

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

# Connecticut Siting Council

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APPLICATION OF CELLCO PARTNERSHIP  
D/B/A VERIZON WIRELESS

TOWN OF MARLBOROUGH

MARLBOROUGH 2 FACILITY

DOCKET NO. \_\_\_\_\_

OCTOBER 30, 2008



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1. Marlborough 2 Facility – Factual Summary and Project Plans
2. Connecticut Siting Council Application Guide
3. Certificate of Service of Application on Government Officials and List of Officials Served
4. Legal Notice in the *Hartford Courant*
5. Notice to Landowners; List of Abutting Landowners; Certificate of Service
6. Federal Communications Commission Authorization
7. Coverage Maps – Location of Proposed and Surrounding Cell Sites
8. Antenna and Equipment Specifications
9. Site Search Summary
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11. Environmental Reviews/State Agency Comments
12. Wetland Impact Report and Soils Report
13. Federal Airways & Airspace Summary Report
14. Lease Agreement – East Glastonbury Fish & Game Association, Inc.

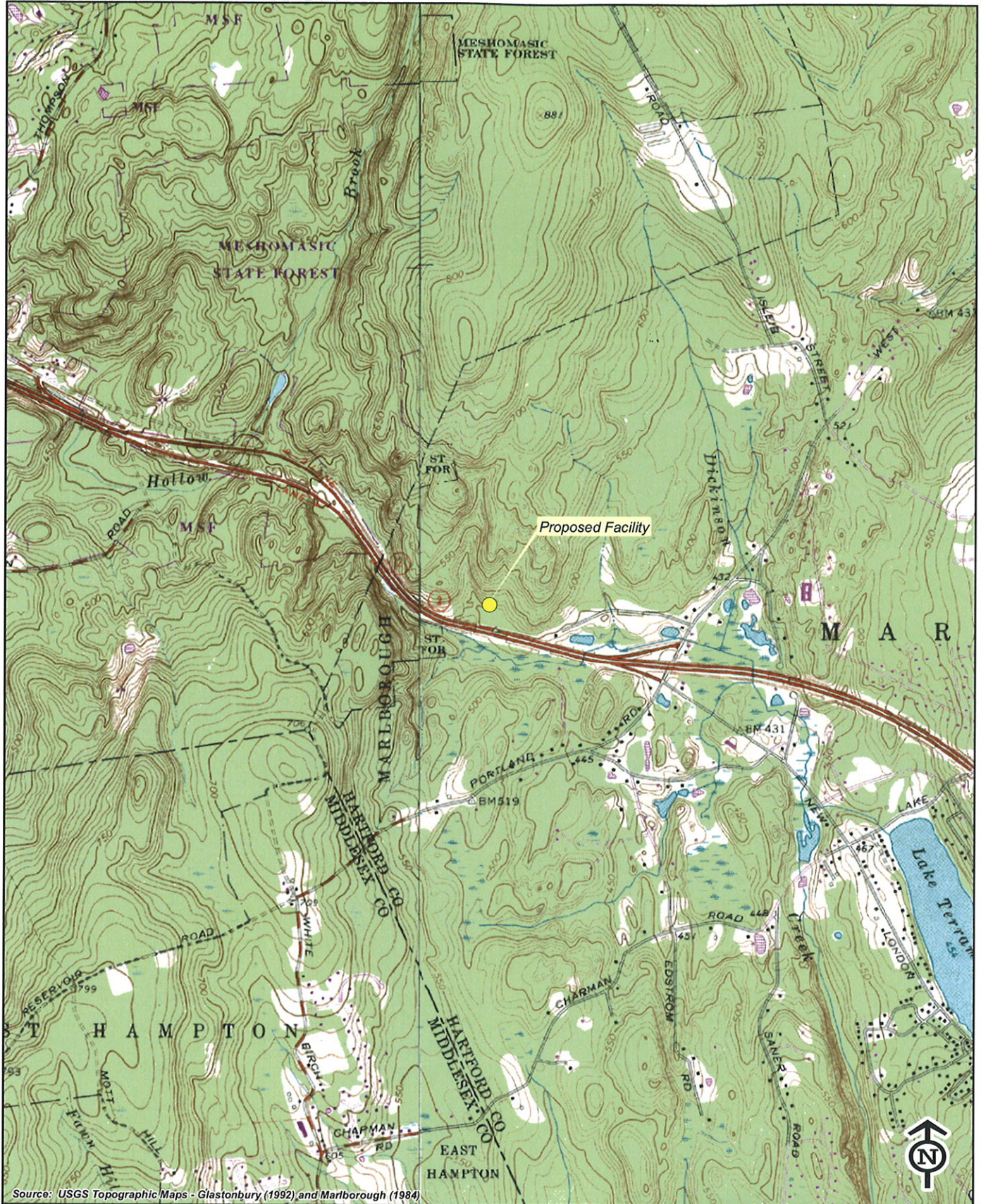
## EXECUTIVE SUMMARY

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) proposes to construct a telecommunications tower and related facility in the southwest corner of an approximately 450-acre parcel owned by East Glastonbury Fish & Game Association, Inc. (“Owner”) off Planeta Road in Marlborough, Connecticut (the “Marlborough 2 Facility”). The Marlborough 2 Facility will provide coverage and capacity relief along Route 2, as well as local roads in the northwesterly portion of the Town of Marlborough and southeasterly portion of the Town of Glastonbury.

Cellco proposes the construction of a 120-foot telecommunications tower at the site. At the top of the tower Cellco will install twelve (12) panel-type antennas, with their centerline at the 120-foot level on the tower. The top of Cellco’s antennas will extend to a height of 123 feet above ground level. Cellco would also install a 12’ x 30’ shelter located near the base of the tower to house its radio equipment and a back-up generator within a fenced compound.

Vehicular access to the Marlborough 2 Facility would extend from Planeta Road over the Owner’s existing paved and gravel driveway a distance of approximately 3,000 feet, then over a short driveway extension to the cell site, an additional distance of approximately 120 feet.

Utilities will extend from existing service on the Owner’s property approximately 1,420 feet east of the cell site.



Source: USGS Topographic Maps - Glastonbury (1992) and Marlborough (1984)



Quadrangle Location

Vanasse Hangen Brustlin, Inc.

USGS Topographic Map  
 Proposed Verizon Wireless  
 Telecommunications Facility  
 Marlborough 2  
 Planeta Road  
 Marlborough, Connecticut





Source: 2006 aerial photograph with a 1-foot pixel resolution



Quadrangle Location

Vanasse Hangen Brustlin, Inc.

2006 Aerial Photograph  
Proposed Verizon Wireless  
Telecommunications Facility  
Marlborough 2  
Planeta Road  
Marlborough, Connecticut



**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

<b>IN RE:</b>	:	
	:	
<b>APPLICATION OF CELLCO</b>	:	<b>DOCKET NO. _____</b>
<b>PARTNERSHIP D/B/A VERIZON</b>	:	
<b>WIRELESS FOR A CERTIFICATE OF</b>	:	
<b>ENVIRONMENTAL COMPATIBILITY AND</b>	:	
<b>PUBLIC NEED FOR THE CONSTRUCTION,</b>	:	
<b>MAINTENANCE AND OPERATION OF A</b>	:	
<b>WIRELESS TELECOMMUNICATIONS</b>	:	
<b>FACILITY OFF PLANETA ROAD,</b>	:	
<b>MARLBOROUGH, CONNECTICUT</b>	:	<b>OCTOBER 30, 2008</b>

**APPLICATION FOR CERTIFICATE OF  
ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED**

**I. INTRODUCTION**

**A. Authority and Purpose**

This Application and the accompanying attachments (collectively, the “Application”) is submitted by Cellco Partnership d/b/a Verizon Wireless (“Cellco” or the “Applicant”), pursuant to Chapter 277a, Sections 16-50g et seq. of the Connecticut General Statutes (“C.G.S.”), as amended, and Sections 16-50j-1 et seq. of the Regulations of Connecticut State Agencies (“R.C.S.A.”), as amended. The Application requests that the Connecticut Siting Council (“Council”) issue a Certificate of Environmental Compatibility and Public Need (“Certificate”) for the construction, maintenance, and operation of a wireless telecommunications facility, in the Town of Marlborough, Connecticut (the “Marlborough 2 Facility”). The proposed Marlborough 2 Facility would provide wireless telecommunications coverage and capacity relief along Route 2, Cellco’s principal coverage objective, as well as local roads in the northwesterly portion of the



Town of Marlborough and the southeasterly portion of the Town of Glastonbury. Cellco's existing coverage gap along Route 2 between its existing East Glastonbury 2 Facility to the west and Marlborough facility to the east is approximately 0.32 miles at cellular frequencies and 2.15 miles at PCS frequencies. Cellco's existing East Glastonbury 2 cell site consists of antennas at the 167-foot level of a 180-foot SBA tower at 175 Dickenson Road in Glastonbury. Cellco's existing Marlborough cell site consists of antennas at the 158-foot level of a 170-foot Crown Castle tower off North Main Street in Marlborough. The proposed Marlborough 2 Facility will provide reliable service to a 2.83 mile portion of Route 2, and an overall area of 4.4 square miles at cellular frequencies; and a 2.1 mile portion of Route 2, and an overall area of 2.2 square miles at PCS frequencies.

The Marlborough 2 Facility would be located in the southwest corner of an approximately 450-acre parcel at off Planeta Road in Marlborough (the "Property").<sup>1</sup> The Property is located in the Town's Residential zone district.

If this application is approved by the Council, Cellco will construct a 120-foot self-supporting monopole telecommunications tower at the Property. At the top of the tower, Cellco would install a total of twelve (12) panel-type antennas (six (6) cellular and six (6) PCS) with their centerline at the 120-foot level. Cellco's antennas will extend above the top of the tower to an overall height of 123 feet above ground level ("AGL"). Equipment associated with Cellco's antennas would be located in a 12' x 30' shelter installed near the base of the tower within a 50' x 75' fenced compound. Vehicular access to the Marlborough 2 Facility would extend from Planeta Road over the landowner's existing paved and gravel driveway a distance of

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<sup>1</sup> The Property consists of several large contiguous parcels all owned by East Glastonbury Fish & Game Association, Inc.

approximately 3,000 feet, then along a short gravel driveway extension an additional distance of approximately 120 feet.

Utilities will extend underground from existing overhead service on the Property located to the east of the cell site near the Owner's Clubhouse. Both the tower and leased area would be designed to accommodate additional carriers as well as municipal and emergency services antennas and equipment. As of the date of this filing neither the Town nor any other wireless carrier has committed to share the proposed tower.

Cellco's equipment shelter would house radio and related equipment, including (a) receiving, transmitting, switching, processing and performance monitoring equipment; and (b) automatic heating and cooling equipment. A back-up generator would also be installed in a segregated generator room within the shelter for use during power outages and periodically for maintenance purposes.

The tower and equipment shelter would be enclosed by an 8-foot high security fence and gate. Cellco's equipment building would be equipped with a silent intrusion and systems alarm and will be monitored on a 24-hour basis to receive and to respond to incoming alarms or other technical problems. The equipment building would remain unstaffed, except as required for maintenance. Once the cell site is operational, maintenance personnel will visit the cell site on a monthly basis. More frequent visits may be required if there are problems with the cell site equipment.

Included in this Application as Attachment 1 is a factual summary and project plans for the proposed Marlborough 2 Facility. This summary, along with the other attachments submitted as part of this Application, contains all of the site-specific information required by statute and the regulations of the Council.

In accordance with Paragraph I(F) of the Council's "Application Guide" for Community Antenna Television and Telecommunication Towers, a copy of the Application Guide is included as Attachment 2. The Application Guide contains references to the specific pages of this Application and the attachments where the information required under Section VI of the Application Guide may be found.

**B. The Applicant**

Cellco is a Delaware Partnership with an administrative office located at 99 East River Drive, East Hartford, CT, 06108. Cellco is licensed by the Federal Communications Commission ("FCC") to operate a wireless telecommunications system in the State of Connecticut within the meaning of C.G.S. Section 16-50i(a)(6). Operation of the wireless telecommunications systems and related activities are Cellco's sole business in the State of Connecticut.

Cellco has extensive national experience in the development, construction and operation of wireless telecommunications systems and the provision of wireless telecommunications service to the public.

Correspondence and/or communications regarding this Application may be addressed to:

Sandy Carter, Regulatory Manager  
Verizon Wireless  
99 East River Drive  
East Hartford, Connecticut 06108

A copy of all such correspondence or communications should also be sent to the applicant's attorneys:

Robinson & Cole LLP  
280 Trumbull Street  
Hartford, Connecticut 06103-3597  
(860) 275-8200  
Attention: Kenneth C. Baldwin, Esq.

**C. Application Fee**

The estimated total construction cost for the Marlborough 2 Facility would be less than \$5,000,000. Therefore, pursuant to Section 16-50v-1a(b) of the Regulations of Connecticut State Agencies, an application fee of \$1,000 accompanies this Application in the form of a check payable to the Council.

**II. SERVICE AND NOTICE REQUIRED BY C.G.S. SECTION 16-50(b)**

Copies of this Application have been sent by certified mail, return receipt requested, to municipal, regional, state and federal officials, pursuant to C.G.S. Section 16-50(b). A certificate of service, along with a list of the parties served with a copy of the Application, is included as Attachment 3.

Notice of Cellco's intent to submit this Application was published on October 28 and 29, 2008, by Cellco in the *Hartford Courant* pursuant to C.G.S. Section 16-50(b). A copy of the published legal notice is included as Attachment 4. A copy of the publisher's affidavit or certificate of publication will be submitted to the Council as soon as it is available.

Attachment 5 contains a certification that notices were sent to each person appearing of record as an owner of property that may be considered to abut the Property in accordance with C.G.S. Section 16-50(b), as well as a list of the property owners to whom such notice was sent and a sample notice letter.

**III. REQUIRED INFORMATION: PROPOSED WIRELESS FACILITY**

The purpose of this section is to provide an overview and general description of the wireless facility proposed to be installed at the Property.

**A. General Information**

Prior to the 1980's, mobile telephone service was characterized by insufficient frequency availability, inefficient use of available frequencies and poor quality of service. These limitations generally resulted in problems of congestion, blocking of transmissions, interference, lack of coverage and relatively high cost. Consequently, the FCC, in its Report and Order released May 4, 1981 in FCC Docket No. 79-318, recognized the public need for technical improvement, wide-area coverage, high quality service and a degree of competition in mobile telephone service.

More recently, the federal Telecommunications Act of 1996 (the "Act") emphasized and expanded on these aspects of the FCC's 1981 decision. Among other things, the Act recognized an important nationwide public need for high-quality wireless telecommunication services of all varieties. The Act also expressly promotes competition and seeks to reduce regulation in all aspects of the telecommunications industry in order to foster lower prices for consumers and to encourage the rapid deployment of new telecommunications technologies.

Cellco's proposed Marlborough 2 Facility would be part of the expanding wireless telecommunications network envisioned by the Act and has been developed to help meet these nationwide goals. In particular, Cellco's system has been designed, and the cell sites proposed in this Application have been selected, so as to maximize the geographical coverage and quality of service while minimizing the total number of cell sites required.

Because the FCC and the United States Congress have determined that there is a pressing public need for high-quality wireless telecommunications service nationwide, the federal government has preempted the determination of public need by states and municipalities, including the Council, with respect to public need for the service to be provided by the proposed facility. In addition, the FCC has promulgated regulations containing technical standards for wireless systems,

including design standards, in order to ensure the technical integrity of each system and nationwide compatibility among all systems. State and local regulation of these matters is likewise preempted. The FCC has also exercised its jurisdiction over and preempted state and local regulation with respect to radio frequency interference issues by establishing regulations in this area as well.

Pursuant to FCC authorizations, Cellco has constructed and currently operates a wireless system throughout Connecticut. This system, together with Cellco's system throughout its east coast and nationwide markets, has been designed and constructed to operate as one integrated, contiguous system, consistent with Cellco's business policy of developing compatibility and continuity of service on a regional and national basis.

Included as Attachment 6 is a copy of the FCC's authorization issued to Cellco for its wireless service in Hartford County, Connecticut. The FCC's rules permit a licensee to modify its system, including the addition of new cell sites, without prior approval by the FCC, as long as the licensee's authorized service area is not enlarged. The Marlborough 2 Facility would not enlarge Cellco's authorized service area.

**B. Public Need and System Design**

**1. Public Need**

As noted above, the Act has pre-empted any state or local determination of public need for wireless services. In Hartford County, Cellco holds an FCC License to provide both cellular and PCS service. Pursuant to its FCC Licenses, Cellco has developed and continues to develop a network of cell sites to serve the demand for wireless service in the area. Cellco's network currently provides coverage in Marlborough and the surrounding areas from its existing East Glastonbury 2 and Marlborough cell sites. Plots showing coverage from Cellco's existing

facilities alone and together with the coverage from the proposed Marlborough 2 Facility are included as Attachment 7.

**2. System Design and Equipment**

**a. System Design**

Cellco's wireless system in general and the proposed Marlborough 2 Facility, in particular, have been designed and developed to allow Cellco to achieve and to maintain high quality, reliable wireless service without interruption from dropped calls and interference.

The system design provides for frequency reuse and hand-off, is capable of orderly expansion and is compatible with other wireless systems. The resulting quality of service compares favorably with the quality of service provided by conventional wireline telephone service. The wireless system is designed to assure a true cellular configuration of base transmitters and receivers in order to cover the proposed service area effectively while providing the highest quality of service possible. Cell site transmissions are carefully tailored to the FCC's technical standards with respect to coverage and interference and to minimize the amount of power that is radiated.

Mobile telephone switching offices ("MTSOs") in Windsor and Wallingford are interconnected and operate Cellco's wireless systems in Connecticut as a single network, offering the subscriber uninterrupted use of the system while traveling throughout the State. This network is further interconnected with the local exchange company ("LEC") and inter-lata (long distance) carriers network.

Cellco has designed its wireless system in conformity with applicable standards and constraints for wireless systems. Cellco's system is also designed to minimize the need for additional cell sites in the absence of additional demand or unforeseen circumstances.

**b. Cellular System Equipment**

The key elements of the cellular system are the two MTSOs located in Windsor and Wallingford and the various connector cell sites around the state. Cellco's CDMA wireless networks are deployed on two platforms: the earlier AUTOPLEX system, using Series II base stations, and the newer FLEXENT CDMA system, using smaller, more compact modular base stations. Because the Series II base stations are no longer manufactured, the newer CDMA systems, using smaller, more compact modular base stations are used for all current installations.

The major electronic components of each cell site are radio frequency transmission and receiving equipment and cell site controller equipment. Cellco's cellular system uses Lucent Flexent® Modular Cell 4.0B cell site equipment to provide complete cell site control and performance monitoring. This equipment is capable of expanding in modules to meet system growth needs. The cell site equipment primarily provides for: message control on the calling channel; call setup and supervision; radio frequency equipment control; internal diagnostics; response to remote and local test commands; data from the mobile or portable unit in both directions and on all channels; scan receiver control; transmission of power control commands; rescanning of all timing; and commands and voice channel assignment. Additional information with respect to the Lucent Flexent® Modular Cell 4.0B equipment is contained in Attachment 8.

**3. Technological Alternatives**

Cellco submits that there are no equally effective technological alternatives to the proposal contained herein. In fact, Cellco's wireless system represents state-of-the-art technology offering high-quality service. Cellco is aware of no viable and currently available alternatives to its system design for carriers licensed by the FCC.



**C. Site Selection and Tower Sharing**

**1. Cell Site Selection**

Cellco's goal in selecting cell sites such as the one proposed here is to locate its facility in such a manner as to allow it to build and to operate a high-quality wireless system with the least environmental impact. Cellco has determined that the proposed Marlborough 2 Facility will satisfy this goal and is necessary to resolve existing coverage problems and to provide high-quality reliable service along portions of Route 2, as well as local roads in northwest Marlborough and southeast Glastonbury.

The methodology of cell site selection for Cellco's wireless system generally limits the search for possible locations to specific locations on the overall grid for the area. A list of existing towers or other non-tower structures considered is included in Attachment 9. Cellco currently shares the existing SBA tower (Cellco's East Glastonbury 2 cell site) located at 175 Dickenson Road in Glastonbury; and the existing Crown Castle tower (Cellco's Marlborough cell site) located off North Main Street in Marlborough. (See Attachment 7). These existing sites cannot resolve the coverage problems along Route 2 in northwest Marlborough and southeast Glastonbury. Cellco also regularly investigates the use of existing, non-tower structures in an area, when available, as an alternative to building a new tower. No existing non-tower structures of suitable height exist in the northwesterly Marlborough area. The site search summary together with the site information contained in Attachment 1 support Cellco's position that the site selected represents the most feasible alternative of the sites investigated.

**2. Tower Sharing**

Cellco will design its Marlborough 2 Facility tower and compound area so that it could be shared by a minimum of four wireless carriers, and the Town, if a need exists. This type of tower

sharing arrangement would reduce, if not eliminate, the need for these other carriers or municipal entities to develop a separate tower in this same area in the future. As of the date of this filing, no other carrier has expressed any interest in the Marlborough 2 Facility.

**D. Cell Site Information**

**1. Site Facilities**

At the Marlborough 2 Facility, Cellco would construct a new 120-foot tall tower and install twelve (12) panel-type directional antennas at the top of the tower. Cellco would install a 12' x 30' single-story shelter near the base of the tower to house Cellco's receiving, transmitting, switching, processing and performance monitoring equipment and the required heating and cooling equipment. A diesel-fueled generator would be installed within a segregated room in Cellco's equipment shelter for use during power outages and periodically for maintenance purposes. The tower and equipment shelter would be surrounded by an 8-foot high security fence and gate. (See Attachment 1).

The equipment shelter would be equipped with silent intrusion and systems alarms. Cellco personnel will be available on a 24-hour basis to receive and to respond to incoming alarms. The equipment building will remain unstaffed, except as required for periodic maintenance purposes.

**2. Overall Costs and Benefits**

Aside from the limited visual impacts discussed further below, Cellco believes that there are no significant costs attendant to the construction, maintenance, and operation of the proposed cell site. In fact, the public will benefit substantially from its increased ability to receive high-quality,

reliable wireless service in Marlborough.<sup>2</sup> The Marlborough 2 Facility would be a part of a communications system that addresses the public need identified by the FCC and the United States Congress for high-quality, competitive mobile and portable wireless service. Moreover, the proposed cell site would be part of a system designed to limit the need for additional cell sites in the future.

The overall costs to Cellco for development of the proposed cell site are set forth in Section III.E. of the Application.

### **3. Environmental Compatibility**

Pursuant to Section 16-50p of the General Statutes, in its review of the Application, the Council is required to find and to determine, among other things, the nature of the probable environmental impact, including a specification of every significant adverse effect of the Marlborough 2 Facility, whether alone or cumulatively with other effects, on, and conflicting with the policies of the state concerning the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forests and parks, air and water purity and fish and wildlife.

#### **a. Primary Facility Impact is Visual**

The wireless system of which the proposed Marlborough 2 Facility would be a part has been designed to meet the public need for high-quality, reliable wireless service while minimizing any potential adverse environmental impact. In part because there are few, if any other adverse impacts,

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<sup>2</sup> Businesses across the State have become more dependent on wireless telecommunication services. The public safety benefits of wireless telephone service are illustrated by the improved Connecticut State Police 911 emergency calling system. The 911 emergency calling system is available statewide to all wireless telephone users. Numerous other emergency service organizations have turned to wireless telephone service for use during natural disasters and severe storms when wireline service is interrupted or unavailable. As a deterrent to crime, the general public will further benefit from the Cellular Telecommunications Industry Association's donation of more than 50,000 cellular phones to "Neighborhood Watch" groups nationwide.

the primary impact of facilities such as this is visual. This visual impact will vary from location to location around a tower, depending upon factors such as vegetation, topography, the distance of nearby properties from the tower and the location of buildings and roadways in a “sight line” toward the tower. Similarly, visual impact of a tower facility can be further reduced through the proper use of alternative tower structures; so-called “stealth installations.” Where appropriate, telecommunications towers camouflaged as trees, can help to further reduce visual impacts associated with these structures. Attachment 10 contains a detailed Visual Resource Evaluation Report, prepared by VHB, Inc. (the “VHB Report”) that assesses the visual impact of the proposed tower and includes photosimulations of the tower at this site for the Council’s consideration. Overall, VHB concludes that areas where the tower would be visible above the tree canopy are limited to approximately two acres. The area of year-round visibility associated with the Marlborough 2 Facility is confined to the immediate vicinity of the proposed facility. Areas where seasonal views are anticipated comprise of approximately 18 additional acres and are limited to the host property and an approximately 0.35 mile portion of Route 2 in the immediate vicinity of the Marlborough 2 Facility.

There are no residences within 1,000 feet of the Marlborough 2 Facility. The closest residence is located at 36 Portland Road approximately 1,800 feet to the southeast of the cell site. This property is listed on Cellco’s abutting properties list behind Attachment 5 of this Application.

Weather permitting, Cellco will raise a balloon with a diameter of at least three (3) feet at the proposed cell site on the day of the Council’s hearing on this Application, or at a time otherwise specified by the Council.

**b. Environmental Reviews and Agency Comments**

Section 16-50j of the General Statutes requires the Council to consult with and to solicit comments on the Application from the Commissioners of the Departments of Environmental Protection, Public Health, Public Utility Control, Economic Development, and Transportation, the Council on Environmental Quality, and the Office of Policy and Management, Energy Division. In addition to the Council's solicitation of comments, Cellco, as a part of its National Environmental Policy Act ("NEPA") Checklist, solicits comments on the proposed facility from the U.S. Department of the Interior, Fish and Wildlife Service ("USFWS"), Environmental and Geographic Information Center of the Connecticut Department of Environmental Protection ("DEP") and the Connecticut Historical Commission, State Historic Preservation Officer ("SHPO"). Information on the USFWS and DEP reviews regarding impacts on known populations of Federal or State Endangered, Threatened or Special Concern Species occurring at the proposed site are included in Attachment 11.

According to the USFWS letter dated January 7, 2008, several federally-listed or proposed, threatened or endangered species or critical habitat (Dwarf Wedge Mussel, Puritan Tiger Beetle and Sand Plain Gerardia) are known to occur in Hartford County, Connecticut, where the Marlborough 2 Facility is located. As stated in its September 26, 2008 memorandum, VHB, Inc. determined that the habitat necessary to support the Dwarf Wedge Mussel, Puritan Tiger Beetle and Sand Plain Gerardia does not exist at the site. The development of the Marlborough 2 Facility, therefore, will not have an adverse effect to any federally listed, endangered or threatened species.

In its comment letters dated May 8, 2008 and May 20, 2008, the DEP stated that its records indicate that a State endangered species, the timber rattlesnake (*Crotalus horridus*), and a State special concern species, the Eastern box turtle (*Terrapene carolina*) may occur in the vicinity of the

Marlborough 2 Facility. In response to DEP, VHB, Inc. prepared a Eastern Box Turtle and Timber Rattlesnake Habitat Assessment dated October 20, 2008 for the area surrounding the Marlborough 2 Facility. In addition to a habitat assessment the October 20, 2008 report includes a recommended protection program for these two species. A copy of the VHB, Inc. assessment is included as a part of Attachment 11.

Also included in Attachment 11 is a letter from the SHPO confirming that the Marlborough 2 Facility will have no effect on Connecticut's cultural heritage.

This review by state administrative agencies furnishes ample expert opinion on the potential environmental impacts from the Marlborough 2 Facility, in the context of the criteria which the Council must consider.

**c. Non-Ionizing Radio Frequency Radiation**

The FCC has adopted a standard for exposure to Radio Frequency ("RF") emissions from telecommunications facilities like the one proposed in this Application. To ensure compliance with the applicable standards, Cellco has performed maximum power density calculations for the proposed cell site according to the methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) ("OET Bulletin 65"). The calculation is a conservative, worst-case approximation for RF power density levels at the closest accessible point to the antennas, in this case the base of the tower, and with all antennas transmitting simultaneously on all channels at full power. The calculations indicate that the maximum power density level for Cellco antennas would be 18.01% of the Standard at the Marlborough 2 Facility.

**d. Other Environmental Issues**

No sanitary facilities are required for the Marlborough 2 Facility. The operations at the Marlborough 2 Facility will not cause any significant air, water, noise or other environmental impacts, or hazard to human health.

Based on agency comments received and field investigations by Cellco's project team, Cellco submits that the proposed facility will have no significant adverse effect on scenic, natural, historic or recreational features, and that none of the potential effects from the Marlborough 2 Facility alone or cumulatively with other effects is sufficient reason to deny this Application.

**4. Consistency with Local Land Use Controls**

The Council Application Guide for Community Antenna Television and Telecommunication Facilities, as amended on February 16, 2007, requires the inclusion of a narrative summary of the project's consistency with the Town's Plan of Development and Zoning Regulations, as well as a description of planned and existing uses of the site location and surrounding properties.

**a. Planned and Existing Land Uses**

The proposed Marlborough 2 Facility would be located on an approximately 450-acre parcel owned by East Glastonbury Fish & Game Association, Inc. The Property is zoned Residential and used for private recreational purposes by the East Glastonbury Fish & Game Club. The Property is surrounded by large wooded tracts of land including portions of the Meshomasic State Forest to the north, south (across Route 2) and west of the Property; and low-density residential areas to the east.

**b. Marlborough Town Plan of Conservation and Development**

The Town of Marlborough Plan of Conservation and Development (the “POCD”) effective November 28, 1995, does not specifically identify telecommunications towers as a land use consistent or inconsistent with the general planning or conservation policies of the Town of Marlborough.

**c. Zoning Regulations**

According to the Town Zoning Map, the Property is located in the Residential zone district. The Town has established Telecommunications Facilities and Towers regulations, found in Section 10K of the Zoning Regulations. Towers and telecommunications facilities are permitted in the Residential zone subject to approval of a Special Use Permit. A tower must maintain a minimum setback equal to one and one-half times the height of the tower to any property boundary or residential structure or 750 feet to any school, church, public building or athletic field. The Marlborough 2 Facility tower radius does not extend onto adjacent properties. The distance from the tower to the nearest property boundary (to the south) is approximately 300 feet. (See Attachment 1 – Plan Sheet SP-1).

**d. Inland Wetland and Water Course Regulations**

The Town of Marlborough Inland Wetlands and Watercourses (“IWW”) Regulations define regulated activity as any operation within, or use of, a wetland or watercourse or deposition of material or any obstruction, construction, alteration or pollution, of such wetlands or watercourses. The Town of Marlborough has established Inland Wetlands and Watercourse Conservation areas including those areas within 150 feet of a wetland or watercourse; and within 200 feet of certain watercourses, brooks and streams. (See Section 2.17). Four (4) copies of the Marlborough Wetlands Regulations were filed, in bulk, with the Council.



Dean Gustafson, Professional Soil Scientist with VHB, Inc., conducted a field investigation and completed a Wetlands Delineation Report (the "Wetlands Report") for development activity related to the Marlborough 2 Facility. According to the Wetlands Report, the closest wetland area is more than 100 feet east of the proposed development. Although work is proposed in proximity to the wetland area, adequate erosion control measures will be in place to protect the area during construction. Therefore, the proposed development will not result in an adverse impact to nearby wetlands. Copies of the NEPA Wetlands Compliance Memo and Wetlands Delineation Report are included in Attachment 12.

In accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Council for Soil and Water Conservation, adequate and appropriate soil erosion and sedimentation control measures will be established and maintained throughout the cell site construction period. In addition, Cellco will employ appropriate construction management practices to ensure that no pollutants would be discharged to any nearby watercourse or wetland areas or to area groundwater during the construction process.

According to the Federal Emergency Management Agency Flood Insurance Rate Map ("FIRM"), Community Panel Number 09003C0563F (Effective Date September 26, 2008), the Facility would be located in Flood Zone X. A copy of the FIRM is also included in Attachment 12.

## **5. Local Input**

Section 16-50I(e) of the Connecticut General Statutes, as amended, requires local input on matters before the Council. On August 14, 2008, Cellco representatives met with Marlborough First Selectman William Black and Town Planner Peter Hughes to commence the sixty (60) day municipal consultation process. Mr. Black and Mr. Hughes received copies of technical

information summarizing Cellco's plans to establish a telecommunications facility at the Property. Because the Marlborough 2 Facility is located within 2,500 feet of the Town of Glastonbury, Cellco representatives also submitted copies of the technical information to Glastonbury Town Manager's office.

**6. Consultations With State and Federal Officials**

Attachment 11 and Section III.D. of the Application describe Cellco's consultations with state and federal officials regarding Cellco's proposed Marlborough 2 Facility.

**a. Federal Communications Commission**

The FCC did not review this particular proposal. As discussed above, FCC approval is not required where the authorized service area is not enlarged.

**b. Federal Aviation Administration**

As it does with all of its tower applications, Cellco conducted the appropriate air-space analysis for the proposed Marlborough 2 Facility to determine if the proposed tower would constitute an obstruction or hazard to air navigation. Cellco's analysis has confirmed, pursuant to FAA standards and guidelines, that the proposed site tower would not constitute an obstruction or hazard to air navigation and therefore no obstruction marking or lighting would be required. A copy of the Federal Airways & Airspace Summary Report is included in Attachment 13.

**c. United States Fish and Wildlife Service**

According to the USFWS, there are several federally-listed or proposed, threatened or endangered species or critical habitat that may occur in the project area. There is, however, no habitat on the Property that would support any of the identified species. (See pp. 14-15 above and VHB Memorandum dated September 26, 2008, included in Attachment 11).

**d. Connecticut Department of Environmental Protection**

(1) Environmental and Geographic Information Center

As discussed above, the DEP determined that the Timber rattlesnake and Eastern box turtle may occur in the vicinity of the Marlborough 2 Facility. In response to the DEP's comments, VHB has completed a habitat assessment and protection plan for the project site. (See VHB correspondence dated October 20, 2008).

(2) Bureau of Air Management

Pursuant to R.C.S.A. § 22a-174-3, the on-site emergency back-up generator proposed as a part of this Application will require the issuance of a permit from the DEP Bureau of Air Management. As proposed, this emergency generator will be run only during the interruption of utility service to the cell site and periodically as required for maintenance purposes. Cellco will obtain the necessary permit prior to installing the generator at the Marlborough 2 Facility.

**e. Connecticut State Historic Preservation Officer**

As discussed above, Attachment 11 also includes the SHPO's determination that the proposed Marlborough 2 Facility will have no effect on Connecticut's Cultural Heritage.

**E. Estimated Cost and Schedule**

**1. Overall Estimated Costs**

The total estimated cost of construction of the proposed facility is \$795,000. This estimate includes:

(1)	Cell site radio equipment of approximately	\$450,000
(2)	Tower, coax and antenna costs of approximately	150,000
(3)	Power systems costs of approximately	20,000
(4)	Equipment building costs of approximately	50,000

- (5) Miscellaneous costs (including site preparation and installation) of approximately 125,000

**2. Overall Scheduling**

Site preparation and engineering would commence following Council approval of Cellco's Development and Maintenance ("D & M") plan and are expected to be completed within two to four weeks. Due to the delivery schedules of the manufacturers, installation of the building and installation of the tower are expected to take an additional two weeks. Equipment installation is expected to take an additional two weeks after installation of the building and installation of the tower. Cell site integration and system testing is expected to require two weeks after equipment installation.

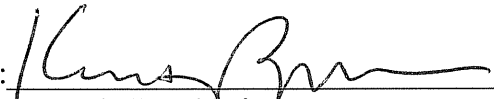
**IV. CONCLUSION**

Based on the facts contained in this Application, Cellco submits that the establishment of the Marlborough 2 Facility, at the Property will not have any substantial adverse environmental effects. A public need exists for high quality reliable wireless service in the Town of Marlborough and throughout Hartford County, as determined by the FCC and the United States Congress, and a competitive framework for providing such service has been established by the FCC and the Telecommunications Act of 1996. Cellco submits that the public need far outweighs any possible environmental effects resulting from the construction of the proposed cell site.

WHEREFORE, Cellco respectfully requests that the Council grant this Application for a Certificate of Environmental Compatibility and Public Need for the proposed Marlborough 2 Facility.

Respectfully submitted,

CELLCO PARTNERSHIP D/B/A VERIZON  
WIRELESS

By:   
Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, Connecticut 06103-3597  
(860) 275-8200  
Attorneys for the Applicant



# **MARLBOROUGH 2**

**Planeta Road  
Marlborough, Connecticut**

Description of Proposed Cell Site

Cellco Partnership d/b/a Verizon Wireless  
99 East River Drive  
East Hartford, CT 06108

## TABLE OF CONTENTS

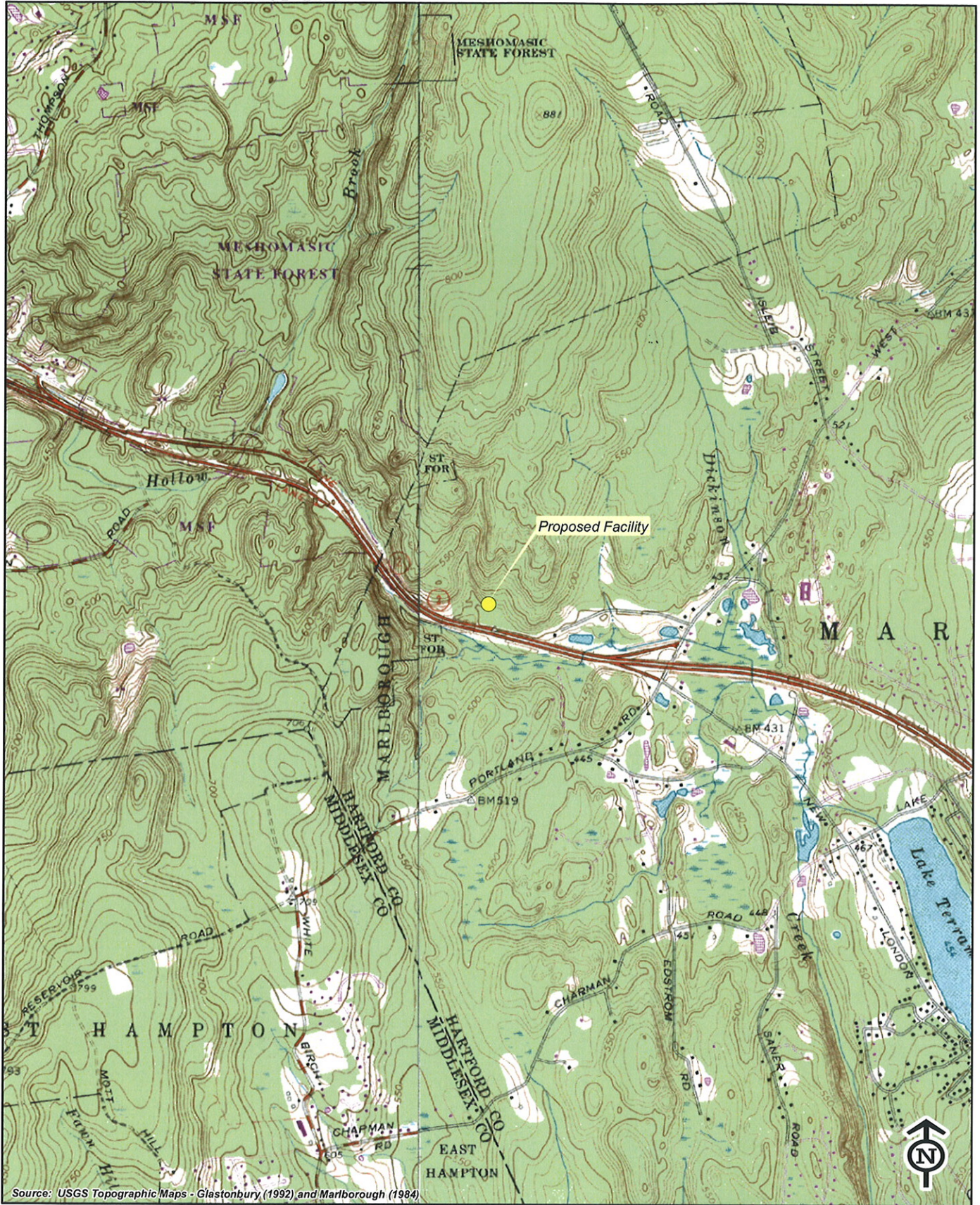
<u>SECTION</u>	<u>PAGE</u>
GENERAL CELL SITE DESCRIPTION.....	1
U.S.G.S. TOPOGRAPHIC MAP.....	2
AERIAL PHOTOGRAPH.....	3
SITE EVALUATION REPORT.....	4
FACILITIES AND EQUIPMENT SPECIFICATION.....	6
ENVIRONMENTAL ASSESSMENT STATEMENT.....	7



SITE NAME: MARLBOROUGH 2 - Planeta Road, Marlborough, CT

GENERAL CELL SITE DESCRIPTION

The proposed cell site would be located in the southeasterly portion of an approximately 450-acre parcel located off Planeta Road in Marlborough, Connecticut (the "Property"). The Property is owned by East Glastonbury Fish & Game Association, Inc. The facility would consist of a 120-foot telecommunications tower and a 12' x 30' equipment shelter located near the base of the tower (the "Marlborough 2 Facility"). Cellco antennas would be mounted with their centerline at the 120-foot level. Vehicular access to the site would extend from Planeta Road a distance of approximately 3,120 feet. Utility access would extend from existing service on the Property approximately 1,420 feet to the east of the site compound.



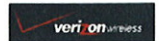
Source: USGS Topographic Maps - Glastonbury (1992) and Marlborough (1984)



Quadrangle Location

Vanasse Hangen Brustlin, Inc.

USGS Topographic Map  
 Proposed Verizon Wireless  
 Telecommunications Facility  
 Marlborough 2  
 Planeta Road  
 Marlborough, Connecticut





Source: 2006 aerial photograph with a 1-foot/pixel resolution

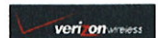


Quadrangle Location



Vanasse Hangen Brustlin, Inc.

2006 Aerial Photograph  
Proposed Verizon Wireless  
Telecommunications Facility  
Marlborough 2  
Planeta Road  
Marlborough, Connecticut



## SITE EVALUATION REPORT

SITE NAME: MARLBOROUGH 2 - Planeta Road, Marlborough, CT

### I. LOCATION

- A. COORDINATES: 41°-39'-08.66" N 72°-29'-44.05" W
- B. GROUND ELEVATION: Approximately 464± feet AMSL
- C. U.S.G.S. MAP: Marlborough, CT
- D. SITE ADDRESS: Planeta Road, Marlborough, CT
- E. ZONING WITHIN 1/4 MILE OF SITE: Land within 1/4 mile of the cell site is zoned Residential, Designed Recreation to the north and south and General Commercial to the east along West Road.

### II. DESCRIPTION

- A. SITE SIZE: 100' x 100' Leased Area  
50' x 75' Site Compound
- B. LESSOR'S PARCEL: Approximately 450-acres
- C. TOWER TYPE/HEIGHT: 120' Monopole Tower
- D. SITE TOPOGRAPHY AND SURFACE: The tower site is located in the southwest corner of the Property. The Property generally slopes up from south to north away from Route 2. Minimal clearing and grading of the facility compound area and the new portion of the access driveway will be required.
- E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The tower is located in the southwesterly portion of an approximately 450-acre parcel. The Property is mostly vacant and heavily wooded. No wetland or watercourses were identified on the Property within 100 feet of the proposed development activities. A small forested wetland exists on the Property approximately 100 feet to the east of the proposed cell site. Construction activity associated with the tower site will not impact this wetland area.
- F. LAND USE WITHIN 1/4 MILE OF SITE: The Property is surrounded by portions of the Meshomasic State Forest to the north, west and south, across Route 2 and low-density residential areas to the east. (See Aerial Photograph at p. 2).

III. FACILITIES

- A. POWER COMPANY: Connecticut Light and Power
- B. POWER PROXIMITY TO SITE: Approximately 1,420 feet to the east adjacent to the East Glastonbury Fish and Game Clubhouse.
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: Same as power
- E. VEHICLE ACCESS TO SITE: Vehicle access to the site would extend directly from Planeta Road over an existing paved and gravel driveway a distance of approximately 3,000 feet of the proposed cell site. A short 120-foot new driveway extension would be constructed to provide access to the site compound.
- F. CLEARING AND FILL REQUIRED: Minimal clearing and grading would be required for construction of the tower and site compound and western-most portion of the access driveway. Detailed construction plans would be developed after approval by the Siting Council. Cellco estimates that approximately 33 trees, six inches or greater at breast height, would be removed to construct the Marlborough 2 Facility.

IV. LEGAL

- A. PURCHASE [ ] LEASE [X]
- B. OWNER: East Glastonbury Fish & Game Association, Inc.
- C. ADDRESS: Planeta Road, Marlborough, CT 06447
- D. DEED ON FILE AT: Town of Marlborough, CT Land Records

FACILITIES AND EQUIPMENT SPECIFICATION  
(NEW TOWER & EQUIPMENT BUILDING)

SITE NAME: MARLBOROUGH 2 - Planeta Road, Marlborough, CT

I. TOWER SPECIFICATIONS:

- A. MANUFACTURER: To be determined
- B. TYPE: Self-supporting monopole
- C. TOWER HEIGHT: 120'
- D. DIMENSIONS:       Approx. 55" base  
                              Approx. 30" top

II. TOWER LOADING:

A. CELLCO EQUIPMENT:

- 1. Antennas (12)
  - Six Model LPA-185080/12CF\_2° (71.1" x 4.1" x 5.9") PCS antennas
  - Four Model LPA-80080/6CF (70.9" x 5.5" x 13.2") Cellular antennas
  - Two Model LPA-80080/6CF\_5° (70.9" x 5.5" x 13.2") Cellular antennas
  - Antenna Centerline 120' AGL
- 2. GPS Antenna: Mounted on the top of the equipment shelter
- 3. Transmission Lines:
  - a. MFG/Model: Andrews LDF5-50A
  - b. Size: 1 5/8"

III. ENGINEERING ANALYSIS AND CERTIFICATION:

The towers will be designed in accordance with Electronic Industries Association Standard EIA/TIA-222-E "Structural Standards for Steel Antenna Towers and Antenna Support Structures." The foundation designs would be based on soil conditions at the site. Details for the towers and foundation designs will be provided as a part of the final D&M Plan.

## ENVIRONMENTAL ASSESSMENT STATEMENT

SITE NAME: MARLBOROUGH 2 - Planeta Road, Marlborough, CT

### I. PHYSICAL IMPACT

#### A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the Marlborough 2 Facility. No wetlands were identified on the site or within 100 feet of related development activity. The nearest wetland/watercourse area is located approximately 100 feet to the southeast of the site compound.

#### B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at the site would emit no air pollutants of any kind. For limited periods during power outages and periodically for maintenance purposes, minor levels of emissions from the on-site generator would result.

Pursuant to R.C.S.A. § 22a-174-3, the on-site emergency back-up generator proposed as a part of this application would require the issuance of a Connecticut Department of Environmental Protection Air Bureau permit for potential emissions. Cellco would obtain this permit prior to installing the generator at the approved cell site.

#### C. LAND

Tree clearing and regrading of the tower compound and portions of the existing access driveway will be required. The remaining portion of the Property would remain unchanged by the construction and operation of the Marlborough 2 Facility. Cellco estimates a total of 33 trees, six inches or greater at breast height would be removed to construct the Marlborough 2 Facility.

#### D. NOISE

The equipment to be in operation at the Marlborough 2 Facility after construction would emit no noise of any kind, except for operation of the installed heating, air conditioning and ventilation systems and occasional operation of a back-up generator which would be run during power failures and periodically for maintenance purposes. Some noise is anticipated during cell site construction, which is expected to take approximately four to six weeks.

E. POWER DENSITY

The worst-case calculation of power density for Cellco's cellular and PCS antennas at the Marlborough 2 Facility would be 18.01% of the Standard.

F. VISIBILITY

See Visual Resource Evaluation Report included as Attachment 10.



# Cellco Partnership

d.b.a. **verizon** wireless

## WIRELESS COMMUNICATIONS FACILITY

### MARLBOROUGH 2

### PLANETA ROAD

### MARLBOROUGH, CT 06447

#### SITE DIRECTIONS

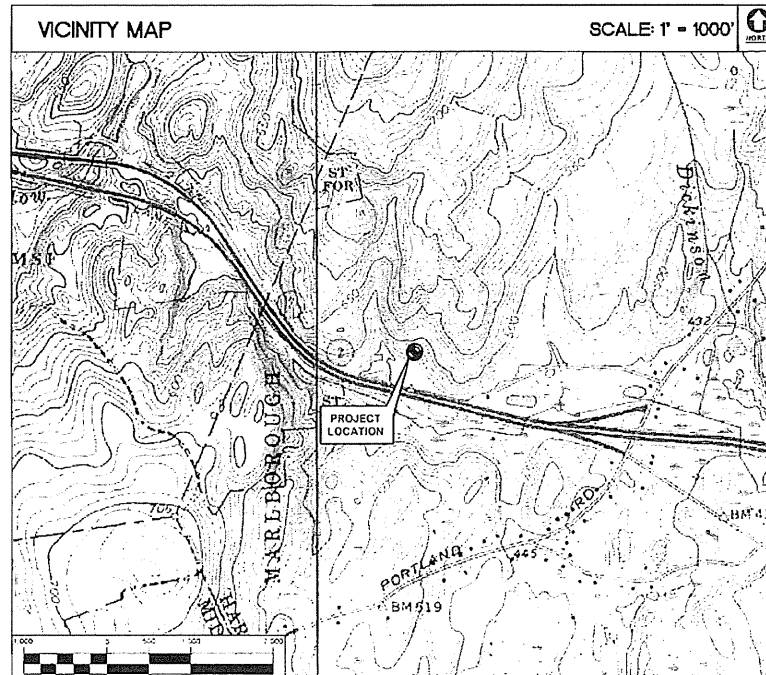
<b>FROM:</b> 99 EAST RIVER DRIVE EAST HARTFORD, CONNECTICUT	<b>TO:</b> END OF PLANETA ROAD MARLBOROUGH, CONNECTICUT
1. Start out going EAST on E RIVER DR.	0.1 MI.
2. Merge onto I-84 E/US-6 E via the ramp on the LEFT toward BOSTON.	0.2 MI.
3. Merge onto CT-2 E via EXIT S5 toward NORWICH/NEW LONDON.	12.8 MI.
4. Take EXIT 12 toward BUSINESS ROUTE/WEST ROAD/MARLBOROUGH.	0.1 MI.
5. Turn LEFT onto WEST RD.	0.1 MI.
6. Turn LEFT onto PLANETA RD and follow gravel drive at the end of PLANETA RD to site location.	1.5 MI.
7. End at Planeta Rd Marlborough, CT 06477.	

#### GENERAL NOTES

- PROPOSED ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELCO PARTNERSHIP.

#### SITE INFORMATION

- THE SCOPE OF WORK SHALL INCLUDE:
- THE CONSTRUCTION OF A 50'x75' FENCED WIRELESS COMMUNICATIONS COMPOUND WITHIN A 100'x100' LEASE AREA.
  - A TOTAL OF TWELVE (12) DIRECTIONAL PANEL ANTENNAS ARE PROPOSED TO BE MOUNTED AT A RAD CENTER ELEVATION OF 120'-0"± AGL ON A 120' PROPOSED STEEL MONOPOLE TOWER LOCATED CENTRALLY WITHIN THE PROPOSED COMPOUND.
  - TOTAL LENGTH OF ACCESS DRIVE FROM PLANETA ROAD CONSISTS OF 2,740'± OF EXISTING GRAVEL/PAVED ROAD AND 110'± OF NEW GRAVEL ROAD TO CELL SITE. PORTIONS OF EXISTING GRAVEL ROAD TO BE IMPROVED.
  - POWER AND TELCO UTILITIES SHALL BE ROUTED UNDERGROUND FROM EXISTING RESPECTIVE DEMARCS TO THE PROPOSED UTILITY BACKBOARD LOCATED ADJACENT TO THE PROPOSED FENCED COMPOUND. UTILITIES WILL BE ROUTED FROM UTILITY BACKBOARD TO THE PROPOSED NOMINAL 12'x30' WIRELESS EQUIPMENT SHELTER LOCATED WITHIN THE COMPOUND. FINAL DEMARC LOCATION AND UTILITY ROUTING TO PROPOSED BACKBOARD WILL BE VERIFIED/DETERMINED BY LOCAL UTILITY COMPANIES.
  - FINAL DESIGN FOR TOWER AND ANTENNA MOUNTS SHALL BE INCLUDED IN THE FINAL CONSTRUCTION DOCUMENTS.
  - THE PROPOSED WIRELESS FACILITY INSTALLATION WILL BE DESIGNED IN ACCORDANCE WITH THE 2003 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2005 CONNECTICUT SUPPLEMENT.
  - THERE WILL NOT BE ANY LIGHTING UNLESS REQUIRED BY THE FCC OR THE FAA.
  - THERE WILL NOT BE ANY SIGNS OR ADVERTISING ON THE ANTENNAS OR EQUIPMENT.
  - FOR ADDITIONAL NOTES AND DETAILS REFER TO THE ACCOMPANYING DRAWINGS.



#### PROJECT SUMMARY

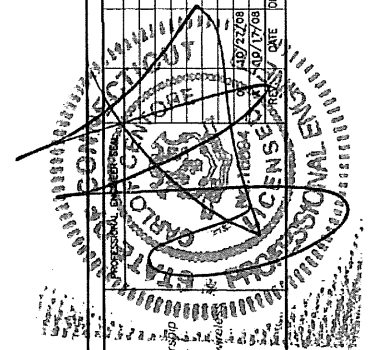
<b>SITE NAME:</b>	MARLBOROUGH 2
<b>SITE ADDRESS:</b>	PLANETA ROAD MARLBOROUGH, CT 06447
<b>PROPERTY OWNER:</b>	EAST GLASTONBURY FISH & GAME ASSOCIATION, INC. M.A. PO BOX 84 GLASTONBURY, CT 06033
<b>LESSEE/TENANT:</b>	CELCO PARTNERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
<b>CONTACT PERSON:</b>	SANDY CARTER CELCO PARTNERSHIP (860) 803-8219
<b>TOWER COORDINATES:</b>	LATITUDE 41°-39'-08.664" N LONGITUDE 72°-29'-44.046" W GROUND ELEV.: 464'± A.M.S.L.  COORDINATES BASED ON FAA 2-C LETTER PREPARED BY MARTINEZ COUCH AND ASSOCIATES LLC AND DATED JUNE 16, 2008.

#### SHEET INDEX

SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	0
ABUT-1	ABUTTERS MAP	0
ABUT-2	ABUTTERS LIST	0
SP-1	SITE PLAN	0
C-1	PARTIAL SITE PLAN	0
C-2	COMPOUND PLAN AND ELEVATION	0
C-3	SITE DETAILS AND EROSION CONTROL NOTES	0
C-4	SITE UTILITY DETAILS AND SHELTER ELEVATIONS	0
C-5	SHELTER FOUNDATION PLAN, DETAILS AND NOTES	0

DESIGNED BY: CFC  
DRAWN BY: CMS  
CHK'D BY: DMD

DATE	BY	DESCRIPTION
07/14/08	CFC	CT SITING COUNCIL
07/14/08	DMD	CT SITING COUNCIL - CLIENT REVIEW
07/14/08	CFC	CT SITING COUNCIL - CLIENT REVIEW
07/14/08	DMD	CT SITING COUNCIL - CLIENT REVIEW
07/14/08	CFC	CT SITING COUNCIL - CLIENT REVIEW
07/14/08	DMD	CT SITING COUNCIL - CLIENT REVIEW



Cellco Partnership  
d.b.a. Verizon Wireless



VERIZON WIRELESS  
WIRELESS COMMUNICATIONS FACILITY  
**MARLBOROUGH 2**  
PLANETA ROAD  
MARLBOROUGH, CT 06447

DATE: 07/14/08  
SCALE: AS NOTED  
JOB NO. 08043

TITLE SHEET

T-1

Sheet No. 1 of 9



**MARLBOROUGH ABUTTERS**

Map/Block/Lot	Property Owner and Mailing Address	Property Address
1. 2-42	State of Connecticut 80 Washington Street Hartford, CT 06106	West Road
2. 2/13/1	State of Connecticut c/o DEP Hebron Road Marlborough, CT 06447	Portland Road
3. 2/13-3-15	State of Connecticut c/o DEP Hebron Road Marlborough, CT 06447	Portland Road
4. 2/13/16, 17 and 18	Brenda Abrams Revocable Trust 36 Portland Road Marlborough, CT 06447	36 Portland Road
5. 2/13/29 and 30	Carol Tomaso 32 Portland Road Marlborough, CT 06447	32 Portland Road
6. 2/13/19	State of Connecticut c/o DEP Hebron Road Marlborough, CT 06447	Portland Road
7. 2/13/20	State of Connecticut c/o DOT 80 Washington Street Hartford, CT 06106	Portland Road
8. 2/17A/1	Thomas E. Cafro c/o NE Recyclers of Windham 48 Boston Post Road Willimantic, CT 06226	394 North Main Street
9. 2/12A/3	276 Main Street Realty LLC P.O. Box 31 Portland, CT 06480	12 West Road
10. 2/12A/2A	Tina A. and Kenneth O. Cheshire, Jr. 16 West Road Marlborough, CT 06447	16 West Road
11. 2/4/5A	John F. Planeta 5 Planeta Road Marlborough, CT 06447	5 Planeta Road
12. 2/4/5	John F. and Barbara Planeta 19 West Road Marlborough, CT 06447	19 West Road
13. 2/4/7A	Craig S. Chadwick 6 Planeta Road Marlborough, CT 06447	6 Planeta Road
14. 2/4/7	Fred and Jody Maglietta 22 West Road Marlborough, CT 06447	23 West Road
15. 2/4/8	Maria M. Prazerast Laurent J. Couture 25 West Road Marlborough, CT 06447	25 West Road
16. 2/4/9	William Gmbarek 31 West Road Marlborough, CT 06447	31 West Road
17. 2/4/9B	Audrey H. White 33 West Road Marlborough, CT 06447	33 West Road
18. 2/4/10	Beverly Cona Watkins 47 West Road Marlborough, CT 06447	47 West Road
19. 2/4/11	Yvonne P. Bolton 51 West Road Marlborough, CT 06447	51 West Road

Map/Block/Lot	Property Owner and Mailing Address	Property Address
20. 2/13/21	Joseph J. and Carol C. Asklar 53 Isleib Road Marlborough, CT 06447	2-4 Portland Road
21. 2-4/17	Aldo P. Provera and James A. and Aldo P. Provera, Jr. 50 Isleib Road Marlborough, CT 06447	Isleib Road
22. 2/4/1	State of Connecticut c/o DEP Hebron Road Marlborough, CT 06447	West Road
23. 2/4/24	Donald E. Lewis 65 Isleib Road Marlborough, CT 06447	65 Isleib Road
24. 2/4/23	Howard W. and Edith M. Walter 61 Isleib Road Marlborough, CT 06447	61 Isleib Road
25. 2/4/22	Keith F. and Linda V. Noack 57 Isleib Road Marlborough, CT 06447	57 Isleib Road
26. 2/4/21	Laila A. Mandour and Rudolph H. Kamm, Jr. 51 Isleib Road Marlborough, CT 06447	51 Isleib Road
27. 2/4/20	Michael L. and Deborah A. Giuffrida 45 Isleib Road Marlborough, CT 06447	45 Isleib Road
28. 2/4/19	Lawrence W. Gilman, Jr. 43 Isleib Road Marlborough, CT 06447	43 Isleib Road
29. 2/4/18	Margaret A. and Donald G. Brutnell 39 Isleib Road Marlborough, CT 06447	39 Isleib Road
30. 2/1/44	James A. and Patricia A. Provera 50 Isleib Road Marlborough, CT 06447	50 Isleib Road
31. 2/1/45	Matthew R. and Debra A. Archambault 56 Isleib Road Marlborough, CT 06447	56 Isleib Road
32. 2/4/15	Joseph H. and Patricia A. Raffin 27 Isleib Road Marlborough, CT 06447	27 Isleib Road
33. 2/4/4R	Suzanne S. and Robert A. Trzcienski 20 Stage Harbor Road Marlborough, CT 06447	81 West Road
34. 2/4/3R	Marie Scherban Trustee P.O. Box 262 Marlborough, CT 06447	75 West Road
35. 2/4/2R	Jennifer L. and Alan P. Panecasio 71 West Road Marlborough, CT 06447	71 West Road
36. 2/4/1R	Judy Benson Clarke and Robert J. Clarke 61 West Road Marlborough, CT 06447	61 West Road
37. 2/1/41	Glenis Byrne 38 Isleib Road Marlborough, CT 06447	38 Isleib Road

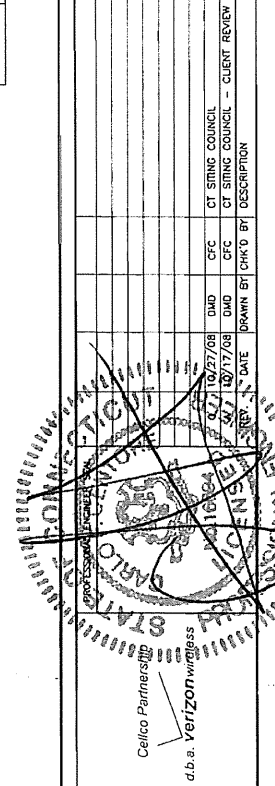
**GLASTONBURY ABUTTERS**

Map/Lot	Property Owner and Mailing Address	Property Address
38. K11-N94	State of Connecticut c/o DEP 79 Elm Street Hartford, CT 06106	Toll Gate Road
39. M11/W9	Nature Conservancy of CT, Inc. 55 High Street Middletown, CT 06457	Windham Road

**EAST GLASTONBURY FISH & GAME PROPERTIES**

Map/Block/Lot	Property Owner and Address
A. 2/4/17A	East Glastonbury Fish & Game West Road Marlborough, CT 06447
B. 2/4/16A	East Glastonbury Fish & Game West Road Marlborough, CT 06447
C. 2/4/16	East Glastonbury Fish & Game West Road Marlborough, CT 06447
D. 2/4/15A	East Glastonbury Fish & Game West Road Marlborough, CT 06447
E. 2/4/3	East Glastonbury Fish & Game West Road Marlborough, CT 06447
F. 2/4/4	East Glastonbury Fish & Game West Road Marlborough, CT 06447
G. 2/4/25	East Glastonbury Fish & Game West Road Marlborough, CT 06447

DESIGNED BY: CFC  
DRAWN BY: CMS  
CHK'D BY: DMD



Cellco Partnership  
d/b/a. VERIZON wireless  
NATCOMMI  
200 Main Street  
Marlborough, MA 01501  
Tel: 508-885-8800

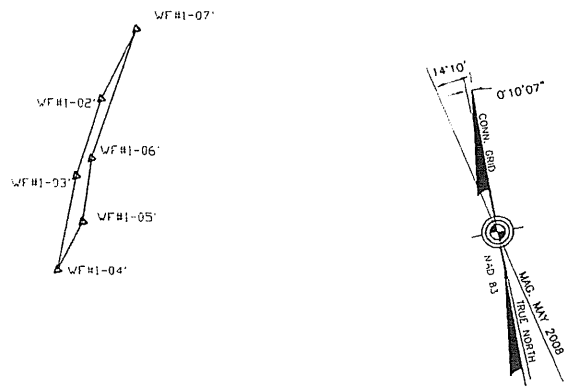
**VERIZON WIRELESS**  
WIRELESS COMMUNICATIONS FACILITY  
**MARLBOROUGH 2**  
PLANETA ROAD  
MARLBOROUGH, CT 06447

DATE: 07/14/08  
SCALE: AS NOTED  
JOB NO. 08043

ABUTTERS LIST

**ABUT-2**  
Sheet No. 1 of 2





**SYMBOLS LEGEND**

- PROPERTY LINE
- - - EASEMENT LINE (PROPOSED)
- ..... DIRT DRIVE (EXISTING)
- ACCESS DRIVE (PROPOSED)
- LEASE LINE (PROPOSED)
- 650'--- CONTOUR LINE
- TREELINE
- WF Δ WETLAND FLAG
- UTILITY POLE
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- IRON PIPE
- CONC MON
- EXISTING DECIDUOUS TREE TO BE REMOVED
- EXISTING CONIFEROUS TREE TO BE REMOVED
- SILT FENCE-EROSION & SEDIMENTATION CONTROL
- IRON T-ROD
- POST
- UTILITY POST
- GUY ANCHOR

**SURVEY NOTES**

THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THRU 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPT. 26, 1996. THE TOPOGRAPHIC SURVEY PORTION OF THIS PLAN CONFORMS TO A VERTICAL ACCURACY OF CLASS T-2 AND IS INTENDED TO BE USED TO DEPICT A PROPOSED TELECOMMUNICATION SITE.

THE PROPERTY/BOUNDARY LINES DEPICTED HEREON ARE COMPILED FROM OTHER MAPS, DEEDS AND LIMITED FIELD SURVEY. THESE LINES ARE NOT TO BE CONSTRUED AS A BOUNDARY OPINION AND ARE SUBJECT TO CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. PROPERTY MAY BE SUBJECT TO ENCUMBRANCES, EASEMENTS, RIGHTS OF WAY AS A TITLE SEARCH REPORT MAY DISCLOSE.

VERTICAL DATUM IS BASED ON NGVD 29.

COORDINATES REFER TO NAD 83.

PARCEL OWNER OF RECORD: EAST GLASTONBURY FISH & GAME ASSOCIATION, INC.  
M.A. PO BOX 84  
GLASTONBURY, CT 06033

REFERENCE IS MADE TO THE FOLLOWING MAPS

1) SURVEY MAP, PROPERTY OF EAST GLASTONBURY FISH AND GAME ASSOCIATION, INC., MARLBOROUGH, CONN., SCALE 1"=100', DATED MAY 1968, BY S.L. ROGERS.

PARCEL AREA = 450± ACRES. (INCLUDES ALL PARCELS OWNED BY EAST GLASTONBURY FISH & GAME ASSOCIATION, INC.)

PARCEL IS IN THE R ZONING DISTRICT.

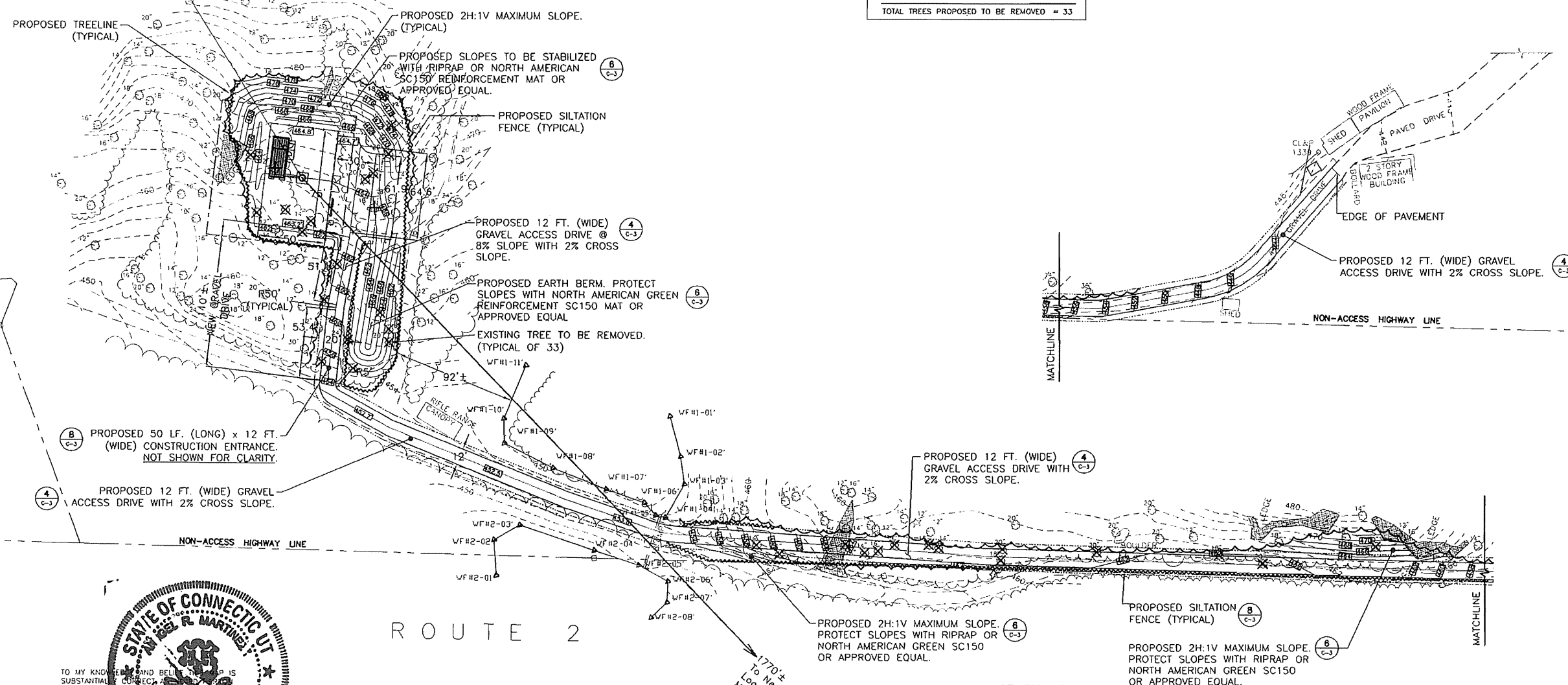
PARCEL ID: MAP 2 BLOCK 4 LOT 4 MARLBOROUGH ASSESSOR'S MAP.

PARCEL IS IN ZONES X AND A ON THE FLOOD INSURANCE RATE MAP, HARTFORD COUNTY, CONNECTICUT, ALL JURISDICTIONS, PANEL 563 OF 675, MAP NUMBER 09003C0563F, EFFECTIVE DATE SEPTEMBER 26, 2008, BY FEDERAL EMERGENCY MANAGEMENT AGENCY.

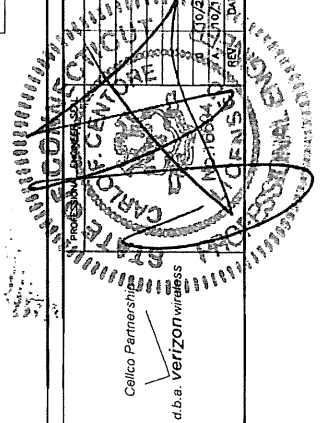
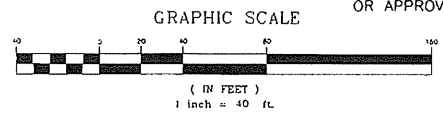
**TREE REMOVAL SUMMARY**

TREES PROPOSED TO BE REMOVED ALONG PROPOSED ACCESS DRIVE AND PROPOSED EARTH BERM LOCATION	= 27
TREES PROPOSED TO BE REMOVED WITHIN THE PROPOSED CELCO PARTNERSHIP 100'x100' LEASE AREA	= 6
<b>TOTAL TREES PROPOSED TO BE REMOVED</b>	<b>= 33</b>

GRID N: 798545.117  
GRID E: 1069533.469  
LATITUDE: 41°39'08.664"  
LONGITUDE: -72°29'44.046"



**1 PARTIAL SITE PLAN**  
SCALE: 1" = 40'

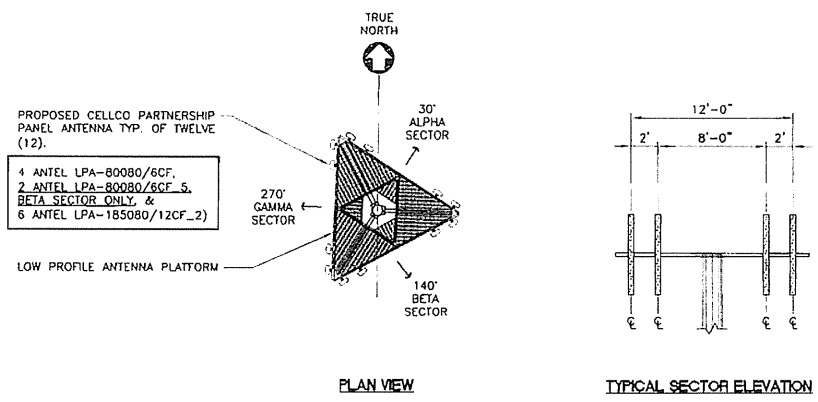


**VERIZON WIRELESS**  
WIRELESS COMMUNICATIONS FACILITY  
**MARLBOROUGH 2**  
PLANETA ROAD  
MARLBOROUGH, CT 06447

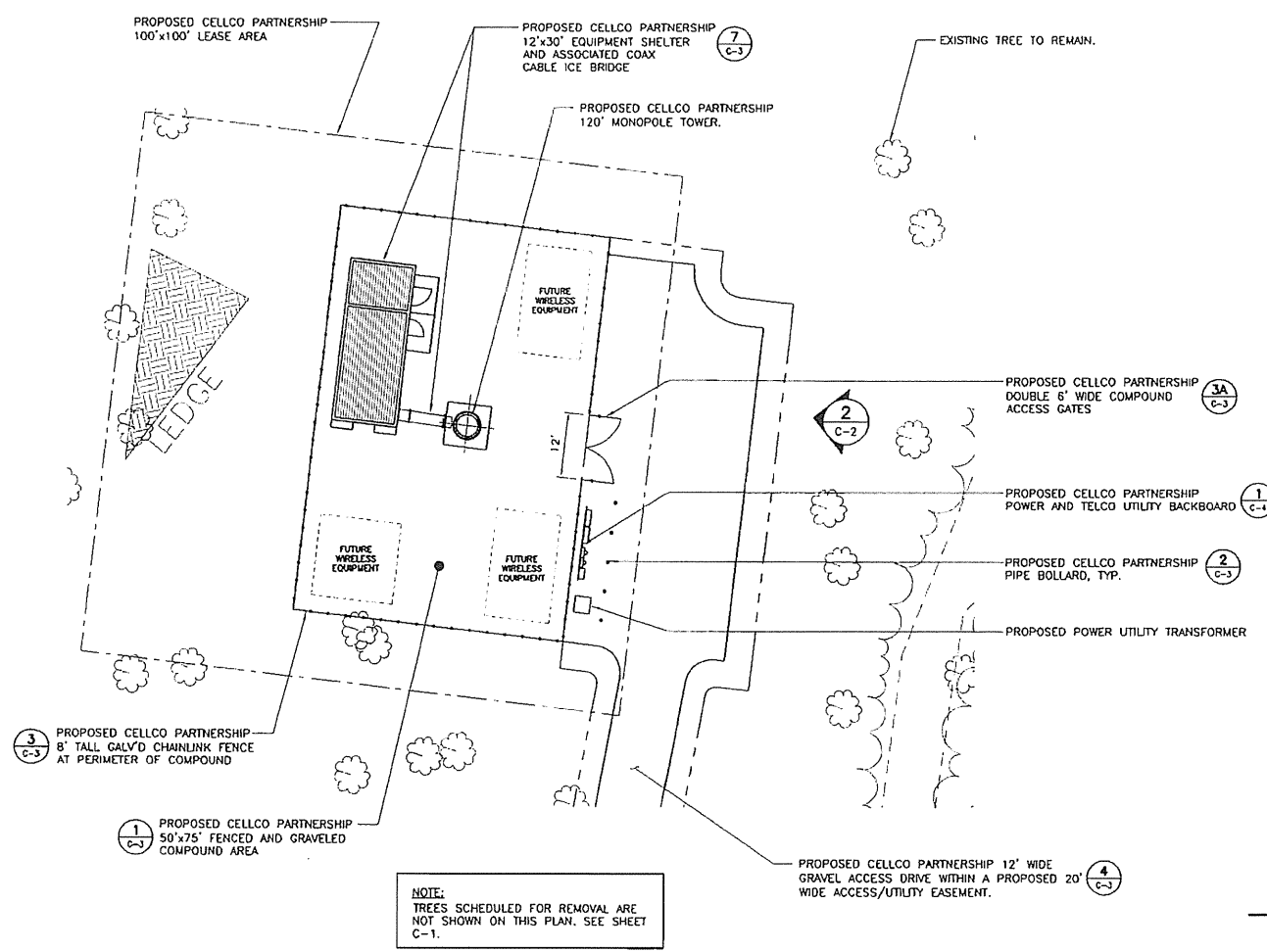
DATE: 07/14/08  
SCALE: AS NOTED  
JOB NO. 08043

PARTIAL SITE PLAN

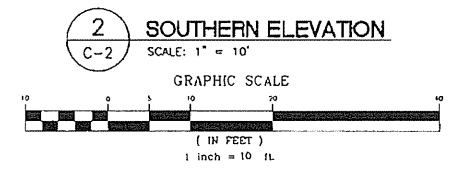
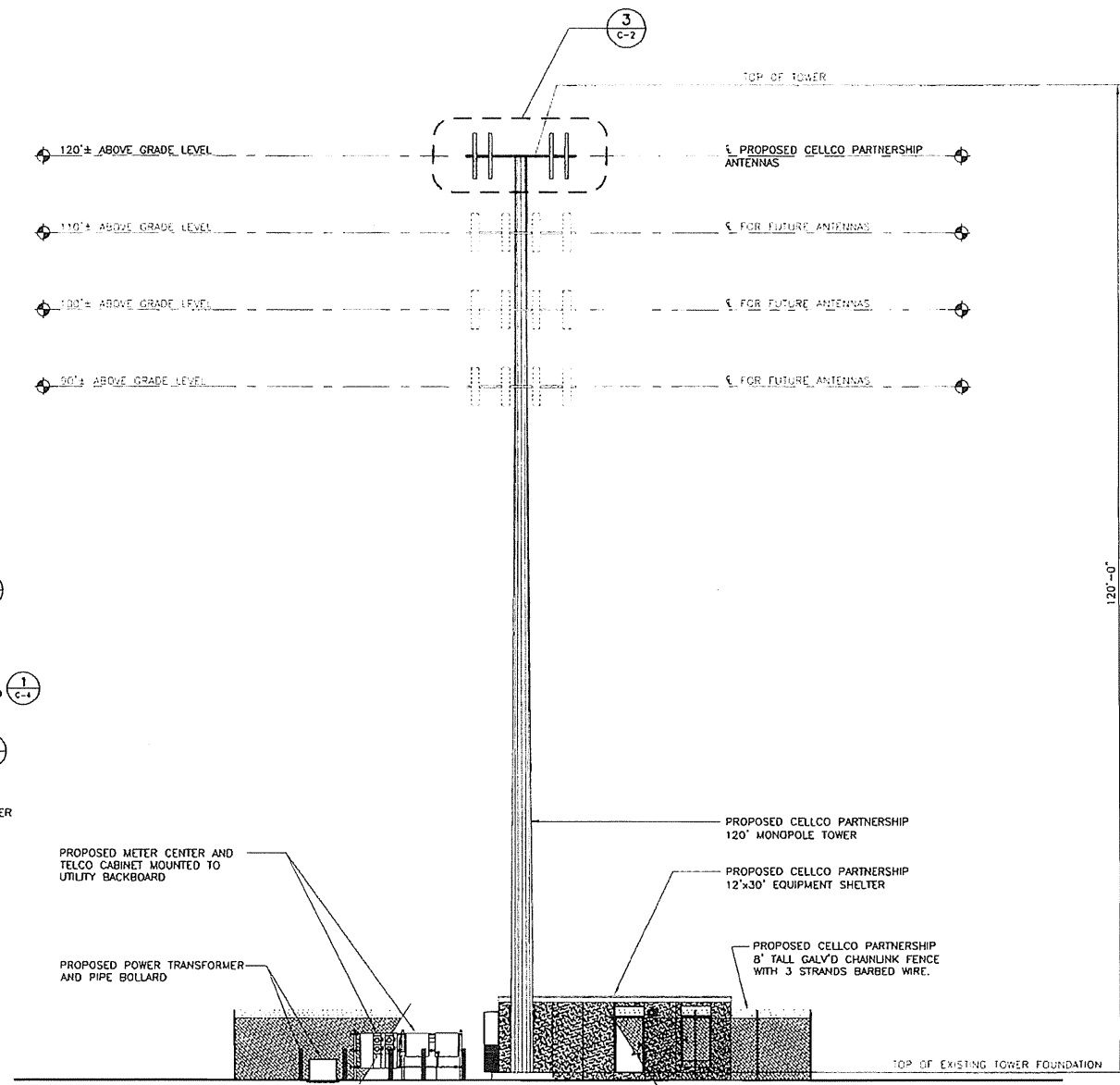
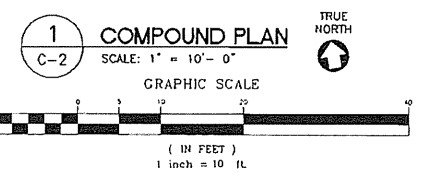
**C-1**



**3 ANTENNA MOUNTING CONFIGURATION**  
C-2 NOT TO SCALE



NOTE:  
TREES SCHEDULED FOR REMOVAL ARE NOT SHOWN ON THIS PLAN. SEE SHEET C-1.



DESIGNED BY: CFC	DATE: 07/14/08
DRAWN BY: CMS	SCALE: AS NOTED
CHK'D BY: DMD	JOB NO. 08043
	COMPOUND PLAN AND ELEVATION
	<b>C-2</b>
	Sheet No. 2 of 3

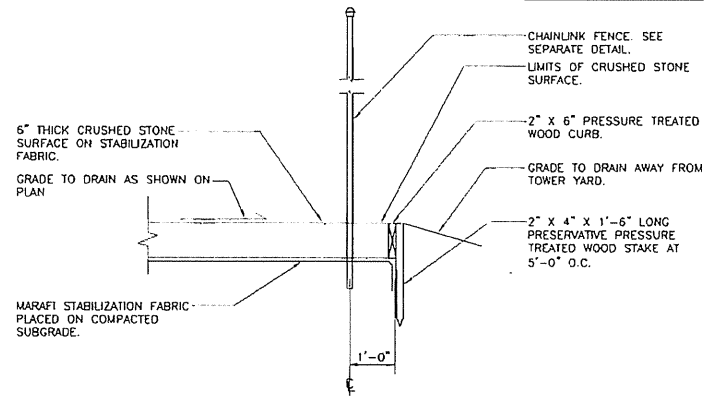
DATE	BY	DESCRIPTION
07/14/08	CFC	CT SITING COUNCIL - CLIENT REVIEW
07/14/08	DMD	DATE DRAWN BY/CHK'D BY
07/14/08	DMD	DATE DRAWN BY/CHK'D BY
07/14/08	DMD	DATE DRAWN BY/CHK'D BY

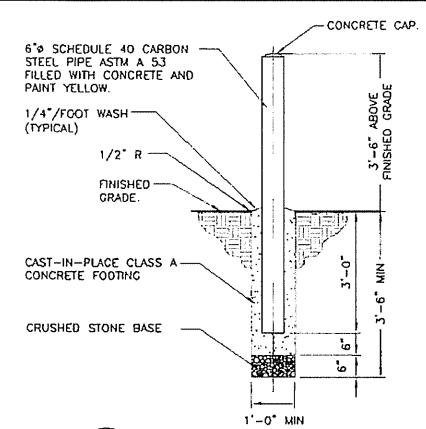
VERIZON WIRELESS  
WIRELESS COMMUNICATIONS FACILITY  
**MARLBOROUGH 2**  
PLANETA ROAD  
MARLBOROUGH, CT 06447

NATCOMM:  
1000 North Main Street  
Marlborough, MA 01501  
Tel: 508-261-1000  
Fax: 508-261-1001

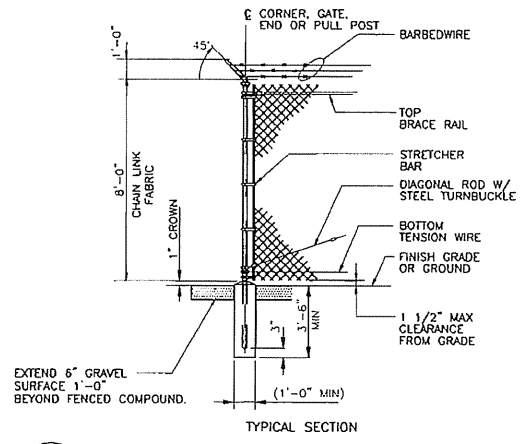
Cellco Partnership  
d/b/a: VERIZON



**1 COMPOUND SURFACING DETAIL**  
C-3 NOT TO SCALE

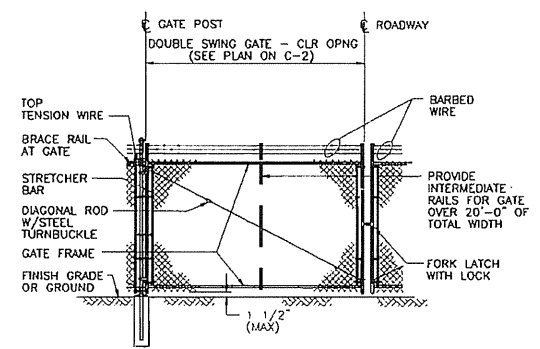


**2 BOLLARD DETAIL**  
C-3 NOT TO SCALE

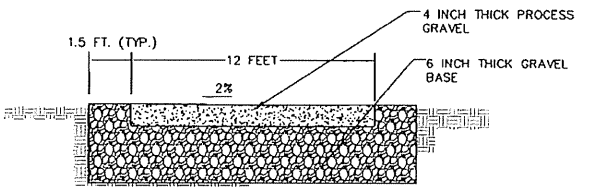


**3 WOVEN WIRE FENCE DETAIL**  
C-3 NOT TO SCALE

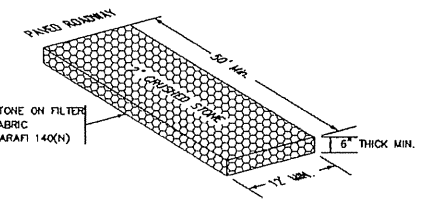
- WOVEN WIRE FENCE NOTES**
- GATE POST, CORNER, TERMINAL OR PULL POST 2 1/2" SCHEDULE 40 FOR GATE WIDTHS UP THRU 6 FEET OR 12 FEET FOR DOUBLE SWING GATE PER ASTM-F1083.
  - LINE POST: 2" SCHEDULE 40 PIPE PER ASTM-F1083.
  - GATE FRAME: 1 1/2" SCHEDULE 40 PIPE PER ASTM-F1083.
  - TOP RAIL & BRACE RAIL: 1 1/2" SCHEDULE 40 PIPE PER ASTM-F1083.
  - FABRIC: 12 GA. CORE WIRE SIZE 2" MESH, CONFORMING TO ASTM-A392.
  - TIE WIRE: MINIMUM 11 GA. GALVANIZED STEEL AT POSTS AND RAILS A SINGLE WRAP OF FABRIC TIE AND AT TENSION WIRE BY HOG RINGS SPACED MAX 24" INTERVALS.
  - TENSION WIRE: 7 GA. GALVANIZED STEEL.
  - BARBED WIRE: DOUBLE STRAND 12-1/2" O.D. TWISTED WIRE TO MATCH W/FABRIC 14 GA., 4 PT. BARBS SPACED ON APPROXIMATELY 5" CENTERS.
  - GATE LATCH: DROP DOWN LOCKABLE FORK LATCH AND LOCK, KEYS ALIKE FOR ALL SITES IN A GIVEN MTA.
  - LOCAL ORDINANCE OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLIED WITH IF REQUIRED.
  - HEIGHT = 8' VERTICAL + 1' BARBED WIRE VERTICAL DIMENSION.



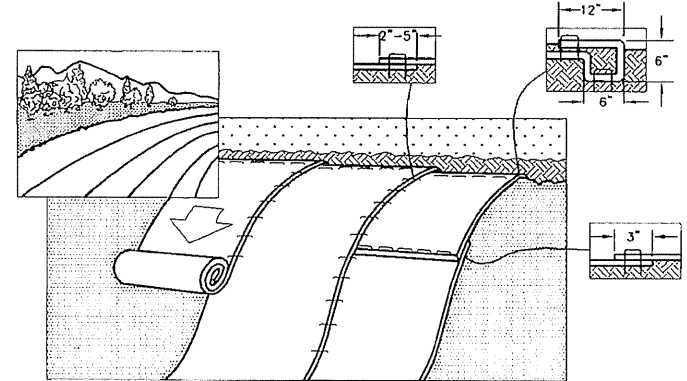
**3A WOVEN WIRE SWING GATE-DOUBLE**  
C-3 NOT TO SCALE



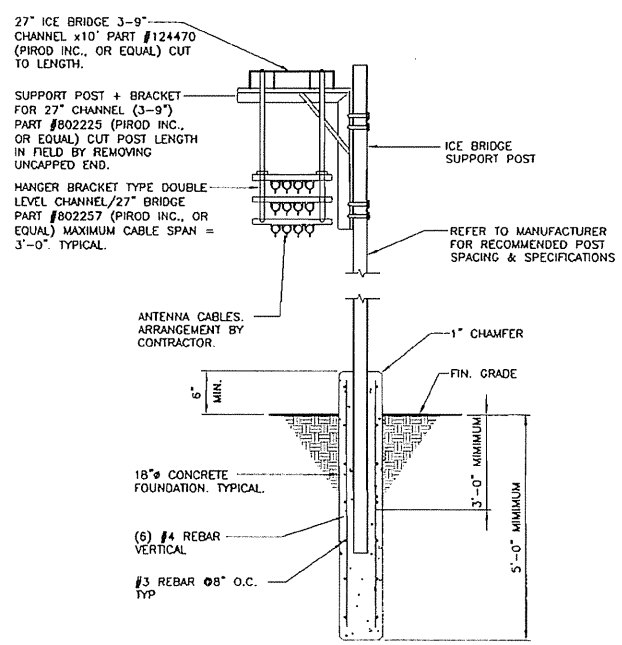
**4 GRAVEL DRIVEWAY SECTION**  
C-3 NOT TO SCALE



**5 ANTI-TRACKING APRON**  
C-3 NOT TO SCALE



**6 NORTH AMERICAN GREEN SC150 EROSION BLANKET INSTALLATION ON SLOPE**  
C-3 NOT TO SCALE



**7 ICE BRIDGE DETAIL**  
C-3 NOT TO SCALE

**EROSION CONTROL**

**GENERAL CONSTRUCTION SEQUENCE**

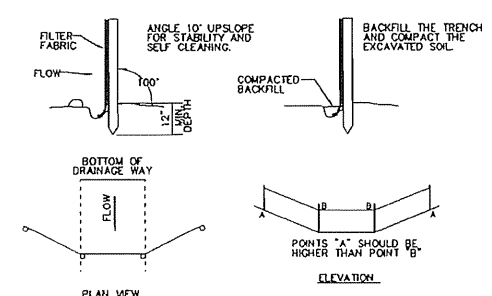
- THIS IS A GENERAL CONSTRUCTION SEQUENCE OUTLINE SOME ITEMS OF WHICH MAY NOT APPLY TO PARTICULAR SITES.
- CUT AND STUMP AREAS OF PROPOSED CONSTRUCTION.
  - INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED.
  - REMOVE AND STOCKPILE TOPSOIL. STOCKPILE SHALL BE SEEDED TO PREVENT EROSION.
  - CONSTRUCT CLOSED DRAINAGE SYSTEM. PRECEPT CULVERT INLETS AND CATCH BASINS WITH SEDIMENTATION BARRIERS.
  - CONSTRUCT ROADWAYS AND PERFORM SITE GRADING, PLACING HAY BALES AND SITUATION FENCES AS REQUIRED TO CONTROL SOIL EROSION.
  - INSTALL UNDERGROUND UTILITIES.
  - BEGIN TEMPORARY AND PERMANENT SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED OR MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION. NO AREA SHALL BE LEFT UNSTABILIZED FOR A TIME PERIOD OF MORE THAN 30 DAYS.
  - DAILY OR AS REQUIRED, CONSTRUCT, INSPECT, AND IF NECESSARY, RECONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES AND SEDIMENT TRAPS INCLUDING MULCHING AND SEEDING.
  - BEGIN EXCAVATION FOR AND CONSTRUCTION OF TOWERS AND PLATFORMS.
  - FINISH PAVING ALL ROADWAYS, DRIVES, AND PARKING AREAS.
  - COMPLETE PERMANENT SEEDING AND LANDSCAPING.
  - NO FLOW SHALL BE DIVERTED TO ANY WETLANDS UNTIL A HEALTHY STAND OF GRASS HAS BEEN ESTABLISHED IN REGARDED AREAS.
  - AFTER GRASS HAS BEEN FULLY GERMINATED IN ALL SEEDED AREAS, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

**CONSTRUCTION SPECIFICATIONS - SILT FENCE**

- THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
- THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
- WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MID-SECTION AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED.
- FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 18 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT BUILD UP IN THE SILT FENCE DUE TO DEPOSITION OF SEDIMENT.

**MAINTENANCE - SILT FENCE**

- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
- IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACHED APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.



**8 SILTATION FENCE DETAIL**  
C-3 NOT TO SCALE

DESIGNED BY: CFC CFC  
DRAWN BY: CMS D/D  
CHK'D BY: DMD CFC

DATE: 07/14/08  
SCALE: AS NOTED  
JOB NO. 08043

SITE DETAILS AND EROSION CONTROL NOTES

C-3

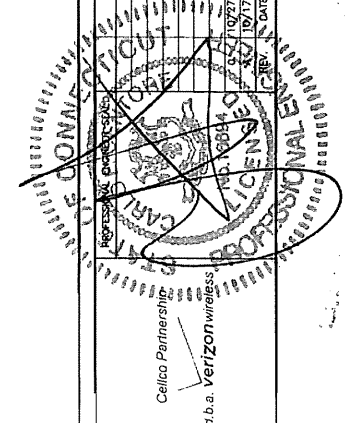
VERIZON WIRELESS  
WIRELESS COMMUNICATIONS FACILITY  
MARLBOROUGH 2  
PLANETA ROAD  
MARLBOROUGH, CT 06447

NATCOMM  
1000 W. MAIN ST., SUITE 100  
MIDDLETOWN, CT 06457  
TEL: 860.336.1000  
FAX: 860.336.1001  
WWW.NATCOMM.COM

Sheet No. 1 of 3

DESIGNED BY: CFC CFC  
 DRAWN BY: CMS D.M.D  
 CHK'D BY: DMD CFC

NO.	DATE	BY	DESCRIPTION
1	07/14/08	CFC	CT SING COUNCIL
2	07/17/08	DMD	CT SING COUNCIL
3	07/17/08	CFC	CLIENT REVIEW
4	07/17/08	CFC	CLIENT REVIEW



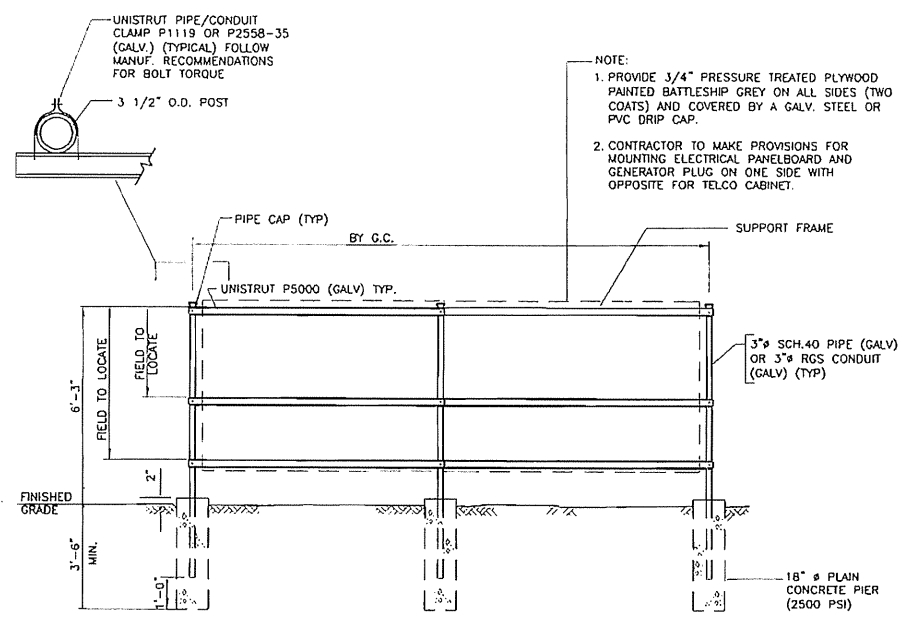
NATECOM!  
 COMMUNICATIONS CONSULTANTS  
 1000 Main Street, Suite 200  
 Westport, CT 06880

VERIZON WIRELESS  
 WIRELESS COMMUNICATIONS FACILITY  
**MARLBOROUGH 2**  
 PLANETA ROAD  
 MARLBOROUGH, CT 06447

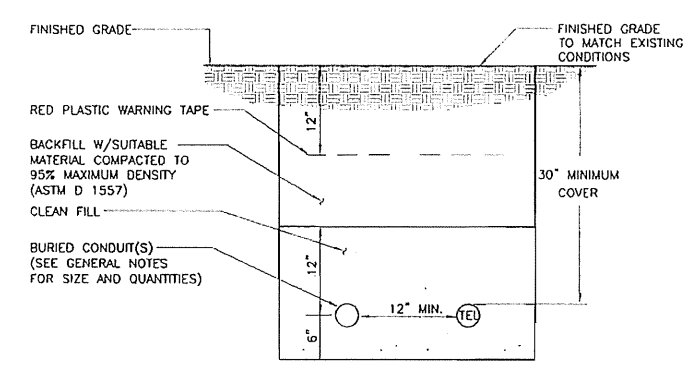
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 JOB NO. 95043

SITE UTILITY  
 DETAILS AND  
 SHELTER ELEVATIONS

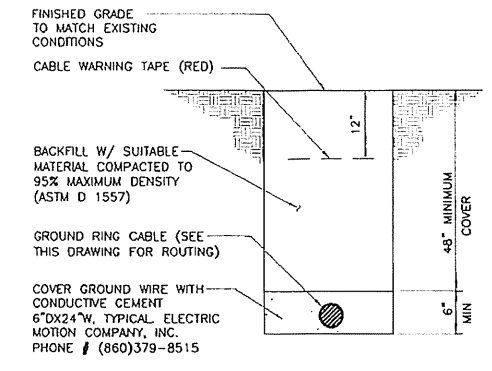
**C-4**  
 Sheet No. 3 of 2



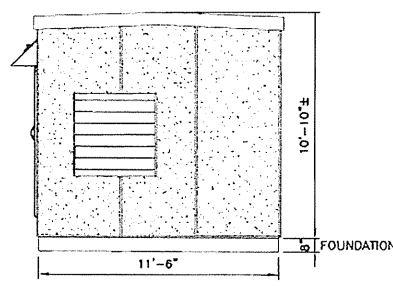
1 UTILITY SUPPORT FRAME (TYP)  
 C-4 NOT TO SCALE



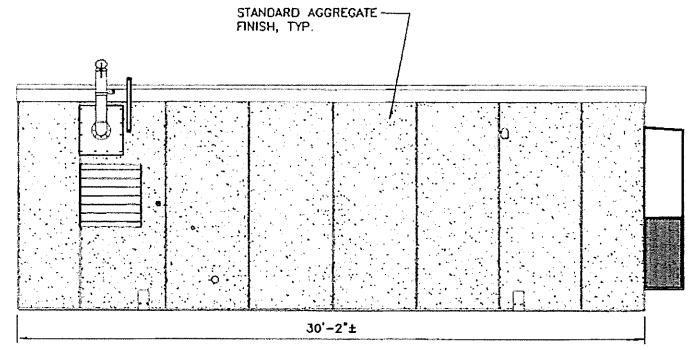
2 TYPICAL ELECTRICAL/TEL TRENCH DETAIL  
 C-4 NOT TO SCALE



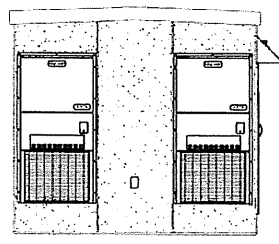
3 TYPICAL BURIAL GROUND CABLE DETAIL  
 C-4 NOT TO SCALE



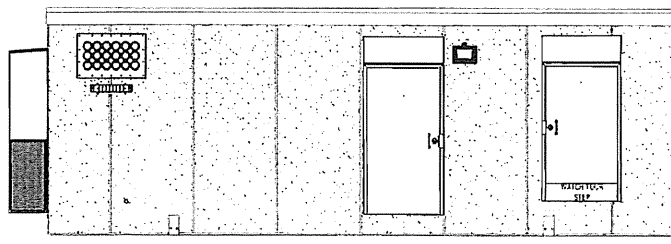
4 NORTH SHELTER ELEVATION  
 C-4 SCALE: 1/4" = 1'-0"



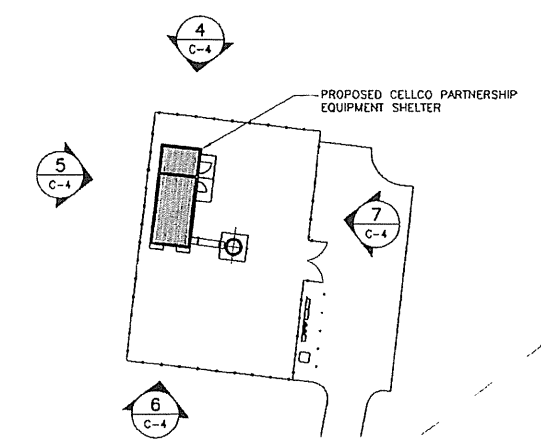
5 WEST SHELTER ELEVATION  
 C-4 SCALE: 1/4" = 1'-0"



6 SOUTH SHELTER ELEVATION  
 C-4 SCALE: 1/4" = 1'-0"

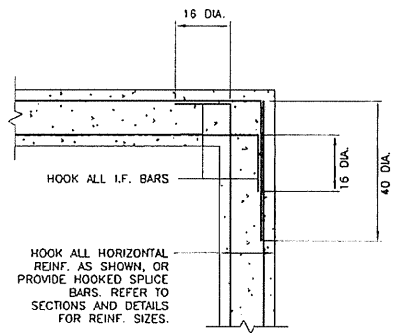


7 EAST SHELTER ELEVATION  
 C-4 SCALE: 1/4" = 1'-0"

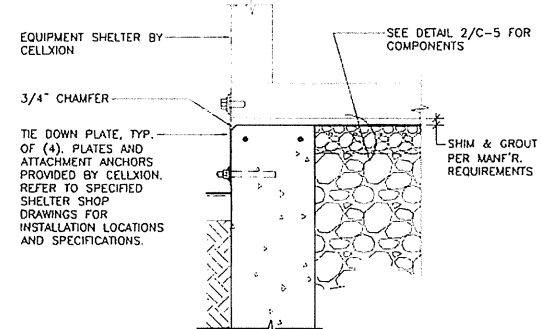


SHELTER ELEVATION KEY PLAN  
 NOT TO SCALE

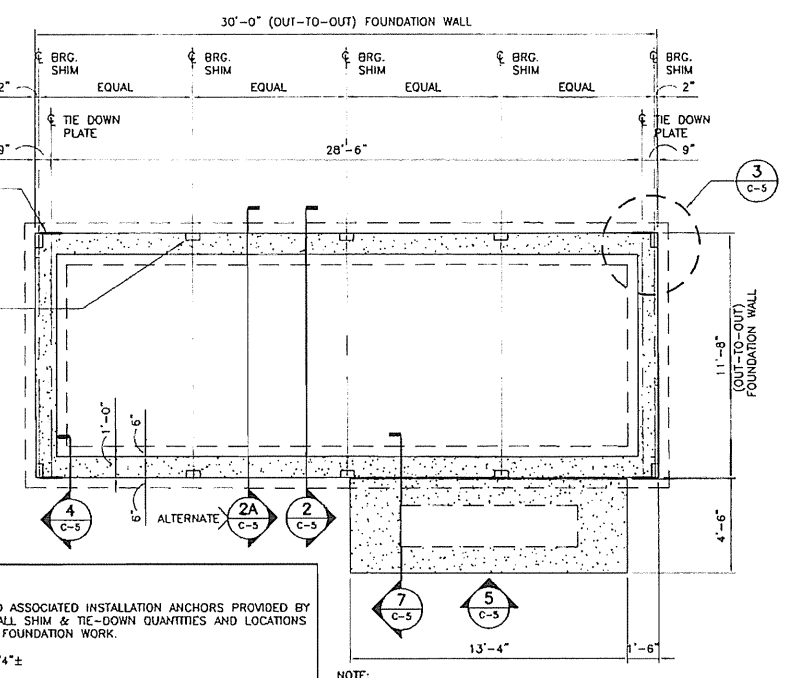




3 PLAN DETAIL  
C-5 NOT TO SCALE



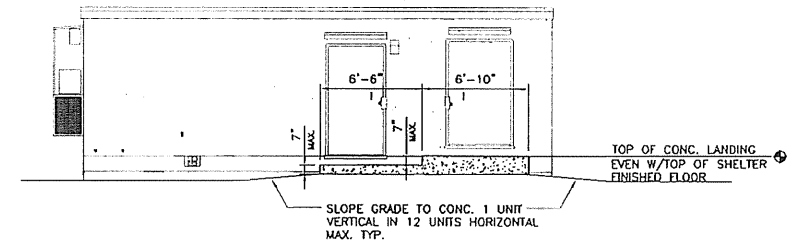
4 BUILDING TIE DOWN  
C-5 SCALE: 1"=1'-0"



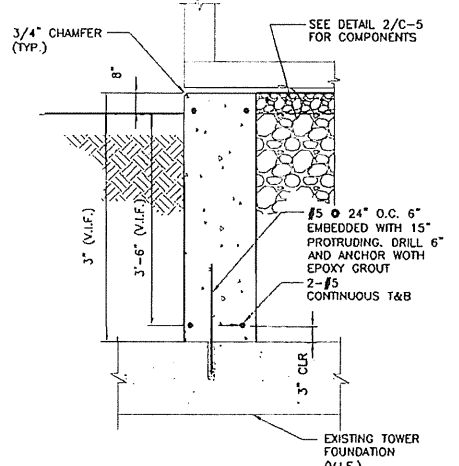
**NOTES:**

1. BEARING SHIMS, TIE-DOWN PLATES AND ASSOCIATED INSTALLATION ANCHORS PROVIDED BY CELLXION. CONTRACTOR SHALL VERIFY ALL SHIM & TIE-DOWN QUANTITIES AND LOCATIONS WITH CELLXION PRIOR TO PERFORMING FOUNDATION WORK.
2. SLAB/ TOP OF WALL TOLERANCE IS 1/4"±
3. TOP 8" OF FOUNDATION SIDES MUST BE FORMED FLAT TO ACCEPT TIE-DOWN PLATES.

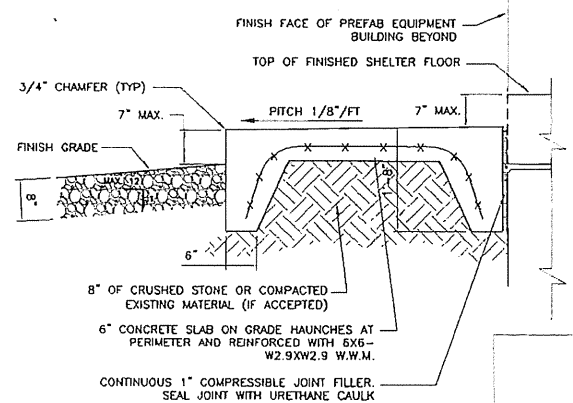
1 FOUNDATION PLAN  
C-5 SCALE: 1/4"=1'-0"



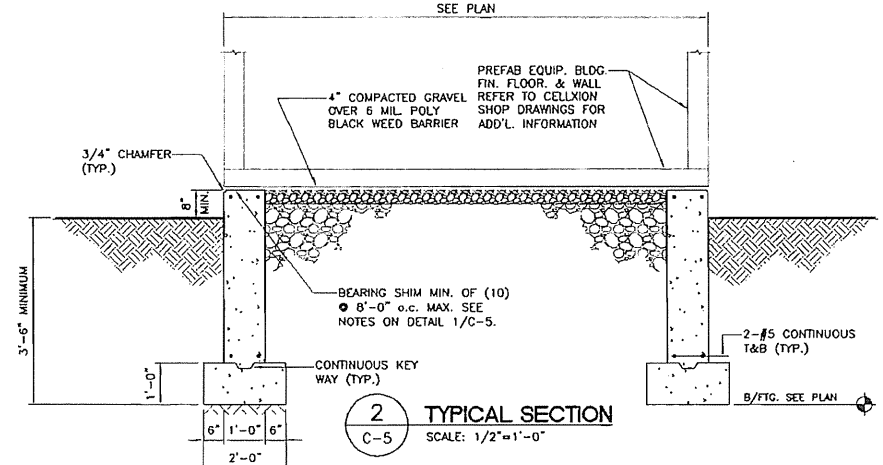
5 ENTRY STOOP DETAIL - ELEVATION  
C-5 SCALE: 3/16"=1'-0"



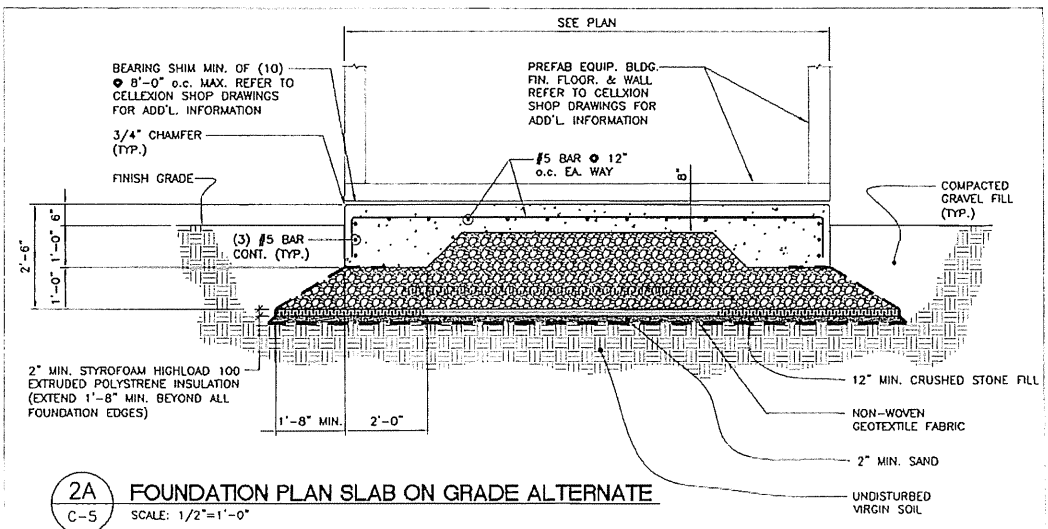
6 FOUNDATION OVER TOWER FOUNDATION  
C-5 SCALE: 3/4"=1'-0"



7 ENTRY STOOP DETAIL - SECTION  
C-5 SCALE: 3/16"=1'-0"



2 TYPICAL SECTION  
C-5 SCALE: 1/2"=1'-0"



2A FOUNDATION PLAN SLAB ON GRADE ALTERNATE  
C-5 SCALE: 1/2"=1'-0"

EQUIPMENT SHELTER BY CELLXION. VERIFY ALL SHELTER DIMENSIONS, EQUIPMENT DIMENSIONS, EQUIPMENT LOCATIONS AND UTILITY OPENINGS WITH BUILDING SHOP DRAWINGS PRIOR TO COMMENCEMENT OF WORK.

**FOUNDATION NOTES:**

1. IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
2. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST THE PRE MANUFACTURED EQUIPMENT BUILDING SHOP DRAWINGS.
3. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.
4. REFER TO DRAWING T1 FOR ADDITIONAL NOTES AND REQUIREMENTS.

**SITE NOTES:**

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. ALL RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED OFF SITE AND BE LEGALLY DISPOSED, AT NO ADDITIONAL COST.
4. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT AND TOWER AREAS.
5. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND, FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
6. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
7. THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
8. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
9. IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL PROCEED WITH AFFECTED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.
10. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST THE PRE MANUFACTURED EQUIPMENT BUILDING SHOP DRAWINGS.
11. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.

**COMPACTED GRAVEL FILL:**

1. COMPACTED GRAVEL FILL SHALL BE FURNISHED AND PLACED AS A FOUNDATION FOR STRUCTURES, WHERE SHOWN ON THE CONTRACT DRAWINGS OR DIRECTED BY THE ENGINEER.
2. GRAVEL SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE M.02.02 OF THE CONNECTICUT D.O.T. STANDARD SPECIFICATIONS. ADMIXTURES AND SURFACE PROTECTIVE MATERIALS USED TO PREVENT THE GRAVEL FROM FREEZING MUST MEET THE APPROVAL OF THE ENGINEER. THE LARGEST STONE SIZE SHALL BE 3-1/2 INCHES.
3. SAMPLES OF THE MATERIAL TO BE USED SHALL BE DELIVERED TO THE JOB SITE 5 DAYS PRIOR TO ITS INTENDED USE SO IT MAY BE TESTED FOR APPROVAL.
4. AFTER ALL EXCAVATION HAS BEEN COMPLETED, GRAVEL SHALL BE DEPOSITED IN LAYERS NOT EXCEEDING EIGHT (8) INCHES IN DEPTH OVER THE AREAS. IN EXCEPTIONAL CASES, THE ENGINEER MAY PERMIT THE FIRST LAYER TO BE THICKER THAN EIGHT (8) INCHES. EACH LAYER SHALL BE LEVELED OFF BY SUITABLE EQUIPMENT. THE ENTIRE AREA OF EACH LAYER SHALL BE COMPACTED BY USE OF APPROVED VIBRATORY, PNEUMATIC-TIRED OR TREAD-TYPE COMPACTION EQUIPMENT. COMPACTION SHALL BE CONTINUED UNTIL THE DRY DENSITY OVER THE ENTIRE AREA OF EACH LAYER IS NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY ACHIEVED BY AASHTO T-99 METHOD C. THE MOISTURE CONTENT OF THE GRAVEL SHALL NOT VARY BY MORE THAN 3%± FROM ITS OPTIMUM MOISTURE CONTENT. NO SUBSEQUENT LAYER SHALL BE DEPOSITED UNTIL THE SPECIFIED COMPACTION IS ACHIEVED FOR THE PREVIOUS LAYER. IF NECESSARY TO OBTAIN THE REQUIRED COMPACTION, WATER SHALL BE ADDED AND GENTLE PUDDLING PERFORMED IF AUTHORIZED. COMPACTED GRAVEL FILL SHALL BE PREVENTED FROM FREEZING BY USE OF APPROVED ADMIXTURES OR BY USE OF APPROVED PROTECTIVE MATERIALS ON THE SURFACE, OR BOTH.

**CONCRETE AND REINFORCING STEEL NOTES:**

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318.
2. ALL CONCRETE SHALL BE NORMAL WEIGHT, 6% AIR ENTRAINED WITH A MAXIMUM SLUMP OF 4", AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED BARS. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD UNLESS OTHERWISE INDICATED.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS OTHERWISE NOTED ON THE DRAWINGS:  
 CONCRETE CAST AGAINST EARTH.....3 IN.  
 CONCRETE EXPOSED TO EARTH OR WEATHER:  
 #6 AND LARGER.....2 IN.  
 #5 AND SMALLER & WWF.....1 1/2 IN.  
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:  
 SLAB AND WALL.....3/4 IN.  
 BEAMS AND COLUMNS.....1 1/2 IN.
5. ALL EXPOSED EDGES OF CONCRETE TO RECEIVE A 3/4" CHAMFER IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. CONCRETE EQUIPMENT PAD TO RECEIVE A BRUSHED FINISH.
7. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT DURING DRILLING WITHOUT PRIOR REVIEW BY THE ENGINEER.

DESIGNED BY: CFC CFC  
 DRAWN BY: CMS CMC  
 CHECKED BY: DMD CFC

DATE: 07/14/08  
 SCALE: AS NOTED  
 JOB NO. 08043

SHELTER FOUNDATION PLAN, DETAILS AND NOTES

C-5  
 Sheet No. 2 of 2

VERIZON WIRELESS  
 WIRELESS COMMUNICATIONS FACILITY  
**MARLBOROUGH 2**  
 PLANETA ROAD  
 MARLBOROUGH, CT 06447

Professional Engineer Seal: DANIEL J. VERIZON, No. 10154, State of Connecticut, Exp. 12/31/10



## APPLICATION GUIDE<sup>1</sup>

- App. p. i (A) An Executive Summary on the first page of the application with the address, proposed height, and type of tower being proposed. A map showing the location of the proposed site should accompany the description;
- App. pp. 1-4 (B) A brief description of the proposed facility, including the proposed locations and heights of each of the various proposed sites of the facility, including all candidates referred to in the application;
- App. pp. 1-2 (C) A statement of the purpose for which the application is made;
- App. p. 1 (D) A statement describing the statutory authority for such application;
- App. p. 4 (E) The exact legal name of each person seeking the authorization or relief and the address or principal place of business of each such person. If any applicant is a corporation, trust association, or other organized group, it shall also give the state under the laws of which it was created or organized;
- App. p. 4 (F) The name, title, address and telephone number of the attorney or other person to whom correspondence or communications in regard to the application are to be addressed. Notice, orders, and other papers may be served upon the person so named, and such service shall be deemed to be service upon the applicant;
- App. pp. 7-8  
Attachments 1 and 7 (G) A statement of the need for the proposed facility with as much specific information as is practicable to demonstrate the need, including a description of the proposed system and how the proposed facility would eliminate or alleviate any existing deficiency or limitation;
- App. pp. 11-12 (H) A statement of the benefits expected from the proposed facility with as much specific information as is practicable;

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<sup>1</sup> This Application Guide is copied directly from the "Connecticut Siting Council Application Guide," Section VI, as amended February 16, 2007. References to the Regulations of Connecticut State Agencies ("RCSA") contained in the Guide have been omitted.

App. pp. 1-4, 10-12  
Attachments 1 and 7

- (I) A description of the proposed facility at the named sites including:
- (1) Height of the tower and its associated antennas including a maximum “not to exceed height” for the facility, which may be higher than the height proposed by the Applicant;
  - (2) Access roads and utility services;
  - (3) Special design features;
  - (4) Type, size, and number of transmitters and receivers, as well as the signal frequency and conservative worst-case and estimated operational level approximation of electro magnetic radio frequency power density levels (facility using FCC Office of Engineering and Technology Bulletin 65, August 1997) at the base of the tower base, site compound boundary where persons are likely to be exposed to maximum power densities from the facility;
  - (5) A map showing any fixed facilities with which the proposed facility would interact;
  - (6) The coverage signal strength, and integration of the proposed facility with any adjacent fixed facility, to be accompanied by multi-colored propagation maps of red, green and yellow (exact colors may differ depending on computer modeling used, but a legend is required to explain each color used) showing interfaces with any adjacent service areas, including a map scale and north arrows; and
  - (7) For cellular systems, a forecast of when maximum capacity would be reached for the proposed facility and for facilities that would be integrated with the proposed facility.

Attachment 1

- (J) A description of the named sites, including:
- (1) The most recent U.S.G.S. topographic quadrangle map (scale 1 inch = 2,000 feet) marked to show the site of the facility and any significant changes within a one-mile radius of the site;
  - (2) A map (scale not less than 1 inch = 200 feet) of the lot or tract on which the facility is proposed to be located showing the acreage and dimensions of such site, the name and location of adjoining public roads or the nearest public road, and the names of abutting owners and the portions of their lands abutting the site;
  - (3) A site plan (scale not less than 1 inch = 40 feet) showing the proposed facility, set back radius, existing and proposed contour elevations, 100-year flood zones, waterways, wetlands, and all associated equipment and structures on the site;
  - (4) Where relevant, a terrain profile showing the proposed facility and access road with existing and proposed grades; and
  - (5) The most recent aerial photograph (scale not less than 1 inch = 1,000 feet) showing the proposed site, access roads, and all abutting properties.

Attachment 1

- (K) A statement explaining mitigation measures for the proposed facility including:
- (1) Construction techniques designed specifically to minimize adverse effects on natural areas and sensitive areas;
  - (2) Special design features made specifically to avoid or minimize adverse effects on natural areas and sensitive areas;
  - (3) Establishment of vegetation proposed near residential, recreation, and scenic areas; and
  - (4) Methods for preservation of vegetation for wildlife habitat and screening.

App. pp. 1-4 and 16  
Attachment 10

- (L) A description of the existing and planned land uses of the named sites and surrounding areas;

- App. pp. 12-15  
Attachments 10 and 11 (M) A description of the scenic, natural, historic, and recreational characteristics of the named sites and surrounding areas including officially designated nearby hiking trails and scenic roads;
- Attachment 10 (N) Sight line graphs to the named sites from visually impacted areas such as residential developments, recreational areas and historic sites;
- Attachment 9 (O) A list describing the type and height of all existing and proposed towers and facilities within a four mile radius within the site search area, or within any other area from which use of the proposed towers might be feasible from a location standpoint for purposes of the application;
- App. pp. 10-11  
Attachment 9 (P) A description of efforts to share existing towers, or consolidate telecommunications antennas of public and private services onto the proposed facility including efforts to offer tower space, where feasible, at no charge for space for municipal antennas;
- App. p. 9  
Attachment 1 (Q) A description of technological alternatives and a statement containing justification for the proposed facility;
- Attachment 9 (R) A description of rejected sites with a U.S.G.S. topographic quadrangle map (scale 1 inch = 2,000 feet) marked to show the location of rejected sites;
- App. pp. 10-11  
Attachments 1 and 9 (S) A detailed description and justification for the site(s) selected, including a description of siting criteria and the narrowing process by which other possible sites were considered and eliminated including, but not limited to, environmental effects, cost differential, coverage lost or gained, potential interference with other facilities, and signal loss due to geographic features compared to the proposed site(s);
- App. p. 15 (T) A statement describing hazards to human health, if any, with such supporting data and references to regulatory standards;
- App. pp. 20-21 (U) A statement of estimated costs for site acquisition, construction, and equipment for a facility at the various proposed sites of the facility, including all candidates referred to in the application;

- App. p. 21 (V) A schedule showing the proposed program of site acquisition, construction, completion, operation and relocation or removal of existing facilities for the named sites;
- App. p. 13 (W) A statement indicating that, weather permitting, the applicant will raise a balloon with a diameter of at least three feet, at the sites of the various proposed sites of the facility, including all candidates referred to in the application, on the day of the Council's first hearing session on the application or at a time otherwise specified by the Council. For the convenience of the public, this event shall be publicly noticed at least 30 days prior to the hearing on the application as scheduled by the Council;
- App. pp. 19-20 Attachments 1 and 11 Bulk File Exhibits (X) Such information as any department or agency of the State exercising environmental controls may, by regulation, require including:
- (1) A listing of any federal, state, regional, district, and municipal agencies, including but not limited to the Federal Aviation Administration; Federal Communications Commission; State Historic Preservation Officer; State Department of Environmental Protection; and local conservation, inland wetland, and planning and zoning commissions with which reviews were conducted concerning the facility, including a copy of any agency position or decision with respect to the facility; and
  - (2) The most recent conservation, inland wetland, zoning, and plan of development documents of the municipality, including a description of the zoning classification of the site and surrounding areas, and a narrative summary of the consistency of the project with the Town's regulations and plans.
- Attachment 1 (Project Plans) (Y) Description of proposed site clearing for access road and compound including type of vegetation scheduled for removal and quantity of trees greater than six inches diameter at breast height and involvement with wetlands;
- N/A (Z) Such information as the applicant may consider relevant.





## CERTIFICATION OF SERVICE

I hereby certify that on this 30<sup>th</sup> day of October, 2008, copies of the Application and attachments were sent by certified mail, return receipt requested, to the following:

### STATE OFFICIALS:

The Honorable Richard Blumenthal  
Attorney General  
Office of the Attorney General  
55 Elm Street  
Hartford, CT 06106

Gina McCarthy, Commissioner  
Connecticut Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106

J. Robert Galvin, M.D., M.P.H., M.B.A., Commissioner  
Department of Public Health and Addiction Services  
410 Capitol Avenue  
P.O. Box 340308, MS 13COM  
Hartford, CT 06134-0308

Karl J. Wagener, Executive Director  
Council on Environmental Quality  
79 Elm Street  
P.O. Box 5066  
Hartford, CT 06106

Donald W. Downes, Chairman  
Department of Public Utility Control  
Ten Franklin Square  
New Britain, CT 06051

Robert L. Genuario, Secretary  
Office of Policy and Management  
450 Capitol Avenue  
Hartford, CT 06134-1441

Joan McDonald, Commissioner  
Department of Economic and Community Development  
505 Hudson Street  
Hartford, CT 06106

Joseph F. Marie, Commissioner  
Department of Transportation  
P.O. Box 317546  
2800 Berlin Turnpike  
Newington, CT 06131-7546

Karen Senich, Executive Director  
Deputy State Historic Preservation Officer  
Connecticut Commission on Culture & Tourism  
One Constitution Plaza, 2<sup>nd</sup> Floor  
Hartford, CT 06103

**MARLBOROUGH TOWN OFFICIALS:**

Bill Black  
First Selectman  
Town of Marlborough  
26 North Main Street  
Marlborough, CT 06447

The Honorable Mary Ann Handley  
Senator – 4<sup>th</sup> District  
Legislative Office Building  
Room 3000  
Hartford, CT 06106

The Honorable Pamela Z. Sawyer  
Representative – 55<sup>th</sup> District  
95 South Road  
Bolton, CT 06043

Nancy W. Dickson  
Town Clerk  
Town of Marlborough  
26 North Main Street  
Marlborough, CT 06447

Denis Soucy III, Chairman  
Planning Commission  
Town of Marlborough  
26 North Main Street  
Marlborough, CT 06447

Scott Miller, Chairman  
Zoning Commission  
Town of Marlborough  
26 North Main Street  
Marlborough, CT 06447

Robert L. Jackson, Chairman  
Zoning Board of Appeals  
Town of Marlborough  
26 North Main Street  
Marlborough, CT 06447

Peter F. Hughes  
Director of Planning & Development/Zoning Enforcement Officer  
Town of Marlborough  
26 North Main Street  
Marlborough, CT 06447

Donald Hautman, Chairman  
Inland Wetlands Commission  
Town of Marlborough  
26 North Main Street  
Marlborough, CT 06447

**GLASTONBURY TOWN OFFICIALS:**

Richard J. Johnson  
Town Manager  
Town of Glastonbury  
2155 Main Street  
Glastonbury, CT 06033

The Honorable Mary Ann Handley  
Senator – 4<sup>th</sup> District  
Legislative Office Building  
Room 3000  
Hartford, CT 06106

The Honorable Thomas Kehoe  
Representative – 31<sup>st</sup> District  
53 Acorn Ridge Road  
Glastonbury, CT 06033

Joyce P. Mascena  
Town Clerk  
Town of Glastonbury  
2155 Main Street  
Glastonbury, CT 06033

Sharon M. Jagel, Chairman  
Town Plan and Zoning Commission  
Town of Glastonbury  
2155 Main Street  
Glastonbury, CT 06033

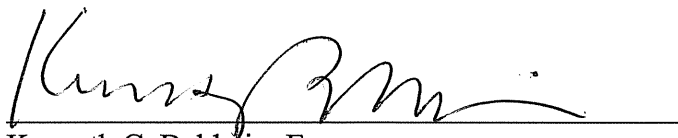
John Linderman, Chairman  
Zoning Board of Appeals  
Town of Glastonbury  
2155 Main Street  
Glastonbury, CT 06033

Edward P. Pietrycha  
Building Official/Zoning Enforcement Officer  
Town of Glastonbury  
2155 Main Street  
Glastonbury, CT 06033

Judy Harper, Chairman  
Inland Wetlands and Watercourses Agency/Conservation Commission  
Town of Glastonbury  
2155 Main Street  
Glastonbury, CT 06033

Capitol Region Council of Governments  
241 Main Street, 4<sup>th</sup> Floor  
Hartford, CT 06106-5310

Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554



Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT 06103  
Telephone: (860) 275-8200  
Attorneys for Cellco Partnership d/b/a Verizon Wireless



## LEGAL NOTICE

Notice is hereby given, pursuant to Section 16-50**l**(b) of the Connecticut General Statutes and Regulations pertaining thereto, of an Application to be submitted to the Connecticut Siting Council (“Council”) on or about October 30, 2008, by Cellco Partnership d/b/a Verizon Wireless (“Cellco” or the “Applicant”). The Application proposes the installation of a wireless telecommunications facility in the Town of Marlborough, Connecticut. The installation would consist of a 100’ x 100’ leased area in the southwest corner of an approximately 450-acre parcel off Planeta Road owned by East Glastonbury Fish & Game, Inc. At this site, Cellco proposes to construct a 120-foot monopole tower. Access to the site will extend from Planeta Road to the cell site. Cellco will also install a new 12’ x 30’ shelter located near the base of the tower to house its radio equipment and an emergency back-up generator. The location and other features of the proposed facility are subject to change under provisions of Connecticut General Statutes § 16-50g et. seq.

On the day selected for the Siting Council public hearing on this proposal, Cellco will fly a balloon at the height of the proposed tower described above, between the hours of 8:00 a.m. and 5:00 p.m. Interested parties and residents of the Town of Marlborough are invited to review the Application during normal business hours at any of the following offices:

Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Town Clerk  
Town of Marlborough  
Town Hall  
26 North Main Street  
Marlborough, CT 06447

Cellco Partnership d/b/a Verizon Wireless  
99 East River Drive  
East Hartford, CT 06108

First Selectman  
Town of Marlborough  
Town Hall  
26 North Main Street  
Marlborough, CT 06447

or the offices of the undersigned. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

CELLCO PARTNERSHIP d/b/a VERIZON  
WIRELESS

Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT 06103-3597  
(860) 275-8200  
Its Attorneys





KENNETH C. BALDWIN

280 Trumbull Street  
Hartford, CT 06103-3597  
Main (860) 275-8200  
Fax (860) 275-8299  
kbaldwin@rc.com  
Direct (860) 275-8345

October 27, 2008

**Via Certified Mail Return Receipt Requested**

«Name\_and\_Address»

**Re: Cellco Partnership d/b/a Verizon Wireless  
Proposed Telecommunications Facility  
Marlborough, Connecticut**

Dear «Salutation»:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") will be submitting an application to the Connecticut Siting Council ("Council") on or about October 30, 2008, for approval of the construction of a telecommunications facility in the Town of Marlborough, Connecticut.

The facility would consist of a new 120-foot self-supporting monopole tower and a 12' x 30' equipment shelter located in the southwest corner of an approximately 450-acre parcel off Planeta Road owned by East Glastonbury Fish & Game, Inc. An on-site backup generator would also be installed inside Cellco's shelter. The tower would be designed to accommodate multiple carriers. Access to this site will extend from Planeta Road, over an existing driveway on the East Glastonbury Fish & Game property to the cell site.

The location and other features of the proposed facility are subject to change under the provisions of Connecticut General Statutes § 16-50g et seq.

State law provides that owners of record of property which abuts a parcel on which the proposed facility may be located must receive notice of the submission of this application. This notice is directed to you either because you may be an abutting land owner or as a courtesy notice.

October 27, 2008

Page 2

If you have any questions concerning the application, please direct them to either the Connecticut Siting Council or me. My address and telephone number are listed above. The Siting Council may be reached at its New Britain, Connecticut office at (860) 827-2935.

Very truly yours,

Kenneth C. Baldwin

**100-FOOT ADJACENT PROPERTY OWNERS**

SITE NAME: MARLBOROUGH 2

OWNER NAME: EAST GLASTONBURY FISH & GAME

OWNER ADDRESS: WEST ROAD, MARLBOROUGH, CT 06447

ASSESSOR'S REFERENCE: PARCEL MAP 2, BLOCK 4, LOTS 3, 4, 17A, 16A, 16, 15A and 25

THE FOLLOWING INFORMATION WAS COLLECTED FROM THE TAX ASSESSOR'S RECORDS AND LAND RECORDS OF THE TOWN OF MARLBOROUGH. THE INFORMATION IS CURRENT AS OF OCTOBER 9, 2008.

THE PARCEL IS ZONED RESIDENTIAL.

**MARLBOROUGH ABUTTERS**

	<b><u>Map/Block/Lot</u></b>	<b><u>Property Owner and Mailing Address</u></b>	<b><u>Property Address</u></b>
1.	2/4/2	State of Connecticut 80 Washington Street Hartford, CT 06106	West Road
2.	2/13/1	State of Connecticut c/o DEP Hebron Road Marlborough, CT 06447	Portland Road
3.	2/13/3-15	State of Connecticut c/o DEP Hebron Road Marlborough, CT 06447	Portland Road
4.	2/13/16, 17 and 18	Brenda Abrams Revocable Trust 36 Portland Road Marlborough, CT 06447	36 Portland Road
5.	2/13/29 and 30	Carol Tomaso 32 Portland Road Marlborough, CT 06447	32 Portland Road

	<u>Map/Block/Lot</u>	<u>Property Owner and Mailing Address</u>	<u>Property Address</u>
6.	2/13/19	State of Connecticut c/o DEP Hebron Road Marlborough, CT 06447	Portland Road
7.	2/13/20	State of Connecticut c/o DOT 80 Washington Street Hartford, CT 06106	Portland Road
8.	2/17A/1	Thomas E. Cafro c/o NE Recyclers of Windham 48 Boston Post Road Willimantic, CT 06226	394 North Main Street
9.	2/12A/3	276 Main Street Realty LLC P.O. Box 31 Portland, CT 06480	12 West Road
10.	2/12A/2A	Tina A. and Kenneth O. Cheshire, Jr. 16 West Road Marlborough, CT 06447	16 West Road
11.	2/4/5A	John F. Planeta 5 Planeta Road Marlborough, CT 06447	5 Planeta Road
12.	2/4/5	John F. and Barbara Planeta 19 West Road Marlborough, CT 06447	19 West Road
13.	2/4/7A	Craig S. Chadwick 6 Planeta Road Marlborough, CT 06447	6 Planeta Road
14.	2/4/7	Fred and Jody Maglietta 22 West Road Marlborough, CT 06447	23 West Road
15.	2/4/8	Maria M. Prazerast Laurent J. Couture 25 West Road Marlborough, CT 06447	25 West Road

	<u>Map/Block/Lot</u>	<u>Property Owner and Mailing Address</u>	<u>Property Address</u>
16.	2/4/9	William Grabarek 31 West Road Marlborough, CT 06447	31 West Road
17.	2/4/9B	Audrey H. White 33 West Road Marlborough, CT 06447	33 West Road
18.	2/4/10	Beverly Coria Watkins 47 West Road Marlborough, CT 06447	47 West Road
19.	2/4/11	Yvonne P. Bolton 51 West Road Marlborough, CT 06447	51 West Road
20.	2/13/21	Joseph J. and Carol C. Asklar 53 Isleib Road Marlborough, CT 06447	2-4 Portland Road
21.	2/4/17	Aldo P. Provera and James A. and Aldo P. Provera, Jr. 50 Isleib Road Marlborough, CT 06447	Isleib Road
22.	2/4/1	State of Connecticut c/o DEP Hebron Road Marlborough, CT 06447	West Road
23.	2/4/24	Donald E. Lewis 65 Isleib Road Marlborough, CT 06447	65 Isleib Road
24.	2/4/23	Howard W. and Edith M. Walter 61 Isleib Road Marlborough, CT 06447	61 Isleib Road
25.	2/4/22	Keith F. and Linda V. Noack 57 Isleib Road Marlborough, CT 06447	57 Isleib Road

	<u>Map/Block/Lot</u>	<u>Property Owner and Mailing Address</u>	<u>Property Address</u>
26.	2/4/21	Laila A. Mandour and Rudolph H. Kamm, Jr. 51 Isleib Road Marlborough, CT 06447	51 Isleib Road
27.	2/4/20	Michael L. and Deborah A. Giuffrida 45 Isleib Road Marlborough, CT 06447	45 Isleib Road
28.	2/4/19	Lawrence W. Gilman, Jr. 43 Isleib Road Marlborough, CT 06447	43 Isleib Road
29.	2/4/18	Margaret A. and Donald G. Brutnell 39 Isleib Road Marlborough, CT 06447	39 Isleib Road
30.	2/1/44	James A. and Patricia A. Provera 50 Isleib Road Marlborough, CT 06447	50 Isleib Road
31.	2/1/45	Matthew R. and Debra A. Archambault 56 Isleib Road Marlborough, CT 06447	56 Isleib Road
32.	2/4/15	Joseph H. and Patricia A. Raffin 27 Isleib Road Marlborough, CT 06447	27 Isleib Road
33.	2/4/4R	Suzanne S. and Robert A. Trzcienski 20 Stage Harbor Road Marlborough, CT 06447	81 West Road
34.	2/4/3R	Marie Scherban Trustee P.O. Box 262 Marlborough, CT 06447	75 West Road
35.	2/4/2R	Jennifer L. and Alan P. Paneccasio 71 West Road Marlborough, CT 06447	71 West Road
36.	2/4/1R	Judy Benson Clarke and Robert J. Clarke 61 West Road Marlborough, CT 06447	61 West Road

	<u>Map/Block/Lot</u>	<u>Property Owner and Mailing Address</u>	<u>Property Address</u>
37.	2/1/41	Glenis Byrne 38 Isleib Road Marlborough, CT 06447	38 Isleib Road

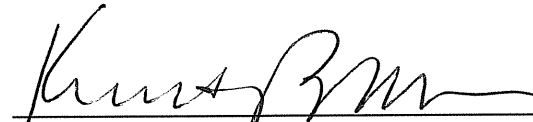
GLASTONBURY ABUTTERS

	Map/Lot	Property Owner and Mailing Address	Property Address
1.	K11/N94	State of Connecticut c/o DEP 79 Elm Street Hartford, CT 06106	Toll Gate Road
2.	M11/W9	Nature Conservancy of CT, Inc. 55 High Street Middletown, CT 06457	Windham Road

**CERTIFICATION OF SERVICE**

I hereby certify that a copy of the foregoing letter was sent by certified mail, return receipt requested, to each of the parties on the attached list of abutting landowners.

10/27/08  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, Connecticut 06103  
Attorneys for CELLCO PARTNERSHIP  
d/b/a VERIZON WIRELESS





ULS License

### Cellular License - KNKA404 - Cellco Partnership

Call Sign	KNKA404	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular

**Market**

Market	CMA032 - Hartford-New Britain-Bristol, CT	Channel Block	A
Submarket	0	Phase	2

**Dates**

Grant	02/05/2008	Expiration	01/22/2018
Effective	02/08/2008	Cancellation	

**Five Year Buildout Date**

10/16/1992

**Control Points**

**1** 500 W. Dove Rd., TARRANT, Southlake, TX  
P: (800)264-6620

**Licensee**

FRN	0003290673	Type	General Partnership
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**Licensee**

Cellco Partnership 1120 Sanctuary Pkwy, #150 GASA5REG Alpharetta, GA 30004 ATTN Regulatory	P:(770)797-1070 F:(770)797-1036 E:Network.Regulatory@VerizonWireless.com
---	--

**Contact**

Verizon Wireless Sonya R Dutton 1120 Sanctuary Pkwy #150 GASA5REG Alpharetta, GA 30004 ATTN Network Regulatory	P:(770)797-1070 F:(770)797-1036 E:Network.Regulatory@VerizonWireless.com
--	--

**Ownership and Qualifications**

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

**Alien Ownership**

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or	<b>Yes</b>

representative thereof, or by any corporation organized under the laws of a foreign country?

If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application? **Yes**

**Basic Qualifications**

The Applicant answered "No" to each of the Basic Qualification questions.

**Demographics**

Race

Ethnicity

Gender

ULS License

## Cellular License - KNKA404 - Cellco Partnership - Frequencies

Call Sign      KNKA404      Radio Service    CL - Cellular

▶ [Return to Main](#)

### A Block

824.04 - 834.99 paired with 869.04 - 879.99

845.01 - 846.48 paired with 890.01 - 891.48

ULS License

**PCS Broadband License - KNLH251 - Cellco Partnership**

Call Sign	KNLH251	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular

**Market**

Market	BTA184 - Hartford, CT	Channel Block	F
Submarket	0	Associated Frequencies (MHz)	001890.00000000-001895.00000000-001970.00000000-001975.00000000

**Dates**

Grant	07/23/2007	Expiration	06/27/2017
Effective	07/23/2007	Cancellation	

**Buildout Deadlines**

1st	06/27/2002	2nd	
-----	------------	-----	--

**Notification Dates**

1st	05/17/2002	2nd	
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**Licensee**

FRN	0003290673	Type	Joint Venture
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**Licensee**

Cellco Partnership 1120 Sanctuary Pkwy, #150 GASA5REG Alpharetta, GA 30004 ATTN Regulatory	P:(770)797-1070 F:(770)797-1036 E:Network.Regulatory@VerizonWireless.com
---	--

**Contact**

Verizon Wireless Sonya R Dutton 1120 Sanctuary Pkwy, #150 GASA5REG Alpharetta, GA 30004 ATTN Regulatory	P:(770)797-1070 F:(770)797-1036 E:Network.Regulatory@VerizonWireless.com
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**Ownership and Qualifications**

Radio Service Type Mobile

Regulatory Status	Common Carrier	Interconnected	Yes
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**Alien Ownership**

Is the applicant a foreign government or the representative of any foreign government?	No
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of	No

the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? **Yes**

If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application?

**Basic Qualifications**

The Applicant answered "No" to each of the Basic Qualification questions.

**Tribal Land Bidding Credits**

This license did not have tribal land bidding credits.

**Demographics**

Race

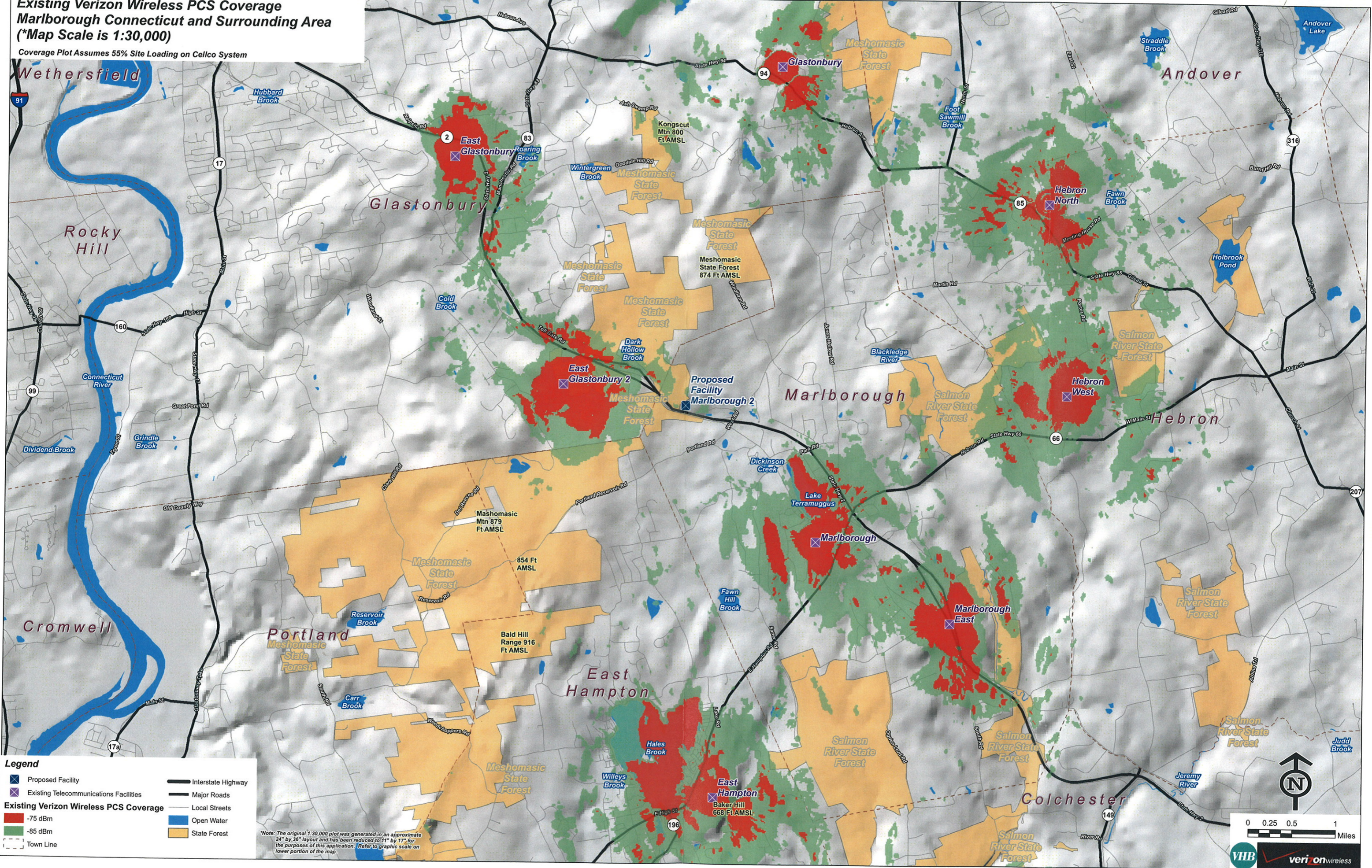
Ethnicity

Gender



**Existing Verizon Wireless PCS Coverage  
Marlborough Connecticut and Surrounding Area  
(\*Map Scale is 1:30,000)**

Coverage Plot Assumes 55% Site Loading on Cellco System



**Legend**

- Proposed Facility
- Existing Telecommunications Facilities
- Existing Verizon Wireless PCS Coverage -75 dBm
- Existing Verizon Wireless PCS Coverage -85 dBm
- Town Line
- Interstate Highway
- Major Roads
- Local Streets
- Open Water
- State Forest

*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purpose of this application. Refer to graphic scale on lower portion of the map.*

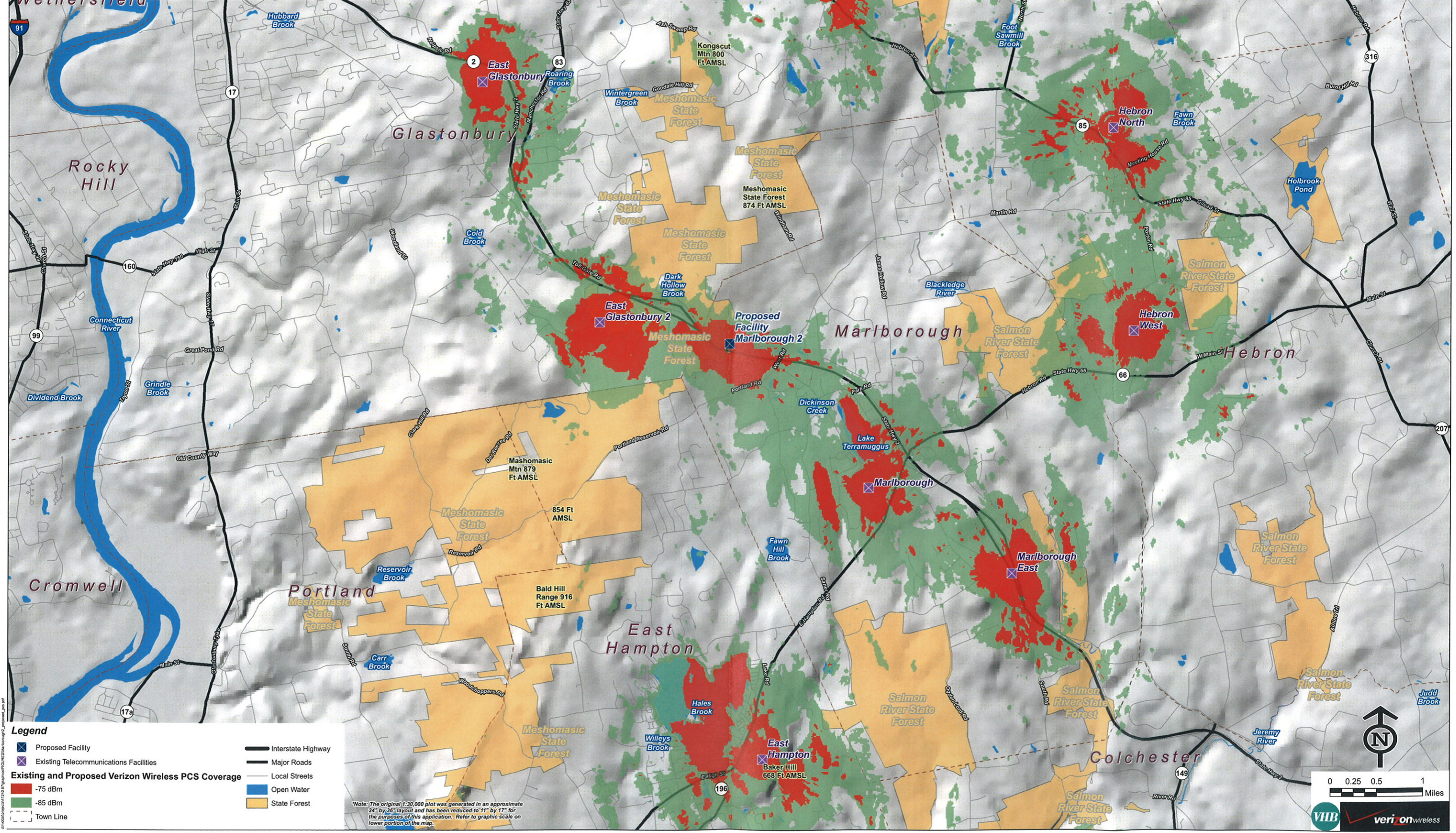
N

0 0.25 0.5 1 Miles



**Existing and Proposed Verizon Wireless PCS Coverage with Proposed Facility at 120 Ft AGL  
Marlborough Connecticut and Surrounding Area  
(\*Map Scale is 1:30,000)**

Coverage Plot Assumes 55% Site Loading on Cellco System



**Legend**

- X Proposed Facility
- X Existing Telecommunications Facilities
- █ Existing and Proposed Verizon Wireless PCS Coverage -75 dBm
- █ Existing and Proposed Verizon Wireless PCS Coverage -85 dBm
- Town Line
- Interstate Highway
- Major Roads
- Local Streets
- █ Open Water
- █ State Forest

\*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purposes of this application. Refer to graphic scale on lower portion of the map.

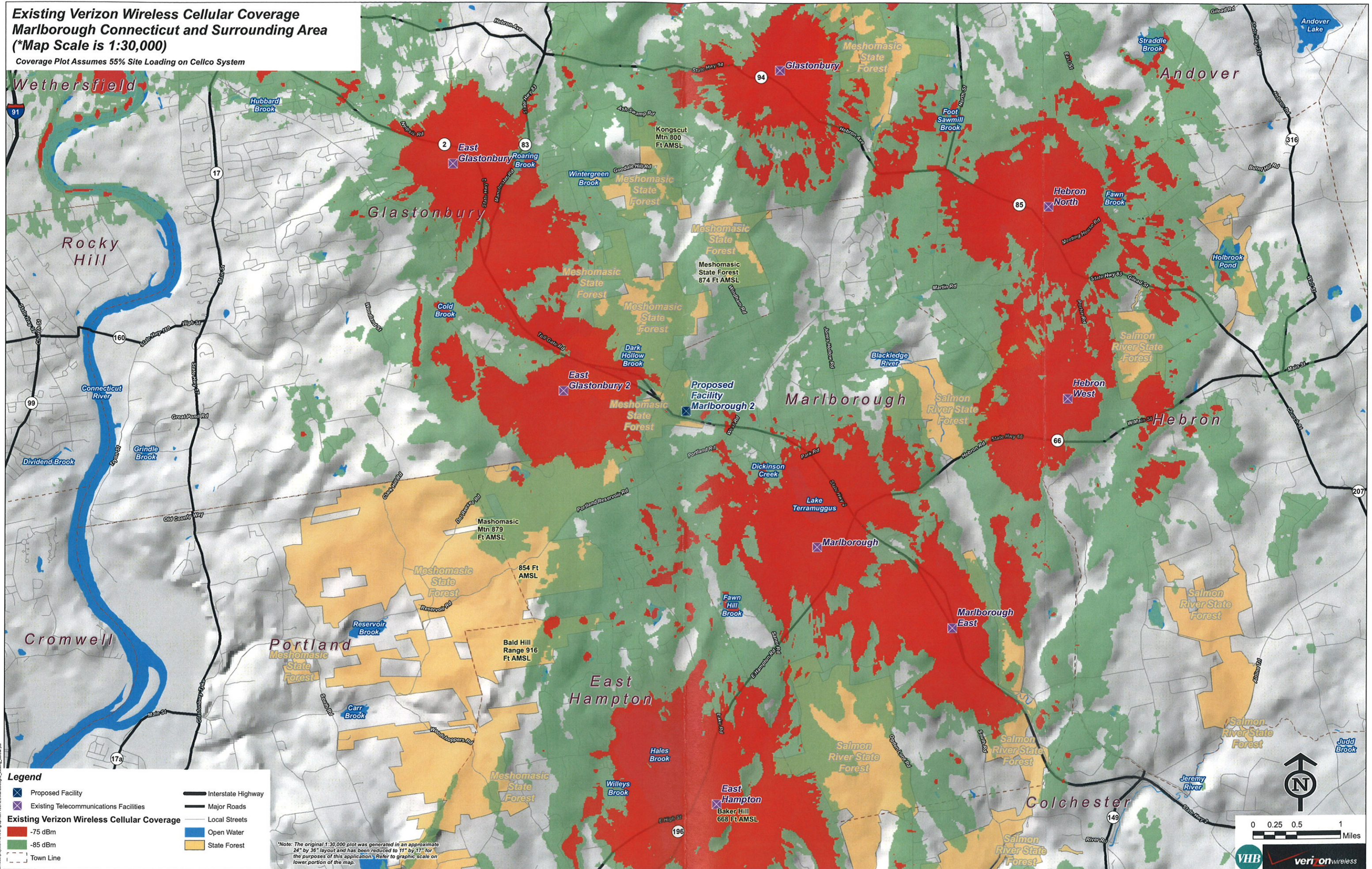
N

0 0.25 0.5 1 Miles

VHB verizonwireless

**Existing Verizon Wireless Cellular Coverage  
Marlborough Connecticut and Surrounding Area  
(\*Map Scale is 1:30,000)**

Coverage Plot Assumes 55% Site Loading on Cellco System



**Legend**

- ✕ Proposed Facility
- ✕ Existing Telecommunications Facilities
- Existing Verizon Wireless Cellular Coverage -75 dBm
- Existing Verizon Wireless Cellular Coverage -85 dBm
- Town Line
- Interstate Highway
- Major Roads
- Local Streets
- Open Water
- State Forest

\*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purposes of this application. Refer to graphic scale on lower portion of the map.

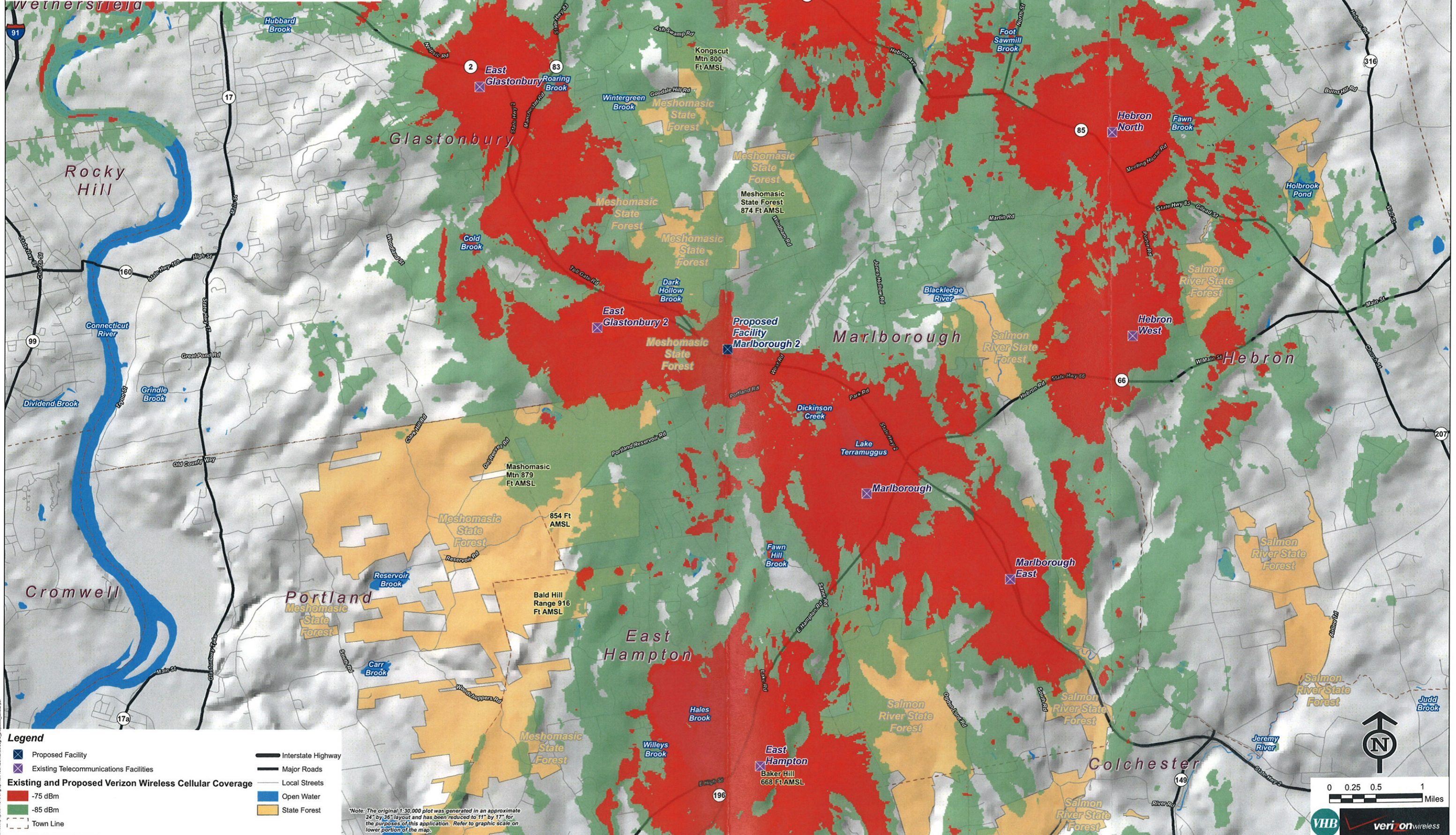
N

0 0.25 0.5 1  
Miles

**VHB**

**Existing and Proposed Verizon Wireless Cellular Coverage with Proposed Facility at 120 Ft AGL  
Marlborough Connecticut and Surrounding Area  
(\*Map Scale is 1:30,000)**

Coverage Plot Assumes 55% Site Loading on Cellco System



**Legend**

- X Proposed Facility
- X Existing Telecommunications Facilities
- Existing and Proposed Verizon Wireless Cellular Coverage -75 dBm
- Existing and Proposed Verizon Wireless Cellular Coverage -85 dBm
- Town Line
- Interstate Highway
- Major Roads
- Local Streets
- Open Water
- State Forest

\*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purposes of this application. Refer to graphic scale on lower portion of the map.

N

0 0.25 0.5 1  
Miles

**VHB** verizonwireless

# Vertically Polarized, Log Periodic 80° / 14 dBd

## LPA-80080/6CF

When ordering replace "\_\_\_" with connector type.

### Mechanical specifications

Length	1800 mm	70.9 in
Width	140 mm	5.5 in
Depth	335 mm	13.2 in
Depth with z-bracket	375 mm	14.8 in
4) Weight	9.5 kg	21.0 lbs
Wind Area		
Fore/Aft	0.25 m <sup>2</sup>	2.7 ft <sup>2</sup>
Side	0.60 m <sup>2</sup>	6.5 ft <sup>2</sup>
Rated Wind Velocity (Safety factor 2.0)	>216 km/hr	>134 mph
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	415 N	93.3 lbs
Side	870 N	195.6 lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

### Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-102 mm (2.0-4.0 in). If the lock-down brace is used, the maximum diameter is Ø88.9 mm (3.5 in)

Mounting Bracket & Downtilt Bracket Kit  
#21699999

### Electrical specifications

Frequency Range	806-960 MHz
Impedance	50Ω
3) Connector(s)	NE or E-DIN 1 port / center
1) VSWR	≤ 1.4:1
Polarization	Vertical
1) Gain	14 dBd
2) Power Rating	500 W
1) Half Power Angle	
H-Plane	80°
E-Plane	10°
1) Electrical Downtilt	0°
1) Null Fill	10%
Lightning Protection	Direct Ground

1) Typical values.

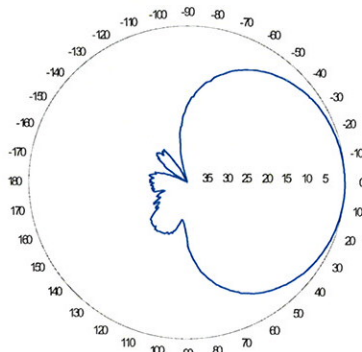
2) Power rating limited by connector only.

3) NE indicates an elongated N connector.  
E-DIN indicates an elongated DIN connector.

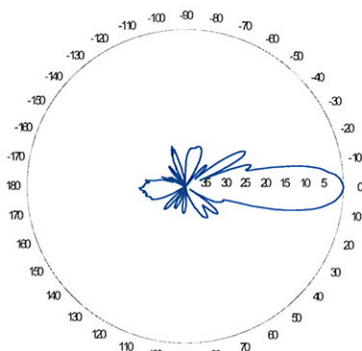
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

### Radiation pattern<sup>1)</sup>



Horizontal

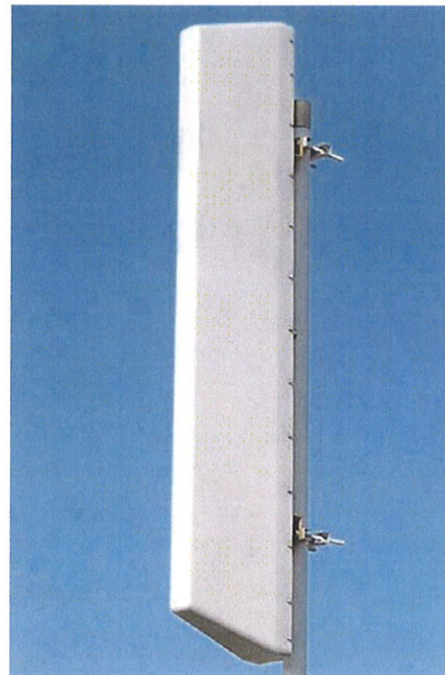


Vertical

### Featuring upper side lobe suppression.

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.



Amphenol Antel's  
Exclusive 3T (True  
Transmission Line  
Technology)  
Antenna Design:

- True log-periodic design allows for superior front-to-side characteristics to minimize sector overlap.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad bandwidth and superior performance.
- Air as insulation for virtually no internal signal loss.

*This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.*

Antenna available with center-fed connector only.

CF Denotes a Center-Fed Connector.

806-960 MHz



Revision Date: 6/17/08

### Mechanical specifications

Length	1800 mm	70.9 in
Width	140 mm	5.5 in
Depth	335 mm	13.2 in
Depth with z-bracket	375 mm	14.8 in
Weight <sup>4)</sup>	9.5 kg	21.0 lbs
Wind Area Fore/Aft <sup>6)</sup>	0.25 m <sup>2</sup>	2.7 ft <sup>2</sup>
Wind Area Side <sup>6)</sup>	0.61 m <sup>2</sup>	6.6 ft <sup>2</sup>
Max Wind Survivability <sup>6)</sup>	>201 km/hr	>125 mph
Wind Load @ 100 mph (161 km/hr) <sup>6)</sup>		
Fore/Aft	415 N	93 lbf
Side	878 N	198 lbf

Antenna consisting of aluminum alloy with brass feedlines covered by a gray, UV safe fiberglass radome. RoHS compliant.

### Mounting & Downtilting

Mounting hardware attaches to pipe diameter Ø50-102 mm; Ø2.0-4.0 in. If the lock-down brace is used, the maximum diameter is Ø88.9 mm (3.5 in).

Mechanical downtilt angle 0-22°

Mounting & Downtilt Bracket Kit 21700000

### Electrical specifications

Frequency Range	806-960 MHz
Impedance	50Ω
Connector <sup>3)</sup>	NE or E-DIN Female 1 port / Center
VSWR <sup>1)</sup>	≤ 1.4:1
Polarization	Vertical
Gain <sup>1)</sup>	14 dBd
Power Rating <sup>2)</sup>	500 W
Half Power Angle <sup>1)</sup>	
Horizontal Beamwidth	80°
Vertical Beamwidth	10°
Electrical downtilt <sup>5)</sup>	5°
Null fill <sup>1)</sup>	10%
Lightning protection	Direct ground

1) Typical values.

2) Power rating limited by connector only.

3) NE indicates an elongated N connector.  
E-DIN indicates an elongated DIN connector.

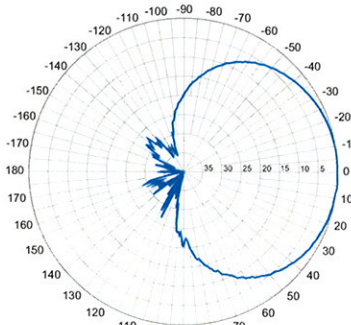
4) Antenna weight does not include brackets.

5) Add'l downtilts may be available. Check website for details.

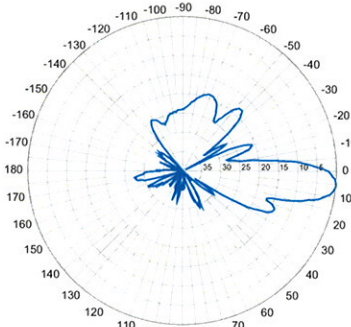
6) Values reflect installation with all three brackets utilized.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

### Radiation-pattern<sup>1)</sup>



Horizontal



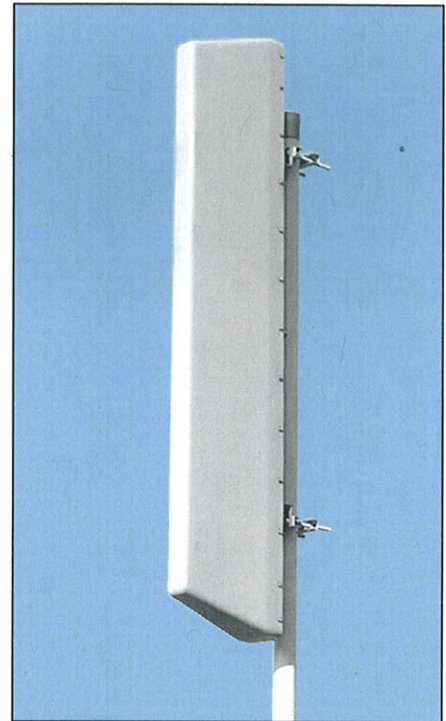
Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the front-to-back ratio.

### LPA-80080/6CF \_\_ 5°

When ordering replace " \_\_ " with connector type.



Featuring our Exclusive  
3T Technology™  
Antenna Design:

- True log-periodic design allows for superior front-to-side characteristics to minimize sector overlap.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad bandwidth and superior performance.
- Air as insulation for virtually no internal signal loss.

### Warranty:

This antenna is under a five-year limited warranty for repair or replacement.

Revision Date: 08/18/08

806-960 MHz

# Vertically Polarized, Log Periodic 80° / 17.5 dBi

## LPA-185080/12CF \_\_ 2°

When ordering replace " \_\_ " with connector type.

### Mechanical specifications

Length	1806 mm	71.1 in
Width	104 mm	4.1 in
Depth	150 mm	5.9 in
Depth with t-bracket	178 mm	7.0 in
4) Weight	4.8 kg	10.5 lbs
Wind Area		
Fore/Aft	0.19 m <sup>2</sup>	2.0 ft <sup>2</sup>
Side	0.27 m <sup>2</sup>	2.9 ft <sup>2</sup>
Rated Wind Velocity (Safety factor 2.0)	>270 km/hr	>168 mph
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	325 N	73.1 lbs
Side	440 N	98.9 lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

### Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-102 mm (2.0-4.0 in).

Mounting bracket kit #26799997  
Downtilt bracket kit #26799999

The downtilt bracket kit includes the mounting bracket kit.

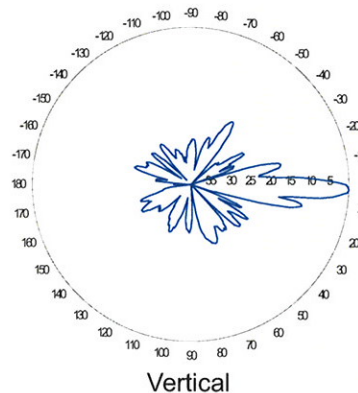
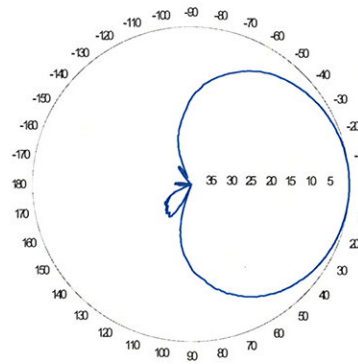
### Electrical specifications

Frequency Range	1850-1990 MHz
Impedance	50Ω
3) Connector(s)	NE or E-DIN 1 port / center
1) VSWR	≤ 1.4:1
Polarization	Vertical
1) Gain	17.5 dBi
2) Power Rating	250 W
1) Half Power Angle	
H-Plane	80°
E-Plane	5°
1) Electrical Downtilt	2°
1) Null Fill	10%
Lightning Protection	Direct Ground

- 1) Typical values.
- 2) Power rating limited by connector only.
- 3) NE indicates an elongated N connector.  
E-DIN indicates an elongated DIN connector.
- 4) The antenna weight listed above does not include the bracket weight.

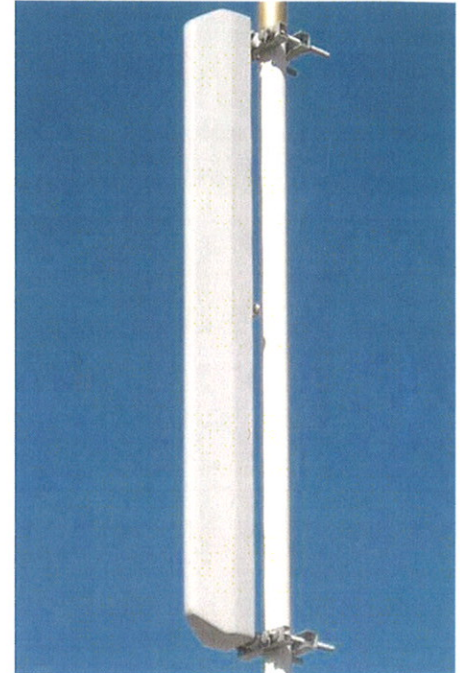
Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

### Radiation pattern<sup>1)</sup>



Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.



**Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:**

- True log-periodic design allows for superior front-to-side characteristics to minimize sector overlap.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad bandwidth and superior performance.
- Air as insulation for virtually no internal signal loss.

*This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.*

**Antenna available with center-fed connector only.**

**CF Denotes a Center-Fed Connector.**

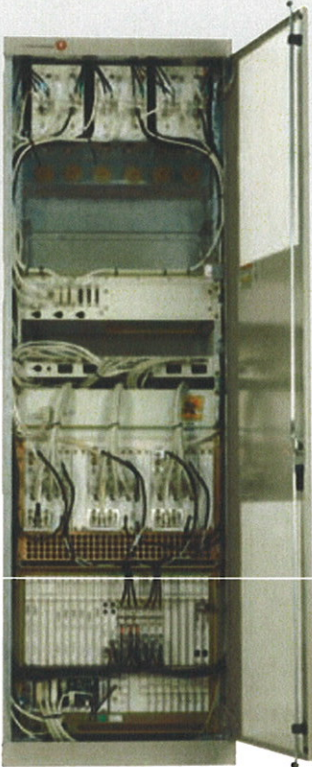
**1850-1990 MHz**



Revision Date: 7/12/07

# Lucent CDMA Modular Cell 4.0B Indoor

## For CDMA Networks



Lucent CDMA Modular Cell 4.0B is a high capacity base station equipped with the state-of-the-art technologies developed by Bell Labs. The product brings you outstanding carrier density and immediate OPEX savings. This indoor product can support up to 8 carriers/3 sectors per frame. It is twice the density of Modular Cell 4.0 (indoor). Modular Cell 4.0B offers full spectrum coverage in a single frame, dramatically simplifying growth patterns. As the leader in spread spectrum technology, Lucent Technologies continues to introduce innovations to the market: Multi-Carrier Radio (15MHz), Block Filters/Wideband Filters, and 40W Power Amplifier Modules are the latest assets integrated in the base station.

### Features

The Modcell 4.0B indoor version offers a small footprint with exceptional carrier density in a standard ETSI cabinet.

- Indoor Single Frame Configuration
- 1-8 carriers per frame at 3 sectors (will support up to 11 carriers with Auxiliary Amplifier Frame)
- Dual Band: one cell to the ECP & mobile
- Close Loop Gain Control
- Timing and Controller Redundancy
- Integrated Power option
- Support CDMA2000™1X, and EV-DO Rev.0, with future support to EV-DO Rev. A
- IP Backhaul and Ethernet Backhaul capable
- 6-Sector option ready
- Intelligent Antenna option ready

### Benefits

- Optimized for highest carrier density, smooth growth in one frame
- Conserves indoor footprint, reducing hardware and floor space requirements
- Minimizes configuration complexity
- Software-Only Carrier Add at certain carrier counts
- Flexible channel growth planning
- Designed to use existing power supply
- Grow CDMA carriers on only 2 antennas/sector
- Multi-Carrier Radio (15MHz), Block Filters/ Wideband Filters, and 40W Power Amplifier Modules



## Technical Specifications

Description	Specification
<b>1. Configurations</b>	
a. Sectors	3, 4 and 6
b. Carriers	1–8 per frame at 3 sectors (up to 11 with Auxiliary Amplifier Frame)
<b>2. CDMA Channel Card Capacity</b>	12 slots; CMU IVB capable
<b>3. T1, E1 Facilities</b>	Maximum of 20 per cabinet when equipped with URC-II's
<b>4. User Alarms</b>	7 Power Alarms, 25 User Alarms
<b>5. GPS Antenna</b>	Yes
<b>6. Air Interface Standards</b>	T1A/E1A 95-A plus TSB-74; T1A/E1A 95-B for 850 MHz; CDMA 2000
<b>7. Frequency Bands</b>	850MHz/1900 MHz; 300 to 2100 MHz capable
<b>8. Vocoder</b>	8 Kbps; 8 Kbps EVRC; 13 Kbps; SMV-ready
<b>9. Environmental Cabinet Housing</b>	Standard ETSI cabinet; UL50 compliant; zero rear clearance
<b>10. Cabinet Access</b>	Front Access
<b>11. Operating Temperature Range</b>	Range: -5 to +40°C (continuous)
<b>12. Dimensions</b>	600 mm W x 600 mm D x 1880 mm H (23.6 x 23.6 x 74) inches
<b>13. Estimated Installed Weight</b>	365 kg (785 lbs.) DC [8 carriers in one cabinet]
<b>14. Power Options</b>	Integrated Power, AC 120/240 Volt Input, -48V or +24 V DC Conversion Non-integrated Power requires either + 24 VDC Input or - 48 VDC Input
<b>15. Power Consumption</b>	
a. 3 Carrier/3 Sectors	2167 W
b. 6 Carrier/3 Sectors	5449 W
c. 11 Carrier/3 Sectors	10026 W
<b>16. RF Power (at J4)</b>	25 W per carrier (850) FCC Rated short-term average 20 W per carrier (850) FCC Rated long-term average 20 W per carrier (1900) FCC Rated short-term average 16 W per carrier (1900) FCC Rated long-term average
<b>17. Minimal Antenna Configuration</b>	2 antennas/sector
<b>18. Filter</b>	Block and Wide Band Dual Duplex
<b>19. Growth Frame</b>	PCS AUX Frame, Dual Band Growth Frame
<b>20. Operational Accessories</b>	Integrated Power
<b>21. Channel Elements</b>	Channel pooling across sectors or carriers

To learn more about our comprehensive portfolio, please contact your Lucent Technologies Sales Representative or visit our web site at <http://www.lucent.com>.

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MOB-Mod4B-i 0106



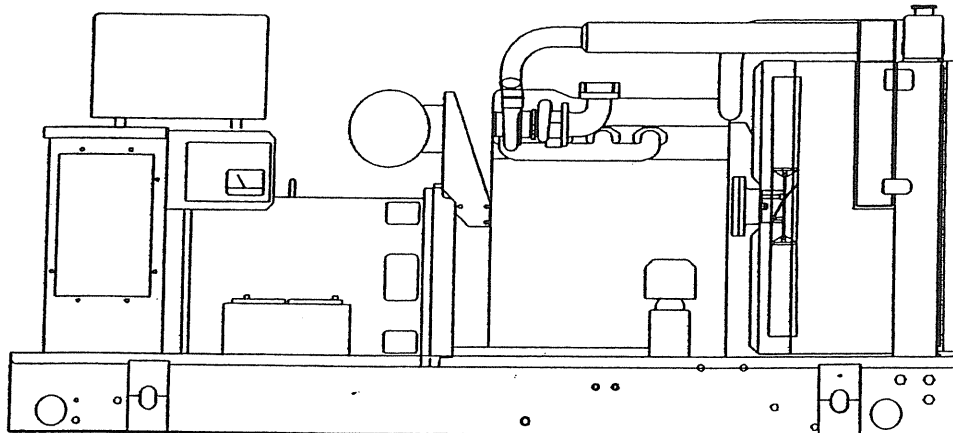


# SD060

## Liquid Cooled Diesel Engine Generator Sets

Continuous Standby Power Rating  
60KW 60 Hz / 60KVA 50 Hz

Prime Power Rating  
48KW 60 Hz / 48KVA 50 Hz



Power Matched  
**GENERAC 3.9DTA ENGINE**  
Turbocharged

## FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ ELECTRO-MAGNETIC INTERFERENCE
  - ✓ NEMA MG1-22 EVALUATION
  - ✓ MOTOR STARTING ABILITY
  - ✓ SHORT CIRCUIT TESTING
  - ✓ UL 2200 COMPLIANCE AVAILABLE
- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized
- FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.
- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own a GENERAC POWER SYSTEM.
- **ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.
- **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.
- **GENERAC TRANSFER SWITCHES, SWITCHGEAR AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, switchgear and controls for total system compatibility.

# GENERAC®

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## POWER SYSTEMS, INC.

# APPLICATION & ENGINEERING DATA

SD060

## GENERATOR SPECIFICATIONS

TYPE .....	Four-pole, revolving field
ROTOR INSULATION .....	Class H
STATOR INSULATION .....	Class H
TOTAL HARMONIC DISTORTION .....	<3%
TELEPHONE INTERFERENCE FACTOR (TIF) .....	<50
ALTERNATOR .....	Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED) .....	1
COUPLING .....	Direct, Flexible Disc
LOAD CAPACITY (STANDBY) .....	100%
LOAD CAPACITY (PRIME) .....	110%

**NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.**

### EXCITATION SYSTEM

- BRUSHLESS ..... Magnetically coupled DC current ✓  
Eight-pole exciter w/ battery-driven field boost ✓  
Mounted outboard of main bearing ✓
- PERMANENT MAGNET EXCITER ..... Eighteen pole exciter ✓  
Magnetically coupled DC current ✓  
Mounted outboard of main bearing ✓
- REGULATION ..... Solid-state ✓  
±1% regulation ✓

## GENERATOR FEATURES

- Four pole, revolving field generator is directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "F" insulation as define by NEMA MG1-32.6 and NEMA1-1.65, while the insulation system meets the requirements for the higher class "H" rating.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit is tested with an oscillograph for motor-starting ability by measuring instantaneous voltage dip.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, tooth and skewed stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, T.I.F. (Telephone Influence Factor) and non-linear loading have been evaluated to acceptable standards in accordance with NEMA MG1.
- Alternator is self-ventilated and drip-proof constructed.
- Fully life-tested protective systems, including "field circuit and thermal overload protection" and optional main-line circuit breakers are capable of handling full output capacity.
- System Torsional acceptability confirmed during Prototype Testing.

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

## ENGINE SPECIFICATIONS

MAKE .....	GENERAC
MODEL .....	3.9DTA
CYLINDERS .....	4 in-line
DISPLACEMENT .....	3.9 Liter (238 cu.in.)
BORE .....	104 mm (4.09 in.)
STROKE .....	115 mm (4.52 in.)
COMPRESSION RATIO .....	16.5:1
INTAKE AIR .....	Turbocharged/Aftercooled
NUMBER OF MAIN BEARINGS .....	5
CONNECTING RODS .....	4-Drop Forged Steel
CYLINDER HEAD .....	Cast Iron Overhead Valve
PISTONS .....	4- Aluminum Alloy
CRANKSHAFT .....	Hardened, Steel

### VALVE TRAIN

LIFTER TYPE .....	Solid
INTAKE VALVE MATERIAL .....	Special Heat Resistant Steel
EXHAUST VALVE MATERIAL .....	Special Heat Resistant Steel
HARDENED VALVE SEATS .....	Replaceable

### ENGINE GOVERNOR

- MECHANICAL (Gear Driven) ..... Standard  
FREQUENCY REGULATION, NO-LOAD TO FULL LOAD ... 5.0%  
STEADY STATE REGULATION ..... ±0.33%
- ELECTRONIC ..... Optional  
FREQUENCY REGULATION, NO-LOAD TO FULL LOAD ... 0.5%  
STEADY STATE REGULATION ..... ±0.25%

### LUBRICATION SYSTEM

TYPE OF OIL PUMP .....	Gear
OIL FILTER .....	Full flow, Cartridge
CRANKCASE CAPACITY .....	18 Litres (19 qts.)
OIL COOLER .....	Oil to water

### COOLING SYSTEM

TYPE OF SYSTEM .....	Pressurized, Closed Recovery
WATER PUMP .....	Pre-Lubed, Self-Sealing
TYPE OF FAN .....	Pusher
NUMBER OF FAN BLADES .....	7
DIAMETER OF FAN .....	457 mm (18 in.)
COOLANT HEATER .....	120V, 1800 W

### FUEL SYSTEM

FUEL .....	#2D Fuel (Min Cetane #40) (Fuel should conform to ASTM Spec.)
FUEL FILTER .....	Single Cartridge
FUEL INJECTION PUMP .....	Stanadyne
FUEL PUMP .....	Mechanical
INJECTORS .....	Multi-Hole, Nozzle Type
ENGINE TYPE .....	Direct Injection
FUEL LINE (Supply) .....	7.94 mm (0.31 in.)
FUEL RETURN LINE .....	6.35 mm (0.25 in.)
STARTING AID .....	Glow Plugs

### ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR .....	30 Amps at 24 V
STARTER MOTOR .....	24 V
RECOMMENDED BATTERY .....	(2)—12 Volt, 90 A.H., 4DLT
GROUND POLARITY .....	Negative

**SD060**

**OPERATING DATA**

	<b>STANDBY</b>		<b>PRIME</b>	
	<b>SD060</b>		<b>SD060</b>	
	<u>Rated AMP</u>		<u>Rated AMP</u>	
<b>GENERATOR OUTPUT VOLTAGE/KW-60Hz</b>				
120/240V, 1-phase, 1.0 pf	60	250	48	200
120/208V, 3-phase, 0.8 pf	60	208	48	166
120/240V, 3-phase, 0.8 pf	60	180	48	144
277/480V, 3-phase, 0.8 pf	60	90	48	72
600V, 3-phase, 0.8 pf	60	72	48	58
	NOTE: Consult your Generac dealer for additional voltages.			
<b>GENERATOR OUTPUT VOLTAGE/KVA-50Hz</b>		<u>Rated AMP</u>		<u>Rated AMP</u>
110/220V, 1-phase, 1.0 pf	48	218	38	172
115/200V, 3-phase, 0.8 pf	60	173	48	138
100/200V, 3-phase, 0.8 pf	60	173	48	138
231/400V, 3-phase, 0.8 pf	60	87	48	69
480V, 3-phase, 0.8 pf	60	72	48	58
	NOTE: Consult your Generac dealer for additional voltage			
<b>MOTOR STARTING KVA</b>				
Maximum at 35% instantaneous voltage dip with standard alternator; 50/60 Hz	<u>120/208/240V</u>	<u>277/480V</u>	<u>120/208/240V</u>	<u>277/480V</u>
with optional alternator; 50/60 Hz	100/120 234/281	117/141 276/331	100/120 234/281	117/141 276/331
<b>FUEL</b>				
Fuel consumption—60 Hz	Load	<u>100%</u>	<u>80%</u>	<u>100%</u>
	gal./hr.	4.3	3.6	3.0
	liters/hr.	16.3	13.5	11.3
Fuel consumption—50 Hz	gal./hr.	3.6	3.0	2.5
	liters/hr.	13.5	11.2	9.3
Fuel pump lift				
<b>COOLING</b>				
Coolant capacity	System - lit. (US gal.)	15.9 (4.2)		15.9 (4.2)
	Engine - lit. (US gal.)	6.4 (1.7)		6.4 (1.7)
	Radiator - lit. (US gal.)	9.5 (2.5)		9.5 (2.5)
Coolant flow/min.	60 Hz - lit. (US gal.)	128 (34)		128 (34)
	50 Hz - lit. (US gal.)	107 (28)		107 (28)
Heat rejection to coolant 60 Hz full load	BTU/hr.	170,900		136,700
Heat rejection to coolant 50 Hz full load	BTU/hr.	142,400		113,900
Inlet air to radiator	60 Hz - m <sup>3</sup> /min. (cfm)	204 (7,200)		204 (7,200)
	50 Hz - m <sup>3</sup> /min. (cfm)	170 (6004)		170 (6004)
Max. air temperature to radiator	°C (°F)	54.4 (130)		54.4 (130)
Max. ambient temperature	°C (°F)	48.9 (120)		48.9 (120)
<b>COMBUSTION AIR REQUIREMENTS</b>				
Flow at rated power	60 Hz - cfm	209		168
	50 Hz - m <sup>3</sup> /min.	4.7		3.8
<b>EXHAUST</b>				
Exhaust flow at rated output	60 Hz - m <sup>3</sup> /min. (cfm)	15.5 (549)		12.4 (439)
	50 Hz - m <sup>3</sup> /min. (cfm)	12.3 (434)		10 (353)
Max recommended back pressure	"Hg	1.5		1.5
Exhaust temperature 60 Hz (full load)	°C (°F)	524 (975)		459 (858)
Exhaust outlet size		3"		3"
<b>ENGINE</b>				
Rated RPM	60 Hz	1800		1800
	50 Hz	1500		1500
HP at rated KW	60 Hz	92		74
	50 Hz	73		59
Piston speed	60 Hz - m/min. (ft./min.)	414 (1358)		414 (1358)
	50 Hz - m/min. (ft./min.)	345 (1132)		345 (1132)
BMEP	60 Hz - psi	170		138
	50 Hz - psi	161		130
<b>DERATION FACTORS</b>				
Temperature				
	5% for every 10°C above - °C	25		25
	2.77% for every 10°F above - °F	77		77
Altitude				
	1.1% for every 100 m above - m	1829		1829
	3.5% for every 1000 ft. above - ft.	6000		6000

# STANDARD ENGINE & SAFETY FEATURES

SD060

- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain Extension
- Factory-Installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Secondary Fuel Filter

- Fuel Lockoff Solenoid
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Vibration Isolation of Unit to Mounting Base
- 12 Volt, Solenoid-activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Radiator Duct Adapter

## OPTIONS

### ■ OPTIONAL COOLING SYSTEM ACCESSORIES

- Coolant Heater 120V

### ■ OPTIONAL FUEL ACCESSORIES

- Flexible Fuel Lines
- UL Listed Fuel Tanks
- Base Tank Low Fuel Alarm
- Primary Fuel Filter
- Primary Fuel Filter with Heater

### ■ OPTIONAL EXHAUST ACCESSORIES

- Critical Exhaust Silencer

### ■ OPTIONAL ELECTRICAL ACCESSORIES

- Battery, 12 Volt, 135 A.H., 4DLT
- 2A Battery Charger
- 10A Dual Rate Battery Charger
- Battery Heater

### ■ OPTIONAL ALTERNATOR ACCESSORIES

- Alternator Upsizing
- Alternator Strip Heater
- Alternator Tropicalization
- Voltage Changeover Switch
- Main Line Circuit Breaker

### ■ CONTROL CONSOLE OPTIONS

- Analog Control "C" Panel (Bulletin 0151160SBY)
- Analog/Digital Control "E" Panel (Bulletin 0161310SBY)

### ■ ADDITIONAL OPTIONAL EQUIPMENT

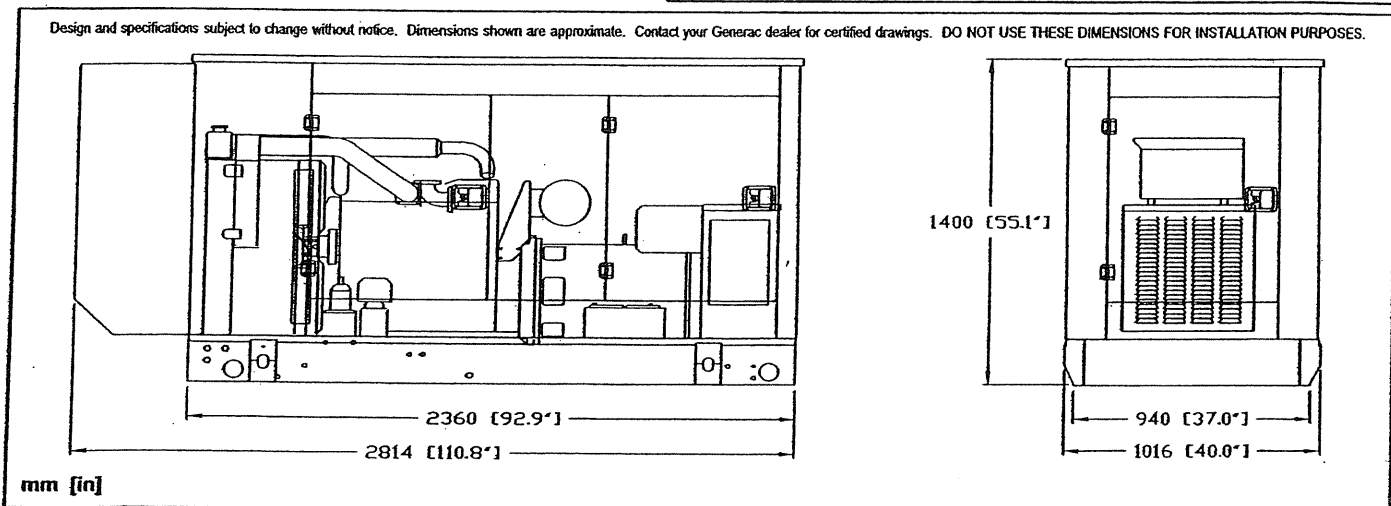
- Automatic Transfer Switch
- Isochronous Governor
- 3 Light Remote Annunciator
- 5 Light Remote Annunciator
- 20 Light Remote Annunciator
- Remote Relay Panels
- Unit Vibration Isolators (Pad/Spring)
- Oil Make-Up System
- Oil Heater
- 5 Year Warranties
- Export Boxing
- GenLink® Communications Software

### ■ OPTIONAL ENCLOSURE

- Weather Protective
- Sound Attenuated
- Aluminum and Stainless Steel
- Enclosed Muffler

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GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

262/544-4811 • FAX 262/544-4851



Site Search Summary  
Marlborough 2

Section 16-50j-74(j) of the Regulations of Connecticut State Agencies requires the submission of a statement that describes “the narrowing process by which other possible sites were considered and eliminated.” In accordance with this requirement, descriptions of the general site search process, the identification of the applicable search area and the alternative locations considered for development of the proposed telecommunications facility in Marlborough are provided below.

Site Search Process

To initiate a site selection process in an area where a coverage or capacity problem has been identified, Cellco first establishes a “site search ring” or “site search area.” In any search ring or area, Cellco seeks to avoid the unnecessary proliferation of towers and to reduce the potential adverse environmental effects of the cell site, while at the same time maximizing the quality of service provided from a particular facility. These objectives are achieved by initially identifying existing towers and other sufficiently tall structures within and near the site search area. If any are found, they are evaluated to determine whether they are capable of supporting Cellco’s telecommunications equipment at a location and elevation that satisfies its technical requirements.

Cellco maintains four (4) existing communications facilities located within approximately four (4) miles of the Marlborough 2 search area. These existing facilities, all currently shared by Cellco, cannot provide the coverage or capacity relief needed in the identified problem areas, along Route 2, and local roads in northwest Marlborough and southeast Glastonbury. (See Attachment 8).

	<u>OWNER/OPERATOR</u>	<u>FACILITY TYPE</u>	<u>LOCATION</u>	<u>ANTENNA HEIGHT</u>
1.	Crown Atlantic Co. (Marlborough)	Monopole (160’)	North Main Street Marlborough, CT	160’
2.	SBA (East Glastonbury 2)	Monopole (180’)	175 Dickinson Road Glastonbury, CT	168’
3.	SBA (Marlborough East)	Monopole (170’)	175 South Main Street Marlborough, CT	170’
4.	Crown Atlantic Co. (East Glastonbury)	Monopole (150’)	Three Mile Road Glastonbury, CT	148’

If existing towers or structures are not available or technically feasible, other locations are investigated where the construction of a new tower is required to provide adequate elevation to

satisfy Cellco's requirements. The list of available locations may be further reduced if, after preliminary negotiations, the property owners withdraw a site from further consideration. From among the remaining locations, the proposed sites are selected by eliminating those that have greater potential for adverse environmental effects and fewer benefits to the public (i.e., those requiring taller towers, possibly with lights; those with substantial adverse impacts on densely populated residential areas; and those with limited ability to share space with other public or private telecommunications entities). It should be noted that in any given site search, the weight afforded to factors considered in the selection process will vary depending upon the availability and nature of sites within the search area.

#### Identification of the Marlborough 2 Search Area

The purpose of the proposed Marlborough 2 Facility is to provide reliable cellular and PCS coverage to significant existing coverage gaps that have been identified along Route 2 and local roads in the northwest portion of Marlborough and the southeast portion of Glastonbury. The proposed Marlborough 2 Facility will also provide some limited capacity relief in Marlborough and Glastonbury by off-loading calls from Cellco's existing, adjacent Marlborough and East Glastonbury 2 cell sites. The coverage gaps referenced above were identified using best server propagation modeling tools. These tools are fine-tuned regularly through the use of actual base-line drive data.

The search for a Marlborough 2 Facility commenced in November, 2001. At that time, Cellco and Crown Atlantic Company ("Crown") had entered into a "build to suit" agreement, through which Crown was responsible for all site search activities. Crown and Cellco identified the East Glastonbury Fish & Game Association, Inc. ("EGFG") property as a location that satisfied Cellco's objectives. The Crown-Cellco build to suit agreement terminated in 2004 and the EGFG lease was assigned to Cellco.

The proposed Marlborough 2 Facility location satisfies Cellco's cellular and PCS coverage objectives and provides for significant service overlap, offering capacity relief in the area. The Marlborough 2 Facility will have little or no visual impact on surrounding properties and roadways, including Route 2. The proposed cell site is located in the southwest corner of a 450-acre parcel; is isolated from current uses on the property; and is surrounded by dense wooded areas both on and off the EGFG property. The closest residence is approximately 1,800 southeast of the cell site.





*Proposed Wireless  
Telecommunications Facility*

Marlborough 2  
Planeta Road  
Marlborough, Connecticut

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Prepared for



Prepared by **VHB/Vanasse Hangen Brustlin, Inc.**  
54 Tuttle Place  
Middletown, CT 06457

October 2008

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## Visual Resource Evaluation

Cellco Partnership, dba Verizon Wireless (“Verizon Wireless”) seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need for the construction of a wireless telecommunications facility (“Facility”) to be located on property off Planeta Road in the Town of Marlborough, Connecticut (identified herein as the “host property”). This Visual Resource Evaluation was conducted to evaluate the visibility of the proposed Facility within a two-mile radius (“Study Area”). In addition to the Town of Marlborough, the Study Area also contains land located within the Towns of Glastonbury and East Hampton, Connecticut. Attachment A contains a map that depicts the location of the proposed Facility and the limits of the Study Area.

---

## Project Introduction

The proposed Facility includes the installation of a 120-foot tall monopole with associated ground equipment to be located at its base. Both the proposed monopole and ground equipment would be situated within a fence-enclosed compound. The proposed project area is located at approximately 595 feet Above Mean Sea Level (AMSL). Access to the Facility would follow an existing gravel path currently located on the host property (to be improved).

---

## Site Description and Setting

Identified in the Town of Marlborough land records as Map 2/Block 4/ Lots 3, 4, 17A, 16A, 16, 15A and 25, the host property consists of approximately 450 acres of land and is currently occupied by the East Glastonbury Fish and Game Club which includes a club house, associated parking area and several outdoor firing ranges. However, most of the host property consists of undeveloped, wooded land. The proposed Facility is located roughly 1,150 feet to the northwest of the existing club house. Attachment A includes a photograph of the proposed project area. Land use within the general vicinity of the proposed Facility consists primarily of undeveloped woodlands and roadway infrastructure associated with the Route 2 transportation corridor. In total, the Study Area features approximately 43 linear miles of roadways.

The topography within the Study Area is characterized by rolling hills with ground elevations ranging from approximately 350 feet AMSL to nearly 900 feet AMSL. The Study Area contains approximately 100 acres of surface water, including Lake Tarramungus located roughly 1.35 miles to the southeast of the proposed project area. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species interspersed with stands of mature evergreen species. The tree canopy occupies approximately 7,307 acres of the 8,042-acre study area (91%). During the in-field activities associated with this analysis, an infrared laser range finder was used to determine the average tree canopy height throughout the Study Area. Numerous trees were selected for measurement and the average tree canopy was determined to be 65 feet.

---

## METHODOLOGY

In order to better represent the visibility associated with the Facility, VHB uses a two-fold approach incorporating both a predictive computer model and in-field analysis. The predictive model is employed to assess potential visibility throughout the entire Study Area, including private property and/or otherwise inaccessible areas for field verification. A "balloon float" and Study Area drive-through reconnaissance are also conducted to obtain locational and height representations, back-check the initial computer model results and provide documentation from publicly accessible areas. Results of both activities are analyzed and incorporated into the final viewshed map. A description of the methodologies used in the analysis is provided below.

---

### Visibility Analysis

Using ESRI's ArcView® Spatial Analyst, a computer modeling tool, the areas from which the top of the Facility is expected to be visible are calculated. This is based on information entered into the computer model, including Facility height, its ground elevation, the surrounding topography and existing vegetation. Data incorporated into the predictive model includes a digital elevation model (DEM) and a digital forest layer for the Study Area. The DEM was derived from the Connecticut LiDAR-based digital elevation data. The LiDAR data was produced by the University of Connecticut Center for Land Use Education and Research (CLEAR) in 2007 and has a horizontal resolution of 10 feet. In order to create the forest layer, digital aerial photographs of the Study Area are incorporated into the computer model. The mature trees and woodland areas depicted on the aerial photos are manually traced in ArcView® GIS and then converted into a geographic data layer. The aerial photographs were produced in 2006 and have a pixel resolution of one foot.

Once the data are entered, a series of constraints are applied to the computer model to achieve an estimate of where the Facility will be visible. Initially, only topography was used as a visual constraint; the tree canopy is omitted to evaluate all areas of potential visibility without any vegetative screening. Although this is an overly conservative prediction, the initial omission of these layers assists in the evaluation of potential seasonal visibility of the proposed Facility. A conservative tree canopy height of 50 feet is then used to prepare a preliminary viewshed map for use during the Study Area reconnaissance. The average height of the tree canopy is determined in the field using a hand-held infrared laser range finder. The average tree canopy height is incorporated into the final viewshed map; in this case, 65 feet was identified as the average tree canopy height. The forested areas within the Study Area were then overlaid on the DEM with a height of 65 feet added and the visibility calculated. As a final step, the forested areas are extracted from the areas of visibility, with the assumption that a person standing among the trees will not be able to view the Facility beyond a distance of approximately 500 feet. Depending on the density of the vegetation in

these areas, it is assumed that some locations within this range will provide visibility of at least portions of the Facility based on where one is standing.

Also included on the map is a data layer, obtained from the State of Connecticut Department of Environmental Protection ("CTDEP"), which depicts various land and water resources such as parks and forests, recreational facilities, dedicated open space, CTDEP boat launches and other categories. This layer is useful in identifying potential visibility from any sensitive receptors that may be located within the Study Area. Lastly, based on both a review of published information and discussions with municipal officials in Marlborough, Glastonbury and East Hampton, it was determined that there are no designated scenic roadways located within the Study Area.

The preliminary viewshed map (using topography and a conservative tree canopy height of 50 feet) is used during the in-field activity to assist in determining if significant land use changes have occurred since the aerial photographs used in this analysis were produced and to compare the results of the computer model with observations of the balloon float. Information obtained during the reconnaissance is then incorporated into the final visibility map.

---

### **Balloon Float and Study Area Reconnaissance**

On August 12, 2008 Vanasse Hangen Brustlin Inc., (VHB) conducted a balloon float at the proposed Facility location to further evaluate the potential viewshed within the Study Area. The balloon float consisted of raising and maintaining an approximate four-foot diameter, helium-filled weather balloon at the proposed site location at a height of 120 feet. Once the balloon was secured, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area with an emphasis on nearby residential areas and other potential sensitive receptors in order to evaluate the results of the preliminary viewshed map and to document where the balloon was, and was not, visible above and/or through the tree canopy. During the balloon float, the temperature was approximately 80 degrees Fahrenheit with calm wind conditions and sunny skies.

---

### **Photographic Documentation**

During the balloon float, VHB personnel drove the public road system within the Study Area in an effort to inventory those areas where the balloon was visible. However, in this particular instance, VHB did not identify any publically accessible locations where the balloon was visible. As such, non-visible photographs were taken from five locations within the Study Area to demonstrate the overall lack of year-round visibility associated with the proposed Facility. The locations of the photos are described below:

1. View from Route 2 eastbound.
2. View from Windham Road adjacent to house #200.
3. View from Planeta Road at entrance to East Glastonbury Fish and Game Club.
4. View from North Main Street at Portland Road.
5. View from West Road at Planeta Road.

The photographs listed above were taken with a Nikon D-80 digital camera body and Nikon 18 to 135 mm zoom lens. For the purposes of this report, the lens was set to 50mm. "The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm."

The locations of the photographic points are recorded in the field using a Trimble Geo XT GPS receiver and are subsequently plotted on the maps contained in the attachments to this document.

---

## Photographic Simulation

Since the balloon was not visible from any publically accessible locations during the August 12, 2008 balloon float, no photographic simulations were generated.

---

## CONCLUSIONS

Based on this analysis, areas from where the proposed 120-foot tall Facility would be visible above the tree canopy comprise approximately 2 acres. As depicted on the viewshed map (provided in Attachment B), areas of potential year-round visibility are confined to the immediate vicinity of the proposed facility and associated compound area. This is consistent with observations made by VHB during the in-field activities conducted as part of this analysis as potential year-round visibility would be minimized by a combination of the topographic relief and the extent of vegetative cover contained within the Study Area.

The viewshed map also depicts an area where seasonal (i.e. during "leaf off" conditions) views are anticipated. These areas comprise approximately 18 acres and are limited to the host property and an approximate 0.35-mile segment of Route 2 within the immediate vicinity of the proposed Facility.

---

<sup>1</sup> Warren, Bruce. *Photography*, West Publishing Company, Eagan, MN, c. 1993, (page 70).

---

## Attachment A

# Project Area Photograph, Photolog Documentation Map and Balloon Float Photographs

Visual Resource Evaluation

# Proposed Wireless Telecommunications Facility

Marlborough 2  
Planeta Road  
Marlborough, CT

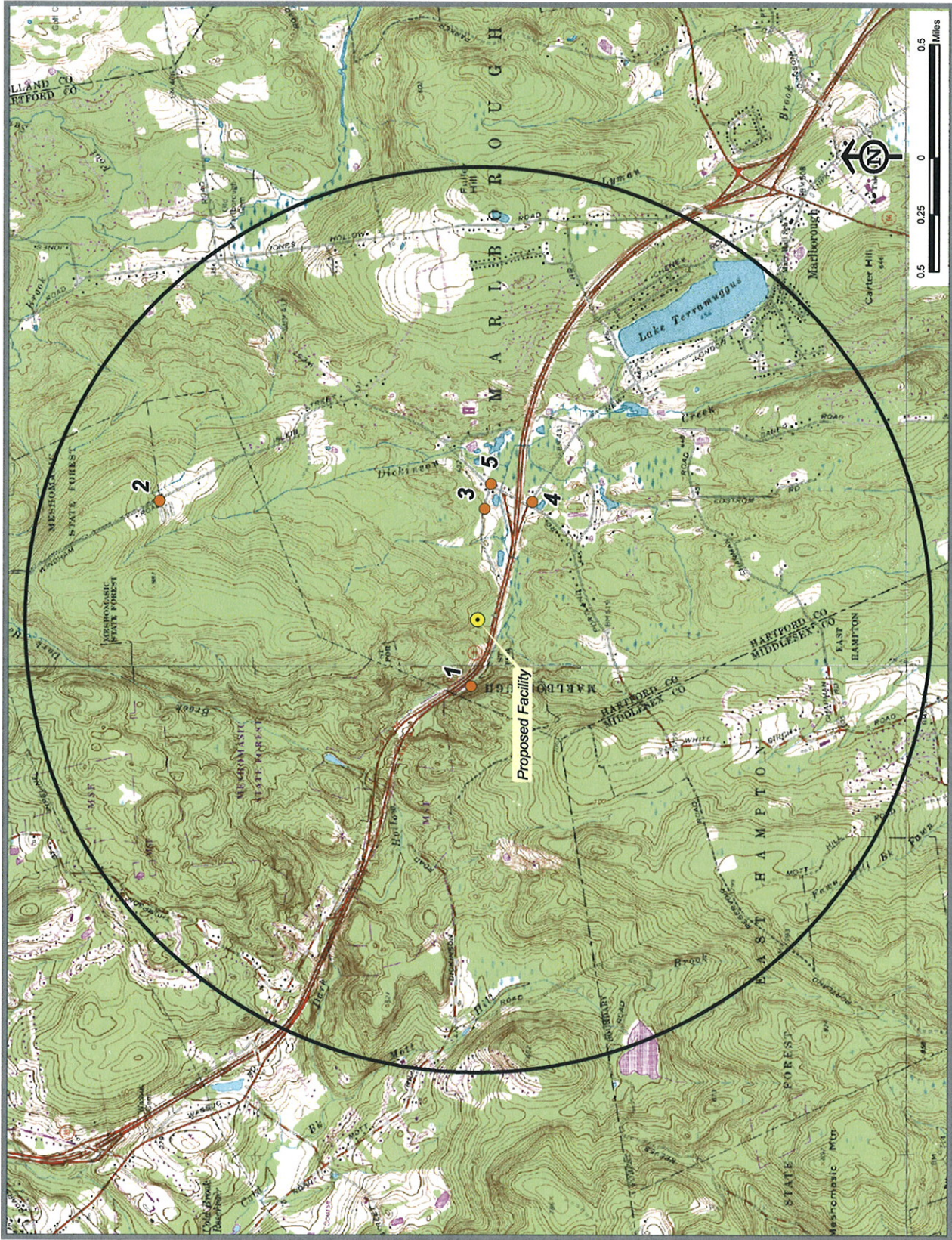
SUBMITTED TO:



SUBMITTED BY:



PHOTOLOG MAP





PHOTOGRAPHIC DOCUMENTATION



PROPOSED PROJECT AREA

PHOTOGRAPHIC DOCUMENTATION

VIEW 1



PHOTO TAKEN FROM ROUTE 2 EASTBOUND, LOOKING NORTHEAST - BALLOON IS NOT VISIBLE  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.12 MILE +/-

PHOTOGRAPHIC DOCUMENTATION

VIEW 2



PHOTO TAKEN FROM WINDHAM ROAD ADJACENT TO HOUSE #200, LOOKING SOUTHWEST - BALLOON IS NOT VISIBLE  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 01.50 MILES +/-

PHOTOGRAPHIC DOCUMENTATION

VIEW 3

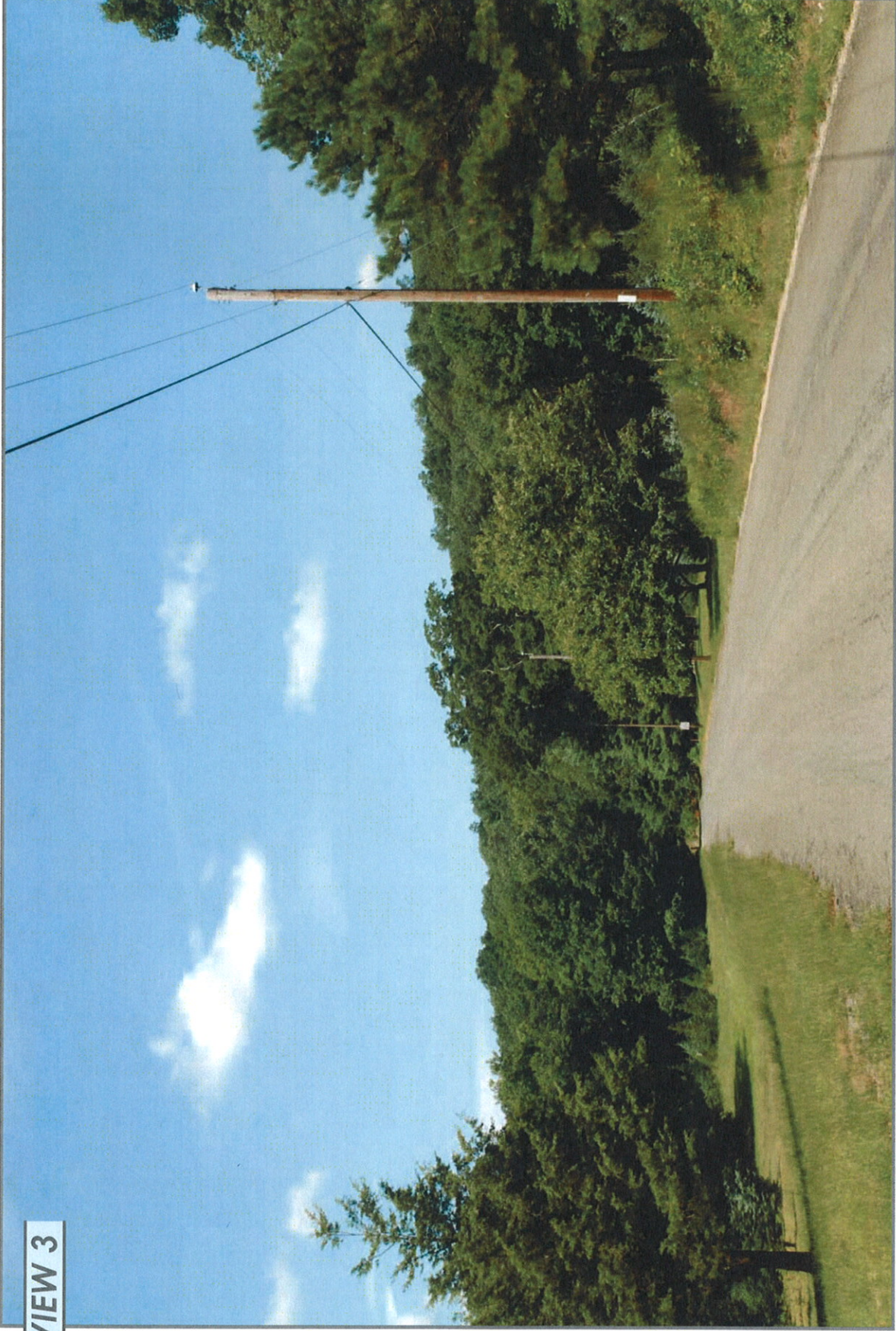


PHOTO TAKEN FROM PLANETA ROAD AT ENTRANCE TO EAST GLASTONBURY FISH AND GAME CLUB, LOOKING WEST  
- BALLOON IS NOT VISIBLE

DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.50 MILE +/-

PHOTOGRAPHIC DOCUMENTATION

VIEW 4

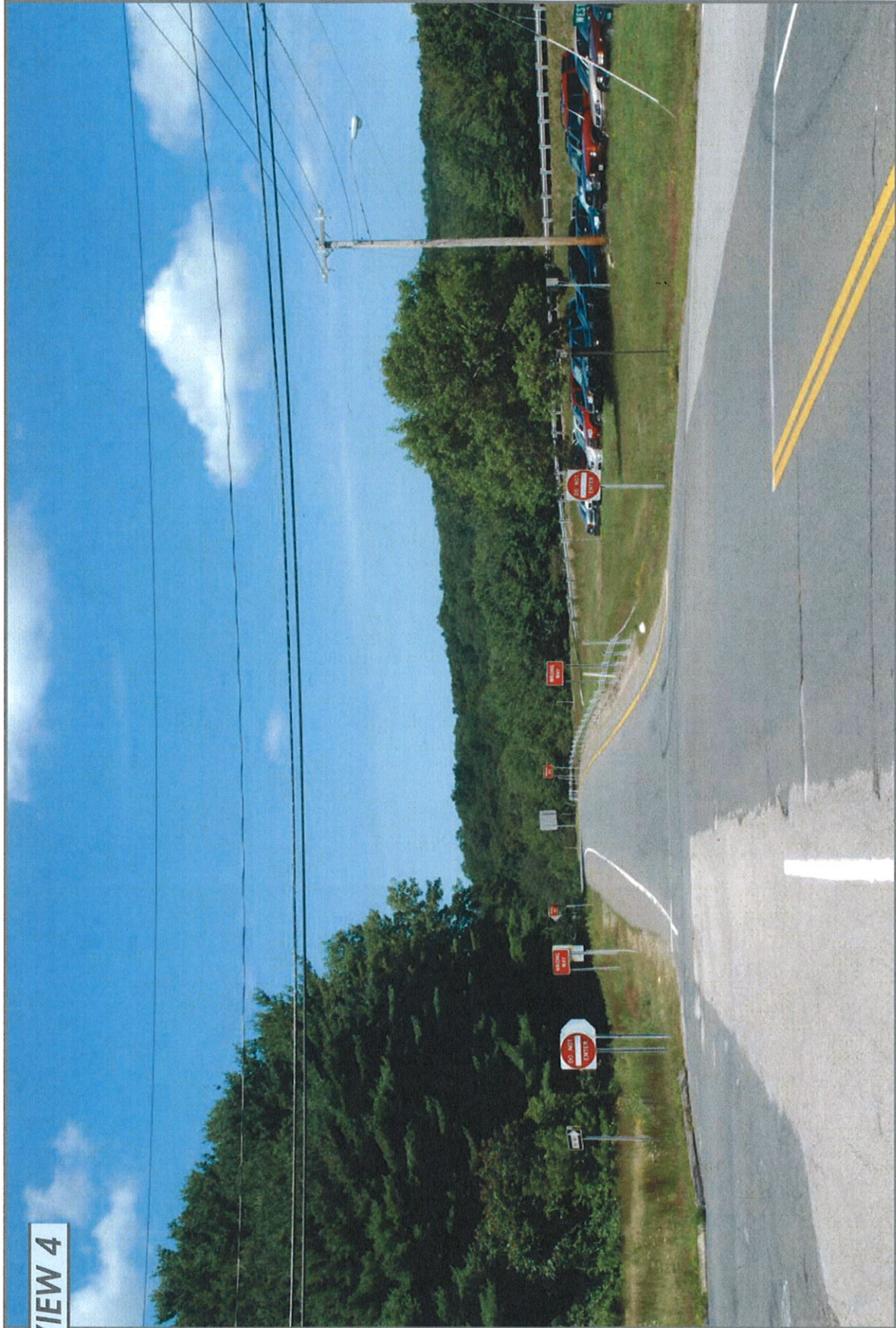


PHOTO TAKEN FROM NORTH MAIN STREET AT PORTLAND ROAD, LOOKING NORTHWEST - BALLOON IS NOT VISIBLE  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.58 MILE +/-

PHOTOGRAPHIC DOCUMENTATION



VIEW 5

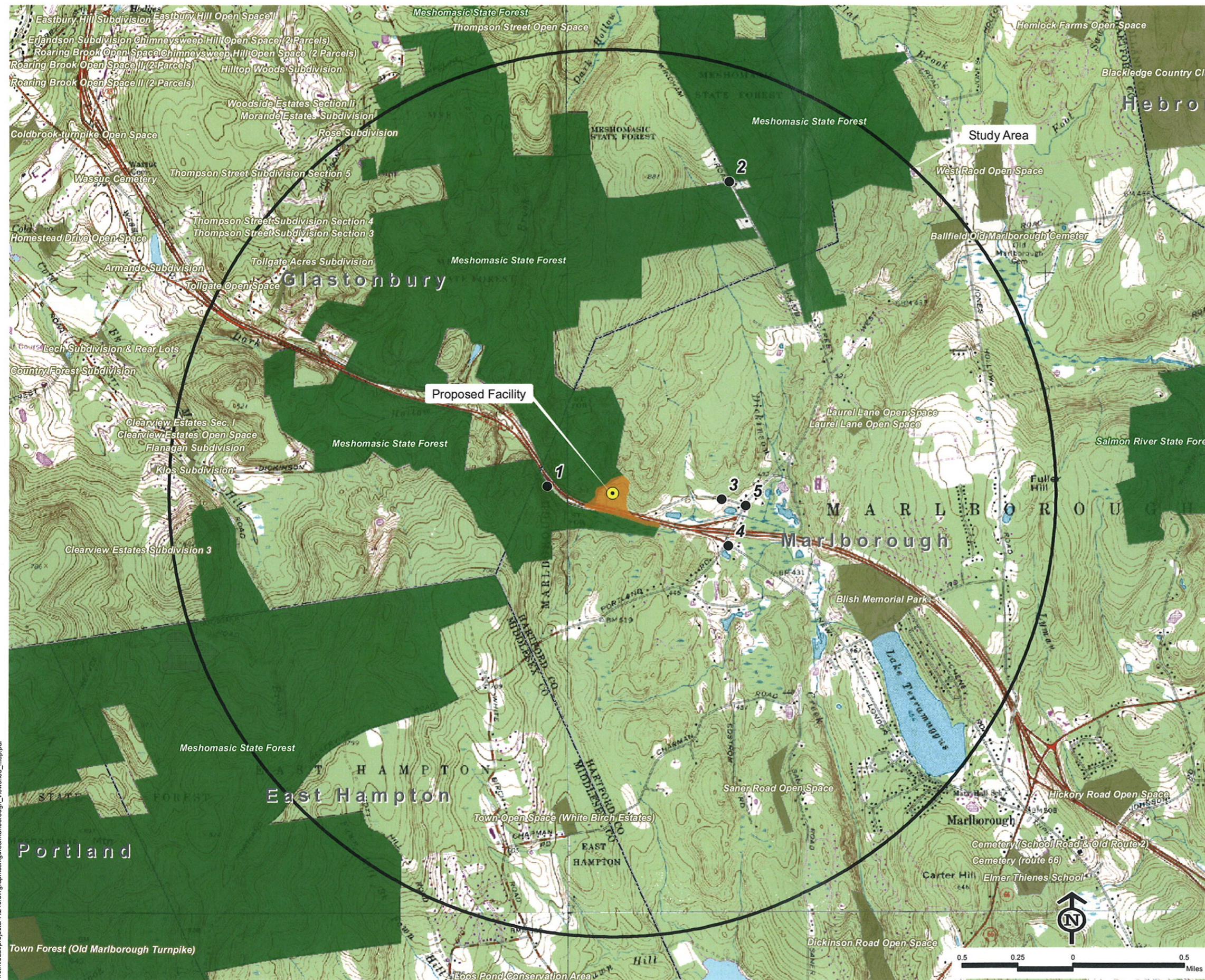
PHOTO TAKEN FROM WEST ROAD AT PLANETA ROAD, LOOKING NORTHWEST - BALLOON IS NOT VISIBLE  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.61 MILE +/-

---

# Attachment B

## Viewshed Map

Viewshed Analysis  
Proposed Wireless  
Telecommunications Facility  
Marlborough2  
Planeta Road  
Marlborough, Connecticut



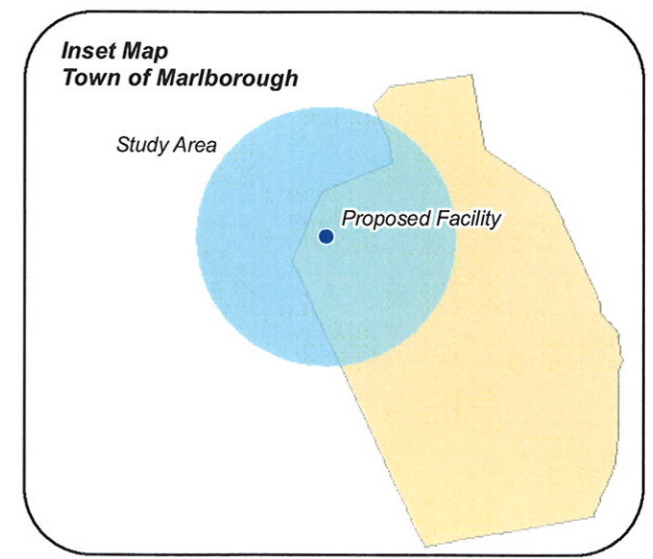
**NOTE:**  
 - Viewshed analysis conducted using ESRI's Spatial Analyst.  
 - Proposed Facility height is 120 feet.  
 - Existing tree canopy height estimated at 65 feet.

**DATA SOURCES:**  
 - Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data with a horizontal resolution of 10 feet produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR), 2007  
 - Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2008.  
 - Base map comprised of Marlborough (1984), Glastonbury (1992), Moodus (1984), and Middle Haddam (1984) USGS Quadrangle Maps  
 - Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997  
 - Protected CT DEP properties data layer provided by CTDEP, May 2007  
 - CT DEP boat launches data layer provided by CT DEP, 1994  
 - Scenic Roads layer derived from available State and Local listings.

Map Compiled October, 2008

**Legend**

- Tower Location (Includes select areas of visibility approximately 500 feet around facility)
- Photographs - August 12, 2008
- Balloon is not visible
- Approximate Year-Round Visibility (Approximately 2 acres)
- Approximate Seasonal Visibility (Approximately 18 acres)
- Protected Municipal and Private Open Space Properties (1997)
- Cemetery
- Preservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized
- CT DEP Protected Properties (2007)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary
- Federal Protected Properties (1997)
- CT DEP Boat Launches (1994)
- Scenic Road (State and Local)
- Town Line



/c:\mddata\projects\41240.67\graphics\figures\marlborough\_viewshed\_map.pdf



**USFWS**



*Vanasse Hangen Brustlin, Inc.*

54 Tuttle Place  
Middletown, Connecticut 06457  
860 632-1500  
FAX 860 632-7879

**Memorandum**

To: Alexandria Carter  
Verizon Wireless  
99 East River Drive  
East Hartford, CT 06108

Date: September 26, 2008

Project No.: 41240.67

From: Matthew Davison  
Registered Soil Scientist  
CT Certified Forester 193

Re: USFWS Compliance Determination  
Marlborough 2  
2 Planeta Road  
Marlborough, Connecticut

The following Site was evaluated with respect to possible federally-listed, threatened or endangered species in order to determine if the proposed telecommunications facility would result in a potential adverse effect to federally-listed species. This evaluation was performed in accordance with the January 7, 2008 policy statement of the United States Department of the Interior Fish and Wildlife Service (USFWS) New England Field Office. A copy of this policy statement and list of rare species is enclosed for reference.

Project Site:

**State & County:** Connecticut, Hartford  
**Address:** Planeta Road, Marlborough  
**Latitude/Longitude Coordinates:** N41°39'09.0" W72°29'44.0"  
**Size of Property:** ±90 acres  
**Watershed:** Dickinson Creek (basin # 4708)

The following federally-listed endangered and threatened species occur in Hartford County according to the USFWS January 7, 2008 policy.

Common Name	Species	Status	County/General Distribution
Eagle, bald*	<i>Haliaeetus leucocephalus</i>	T	<b>Nesting:</b> Hartford, Litchfield <b>Wintering:</b> entire state, major rivers
Wedge mussel, dwarf	<i>Alasmidonta heterodon</i>	E	Hartford
Beetle, Puritan tiger	<i>Cicindela puritana</i>	T	Hartford, Middlesex (Connecticut River floodplain)
Sandplain gerardia	<i>Agalinus acuta</i>	E	Hartford

\* Note: Bald Eagle was officially delisted in the lower 48 states from the List of Endangered and Threatened Wildlife (Federal Register, July 9, 2007).

### **Habitat Description & Proposed Facility Location**

The proposed telecommunication facility and associated infrastructure (e.g., access drive, utilities, etc.) are to be located on the south side of a ±90-acre property, adjacent to Route 2. An existing gravel access road, originating from Planeta Road, serves a shooting range located approximately 200 feet east of the proposed tower location. This road, including approximately 200 feet of required additional road construction, would provide access to the proposed tower site. The construction of a 50-foot by 75-foot compound area will be required to accommodate the tower and associated ground equipment. The south side of the property in the vicinity of the proposed facility is characterized as a mixed hardwood upland forest type dominated by poletimber (4 to 11 inches diameter breast height [DBH]) with scattered sawtimber (11 inches DBH and greater) occurring. Evidence of previous forest management activities such as girdled trees and decayed stumps are present throughout the inspection area. Dominant tree species include sugar maple (*Acer saccharum*), hickory (*Carya spp.*), red oak (*Quercus rubra*), white oak (*Quercus alba*), and black birch (*Betula lenta*). Mountain laurel (*Kalmia latifolia*) occurs sporadically in the shrub layer; however, the understory is generally open. An isolated intermittent watercourse conveying groundwater seepage exists 240± feet northeast and upslope of the proposed tower site. A small forested wetland system is located approximately 100 feet to the east of the proposed tower site. This system is physically bisected by the existing gravel access road. A culvert beneath the access road conveys flow from the northern wetland portion (Wetland 1) to the southern wetland (Wetland 2) via a 12-inch metal culvert. Flows are conveyed through Wetland 2 within an intermittent watercourse, which exits the wetland through a culvert beneath Route 2. These wetland areas have been subjected to previous filling activities associated with the gravel access road which transects the system, a shooting range to the west and Route 2 to the south. Dominant species within these forested wetlands include red maple (*Acer rubrum*), sugar maple (*Acer saccharum*), yellow birch (*Betula alleghaniensis*), tulip poplar (*Liriodendron tulipifera*) and spicebush (*Lindera benzoin*).

### **Dwarf Wedge Mussel**

Dwarf wedge mussel is a small (shell rarely exceeds 1.5 inches) freshwater mussel occurring on muddy sand, sand, and gravel bottoms in creeks and rivers of varying sizes, in areas of slow to moderate current and little silt deposition.<sup>1</sup> Its reproductive cycle is typical of other freshwater mussels and requires a host fish on which its larvae (glochidia) parasitize and metamorphose into juvenile mussels, at which time they drop to the stream bed.<sup>2</sup> The decline of dwarf wedge mussel may be the forerunner of a general decline in mussel species of the Atlantic slope drainages<sup>3</sup>. Factors that may be contributing to the decline of dwarf wedge mussel include: impoundment of waterways, siltation, pollution, land use changes and geographic isolation resulting in genetic bottlenecks<sup>4</sup>. Only one known population currently exists in Connecticut, in a one mile stretch of the Muddy Brook in Hartford County. This population is described as poor and is not reproducing.<sup>5</sup>

No perennial watercourses exist in the vicinity of the proposed access road or tower compound. The intermittent watercourse originating from the culvert outlet on the south side of the gravel access road, as well as the isolated intermittent watercourse located northeast of the proposed compound, does not possess attributes capable of providing dwarf wedge mussel habitat. Therefore, the Site watercourses are unlikely to support dwarf wedge mussel habitat and the proposed development will not result in an adverse impact to this listed species.

<sup>1</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Dwarf Wedge Mussel Recovery Plan (Hadley: Region Five, 1993), pg. 2.

<sup>2</sup> "Dwarf wedge mussel," 18 Dec. 2007 [http://en.wikipedia.org/wiki/Dwarf\\_wedge\\_mussel](http://en.wikipedia.org/wiki/Dwarf_wedge_mussel).

<sup>3</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Dwarf Wedge Mussel Recovery Plan (Hadley: Region Five, 1993), pg. 11.

<sup>4</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Dwarf Wedge Mussel Recovery Plan (Hadley: Region Five, 1993), pgs. 11-19.

<sup>5</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Dwarf Wedge Mussel Recovery Plan (Hadley: Region Five, 1993), pg. 20.

### **Puritan Tiger Beetle**

Puritan tiger beetle is a medium-sized (11.5 to 12.4mm) terrestrial beetle of the family Cicindelidae.<sup>6</sup> Like many tiger beetles, this species has very specific habitat requirements.<sup>7</sup> The only known extant population of this species in Connecticut occurs on the Connecticut River in Cromwell.<sup>8</sup> The larvae utilize burrows located among scattered herbaceous vegetation at the upper portions of sandy beaches and occasionally near the water's edge.<sup>9</sup> Adults are likely to be found on sediment deposits along large river bends<sup>10</sup>.

The proposed telecommunications facility and associated infrastructure (e.g., access drive, utilities, etc.) are not located within or near habitats that have the potential to support the Puritan tiger beetle (i.e., open sandy areas or beaches). The watercourses located on the subject property do not contain sandy beaches or sediment deposits that could provide suitable habitat for this species. Therefore, the Site is unlikely to support Puritan tiger beetle habitat and the proposed development will not result in an adverse impact to this listed species.

### **Sandplain gerardia**

Sandplain gerardia is an annual pale green herb, from 5.0 cm to 30.0 cm tall and occasionally up to 40.0 cm tall.<sup>11</sup> Leaves are opposite, linear, scabrous above and up to 2.5 cm long. The pink or purple flowers, which appear from mid-August to mid-October, are 1.0 cm to 1.3 cm long and borne on slender pedicels 1.0 cm to 2.0 cm long. It typically occurs on dry, sandy, nutrient-poor soils of sparsely vegetated sandplain environments and serpentine barrens, whose harshness may eliminate potentially competitive species.<sup>12</sup> While potential habitat for this species exists in Connecticut, no extant populations are known to occur.

The proposed communications facility and associated infrastructure (e.g., access drive, utilities, etc.) are not located within or near habitats that have the potential to support sandplain gerardia. Upland soils on the property include Chatfield and Hollis soil types. These fine sandy loam soils contain a nutrient rich surface horizon capable of growing a wide variety of vegetation. Therefore, since the Site is unlikely to provide sandplain gerardia habitat, the proposed development will not result in an adverse impact to this listed species.

### **Supporting Correspondence**

Correspondence from the CTDEP (May 8, 2008; attached) reveals that the State Endangered timber rattlesnake (*Crotalus horridus*) and State Special Concern eastern box turtle (*Terrapene c. carolina*) occurs in the vicinity of this Site. According to the U.S. Fish and Wildlife Service's endangered species database, these species are not federally-listed, threatened or endangered. Based on CTDEP's correspondence there are no documented occurrences of federally-listed species on or near the subject property. Therefore, the proposed development will not result in an adverse affect to any federally-listed species.

<sup>6</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Puritan Tiger Beetle Recovery Plan (Hadley: Region Five, 1993), pg 8.

<sup>7</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Puritan Tiger Beetle Recovery Plan (Hadley: Region Five, 1993), pg. 10.

<sup>8</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Puritan Tiger Beetle Recovery Plan (Hadley: Region Five, 1993), pg 5.

<sup>9</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Puritan Tiger Beetle Recovery Plan (Hadley: Region Five, 1993), pg 10.

<sup>10</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Puritan Tiger Beetle Recovery Plan (Hadley: Region Five, 1993), pg. 11.

<sup>11</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Sandplain Gerardia Recovery Plan (Hadley: Region Five, 1989), pg 1.

<sup>12</sup> United States, U.S. Fish and Wildlife Service, Northeast Region, Sandplain Gerardia Recovery Plan (Hadley: Region Five, 1989), pg. 12.



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# **USFWS January 7, 2008 Telecommunications Policy Statement and Endangered Species List**



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Field Office  
70 Commercial Street, Suite 300  
Concord, New Hampshire 03301-5087

January 7, 2008

To Whom It May Concern:

The U.S. Fish and Wildlife Service's (Service) New England Field Office has determined that individual project review for certain types of activities associated with communication towers is **not required**. These comments are submitted in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Due to the rapid expansion of the telecommunication industry, we are receiving a growing number of requests for review of **existing** and **new** telecommunication facilities in relation to the presence of federally-listed or proposed, threatened or endangered species, critical habitat, wilderness areas and/or wildlife preserves. We have evaluated our review process for proposed communications towers and believe that individual correspondence with this office is not required for the following types of actions relative to **existing** facilities:

1. the re-licensing of existing telecommunication facilities;
2. audits of existing facilities associated with acquisition;
3. routine maintenance of existing tower sites, such as painting, antenna or panel replacement, upgrading of existing equipment, etc.;
4. co-location of new antenna facilities on/in existing structures;
5. repair or replacement of existing towers and/or equipment, provided such activities do not significantly increase the existing tower mass and height, or require the addition of guy wires.

In order to curtail the need to contact this office in the future for individual environmental review for **existing** communication towers or antenna facilities, please note that we are not aware of any federally-listed, threatened or endangered species that are being adversely affected by any existing communication tower or antenna facility in the following states: Vermont, New Hampshire, Rhode Island, Connecticut and Massachusetts. Furthermore, we are not aware of any **existing** telecommunication towers in federally-designated critical habitats, wilderness areas or wildlife preserves. Therefore, no further consultation with this office relative to the impact of the above referenced activities on federally-listed species is required.

Future Coordination with this Office Relative to New Telecommunication Facilities

We have determined that proposed projects are not likely to adversely affect any federally-listed or proposed species when the following steps are taken to evaluate new telecommunication facilities:

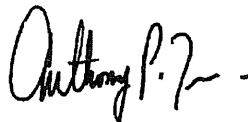
1. If the facility will be installed within or on an existing structure, such as in a church steeple or on the roof of an existing building, no further coordination with this office is necessary. Similarly, new antennas or towers in urban and other developed areas, in which no natural vegetation will be affected, do not require further review.
2. If the above criteria cannot be met, your review of the attached lists of threatened and endangered species locations within Vermont, New Hampshire, Rhode Island, Connecticut and Massachusetts may confirm that no federally-listed endangered or threatened species are known to occur in the town or county where the project is proposed.
3. If a listed species is present in the town or county where the project is proposed, further review of our enclosed lists of threatened and endangered species may allow you to conclude that suitable habitat for the species will not be affected. Based on past experiences, we anticipate that there will be few, if any, projects that are likely to impact piping plovers, roseate terns, bog turtles, Jesup's milk-vetch or other such species that are found on coastal beaches, riverine habitats or in wetlands because communication towers typically are not located in these habitats.

For projects that meet the above criteria, there is no need to contact this office for further project review. A copy of this letter should be retained in your file as the Service's determination that no listed species are present, or that listed species in the general area will not be affected. Due to the high workload associated with responding to many individual requests for threatened and endangered species information, we will no longer be providing response letters for activities that meet the above criteria. This correspondence and the enclosed species lists remain valid until January 1, 2009. Updated consultation letters and species list are available on our website:

(<http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm>)

Thank you for your cooperation, and please contact me at 603-223-2541 for further assistance.

Sincerely yours,



Anthony P. Tur  
Endangered Species Specialist  
New England Field Office

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES  
IN CONNECTICUT

There is no federally-designated Critical Habitat in Connecticut. The following are federally-listed species by county:

Common Name	Species	Status	County/General Distribution
Shortnose sturgeon <sup>1</sup>	<i>Acipenser brevirostrum</i>	E	Atlantic coastal waters and Connecticut River
Indiana bat	<i>Myotis sodalis</i>	E	New Haven/hibernaculum
Bald eagle	<i>Haliaeetus leucocephalus</i>	D <sup>2</sup>	<b>Nesting:</b> Hartford, Litchfield, Middlesex, New Haven, New London, Tolland <b>Wintering:</b> entire state, major rivers
Piping plover	<i>Charadrius melodus</i>	T	<b>Nesting:</b> Fairfield, Middlesex, New Haven, New London (coastal beaches only) <b>Migratory:</b> Atlantic Coast
Roseate tern	<i>Sterna dougallii dougallii</i>	E	<b>Nesting:</b> New Haven (Faulkner Island) <b>Migratory:</b> Atlantic Coast
Bog turtle	<i>Clemmys muhlenbergii</i>	T	Fairfield, Litchfield
Dwarf wedgemussel	<i>Alasmidonta heterodon</i>	E	Hartford (Connecticut River watershed)
Puritan tiger beetle	<i>Cicindela puritana</i>	T	Hartford, Middlesex (Connecticut River floodplain)
Northeastern beach tiger beetle	<i>Cicindela dorsalis dorsalis</i>	T	Coastal beaches/extirpated
Small whorled pogonia	<i>Isotria medeoloides</i>	T	Litchfield, New Haven
Sandplain gerardia	<i>Agalinus acuta</i>	E	Hartford
Chaffseed	<i>Scwalbea americana</i>	E	New London/historic

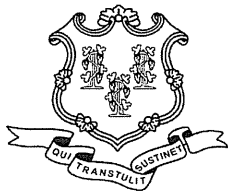
<sup>1</sup> Principal responsibility for this species is vested with the National Marine Fisheries Service.

<sup>2</sup> Delisted. Protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.





# CTDEP May 8, 2008 Letter



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Natural Resources  
Division of Wildlife  
79 Elm Street, 6<sup>th</sup> Floor  
Hartford, CT 06106  
Natural Diversity Data Base

May 8, 2008

Ms. Coreen Kelsey  
Vanasse Hangen Brustlin, Inc.  
54 Tuttle Place  
Middletown, CT 06457

RE: Proposed construction of a telecommunications tower facility on Planeta Road in  
Marlborough Connecticut

Dear Ms. Kelsey:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed construction of a telecommunications tower facility on Planeta Road in Marlborough Connecticut. According to our information, there are records for State Endangered *Crotalus horridus* (timber rattlesnake) and State Special Concern *Terrapene carolina carolina* (eastern box turtle) from the vicinity of this project site. I have sent your letter to Julie Victoria (DEP-Wildlife; 860-642-7239) for further review. She will write to you directly with her comments.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Environmental Protection's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

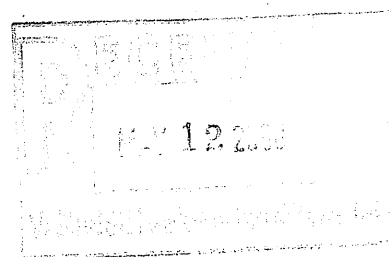
Please contact me if you have further questions at (860) 424-3592. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,

Dawn M. McKay  
Biologist/Environmental Analyst

Cc: Julie Victoria, NDDDB#16152

DMM/ss



**CT DEP**

**Transportation  
Land Development  
Environmental  
Services**



imagination | innovation | energy Creating results for our clients and benefits for our communities

October 20, 2008

*Vanasse Hangen Brustlin, Inc.*

Ref: 41240.67

Ms. Julie Victoria  
Wildlife Biologist  
Department of Environmental Protection  
Franklin Wildlife Management Area  
391 Route 32  
N. Franklin, Connecticut 06254

Re: Eastern Box Turtle and Timber Rattlesnake Habitat Assessment  
Proposed Verizon Wireless Facility  
NDDB - 16152  
Planeta Road, Marlborough, Connecticut

Dear Ms. Victoria:

Vanasse Hangen Brustlin, Inc. (VHB) has been retained by Cellco Partnership d.b.a. Verizon Wireless (Verizon Wireless) to review environmental resource information, including threatened or endangered species or designated critical habitats, outlined in 47 CFR Ch.1 § 1.1307 sections (a) and (b) for environmental consequences pursuant to the Federal Communications Commission ("FCC or Commission") requirements. As a licensing agency, the FCC complies with NEPA by requiring its licensees to review their proposed actions for environmental consequences. Rules implementing NEPA are found at Title 47 of the Code of Federal Regulations, Part 1, Subpart I, rule sections 1.1301 to 1.1319.

VHB understands that Verizon Wireless is proposing to construct a new telecommunications facility on portions of property located on the East Glastonbury Fish & Game Club (EGFGC) property off of Planeta Road in Marlborough, Connecticut. The 90-acre parcel is predominately undeveloped forest with some small scattered clearings/fields and is improved with a club house and rifle range. The club owns significant acreage that consists of adjoining parcels to the north extending to Stagecoach Road generally between the Meshomasic State Forest (to the west) and West Street (to the east). The Site is bound by Route 2 to the south, Meshomasic State Forest to the west and residential properties to the east. A Site location map is enclosed.

The proposed facility will consist of a ±120-foot tall monopole tower within a 50-foot by 75-foot fenced-enclosed compound area. Verizon Wireless antenna will be attached to the monopole and associated ground equipment will be installed at its base. The proposed access/utilities route will extend in a north direction into a forested area off an existing gravel drive that provides access to the EGFGC rifle range and southern portions of the club's property. The proposed tower facility is located within a cleared area removed of trees. Site plans for the proposed development are enclosed.

54 Tuttle Place  
Middletown, Connecticut 06457-1847  
860.632.1500 ■ FAX 860.632.7879  
email: info@vhb.com  
www.vhb.com

A habitat assessment of eastern box turtle (*Terrapene c. carolina*) and timber rattlesnake (*Crotalus horridus*) was performed in response to your letter of May 20, 2008 (enclosed) indicating that these State-listed species occur in the vicinity of the project. A copy of the Natural Diversity Database (NDDDB) map is enclosed for reference. A summary of our assessment is provided below along with recommendations to be implemented during proposed construction activities to avoid possible disturbance to these rare species.

### Site Habitat and Project Improvements

The proposed tower facility is located approximately 100 feet west of the rifle range. An existing gravel road that provides access to the rifle range and southern portions of the club's property will be used to access the tower facility. This existing gravel road, which parallels the north side of the westbound lane of Route 2, traverses a northern red oak-black oak/lowbush blueberry-mountain laurel forest. This forest habitat dominates the subject property including within portions of the development area proposed by Verizon Wireless. A 180± foot long gravel access is proposed from the existing gravel road to gain access to the proposed 50-foot by 75-foot gravel surface tower compound. The proposed access road will travel through the forest habitat to an existing cleared area that is the site of the proposed facility compound. The maturing mixed hardwood upland forest located in the proposed gravel access area is dominated by poletimber (4 to 11 inches diameter breast height [DBH]) sized trees with scattered sawtimber (11 inches DBH and greater) occurring. Evidence of previous forest management activities such as girdled trees and decayed stumps are present throughout the subject property. Dominant tree species include sugar maple (*Acer saccharum*), hickories (*Carya spp.*), red oak (*Quercus rubra*), white oak (*Quercus alba*), and black birch (*Betula lenta*). Mountain laurel (*Kalmia latifolia*), black huckleberry (*Gaylussacia baccata*), mapleleaf viburnum (*Viburnum acerifolium*) and white pine saplings (*Pinus strobus*) occur sporadically in the shrub layer due to the moderately dense overstory. The proposed compound area consists of a shrub-meadow clearing dominated by relatively dense mountain laurel, lowbush blueberry, mapleleaf viburnum, hay-scented fern (*Dennstaedtia punctilobula*), and Christmas fern (*Polystichum acrostichoides*) due to cutting of the overstory a few years ago.

Project improvements will require a slight widening of the existing gravel road in order to provide a 12 foot wide access for construction and maintenance vehicles. In addition, grading is required to develop a generally level pad for the proposed facility compound and an earth berm to separate the nearby rifle range from the nearby gravel access and facility (for safety purposes). The proposed development of this facility will result in the disturbance of approximately one half acre of forest and shrub-meadow habitats.

Photographs of the proposed development areas are enclosed along with a 2006 color aerial photograph with existing and proposed site features noted.



## Eastern Box Turtle and Timber Rattlesnake Habitat Assessment

Eastern box turtles favor old field habitat and deciduous forest ecotones, including power line cuts and logged woodland.<sup>1</sup> Field edges, thickets, marshes, pastures, bogs and stream banks are also preferred habitat.<sup>2</sup> The portion of the subject property proposed for development contains suitable box turtle habitat, although more diverse habitat mosaics (e.g., forest clearings, intermittent streams, old field) exist in the northern portions of the property well removed from the proposed development.

Rattlesnakes favor remote mountainous terrain characterized by steep ledges and rock slides with den sites and foraging areas usually found above 500 feet elevation.<sup>3</sup> Timbered areas with rocky outcroppings, dry ridges and second growth deciduous or coniferous forests are also preferred habitat.<sup>4</sup> The portion of the subject property proposed for development does not appear to contain preferred habitat as it is not located on a ridge and does not contain bedrock or rocky outcroppings. In addition, the elevation of the proposed tower facility is 464 feet, generally below areas that rattlesnakes are found. Preferred rattlesnake habitat does exist on the subject property with areas of ledge and rocky outcroppings on a ridge line located approximately 1,000 feet north and northeast of the proposed tower facility. This area correlates with reported sightings by East Glastonbury Fish & Game Club members; no rattlesnakes have been reported near the rifle range.<sup>5</sup>

Due to the potential for box turtle to use the forest/clearing habitat that will be disturbed by the proposed development and possible migration of summer foraging rattlesnake into the construction area, the following precautions to avoid potential inadvertent impact to these State-listed species during construction activities will be employed by Verizon Wireless.

## Eastern Box Turtle and Timber Rattlesnake Protection Measures

The following is a methodological plan that will avoid mortality to State-listed species as a result of construction activities for the site improvements proposed.

Verizon Wireless understands it is of the utmost importance that the Contractor complies with the requirement for the installation of protective measures and the education of employees and subcontractors performing work on the project site.

The proposed eastern box turtle and timber rattlesnake protection program consists of several components, most notably complete and appropriate isolation of the project perimeter, periodic inspection and maintenance of isolation structures, and mandatory education of all contractors and sub-contractors prior to initiation of work on the site.

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<sup>1</sup> Klemens, M. W. (1993). Amphibians and Reptiles of Connecticut and Adjacent Regions. State Geological and Natural History Survey of Connecticut, Bulletin 112. Natural History Survey of Connecticut, Bulletin 112.

<sup>2</sup> Degraaf, R.M., Rudis D.D. (1983). Amphibians and Reptiles of New England. The University of Massachusetts Press.

<sup>3</sup> Klemens, M. W. (1993). Amphibians and Reptiles of Connecticut and Adjacent Regions. State Geological and Natural History Survey of Connecticut, Bulletin 112. Natural History Survey of Connecticut, Bulletin 112.

<sup>4</sup> Degraaf, R.M., Rudis D.D. (1983). Amphibians and Reptiles of New England. The University of Massachusetts Press.

<sup>5</sup> Personal communication with East Glastonbury Fish & Game Club member. October 19, 2008.



## 1. Isolation Measures

- a. **Schedule:** On-site work is tentatively scheduled to commence upon securing of all necessary permits as early as the spring/summer of 2009 with an anticipated duration of approximately six weeks. Installation of conventional silt fencing, which will also serve as an isolation of the work zone from surrounding areas and required for erosion control compliance, will be performed prior to any earthwork. Vanasse Hangen Brustlin, Inc. will inspect the work zone area prior to barrier installation to ensure the area is free of eastern box turtles and timber rattlesnake.
- b. **Specifications:** The fencing will consist of conventional erosion control woven fabric, installed approximately six inches below surface grade using a Ditch-Witch or similar machine and staked at seven to ten-foot intervals using four-foot oak stakes or approved equivalent. The fencing will be inspected for tears or breeches in the fabric following installation and at approximate one-week intervals or after storm events of 0.5 inch or greater by Vanasse Hangen Brustlin, Inc. Inspections will be conducted throughout the course of the construction project.
- c. **Reports:** Weekly inspection reports (brief narrative and applicable photos) will be sent to CTDEP for compliance verification.
- d. **Location:** The extent of the barrier fencing will be as shown on the site plans as attached.

## 2. Contractor Education:

- a. Prior to work on-site, the Contractor shall attend an educational session with Vanasse Hangen Brustlin, Inc. This orientation and educational session will consist of an introductory session with photos stressing the non-aggressive nature of eastern box turtles and cautions that should be respected when encountering timber rattlesnakes. The absence of need to destroy either of these animals that might be encountered will be stressed during the educational session.
- b. Also stressed in the education session will be means to discriminate between the species of concern and other native species to avoid unnecessary "false alarms".
- c. Contractors will be provided with cell phone and email contacts to be used immediately upon encountering an eastern box turtle or timber rattlesnake. Poster materials will be provided and posted on the job site to maintain worker awareness as the season progresses. A copy of the eastern box turtle caution and timber rattlesnake warning posters are enclosed.



### 3. Reporting

- a. Following completion of the construction project, Vanasse Hangen Brustlin, Inc. will provide a summary report to CTDEP documenting the monitoring and maintenance of the barrier fence.
- b. Any observations of the species of concern will be reported to CTDEP by Vanasse Hangen Brustlin, Inc., with photo-documentation (if possible) and with specific information on the location and disposition of the animal within one week of the encounter.

The eastern box turtle and timber rattlesnake protection measures detailed above will adequately protect these State-listed species in the unlikely event that they are encountered on the subject property during construction activities. Therefore, with the implementation of this plan, Verizon Wireless' proposed development at this property will not have an adverse affect on eastern box turtle or timber rattlesnake.

We respectfully request a written opinion from your office regarding the potential effect of proposed activities on these State-listed species in light of documentation contained herein. At your earliest convenience, please forward correspondence to my attention. Upon receipt of correspondence from your office that the Department finds these protective measures adequate, they will be incorporated into the site plans and the pending Connecticut Siting Council documents. Thank you in advance for your assistance in this matter.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.



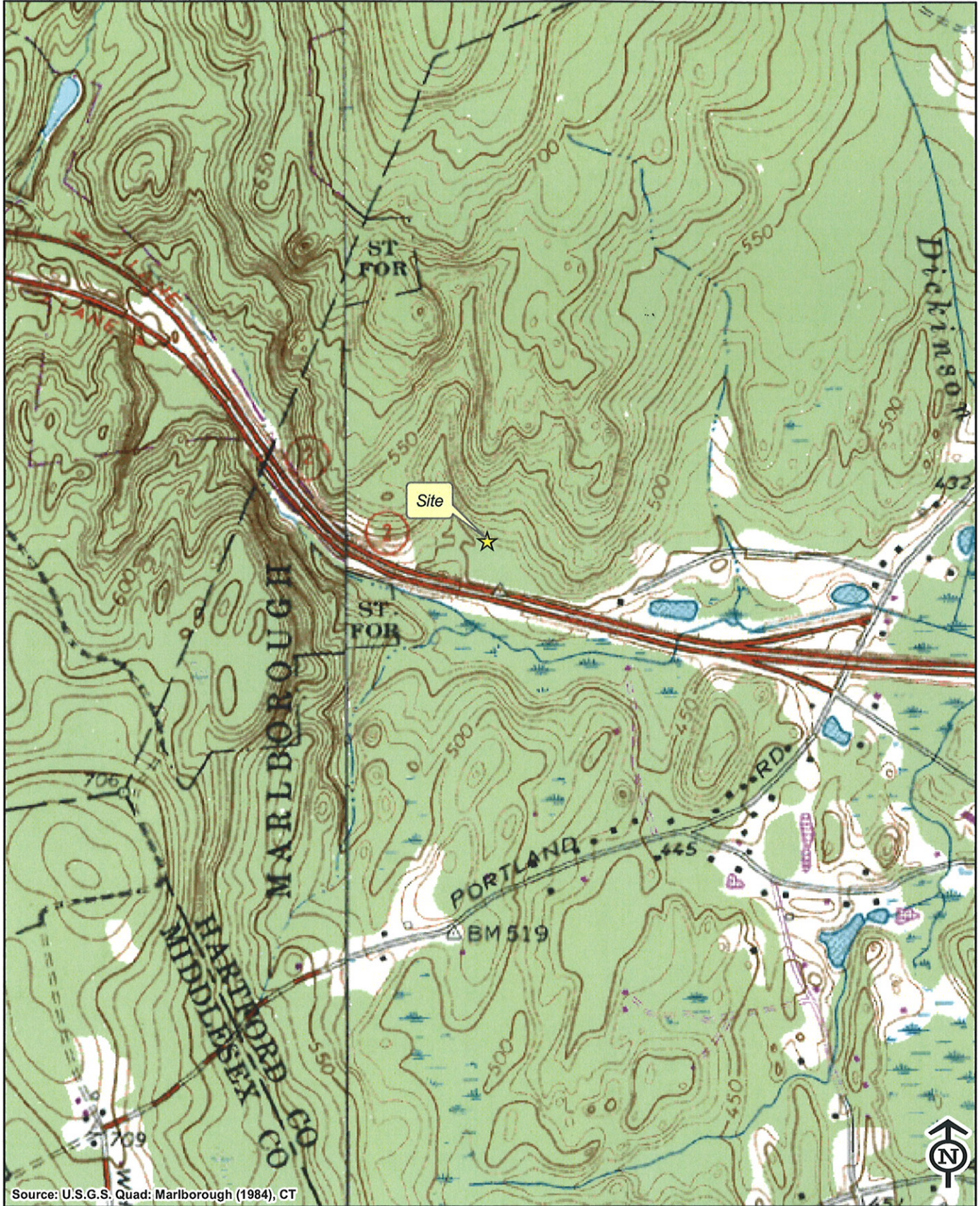
Dean Gustafson  
Senior Environmental Scientist

Enclosures

cc: Alexandria Carter, Verizon Wireless



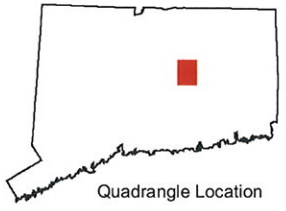




Source: U.S.G.S. Quad: Marlborough (1984), CT

Vanasse Hangen Brustlin, Inc.

**Figure 1**  
**Site Location Map**  
**Planeta Road**  
**Marlborough, Connecticut**



Quadrangle Location



Cellco Partnership

d.b.a. **verizon**wireless  
**WIRELESS COMMUNICATIONS FACILITY**

MARLBOROUGH 2  
 PLANETA ROAD  
 MARLBOROUGH, CT 06447

SITE DIRECTIONS	
FROM:	95 EAST MAIN DRIVE EAST HARTFORD, CONNECTICUT
TO:	END OF PLANETA ROAD MARLBOROUGH, CONNECTICUT
1.	Start on going EAST on E MAIN DR.
2.	Turn LEFT into WASHINGTON ST. and follow street drive to the end of PLANETA RD
3.	Turn LEFT into WASHINGTON ST. and follow street drive to the end of PLANETA RD
4.	Turn LEFT into WASHINGTON ST. and follow street drive to the end of PLANETA RD
5.	Turn LEFT into WASHINGTON ST. and follow street drive to the end of PLANETA RD
6.	Turn LEFT into WASHINGTON ST. and follow street drive to the end of PLANETA RD
7.	End at Planeta Rd Marlborough, CT 06447.

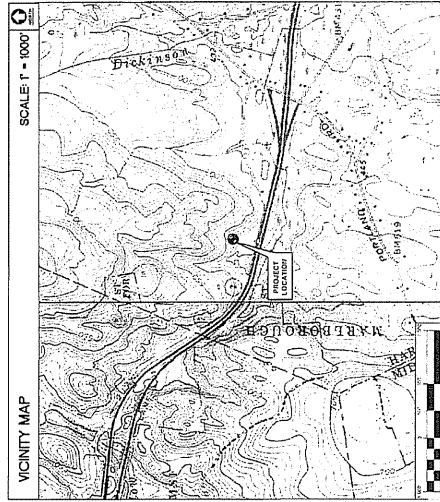
**GENERAL NOTES**

- PROPOSED ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELCO PARTNERSHIP.

**SITE INFORMATION**

THE SCOPE OF WORK SHALL INCLUDE:

- THE CONSTRUCTION OF A 50'x75' FENCED WIRELESS COMMUNICATIONS COMPOUND WITH A 100' WIDE LEASE AREA.
- INSTALLATION OF TWO (2) PNEUMATIC TOWER ANTENNAS AND PROPOSED TO BE LOCATED AT A 100' WIDE LEASE AREA. (SEE PROJECT'S SITE PLAN FOR ANTENNA LOCATIONS AND HEIGHTS.)
- INSTALLATION OF TWO (2) PNEUMATIC TOWER ANTENNAS AND PROPOSED TO BE LOCATED AT A 100' WIDE LEASE AREA. (SEE PROJECT'S SITE PLAN FOR ANTENNA LOCATIONS AND HEIGHTS.)
- POWER AND TELECO UTILITIES SHALL BE ROUTED UNDERGROUND FROM EXISTING RESPECTIVE UTILITIES TO THE PROPOSED WIRELESS COMMUNICATIONS COMPOUND. UTILITIES SHALL BE ROUTED FROM UTILITY COMPASS TO THE PROPOSED WIRELESS COMMUNICATIONS COMPOUND. UTILITIES SHALL BE ROUTED FROM UTILITY COMPASS TO THE PROPOSED WIRELESS COMMUNICATIONS COMPOUND. UTILITIES SHALL BE ROUTED FROM UTILITY COMPASS TO THE PROPOSED WIRELESS COMMUNICATIONS COMPOUND.
- FINAL DESIGN FOR TOWER AND ANTENNA HEIGHTS SHALL BE INCLUDED IN THE FINAL CONSTRUCTION DOCUMENTS.
- THE WIRELESS FACILITY INTERFERENCE WILL BE DESCRIBED IN ACCORDANCE WITH THE 2004 INTERNATIONAL BUILDING CODE AS ADOPTED BY THE 2005 CONNECTICUT SUPPLEMENT.
- THERE WILL NOT BE ANY LIGHTING UNLESS REQUIRED BY THE FCC OR THE P.A.
- THERE WILL NOT BE ANY SIGNS OR ADVERTISING ON THE ANTENNAS OR EQUIPMENT.
- FOR ADDITIONAL NOTES AND DETAILS REFER TO THE ACCOMPANYING DRAWINGS.



**PROJECT SUMMARY**

SITE NAME: MARLBOROUGH 2  
 SITE ADDRESS: PLANETA ROAD, MARLBOROUGH, CT 06447  
 PROPERTY OWNER: EAST GASTONBURY WIRELESS COMMUNICATIONS, INC., 111 W. 100 BOX 84, GASTONBURY, CT 06033  
 LESSEE/TENANT: CELLCO PARTNERSHIP, 445 WEST WASHINGTON ST., MARLBOROUGH, CT 06108  
 CONTACT PERSON: SANDY CARTER, 1509 SPY HILL RD, SUITE 111, MARLBOROUGH, CT 06108  
 TOWER COORDINATES: COORDINATES BASED ON NAD 83 - C LETTER GRIDING ELEV: 464.9 A.M.S.L.  
 ASSOCIATES LLC AND DATED JUNE 16, 2009.

**SHEET INDEX**

SHT NO.	DESCRIPTION	REV.
1-1	TITLE SHEET	0
ABUT-1	ABUTTERS MAP	0
ABUT-2	ABUTTERS LIST	0
SP-1	SITE PLAN	0
C-1	PARTIAL SITE PLAN	0
C-2	CONFOUNDED PLAN AND ELEVATION	0
C-3	SITE DETAILS AND EROSION CONTROL NOTES	0
C-4	SITE UTILITY DETAILS AND SHELTER ELEVATIONS	0
C-5	SHELTER FOUNDATION PLAN, DETAILS AND NOTES	0

DESIGNED BY: CTC  
 DRAWN BY: CAC  
 CHECKED BY: CAC  
 DATE: 07/17/09

DATE: 07/17/09  
 SCALE: AS NOTED  
 JOB NO.: 08020

TITLE SHEET

T-1

Sheet No. 1 of 3

VERIZON WIRELESS  
 MARLBOROUGH 2  
 MARLBOROUGH CT 06447

CELLCO PARTNERSHIP  
 445 WEST WASHINGTON ST.  
 MARLBOROUGH, CT 06108

DESIGNED BY: CTC  
 DRAWN BY: CUS  
 CHECK BY: DMG

NO.	DATE	DESCRIPTION	BY	CHECKED BY
01	07/11/08	PRELIMINARY	CTC	DMG
02	07/11/08	REVISED	CTC	DMG
03	07/11/08	REVISED	CTC	DMG
04	07/11/08	REVISED	CTC	DMG
05	07/11/08	REVISED	CTC	DMG
06	07/11/08	REVISED	CTC	DMG
07	07/11/08	REVISED	CTC	DMG
08	07/11/08	REVISED	CTC	DMG
09	07/11/08	REVISED	CTC	DMG
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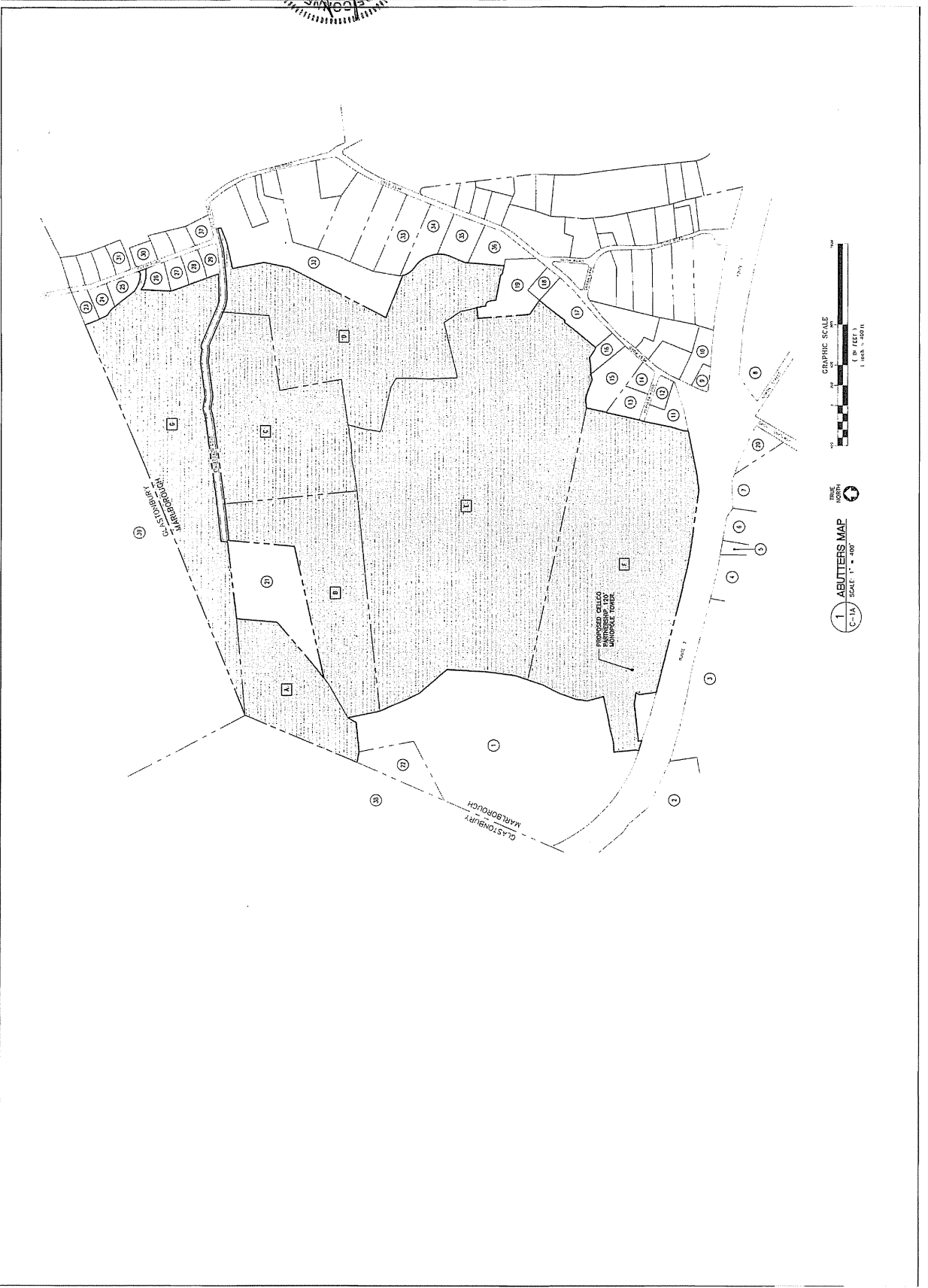
DATE: 07/11/08  
 SCALE: AS SHOWN  
 JOB NO. 08043  
 ABUTTERS  
 MAP

VERIZON WIRELESS  
 WIRELESS COMMUNICATIONS FACILITY  
 MARLBOROUGH 2  
 MARLBOROUGH, CT 06447

NATBMM  
 d.b.a. VERIZON Wireless  
 Carco Partnership

STATE OF CONNECTICUT  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 10164  
 JOHN A. BROWN  
 1000 WEST MAIN STREET  
 SUITE 200  
 WEST HAVEN, CT 06490  
 (203) 792-1111

Sheet No. 1 of 2  
**ABUT-1**



STATE OF CT  
 DEPT OF REGISTRY  
 100 N. MAIN ST.  
 HARTFORD, CT 06103

DATE: 07/17/08  
 SCALE: AS NOTED  
 JOB NO. 08013

ABUTTERS LIST

ABUT-2  
 Sheet No. 2 of 2

VERIZON WIRELESS  
 VERIZON COMMUNICATIONS PARTNERS  
 MARLBOROUGH 2  
 MARLBOROUGH, CT 06447

VERIZON WIRELESS  
 VERIZON COMMUNICATIONS PARTNERS  
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 MARLBOROUGH, CT 06447

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 MARLBOROUGH, CT 06447

VERIZON WIRELESS  
 VERIZON COMMUNICATIONS PARTNERS  
 MARLBOROUGH 2  
 MARLBOROUGH, CT 06447

MARLBOROUGH ABUTTERS

Manifold/Block/Lot	Property Owner and Mailing Address	Property Address
1. 2-42	State of Connecticut 80 Washington Street Hartford, CT 06106	West Road
2. 2-13-1	State of Connecticut c/o DEP Hedge Road Marlborough, CT 06447	Portland Road
3. 2-13-2+15	State of Connecticut c/o DEP Hedge Road Marlborough, CT 06447	Portland Road
4. 2-13-16, 17 and 18	Bond-Avanti Reversible Trust 16 Portland Road Marlborough, CT 06447	36 Portland Road
5. 2-13-29 and 30	Carl Thomas 32 Portland Road Marlborough, CT 06447	32 Portland Road
6. 2-13-19	State of Connecticut c/o DEP Hedge Road Marlborough, CT 06447	Portland Road
7. 2-13-20	State of Connecticut c/o DOT 30 Washington Street Hartford, CT 06106	Portland Road
8. 2-17A-1	Thomas E. Ciffo c/o NE Recyclers of Windham 48 Beeton Post Road Windham, CT 06226	391 North Main Street
9. 2-12A-3	276 Main Street Realty LLC P.O. Box 31 Portland, CT 06489	12 West Road
10. 2-12A-2A	Tina A. and Kenneth O. Chubb, Jr 666 Main Street Marlborough, CT 06447	16 West Road
11. 2-45A	John F. Platten 5 Platten Road Marlborough, CT 06447	5 Platten Road
12. 2-62	John F. and Barbara Platten 19 West Road Marlborough, CT 06447	19 West Road
13. 2-42A	Craig S. Charlock 6 Platten Road Marlborough, CT 06447	6 Platten Road
14. 2-47	Fred and Ruby Maglietta 22 West Road Marlborough, CT 06447	23 West Road
15. 2-66	Miriam M. Prozenzer Lansem J. Conner 23 West Road Marlborough, CT 06447	23 West Road
16. 2-69	William Gombark 31 West Road Marlborough, CT 06447	31 West Road
17. 2-48B	Arthur H. White 33 West Road Marlborough, CT 06447	33 West Road
18. 2-49D	Beverly-Cora Walkins 4 West Road Marlborough, CT 06447	47 West Road
19. 2-49E	Yvonne F. Bolton 51 West Road Marlborough, CT 06447	51 West Road

MARLBOROUGH ABUTTERS

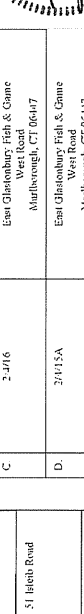
Manifold/Block/Lot	Property Owner and Mailing Address	Property Address
20. 2-42-21	Joseph J. and Carol C. Ashlar Marlborough, CT 06447	2-1 Portland Road
21. 2-417	Aldo P. Pevens and James A. and Aldo P. Pevens, Jr 38 Ibleb Road Marlborough, CT 06447	Ibleb Road
22. 2-41	State of Connecticut c/o DEP Hedge Road Marlborough, CT 06447	West Road
23. 2-424	Donald E. Lovis 65 Ibleb Road Marlborough, CT 06447	65 Ibleb Road
24. 2-423	Howard W. and Edith M. Walker Marlborough, CT 06447	61 Ibleb Road
25. 2-422	Keth F. and Linda V. Rovek 57 Ibleb Road Marlborough, CT 06447	57 Ibleb Road
26. 2-421	Leola A. Manour and Rudolph H. Kamm, Jr 51 Ibleb Road Marlborough, CT 06447	51 Ibleb Road
27. 2-420	Michael L. and Deborah A. Guffield 45 Ibleb Road Marlborough, CT 06447	45 Ibleb Road
28. 2-419	Lance W. Gilman, Jr. Marlborough, CT 06447	43 Ibleb Road
29. 2-418	Margaret A. and Donald G. Brunell 39 Ibleb Road Marlborough, CT 06447	39 Ibleb Road
30. 2-414	James A. and Patricia A. Proven 50 Ibleb Road Marlborough, CT 06447	50 Ibleb Road
31. 2-415	Mathew D. and Debra A. Archambault 36 Ibleb Road Marlborough, CT 06447	36 Ibleb Road
32. 2-413	Joseph H. and Patricia A. Ruffin 27 Ibleb Road Marlborough, CT 06447	27 Ibleb Road
33. 2-412R	Suzanne S. and Robert A. Treckenfeld 20 Stage Harbor Road Marlborough, CT 06447	81 West Road
34. 2-412R	Mary Scherban Tombe P.O. Box 262 Marlborough, CT 06447	75 West Road
35. 2-412R	Jennifer L. and Alan P. Pauciano 71 West Road Marlborough, CT 06447	71 West Road
36. 2-412R	July Breese Clarke and Robert J. Clarke 61 West Road Marlborough, CT 06447	61 West Road
37. 2-411	Glenn Byrne 38 Ibleb Road Marlborough, CT 06447	38 Ibleb Road

MARLBOROUGH ABUTTERS

Manifold/Block/Lot	Property Owner and Mailing Address	Property Address
38. K11 S84	State of Connecticut c/o DEP 79 Elm Street Hartford, CT 06106	Toll Gate Road
39. M112N9	Native Conservancy of CT, Inc 55 High Street Middletown, CT 06457	Windham Road

MARLBOROUGH ABUTTERS

Manifold/Block/Lot	Property Owner and Address	Property Address
A. 2-417A	East Glastonbury Fish & Game West Road Marlborough, CT 06447	East Glastonbury Fish & Game West Road Marlborough, CT 06447
B. 2-416A	East Glastonbury Fish & Game West Road Marlborough, CT 06447	East Glastonbury Fish & Game West Road Marlborough, CT 06447
C. 2-416	East Glastonbury Fish & Game West Road Marlborough, CT 06447	East Glastonbury Fish & Game West Road Marlborough, CT 06447
D. 2-415A	East Glastonbury Fish & Game West Road Marlborough, CT 06447	East Glastonbury Fish & Game West Road Marlborough, CT 06447
E. 2-413	East Glastonbury Fish & Game West Road Marlborough, CT 06447	East Glastonbury Fish & Game West Road Marlborough, CT 06447
F. 2-411	East Glastonbury Fish & Game West Road Marlborough, CT 06447	East Glastonbury Fish & Game West Road Marlborough, CT 06447
G. 2-423	East Glastonbury Fish & Game West Road Marlborough, CT 06447	East Glastonbury Fish & Game West Road Marlborough, CT 06447



VERIZON WIRELESS  
 VERIZON COMMUNICATIONS PARTNERS  
 MARLBOROUGH 2  
 MARLBOROUGH, CT 06447

VERIZON WIRELESS  
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VERIZON WIRELESS  
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 MARLBOROUGH 2  
 MARLBOROUGH, CT 06447

VERIZON WIRELESS  
 VERIZON COMMUNICATIONS PARTNERS  
 MARLBOROUGH 2  
 MARLBOROUGH, CT 06447











NO.	REV.	DATE	BY	DESCRIPTION
1				ISSUED FOR PERMITS
2				ISSUED FOR PERMITS
3				ISSUED FOR PERMITS
4				ISSUED FOR PERMITS
5				ISSUED FOR PERMITS
6				ISSUED FOR PERMITS
7				ISSUED FOR PERMITS

VERIZON WIRELESS  
MARLBOROUGH 2  
MARLBOROUGH, CT 06447

DATE: 07/10/08  
SCALE: AS NOTED  
JOB NO. 00043

SITE UTILITY  
DETAILS AND  
SHELTER ELEVATIONS

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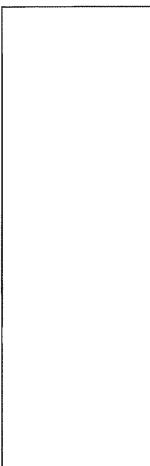
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VERIZON WIRELESS  
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SITE UTILITY  
DETAILS AND  
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**NOTES**

- BACK FILL SHALL NOT CONTAIN ASHES, CHIBERS, SHELS, AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL BE SUITABLE TO 95% MAXIMUM DENSITY. 2" IN MAXIMUM DIMENSION.
- WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

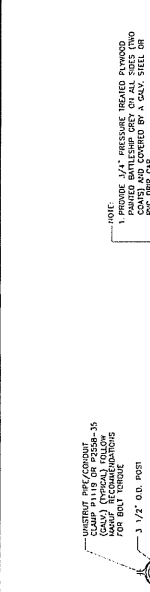
**3 TYPICAL BURIAL GROUND CABLE DETAIL**  
NOT TO SCALE



**NOTES**

- THE CLEAN FILL SHALL PASS THROUGH A 3/4" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL BE SUITABLE TO 95% MAXIMUM DENSITY. 2" IN MAXIMUM DIMENSION.
- WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

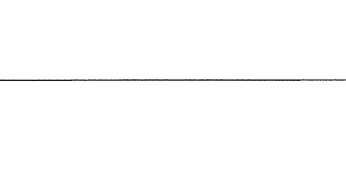
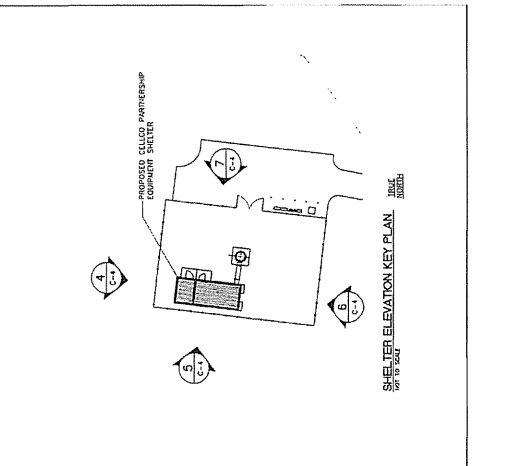
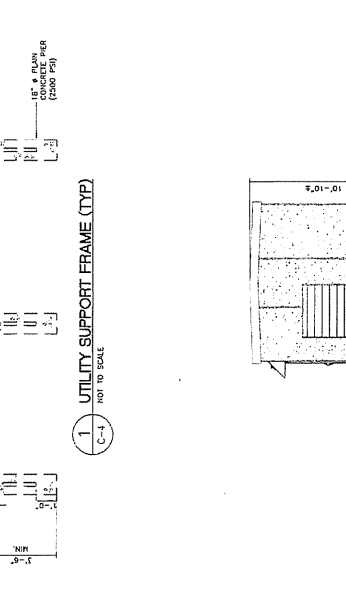
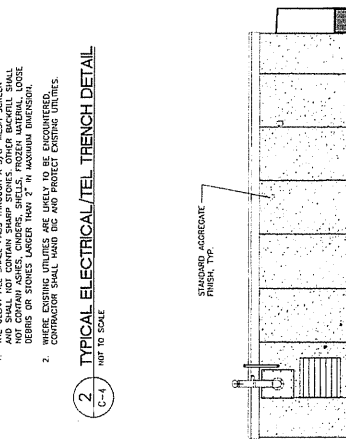
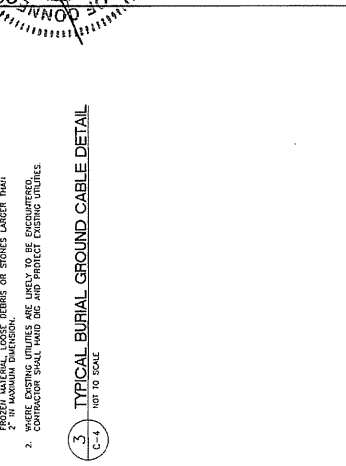
**2 TYPICAL ELECTRICAL/TEL. TRENCH DETAIL**  
NOT TO SCALE



**NOTE:**

- PROVIDE 3/4" PRESSURE TREATED PLYWOOD SHEATHING AND 2" X 4" STUDS (MIN 16" O.C.) AND COVERED BY 6 GAL. STEEL OR PVC DRIP CAP.
- CONTRACTOR TO MAKE PROVISIONS FOR GENERATOR PLUG ON SITE WITH PROVISION FOR TIE-ROD CONNECTION.

**1 UTILITY SUPPORT FRAME (TYP)**  
NOT TO SCALE



**PROPOSED CELOD PARTNERSHIP EQUIPMENT SHELTER**

**7**  
C-4  
SCALE: 1/4" = 1'-0"

**6**  
C-4  
SCALE: 1/4" = 1'-0"

**5**  
C-4  
SCALE: 1/4" = 1'-0"

**4**  
C-4  
SCALE: 1/4" = 1'-0"

**3**  
C-4  
NOT TO SCALE

**2**  
C-4  
NOT TO SCALE

**1**  
C-4  
NOT TO SCALE

SHELTER ELEVATION KEY PLAN  
SCALE: 1/4" = 1'-0"





STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
FRANKLIN WILDLIFE MANAGEMENT AREA



391 ROUTE 32  
NORTH FRANKLIN, CT 06254  
TELEPHONE: (860) 642-7239

May 20, 2008

Ms. Coreen Kelsey  
Vanasse Hangen Brustlin, Inc.  
54 Tuttle Place  
Middletown, Ct 06457

re: proposed construction of telecommunication towers on Planeta Road, Marlborough

Dear Ms. Kelsey:

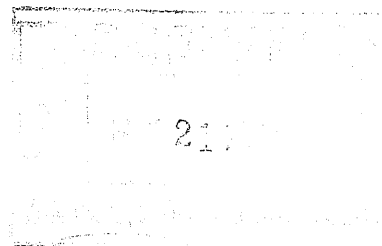
Your request was forwarded to me on 5/15/08 from Dawn McKay of the Department of Environmental Protection's (DEP) Natural Diversity Data Base (NDDDB). Their records indicate that a state endangered species, the timber rattlesnake (*Crotalus horridus*), and a state species of special concern; the Eastern box turtle (*Terrapene carolina*) occur in the vicinity of this project.

Rattlesnakes are actively foraging in Connecticut between April 1 and October 31 and your project site is within the summer foraging habitat for timber rattlesnakes. Populations of this reptile have declined dramatically in recent years, and the timber rattlesnake is currently protected by state laws which prohibit the taking or killing of this reptile. Please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEP Wildlife Division should be requested.

Eastern box turtles require old field and deciduous forest habitats, which can include power lines and logged woodlands. They are often found near small streams and ponds, the adults are completely terrestrial but the young may be semiaquatic, and hibernate on land by digging down in the soil from October to April. They have an extremely small home range and can usually be found in the same area year after year. This species is dormant from November 1 to April 1.

The Wildlife Division recommends that a herpetologist familiar with the habitat requirements of the timber rattlesnake and Eastern box turtle conduct surveys. A report summarizing the results of such surveys should include habitat descriptions, reptile species list and a statement/resume giving the herpetologist's qualifications. The DEP does not maintain a list of herpetologists in the state. A DEP permit may be required by the herpetologist to conduct survey work, you should ask if your herpetologist has one. The results of this investigation can be forwarded to the Wildlife Division and, after evaluation, recommendations for additional surveys, if any, will be made. I recommend that workers be notified of the existence of rattlesnakes in the area. Please be advised that encounters may be common during the active period. Workers should be advised and prepared to observe a venomous reptile that it is illegal to kill.


The Wildlife Division has not made an on-site inspection of the project area nor been provided with details or a timetable of the work to be done. Again, please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEP Wildlife Division should be requested. I recommend that any work be done during the snakes' dormant period, October - March, that workers be notified of the existence of rattlesnakes in the area, and that they be apprised of the state regulations protecting this endangered species. I would like to request that any observations of rattlesnakes while workers are in the area be reported to the Wildlife Division so that I can determine habitat use patterns and dispersal.



Standard protocols for protection of wetlands should be followed and maintained during the course of the project. Additionally, all silt fencing should be removed after soils are stable so that reptile and amphibian movement between uplands and wetlands is not restricted.

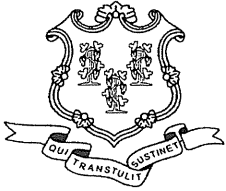
Please be advised that the Wildlife Division has not made a field inspection of the project nor have we seen detailed timetables for work to be done. Consultation with the Wildlife Division should not be substituted for site-specific surveys that may be required for environmental assessments. The time of year when this work will take place will affect these species if they are present on the site when the work is scheduled. Please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEP Wildlife Division should be requested. If the proposed project has not been initiated within 6 months of this review, contact the NDDB for an updated review. If you have any additional questions, please feel free to contact me at [Julie.Victoria@ct.gov](mailto:Julie.Victoria@ct.gov), please reference the NDDB # at the bottom of this letter when you e-mail. Thank you for the opportunity to comment.

Sincerely,

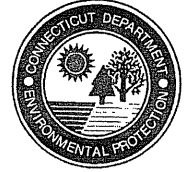


Julie Victoria  
Wildlife Biologist  
Franklin Wildlife Management Area  
391 Route 32  
N. Franklin, CT 06254

cc: NDDB – 16152



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Natural Resources  
Division of Wildlife  
79 Elm Street, 6<sup>th</sup> Floor  
Hartford, CT 06106  
Natural Diversity Data Base

May 8, 2008

Ms. Coreen Kelsey  
Vanasse Hangen Brustlin, Inc.  
54 Tuttle Place  
Middletown, CT 06457

RE: Proposed construction of a telecommunications tower facility on Planeta Road in  
Marlborough Connecticut

Dear Ms. Kelsey:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed construction of a telecommunications tower facility on Planeta Road in Marlborough Connecticut. According to our information, there are records for State Endangered *Crotalus horridus* (timber rattlesnake) and State Special Concern *Terrapene carolina carolina* (eastern box turtle) from the vicinity of this project site. I have sent your letter to Julie Victoria (DEP-Wildlife; 860-642-7239) for further review. She will write to you directly with her comments.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Environmental Protection's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

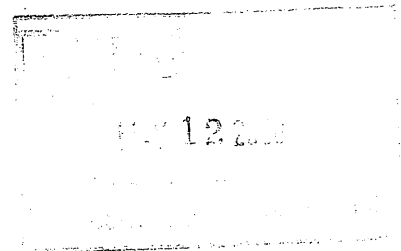
Please contact me if you have further questions at (860) 424-3592. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

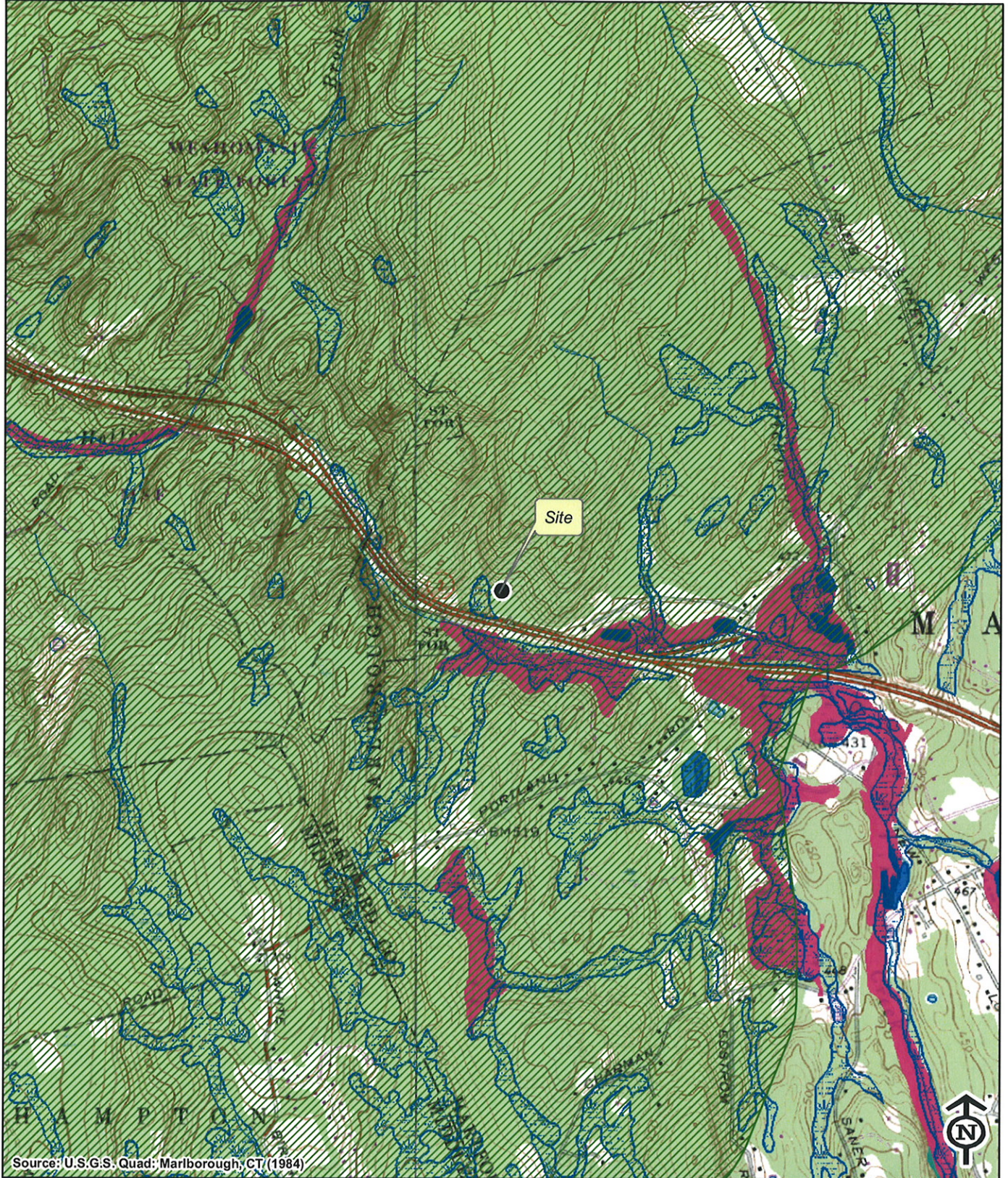
Sincerely,

Dawn M. McKay  
Biologist/Environmental Analyst

Cc: Julie Victoria, NDDB#16152

DMM/ss

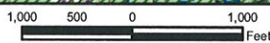




Source: U.S.G.S. Quad: Marlborough, CT (1984)

**Legend**

- Site
- ▨ NDDB Areas (buffered; last updated 06/08)
- ▨ Wetlands
- ▨ Open Water
- FEMA Flood Zone**
- ▨ 100 Year Flood Zone
- ▨ 500 Year Flood Zone
- ▨ Floodway in Zone AE
- ▨ Other Flood Areas



**Vanasse Hangen Brustlin, Inc.**  
**Natural Diversity Data Base (NDDB)**  
**State and Federally Listed Endangered,**  
**Threatened, and Special Concern Species**  
**and Significant Natural Communities Screen**  
**Proposed Verizon Wireless Facility**  
**Marlborough 2**  
**Planeta Road, Marlborough, Connecticut**

October 20, 2008



**Vanasse Hangen Brustlin, Inc.**  
**PHOTOLOG DOCUMENTATION**  
Proposed Verizon Wireless Facility  
Planeta Road, Marlborough, Connecticut



Photo 1: View of East Glastonbury Fish & Game Club house, looking east from existing gravel road.



Photo 2: View of existing gravel road and rifle range canopy, looking east.

**Vanasse Hangen Brustlin, Inc.**  
**PHOTOLOG DOCUMENTATION**  
Proposed Verizon Wireless Facility  
Planeta Road, Marlborough, Connecticut



Photo 3: View of rifle range, looking north from existing gravel road.



Photo 4: View of proposed gravel access (existing gravel road in foreground), looking north.



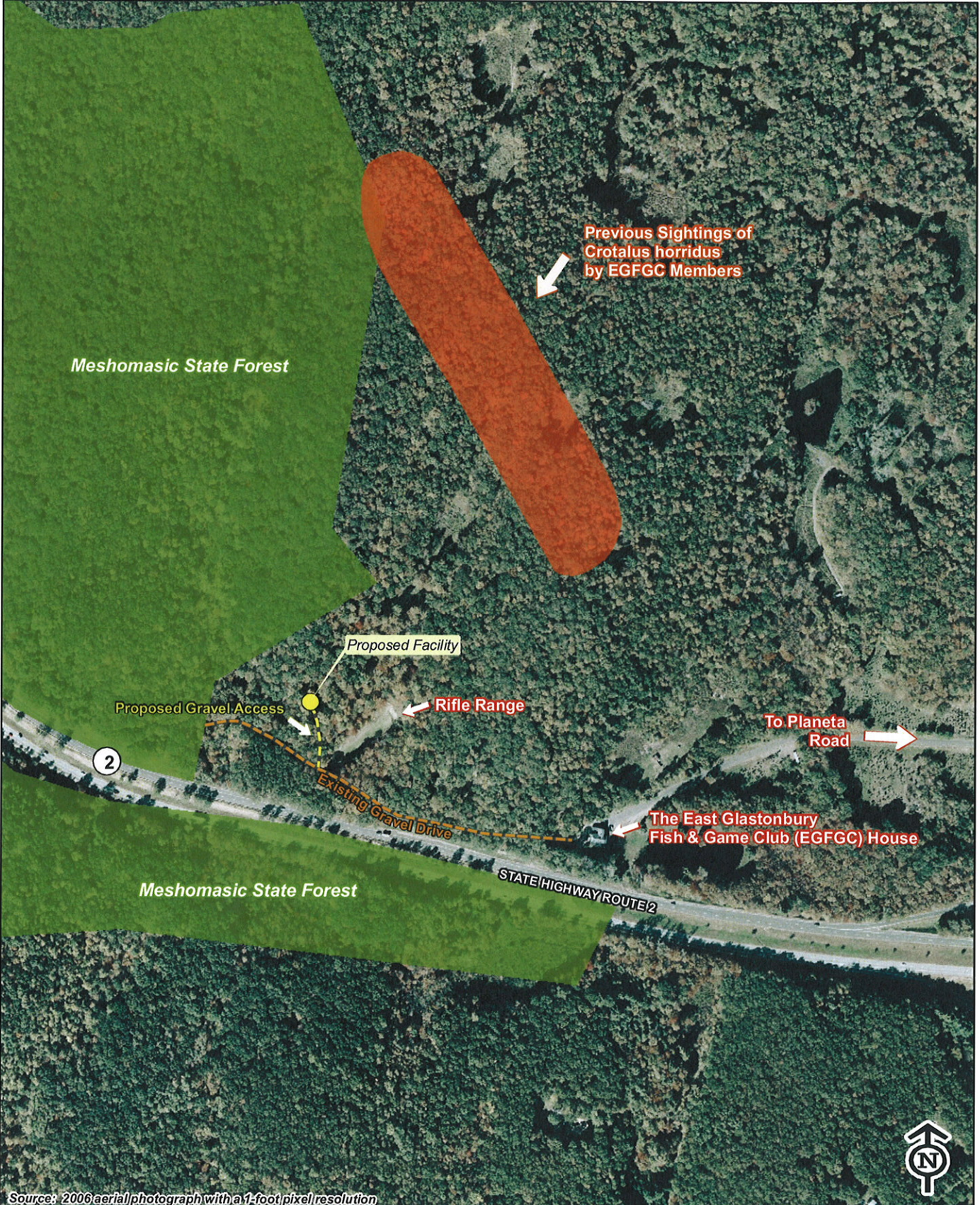
**Vanasse Hangen Brustlin, Inc.**  
PHOTOLOG DOCUMENTATION  
Proposed Verizon Wireless Facility  
Planeta Road, Marlborough, Connecticut



Photo 3: View of proposed gravel access, looking north.








Photo 4: View of proposed tower facility (existing cleared area), looking north.



Source: 2006 aerial photograph with a 1-foot pixel resolution

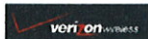
**Legend**

-  Proposed Facility Site
-  Proposed Gravel Access
-  Existing Gravel Drive
-  Previous Sightings of Crotalus horridus by EGFGC Members
-  Meshomasic State Forest



Vanasse Hangen Brustlin, Inc.

2006 Aerial Photograph  
 Proposed Verizon Wireless  
 Telecommunications Facility  
 Marlborough 2  
 Planeta Road  
 Marlborough, Connecticut



# CAUTION

## EASTERN BOX TURTLES ARE KNOWN TO INHABIT THIS AREA



**Identification:** Eastern box turtles (*Terrapene carolina*) are terrestrial turtles that may reach 8 inches in length. The shell (carapace) is high, dome-shaped, and has a low keel (ridge down middle of shell). The color of the shell is brown, black, tan, or olive and usually has a variable pattern of bright yellow or orange blotches or radiating lines. The belly (plastron) is olive, tan, or brown. It is often smudged with black. A single hinge runs across the plastron. The front legs are heavily scaled and range from black, reddish brown, tan, or grey in color. The sides of the head and neck are marked with yellow and orange spots or lines. The upper jaw is hooked at the end and without a notch.

**What to do if you find an eastern box turtle:** Eastern box turtles are protected by Connecticut's threatened and endangered species legislation and **cannot** be injured, killed, or retained as a pet. If you find a box turtle move the turtle to a safe location away from any construction activity in the direction that the turtle was heading. Pick up the turtle by its shell (carapace) between the front and hind legs. Be sure to hold the turtle closer to their hind legs as they can reach over and bite if your hands are too close to the head. The turtle may hiss and should retract into its shell.

**Who to contact:** Please report any findings of Eastern box turtle to **Dean Gustafson of Vanasse Hangen Brustlin, Inc. at (860) 632-1500 ext 2339.**

# WARNING

## TIMBER RATTLESNAKES ARE KNOWN TO INHABIT THIS AREA



**Identification:** The timber rattlesnake (*Crotalus horridus*) is a venomous snake that could be encountered at this property. Rattlesnakes can usually be identified by the distinctive rattle at the tip of the tail. The timber rattlesnake is a heavy-bodied snake that occurs in 2 color variations in Connecticut. The yellow variation has black or brown crossbands on a yellow, brown or gray background. The crossbands, which may be V-shaped, break up toward the head to form a row of dark spots down the back and each side. The dark variation has a heavy speckling of black or very dark brown that hides much of the lighter pigment.

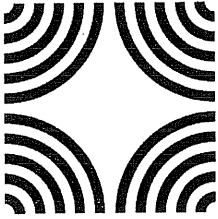
**What to do if you find a rattlesnake:** Timber rattlesnakes are protected by Connecticut's threatened and endangered species legislation and **cannot** be killed. If you observe anyone killing a rattlesnake, report the violation to the state TIP (Turn in Poachers) Program at 1-800-842-HELP.

If you find a rattlesnake, **do not** attempt to remove the snake on your own; they can be aggressive when handled. Timber rattlesnakes usually detect approaching humans and move away to hide. If a sleeping rattlesnake is encountered, it may recoil into a defensive posture and rattle. When this situation occurs, the best solution is to back away slowly. Snake vision is designed to detect motion; quick movements may further agitate the snake.

**Who to contact:** Usually, human presence is sufficient enough to drive off a rattlesnake. **However, if a timber rattlesnake persists, please contact Dean Gustafson of Vanasse Hangen Brustlin, Inc. at (860) 632-1500 ext. 323 for assistance.** An individual qualified by the Connecticut Department of Environmental Protection Wildlife Division will be sent to handle and remove the rattlesnake. Please help conserve this important species and report any sightings.

**If you are bitten:** Finally, rattlesnake bites are rare in Connecticut. However, if a bite occurs, immediate medical attention should be sought. The victim should remain calm as an increased heart rate will speed up the spread of venom. The traditional snake bite treatment of a tourniquet and sucking out of the venom is not recommended.

**SHPO**



Connecticut Commission on Culture & Tourism

June 24, 2008

Historic Preservation  
and Museum Division

One Constitution Plaza  
Second Floor  
Hartford, Connecticut  
06103

860.256.2800  
860.256.2763 (f)

Ms. Nicole Dentamaro  
Vanasse Hangen Brustlin Inc.  
54 Tuttle Place  
Middletown, CT 06457-1847

Subject: Verizon Wireless Telecommunications Facilities  
Planeta Road (East Glastonbury Fish & Game Club)  
Marlborough, CT

Dear Ms. Dentamaro:

The State Historic Preservation Office has reviewed the archaeological reconnaissance prepared by Heritage Consultants LLC concerning the above-named project. In the opinion of the State Historic Preservation Office, the archival and archaeological methodologies employed by Heritage Consultants LLC are consistent with our *Environmental Review Primer for Connecticut's Archaeological Resources*.

The State Historic Preservation Office concurs with Heritage Consultants LLC that no further archaeological investigations appear warranted with respect to the proposed undertaking. This office believes that the proposed undertaking will have no effect upon Connecticut's cultural heritage.

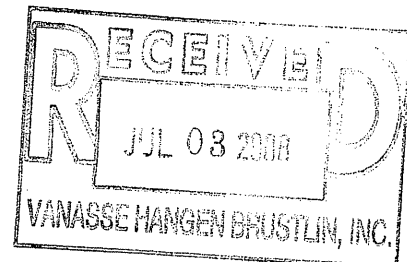
This office recommends that Heritage Consultants LLC consult with the Office of State Archaeology at the University of Connecticut (Storrs) concerning the professional transferal of all field notes, photographs, and artifactual materials generated by the archaeological investigations.

This comment updates and supersedes all previous correspondence regarding the proposed project. For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

Karen Senich  
State Historic Preservation Officer

cc: Bellantoni, George



**CONNECTICUT**

www.cultureandtourism.org





*Vanasse Hangen Brustlin, Inc.*

54 Tuttle Place  
Middletown, Connecticut 06457  
860 632-1500  
FAX 860 632-7879

**Memorandum**

To: Ms. Alexandria Carter  
Verizon Wireless  
99 East River Drive  
East Hartford, CT 06108

Date: October 20, 2008

Project No.: 41240.67

From: Dean Gustafson  
Professional Soil Scientist

Re: NEPA Wetland Compliance  
Marlborough 2  
Planeta Road  
Marlborough, Connecticut

---

Vanasse Hangen Brustlin, Inc. (VHB) previously completed on-site investigations to determine if wetlands and/or watercourses are located on the above-referenced Site.

The Site was inspected on April 16, 2008. The property is primarily undeveloped forest land owned by the East Glastonbury Fish & Game Club and includes a club house and rifle range. Based on a review of plans prepared by Natcomm, Inc. (dated 10/14/08, revised 10/17/08) VHB understands that Verizon Wireless proposes to construct a wireless communications facility in the southwestern portion of the subject property just west of the rifle range. The nearest wetland area (Wetland 1) is a forested wetland system located approximately 100 feet east of the proposed development across the rifle range. This wetland system flows south under an existing gravel road (that provides access to the rifle range) then under Route 2. Although work is proposed in proximity to this nearby wetland resource area, no direct impact to wetlands is proposed for the Verizon Wireless development and adequate erosion controls are proposed to protect this nearby wetland area during construction. Therefore, the proposed development will not result in an adverse impact to nearby wetlands.

In addition, as no direct impact to federal wetlands is associated with Verizon Wireless' construction activities, **NO significant change in surface features** (e.g., wetland fill, deforestation or water diversion) will result in accordance with the National Environmental Policy Act Categorical Exclusion checklist.





*Vanasse Hangen Brustlin, Inc.*

**WETLANDS DELINEATION REPORT**

**Date:** May 14, 2008  
**Project No.:** 41240.67  
**Prepared For:** Ms. Alexandria Carter  
Verizon Wireless  
99 East River Drive  
East Hartford, Connecticut 06108  
**Site Location:** Planeta Road, Marlborough, Connecticut  
**Site Map:** Wetlands Sketch Map, Dated April 16, 2008  
**Inspection Date:** April 16, 2008  
**Field Conditions:** Weather: sunny, mid 50's      General Soil Moisture: moist  
Snow Depth: 0 inches      Frost Depth: 0 inches

**Type of Wetlands Identified and Delineated:**

Connecticut Inland Wetlands and Watercourses        
Tidal Wetlands        
U.S. Army Corps of Engineers     

**Local Regulated Upland Review Areas:** Wetlands: 150 feet      Watercourses: 150 feet

**Field Numbering Sequence of Wetlands Boundary:** Connecticut - IWC 1-01 to 1-07 (closed loop), WF 1-01 to 1-11, WF 2-01 to 2-08

*[as depicted on attached wetland sketch map]*

The classification systems of the National Cooperative Soil Survey, the U.S. Department of Agriculture, Natural Resources Conservation Service, County Soil Survey Identification Legend, Connecticut Department of Environmental Protection and United States Army Corps of Engineers New England District were used in this investigation.

All established wetlands boundary lines are subject to change until officially adopted by local, state, or federal regulatory agencies.

The wetlands delineation was conducted and reviewed by:

Matthew Davison  
Registered Soil Scientist

Enclosures

54 Tuttle Place  
Middletown, Connecticut 06457-1847  
**860.632.1500 • FAX 860.632.7879**  
email: info@vhb.com  
www.vhb.com

# Attachments

- 
- Wetland Delineation Field Form
  - Soil Map
  - Soil Report
  - Wetland Delineation Sketch Map



### Wetland Delineation Field Form

Project Address:	Planeta Road, Marlborough, Connecticut	Project Number:	41240.67
Inspection Date:	April 16, 2008	Inspector:	Matthew Davison
Wetland I.D.:	Intermittent Watercourse 1		

Field Conditions:	Weather: sunny, mid 50's	Snow Depth: 0 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: IW 1-01 to 1-07 (closed loop)		

**WETLAND HYDROLOGY:**

**NONTIDAL**

Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Isolated intermittent watercourse appears to have seasonal flow.		

**TIDAL**

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>	
Comments: N/A		

**WETLAND TYPE:**

**SYSTEM:**

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: N/A		

**CLASS:**

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Channel lacks vegetation. Adjacent upland is forested.		

**WATERCOURSE TYPE:**

Perennial <input type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: Isolated intermittent watercourse appears to have seasonal flow.		

**SPECIAL AQUATIC HABITAT:**

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: N/A		

**Wetland Delineation Field Form (Cont.)**

**MAPPED SOILS:**

SOIL SERIES	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Chatfield	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hollis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**DOMINANT PLANTS:**

<b>hickory</b>	
<b>sugar maple</b>	
<b>white oak</b>	
<b>mountain laurel</b>	
<b>christmas fern</b>	

**WETLAND NARRATIVE:**

Isolated intermittent watercourse on hillside plateau. Watercourse has defined bank and channel, evidence of flow (scour), and is ponded in several places indicating some base flow or flow outside of a storm event. Investigation up slope and down slope of watercourse revealed no wetland soil types. Hydrology appears to be driven by topographic position, groundwater flow from adjacent areas.

**Wetland Delineation Field Form**

Project Address:	Planeta Road, Marlborough, Connecticut	Project Number:	41240.67
Inspection Date:	April 16, 2008	Inspector:	Matthew Davison
Wetland I.D.:	Wetland 1		

Field Conditions:	Weather: sunny, mid 50's	Snow Depth: 0 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
Field Numbering Sequence: WF 1-01 to 1-11		

**WETLAND HYDROLOGY:**

**NONTIDAL**

Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Seasonally saturated forested wetland. Culvert conveys flow beneath gravel road to wetland 2.		

**TIDAL**

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>	
Comments: N/A		

**WETLAND TYPE:**

**SYSTEM:**

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Palustrine forested wetland.		

**CLASS:**

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Forested wetland.		

**WATERCOURSE TYPE:**

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: N/A		

**SPECIAL AQUATIC HABITAT:**

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: Small area of temporarily ponded water exists on south side where water movement is impeded by road fill bank. This area was inspected for obligate vernal pool species. None were found (no evidence of egg masses or juvenile marbled salamander).		

**Wetland Delineation Field Form (Cont.)**

**MAPPED SOILS:**

SOIL SERIES	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Leicester	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Udorthent	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DOMINANT PLANTS:**

<b>red maple</b>	
<b>sugar maple</b>	
<b>yellow birch</b>	
<b>mountain laurel</b>	
<b>spicebush</b>	

**WETLAND NARRATIVE:**

Small forested wetland system located immediately north of gravel access road and east of shooting range. Fill embankments form the south and west wetland boundaries. Water moves from north to south through the wetland system, ponding at its southern boundary against the gravel road fill embankment. A culvert located between WF 1-04 and 1-05 conveys flow beneath the gravel road to wetland 2. Base flow was present at the time of inspection.

**Wetland Delineation Field Form**

Project Address:	Planeta Road, Marlborough, Connecticut	Project Number:	41240.67
Inspection Date:	April 16, 2008	Inspector:	Matthew Davison
Wetland I.D.:	Wetland 2		

Field Conditions:	Weather: sunny, mid 50's	Snow Depth: 0 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 2-01 to 2-08		

**WETLAND HYDROLOGY:**

**NONTIDAL**

Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Forested wetland system. Channelized intermittent watercourse accepting culverted flow from wetland 1 exists on east side of wetland.		

**TIDAL**

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>	
Comments: N/A		

**WETLAND TYPE:**

**SYSTEM:**

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Palustrine forested wetland and associated intermittent watercourse.		

**CLASS:**

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Forested wetland. Open water areas exist within intermittent watercourse.		

**WATERCOURSE TYPE:**

Perennial <input type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: Base flows present at time of inspection, likely subside in summer.		

**SPECIAL AQUATIC HABITAT:**

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: N/A		

**Wetland Delineation Field Form (Cont.)**

**MAPPED SOILS:**

SOIL SERIES	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Leicester	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Udorthent	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DOMINANT PLANTS:**

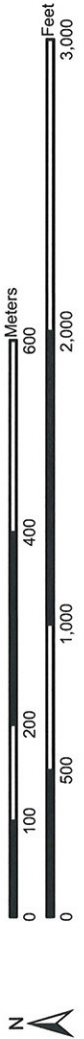
<b>red maple</b>	
<b>sugar maple</b>	
<b>yellow birch</b>	
<b>red oak</b>	
<b>tulip poplar</b>	
<b>spicebush</b>	

**WETLAND NARRATIVE:**











































Small forested wetland system located immediately south of gravel access road. Fill embankment forms the north boundary. A culvert located east of WF 1-06 conveys flow from wetland 1 to an intermittent watercourse located on the east side of wetland 2. Base flow was present at the time of inspection.



Soil Map—State of Connecticut  
(West Road, Marlborough, Connecticut)



## MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Area of Interest (AOI)		Wet Spot
	Soils		Other
	Soil Map Units	<b>Special Line Features</b>	
	Special Point Features		Gully
	Blowout		Short Steep Slope
	Borrow Pit		Other
	Clay Spot	<b>Political Features</b>	
	Closed Depression	<b>Municipalities</b>	
	Gravel Pit		Cities
	Gravelly Spot		Urban Areas
	Landfill	<b>Water Features</b>	
	Lava Flow		Oceans
	Marsh		Streams and Canals
	Mine or Quarry	<b>Transportation</b>	
	Miscellaneous Water		Rails
	Perennial Water	<b>Roads</b>	
	Rock Outcrop		Interstate Highways
	Saline Spot		US Routes
	Sandy Spot		State Highways
	Severely Eroded Spot		Local Roads
	Sinkhole		Other Roads
	Slide or Slip		
	Sodic Spot		
	Spoil Area		
	Stony Spot		

## MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 18N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut  
Survey Area Data: Version 6, Mar 22, 2007

Date(s) aerial images were photographed: 4/23/1990; 3/31/1991; 3/24/1997

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, extremely stony	5.1	2.4%
18	Catden and Freetown soils	2.9	1.4%
57B	Gloucester gravelly sandy loam, 3 to 8 percent slopes	19.2	9.1%
61C	Canton and Charlton soils, 8 to 15 percent slopes, very stony	11.7	5.6%
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	16.2	7.7%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	7.1	3.4%
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	23.0	11.0%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	68.2	32.5%
108	Saco silt loam	10.0	4.8%
109	Fluvaquents-Udifuvents complex, frequently flooded	16.1	7.7%
305	Udorthents-Pits complex, gravelly	4.1	1.9%
306	Udorthents-Urban land complex	24.7	11.8%
W	Water	1.7	0.8%
Totals for Area of Interest (AOI)		209.8	100.0%

## Map Unit Description (Brief)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the selected area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit. A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The "Map Unit Description (Brief)" report gives a brief, general description of the major soils that occur in a map unit. Descriptions of nonsoil (miscellaneous areas) and minor map unit components may or may not be included. This description is written by the local soil scientists responsible for the respective soil survey area data. A more detailed description can be generated by the "Map Unit Description" report.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

## Report—Map Unit Description (Brief)

### State of Connecticut

**Description Category:** SOI

**Map Unit:** 3—Ridgebury, Leicester, and Whitman soils, extremely stony

Ridgebury, Leicester And Whitman Soils, Extremely Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 50 inches (940 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 40 percent Ridgebury soils, 35 percent Leicester soils, 15 percent Whitman soils. 10 percent minor components. Ridgebury soils This component occurs on upland drainageway and depression landforms. The parent material consists of lodgement till derived from granite, schist, and gneiss. The slope ranges from 0 to 5 percent and the runoff class is very low. The depth to a restrictive feature is 20 to 30 inches to densic material. The drainage class is poorly drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 2.5 inches (low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 3 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; slightly decomposed plant material 1 to 5 inches; fine sandy loam 5 to 14 inches; fine sandy loam 14 to 21 inches; fine sandy loam 21 to 60 inches; sandy loam Leicester soils This component occurs on upland drainageway and depression landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 0 to 5 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is poorly drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 9 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; moderately decomposed plant material 1 to 7 inches; fine sandy loam 7 to 10 inches; fine sandy loam 10 to 18 inches; fine sandy loam 18 to 24 inches; fine sandy loam 24 to 43 inches; gravelly fine sandy loam 43 to 65 inches; gravelly fine sandy loam Whitman soils This component occurs on upland drainageway and depression landforms. The parent material consists of lodgement till derived from gneiss, schist, and granite. The slope ranges from 0 to 2 percent and the runoff class is very low. The depth to a restrictive feature is 12 to 20 inches to densic material. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 1.9 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is occasional. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; slightly decomposed plant material 1 to 9 inches; fine sandy loam 9 to 16 inches; fine sandy loam 16 to 22 inches; fine sandy loam 22 to 60 inches; fine sandy loam

**Map Unit:** 18—Catden and Freetown soils

**Catden And Freetown Soils** This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 32 to 47 inches (813 to 1194 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 40 percent Catden soils, 40 percent Freetown soils. 20 percent minor components.

**Catden soils** This component occurs on depression landforms. The parent material consists of woody and herbaceous organic material. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The available water capacity is about 24.4 inches (very high). The weighted average shrink-swell potential in 10 to 60 inches is about 10.0 LEP (very high). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 2 inches; muck 2 to 18 inches; muck 18 to 47 inches; muck 47 to 49 inches; muck 49 to 61 inches; muck

**Freetown soils** This component occurs on depression landforms. The parent material consists of woody and herbaceous organic material. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The available water capacity is about 33.1 inches (very high). The weighted average shrink-swell potential in 10 to 60 inches is about 10.0 LEP (very high). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 4 inches; peat 4 to 10 inches; peat 10 to 22 inches; muck 22 to 35 inches; muck 35 to 41 inches; muck 41 to 55 inches; muck 55 to 71 inches; muck 71 to 91 inches; muck

**Map Unit:** 57B—Gloucester gravelly sandy loam, 3 to 8 percent slopes

Gloucester Gravelly Sandy Loam, 3 To 8 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 35 to 50 inches (889 to 1270 millimeters) and the average annual air temperature is 45 to 50 degrees F. (7 to 10 degrees C.) This map unit is 80 percent Gloucester soils. 20 percent minor components. Gloucester soils This component occurs on upland hill landforms. The parent material consists of sandy and gravelly melt-out till derived from schist, granite, and gneiss. The slope ranges from 3 to 8 percent and the runoff class is medium. The depth to a restrictive feature is greater than 60 inches. The drainage class is somewhat excessively drained. The slowest permeability within 60 inches is about 5.95 in/hr (rapid), with about 4.4 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2s Typical Profile: 0 to 4 inches; gravelly sandy loam 4 to 12 inches; gravelly sandy loam 12 to 25 inches; very gravelly loamy sand 25 to 35 inches; very gravelly loamy coarse sand 35 to 60 inches; very gravelly loamy coarse sand

**Map Unit:** 61C—Canton and Charlton soils, 8 to 15 percent slopes, very stony

Canton And Charlton Soils, 8 To 15 Percent Slopes, Very Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Canton soils, 35 percent Charlton soils. 20 percent minor components Canton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from schist, granite, and gneiss. The slope ranges from 8 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 5.6 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; moderately decomposed plant material 1 to 3 inches; gravelly fine sandy loam 3 to 15 inches; gravelly loam 15 to 24 inches; gravelly loam 24 to 30 inches; gravelly loam 30 to 60 inches; very gravelly loamy sand Charlton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 8 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam

**Map Unit:** 73C—Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky



Charlton-Chatfield Complex, 3 To 15 Percent Slopes, Very Rocky This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Charlton soils, 30 percent Chatfield soils. 25 percent minor components. Charlton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist and gneiss. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam Chatfield soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from gneiss, granite, and schist. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is 20 to 40 inches to bedrock (lithic). The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 3.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 15 inches; gravelly fine sandy loam 15 to 29 inches; gravelly fine sandy loam 29 to 36 inches; unweathered bedrock

**Map Unit:** 73E—Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky

Charlton-Chatfield Complex, 15 To 45 Percent Slopes, Very Rocky This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Charlton soils, 30 percent Chatfield soils. 25 percent minor components. Charlton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 15 to 45 percent and the runoff class is high. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam Chatfield soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from gneiss, granite, and schist. The slope ranges from 15 to 45 percent and the runoff class is high. The depth to a restrictive feature is 20 to 40 inches to bedrock (lithic). The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 3.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 15 inches; gravelly fine sandy loam 15 to 29 inches; gravelly fine sandy loam 29 to 36 inches; unweathered bedrock

**Map Unit:** 75C—Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes

Hollis-Chatfield-Rock Outcrop Complex, 3 To 15 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 54 degrees F. (7 to 12 degrees C.) This map unit is 35 percent Hollis soils, 30 percent Chatfield soils, 15 percent Rock Outcrop. 20 percent minor components. Hollis soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from granite, gneiss, and schist. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is 10 to 20 inches to bedrock (lithic). The drainage class is somewhat excessively drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 1.8 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 9 inches; channery fine sandy loam 9 to 15 inches; gravelly fine sandy loam 15 to 25 inches; unweathered bedrock Chatfield soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from gneiss, granite, and schist. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is 20 to 40 inches to bedrock (lithic). The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 3.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 15 inches; gravelly fine sandy loam 15 to 29 inches; gravelly fine sandy loam 29 to 36 inches; unweathered bedrock Rock Outcrop This component occurs on bedrock controlled landforms. The slope ranges from 3 to 15 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8

**Map Unit:** 75E—Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes

Hollis-Chatfield-Rock Outcrop Complex, 15 To 45 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 54 degrees F. (7 to 12 degrees C.) This map unit is 35 percent Hollis soils, 30 percent Chatfield soils, 15 percent Rock Outcrop, 20 percent minor components. Hollis soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from granite, gneiss, and schist. The slope ranges from 15 to 45 percent and the runoff class is high. The depth to a restrictive feature is 10 to 20 inches to bedrock (lithic). The drainage class is somewhat excessively drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 1.8 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 9 inches; channery fine sandy loam 9 to 15 inches; gravelly fine sandy loam 15 to 25 inches; unweathered bedrock Chatfield soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from gneiss, granite, and schist. The slope ranges from 15 to 45 percent and the runoff class is high. The depth to a restrictive feature is 20 to 40 inches to bedrock (lithic). The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 3.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 15 inches; gravelly fine sandy loam 15 to 29 inches; gravelly fine sandy loam 29 to 36 inches; unweathered bedrock Rock Outcrop This component occurs on bedrock controlled landforms. The slope ranges from 15 to 45 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8

**Map Unit:** 108—Saco silt loam

Saco Silt Loam This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 54 degrees F. (7 to 12 degrees C.) This map unit is 80 percent Saco soils. 20 percent minor components. Saco soils This component occurs on flood plain, depression and drainageway landforms. The parent material consists of silty alluvium. The slope ranges from 0 to 2 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 10.1 inches (very high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is frequent. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 3 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6w Typical Profile: 0 to 12 inches; silt loam 12 to 32 inches; silt loam 32 to 48 inches; silt loam 48 to 60 inches; stratified very gravelly coarse sand to loamy fine sand

**Map Unit:** 109—Fluvaquents-Udifluvents complex, frequently flooded

Fluvaquents-Udfluvents Complex, Frequently Flooded This map unit is in the New England and Eastern New York Upland, Southern Part New England and Eastern New York Upland, Northern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 39 to 52 degrees F.(4 to 11 degrees C.) This map unit is 50 percent Fluvaquents soils, 35 percent Udfluvents soils. 15 percent minor components. Fluvaquents soils This component occurs on depression and flood plain landforms. The parent material consists of alluvium. The slope ranges from 0 to 3 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is poorly drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.2 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.4 LEP (low). The flooding frequency for this component is frequent. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 4 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6w Typical Profile: 0 to 4 inches; silt loam 4 to 14 inches; fine sand 14 to 21 inches; very fine sand 21 to 38 inches; silt loam 38 to 45 inches; fine sandy loam 45 to 55 inches; sand 55 to 60 inches; fine sandy loam Udfluvents soils This component occurs on flood plain landforms. Parent material is alluvium. The slope ranges from 0 to 3 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 4.0 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is frequent. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 72 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6w Typical Profile: 0 to 2 inches; fine sandy loam 2 to 4 inches; loamy fine sand 4 to 12 inches; fine sandy loam 12 to 18 inches; fine sandy loam 18 to 35 inches; loamy sand 35 to 38 inches; very gravelly loamy sand 38 to 60 inches; very gravelly coarse sand

**Map Unit:** 305—Udorthents-Pits complex, gravelly

Udorthents-Pits Complex, Gravelly This map unit is in the Connecticut Valley New England and Eastern New York Upland, Southern Part New England and Eastern New York Upland, Northern Part Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 39 to 52 degrees F. (4 to 11 degrees C.) This map unit is 65 percent Udorthents soils, 25 percent Pits. 10 percent minor components.

Udorthents soils This component occurs on gravel pit and sand pit landforms. The parent material consists of gravelly glaciofluvial deposits. The slope ranges from 0 to 35 percent and the runoff class is medium. The depth to a restrictive feature varies, but is commonly greater than 60 inches. The drainage class is typically well drained. The slowest permeability within 60 inches is about 0.00 in/hr (moderately slow), with about 9.0 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.4 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table is greater than 60 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 4e Typical Profile: 0 to 5 inches; loam 5 to 21 inches; gravelly loam 21 to 80 inches; very gravelly sandy loam Pits Pits are open excavations from which the soil and commonly underlying material have been removed, exposing either rock or other material. The slope ranges from 0 to 80 percent and the runoff class is high. The Nonirrigated Land Capability Class is 8

**Map Unit: 306—Udorthents-Urban land complex**

Udorthents-Urban Land Complex This map unit is in the New England and Eastern New York Upland, Southern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 55 degrees F. (7 to 13 degrees C.) This map unit is 50 percent Udorthents soils, 35 percent Urban Land. 15 percent minor components.

Udorthents soils This component occurs on cut (road, railroad, etc.), railroad bed, road bed, spoil pile, urban land, fill, and spoil pile landforms. The slope ranges from 0 to 25 percent and the runoff class is medium. The depth to a restrictive feature varies, but is commonly greater than 60 inches. The drainage class is typically well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 9.0 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.4 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table is greater than 60 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 3e Typical Profile: 0 to 5 inches; loam 5 to 21 inches; gravelly loam 21 to 80 inches; very gravelly sandy loam Urban Land Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. The slope ranges from 0 to 35 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8

## Data Source Information

Soil Survey Area: State of Connecticut  
Survey Area Data: Version 6, Mar 22, 2007

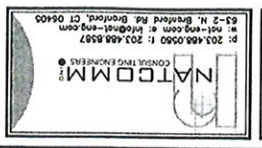


**VHB WETLAND FLAGGING  
SKETCH MAP  
PLANETA ROAD  
MARLBOROUGH CT**

**IW 1-01/1-07 (closed loop)**

**MATT DAVISON  
4-16-08**

DATE	BY	DESCRIPTION

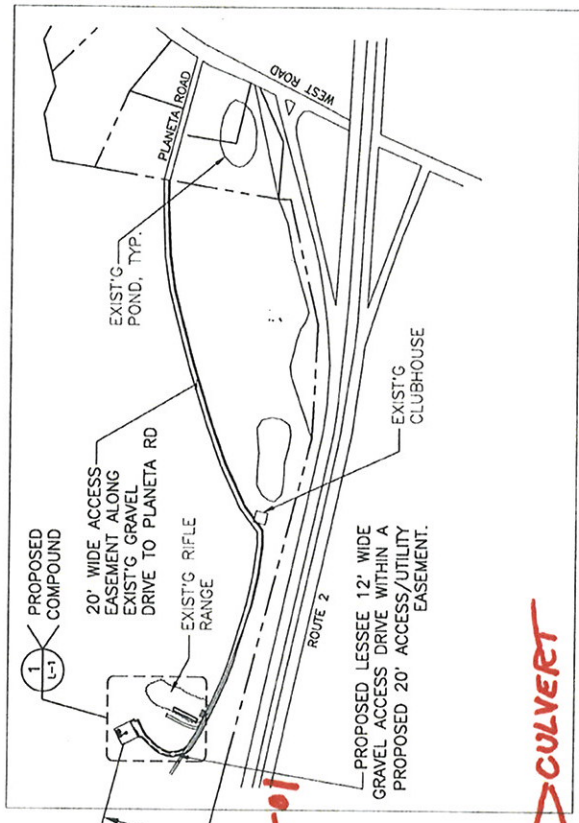


**VERIZON WIRELESS**  
MARLBOROUGH  
MARLBOROUGH, CT

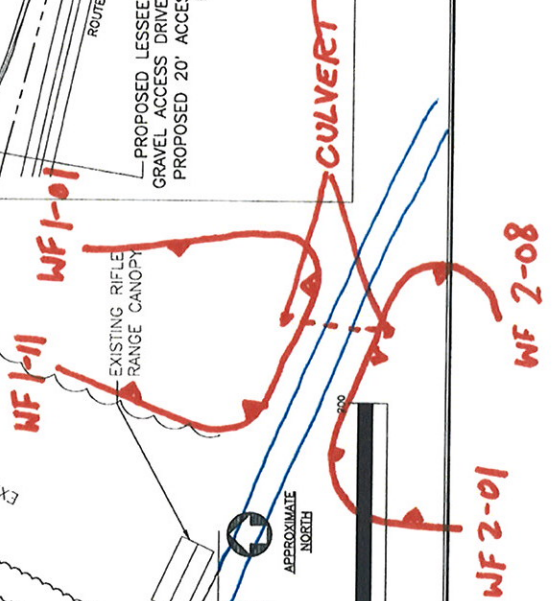
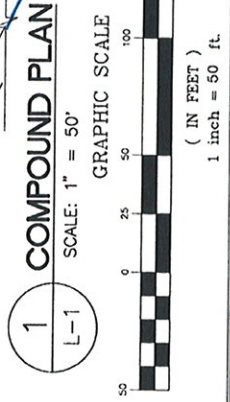
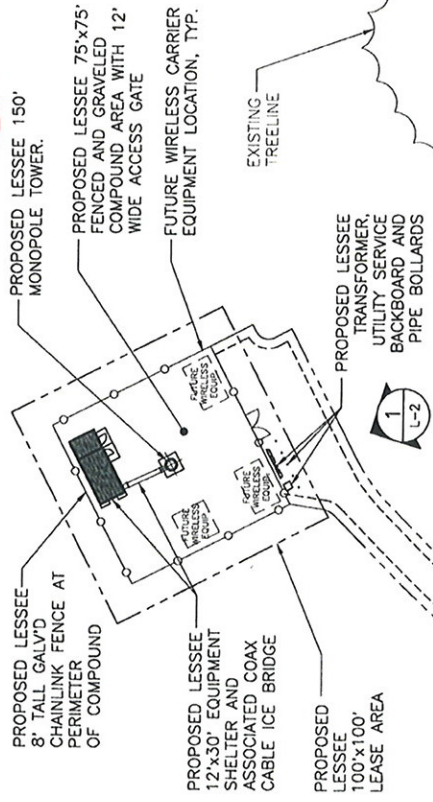
DATE: 04/16/08  
SCALE: AS SHOWN  
JOB NO. 00043  
PAGE NO. **L-1**

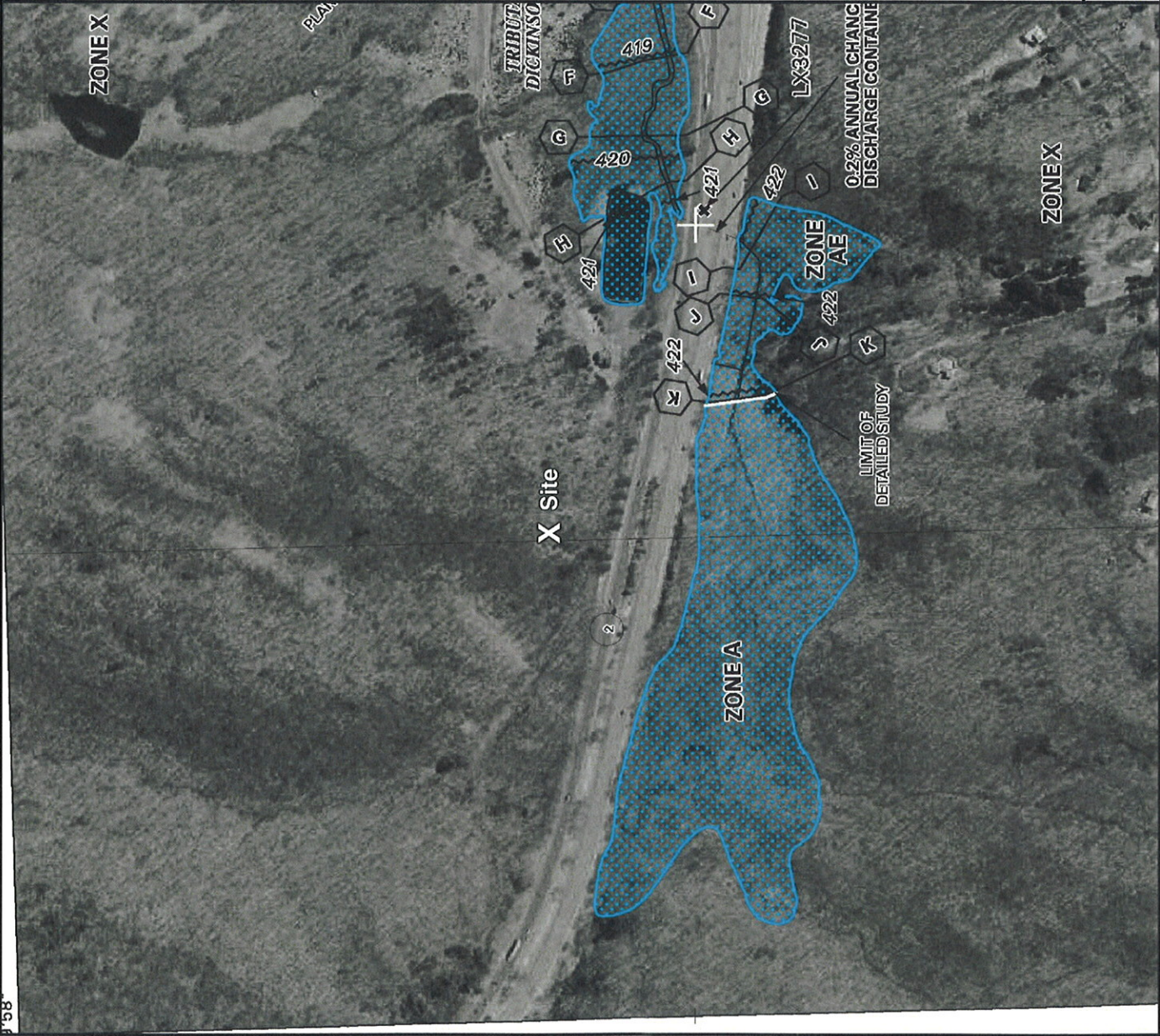
**LEASE EXHIBIT**  
THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

**TOWER COORDINATES:** LAT.: 41°-39'-09" N  
(TAKEN IN FIELD) LNG.: 72°-29'-44" W  
GROUND ELEVATION: 595.0' ± A.M.S.L.  
(BASED ON TOPO MAP SOFTWARE)

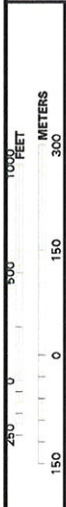
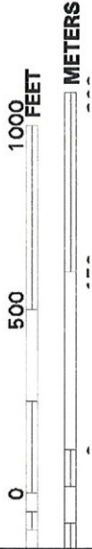


**SITE KEY PLAN**  
SCALE: 1" = 500'





MAP SCALE 1" = 500'



PANEL 0563F

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
 HARTFORD COUNTY,  
 CONNECTICUT  
 (ALL JURISDICTIONS)

PANEL 563 OF 675

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:	
COMMUNITY	NUMBER
MARLBOROUGH/TOWN OF	081548
PANEL	0563
SUFFIX	F

Notice to User: This Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER  
 09003C0563F

EFFECTIVE DATE:  
 SEPTEMBER 26, 2008

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



MARLBORO2.SRP  
\*\*\*\*\*  
\* Federal Airways & Airspace \*  
\* Summary Report \*  
\*\*\*\*\*

File: MARLBORO2

Location: Colchester, CT  
Distance: 10.1 Statute Miles  
Direction: 122° (true bearing)

Latitude: 41°-39'-08.66" Longitude: 72°-29'-44.05"

SITE ELEVATION AMSL.....464 ft.  
STRUCTURE HEIGHT.....123 ft.  
OVERALL HEIGHT AMSL.....587 ft.

NOTICE CRITERIA

- FAR 77.13(a)(1): NNR (DNE 200 ft AGL)
- FAR 77.13(a)(2): NNR (DNE Notice Slope)
- FAR 77.13(a)(3): NNR (Not a Traverse Way)
- FAR 77.13(a)(4): NNR (No Expected TERPS® impact with 9B8)
- impact. HFD) FAR 77.13(a)(4): PNR (Straight-In Procedure. Check FAF distance for TERPS®)
- FAR 77.13(a)(5): NNR (Off Airport Construction)

Notice to the FAA is not required at the analyzed location and height.

- NR = Notice Required
- NNR = Notice Not Required
- PNR = Possible Notice Required

OBSTRUCTION STANDARDS

- FAR 77.23(a)(1): DNE 500 ft AGL
- FAR 77.23(a)(2): DNE - Airport Surface
- FAR 77.25(a): DNE - Horizontal Surface
- FAR 77.25(b): DNE - Conical Surface
- FAR 77.25(c): DNE - Primary Surface
- FAR 77.25(d): DNE - Approach Surface
- FAR 77.25(e): DNE - Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: 9B8: SALMON RIVER AIRFIELD

- Type: AIR RD: 26423 RB: 147.57 RE: 535
- FAR 77.23(a)(1): DNE
- FAR 77.23(a)(2): Does Not Apply.
- VFR Horizontal Surface: DNE
- VFR Conical Surface: DNE
- VFR Approach Slope: DNE
- VFR Transitional Slope: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: HFD: HARTFORD-BRAINARD

- Type: AIR RD: 51072 RB: 306.2 RE: 11
- FAR 77.23(a)(1): DNE
- FAR 77.23(a)(2): DNE - Greater Than 6 NM.
- VFR Horizontal Surface: DNE
- VFR Conical Surface: DNE
- VFR Approach Slope: DNE
- VFR Transitional Slope: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)

- FAR 77.23(a)(3) Departure Surface Criteria (40:1)
- DNE Departure Surface

MARLBORO2.SRP  
 MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)  
 FAR 77.23(a)(4) MOCA Altitude Enroute Criteria  
 The Maximum Height Permitted is 1100 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION
CT02	HEL	CLARK HILL	258.77	3.112	-133
No Impact to Private Landing Facility Structure 133 ft below heliport.					
5CT3	HEL	SOUTH GLASTONBURY	262.2	3.484	+37
No Impact to Private Landing Facility Structure is beyond notice limit by 16169 feet.					
CT20	AIR	RANKL FIELD	138.05	4.219	+237
No Impact to Near Airport Surface. Below surface height of 322 ft above ARP.					
CT92	HEL	BEMER	249.43	5.048	+427
No Impact to Private Landing Facility Structure is beyond notice limit by 25672 feet.					
CT38	HEL	CORPORATE CENTER	310.92	5.489	+483
No Impact to Private Landing Facility Structure is beyond notice limit by 28352 feet.					

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST LOCATION	ANGLE
HFD	VOR/DME	ON	0114.9	253.79	14756	-262	CT HARTFORD	1.02

FCC AM PROOF-OF-PERFORMANCE

NOT REQUIRED: Structure is not near a FCC licensed AM radio station Proof-of-Performance is not required. Please review AM Station Report for details.

Nearest AM Station: WNEZ @ 14648 meters.

Airspace® Summary Version 2008.3

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 Copyright © 1989 - 2008

06-17-2008  
 09:53:33



## ASSIGNMENT AND ASSUMPTION AGREEMENT

This Assignment and Assumption Agreement ("Assignment") is made effective as of the 30th day of September, 2002 (the "Effective Date"), by and between Crown Atlantic Company LLC, a Delaware limited liability company, with its principal office at 2000 Corporate Drive, Canonsburg, Pennsylvania, 15317 ("Crown"), and Cellco Partnership, a Delaware general partnership d/b/a Verizon Wireless, with its principal office at 180 Washington Road, Bedminster, New Jersey, 07921 ("Verizon Wireless"). All terms not otherwise defined herein shall be defined as set forth in that certain Agreement (the "Agreement") dated of even date herewith, by and among Crown Castle International Corp., Crown Atlantic Company LLC, Crown Castle GT Company LLC, Cellco Partnership, a Delaware general partnership, now d/b/a Verizon Wireless and formerly d/b/a Bell Atlantic Mobile, GTE Wireless Incorporated, and the affiliates of Verizon Wireless listed on the signature pages of the Agreement.

### RECITALS

A. Crown and Verizon Wireless are parties to the Agreement. This Assignment is a Transfer Document contemplated by the Agreement. By its execution of this Assignment, Crown intends to assign to Verizon Wireless all of Crown's right, title and interest in and to the Transfer Site and Site Lease described herein, subject to the Permitted Encumbrances.

B. Attached hereto as Exhibit A and incorporated herein by reference is the description of a Site Lease, including any amendments or modifications thereto (the "Site Lease"). Exhibit A also reflects any available recording information with respect to the Site Lease or any memorandum thereof, which may have been filed of record, and may reflect a legal description of the Land (defined herein). The landlord or lessor described in the Site Lease (or successor thereto) (the "Master Landlord") has leased to Crown the land or other property described therein (the "Land"), pursuant to the terms and conditions set forth in the Site Lease. The leasehold interest described in the Site Lease and the tower structure located on the Land constitute one of the Transfer Sites described in the Agreement (the "Transfer Site").

C. By its execution hereof, Verizon Wireless desires to assume all Liabilities of Crown with respect to the Transfer Site and Site Lease, which arise or accrue from and after the Effective Date.

NOW, THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. **Assignment and Assumption.** On the terms and conditions set forth below, Crown hereby assigns all of its right, title and interest in the Transfer Site and Site Lease to Verizon Wireless, subject to the Permitted Encumbrances. Verizon Wireless hereby accepts this Assignment and agrees to undertake, assume, perform and otherwise pay, satisfy and discharge all Liabilities of Crown with respect to the Transfer Site and Site Lease, which arise or accrue

from and after the Effective Date. Verizon Wireless shall attorn to the Master Landlord under the Site Lease.

2. **Modification.** Except as indicated in Exhibit A, the Site Lease has not been modified and this Assignment shall not be construed to modify, waive, impair or affect any of the terms, provisions or conditions of the Site Lease.

3. **Counterparts.** This Assignment may be executed in multiple counterparts, each of which shall be deemed an original. All such counterparts shall together constitute one and the same instrument.

4. **Governing Law.** This Assignment shall be governed by the law of the state in which the Land is located.

5. **Severability.** The illegality, unenforceability or invalidity of any term, clause or provision of this Assignment shall not affect any other term, clause or provision hereof, and this Assignment shall continue in full force and effect, and be construed and enforced, as if such provision had not been included.

6. **Authority.** Each party represents and warrants to the other that it has the full right, power and authority to enter into and perform this Assignment, and to make the covenants contained in this Assignment.


7. **No Waiver, Release or Modification of Agreement.** Neither the making nor the acceptance of this Agreement shall (i) constitute a waiver or release by any party of any liabilities, duties or obligations imposed upon a party by the terms, conditions and provisions of the Agreement, including, without limitation, the representations and warranties and other provisions which the Agreement provides shall survive the date hereof, as limited by the survival periods stated therein, or (ii) enlarge, extend, restrict, limit or otherwise modify the terms, conditions and provisions of the Agreement, including, without limitation, the period of survival of the representations and warranties provided for therein.

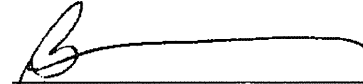
8. **Copies of Agreement.** This Assignment is being entered into pursuant to the terms of the Agreement. Copies of the Agreement are on file in the offices of Crown and Verizon Wireless.

**[Remainder of page intentionally left blank]**





  
Witness Steven R. Wechter

  
Witness Barbara A. Edmann

VERIZON WIRELESS

Cellco Partnership  
d/b/a Verizon Wireless

By: 

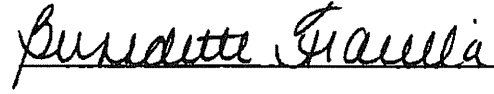
Name: A. J. Melone

Title: Vice President  
Network Operations Support

**ACKNOWLEDGMENT**

STATE OF NEW JERSEY     )  
  )     ss                             September 26, 2002  
COUNTY OF SOMERSET    )

Personally appeared, A.J. Melone, Vice President, Network Operations Support of Cellco Partnership, a Delaware general partnership, d/b/a Verizon Wireless, signer and sealer of the foregoing instrument and acknowledged the same to be his free act and deed as such officer and the free act and deed of said partnership, before me.



Commissioner of the Superior Court  
Notary Public  
My commission expires:

BERNADETTE FAIELLA  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires July 20, 2005

**Exhibit A**

(15344-Marlborough 2, CT-802866)

**Site Lease Description**

Site Lease dated 9/13/2000 by and between East Glastonbury Fish and Game Association, Inc., a corporation, as Lessor, and Crown Atlantic Company LLC, as Lessee.

The document(s) of record were recorded in Marlborough Land Records, CT as follows:

<u>Date Recorded</u>	<u>Book</u>	<u>Page</u>	<u>Instrument #</u>
10/16/2000	134	860	

Attached to this Exhibit A on a page or pages marked Exhibit A (Continued) is a legal description of the Land that is the subject of the Site Lease.

**LEASE AGREEMENT**  
**STATE OF CONNECTICUT**

THIS LEASE AGREEMENT (the "Lease") is made this 13th day of September, 2000, by and between **East Glastonbury Fish and Game Association, Inc.**, a corporation having its principal place of business at Planeta Road, Marlborough, Connecticut (Federal Tax Identification Number [REDACTED] "Lessor") and **Crown Atlantic Company LLC**, with its headquarters located at Crown Square at Southpointe, 375 Southpointe Boulevard, Canonsburg, Pennsylvania, 15317 ("Lessee").

1. **Description of Leased Property.** For good and valuable consideration, Lessor leases to Lessee a portion of Lessor's Property, that portion being described as a 100 foot by 100 foot parcel located in Marlborough, Connecticut ("**Municipality**") (Lessor's Property being shown on the Assessor's Map 2, Block 4 and Lot Number 3 being further described in Deed recorded in the Marlborough Land Records in Volume 31 at Page 533 and Volume 8 at Page 689 [copies of these Deeds are attached hereto as **Exhibit A**] (the "**Leased Premises**"). The Leased Premises also includes a right for ingress and egress, seven days per week, twenty-four hours per day, on foot or motor vehicle, including trucks, along an approximately twenty-five foot wide right-of-way extending from the nearest public right-of-way, together with the right to install, replace and maintain underground utility wires, poles, cables, conduits and pipes. Lessee assumes all costs and liability associated with the construction of its improvements on the Leased Premises. Lessee will give Lessor seven (7) days advance notice of any blasting to be performed on the Leased Premises.

The Lessor and the Lessee agree that the Leased Premises will be located in the approximate location shown on one of the following crude sketches attached hereto, **Exhibit B-**

1 ("Site A"), Exhibit B-2 ("Site B"), or Exhibit B-3 ("Site C"). On or before the commencement date of this Lease, the Lessee will designate the location of the Leased Premises by notice to the Lessor, which notice shall indicate that the Lessee has chosen the location shown on either Exhibit B-1, Exhibit B-2, or Exhibit B-3. (the "Designation Notice"). Upon Lessor's receipt of the Designation Notice, the exhibit referred to therein by Lessee shall automatically become Exhibit B to this Lease, and all references herein to Exhibit B shall be to the exhibit referred to in the Designation Notice. Upon execution of this Lease, Lessor grants to Lessee the right to survey the Leased Premises, with such a survey replacing Exhibit B and being incorporated into this Lease as Exhibit C. As long as the center of the Leased Premises ("Center Point") in Exhibit C is no more than sixty (60) feet from the Center Point of the area originally identified in Exhibit B, Exhibit C shall control in the event of discrepancies between Exhibit B and Exhibit C. If the Center Points of Exhibit B and Exhibit C are more than sixty (60) feet apart, Lessor consent to Exhibit C must be obtained, which consent will not be unreasonably withheld, conditioned or delayed.

In the event any utility provider is unable or unwilling to use the described right-of-way, Lessor hereby agrees to grant an additional right-of-way either to Lessee or directly to the utility provider at no cost and in a location acceptable to Lessor, Lessee and the utility. All utility above ground installations will be on the Leased Premises. Lessor will have access to electrical service from the Leased Premises at its option and at its own cost for both construction and service.

2. Lease Term. This Lease shall be for an initial term of twenty-five years commencing on the earlier of: a) the date of Lessee's commencement of construction of the proposed wireless communications facility; b) within ninety (90) days of Lessee's receipt of final, unappealable Approvals; or c) one (1) year from the date of this Lease. This Lease shall automatically be extended for two subsequent twenty-five year terms and one subsequent

fourteen year term (the "Renewal Terms") unless Lessee terminates it pursuant to the provisions set forth herein. The Initial Term and any Renewal Terms shall be collectively referred to as the "Lease Term".

3. **Rent.** a) Base Rent: Lessee shall pay to Lessor a non-refundable payment of [REDACTED] within fifteen (15) days of the execution of this Lease by both parties. Upon commencement of the Initial Term, Lessee shall pay to Lessor [REDACTED] per year to be paid in equal monthly installments of [REDACTED] as rent for the Leased Premises (the "Rent"). After the first year of the Initial Term, the Rent shall increase by three percent over the Rent that was in effect during the previous year. For every year thereafter, the Rent shall be increased by three percent over the previous year.

b) Platform increase: The base rent shall increase by [REDACTED] per month for each sublessee beyond six (6) sublessees. Lessee shall notify Lessor when the seventh sublessee has executed a sublease with Lessee.

4. **Lessee's Right to Terminate.** In addition to and without limitation by any other provision of this Lease, Lessee shall have the unilateral right to terminate this Lease, at any time after five (5) years from the date of commencement of this Lease set forth in Section 2 above, by providing Lessor with six months prior written notice. Said termination shall be effective upon Lessee providing notice of termination to Lessor.

5. **Effect of Termination by Lessee.** Upon termination of this Lease by Lessee, this Lease shall become null and void and all of the parties shall have no further obligations except that any monies owed up to the date of termination shall be paid within thirty days of the termination date.

6. **Use of Property.** The Leased Premises and all rights and privileges herein granted shall be used only for the purpose of constructing, maintaining and operating a wireless communications facility and uses incidental thereto. Lessee shall place a security fence, consisting of chain-link or comparable construction, around the perimeter of the Leased Premises. It is understood and agreed that all improvements shall be undertaken at Lessee's sole expense. Lessee will maintain the Leased Premises in a reasonable and safe condition. Lessor shall take no action that would adversely affect the status of the Leased Premises with respect to the proposed use by Lessee.

Lessee will maintain the right-of-way leading to the Leased Premises and described in Section 1 in such a manner that it is passable for Lessee's use. Lessee will not impede the access to or over such right-of-way by Lessor. Lessee will provide appropriate safety equipment (at least blaze orange vests and safety glasses) for its own and its agent's use on site. Neither Lessor nor Lessee are under any obligation to plow the road to Lessor's clubhouse but both reserves their right to do so. Failure to do so will not constitute a default under this Lease. Lessor has no obligation to maintain any roads for the benefit of Lessee.

7. **Lessee's Ability to Use Property.** Lessor and Lessee agree that Lessee's ability to use the Leased Premises is contingent upon Lessee obtaining, after the complete execution of this Lease, all of the certificates, permits, licenses and other approvals deemed necessary by Lessee, within Lessee's absolute discretion, to utilize the Leased Premises for the purposes set forth in Section 6 above (the "**Approvals**"). Lessor agrees to execute documents reasonably necessary to petition the appropriate public bodies for the Approvals and to be named as applicant if requested by Lessee. Lessee shall pay for all costs of such Approvals including attorneys' fees of Lessor if the appearance of Lessor is required by Lessee. Lessee will provide legal representation for Lessor in all legal proceedings relating to the Approvals, if the appearance of Lessor is required, at Lessee's expense. In the event that: (1) Lessee does

not obtain, for any reason whatsoever, all of the Approvals; (2) any of the Approvals are in a form unacceptable to Lessee, within Lessee's absolute discretion; (3) any Approval issued to Lessee is canceled, expires, lapses or is otherwise withdrawn or terminated by governmental authority; or, (4) any investigation, including but not limited to soil boring tests, are found to be unsatisfactory so that Lessee, in its absolute discretion, will be unable to use the Leased Premises for its intended purposes, then Lessee shall have the right to terminate this Lease. Lessee shall complete said investigations referred to in subparagraph (4) above within forty-five (45) days of the date of execution of this Lease and will notify Lessor within fifty (50) days of executing this Lease of Lessee's intention to terminate this Lease pursuant to subparagraph 4. Failure to so notify the Lessor will constitute a waiver of the right to terminate pursuant to Subparagraph 4 above only. The rights of Lessee to terminate this Lease pursuant to subparagraphs 1, 2 and 3 above may be exercised by the Lessee at any time. Upon termination pursuant to this Section 6, this Lease shall become null and void and there shall be no further obligation between the parties.

8. **Removal of Obstructions.** Lessee has the right to remove obstructions, including but not limited to vegetation, which may encroach upon, interfere with or present a hazard to Lessee's use of the Leased Premises. Lessee shall be responsible for disposing of any materials related to the removal of obstructions.

9. **Hazardous Substances and Hazardous Wastes.** Lessee shall not (either with or without negligence) cause or permit the use, storage, generation, escape, disposal or release of any Hazardous Substances or Hazardous Wastes in any manner not sanctioned by law. In all events, Lessee shall indemnify and hold Lessor harmless from any and all claims, damages, fines, judgments, penalties, costs, liabilities or losses (including, without limitation, any and all sums paid for settlement of claims, attorneys' fees, and consultants' and experts'



fees) from the presence or release of any Hazardous Substances or Hazardous Wastes on the Leased Premises if caused by Lessee or persons acting under Lessee. Lessee shall execute such affidavits, representations and the like from time to time as Lessor may reasonably request concerning Lessee's best knowledge and belief as to the presence of Hazardous Substances or Hazardous Wastes on the Leased Premises.

Lessor shall not (either with or without negligence) cause or permit the use, storage, generation, escape, disposal or release of any Hazardous Substances or Hazardous Wastes in any manner not sanctioned by law on the Leased Premises. In all events, Lessor shall indemnify and hold Lessee harmless from any and all claims, damages, fines, judgments, penalties, costs, liabilities or losses (including, without limitation, any and all sums paid for settlement of claims, attorneys' fees, and consultants' and experts' fees) from the release of any Hazardous Substances or Hazardous Wastes on the Leased Premises unless caused by Lessee or persons acting under Lessee. Lessor shall execute such affidavits, representations and the like from time to time as Lessee may reasonably request concerning Lessor's best knowledge and belief as to the presence of Hazardous Substances or Hazardous Wastes on Lessor's property.

For purposes of this Lease, the term "Hazardous Substances" shall be as defined in the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 *et seq.*, and any regulations promulgated pursuant thereto, and as used to define "Hazardous Wastes" in the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 *et seq.*, and any regulations promulgated thereto, provided that the terms "Hazardous Substances" and "Hazardous Waste" shall also include any oil or hazardous materials or hazardous waste as defined in or regulated under Connecticut General Statutes.

10. **Insurance**. At all times during the Lease Term, Lessee, at its sole expense, shall obtain and keep in force comprehensive general liability insurance and property damage

insurance to include extended coverage risks and other hazards, casualties and contingencies under an "All Risk or Physical Loss" policy in the amount of \$2,000,000.00 aggregate coverage, as well as any insurance which may be required by any federal, state or local statute or ordinance of any governmental body having jurisdiction in connection with the operation of Lessee's business upon the Leased Premises. Lessee shall name Lessor as an additional insured and shall provide Lessor with a certificate of such insurance annually.

11. **Waiver of Subrogation.** The parties hereby waive any and all rights of action for negligence against the other which may hereafter arise on account of damage to the Leased Premises resulting from any fire or other casualty of the kind covered by property insurance policies with extended coverage regardless of whether or not, or in what amount, such insurance is now or hereafter carried by the parties.

12. **Eminent Domain.** If any part of the Leased Premises is taken by eminent domain prior to construction, Lessor will notify Lessee of the taking within five days and Lessee will have the option to: (a) declare this Lease null and void with thereafter being no further liability or obligation by either of the parties hereunder; or (b) remain in possession of that portion of the Leased Premises not taken, in which event there shall be an equitable adjustment in rent on account of the portion of the Leased Premises so taken. With either option, Lessee has the ability to contest the taking and directly proceed to obtain an award, or a portion of the award, allocated to Lessee's interest in the Leased Premises.

13. **Right of First Refusal.** If during the Lease Term Lessor elects to sell all or any portion of the Leased Premises, whether separate or as part of the larger parcel of which the Leased Premises is a part, Lessee shall have the right of first refusal to meet any bona fide offer of sale on the same terms and conditions of such offer. If Lessee fails to meet such bona

vide offer within thirty days after notice thereof from Lessor, Lessor may sell the Leased Premises or portion thereof to such third person in accordance with the terms and conditions of the offer. This right shall be subordinate to rights of any institutional lender of Lessor and Lessee agrees to execute all documents necessary to confirm or record said subordination as may be requested by Lessor's Lenders.

14. **Sale of Property.** If at any time during the Lease Term Lessor decides to sell all or part of Lessor's Property, of which the Leased Premises is a part, to a purchaser other than Lessee, then such sale shall be under and subject to this Lease and Lessee's rights hereunder. Any sale by Lessor of the portion of the Leased Premises underlying the right-of-way herein granted shall be under and subject to the right of Lessee in and to said right-of-way.

15. **Surrender of Property.** Upon expiration or termination of this Lease, Lessee shall, within a reasonable time remove its buildings(s), tower, above ground fixtures and foundations located within eighteen inches below grade, and restore the Leased Premises to its original condition and grade, reasonable wear and tear excepted. Lessor may, upon written notice to the Lessee, elect to retain the foundation.

16. **Recording.** Lessor acknowledges that Lessee intends to record a Notice of this Lease with the appropriate recording officer upon execution of this Lease. Lessor shall execute and acknowledge such a Notice promptly upon Lessee's request. Upon Lessee's request, Lessor shall also promptly execute and acknowledge an amendment to such Notice memorializing the commencement date of the Initial Term in accordance with Section 2, and attaching **Exhibit C** in substitution for **Exhibit B** in accordance with Section 1. Alternatively, Lessee is hereby authorized to attach to the Notice of Lease and record **Exhibit C** as attached to this Lease. Each of the parties agrees to provide such evidence of corporate or other entity

authority as may be necessary to enable the Notice of Lease to be recorded or filed or as may be reasonably requested by the other party.

17. **Hold Harmless.** Each party shall indemnify and hold the other harmless against any claim of liability or loss from personal injury or property damage arising from the use and occupancy of the Leased Premises (or the parcel of which the Leased Premises is a part) by the party, its servants or agents, excepting, however, such claims or damages as may be due to or caused by the acts of the other party, its servants or agents.

18. **Lessor's Covenant of Authority.** Lessor and Lessee covenant that they have full authority to enter into and execute this Lease. This Lease must be approved by the membership of the Lessor at a duly noticed meeting and this Lease will become effective when a Certificate in the form of **Exhibit E** is executed by the Secretary of the Lessor.

19. **Interference with Lessee's Business.** Without the prior written consent of Lessee, Lessor covenants to restrict on the property of which the Leased Premises is now a part, the construction, installation or operation of any additional wireless communications facilities which emit radio frequencies within two thousand (2,000) feet of the Center Point of the Leased Premises.

20. **Quiet Enjoyment.** Lessor covenants that Lessee, on paying Rent and performing the covenants of this Lease, shall peaceably and quietly have, hold and enjoy the Leased Premises. Lessee covenants that its use of the Leased Premises will not impair the use of that portion of Lessor's Property not leased to Lessee. Lessee acknowledges that the Lessor is a hunting and fishing club which activities include, but are not limited to, clay target, sporting clays and target shooting. None of Lessor's usual and customary activities performed

on that portion of Lessor's Property not leased to Lessee shall constitute a breach of this covenant of quiet enjoyment.

21. **Mortgages.** At Lessor's option, this Lease shall be subordinate to any mortgage by Lessor which may now or hereafter affect all of Lessor's Property including the Leased Premises, provided that the holder of any such mortgage shall agree with Lessee in writing in recordable form to recognize this Lease and the rights of Lessee hereunder in the event of foreclosure of Lessor's interest including without limitation, Lessee's right to remain in possession and have access to the Leased Premises. In the event that the Leased Premises is encumbered by a mortgage, Lessor shall obtain and furnish to Lessee a non-disturbance agreement in accordance with the foregoing for each such mortgage in recordable form. Lessee shall execute whatever instruments may reasonably be required to evidence this subordination clause.

22. **Default.** In the event that there is a default by Lessee with respect to any of the provisions of this Lease or Lessee's obligations under the Lease, including the payment of Rent, Lessor shall give Lessee written notice of such default. After receipt of such written notice, Lessee shall have fifteen days in which to cure any monetary default and thirty days in which to cure any non-monetary default. However, provided Lessee shall have such extended periods as may be required beyond the thirty days if the nature of the cure is such that it reasonably requires more than thirty days and Lessee commences the cure within the thirty day period and thereafter continuously and diligently pursues the cure to completion. Lessor may not maintain any action or effect any remedies for default against Lessee unless and until Lessee has failed to cure the same within the time periods provided in this Section. In the event either party incurs attorneys' fees or costs because of the other party's default, the defaulting party shall pay such amounts upon request by the non-defaulting party.

23. **Entire Agreement.** Lessor and Lessee agree that this Lease contains all of the agreements, promises and understandings between Lessor and Lessee. No verbal or oral agreements, promises or understandings shall be binding upon either Lessor or Lessee in any dispute, controversy or proceeding at law. Any addition, variation or modification to this Lease shall be void and ineffective unless made in writing and signed by the parties hereto.

24. **Construction of Document.** Lessor and Lessee acknowledge that this document shall not be construed in favor of or against the drafter and that this document shall not be construed as an offer until such time as it is executed by one of the parties and then tendered to the other party.

25. **Applicable Law.** This Lease Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the laws of the State of Connecticut.

26. **Notices.** All notices hereunder shall be in writing and shall be given by (i) established express delivery service which maintains delivery records, (ii) hand delivery, or (iii) certified or registered mail, postage prepaid, return receipt requested. Notices may also be given by facsimile transmission, provided that the notice is concurrently given by one of the above methods. Notices are effective upon receipt, or upon attempted delivery if delivery is refused or if delivery is impossible because of failure to provide reasonable means for accomplishing delivery. The notices shall be sent to the parties at the following addresses:

LESSOR: East Glastonbury Fish and Game Association, Inc.  
P. O. Box 84  
Glastonbury, Connecticut 06033

And

George M. Purtil, Esq.  
19 Water Street  
P. O. Box 50  
South Glastonbury, Connecticut 06073

LESSEE: Crown Atlantic Company LLC  
Crown Square at Southpointe  
375 Southpointe Blvd.  
Canonsburg, Pennsylvania, 15317  
ATTN: Legal Department

And

Crown Atlantic Company LLC  
New England Regional Office  
500 West Cummings Park, Suite 6500  
Woburn, Massachusetts, 01880  
ATTN: VP/GM

27. **Assignment and Sublease.** Lessee has the right, within its sole discretion, to sublease all or any portion of the Leased Premises. Lessee shall not assign or transfer its rights in and to this Lease without the consent of the Lessor, which consent shall not be unreasonably withheld, delayed or conditioned. Notwithstanding the forgoing, Lessee shall have the right, within its sole discretion, to assign or transfer its rights in and to this Lease without any prior approval or consent of the Lessor to (i) the Lessee's principal, affiliates or subsidiaries of its principal; (ii) any entity which acquires all or substantially all of the Lessee's assets by reason of a merger, acquisition or other business reorganization; or (iii) any entity which has at least \$5,000,000 in total net assets at the time of the transfer or assignment. Any assignment of this Lease shall be effective upon Lessee sending written notice to Lessor at Lessor's mailing address stated above, and shall relieve Lessee from any further liability or obligation accruing hereunder.

28. **Partial Invalidity.** If any term of this Lease is found to be void or invalid, then such invalidity shall not affect the remaining terms of this Lease, which shall continue in full force and effect.

29. **Successors and Assigns.** Except as otherwise provided herein, this Lease Agreement shall extend to and bind the heirs, personal representatives, successors and assigns of the parties hereto.

30. **Real Estate Taxes.** Lessee agrees to pay semi-annually when due for any documented increase in real estate taxes levied against the Lessor's Property that are directly attributable to the improvements constructed by Lessee. Lessor agrees to provide Lessee any documentation evidencing the increase and how such increase is attributable to Lessee's use. Lessee reserves the right to challenge any such assessment, and Lessor agrees to cooperate with Lessee in connection with any such challenge.

31. **Landlord's Waiver.** Upon Lessee's request, Lessor shall promptly execute a Landlord's Waiver for the benefit of any creditors of Lessee.

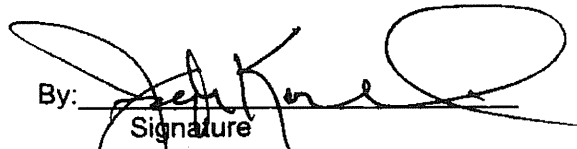
32. **Lessee's Waiver.** Lessee and its agents agree to execute the firearms waiver attached hereto as **Exhibit E.** Lessee also agrees to obtain a similar waiver from each sublessee of the Leased Premises. Notwithstanding this waiver, Lessee may post and prohibit hunting on the Lessor's Property within one hundred (100) feet of the Leased Premises not including the right of way.

**[Remainder of Page Intentionally Left Blank]**

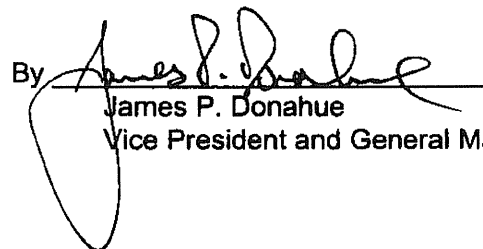


IN WITNESS WHEREOF, Lessor and Lessee having read the foregoing and intending to be legally bound hereby, have executed this Lease Agreement as of the day and year first written above.

**LESSOR: East Glastonbury Fish and Game Association, Inc.**

By:   
Signature  
Joseph Koweski  
Type or hand-print name  
President  
Title

**LESSEE: CROWN ATLANTIC COMPANY LLC  
a Delaware limited liability corporation,**

By:   
James P. Donahue  
Vice President and General Manager

**EXHIBIT "A"**  
**to**  
**LEASE AGREEMENT**

LESSOR'S DEED:

# To all People to Whom these Presents shall Come, Greeting:

Know Ye That I, HENRY L. TILLEY, of the Town of Glastonbury, County of Hartford and State of Connecticut (herein called "Grantor")

for the consideration of One (\$1.00) Dollar and other good and valuable considerations

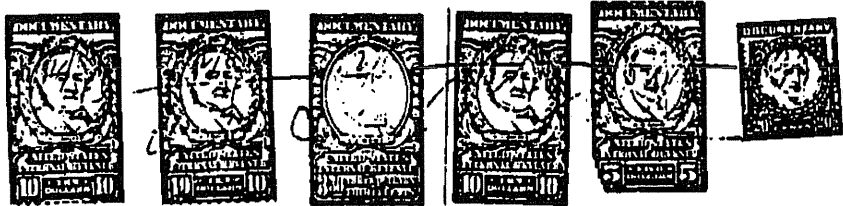
received to my full satisfaction of THE EAST GLASTONBURY FISH AND GAME ASSOCIATION, INCORPORATED, a Connecticut corporation having its office and principal place of business at Planeta Road, Marlborough, Connecticut

do give, grant, bargain, sell and confirm unto the said THE EAST GLASTONBURY FISH AND GAME ASSOCIATION, INCORPORATED, its successors and assigns (herein called "Grantee") that certain piece or parcel of land, with the improvements thereon and appurtenances thereto, situated in the Town of Marlborough, said County and State and more particularly bounded and described as follows:

Commencing at a point on the west side of the Gilead Road, so-called, 1,950 feet north from the New London Turnpike, so-called; thence running from said point along the Gilead Road in a general northerly direction 614 feet to land now or formerly of one Blish; thence running westerly along land now or formerly of Blish, land now or formerly of Islieb, land now or formerly of Blish, and land now or formerly of De'Sopo along a stone wall and a wire fence to land now or formerly of Cassella; thence turning and running southerly along land now or formerly of Louis Cassella to land now or formerly of the Glastonbury Fish and Game Club; thence turning and running easterly along land now or formerly of the Glastonbury Fish and Game Club and land now or formerly of John Planeta to the place of beginning on the Gilead Road.

Being the same premises conveyed to the Grantor herein by Warranty Deed of John Planeta dated November 2, 1942 and recorded in Marlborough Land Records Volume 14, Page 406; EXCEPTING those portions of said premises as have been previously conveyed by the Grantor herein by deeds as follows: (1) Warranty Deed to Julius Tilley, dated February 4, 1957, recorded in Marlborough Land Records Volume 21, Page 419; (2) Quit Claim Deed to Julius Tilley, dated April 19, 1958, recorded in Marlborough Land Records Volume 19, Page 280; (3) Quit Claim Deed (correcting the above two deeds) to Julius Tilley, dated November 25, 1958; recorded in Marlborough Land Records Volume 24, Page 577; and (4) Quit Claim Deed to Richard H. Tilley and Rebecca Elaine Tilley, dated September 21, 1962, recorded in Marlborough Land Records Volume 27, Page 277.

Said premises are subject to taxes to the Town of Marlborough on the List of October 1, 1967, which taxes the Grantee herein assumes and agrees to pay as part consideration for this deed.



To Have and to Hold the above granted and bargained premises, with the appurtenances thereof, unto it the said grantee and its ~~successors~~ successors and assigns forever, to its and their own proper use and behoof.

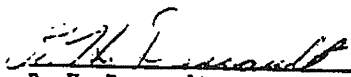
And also, I the said grantor do for myself and my heirs, executors and administrators, covenant with the said grantee and its successors, ~~and~~ and assigns, that at and until the ensembling of these presents,


I am well seized of the premises, as a good indefeasible estate in FEE SIMPLE; and have good right to bargain and sell the same in manner and form as is above written; and that the same is free from all incumbrances whatsoever, except as hereinbefore mentioned.

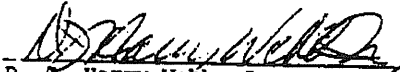
And Furthermore, I the said grantor do by these presents bind myself and my heirs, executors and administrators forever to WARRANT AND DEFEND the above granted and bargained premises to it the said grantee and its successors, ~~and~~ and assigns, against all claims and demands whatsoever, except as hereinbefore mentioned.

In Witness Whereof, I have hereunto set my hand and seal this 2<sup>nd</sup> day of November in the year of our Lord nineteen hundred and sixty-seven.

Signed, Sealed and Delivered in presence of

  
R. H. Descault

  
Henry L. Tilley

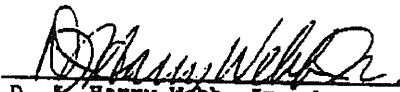
  
D. J. Harry Webb, Jr.

State of Connecticut,  
County of HARTFORD

} ss. New Britain,  
November 2, A. D. 1967

Personally Appeared Henry L. Tilley

Signer and Sealer of the foregoing Instrument, and acknowledged the same to be his free act and deed before me.

  
D. J. Harry Webb, Jr. ~~Notary Public~~

Received November 6, 1967 at 12:02 P.M.  
Eldorette Secord, Town Clerk

Commissioner of the Superior Court

Received 19 At M \_\_\_\_\_  
Town Clerk



**EXHIBIT "B"**  
**to**  
**LEASE AGREEMENT**

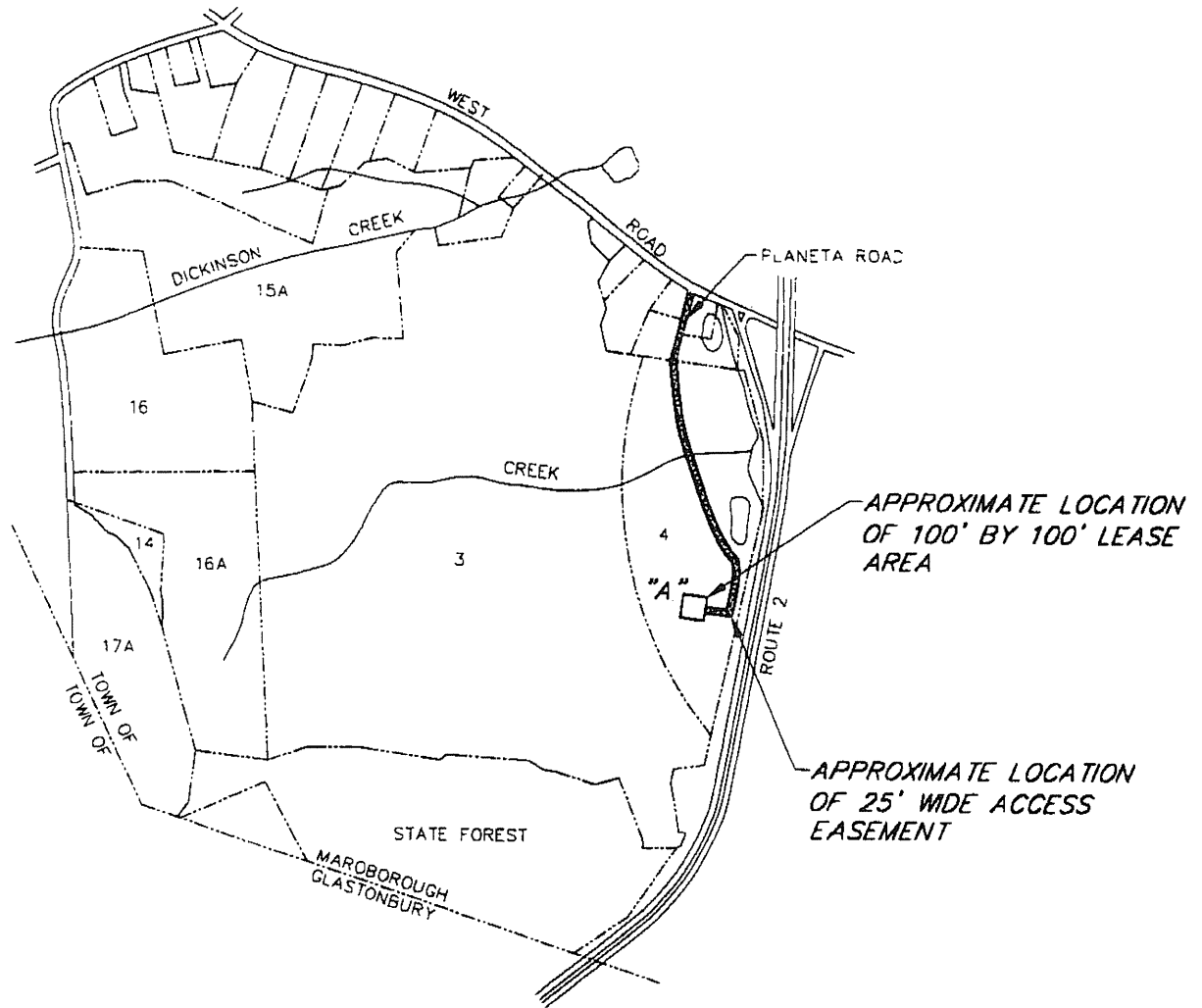
**SITE SKETCH INCLUDING ACCESS ROAD TO LEASED PREMISES:**

**EXHIBIT "B-1"**  
**to**  
**LEASE AGREEMENT**

**Site A**

SITE SKETCH INCLUDING ACCESS ROAD TO LEASED PREMISES:

EXHIBIT B-1



THIS DRAWING IS FOR OPTION, LEASE AND PERMITTING PURPOSES ONLY, AND IS NOT TO BE USED FOR CONSTRUCTION

SITE PLAN

BASE MAP TAKEN FROM THE FOLLOWING SOURCES:

- A. ASSESSORS MAP # 2 PROVIDED BY THE TOWN OF MARBOROUGH
- B. LEASE PARCEL LOCATED ON MAP 2 LOT 4 DEED VOL. 8 PAGE 889

NOTES:

1. SUBJECT TO ANY STATE OF FACTS THAT AN UP-TO-DATE ABSTRACT OF TITLE WOULD DISCLOSE.
2. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
3. A BOUNDARY SURVEY WAS NOT PERFORMED BY CLOUGH, HARBOUR & ASSOCIATES LLP IN CONJUNCTION WITH THE PREPARATION OF THIS EXHIBIT.
4. THE OWNER AND CROWN HEREBY AGREE TO THE GENERAL LEASE AREA LOCATION SPECIFIED IN THIS LEASE EXHIBIT. THE EXACT LOCATIONS OF COMMUNICATIONS EQUIPMENT, CABLES, FENCING, ACCESS AND UTILITIES ARE SUBJECT TO FINAL ENGINEERING DESIGN AND MUNICIPAL PERMITTING REQUIREMENTS. ULTIMATELY, THE LEASIBLE AREA MAY BE MODIFIED TO REFLECT THE FINAL SITE DESIGN.

LEASE EXHIBIT "SITE A"

SCALE: NTS  
APRIL 14, 2000

1 OF 1

REVISION NUMBER 2



**CLOUGH, HARBOUR & ASSOCIATES LLP**

ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS

111 WINNERS CIRCLE - ALBANY, NEW YORK - 12205  
P.O. BOX 5269

518-453-4500

CROWN ATLANTIC COMPANY, LLC  
MARBOROUGH COMMUNICATIONS FACILITY  
TOWN OF MARBOROUGH, HARTFORD COUNTY, CONNECTICUT



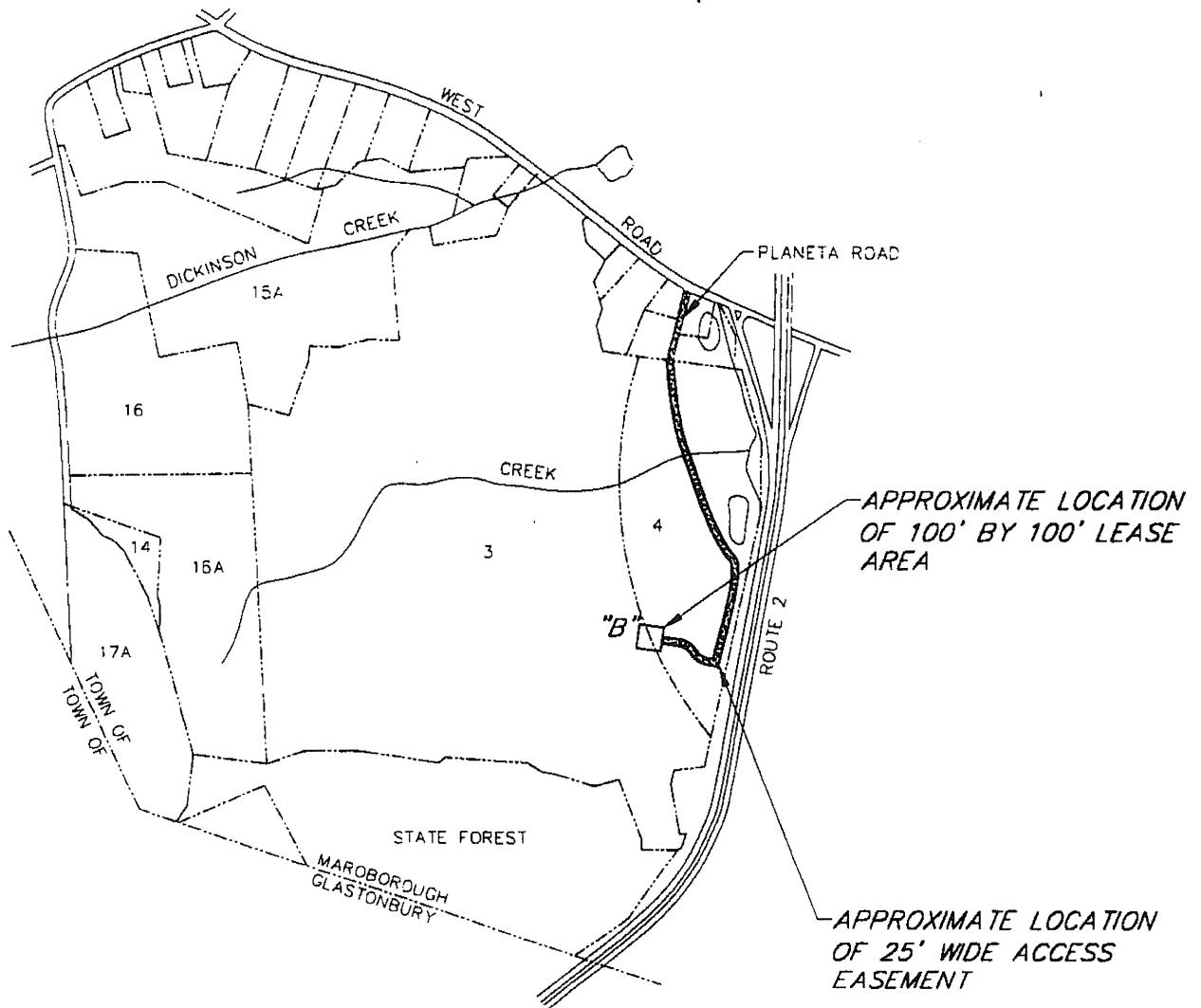
**EXHIBIT "B-2"**  
**to**  
**LEASE AGREEMENT**

**Site B**

**SITE SKETCH INCLUDING ACCESS ROAD TO LEASED PREMISES:**

EXHIBIT B-2

APPROXIMATE TRUE NORTH



THIS DRAWING IS FOR OPTION, LEASE AND PERMITTING PURPOSES ONLY, AND IS NOT TO BE USED FOR CONSTRUCTION

SITE PLAN

BASE MAP TAKEN FROM THE FOLLOWING SOURCES:

- A. ASSESSORS MAP # 2 PROVIDED BY THE TOWN OF MAROBOROUGH
- B. LEASE PARCEL LOCATED ON MAP 2 LOT 3&4 DEED VOL. 31 PAGE 533 & VOL. B PAGE 689

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LEASE EXHIBIT "SITE B"

SCALE: NTS  
APRIL 14, 2000

1 OF 1 REVISION NUMBER 2



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ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS

111 WINNERS CIRCLE - ALBANY, NEW YORK - 12205  
P.O. BOX 5269 518-453-4500

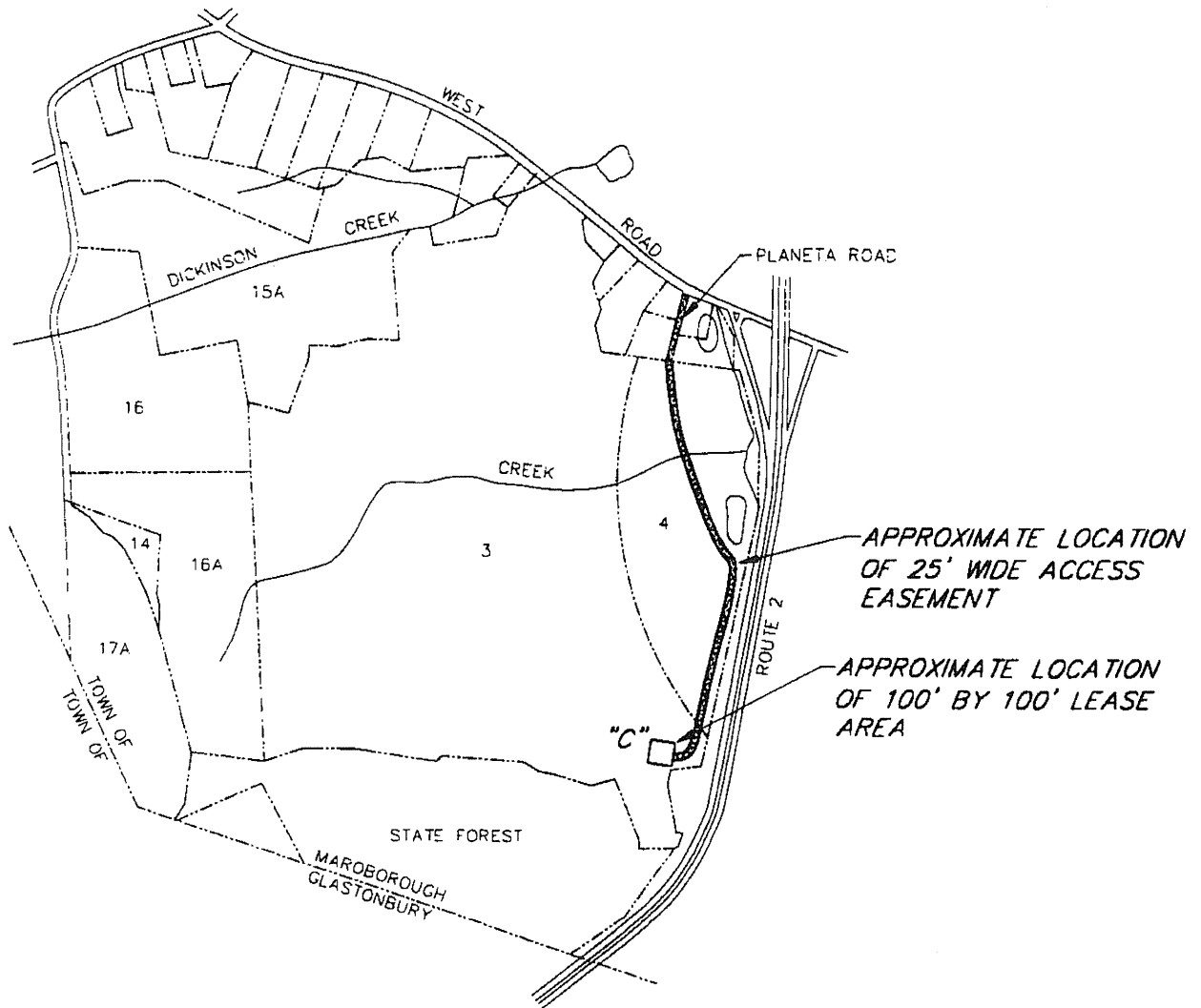
CROWN ATLANTIC COMPANY, LLC  
MAROBOROUGH COMMUNICATIONS FACILITY  
TOWN OF MAROBOROUGH, HARTFORD COUNTY, CONNECTICUT

**EXHIBIT "B-3"**  
**to**  
**LEASE AGREEMENT**

**Site C**

**SITE SKETCH INCLUDING ACCESS ROAD TO LEASED PREMISES:**

EXHIBIT B-3



THIS DRAWING IS FOR OPTION, LEASE AND PERMITTING PURPOSES ONLY, AND IS NOT TO BE USED FOR CONSTRUCTION

**SITE PLAN**

BASE MAP TAKEN FROM THE FOLLOWING SOURCES:

- A. ASSESSORS MAP # 2 PROVIDED BY THE TOWN OF MAROBOROUGH
- B. LEASE PARCEL LOCATED ON MAP 2 LOT 3 DEED VOL. 31 PAGE 533

**NOTES:**

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LEASE EXHIBIT "SITE C"

SCALE: NTS  
APRIL 14, 2000

1 OF 1 REVISION NUMBER 2



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ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS  
111 WINNERS CIRCLE - ALBANY, NEW YORK - 12205  
P.O. BOX 5269 518-453-4500

CROWN ATLANTIC COMPANY, LLC  
MAROBOROUGH COMMUNICATIONS FACILITY  
TOWN OF MAROBOROUGH, HARTFORD COUNTY, CONNECTICUT

**EXHIBIT "C"**  
**to**  
**LEASE AGREEMENT**

**SURVEY**

EXHIBIT "D"  
To  
LEASE AGREEMENT

CERTIFICATE OF APPROVAL:

I, Michael Appleton, being the duly appointed secretary of the East Glastonbury Fish and Game Association, Inc. ("EGFG") hereby certify that the Lease executed on July 26, 2000 by Joseph Koneski President of EGFG, has been duly approved and ratified by EGFG at a duly noticed meeting on July 19, 2000 I further certify that the execution of said Lease between Crown Atlantic Company LLC and EGFG has been approved and ratified at said meeting.

Dated this 26 day of July, 2000 at Marlborough, Connecticut.

Signature

Michael Appleton

**EXHIBIT "E"**  
**to**  
**LEASE AGREEMENT**

**FIREARMS WAIVER:**

Crown Atlantic Company LLC ("**Crown**") is or will be the owner of a tower (the "**Tower**") located on property located in Marlborough, Connecticut, owned by East Glastonbury Fish and Game Association, Inc. (the "**Property Owner**"), and more particularly shown on Attachment 1 attached hereto and made a part hereof (the "**Leased Premises**").

Notwithstanding the provisions of Section 26-66-1(d) of Regulations of the Connecticut State Agencies, Crown grants permission to the Property Owner and its members to: hunt with firearms, discharge firearms, and carry loaded firearms within an area located between one hundred and five hundred feet of the Tower.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2000.

Crown Atlantic Company LLC

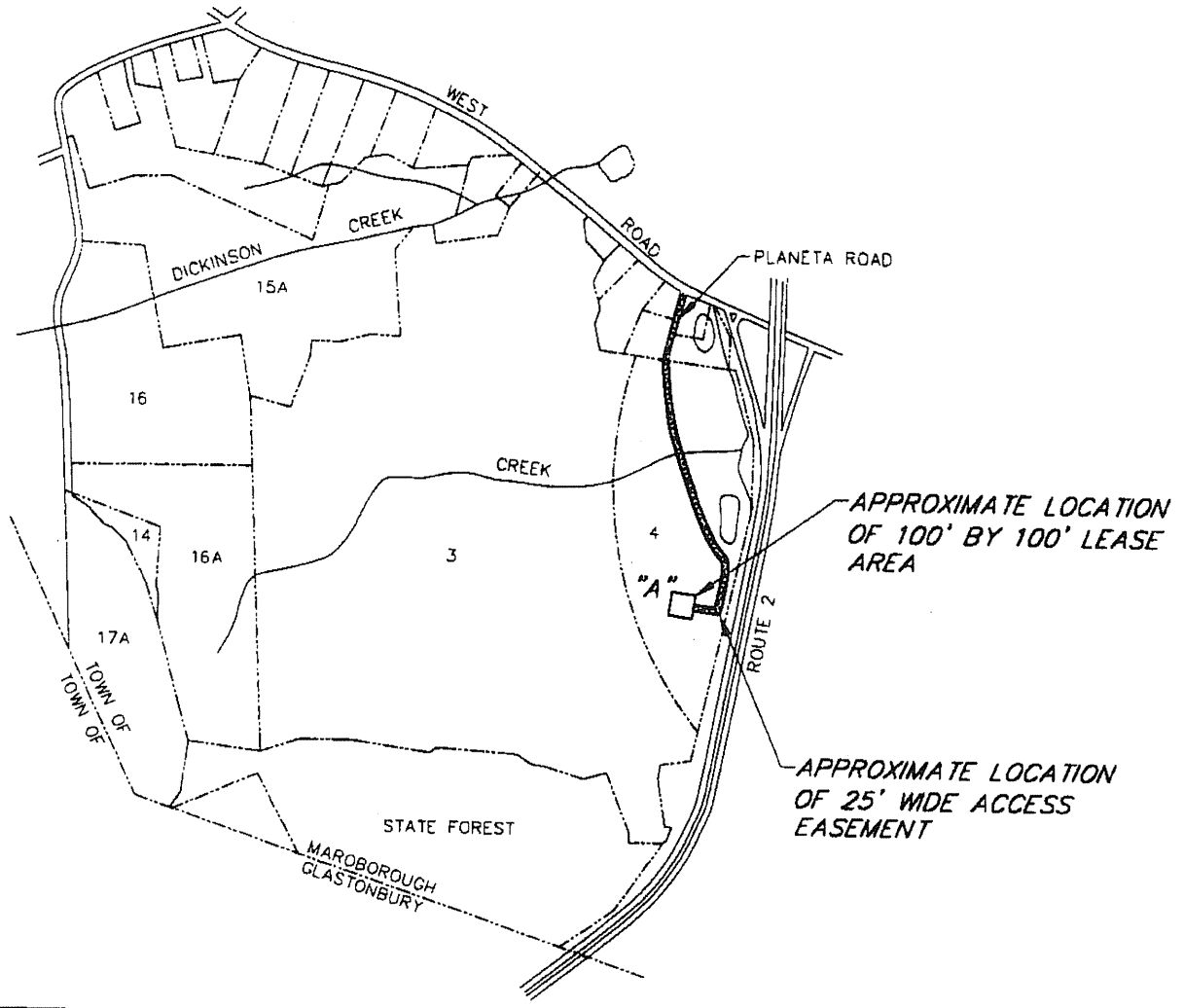
\_\_\_\_\_  
James P. Donahue  
Vice President and General Manager

Attachment 1

The Leased Premises



APPROXIMATE TRUE NORTH



THIS DRAWING IS FOR OPTION, LEASE AND PERMITTING PURPOSES ONLY, AND IS NOT TO BE USED FOR CONSTRUCTION

**SITE PLAN**

BASE MAP TAKEN FROM THE FOLLOWING SOURCES:

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- B. LEASE PARCEL LOCATED ON MAP 2 LOT 4 DEED VOL 8 PAGE 680

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**LEASE EXHIBIT "SITE A"**

SCALE: NTS  
APRIL 14, 2000

1 OF 1 REVISION NUMBER 2

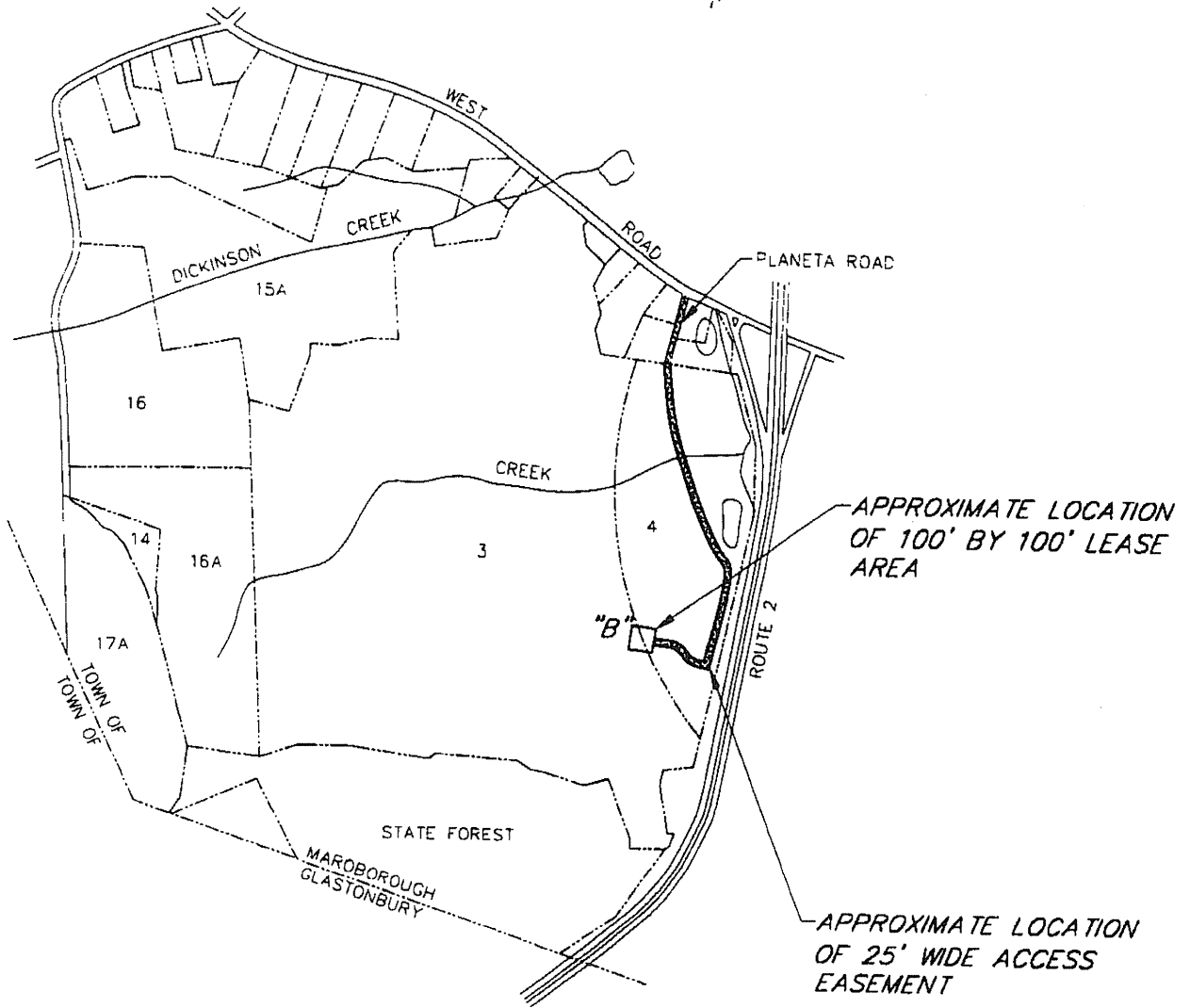


**CLOUGH, HARBOUR & ASSOCIATES LLP**  
ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS

111 WINNERS CIRCLE - ALBANY, NEW YORK - 12205  
P.O BOX 5269 518-453-4500

CROWN ATLANTIC COMPANY, LLC  
MAROBOROUGH COMMUNICATIONS FACILITY  
TOWN OF MAROBOROUGH, HARTFORD COUNTY, CONNECTICUT

APPROXIMATE TRUE NORTH



**SITE PLAN**

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BASE MAP TAKEN FROM THE FOLLOWING SOURCES:

- A. ASSESSORS MAP # 2 PROVIDED BY THE TOWN OF MARBOROUGH
- B. LEASE PARCEL LOCATED ON MAP 2 LOT 3&4 DEED VOL. 31 PAGE 533 & VOL. 8 PAGE 689

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**LEASE EXHIBIT "SITE B"**

SCALE: NTS  
APRIL 14, 2000

1 OF 1

REVISION  
NUMBER 2



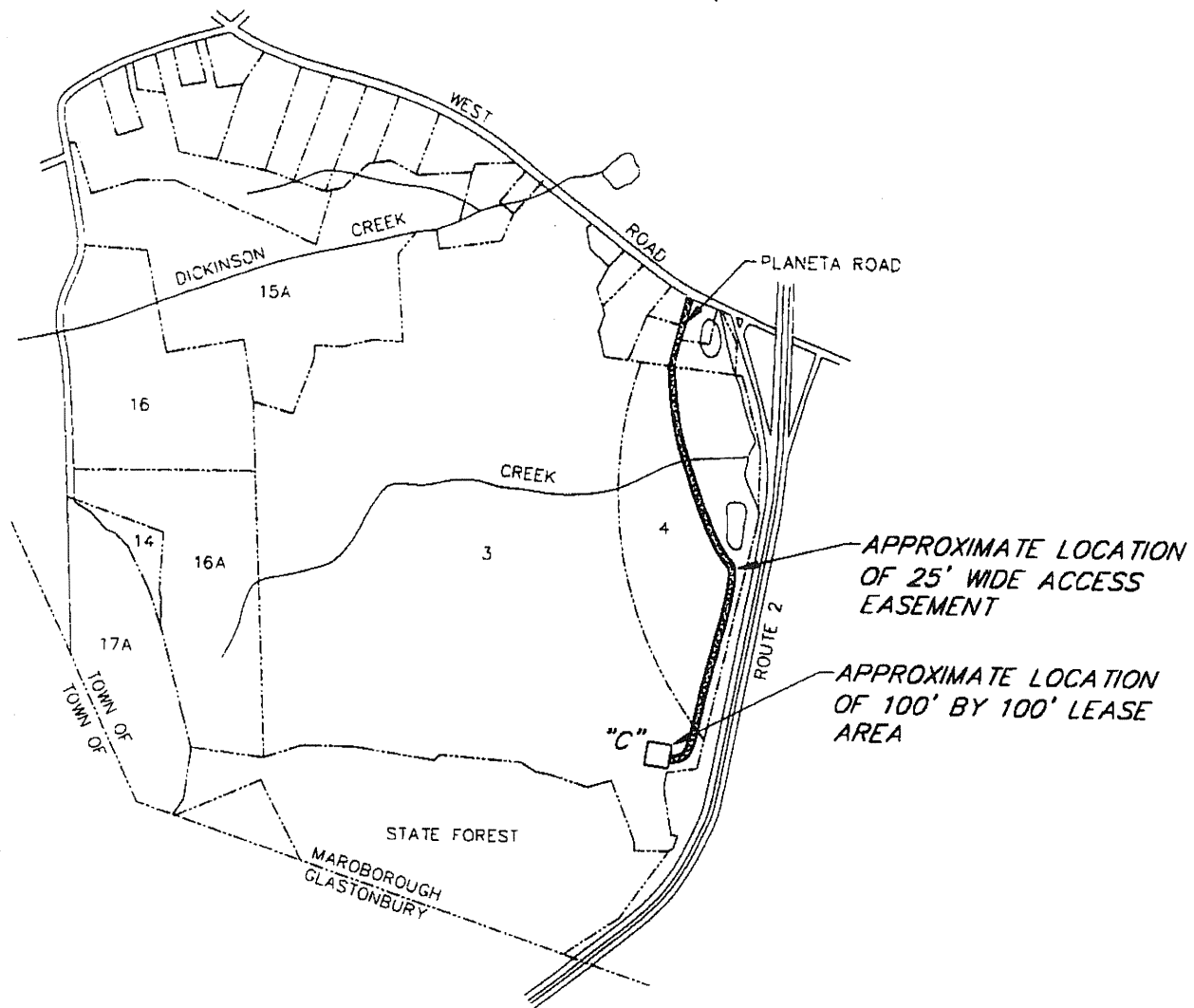
**CLOUGH, HARBOUR & ASSOCIATES LLP**

ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS

111 WINNERS CIRCLE - ALBANY, NEW YORK - 12205  
P.C. BOX 5269 516-453-4500

CROWN ATLANTIC COMPANY, LLC  
MARBOROUGH COMMUNICATIONS FACILITY  
TOWN OF MARBOROUGH, HARTFORD COUNTY, CONNECTICUT

APPROXIMATE TRUE NORTH



THIS DRAWING IS FOR OPTION, LEASE AND PERMITTING PURPOSES ONLY, AND IS NOT TO BE USED FOR CONSTRUCTION

**SITE PLAN**

BASE MAP TAKEN FROM THE FOLLOWING SOURCES:

- A. ASSESSORS MAP # 2 PROVIDED BY THE TOWN OF MAROBOROUGH
- B. LEASE PARCEL LOCATED ON MAP 2 LOT 3 DEED VOL. 31 PAGE 533

**NOTES:**

1. SUBJECT TO ANY STATE OF FACTS THAT AN UP-TO-DATE ABSTRACT OF TITLE WOULD DISCLOSE.
2. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
3. A BOUNDARY SURVEY WAS NOT PERFORMED BY CLOUGH, HARBOUR & ASSOCIATES LLP IN CONJUNCTION WITH THE PREPARATION OF THIS EXHIBIT.
4. THE OWNER AND CROWN HEREBY AGREE TO THE GENERAL LEASE AREA LOCATION SPECIFIED IN THIS LEASE EXHIBIT. THE EXACT LOCATIONS OF COMMUNICATIONS EQUIPMENT, CABLES, FENCING, ACCESS AND UTILITIES ARE SUBJECT TO FINAL ENGINEERING DESIGN AND MUNICIPAL PERMITTING REQUIREMENTS. ULTIMATELY, THE LEASIBLE AREA MAY BE MODIFIED TO REFLECT THE FINAL SITE DESIGN.

**LEASE EXHIBIT "SITE C"**

SCALE: NTS  
APRIL 14, 2000

1 OF 1 REVISION NUMBER 2



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