRR Part 666?             <input type="checkbox"/> Yes <input type="checkbox"/> No           </li> </ul>	



**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	862-375
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No

E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No



**617.20**  
**Appendix B**  
**State Environmental Quality Review**  
**VISUAL EAF ADDENDUM**

This form may be used to provide additional information relating to Question 11 of Part 2 of the Full EAF.

(To be completed by Lead Agency)

Visibility	Distance Between Project and Resource (in Miles)	0 - ¼	¼ - ½	½ - 3	3 - 5	5 +
1. Would the project be visible from:						
! A parcel of land which is dedicated to and available to the public for the use, enjoyment and appreciation of natural or man-made scenic qualities? Bowdoin Park		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! An overlook or parcel of land dedicated to public observation, enjoyment and appreciation of natural or man-made scenic qualities?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! A site or structure listed on the National or State Registers of Historic Places?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! State Parks?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! The State Forest Preserve?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! National Wildlife Refuges and State Game Refuges?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! National Natural Landmarks and other outstanding natural features?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! National Park Service lands?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! Rivers designated as National or State Wild, Scenic or Recreational?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! Any transportation corridor of high exposure, such as part of the Interstate System, or Amtrak? Amtrak		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! A governmentally established or designated interstate or inter-county foot trail, or one formally proposed for establishment or designation?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! A site, area, lake, reservoir or highway designated as scenic?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! Municipal park, or designated open space? Bowdoin Park		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! County road? Plattekill Rd (CO Rd 14), Western Ave (CO Rd 14A)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! State road?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
! Local road? Cross Rd, Elliot Ln, Partington Ln, Chillura Ln, Rose Ann Dr, South St, Blossom Hill Dr, Robyn Dr, Highland Ave, Breezy Hts		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the visibility of the project seasonal? (i.e., screened by summer foliage, but visible during other seasons)						
		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
3. Are any of the resources checked in question 1 used by the public during the time of year during which the project will be visible?						
		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			

## DESCRIPTION OF EXISTING VISUAL ENVIRONMENT

4. From each item checked in question 1, check those which generally describe the surrounding environment.

	<i>Within</i> *1/4 mile	*1 mile
Essentially undeveloped	<input type="checkbox"/>	<input type="checkbox"/>
Forested	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Agricultural	<input type="checkbox"/>	<input type="checkbox"/>
Suburban Residential	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Industrial	<input type="checkbox"/>	<input type="checkbox"/>
Commerical	<input type="checkbox"/>	<input type="checkbox"/>
Urban	<input type="checkbox"/>	<input type="checkbox"/>
River, Lake, Pond	<input type="checkbox"/>	<input type="checkbox"/>
Cliffs, Overlooks	<input type="checkbox"/>	<input type="checkbox"/>
Designated Open Space	<input type="checkbox"/>	<input type="checkbox"/>
Flat	<input type="checkbox"/>	<input type="checkbox"/>
Hilly	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mountainous	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

**NOTE:** add attachments as needed

5. Are there visually similar projects within:

\*1/2 mile ☐ Yes ☒ No 1 mile ☐ Yes ☒ No 2 miles ☐ Yes ☒ No 3 miles ☐ Yes ☒ No

\*Distance from project site is provided for assistance. Substitute other distances as appropriate.

## EXPOSURE

6. The annual number of viewers likely to observe the proposed project is 10 M?

**NOTE:** When user data is unavailable or unknown, use best estimate.

## CONTEXT

7. The situation or activity in which the viewers are engaged while viewing the proposed action is:

### FREQUENCY

Activity	Daily	Weekly	Holidays/ Weekends	Seasonally
Travel to and from work	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involved in recreational activities	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Routine travel by residents	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At a residence	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At worksite	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Reset

## Verizon Wireless Site Compliance Report

**Site Name:** Marlboro HS - C  
**Site Address:** 50 Cross Road  
Marlborough, NY 12542  
Town of Marlborough  
Ulster County  
**Structure Type:** Monopole

Report generated on: September 16, 2021  
Report by: Benjamin Schnable  
Customer Contact: Mike Crosby

**Verizon Wireless will be compliant with the FCC  
Rules and Regulations in all publicly accessible  
areas.**



**Michael Fischer, P.E.**  
Registered Professional Engineer (Electrical)  
New York License Number 101714  
Expires July 31, 2022

Signed 16 September 2021

Site Safe, LLC  
8618 Westwood Center Drive, Suite 315, Vienna, VA 22182  
703.276.1100 • 703.276.1169 fax  
info@sitesafe.com • www.sitesafe.com





## **Table of Contents**

<b>1</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>3</b>
<b>2</b>	<b>ANALYSIS.....</b>	<b>4</b>
<b>3</b>	<b>ANTENNA INVENTORY .....</b>	<b>6</b>
<b>4</b>	<b>ENGINEER CERTIFICATION.....</b>	<b>8</b>
	<b>APPENDIX A – TECHNICAL FRAMEWORK: FCC RULES AND REGULATIONS.....</b>	<b>9</b>
	<b>APPENDIX B – DEFINITIONS .....</b>	<b>11</b>
	<b>APPENDIX C – STATEMENT OF LIMITING CONDITIONS.....</b>	<b>12</b>
	<b>APPENDIX D – ADDITIONAL RESOURCES.....</b>	<b>13</b>



## 1 Executive Summary

Verizon Wireless has contracted with Site Safe, LLC (Sitesafe), an independent radiofrequency (RF) regulatory and engineering consulting firm, to determine if the proposed telecommunications facility is in compliance with Federal Communications Commission (FCC) rules and regulations for RF emissions (see Appendix A of this report for further explanation of the FCC rules and regulations). This document and the conclusions herein are based on the information provided by representatives of Verizon Wireless which is assumed to be true and correct.

Verizon Wireless is proposing to collocate (6) multi-band antennas, (6) single-band antennas, (6) dual-band remote radio heads and (3) single-band remote radio heads at the 86', 88.5' and 89.5' levels on a proposed 90' monopole (94' overall height - top of lightning rod).

The analysis evaluates the telecommunications facility with respect to the General Public maximum permissible exposure (MPE) limits ("General Public" is also referred to as "Uncontrolled Environment"; see Appendix A for further explanation of this classification). Sitesafe has taken into consideration the existing/proposed Verizon Wireless antenna system as well as any other collocated antenna systems at the subject location.

Based on the analysis, Sitesafe has determined that:

**Verizon Wireless will comply** in all publicly accessible areas with the FCC rules and regulations governing human exposure to RF electromagnetic fields as described in 47 CFR § 1.1307(b) and 1.1310 in accordance with the methods for evaluating compliance contained in OET Bulletin 65.

Furthermore, with the proposed Verizon Wireless antenna configuration in service, the composite exposure from this facility in all areas at ground level will be below 1% of the General Public MPE limit, or over 100 times less than the maximum allowed exposure in publicly accessible areas.

## 2 Analysis

In this analysis, Sitesafe has taken into consideration the existing/proposed Verizon Wireless antenna system as well as any other collocated antenna systems at the subject location. All existing and proposed licensees are listed in the antenna inventory table in Section 3 of this report. If specific antenna and operating parameter information for the other collocated licensees was not provided, typical assumptions were made based on Sitesafe experience and/or any available information.

Using this data, software modeling was performed for all transmitting antennas located at the site. Sitesafe has assumed a 100% duty cycle and maximum radiated power. The site has been modeled with these assumptions to determine the maximum potential RF energy density. Sitesafe believes this to be a worst-case analysis based on the best available data.

The power density calculations performed by the software tool use FCC prescribed methodologies as contained in OET Bulletin 65, which was compiled by the FCC to provide assistance in evaluating compliance with FCC guidelines for human exposure to electromagnetic fields.

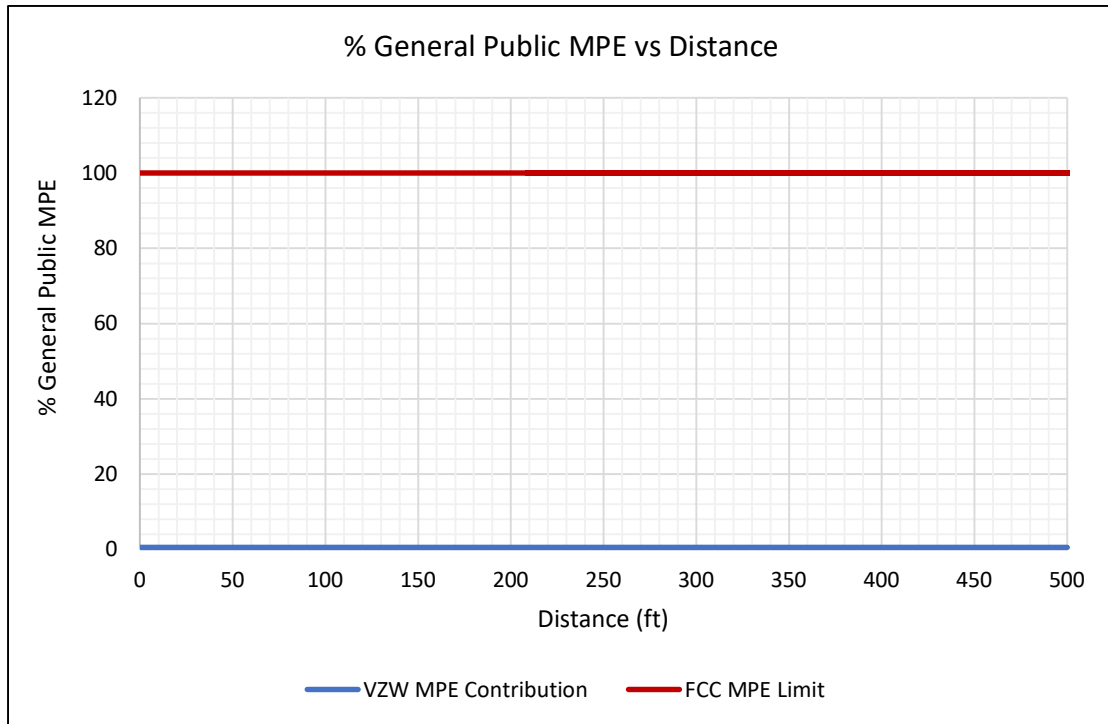
As stated in Section 1, based on this analysis, the calculated ground level exposure from the Verizon Wireless antenna system alone as well as the composite exposure from all existing/proposed licensees will be below 1% of the General Public MPE limit.

Keep in mind that the FCC did not arbitrarily establish their own standards but rather adopted the recommendations of national and international organizations such as the National Council on Radiation Protection and Measurements (NCRP), the American National Standards Institute (ANSI) and the Institute of Electrical and Electronics Engineers (IEEE). These recommendations were developed by expert scientists and engineers following extensive evaluation of the potential biological effects from RF exposure. The FCC MPE limits are based on thresholds for known adverse effects, and they were designed to provide a substantial margin of safety. There is a safety factor of 50 built into the General Public MPE limits, and the predicted Verizon Wireless exposure levels are over 100 times below these very conservative limits.

In cases where such compliance exists, the subject of electromagnetic field safety is preempted by the Telecommunications Act of 1996, which states: "No state or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the (Federal Communication) Commission's regulations concerning such emissions."



Lastly, the graph below provides a visual depiction of the rather insignificant electromagnetic field exposure contribution from the Verizon Wireless antenna system at any distance from the base of the structure. This portrays how low the Verizon Wireless contribution is when compared to the General Public MPE limit.



### 3 Antenna Inventory

The following antenna inventory contains data provided by the customer and/or gathered by Sitesafe personnel which was used to perform the analysis:

Ant #	Operator	Antenna Make/Model	TX Freq (MHz)	Tech.	Az (Deg)	ERP (Watts)	AGL (ft)	MDT	EDT
1	VERIZON WIRELESS (Proposed)	Samsung MT6407-77A	3700	5G	60	43154.9	88.5'	0	6
2	VERIZON WIRELESS (Proposed)	Samsung XXDWMM-12.5-65-8T	3550	LTE	60	227	89.5'	0	8
3	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	60	1945.8	86'	0	8
3	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	60	1991.1	86'	0	8
3	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	1900	LTE	60	5756	86'	0	6
4	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	60	1945.8	86'	0	8
4	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	60	1991.1	86'	0	8
4	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE	60	3304.4	86'	0	6
4	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE	60	3304.4	86'	0	6
5	VERIZON WIRELESS (Proposed)	Samsung MT6407-77A	3700	5G	180	43154.9	88.5'	0	6
6	VERIZON WIRELESS (Proposed)	Samsung XXDWMM-12.5-65-8T	3550	LTE	180	227	89.5'	0	8
7	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	180	1945.8	86'	0	6
7	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	180	1991.1	86'	0	6
7	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	1900	LTE	180	5756	86'	0	6
8	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	180	1945.8	86'	0	6
8	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	180	1991.1	86'	0	6
8	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE	180	3304.4	86'	0	6
8	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE	180	3304.4	86'	0	6
9	VERIZON WIRELESS (Proposed)	Samsung MT6407-77A	3700	5G	300	43154.9	88.5'	0	6
10	VERIZON WIRELESS (Proposed)	Samsung XXDWMM-12.5-65-8T	3550	LTE	300	227	89.5'	0	8
11	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	300	1945.8	86'	0	2
11	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	300	1991.1	86'	0	2
11	VERIZON WIRELESS	Commscope	1900	LTE	300	5756	86'	0	2

Ant #	Operator	Antenna Make/Model	TX Freq (MHz)	Tech.	Az (Deg)	ERP (Watts)	AGL (ft)	MDT	EDT
	(Proposed)	NHH-65C-R2B							
12	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	300	1945.8	86'	0	2
12	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	300	1991.1	86'	0	2
12	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE	300	3304.4	86'	0	2
12	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE	300	3304.4	86'	0	2

Notes: Each row with the same number in the *Ant #* column references the same physical antenna. Proposed equipment is tagged as *(Proposed)* under *Operator* or *Antenna Make and Model*. Power values provided by the client and used in the analysis may be greater than what is initially deployed. For additional modeling information, refer to Appendix B of this report.





#### **4 Engineer Certification**

The Professional engineer whose seal appears on the cover of this document hereby certifies and affirms:

That I am registered as a Professional Engineer in the jurisdiction indicated in the professional engineering stamp on the cover of this document; and

That I am an employee of Site Safe, LLC, in Vienna, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specially as they apply to the FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Benjamin Schnable.

September 16, 2021

## **Appendix A – Technical Framework: FCC Rules and Regulations**

In 1996, the FCC adopted regulations for evaluating of the effects of RF emissions in 47 CFR § 1.1307(b) and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 (OET Bulletin 65), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996, the FCC periodically reviews these rules and regulations as per its congressional mandate.

FCC regulations define two separate tiers of exposure limits: Occupational or “Controlled Environment” and General Public or “Uncontrolled Environment”. The General Public limits are generally five times more conservative or restrictive than the Occupational limits.

General Public or Uncontrolled limits apply to *accessible* areas where workers or the general public may be exposed to RF electromagnetic fields.

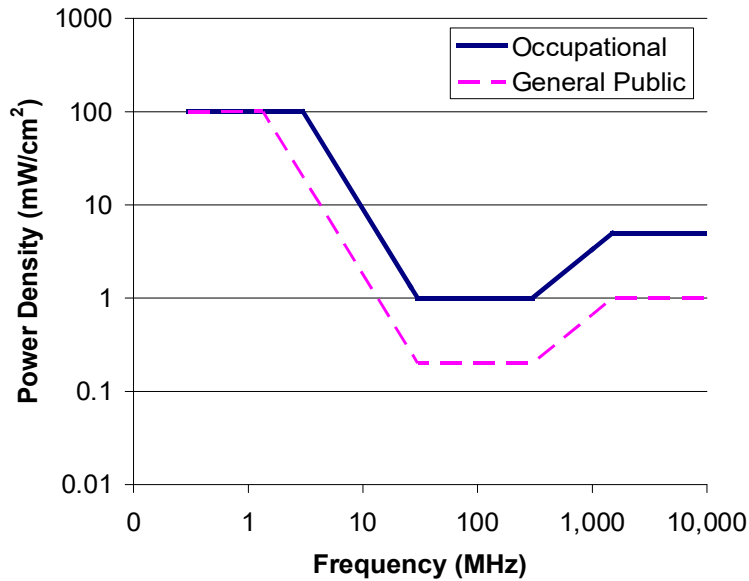
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (e.g. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage.

A site with Controlled environments is evaluated with Occupational limits. All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage, it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The MPE limits utilized in this analysis are outlined in the following diagram and table:

## FCC Limits for Maximum Permissible Exposure (MPE)

Plane-wave Equivalent Power Density



### Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

### Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

\*Plane-wave equivalent power density



## Appendix B – Definitions

**Compliance** – The determination of whether a site complies with FCC standards with regards to Human Exposure to Radio Frequency Electromagnetic Fields from transmitting antennas.

**Decibel (dB)** – A unit for measuring power or strength of a signal.

**Duty Cycle** – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source. A duty cycle of 100% corresponds to continuous operation.

**Effective (or Equivalent) Isotropic Radiated Power (EIRP)** – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

**Effective Radiated Power (ERP)** – The product of the power supplied to the antenna and the antenna gain in a given direction relative to a half-wave dipole antenna.

**Gain (of an antenna)** – The ratio, usually expressed in decibels, of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power density at the same distance. When not specified otherwise, the gain refers to the direction of maximum radiation. Gain may be considered for a specified polarization. Gain may be referenced to an isotropic antenna (dBi) or a half-wave dipole (dBd) antenna.

**Generic Antenna** – For the purposes of this report, the use of “Generic” as an antenna model means the antenna information was not provided. In the event of unknown information, Sitesafe will use its industry specific knowledge of antenna models to select a worst-case scenario antenna to model the site.

**Maximum Permissible Exposure (MPE)** – The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.

**OET Bulletin 65** – Technical guideline developed by the FCC’s Office of Engineering and Technology to determine the impact of RF exposure on humans. The guideline was published in August 1997.

**Radio Frequency Exposure or Electromagnetic Fields** – Electromagnetic waves that are propagated from antennas through space.



## **Appendix C – Statement of Limiting Conditions**

Sitesafe will not be responsible for matters of a legal nature that affect the site or property.

Due to the complexity of some wireless sites, Sitesafe performed this analysis and created this report utilizing best industry practices and due diligence. Sitesafe cannot be held accountable or responsible for anomalies or discrepancies due to actual site conditions or information or data supplied by Verizon Wireless, the site manager, or their affiliates, subcontractors or assigns.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data provided by a second party and physical data collected by Sitesafe, the physical data will be used.



## Appendix D – Additional Resources

Additional RF information is available at the following sites:

<https://www.fcc.gov/general/radio-frequency-safety-0>

<https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety>





1275 John Street, Suite 100  
West Henrietta, New York 14586

November 30, 2021

Chris Brand, Planning Board Chair  
Town of Marlborough  
21 Milton Turnpike  
Milton, New York

RE: Application of Cellco Partnership d/b/a Verizon Wireless for Special Use Permit and Site Plan Review – 50 Cross Road, Marlborough, New York

Dear Chair Brand:

Pursuant to the requirements in Section 152-6(V) of the Marlborough Zoning Law, and in the event the above-referenced application is approved and the facility constructed, Verizon Wireless agrees to design the proposed personal wireless service facility to accommodate two additional communications carriers and will also:

1. respond in a timely comprehensive manner to a request for information from a potential shared-use applicant;
2. negotiate in good faith concerning future requests for shared use of the new facility by other wireless service providers; and
3. allow shared use of the new facility if another wireless service provider agrees in writing to pay reasonable and customary charges.

Thank you for your consideration of the above-referenced application.

Very truly yours,

*Kathy Pomponio*

Kathy Pomponio  
Principal Engineer – Real Estate/Regulatory

**Writer's Direct Number:**  
**Tel: 518-321-5435**

## TOWAIR Determination Results

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

### \*\*\* 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

**PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 7929.67 MTRS (7.92970 KM) AWAY**

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	41-37-19.00N	073-53-31.00W	HUDSON VALLEY RGNL	DUTCHESS POUGHKEEPSIE, NY	44.7	1524.3

#### Your Specifications

##### NAD83 Coordinates

Latitude	41-36-20.7 north
Longitude	073-59-04.6 west

##### Measurements (Meters)

Overall Structure Height (AGL)	28.7
Support Structure Height (AGL)	27.4
Site Elevation (AMSL)	118

##### Structure Type

MTOWER - Monopole

#### Tower Construction Notifications

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

CLOSE WINDOW