Connecticut Siting Council

APPLICATION OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

TOWN OF WINCHESTER

WINCHESTER FACILITY

DOCKET NO.

APRIL 10, 2008



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LIST OF ATTACHMENTS

- 1. Winchester 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 Waterbury Republican-American
- 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 between Cellco Partnership and Win 21 LLC

EXECUTIVE SUMMARY

Cellco Partnership d/b/a Verizon Wireless ("Cellco") proposes to construct a telecommunications tower and related facility on an approximately 58-acre vacant parcel owned by Win 21 LLC located off Norfolk Road (Route 44) in the Town of Winchester, Connecticut (the "Winchester Facility"). The Winchester Facility will provide coverage in the northerly portion of the Town of Winchester ("Town"), particularly along Routes 44 and 183, as well as local roads in the area between Cellco's existing Colebrook SW and Winchester East cell sites.

At this site Cellco intends to construct a 150-foot monopole tower. At the top of the tower Cellco will install twelve panel-type Personal Communication Service ("PCS") antennas. 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. Access to the Winchester Facility would extend from Norfolk Road (Route 44) following portions of an existing logging road, a distance of approximately 1,268 feet to the cell site.



STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

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OPERATION OF A WIRELESS	:	
TELECOMMUNICATIONS FACILITY	•	

WINCHESTER, CONNECTICUT : APRIL 10, 2008

APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

I. <u>INTRODUCTION</u>

A. Authority and Purpose

OFF NORFOLK ROAD (ROUTE 44),

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 Winchester, Connecticut (the "Winchester Facility"). The proposed Winchester Facility would provide for much needed PCS coverage along the heavily-traveled Route 44, Route 183 as

well as local roads in the northerly portion of Winchester. Cellco currently experiences a significant gap in coverage between its existing Colebrook SW and Winchester East cell sites. Cellco's existing "Colebrook SW" cell site consists of antennas at the 117-foot level on an existing 150-foot tower at 161 Pinney Street in Colebrook. Cellco's existing "Winchester East" cell site consists of antennas at the 125-foot level on the existing 180-foot tower off Oakdale Avenue in Winchester. The proposed Winchester Facility will provide reliable service to a 3.01 mile portion of Route 44, a 1.75 mile portion of Route 183 and an overall area of 5.0 square miles at PCS frequencies.

The Winchester Facility would be located in the central portion of an approximately 58-acre parcel off Norfolk Road (Route 44) in Winchester (the "Property"). The Property is a vacant, heavily-wooded parcel located in the Town's RU-2 (Rural) zone district. Cellco intends to construct a 150-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 PCS antennas attached to a low profile antenna platform. The top of Cellco's antennas will extend to a height of approximately 153 feet above ground level ("AGL"), three (3) feet above the top of the tower. Equipment associated with the antennas would be located in a 12' x 30' shelter installed near the base of the tower. Access to the cell site would extend from Norfolk Road (Route 44) over a new gravel driveway, a distance of approximately 1,268 feet to the cell site. Portions of the driveway will follow an existing logging road on the Property. Both the tower and leased area will be designed to accommodate additional carriers. Prior to filing this Application, Cellco contacted representatives for Sprint/Nextel, T-Mobile and AT&T and alerted them of Cellco's

¹ The Town of Winchester Assessor's field card lists the Property as containing 56-acres. According to the Town Assessor's Map, the Property contains 58-acres. Project surveyors have made a preliminary determination that the Property contains approximately 63-acres.

plans to file this application. None of these carriers have expressed any interest in participating in this proceeding.

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 diesel-fueled generator would also be installed within a portion of the equipment building 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 shelter 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 <u>Attachment 1</u> is a factual summary and project plans for the proposed Winchester 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 Winchester 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 Connecticut Siting Council.

II. SERVICE AND NOTICE REQUIRED BY C.G.S. SECTION 16-50*l*(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*I*(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 April 7 and 8, 2008, by Cellco in the *Waterbury Republican-American* pursuant to C.G.S. Section 16-50*l*(b). A copy of the legal notice is included as <u>Attachment 4</u>. 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 land that may be considered to abut the Property in accordance with C.G.S. Section 16-50<u>l</u>(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 Winchester 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 <u>Attachment 6</u> is a copy of the FCC's authorization issued to Cellco for its wireless service in Litchfield 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 facility proposed in this Application 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 Litchfield County, Cellco holds an FCC License to provide PCS service. Pursuant to its FCC License, 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 Winchester and the surrounding areas from its existing "Colebrook SW cell site" at 161 Pinney Street in Colebrook and "Winchester East cell site" off Oakdale Avenue in Winchester. Plots showing coverage from Cellco's existing facilities alone and together with the coverage from the proposed Winchester Facility are included in Attachment 7.

² Cellco's existing "Colebrook" cell site also provides limited, spotty coverage into the northeast corner of Winchester.

2. System Design and Equipment

a. System Design

Cellco's wireless system in general and the proposed Winchester 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. <u>Cellular System Equipment</u>

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. <u>Technological Alternatives</u>

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. <u>Site Selection and Tower Sharing</u>

1. <u>Cell Site Selection</u>

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 Winchester Facility will satisfy this goal and is necessary to resolve existing significant coverage problems and to provide high-quality reliable service along portions of Route 44 and Route 183, as well as local roads in the northerly portion of Winchester.

The methodology of cell site selection for Cellco's wireless system generally limits the search for possible locations to a 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 Sprint tower at 161 Pinney Street in Colebrook (Cellco's Colebrook SW Facility) and Spectrasite tower off Oakdale Road in Winchester (Cellco's Winchester East Facility). (See Attachment 7). These existing sites cannot resolve the significant coverage problems in north central Winchester, particularly along Routes 44 and 183. Cellco also regularly investigates the use of existing, non-tower structures in an area as an alternative to building a new tower. No existing non-tower structures of suitable height exist in this portion of Winchester. 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 Winchester Facility tower and compound area so that it could be shared by a minimum of four carriers, emergency service providers and the Town. This type of tower sharing arrangement would reduce, if not eliminate, the need for these other carriers 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 Winchester Facility.

During the course of its meeting with municipal officials in Winchester, Cellco agreed to provide access to the tower, at no cost, to the Town and to emergency service providers in the Town. Cellco would also agree to make ground space in the facility compound available, if needed.

D. Cell Site Information

1. Site Facilities

At the Winchester Facility, Cellco would construct a new 150-foot tall monopole tower and install twelve (12) panel-type PCS antennas at the top of the tower. The top of Cellco's antennas would extend to a height of approximately 153 feet AGL. 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 back-up 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 system 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 Winchester.³ The Winchester 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 Winchester 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 Winchester 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,

³ 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 can be further reduced through the proper use of alternative tower structures; so-called "stealth installations." Where appropriate, telecommunications towers camouflaged as trees, flagpoles, and bell towers, to name a few, can help to further reduce visual impacts associated with these structures. While not proposed in this Application, the Council may determine that some type of stealth installation may be appropriate at this site. 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 some portion of the tower would be visible above the tree canopy are limited to approximately 33 acres, or less than one-half of one percent of the 8,042-acre study area. Areas where seasonal views are anticipated comprise an additional four acres and are located within the immediate vicinity of the proposed Winchester Facility and along Route 183, approximately 0.50 miles east of the Winchester Facility. At least partial year-round views may be possible from select portions of five residential properties within the study area. This includes three residences along Route 183 approximately 0.50 miles east of the site and two residences off Norfolk Road (Route 44) nearly two miles from the site.

There are no residences within 1,000 feet of the Winchester Facility. The nearest residence is located approximately 1,850 feet to the north of the Winchester Facility.

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"). USFWS and DEP comments 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. The USFWS has determined that there are no federally-listed or proposed, threatened or endangered species or critical habitat known to occur in the Winchester project area.

In a comment letter dated December 4, 2007, the DEP indicated that a threatened species, the Roadside Skipper (a butterfly) occurs in the vicinity of the Property. If the habitat for the Roadside Skipper is going to be impacted, the DEP suggests that a survey for the species be conducted. VHB investigated this concern and determined that it is unlikely that appropriate habitats exist on the Property and that the project would adversely effect the threatened species. VHB, in its report, did recognize that due to seasonal constraints, grass and wildflower

identification preferred by the Roadside Skipper was difficult. A follow-up inspection will be conducted in the Spring to better assess the presence of this species or its preferred habitat on the Property. If it is determined that the habitat exists, Cellco's consultants will take appropriate measures, as outlined in DEP's letter dated December 4, 2007, to ensure the DEP is provided with requested documentation. (See <u>Attachment 11</u> VHB letter dated February 11, 2008).

Also included in <u>Attachment 11</u> is a letter from the SHPO confirming that the Winchester Facility will have <u>no effect</u> on cultural resources listed or eligible for listing on the National Register of Historic Places.

This review by state administrative agencies furnishes ample expert opinion on the potential environmental impacts from the Winchester 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 2.53% of the Standard at the Winchester Facility.

d. Other Environmental Issues

No sanitary facilities are required for the Winchester Facility. The operations at the proposed site 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 Winchester Facility
alone or cumulatively with other effects is sufficient reason to deny this Application.

4. Consistency with Local Land Use Controls

The Connecticut Siting 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, Zoning Regulations and Wetland 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 Winchester Facility would be located on an approximately 58-acre parcel owned by Win 21 LLC. The Property is zoned "RU-2" Rural and is currently undeveloped and heavily-wooded land. The Property is surrounded by the Algonquin State Forest to the north, west and south (across Route 44) and heavily-wooded vacant land to the east.

b. Winchester Town Plan of Conservation and Development

The Town of Winchester 1994 Plan of Development does not specifically identify telecommunications towers as a land use consistent or inconsistent with the general planning policies of the Town of Winchester.

c. Zoning Regulations

According to the Town Zoning Map, the Winchester Facility is located in the RU-2 zone. The Winchester Zoning Regulations ("Zoning Regulations") regulate telecommunications facilities pursuant to the provisions of Section 19. All ground-mounted towers, within the Town's jurisdiction, are permitted in all zone districts subject to approval of a special permit. (See Section 19.3.3). Consistent with Cellco's regular site search procedures, the Town's telecommunications facilities ordinance encourages the use of existing towers or other tall structures, wherever possible. If existing structures are not available, the Zoning Regulations establish a preference for tower locations in Industrial or Commercial zone districts. The least preferred locations are those in Residential or Rural zone districts. There are no commercial or industrial zone properties proximate to the Property. The proposed tower and equipment shelter meet the setback requirements for structures in the RU-2 zone district. The theoretical fall radius of the tower (a distance from the base of the tower equal to the structure's height) remains entirely on the Property. (See Attachment 1 – Plan Sheet C-1).

d. <u>Inland Wetlands and Water Course Regulations</u>

The Winchester Inland Wetlands and Watercourses ("IWW") Regulations regulate activity within identified wetland or watercourse areas and those upland areas, within 75 feet of a wetland or 100 feet of a watercourses. Four (4) copies of the Winchester IWW 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 the Winchester Facility. According to the Wetlands Report, a small wetland system and associated intermittent watercourse occurs in the north-central portion of the Property. The intermittent

watercourse system is located a minimum of 50 feet north of the northernmost portion of the access drive, including associated grading. (See Tab 1, Plan Sheet C-1). An additional bedrock controlled wetland depression occurs northwest of the proposed facility more than 100 feet northwest of the proposed facility compound. No direct wetland or watercourse impacts are proposed as part of the Winchester Facility development. Due to proposed separation distance and erosion and sedimentation controls to be installed and maintained during construction, the Winchester Facility will likewise not result in any indirect adverse impacts to these wetland or watercourse resources. A copy of the Wetlands Report is 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 090132001A (effective July 17, 1978), the Facility would be located in Flood Zone C, an area of minimal flooding. A copy of the FIRM is also included in Attachment 12.

5. Local Input

Section 16-50<u>l</u>(e) of the Connecticut General Statutes, as amended, requires local input on matters before the Council. On October 25, 2007, Cellco commenced the sixty (60) day municipal consultation process. Section 16-50<u>l</u>(e) of the Connecticut General Statutes, as amended, requires local input on matters before the Council. Following the submission of its Technical Report, Cellco

representatives met with Town Manager, Owen J. Quinn, as designee for Mayor Maryann D. Welcome and Town Planner, Charles Karno to discuss the proposal. Mr. Quinn received copies of technical information summarizing Cellco's plans to establish a telecommunications facility at the Property in Winchester.

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 Winchester 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 with all of its tower applications, Cellco has conducted the appropriate air-space analysis for the proposed Winchester 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, 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 <u>Attachment 13</u>.

c. United States Fish and Wildlife Service

According to VHB's assessment, there are no federally-listed or proposed, threatened or endangered species or critical habitat known to occur in the project area. (See VHB Report dated February 11, 2008 in <u>Attachment 11</u>).

d. Connecticut Department of Environmental Protection

(1) Environmental and Geographic Information Center

As discussed above based on a review of the DEP/NDDB and on-site investigation, suitable habitat for the Roadside Skipper does not appear to exist on the Property and, therefore, the development of the Winchester Facility will not impact any known occurrences of State listed species or significant natural communities. VHB intends to verify this finding in the Spring of 2008. (See VHB Report dated February 11, 2008 in Attachment 11).

(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 Winchester Facility.

e. <u>Connecticut State Historic Preservation Officer</u>

As discussed above, <u>Attachment 11</u> also includes the SHPO's determination that the proposed Winchester Facility will have <u>no effect</u> on cultural resources listed or eligible for listing on the National Register of Historic Places.

E. <u>Estimated Cost and Schedule</u>

1. Overall Estimated Costs

The total estimated cost of construction of the proposed facility is \$895,000. This estimate includes:

Cell site radio equipment of approximately \$450,000
 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

225,000

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 Winchester Facility, at the Property will not have any substantial adverse environmental effects. A public need exists for high quality mobile and portable wireless service in the Town of Winchester and throughout Litchfield 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. Moreover, the cell site proposed in this Application will help to provide a level of service in the area that is commensurate with the public demand currently and in the foreseeable future.

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

Respectfully submitted,

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

y: 10000

Kenneth C. Baldwin, Esq. Robinson & Cole LLP

280 Trumbull Street

Hartford, Connecticut 06103-3597

(860) 275-8200

Attorneys for the Applicant

WINCHESTER

Norfolk Road (Route 44) Winchester, Connecticut

Description of Proposed Cell Site

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

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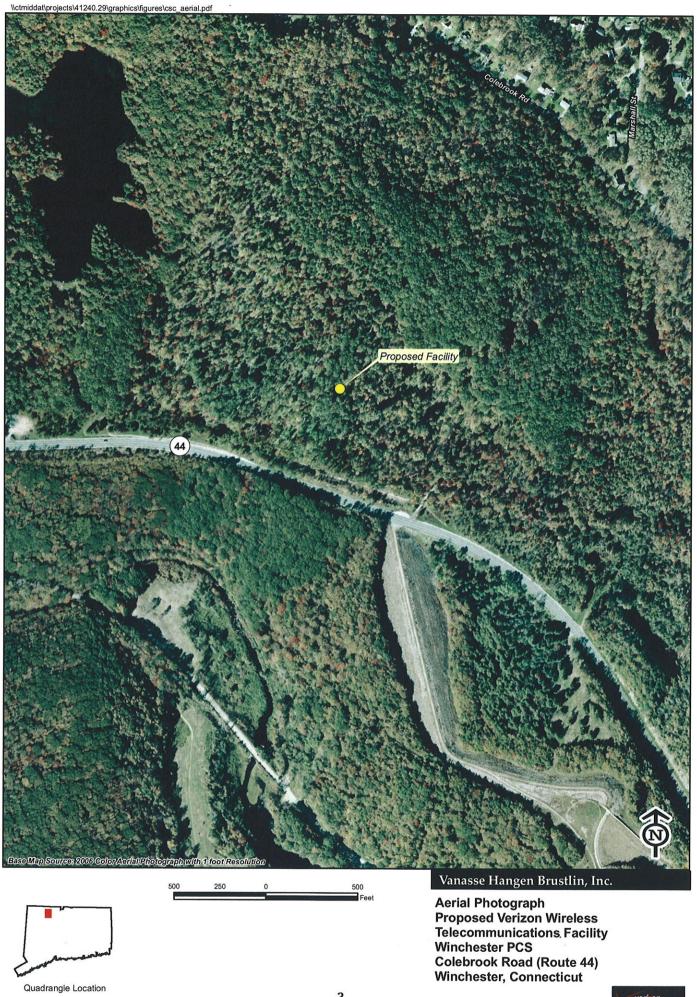
SECTION	PAGE
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U.S.G.S. TOPOGRAPHIC MAP	2
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FACILITIES AND EQUIPMENT SPECIFICATION	6
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SITE NAME: WINCHESTER - Norfolk Road (Route 44), Winchester, CT

GENERAL CELL SITE DESCRIPTION

The proposed cell site would be located within a 50' x 75' fenced compound in the central portion of an approximately 58-acre parcel ("Property") owned by Win 21 LLC. The Property is located north of Route 44 and is undeveloped land. The Winchester Facility would consist of a 150-foot telecommunications tower and a 12' x 30' equipment shelter located near the base of the tower (the "Winchester Facility"). Cellco antennas would be mounted at the top of the tower with their centerline at the 150-foot level. The top of the Cellco antennas would extend to an overall height of approximately 153 feet above ground level. Vehicular access to the site and utility service would extend from Norfolk Road (Route 44) following portions of an existing gravel driveway to be improved by a new gravel driveway to the site compound, a total distance of approximately 1,268 feet.





SITE EVALUATION REPORT

SITE NAME: WINCHESTER - Norfolk Road (Route 44), Winchester, CT

I. LOCATION

- A. <u>COORDINATES</u>: 41°-56'-24.70" N 73°-05'-45.25" W
- B. GROUND ELEVATION: Approximately 1,145± feet AMSL
- C. USGS MAP: Winsted, CT
- D. <u>SITE ADDRESS</u>: Norfolk Road, Winchester, CT
- E. <u>ZONING WITHIN 1/4 MILE OF SITE</u>: Land within 1/4 mile of the cell site is in the RU-2 and RU-1 Rural zoning district and R-2 Residential zoning district.

II. DESCRIPTION

- A. <u>SITE SIZE</u>: 100' x 100' Leased Area 50' x 75' Compound Area
- B. LESSOR'S PARCEL: Approximately 58-acres
- C. <u>TOWER TYPE/HEIGHT</u>: 150' Monopole Tower 153' to top of antennas
- D. <u>SITE TOPOGRAPHY AND SURFACE</u>: Site topography generally slopes from north to south. Clearing and grading of the facility compound area and portions of the access drive will be required. Portions of the access drive will utilize existing logging roads on the Property.
- E. <u>SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER</u>: The tower is located in the central portion of a 58-acre parcel that is currently undeveloped. A small wetland system and associated intermittent watercourse occurs in the northerly portion of the Property. An additional bedrock controlled wetland depression occurs northwest of the proposed facility compound.
- F. <u>LAND USE WITHIN 1/4 MILE OF SITE</u>: The Winchester Facility is located on a 58-acre undeveloped parcel. The Property is surrounded, on three sides, by the Algonquin State Forest. To the east are large undeveloped land and low-density residential parcels fronting on Route 183. (See Aerial Photograph at p. 2).

III. FACILITIES

- A. <u>POWER COMPANY</u>: Connecticut Light and Power
- B. <u>POWER PROXIMITY TO SITE</u>: Approximately 1,268 feet to the south from Norfolk Road (Route 44).
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: Same as power
- E. <u>VEHICLE ACCESS TO SITE</u>: Vehicle access to the site would extend from Norfolk Road (Route 44) over portions of existing logging roads on the Property and also over a new gravel driveway, a total distance of approximately 1,268 feet to the site compound.
- F. <u>CLEARING AND FILL REQUIRED</u>: Clearing and grading would be required for construction of the tower and site compound and portions of the access driveway. Detailed construction plans would be developed after approval by the Siting Council.

IV. LEGAL

- A. PURCHASE [] LEASE [X]
- B. OWNER: Win 21 LLC
- C. ADDRESS: Norfolk Road (Route 44), Winchester, 06098
- D. DEED ON FILE AT: Town of Winchester, CT Land Records

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FACILITIES AND EQUIPMENT SPECIFICATION (NEW TOWER & EQUIPMENT BUILDING)

SITE NAME: WINCHESTER - Norfolk Road (Route 44), Winchester, CT

I. TOWER SPECIFICATIONS:

- A. MANUFACTURER: To be determined
- B. TYPE: Self-supporting monopole
- C. TOWER HEIGHT: 150' DIMENSIONS: Approx. 42" base

Approx. 30" top

II. TOWER LOADING:

A. CELLCO EQUIPMENT:

- 1. Antennas (12)
 Model LPA-185080/12CF_2 (71.1" x 4.1" x 5.9) PCS antennas
 Antenna Centerline 150' AGL
 Top of Antenna 153' 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: WINCHESTER - Norfolk Road (Route 44), Winchester, 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 Winchester Facility. A small wetland system and associated seasonal intermittent watercourse occurs in the north central portion of the Property, a minimum of 50 feet north of the northernmost portion of the access drive. There is an existing wetland area located approximately 100 feet northwest of the proposed compound. Portions of the site access driveway and grading related thereto will maintain a minimum 50-foot setback from an existing on-site wetland/watercourse area. Portions of the site compound and grading related thereto will maintain a minimum of 100-foot setback from the existing wetland area. (See Plan Sheet C-1). The equipment used will not discharge any pollutants to area surface or groundwater systems.

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 access driveway will be required. The remaining portion of the Property would remain unchanged by the construction and operation of the Winchester Facility.

D. NOISE

The equipment to be in operation at the Winchester 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. <u>POWER DENSITY</u>

The worst-case calculation of power density for Cellco's PCS antennas at the Winchester Facility would be 2.53% of the Standard.

F. VISIBILITY

See Visual Resource Evaluation Report included as Attachment 10.

Cellco Partnership

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

WINCHESTER PCS NORFOLK ROAD WINCHESTER, CT

FROM:	99 EAST RIVER DRIVE EAST HARTFORD, CONNECTICUT	TO:	SITE ACCESS ON NORFOLK RD WINSTED, CONNECTICUT
	RIVER DR TOWARD E RIVER DR		<0.1 M
2. TURN LEFT ON			0.3 MI
	CONNECTICUT BLVD (US-44).		0.2 MI
4. TAKE RAMP ON			0.3 MI
	/MAIN ST (I-91 S).		0.2 MI
	MORGAN ST N (US-44 W).		0.1 MI
O. CONTINUE UN	FOLLOW US-44 W.		

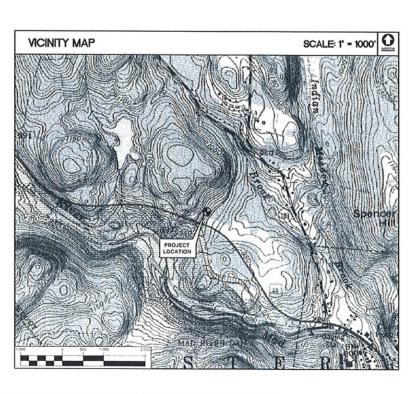
GENERAL NOTES

1. PROPOSED ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELLCO PARTNERSHIP.

SITE INFORMATION

THE SCOPE OF WORK SHALL INCLUDE:

- THE CONSTRUCTION OF A 50'x75' FENCED WIRELESS COMMUNICATIONS COMPOUND WITHIN 100'x100' LEASE AREA.
- 2. THE PROPOSED COMPOUND WILL BE LOCATED IN THE CENTRAL PORTION OF THE SUBJECT PARCEL. A PROPOSED 1,268'± LONG 12' WIDE GRAVEL ACCESS DRIVE WITHIN A PROPOSED 20' ACCESS/UTILITY EASEMENT WILL PROVIDE ACCESS TO THE SITE FROM THE EXISTING DO CURB-CUT ON NORFOLK ROAD. SAID ACCESS DRIVE SHALL UTILIZE SEGMENTED PORTIONS OF EXISTING GRASS/DIRT LOGGING PATHS EQUALING A TOTAL OF APPROXIMATELY 815'.
- 3. A TOTAL OF TWELVE (12) DIRECTIONAL PANEL ANTENNAS ARE PROPOSED TO BE MOUNTED AT A RAD CENTER ELEVATION OF 150'-0"+/- AGL ON A 150' PROPOSED STEEL MONOPOLE TOWER LOCATED CENTRALLY WITHIN THE PROPOSED COMPOUND.
- 4. POWER AND TELCO UTILITIES SHALL BE ROUTED UNDERGROUND FROM EXISTING RESPECTIVE DEWARCS TO THE PROPOSED UTILITY BACKBOARD LOCATED IN FRONT OF 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 UTILITY ROUTING FROM DEWARCS 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,
- 7. THERE WILL NOT BE ANY LIGHTING UNLESS REQUIRED BY THE FCC OR THE FAA
- B. THERE WILL NOT BE ANY SIGNS OR ADVERTISING ON THE ANTENNAS OR EQUIPMENT.
- 9. FOR ADDITIONAL NOTES AND DETAILS REFER TO THE ACCOMPANYING DRAWING

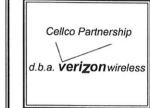


PROJECT SUMMARY			
SITE NAME:	WINCHESTER PCS		
SITE ADDRESS:	NORFOLK ROAD WINCHESTER, CT 06098		
PROPERTY OWNER:	WIN21 LLC 156 ROOSEVELT DRIVE SEYMOUR, CT 06483		
LEASOR:	WIN21 LLC 156 ROOSEVELT DRIVE SEYMOUR, CT 06483		
LESSEE:	CELLCO PARTNERSHIP d.b.a. VERIZON WRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108		
APPLICANT:	CELLCO PARTNERSHIP d.b.o. VERIZON WRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108		
CONTACT PERSON:	SANDY CARTER CELLCO PARTNERSHIP (860) 803-8219		
TOWER COORDINATES:	LATITUDE: 41'56'24.70" LONGTUDE: '3705'45.25" COORDINATES FAA 25 SURVEY CERTIFICATION AS PREPARED BARRETT, BOUNCCI & VAN WEELE, P.C., DATEO FEBRUARY 5, 2008.		

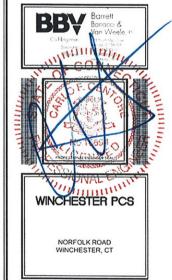
LEGEND		
SYMBOL	DESCRIPTION	
(1)	- SECTION OR DETAIL NUMBER - SHEET WHERE DETAIL/SECTION OCCURS	
\bigoplus	- ELEVATION NUMBER - SHEET WHERE ELEVATION OCCURS	

NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	04
C-1	SITE PLAN	04
C-1A	ABUTTERS MAP	04
C-1B	ACCESS DRIVE PROFILE	04
C-2	COMPOUND PLAN AND ELEVATION	04
C-3	SITE DETAILS AND NOTES	04
C-4	SITE DETAILS AND SHELTER ELEVATIONS	04
C-5	SHELTER FOUNDATION DETAILS AND NOTES	04

1 1		RE	VISIONS
ll	Α	07/31/07	CSC - EXHIBIT REVIEW
- 1	00	08/03/07	CSC - EXHIBIT
ı	01	10/25/07	REVISED CSC - EXHIBIT
ı	02	12/10/07	CT SITING COUNCIL - REVIEW
	03	02/26/08	CT SITING COUNCIL
	04	04/07/08	CT SITING COUNCIL
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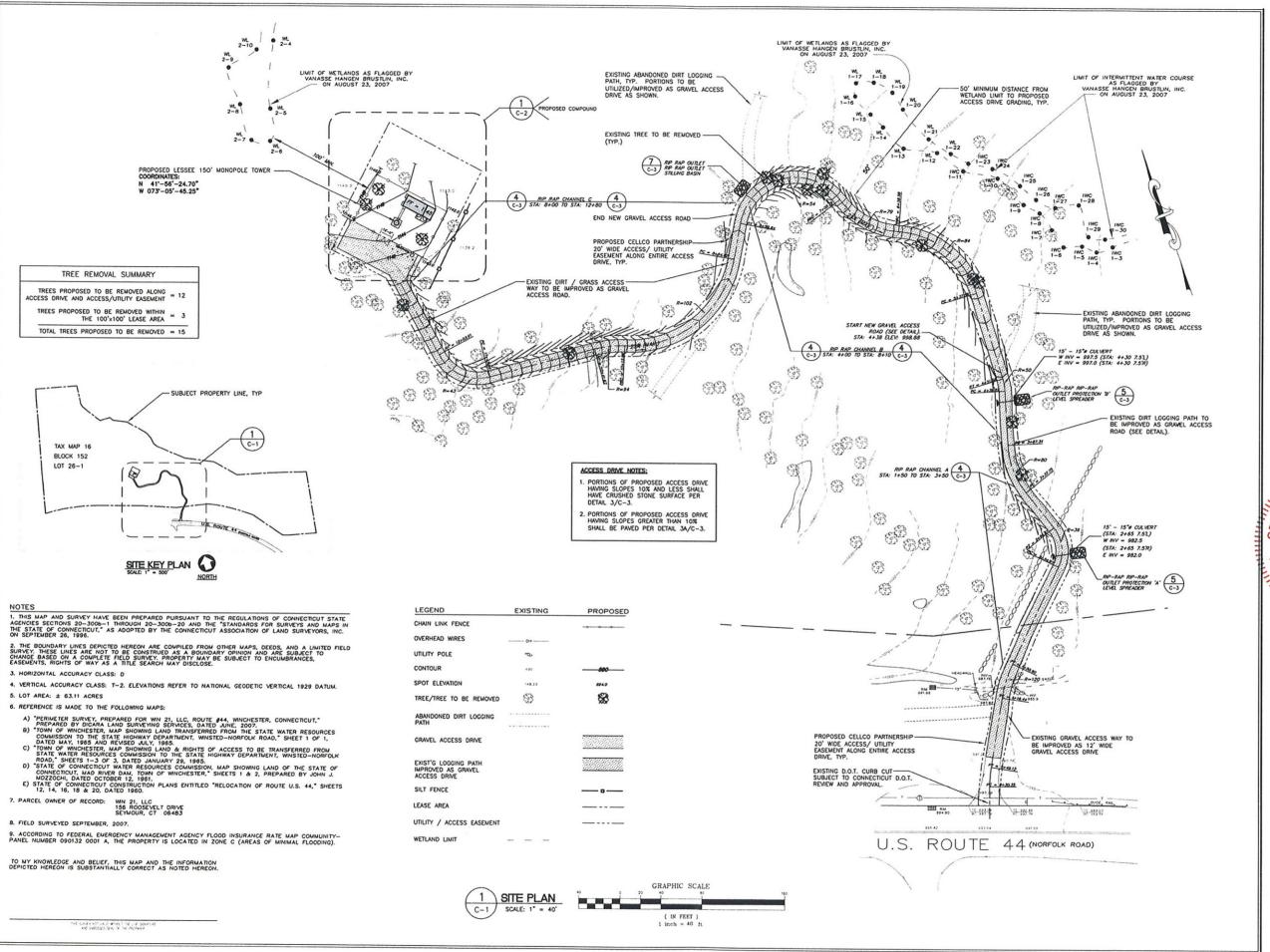




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CHECKED BY:	CFC
SCALE:	AS NOTED
DATE:	07-30-07

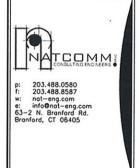
TITLE SHEET





	RE	VISIONS
A	07/31/07	CSC - EXHIBIT REVIEW
00	08/03/07	CSC - EXHIBIT
01	10/25/07	REVISED CSC - EXHIBIT
02	12/10/07	CT SITING COUNCIL - REVIEW
03	02/26/08	CT SITING COUNCIL
04	04/07/08	CT SITING COUNCIL







PROJECT NO: 07019

DRAWN BY: DEB

CHECKED BY: CFC

SCALE: AS NOTED

07-30-07

WINCHESTER PCS

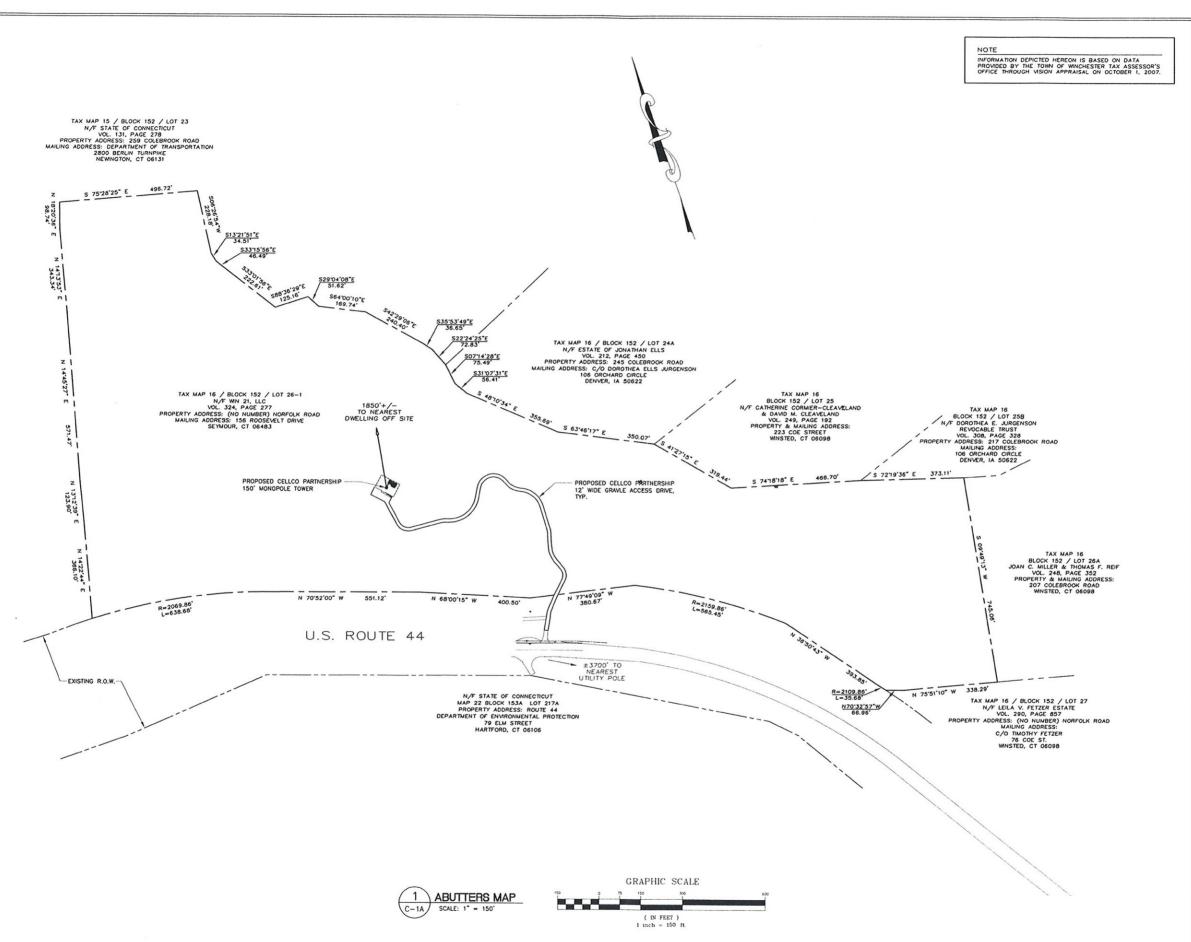
NORFOLK ROAD

WINCHESTER, CT

SITE PLAN

DATE:

C-1



	RE	VISIONS
Α	07/31/07	CSC - EXHIBIT REVIEW
00	08/03/07	CSC - EXHIBIT
01	10/25/07	REVISED CSC - EXHIBIT
02	12/10/07	CT SITING COUNCIL - REVIEW
03	02/26/08	CT SITING COUNCIL
04	04/07/08	CT SITING COUNCIL



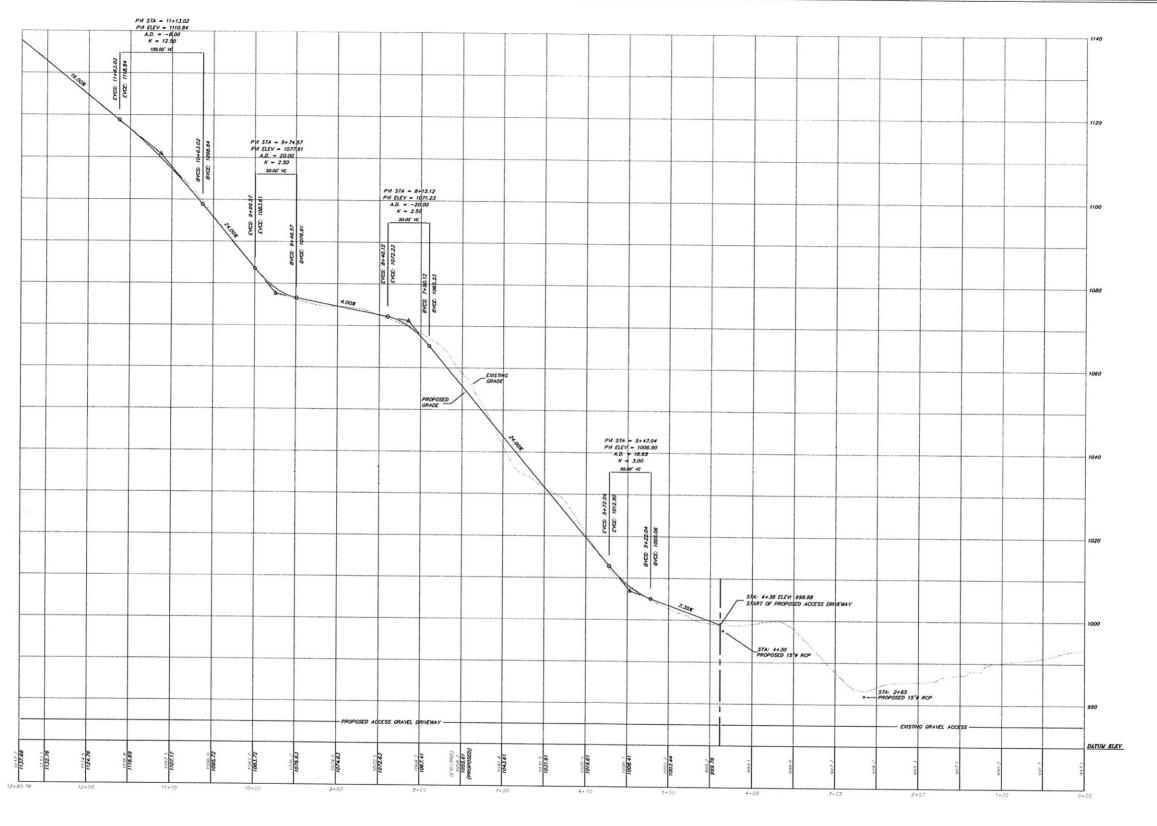




PROJECT NO:	07019
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CHECKED BY:	CFC
SCALE:	AS NOTED
DATE:	07-30-07

ABUTTERS MAP





- POINT OF TANGENCY BVCS - BEGINNING OF VERTICAL CURVE (STATION) - POINT OF CURVATURE BVCE - BEGINNING OF VERTICAL CURVE (ELEVATION) R - RADIUS

STA - POINT OF VERTICAL INTERSECTION

ELEV - ELEVATION

EVCS - END OF VERTICAL CURVE (STATION)

EVCE - END OF VERTICAL CURVE (ELEVATION)

AD - ALGEBRAIC DIFFERENCE (GRADE)

	RE	VISIONS
Α	07/31/07	CSC - EXHIBIT REVIEW
00	08.03.07	CSC - EXHIBIT
01	10/25/07	REVISED CSC - EXHIBIT
02	12/10/07	CT SITING COUNCIL - REVIEW
03	02/26/08	CT SITING COUNCIL
04	04/07/08	CT SITING COUNCIL





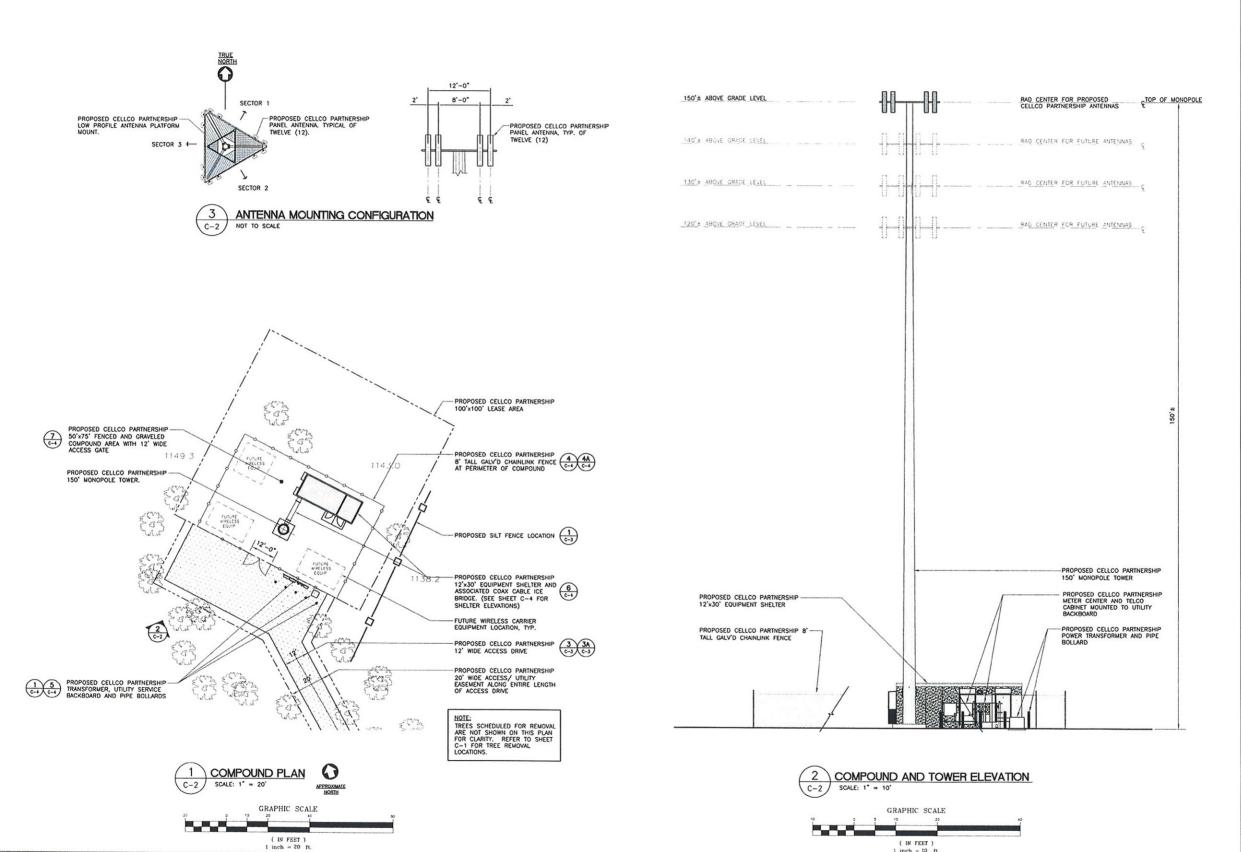


PROJECT NO:	07019
DRAWN BY:	DMD
CHECKED BY:	CFC
SCALE:	AS NOTED
DATE:	07-30-07

ACCESS DRIVE **PROFILE**



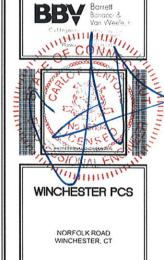




00	08/03/07	CSC - EXHIBIT
01	10/25/07	REVISED CSC - EXHIBIT
02	12/10/07	CT SITING COUNCIL - REVIEW
03	02/26/08	CT SITING COUNCIL
04	04/07/08	CT SITING COUNCIL



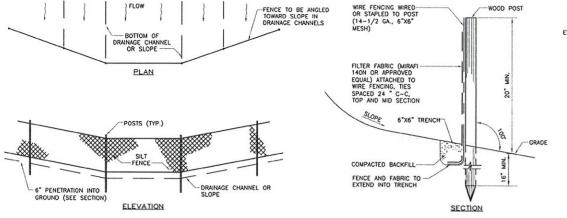




PROJECT NO:	07019
DRAWN BY:	DMD
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SCALE:	AS NOTED
DATE:	07-30-07

COMPOUND PLAN AND ELEVATION





NOTE: PERIODIC MAINTENANCE IS REQUIRED AS NEEDED TO REMOVE ACCUMULATED MATERIALS AND REPAIR FENCE.

1 SILTATION FENCE DETAIL NOT TO SCALE

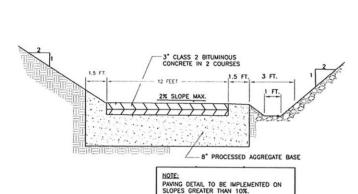
SOIL EROSION AND SEDIMENT CONTROL NOTES

- (A) ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS STABILIZED CONSTRUCTION ENTRANCE / ANTITRAKING PAD AND SILT FENCE, SHALL BE IN PLACE PRIOR TO ANY GRADING ACTIVITY, INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. MEASURES SHALL BE LEFT IN PLACE AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND/OR AREA IS STABILIZED.
- (B) ALL ENTRANCES TO THE PROJECT SITE ARE TO BE PROTECTED BY STONE TRACKING PADS. THE STONE TRACKING PAD IS TO BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
- (C) LAND DISTURBANCE WILL BE KEPT TO A MINIMUM AND RESTABILIZATIONS WILL BE SCHEDULED AS SOON AS PRACTICAL.
- (D) ALL SOIL EROSION AND SEDIMENT CONTROL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
- (E) ANY ADDITIONAL EROSION/SEDIMENTATION CONTROL DEEMED NECESSARY BY TOWN STAFF DURING CONSTRUCTION, SHALL BE INSTALLED BY THE DEVELOPER, IN ADDITION, THE DEVELOPER SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE TOWN STAFF.
- (F) IN ALL AREAS, REMOVAL OF TREES, BUSHES AND OTHER VEGETATION AS WELL AS DISTURBANCE OF THE SOIL IS TO BE KEPT TO AN ABSOLUTE MINIMUM WHILE ALLOWING PROPER DEVELOPMENT OF THE SITE. DURING CONSTRUCTION, EXPOSE AS SMALL AN AREA OF SOIL AS POSSIBLE FOR AS SHORT A TIME AS POSSIBLE.
- (G) SILTATION FENCE SHALL BE PLACED AS INDICATED BEFORE A CUT SLOPE HAS BEEN CREATED. SEDIMENT DEPOSITS SHOULD BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDES OF SILTATION FENCE. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR TO BE USED IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. SILTATION FENCE IS TO BE REPLACED AS NECESSARY TO PROMDE PROPER FILTERING ACTION.
- (H) PIPE AND SWALES DISCHARGE AREAS (TEMPORARY & PERMANENT) WILL BE PROTECTED WITH RIPRAP, ENERGY DISSIPATERS AND/OR STILLING BASINS AS INDICATED.
- (J) PIPE INLETS WILL BE PROTECTED WITH SILTATION FENCES THROUGHOUT CONSTRUCTION AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
- ALL FILL AREAS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION.
- (N) THE SOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERMISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SOODING OR SECONG.

AFTER CONSTRUCTION IS COMPLETE AND GROUND IS STABILE, CLEAN SILTS IN THE RIPRAP ENERGY DISSIPATERS / STILLING BASIN. REMOVE OTHER EROSION AND SEDIMENT DEVICES.

SOIL EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE

AREA	REQUIRED MAINTENANCE		FREQUENCY
LEASE AREA	INSPECT AND CLEAR OF VE	EGETAION	BI-ANNUALLY; AND AFTER EACH MAJOR RAINFALL EVENT
ACCESS DRIVEWAY	INSPECT AND CLEAR OF VE	EGETAION	BI-ANNUALLY; AND AFTER EACH
RIP-RAP LINED SWALES	INSPECT AND CLEAR OF AL VEGETATION OR DEBRIS, IN: OF STRUCTURE, REPAIR/RE	ISPECT INTEGRITY	BI-ANNUALLY; AND AFTER EACH MAJOR RAINFALL EVENT
RIP-RAP OUTLETS	INSPECT AND CLEAR OF AL VEGETATION OR DEBRIS, IN: OF STRUCTURE, REPAIR/RE REMOVE SEDIMENT AS NECI	ISPECT INTEGRITY EPLACE AS NEC.	BI-ANNUALLY; AND AFTER EACH MAJOR RAINFALL EVENT



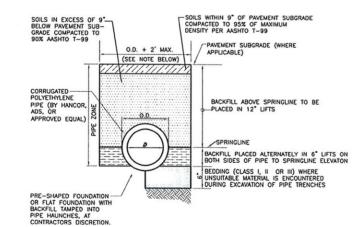
TETETETETETET

12' MIN.

(C-3)

2" STONE OR RECYCLED CONCRETE -

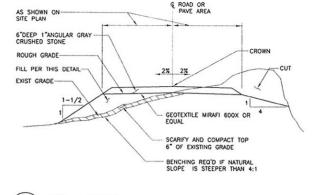
3A TYP. BITUMINOUS CONCRETE DRIVEWAY DETAIL



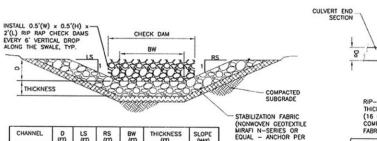
NOTES:

- 1. CLASS I, II, III OR IV COMPACTED BACKFILL MATERIAL REQUIRED IN ALL PIPE ZONES, PER USCS (UNIFIED SOIL CLASSIFICATION SYSTEM).
- 2. IF DEPTH OF TRENCH EXCEEDS 5', THE CONTRACTOR MUST PROVIDE SHEETING AND BRACING OR A SHEETING BOX IN ACCORDANCE WITH OSHA REQUILATIONS, AS AN ALTERNATE, IF PERMITTED BY THE ENGINEER, THE TRENCH WALLS MAY BE CUT BACK TO A 1:1 SLOPE OR THE NATURAL ANGLE OF REPOSE FOR THE SOIL, WHICHEVER IS GREATER.
- 3. WHERE PIPE IS INSTALLED WITH LESS THAN 2' OF COVER, ALL BACKFILL MATERIAL THROUGHOUT THE PIPE ZONE IS TO BE CLASS I MATERIAL.





3 TYP. CRUSHED STONE ACCESS DRIVE DETAIL NOT TO SCALE



CHANNEL	0 (FT)	LS (FT)	RS (FT)	BW (FT)	THICKNESS (FT)	SLOPE (MAX)	(NONWOVEN GEO MIRAFI N-SERIES EQUAL - ANCHO
A	1	1	1	1	1.0	18%	MANUFACTURER)
В	1	1	1	1	1.0	24%	
С	1	1	1	1	1.0	24%	

-EXISTING PAVEMENT

FILTER FABRIC (MIRAFI 600X, OR EQUAL)

PROFILE

50° MIN.

NOTE: WAINTENANCE TO INCLUDE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS REQUIRED.

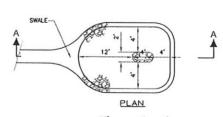
NOT TO SCALE

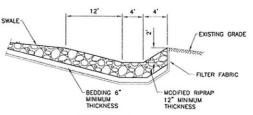
ANTI-TRACKING APRON



CONNDOT MODIFIED RIPRAP SIZES

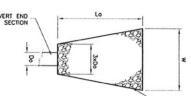
HIFHAF SIZE	-0
STONE SIZE	% OF MASS
10" AND OVER	0
6" TO 10"	30-50
4" TO 6"	30-50
2" TO 4"	20-30
1" TO 2"	10-20
LESS THAN 1"	0-10





SECTION A-A

STILLING BASIN
NOT TO SCALE

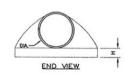


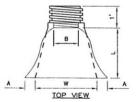
RIP-RAP (SEE TABLES FOR SIZE AND THICKNESS) ON STABILIZATION FABRIC (16 OZ. MIN.) PLACED ON COMPACTED SUBGRADE. (ANCHOR FABRIC PER MANUFACTURER)

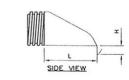
FABRIC P	ER MANU	JFACTUR	ER)
APRON	Lo (m)	W W	THICKNESS (FI)
A	10	15	1.0
В	10	15	1.0

5 LEVEL SPREADER

C-3 NOT TO SCALE







PIPE DIA	Α	В	н	L	W
15"	6.5*	10"	6.5*	25"	29"
24"	7.5*	18"	6.5*	36"	45*

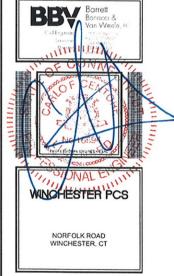
8 CULVERT END SECTION

NOT TO SCALE

		RE	VISIONS
01 10/25/07 REVISED CSC - EXHIBIT 02 12/10:07 CT SITING COUNCIL - REVIE 03 02/26/08 CT SITING COUNCIL	A	07/31/07	CSC - EXHIBIT REVIEW
02 12/10/07 CT SITING COUNCIL - REVIE 03 02/26/08 CT SITING COUNCIL	00	08:03/07	CSC - EXHIBIT
03 02/26/08 CT SITING COUNCIL	01	10/25/07	REVISED CSC - EXHIBIT
The state of the s	02	12/10/07	CT SITING COUNCIL - REVIE
04 04/07/08 CT SITING COUNCIL	03	02/26/08	CT SITING COUNCIL
	04	04/07/08	CT SITING COUNCIL



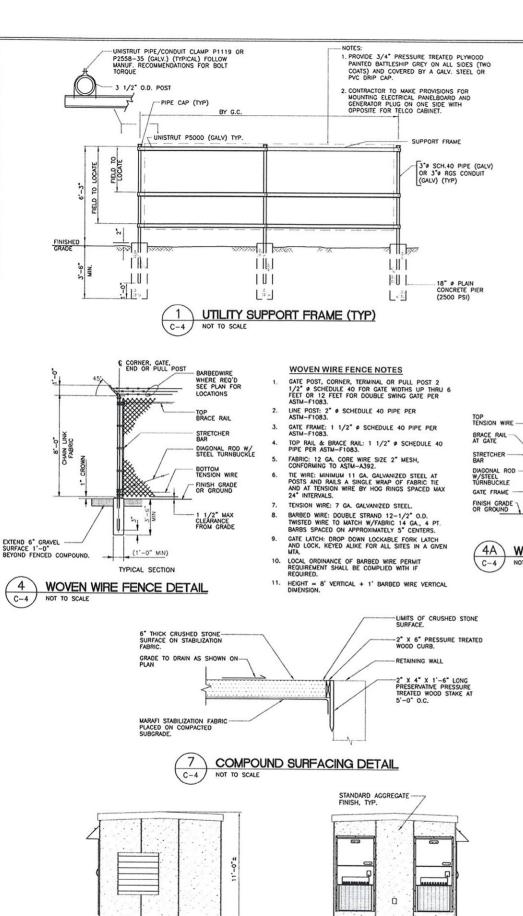




PROJECT NO:	07019
DRAWN BY:	DMD
CHECKED BY:	CFC
SCALE:	AS NOTED
DATE:	07-30-07

SITE DETAILS AND NOTES

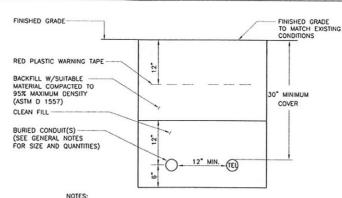




SOUTHEAST SHELTER ELEVATION

10 NORTHWEST SHELTER ELEVATION

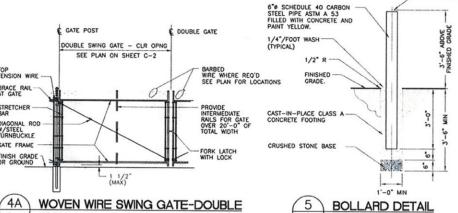
C-4 SCALE: 1/4" = 1'-0"



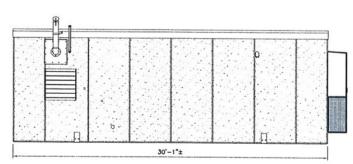
1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN
AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL
NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION

WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

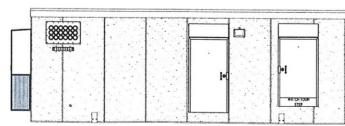
TYPICAL ELECTRICAL/TEL TRENCH DETAIL C-4 NOT TO SCALE



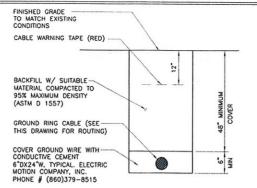
4A WOVEN WIRE SWING GATE-DOUBLE



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



11 SOUTHWEST SHELTER ELEVATION



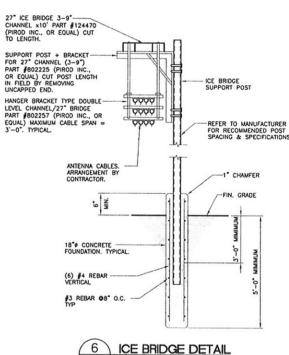
CONCRETE CAP.

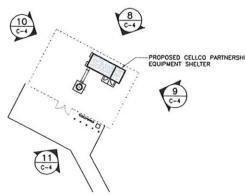
- BACK FILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2° IN MAXIMUM DIMENSION.
- WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

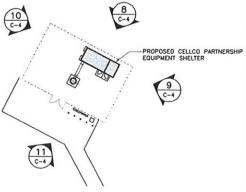


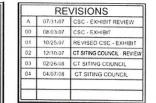
C-4

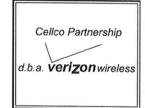
SHELTER ELEVATION KEY PLAN
NOT TO SCOLE

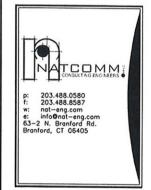


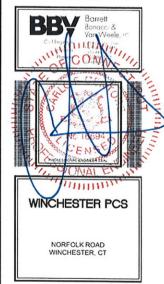








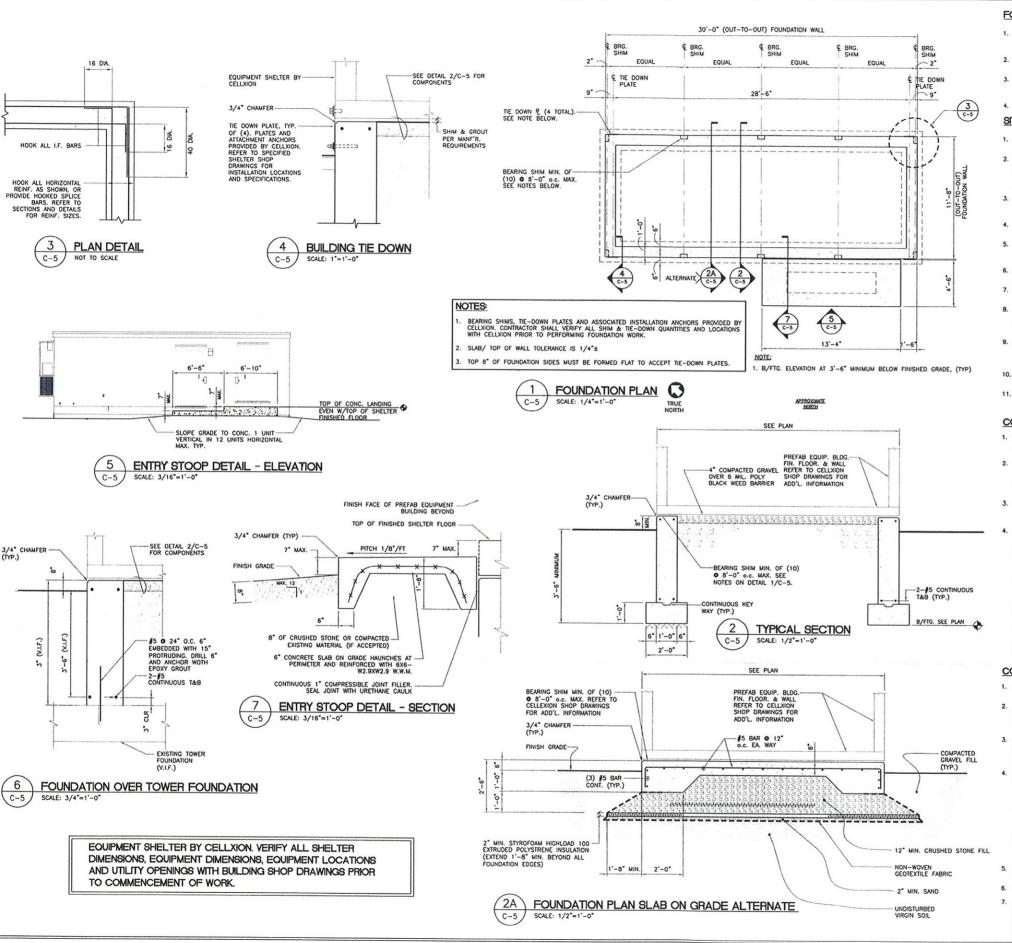




PROJECT NO:	07019
DRAWN BY:	DMD
CHECKED BY:	CFC
SCALE:	AS NOTED
DATE:	07-30-07

SITE DETAILS AND SHELTER ELEVATIONS





FOUNDATION NOTES:

- 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.
- . DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST THE PRE
 MANUFACTURED FOUIPMENT BUILDING SHOP DRAWINGS
- 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:

- 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 NOTIFED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- ALL RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED OFF SITE AND BE LEGALLY DISPOSED, AT NO ADDITIONAL COST
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AW FROM THE EQUIPMENT AND TOWER AREAS
- 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.
- THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
- 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.
- 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.
- DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST THE PRE MANUFACTURED EQUIPMENT BUILDING SHOP DRAWINGS.
- 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:

- COMPACTED GRAVEL FILL SHALL BE FURNISHED AND PLACED AS A FOUNDATION FOR STRUCTURES, WHERE SHOWN ON THE CONTRACT DRAWINGS OR DIRECTED BY THE ENGINEER.
- GRAVEL SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE M.O2.02 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.
- 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.
- TESTED FOR APPROVAL.

 4. AFTER ALL EXCAVATION HAS BEEN COMPLETED, GRAVEL SHALL BE DEPOSITED IN LAYERS NOT EXCEEDING EIGHT (B) INCHES IN DEPTH OVER THE AREAS. IN EXCEPTIONAL CASES, THE ENGINEER MAY PERMIT THE FIRST LAYER TO BE THICKER THAN EIGHT (B) INCHES. EACH LAYER SHALL BE COMPACTED BY USE OF APPROVED VIBRATORY, PNEUMATIC—TIRED OR TREAD—TYPE COMPACTION 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 VORE 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 SUBSCIDENT 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:

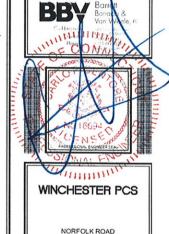
- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318.
- ALL CONCRETE SHALL BE NORMAL WEIGHT, 6% AIR ENTRAINED WITH A
 MAXIMUM SLUMP OF 4", AND SHALL HAVE A MINIMUM COMPRESSIVE
 STRENGTH OF 3,000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE ON
 THE DRAWINGS.
- REINFORCING STEEL SHALL CONFORM 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 OTHERMISE INDICATED.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FO REINFORCING STEEL UNLESS OTHERWISE NOTED ON THE DRAWINGS:

- 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 COMFORM 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.

Α	07/31/07	CSC - EXHIBIT REVIEW
00	08/03/07	CSC - EXHIBIT
01	10/25/07	REVISED CSC - EXHIBIT
02	12/10/07	CT SITING COUNCIL - REVIEW
03	02/26/08	CT SITING COUNCIL
04	04/07/08	CT SITING COUNCIL







PROJECT NO:	07019
DRAWN BY:	DMD
CHECKED BY:	CFC
SCALE:	AS NOTED
DATE:	07-30-07

WINCHESTER, CT

SHELTER FOUNDATION DETAILS AND NOTES



APPLICATION GUIDE¹

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. 1-3	(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. p. 7 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;

¹ 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. 1-3, 9-11 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. 1-3 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 names 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. p. 10 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. 9-10 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. 20

(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. 14

(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. 16-20 Attachments 1 and 11 Bulk File Exhibits

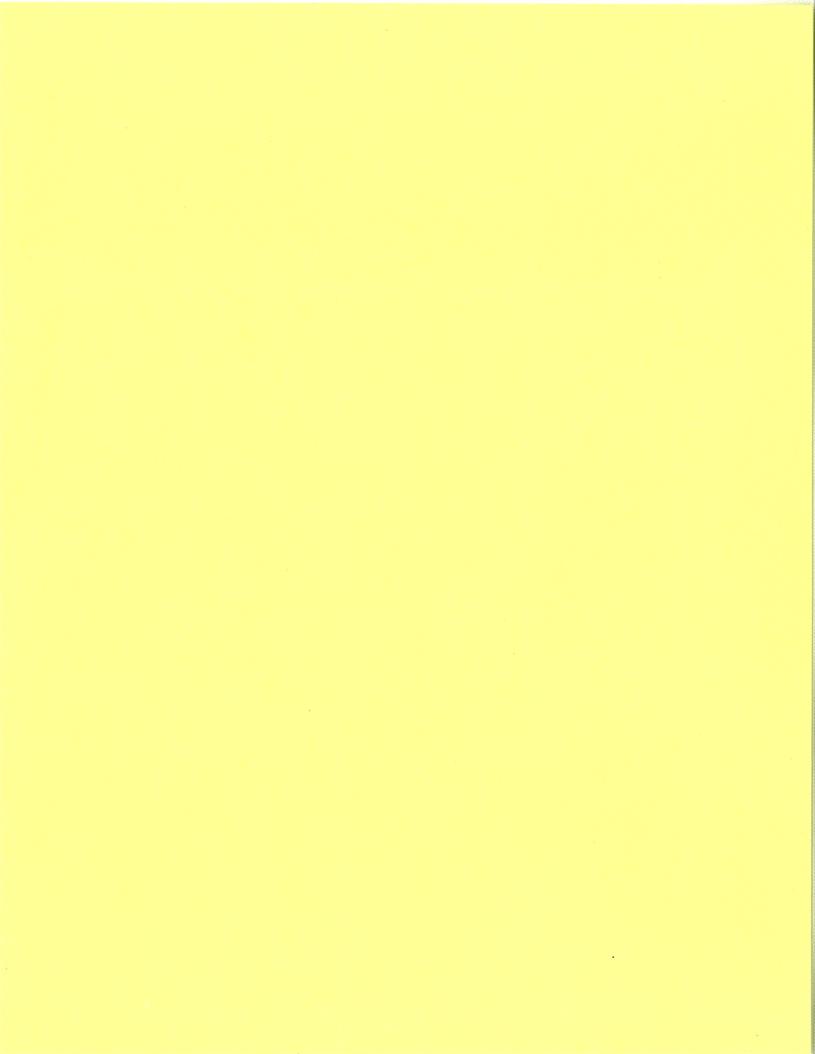
- (X) Such information as any department or agency of the State exercising environmental controls may, by regulation, require including:
 - (1) A listing of any federal, state, regional, district, and municipal agencies, including but not limited to the Federal Aviation Administration; Federal Communications 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 10th day of April, 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

Emil Frankel, Acting 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 and Tourism One Constitution Plaza, 2nd Floor Hartford, CT 06103

WINCHESTER TOWN OFFICIALS:

Kenneth J. Fracasso Mayor Town of Winchester 338 Main Street Winsted, CT 06098

The Honorable Andrew Roraback Senator – 30th District 455 Milton Road Goshen, CT 06756

The Honorable George Wilbur Representative – 63rd District 27 Simons Pond Road Colebrook, CT 06098

Sheila Sedlack Town Clerk Town of Winchester 338 Main Street Winsted, CT 06098

George Closson, Chairman Planning and Zoning Commission Town of Winchester 338 Main Street Winsted, CT 06098 Richard Nalette Chairman Zoning Board of Appeals Town of Winchester 338 Main Street Winsted, CT 06098

Marc Melanson Zoning Enforcement Officer Town of Winchester 338 Main Street Winsted, CT 06098

Susan Peacock Chairwoman Inland Wetlands Commission Town of Winchester 338 Main Street Winsted, CT 06098

Litchfield Hills Council of Elected Officials 42 North Street Goshen, CT 06756

Federal Communications Commission 445 12th 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

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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 April 10, 2008, by Cellco Partnership d/b/a Verizon Wireless ("Cellco" or the "Applicant"). The Application proposes the installation of a wireless telecommunications facility on an approximately 58-acre parcel off Norfolk Road (Route 44) in the Town of Winchester, Connecticut. The property is owned by Win 21 LLC. At this site, Cellco proposes to construct a 150-foot telecommunications tower and a 12' x 30' equipment shelter located near the base of the tower to house radio equipment and a back-up generator. The telecommunications facility will be designed to accommodate additional wireless service providers and may support municipal and emergency service antennas. 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 of the Siting Council public hearing on this proposal, Cellco will fly a balloon at the height of the proposed tower, generally between the hours of 8:00 a.m. and 5:00 p.m. Interested parties and residents of the Town of Winchester 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 Winchester 338 Main Street Winsted, CT 06098 Cellco Partnership d/b/a Verizon Wireless 99 East River Drive East Hartford, CT 06108 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

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

April 7, 2008

Via Certified Mail Return Receipt Requested

«Name and Address»

Re: Cellco Partnership d/b/a Verizon Wireless Proposed Telecommunications Facility Winchester, 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 April 10, 2008, for approval of the construction of a telecommunications facility in the Town of Winchester, Connecticut.

The facility would consist of a new 150-foot self-supporting monopole tower and a 12' x 30' equipment shelter located on a 58-acre parcel off Norfolk Road (Route 44). The parcel is owned by Win 21 LLC and is currently undeveloped. 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 Norfolk Road.

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.

April 7, 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

ADJACENT PROPERTY OWNERS

SITE NAME: WINCHESTER

OWNER NAME: WIN 21 LLC

OWNER ADDRESS: NORFOLK ROAD (ROUTE 44), WINCHESTER, CONNECTICUT

06098

ASSESSOR'S REFERENCE: MAP: 016 BLOCK: 152 LOT: 026-1

THE FOLLOWING INFORMATION WAS COLLECTED FROM THE TAX ASSESSOR'S RECORDS AND LAND RECORDS OF WINCHESTER TOWN HALL, WINCHESTER, CONNECTICUT. THE INFORMATION IS CURRENT AS OF MARCH 17, 2008.

THE PARCEL IS ZONED RU-2 RURAL.

	M/B/L	OWNER	MAILING ADDRESS	PROPERTY ADDRESS
1.	16/152/26A	Joan C. Miller & Thomas F. Reif	207 Colebrook Road Winsted, CT 06098	207 Colebrook Road
2.	16/152/27	Leila V. Fetzer Est c/o Timothy Fetzer Exe	76 Coe Street Winsted, CT 06098	Norfolk Road
3.	16/152/25B	Dorthea E. Jurgenson Revocable Trust	106 Orchard Circle Denver, IA 50622	217 Colebrook Road
4.	16/152/25	Catherine Cormier-Cleveland David M. Cleveland	223 Colebrook Road Winsted, CT 06098	223 Colebrook Road
5.	16/152/24A	Jonathan F. Ells Est c/o Dorthea Jurgenson Ells	106 Orchard Circle Denver, IA 50622	245 Colebrook Road
6.	16/152/23	State of Connecticut Department of Transportation	2800 Berlin Turnpike Newington, CT 06131- 7546	259 Colebrook Road
7.	22/153A/217A	State of Connecticut Department of Environmental Protection	79 Elms Street Hartford, CT 06106	Route 44

CERTIFICATION OF SERVICE

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

April 7, 2008

Date

Kenneth C. Baldwin, Esq.

Robinson & Cole LLP

280 Trumbull Street

Hartford, CT 06103

Attorneys for CELLCO PARTNERSHIP d/b/a

VERIZON WIRELESS

ULS License

PCS Broadband License - KNLH262 - Cellco Partnership

Call Sign

KNLH262

Radio Service

CW - PCS Broadband

Status

Active

Auth Type

Regular

Market

Market

BTA318 - New Haven-Waterbury-Meriden, CT Channel Block F

Submarket

0

Associated Frequencies 001890.00000000-001895.00000000

(MHz)

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

06/10/2002

2nd

Licensee

FRN

0003290673

Type

Joint Venture

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 Sonva 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

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

No

foreign government?

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?

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?

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

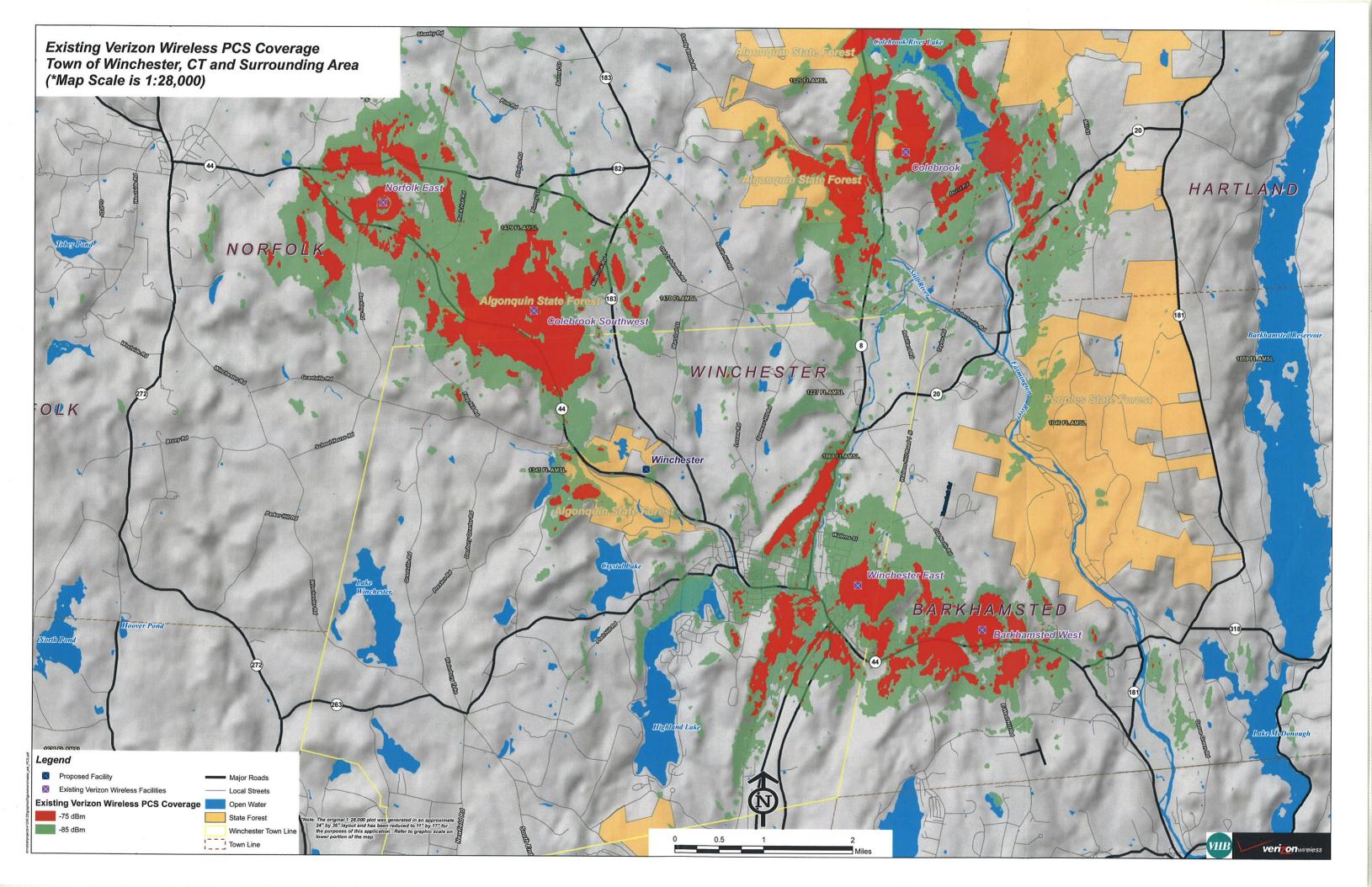
Ethnicity

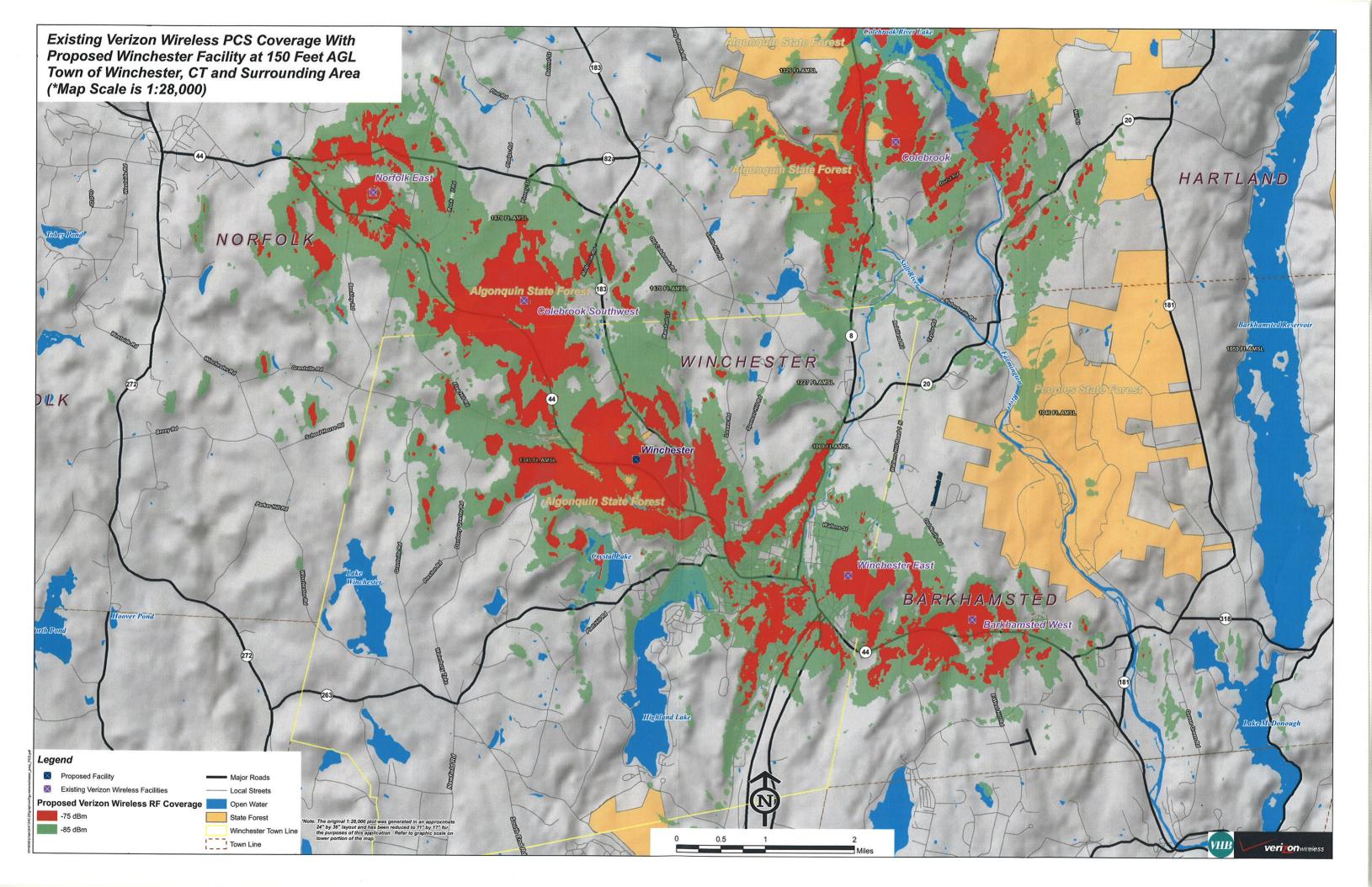
Gender

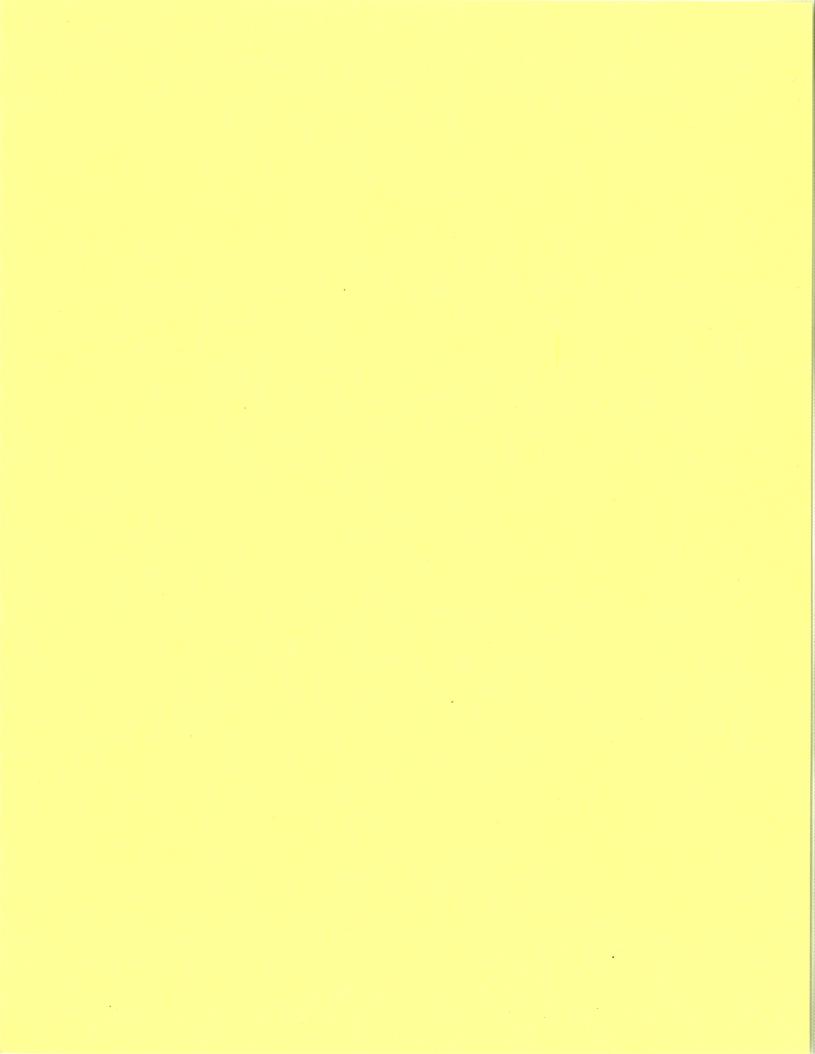
No

Yes









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 Depth with t-bracket		mm mm	5.9 7.0	
4)	Weight	4.8	kg	10.5	lbs
	Wind Area Fore/Aft	0.19	m ²	2.0	ft²
	Side	0.27	m ²	2.9	ft ²

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).

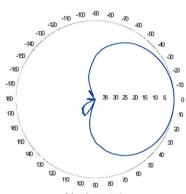
Mounting bracket kit #26799997 Downtilt bracket kit #26799999

The downtil bracket kit includes the mounting bracket kit.

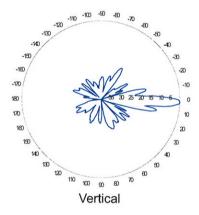
Electrical specifications

1000	TOOLINGE OPO	riiioatioiio
	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

Radiation pattern¹⁾

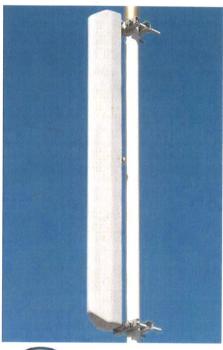






Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

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 nath
- 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 fiveyear limited warranty for repair or replacement.

Antenna available with center-fed connector only.

1) Typical values.

2) Power rating limited by connector only.

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

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

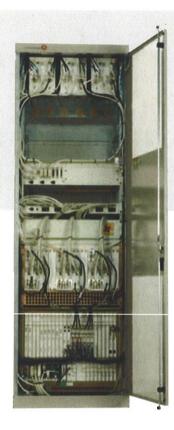
Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

CF Denotes a Center-Fed Connector.

1850-1990 MHz



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

recrimear specifications

Description

1. Configurations

a. Sectors

b. Carriers

2. CDMA Channel Card Capacity

3. T1, E1 Facilities

4. User Alarms

5. GPS Antenna

6. Air Interface Standards

7. Frequency Bands

8. Vocoder

o. vocodei

9. Environmental Cabinet Housing

10. Cabinet Access

11. Operating Temperature Range

12. Dimensions

13. Estimated Installed Weight

14. Power Options

15. Power Consumption

a. 3 Carrier/3 Sectorsb. 6 Carrier/3 Sectorsc. 11 Carrier/3 Sectors

16. RF Power (at J4)

17. Minimal Antenna Configuration

18. Filter

19. Growth Frame

20. Operational Accessories

21. Channel Elements

Specification

3. 4 and 6

1-8 per frame at 3 sectors (up to 11 with

Auxiliary Amplifier Frame)

12 slots; CMU IVB capable

Maximum of 20 per cabinet when equipped

with URC-II's

7 Power Alarms, 25 User Alarms

Yes

T1A/E1A 95-A plus TSB-74; T1A/E1A 95-B for

850 MHz; CDMA 2000

850MHz/1900 MHz:

300 to 2100 MHz capable

8 Kbps; 8 Kbps EVRC; 13 Kbps; SMV-ready

Standard ETSI cabinet; UL50 compliant:

zero rear clearance

Front Access

Range: -5 to +40°C (continuous)

600 mm W x 600 mm D x 1880 mm H

(23.6 x 23.6 x 74) inches

365 kg (785 lbs.) DC [8 carriers in one cabinet]

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

2167 W 5449 W

10026 W

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

2 antennas/sector

Block and Wide Band Dual Duplex

PCS AUX Frame, Dual Band

Growth Frame

Integrated Power

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

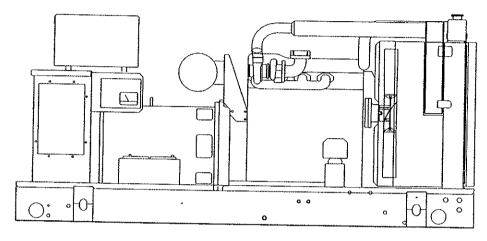


SD060

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 an 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.



APPLICATION & ENGINEERING DATA

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 Sel	If-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

O BRUSHLESS	Magnetically coupled DC current	/
Eight-pole exc	iter 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 \checkmark

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-ventitated 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.

ENGINE SPECIFICATIONS

~~~~ <u>~~</u>	
MAKE	GENERAC
MODEL	3 9774
CYLINDERS	4 in line
DISPLACEMENT	3 9 1 iter (238 cu in )
BORE	104 mm (4.00 in )
STROKE	145 (4.59 in.)
COMPRESSION RATIO	
INTAKE AIR	True - 16.5:1
NUMBER OF MAIN BEARINGS	rurbocharged/Aftercooled
CONNECTING BODS	5
CONNECTING RODS	4-Drop Forged Steel
CYLINDER HEAD	Cast Iron Overhead Valve
PISTONS	4- Aluminum Alloy
CRANKSHAFT	Hardened, Steel
VALVE TRAIN	
LIFTER TYPE	
INTAKE MALVE MATERIAL	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-L	.OAD TO FULL LOAD 5.0%
STEADY STATE REGULATION	<u>+</u> 0.33%
CI ELECTRONIC	Optional
FREQUENCY REGULATION, NO-L	OAD TO FULL LOAD 0.5%
STEADY STATE REGULATION	+0.25%
LUBRICATION SYSTEM	
TYPE OF OIL PUMP	Gear
OIL FILTER	Full flow Cartridge
CRANKCASE CAPACITY	
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 (10 in )
COOLANT HEATER	1201/ 1000 4/
	120V, 1800 W
FUEL SYSTEM	
FUEL	#2D Fuel (Min Cetane #40)
(Fuel s	hould conform to ASTM Spec.)
FUEL FILTER	Control (Carrier Control
FIRE INTECTION DUMP	Single Cartridge
FUEL INJECTION PUMP	Stanadyne
FUEL PUMP	Mechanical
INJECTORS	Multi-Hole, Nozzle Type
ENGINE TYPE	Direct Injection
FUEL LINE (Supply)	
FUEL RETURN LINE	6.35 mm (0.25 in )
STARTING AID	Glow Phose
	Glow Flugs
ELECTRICAL SYSTEM	
BATTERY CHARGE ALTERNATOR	
STARTER MOTOR	24.17
RECOMMENDED BATTERY	(2)12 \(a)t \(a) \(b \tau \)
GROUND POLARITY	(2/-12 VOR, 80 A.H., 4UL)
dage. No overload canability is available for this rating. (Alle	
After a security of the light substitution is a variety of the profession.	Stranger according a control of the

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 etectric power inlieu 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, ISO3046, ISO3046).



#### **OPERATING DATA**

	STAN	***************************************	PRI	ME
CENERATOR OUTPUT VOLTAGE	SD		SD(	
GENERATOR OUTPUT VOLTAGE/KW-60Hz		Rated AMP		Rated AMP
120/240V, 1-phase, 1.0 pf	60	250	48	200
120/208V, 3-phase, 0.8 pf NOTE: Consultyour	60	208	48	166
120/240V, 3-phase, 0.8 pf Generacdeaterfor additional voltages.	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
GENERATOR OUTPUT VOLTAGE/KVA-50Hz		Rated AMP		Rated AMP
110/220V, 1-phase, 1.0 pf	48	218	38	172
115/200V, 3-phase, 0.8 pf NOTE: Consultyour	60	173	48	138
100/200V, 3-phase, 0.8 pf Generac dealer for	60	173	48	138
231/400V, 3-phase, 0.8 pf additional voltage	60	87	48	69
480V, 3-phase, 0.8 pf	60	72	48	58
MOTOR STARTING KVA				~
Maximum at 35% instantaneous voltage dip	120/208/240V	277/480V	120/208/240V	277/480V
with standard alternator; 50/60 Hz	100/120	117/141	100/120	117/141
with optional alternator; 50/60 Hz	234/281	276/331	234/281	
	47714V l	Z1 0/33 1	2341201	276/331
FUEL Fuel consumption 60 Hz	4004			
Fuel consumption—60 Hz Load	<u>100%</u>	<u>80%</u>	<u>100%</u>	<u>80%</u>
gal./hr.	4.3	3.6	3.6	3.0
liters/hr.	16.3	13.5	13.6	11.3
Fuel consumption—50 Hz gal./hr.	3.6	3.0	3.0	2.5
liters/hr.	13.5	11.2	11.3	9.3
Fuel pump lift				
COOLING				
Coolant capacity System - lit. (US gal.)		(4.2)	15.9	• •
Engine - lit. (US gal.)		(1.7)	6.4 (	(1.7)
Radiator - lit. (US gal.)		(2.5)	9.5 (	(2.5)
Coolant flow/min. 60 Hz - lit. (US gal.)	128	(34)	128	
50 Hz - lit. (US gal.)	107	(28)	107	
Heat rejection to coolant 60 Hz full load BTU/hr.	170	,900	136,	
Heat rejection to coolant 50 Hz full load BTU/hr.		,400	113,	
Inlet air to radiator 60 Hz - m³/min. (cfm)		7,200)	204 (7	
50 Hz - m³/min. (cfm)		6004)	170 (6	
Max. air temperature to radiator °C (°F)		(130)	54.4	,
Max. ambient temperature °C (°F)		(120)	48.9	` '
COMBUSTION AIR REQUIREMENTS				- ·
Flow at rated power 60 Hz - cfm	2	09	16	<b>18</b>
50 Hz - m³/min.	4.7		3.8	
EXHAUST				
Exhaust flow at rated output 60 Hz - m³/min. (cfm)	15.5	(549)	12.4 (	(439)
50 Hz - m³/min. (cfm)		(434)	10 (3	,
Max recommended back pressure "Hg		.5	1.	
Exhaust temperature 60 Hz (full load) °C (°F)		.975)	459 (	
Exhaust outlet size		3"	3	*
ENGINE				,
Rated RPM 60 Hz	15	<b>'</b> 00	180	าด
50 Hz		00	150	
HP at rated KW 60 Hz		2	74	
50 Hz		3	59	
Piston speed 60 Hz - m/min. (ft./min.)	414 (	1358)	414 (1	358)
50 Hz - m/min. (ft./min.)		1132)	345 (1	
BMEP 60 Hz - psi		70	13	
50 Hz - psi	10		13	
DERATION FACTORS				
Temperature				
5% for every 10°C above - °C	2	5	25	õ
2.77% for every 10°F above - °F	7		. 77	
	•	-	′ * *	
Altitude				
	18	29	182	29

- 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 Salenoid
- 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

O Coolant Heater 120V

#### **OPTIONAL FUEL ACCESSORIES**

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

#### ■ OPTIONAL EXHAUST ACCESSORIES

O Critical Exhaust Silencer

#### OPTIONAL ELECTRICAL ACCESSORIES

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

#### ■ OPTIONAL ALTERNATOR ACCESSORIES

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

#### CONTROL CONSOLE OPTIONS

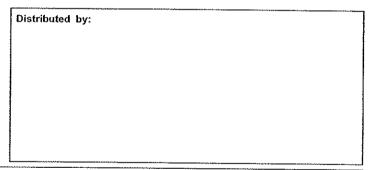
- O Analog Control "C" Panel (Bulletin 0151160SBY)
- O Analog/Digital Control "E" Panel (Bulletin 0161310SBY)

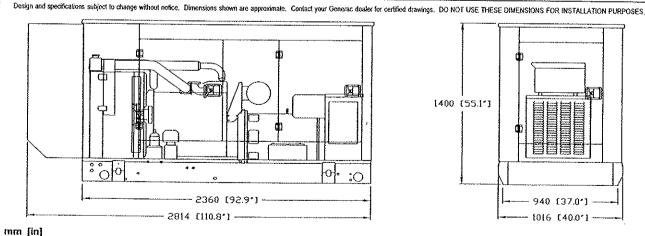
#### ADDITIONAL OPTIONAL EQUIPMENT

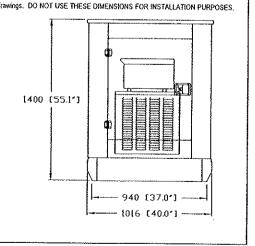
- Automatic Transfer Switch
- O Isochronous Governor
- 3 Light Remote Annunciator
- O 5 Light Remote Annunciator
- O 20 Light Remote Annunciator
- O Remote Relay Panels
- O Unit Vibration Isolators (Pad/Spring)
- O Oil Make-Up System
- Oil Heater
- O 5 Year Warranties
- O Export Boxing
- O GenLink® Communications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

#### **OPTIONAL ENCLOSURE**

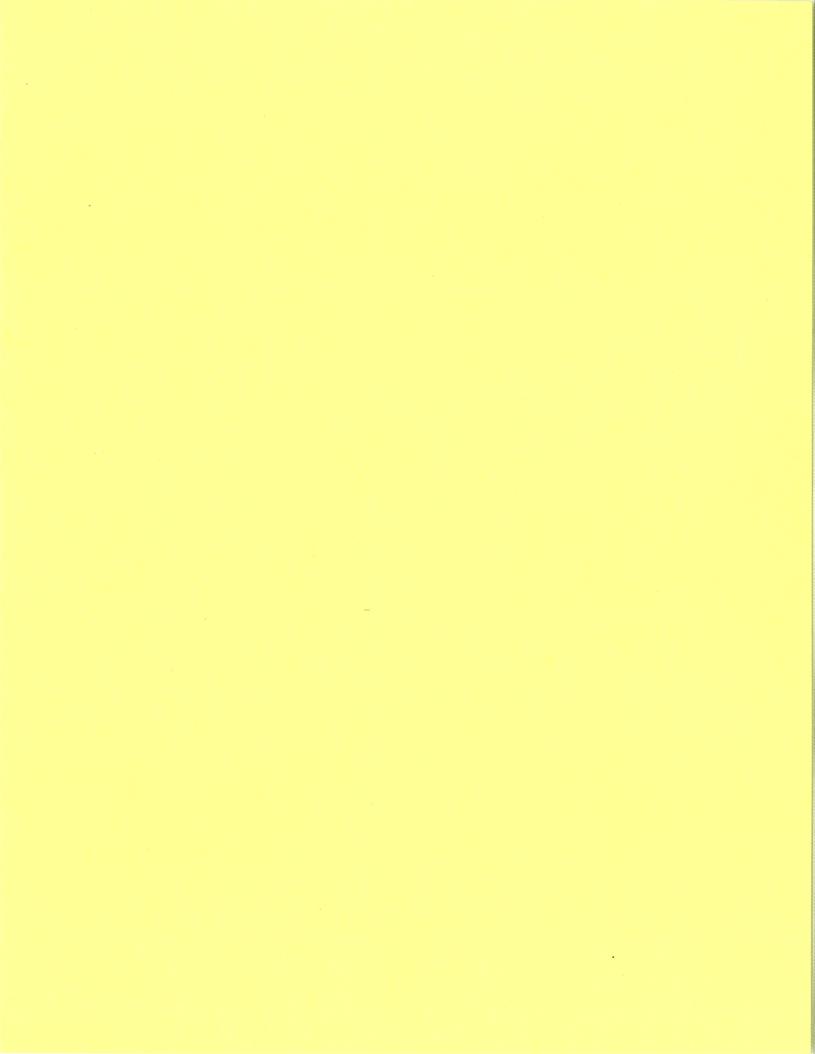
- Weather Protective
- O Sound Attenuated
- O Aluminum and Stainless Steel
- O Enclosed Muffler







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



#### Site Search Summary (Winchester)

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 Winchester are provided below.

#### Site Search Process

To initiate its 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 locating 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 within approximately four (4) miles of the proposed Winchester Facility. These existing facilities, however, cannot provide the coverage or capacity relief needed in the identified problem areas, along Route 44 and portions of Route 183 in the northerly Winchester area. (See <u>Attachment 7</u>).

	OWNER/OPERATOR	FACILITY TYPE	<u>LOCATION</u>	ANTENNA HEIGHT
1.	Sprint	Monopole (150')	161 Pinney Road Colebrook, CT	117'
2.	SpectraSite	Monopole (180')	Oakdale Avenue Winchester, CT	125'
3.	MCM	Monopole (180')	Greenwoods Road East Norfolk, CT	160
4.	Cellco	Monopole (150')	5 Old Farm Road Barkhamsted, CT	147'

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 Winchester Search Area

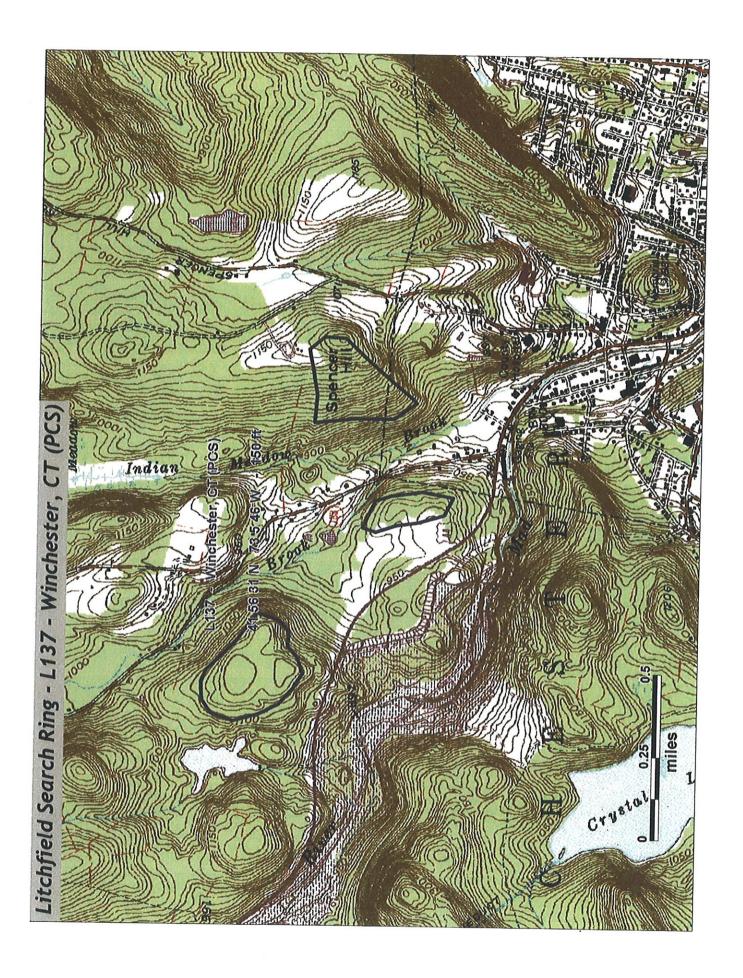
The purpose of the proposed Winchester Facility is to provide reliable PCS coverage to a significant area currently unserved along Route 44 and portions of Route 183 in the northerly portion of Winchester. Cellco's existing Colebrook SW and Winchester East facilities provide limited coverage along Route 44 and no coverage along Route 183, in northerly Winchester. The significant coverage gaps referenced above were identified using best server propagation modeling tools. These tools are fine-tuned regularly through the use base-line drive data.

#### Sites Investigated in the northern Winchester Area

In addition to the existing communications facilities listed above, Cellco identified and investigated several sites in Winchester. These sites are described below.

#### Sites Investigated

- 1. <u>Win 21 LLC, Colebrook Road, Winchester</u> Cellco investigated and ultimately signed a lease for the use of the central portion of a 56 acre parcel off Colebrook Road. The site maintains a ground elevations between approximately 1,050 and 1,150 feet AMSL.
- 2. <u>Knights of Columbus, Marshall Street and Colebrook Road</u> Cellco investigated three potential alternative site locations on an approximately 200 acres owned by the Knights of Columbus. Due to topography in the area none of these sites could provide adequate coverage along Route 44 and were rejected.



#### Visual Resource Evaluation Report

# Proposed Wireless Telecommunications Facility

Winchester PCS
Colebrook Road (Route 44)
Winchester, Connecticut

Prepared for



Prepared by

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

#### **Visual Resource Evaluation**

Cellco Partnership (dba 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 Colebrook Road (Route 44) in the Town of Winchester, 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 Winchester, portions of the neighboring Town of Colebrook, Connecticut are also contained within the Study Area.

#### **Project Introduction**

The proposed Facility includes the installation of a 150-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 1,145 feet Above Mean Sea Level (AMSL). Access to the Facility would be provided via a proposed site driveway which would extend to the proposed compound area in a northwesterly direction from Route 44.

#### Site Description and Setting

Identified in the Town of Winchester land records as Map 16/Block 152/ Lot 26-1, the host property consists of approximately 56 acres of land which is currently undeveloped and heavily forested. The proposed Facility is somewhat centrally located on the host property and sits roughly 550 feet to the north of Route 44. Attachment A includes a photograph of the proposed project area. Attachment A also contains a photolog documentation map that depicts the location of the proposed Facility and the limits of the Study Area. Land use within the general vicinity of the proposed Facility and host property consists of undeveloped forest land mainly associated with Algonquin State Forest and roadway infrastructure. State numbered roadways that traverse portions of the Study Area include Route 44, Route 183 and Route 263. In total, the Study Area features approximately 64 linear miles of roadways.

The topography within the Study Area is characterized by rolling hills with ground elevations ranging from approximately 680 feet AMSL to approximately 1,470 feet AMSL. The Study Area contains approximately 429 acres of surface water, including Crystal Lake, Rugg Brook Reservoir and segments of Highland Lake. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species interspersed with stands of mature evergreens. The tree canopy occupies approximately 6,662 acres of the 8,042-acre study area (83%). During the in-field activities associated with this analysis, an infrared laser range finder was used to accurately 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 United States Geological Survey (USGS) National Elevation Dataset (NED), a seamless, publicly available elevation dataset with an approximate 30-meter resolution. The forest layer was derived through on-screen digitizing in ArcView® GIS from 2006 digital orthophotos with a 1-foot pixel resolution.

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. This analysis was conducted in five increments in order to provide an estimate of how much of the Facility will be seen from visible areas. As such, the model calculated areas of potential tree line views; views of the

upper 25% of the proposed monopole; locations where approximately half of the proposed structure would be visible; areas where approximately 75% of the monopole would be visible; and, locations where the entire Facility would be visible. The results where then consolidated into a single thematic layer.

Also included on the map is a data layer, obtained from the Connecticut State 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 Winchester and Colebrook, it was determined that there are no state or locally-designated scenic roadways located within the Study Area.

A preliminary viewshed map (using topography and a conservative tree canopy height of 50 feet) is generated for use during the in-field activity in order to confirm that no significant land use changes have occurred since the aerial photographs used in this analysis were produced and to verify the results of the model in comparison to the balloon float. Information obtained during the reconnaissance is then incorporated into the final visibility map.

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

On November 28, 2007 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 150 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 verify where the balloon was, and was not, visible above and/or through the tree canopy. During the balloon float, the temperature was approximately 30 degrees Fahrenheit with calm wind conditions and mostly sunny skies.

#### **Photographic Documentation**

During the balloon float, VHB personnel drove the public road system within the Study Area to inventory those areas where the balloon was visible. The balloon was photographed from a number of different vantage points to document the actual view towards the proposed

Facility. Several photographs where the balloon was not visible are also included. The locations of the photos are described below:

- 1. View from Route 44 approaching host property.
- 2. View from Route 44 at Mad River Dam access driveway.
- 3. View from Route 44 approaching host property.
- 4. View from Route 183 adjacent to house #225.
- 5. View from Mad River Dam Control Area access road.
- 6. View from Winchester Road at Crystal Lake.
- 7. View from Civil War Soldiers Memorial off Crown Street.
- 8. View from Route 44 south of Meadow Street.
- 9. View from Route 44 at Danbury Quarter Road.

Photographs of the balloon from the view points 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 hand held GPS receiver and are subsequently plotted on the maps contained in the attachments to this document.

#### **Photographic Simulation**

Photographic simulations were generated for five representative locations listed above where the balloon was visible during the in-field activities. The photographic simulations represent a scaled depiction of the proposed Facility (a monopole) from these locations. The simulations are contained in Attachment A.

#### **CONCLUSIONS**

Based on this analysis, areas from where the proposed 150-foot tall Facility would be visible above the tree canopy comprise approximately 33 acres, or less than one half of one percent of the 8,042-acre Study Area. As depicted on the viewshed map (provided in attachment B), much of the visibility associated with the proposed Facility occurs within the immediate vicinity of the host property along and adjacent to the Route 44 traffic corridor. Smaller areas of year-round visibility are also anticipated from several locations over open water and/or on private properties within the Study Area that could not be field-verified during the balloon float. Overall, the steep topography and extensive tree canopy contained within the Study Area would serve to limit the extent of potential year-round visibility to the previously described areas. VHB estimates that select portions of approximately five residential

¹ Warren, Bruce. Photography, West Publishing Company, Eagan, MN, c. 1993, (page 70).

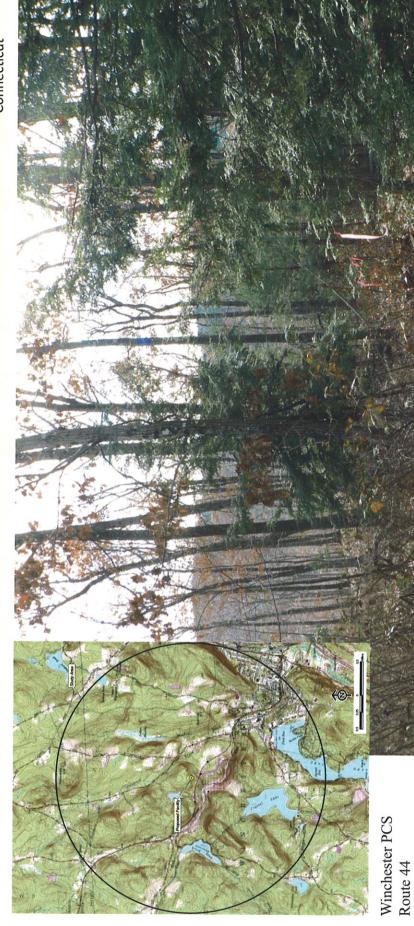
properties could have at least partial year-round views of the proposed Facility. This includes three residences located along Route 183 roughly 0.50-mile to the east of the proposed project area and two residences off Old Colebrook Road located nearly two miles away.

The viewshed map also depicts several additional areas where seasonal (i.e. during "leaf off" conditions) views are anticipated. These areas comprise approximately four acres and are located within the immediate vicinity of the proposed Facility and Route 183 approximately 0.50-mile to the east. VHB estimates that seasonal views of the proposed Facility could be achieved from portions of approximately two additional properties within the Study Area. These properties are located off Route 183.

#### Attachment A

Project Area Photograph, Photolog Documentation Map, Balloon Float Photographs, and Photographic Simulations

# Project Area Photograph



Winchester PCS Route 44 Winchester, CT

4 Carrier Monopole





### Photolog Documentation Map

# Town of Winchester Connecticut

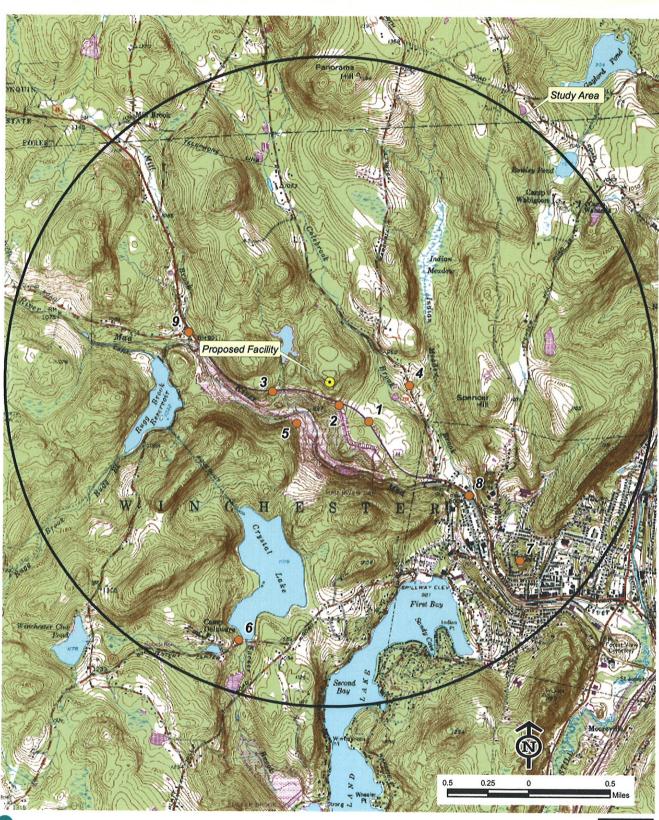


PHOTO TAKEN FROM ROUTE 44 APPROACHING HOST PROPERTY, LOOKING NORTHWEST DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.35 MILE +/-



View 2

Winchester PCS Route 44 Winchester, CT 4 Carrier Monopole

PHOTO TAKEN FROM ROUTE 44 AT MAD RIVER DAM ACCESS DRIVEWAY, LOOKING NORTHWEST DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.13 MILE +/-

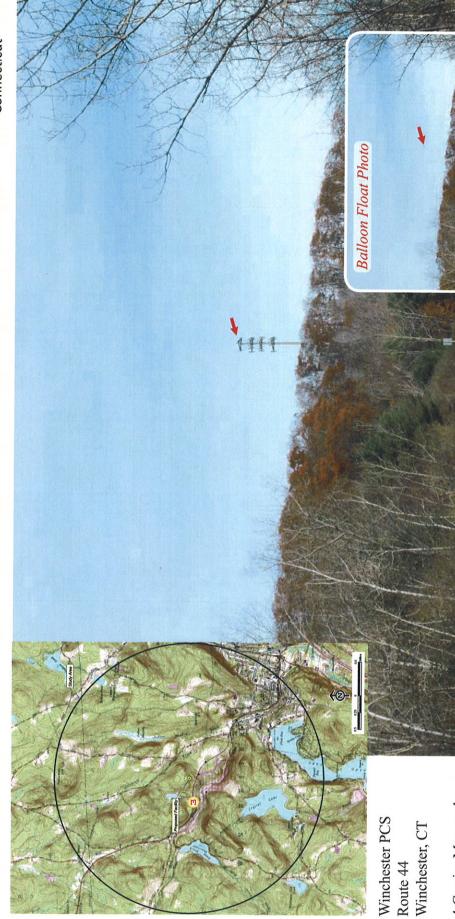


Photographic Documentation and Simulation

View 3

Winchester Connecticut

Town of



4 Carrier Monopole

PHOTO TAKEN FROM ROUTE 44 APPROACHING HOST PROPERTY, LOOKING NORTHEAST DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.34 MILE +/-



Town of



Winchester PCS Winchester, CT Route 44

4 Carrier Monopole





Photographic Documentation and Simulation

View 5

Winchester Connecticut

Town of



4 Carrier Monopole

PHOTO TAKEN FROM MAD RIVER DAM CONTROL AREA ACCESS ROAD, LOOKING NORTHEAST DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.32 MILE +/-



View 6



Route 44 Winchester, CT Winchester PCS

4 Carrier Monopole



DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 1.69 MILES +/-



View 7

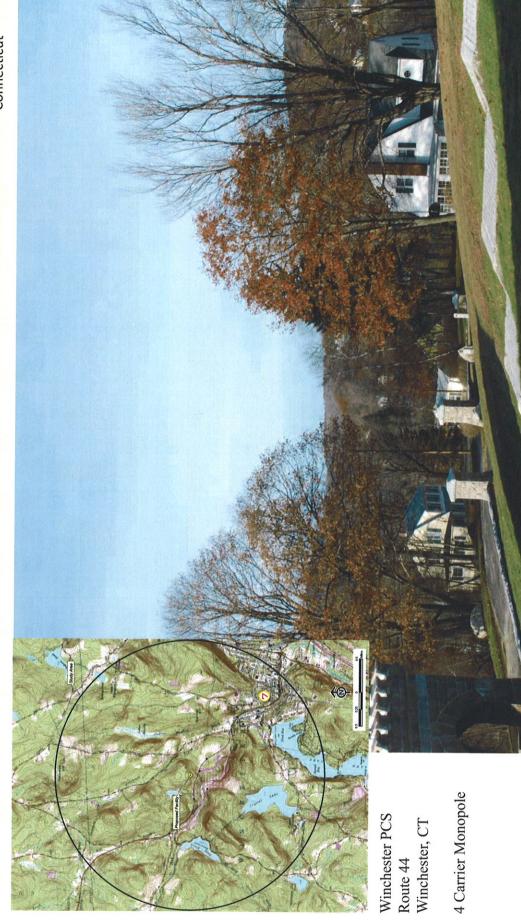


PHOTO TAKEN FROM CIVIL WAR SOLDIERS MEMORIAL OFF CROWN STREET, LOOKING NORTHWEST -**BALLOON IS NOT VISIBLE** 

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 1.61 MILES +/-

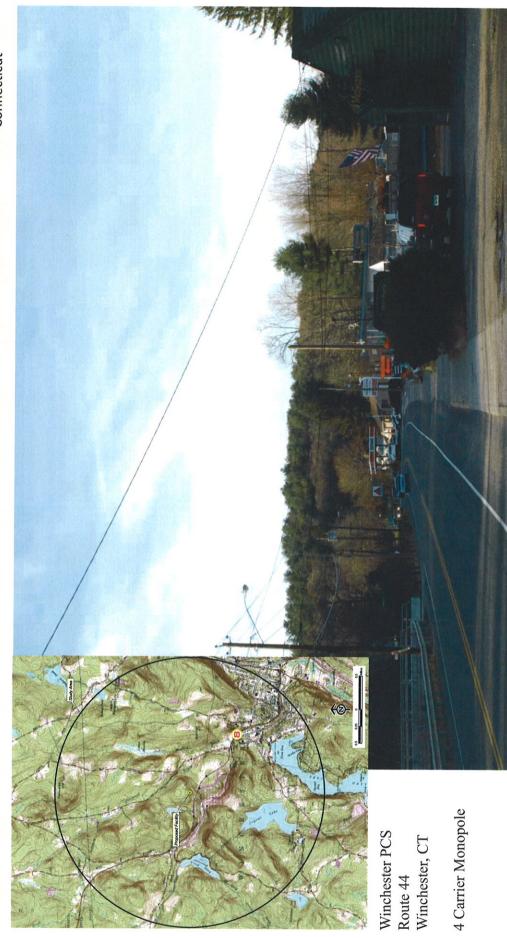


PHOTO TAKEN FROM ROUTE 44 SOUTH OF MEADOW STREET LOOKING NORTWEST -BALLOON IS NOT VISIBLE



DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 1.11 MILES +/-

Photographic Documentation

Winchester

View 9

Town of

Connecticut

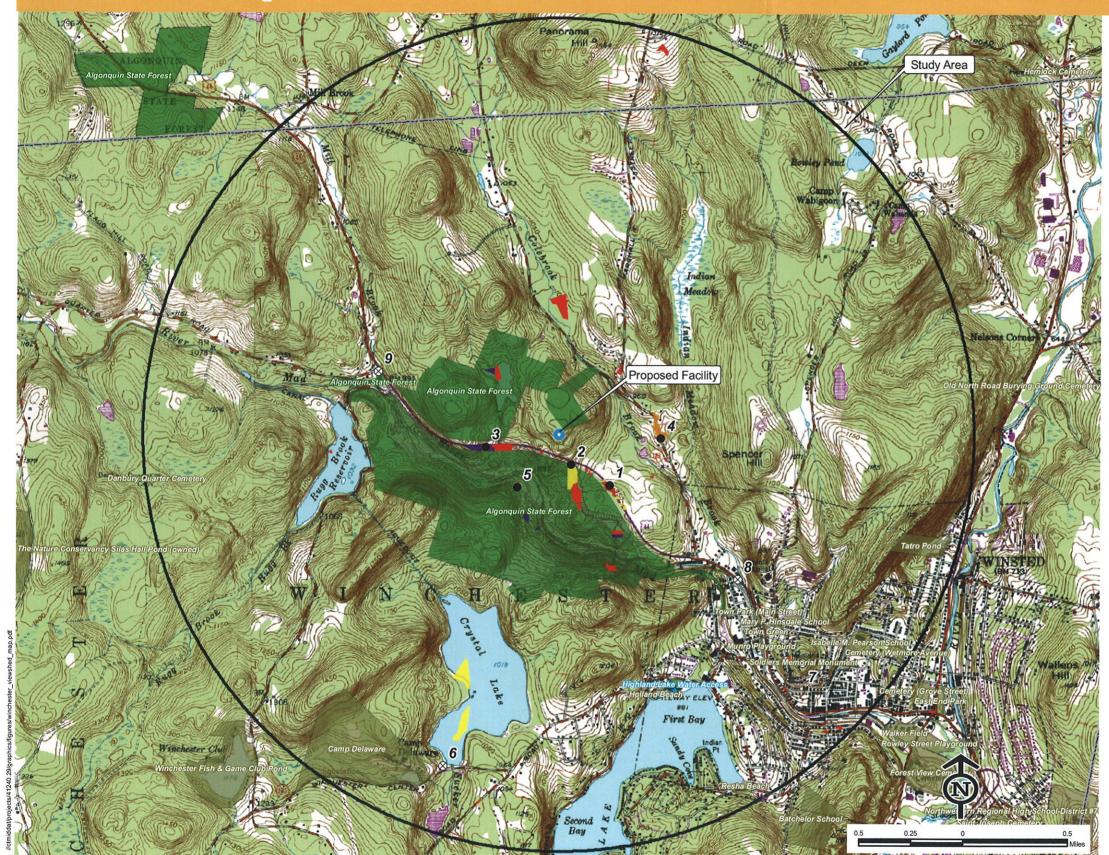


PHOTO TAKEN FROM ROUTE 44 AT DANBURY QUARTER ROAD, LOOKING SOUTHEAST -BALLOON IS NOT VISIBLE



#### Attachment B

Viewshed Map



Proposed Verizon Wireless Telecommunications Facility Winchester PCS Colebrook Road (Route 44) Winchester, Connecticut

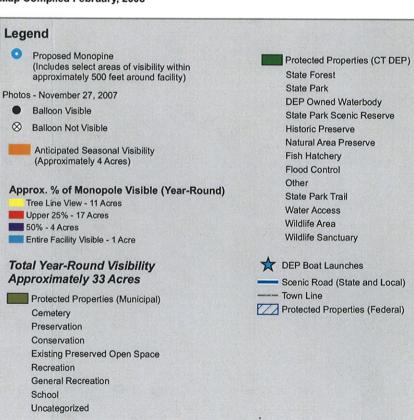
#### NOTE:

- Proposed Facility height is 150 feet
- Existing tree canopy height estimated at 65 feet.
- Study Area consists of a two-mile radius surrounding the proposed Facility and includes 8,042 acres of land.

#### **DATA SOURCES:**

- Digital elevation model (DEM) derived from USGS National Elevation Dataset (NED) with a resolution of one arc-second (approximately 30 meters) produced by the USGS, 1925 - 1999
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2007
- Base map comprised of Winsted (1984) and Norfolk (1969) USGS Quadrangle Maps
- Protected properties data layer provided CTDEP; May, 2007

Map Compiled February, 2008



	•		

#### USFWS

# Transportation Land Development Environmental Services



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

Memorandum

To: Nicole Dentamaro

Environmental/ GIS Analyst

Date: March 12, 2008

Project No.: 41240.29

From: Matthew Davison

Registered Soil Scientist CT Certified Forester 193 Re: Winchester Colebrook Road Winchester, CT

The following Site was evaluated with respect to possible federally-listed, threatened or endangered species in order to determine if the proposed communications 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 is enclosed for reference.

#### Project Site:

State: Connecticut County: Litchfield

Address: Colebrook Road, Winchester

Latitude/Longitude Coordinates: N41°56'24.7" W73°05'45.25"

Size of Property: ±56 acres

Watershed: Mad River (basin #4302)

The following federally listed endangered and threatened species occur in Litchfield County according to the USFWS January 1, 2008 policy.

Common Name	Species	Status	County/General Distribution
Eagle, bald*	Haliaeetus leucocephalus	Т	Nesting: Hartford, Litchfield Wintering: entire state, major rivers
Turtle, bog	Clemmys muhlenbergii	T	Fairfield, Litchfield
Small whorled pogonia	Isotria medeoloides	T	Litchfield, New Haven

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

Date: March 12, 2008 Project No.: 41240.29

#### Bog Turtle

Bog turtles occur in or near calcareous wet meadows and fens typically bordered by shrub and red-maple swamp wetland habitats.'

The proposed communications facility and associated infrastructure (e.g., access drive, utilities, etc.) are not located within or near wetland habitats that have the potential to support bog turtles. A small, bedrock controlled, forested depressional wetland exists approximately 90 feet northwest of the proposed tower site. According to the Bedrock Geological Map of Connecticut (Rogers, 1985), bedrock underlying the site is classified as layered gneiss (bedrock symbol—Ygn), consisting of gray mediumgrained, well-layered gneiss. Exposed gneiss bedrock was field confirmed on the subject property. In addition, soils underlying the Site were field classified and found to consist of glacial till soils derived from non-calcareous crystalline parent material. Therefore, the appropriate wetland habitat type and bedrock/soil geology for bog turtle is not supported by the Site and the proposed development will not result in an adverse impact to this listed species.

#### Small Whorled Pogonia

Small whorled pogonia is a small, perennial orchid of deciduous forests with a grayish-green, smooth stem up to 30 cm tall that bears at its summit a whorl of 5-6 light-green, elliptical, pointed leaves and 1-2 yellow-green flowers that bloom from late spring to early summer². Habitat requirements for this species include flats or slope bases having a moderate to light shrub layer and a relatively open canopy.² Soil characteristics consistently found within this species' habitat include a sandy loam textured soil type having a fragipan or restrictive layer below the soil surface, allowing for lateral water movement.³

The proposed communications facility is located in a northern hardwood forest type. Recent timber harvesting activities have resulted in a residual stand dominated by poletimber (4 to 11 inches diameter breast height [DBH]) with dominant species including red maple (Acer rubrum), beech (Fagus grandifolia), red oak (Quercus rubra), yellow birch (Betula lutea) and eastern hemlock (Tsuga canadensis). Abundant openings in the tree canopy, a result of the recent timber harvest, has resulted in the development of a vigorous shrub layer dominated by Rhubus and multiflora rose. Vigorous populations of Carex were found within the logging road at various locations. The proposed access road follows an existing logging road with minor deviations in order to avoid direct impacts to wetland resources. Upland soil types, which dominate the site, are characterized as Charlton-Chatfield complex. Wetland soils on site are characterized as Ridgebury and Leicester. Although Site soils have a sandy loam texture, they lack a fragipan or restrictive layer (field confirmed) that might induce lateral water movement. Due to the fact that a vigorous shrub layer exists throughout the site and the soil types found on site lack a fragipan, it is unlikely that the Site supports small whorled pogonia habitat and the proposed development activities will not result in an adverse impact to this listed species.

Correspondence from the CTDEP (December 4, 2007; attached) reveals that the Roadside Skipper (Amblyscirtes vialis), a State threatened species, occurs in the vicinity of this Site. According to the U.S. Fish and Wildlife Service's endangered species database, this species is not federally-listed, threatened or endangered. Based on CTDEP's correspondence there are no documented occurrences of federally-listed species including the small whorled pogonia, a State Endangered species, on or near the subject property. Therefore, the proposed development will not result in an adverse affect to any federally listed species.

¹ Amphibians and Reptiles of Connecticut and Adjacent Regions. Michael W. Klemens. 1993. Pgs. 176-184.

² NatureServe. www.natureserve.org. Isotria medeoloides. (Flora of North America 2002)

³ National Heritage & Endangered Species Program, Division of Fisheries & Wildlife, <u>Massachusetts</u> <u>Rare and Endangered Plants-Small Whorled Pogonia</u>

# USFWS January 7, 2008 Telecommunications Policy Statement



# 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;
- 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,

Outloy P.Z -

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 federallylisted species by county:

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

Principal responsibility for this species is vested with the National Marine Fisheries Service.
 Delisted. Protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

Date: March 12, 2008

Project No.: 41240.29

CTDEP December 4, 2007 Letter



# STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

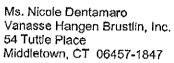
FRANKLIN WILDLIFE MANAGEMENT AREA

391 ROUTE 32

NORTH FRANKLIN, CT 06254

TELEPHONE: (860) 642-7239

December 4, 2007



re: proposed telecommunication facility, Colebrook Road, RT. 183, Winchester

Dear Ms. Dentamaro:

Your request was forwarded to me on 11/30/07 from Dawn McKay of the Department of Environmental Protection's (DEP) Natural Diversity Data Base. Their records indicate that a threatened species, the Roadside Skipper (*Amblyscirtes vialis*) occurs in the vicinity of this site.

The Roadside Skipper is a butterfly that is associated with deciduous woodlands or clearings, streamsides, roads, edges of deciduous forest. Also dry mixed oak-pine forest, rocky barrens, glades, or right of ways through forests in Connecticut. The caterpillars eat a variety of grasses including bentgrass (*Agrostis* spp.), wild oats (*Avena* spp.), bluegrass (*Poa* spp.), and Bermuda grass (*Cynodon dactylon*). The adults obtain nectar from flowers close to the ground, such as verbena (*Verbena* spp.) and self-heal (*Prunella vulgaris*). Caterpillars construct shelters of rolled leaves tied with silk. While in the shelter, the caterpillar produces a white, waxy, outer covering for itself. Once the wax shield is complete, the caterpillar exits and remains outside. Usually there is only one generation of caterpillars each summer, but two may occur in the southern parts of its range. Caterpillars overwinter in a physiological state called diapause. Adults generally fly from March through July.

If the habitat described above is going to be impacted by this project then the DEP Wildlife Division recommends that a lepidopterist conduct surveys for this species. A report summarizing the results of such surveys should include habitat descriptions, invertebrate species list and a statement/resume giving the lepidopterist' qualifications. The Wildlife Division does not maintain a list of lepidopterists in the state. A DEP Wildlife Division permit may be required by the lepidopterist to conduct survey work, you should ask if your lepidopterist 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.

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. Consultation with the Wildlife Division should not be substituted for on-site surveys required for environmental assessments. 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 Wildlife Division should be requested. If the Wildlife Division can assist you further, please feel free to contact me (860-642-7239). Thank you for the opportunity to comment.

Sincerely,

Julie Victoria Wildlife Biologist

Franklin Swamp Wildlife Management Area

391 Route 32

N. Franklin, CT 06254

cc: NDDB -- 15769

# CONNECTICUT DEP





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

February 11, 2008

Vanasse Hangen Brustlin, Inc.

Ref: 41240.29

Ms. Julie Victoria, Wildlife Biologist Connecticut Department of Environmental Protection Franklin Wildlife Management Area 391 Route 32 North Franklin, CT 06232

Re:

Roadside Skipper Habitat Assessment

NDDB# 15769

Proposed Wireless Telecommunication Facility Colebrook Road, Winchester, Connecticut

Dear Ms. Victoria:

Vanasse Hangen Brustlin, Inc. (VHB) conducted a habitat evaluation at the location of a proposed Verizon Wireless telecommunications facility on Colebrook Road (Route 44) in Winchester, Connecticut (see USGS Topographic Map). The evaluation was performed in response to Natural Diversity Data Base records of the occurrence of Roadside Skipper (*Amlyscirtes vialis*), a threatened butterfly, in the vicinity of the project site. There are no known extant populations of this species on the subject property. Copies of a December 4, 2007 CTDEP correspondence as well the Natural Diversity Database map are enclosed for reference.

### Site Description

The subject property is located on the north side of Colebrook Road approximately 3,000 feet northwest of the Winsted town line, in the town of Winchester. The property consists of approximately 58 acres of undeveloped land dominated by upland forest habitat (see color Aerial Photograph). The proposed communications facility is located in a northern hardwood forest type. Recent timber harvesting activities have resulted in a residual stand dominated by poletimber (4 to 11 inches diameter breast height [DBH]) with dominant species including red maple (*Acer rubrum*), beech (*Fagus grandifolia*), red oak (*Quercus rubra*), yellow birch (*Betula lutea*) and eastern hemlock (*Tsuga canadensis*). Abundant openings in the tree canopy, a result of a recent timber harvest, has resulted in the development a vigorous shrub layer dominated by *Rhubus* (see photo 1) and multiflora rose. Populations of *Carex spp.* were found within the logging road at various locations. A small wetland system and associated seasonal intermittent watercourse (identified by flag numbers IWC 1-01 to 1-11, WF 1-12 to 1-21, IWC 1-22 to 1-31) occurs in the north-central portion of the property. An additional bedrock controlled wetland depression occurs northwest of the proposed communications facility, a portion of which is identified by wetland flags WF 2-01 to 2-13. The proposed project will not impact either of these nearby wetland habitats.

Ms. Julie Victoria Project No.: 41240.29 February 11, 2008 Page 2

Land use within the general vicinity of the proposed facility and host property consists primarily of undeveloped forest land. An unnamed pond exists to the west; forest land to the north and east; Colebrook Road (Route 44) and the Mad River Dam to the south.

### **Proposed Facility**

The proposed facility would be located in the central portion of the subject property approximately 500 feet north of Colebrook Road. The facility would be located within a fenced compound measuring approximately 80 feet by 50 feet. An access road serving the facility enters the property via an existing access road and follows an existing logging road a distance of 320± feet. At this point, the proposed access road deviates from the existing logging road, traveling uphill through a forested area in order to avoid wetland impacts. This road will join another existing logging road to the west, which will be utilized to the tower facility. A copy of the Site Plans depicting details of the proposed development is enclosed.

### **Habitat Evaluation**

The Roadside Skipper is a butterfly that is associated with deciduous woodlands, forest edges, clearings, streamsides and roads¹. The larval stage feeds on a variety of grasses including Kentucky bluegrass (*Poa pratensis*), other bluegrasses (*Poa spp.*), bentgrass (*Agrostis spp.*), Bermuda grass (*Cynodon dactylon*) and wild oats (*Avena spp.*)². Adults prefer low blue flowers such as selfheal (*Prunella vulgaris*) and blue vervain (*Verbena hastata*)³. Caterpillars overwinter in a larval or chrysalis stage (in a physiological state called diapause⁴) with flight times usually occurring from mid May to mid June⁵. In addition to being a DEP listed species of special concern, this species is considered rare and as such is not likely to be found even in its preferred habitat⁶.

A thorough field inspection of the subject property, particularly the proposed access road and the area of the proposed tower facility, was conducted to determine if potential Roadside Skipper habitat exists. The proposed access route was traversed and photo documented on December 13, 2007 (see attached map depicting photo locations and number and corresponding photo documentations). Due to seasonal constraints regarding grass and wildflower identification, identification of species preferred by the Roadside Skipper was difficult. Therefore, it is recommended that a follow-up inspection be conducted in the spring in order to better assess the presence, abundance and species of grasses and wildflowers on the property. However, it was possible to identify and locate the presence of grasses and other types of emergent vegetation. A grassed area exists immediately south of the existing access to the property adjacent to Colebrook Road (see photo 2) due to the lack of canopy cover near the road. Due to tree canopy cover and a vigorous shrub layer, emergent vegetation is generally lacking within the proposed access road and tower facility. Within the

⁶ The Life Histories of Connecticut Butterflies (The Connecticut Butterfly association, Inc., 2007).



CTDEP Natural Diversity Database Correspondence Letter NDDB-15769 Julie Victoria, 12-04-07

The Life Histories of Connecticut Butterflies (The Connecticut Butterfly association, Inc., 2007).

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CTDEP Natural Diversity Database Correspondence Letter NDDB-15769 Julie Victoria, 12-04-07

⁵ The Life Histories of Connecticut Butterflies (The Connecticut Butterfly association, Inc., 2007).

Ms. Julie Victoria Project No.: 41240.29 February 11, 2008

Page 3

proposed access road, noticeable populations of emergent vegetation were observed in two areas (see photos 3 and 4). These areas are located within the existing logging road and include a lower and upper section. The dominant vegetation in these areas is Carex spp. (see photos 5 and 6). Areas of the proposed access road that deviate from the existing logging road (joining the existing lower road to the existing upper road) were generally void of emergent vegetation (see photo 7). The location of the proposed tower facility is within an area of upland deciduous forest and also lacks emergent vegetation (see photo 8).

The subject property is dominated by upland forest. A dense shrub layer is dominated by Rhubus spp. and multiflora rose, the result of recent timber harvesting activities that has opened up the canopy. No abundant grass or wildflower populations were identified on the subject property during the inspection. Grasses such as bluegrass, bentgrass, Bermuda grass and wild oats prefer fields, lawns, roadsides and waste places'. Wildflowers such as blue vervain and self-heal prefer fields, roadsides, pastures and meadows8. The subject property does not contain such habitats. Based on these facts it is unlikely that the proposed project would adversely affect populations of this species as suitable habitat is not present.

A follow-up inspection is recommended in the spring in order to conclusively determine that grasses and wildflowers utilized by the Roadside Skipper are not located on the property in proximity to the proposed project. As the proposed project will require clearing, in particular to construct the access road, VHB recommends that areas of exposed soil be stabilized with a seed mix containing grass and wildflower species preferred by the Roadside Skipper.

Please feel free to contact me at (860) 632-1500 ext. 2365 with any questions or if you require additional information.

Very truly yours,

Matthew Davison

Registered Soil Scientist

CT Certified Forester 193

**Enclosures** 

⁸ Lawrence Newcombe, <u>Newcombe'sWildflower Guide</u> (Boston-New York-Toronto-London: Little, Brown and Company, 1979) 78, 282



⁷ Lauren Brown, <u>Grasses an Identification Guide</u> (Boston-New York-London: Houghton Mifflin Company, 1977) 108, 152, 195,



# STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

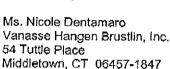
FRANKLIN WILDLIFE MANAGEMENT AREA

391 ROUTE 32

NORTH FRANKLIN, CT 06254

December 4, 2007

TELEPHONE: (860) 642-7239



re: proposed telecommunication facility, Colebrook Road, RT. 183, Winchester

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Sincerely,

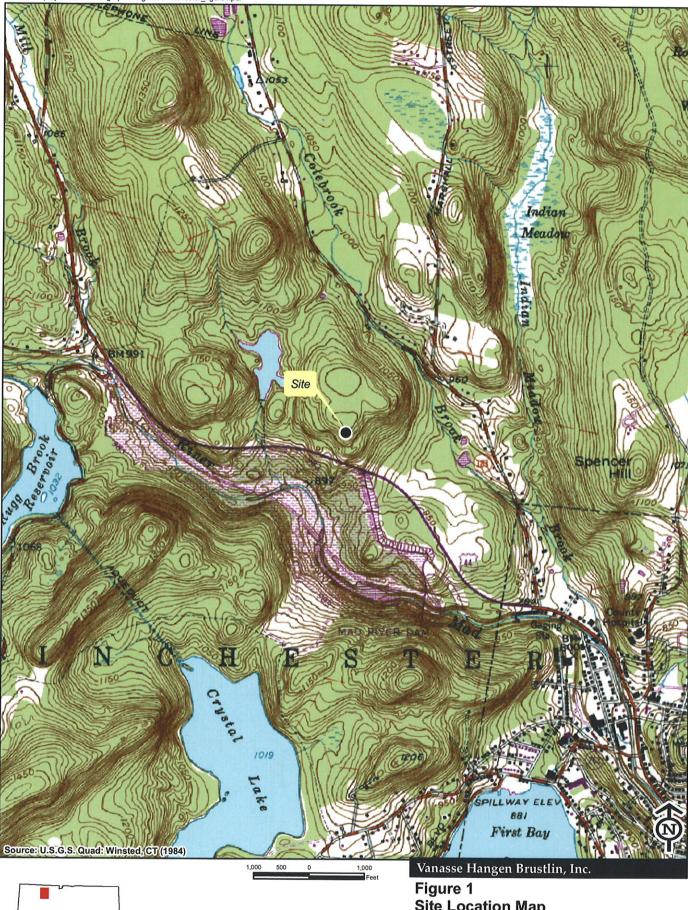
Julie Victoria Wildlife Biologist

Franklin Swamp Wildlife Management Area

391 Route 32

N. Franklin, CT 06254

cc: NDDB - 15769



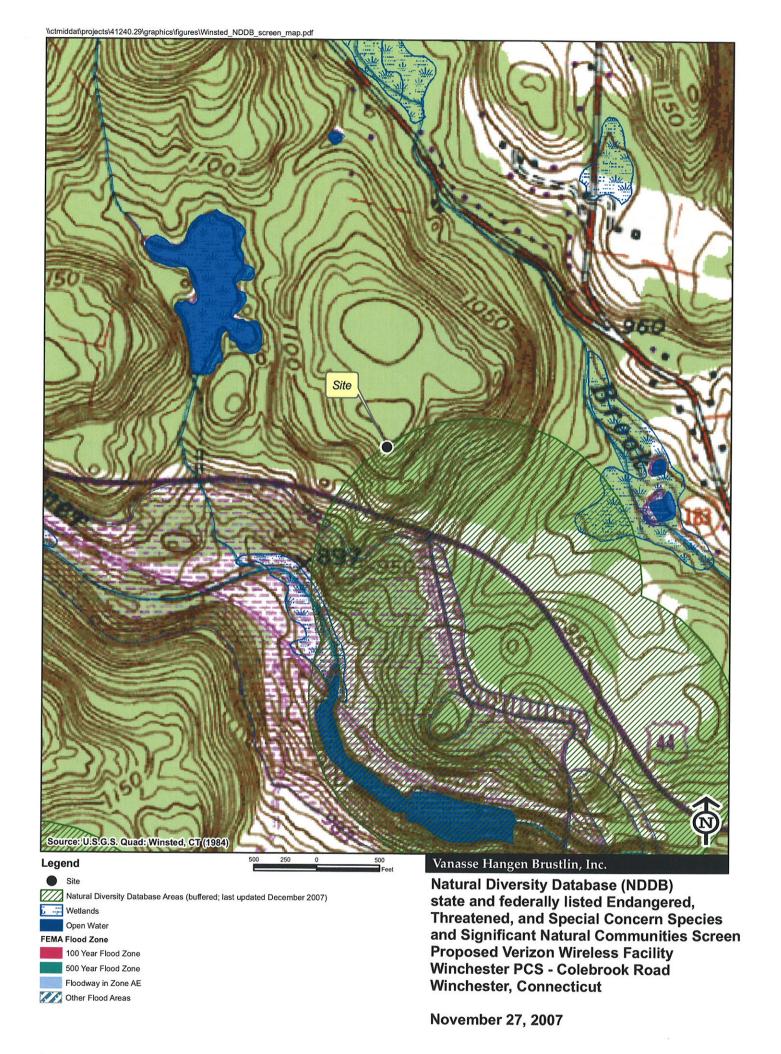
Quadrangle Location

Figure 1
Site Location Map
Proposed Verizon Wireless Facility
Winchester PCS
Colebrook Road
Winchester, Connecticut

veri onwireless



**Colebrook Road** Winchester, Connecticut



# Vanasse Hangen Brustlin, Inc.

PHOTO DOCUMENTATION

Proposed Telecommunications Facility
Winchester, Connecticut
December 13, 2007



Photo 1: View of Typical Upland Forest Habitat on Proposed Site (Dense Rhubus in Understory)



Photo 2: View of Grassed Area South of Proposed Access Road (Adjacent to Route 44)

# Vanasse Hangen Brustlin, Inc.

# PHOTO DOCUMENTATION

Proposed Telecommunications Facility
Winchester, Connecticut
December 13, 2007



Photo 3: View of Emergent Vegetation (Carex) Within Proposed Access Road (Lower Section)



Photo 4: View of Emergent Vegetation (Carex) Within Proposed Access Road (Upper Section)

# Vanasse Hangen Brustlin, Inc.

# PHOTO DOCUMENTATION

Proposed Telecommunications Facility Winchester, Connecticut December 13, 2007



Photo 5: Close-up View of Carex within Proposed Access Road (Lower Section)



Photo 6: Close-up View of Carex within Proposed Access Road (Upper Section)

# Vanasse Hangen Brustlin, Inc. PHOTO DOCUMENTATION

Proposed Telecommunications Facility Winchester, Connecticut

December 13, 2007



Photo 7: View of Proposed Access Road Location through Forested Area (Joins Existing Lower

to Existing Upper Logging Roads)



Photo 8: View of Proposed Tower Facility Location

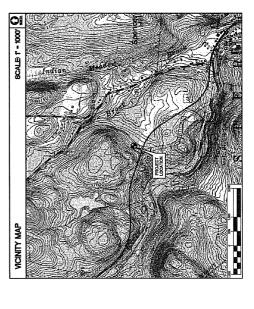
# Cellco Partnership



# COLEBROOK ROAD WINCHESTER PCS WINCHESTER, CT

NATCONTINUE OF THE STATE OF THE

Cellco Partnership d.b.a. **Verizon**wirele



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PROPOSED ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELLCO PARTHERSH

GENERAL NOTES

SITE INFORMATION

FROM: 89 EAST RIVER DRIVE TO: STE ACCESS ON NORPOLK RD EAST HAVETED, CONNECTION

SITE DIFFECTIONS

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FINAL DESIGN FOR TOWER AND ANTENNA MOUNTS SHALL BE INCLUDED IN THE FINAL CONSTRUCTION DOCUMENTS.

THERE WILL NOT BE ANY LIGHTING UNLESS REQUIRED BY THE FOC OR THE FAN.
I THERE WILL NOT BE ANY SIGNS OR ADVENTISMS ON THE ANTENANS OR EQUIPMENT,
FOR ADDITIONAL NOTES AND DETAILS RETER TO THE ACCOMPANTING DRAWING.

PROJECT SUMMARY	AARY
SITE NAME:	WINCHESTER PCS
SITE ADDRESS:	COLEBROOK ROAD WINCHESTER, CT 06098
PROPERTY OWNER:	WRVZ1 LLC 158 ROOSENELT DRIVE SEYMOUR, CT 06483
LEASOR:	WRYZ1 LLC 158 ROOSEVELT DRVE SEYMOUR, CT 06483
LESSEE	CELLO PARTNERSHIP d.ba. YERZON WIRELESS 99 EAST RAFR DRAGE EAST HARTORO, GT 06108
APPLICANT:	CELLO PARTNERSHIP d.ba. VERZON WIRELESS 99 ESST RAKEN ROPIC ESST WARTDRO, GT 06108
CONTACT PERSON:	SANDY CARTER CELLOD PARINESHIP (860) 803-8219
TOWER COORDINATES:	LATTUDE 41:36'24.7* LINGINICE 720'54.7 CONGUNIES PER PELD SIRKEY PERFORMED BY BARRETT, BONGO & VAN WELE, P.C., SEPTEMBER 2007.

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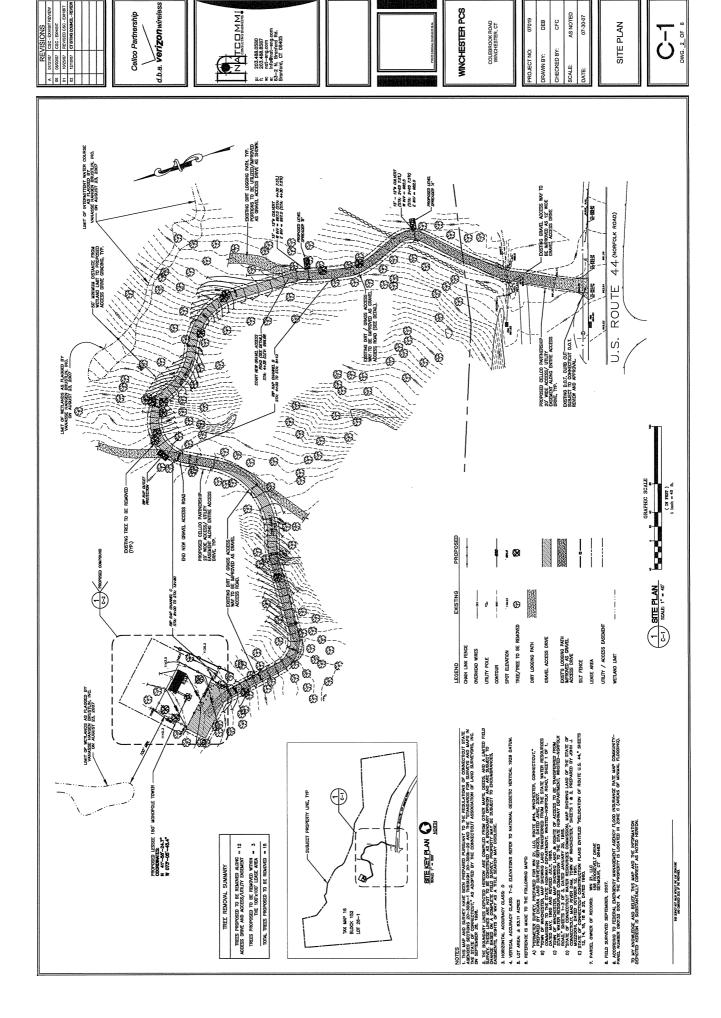
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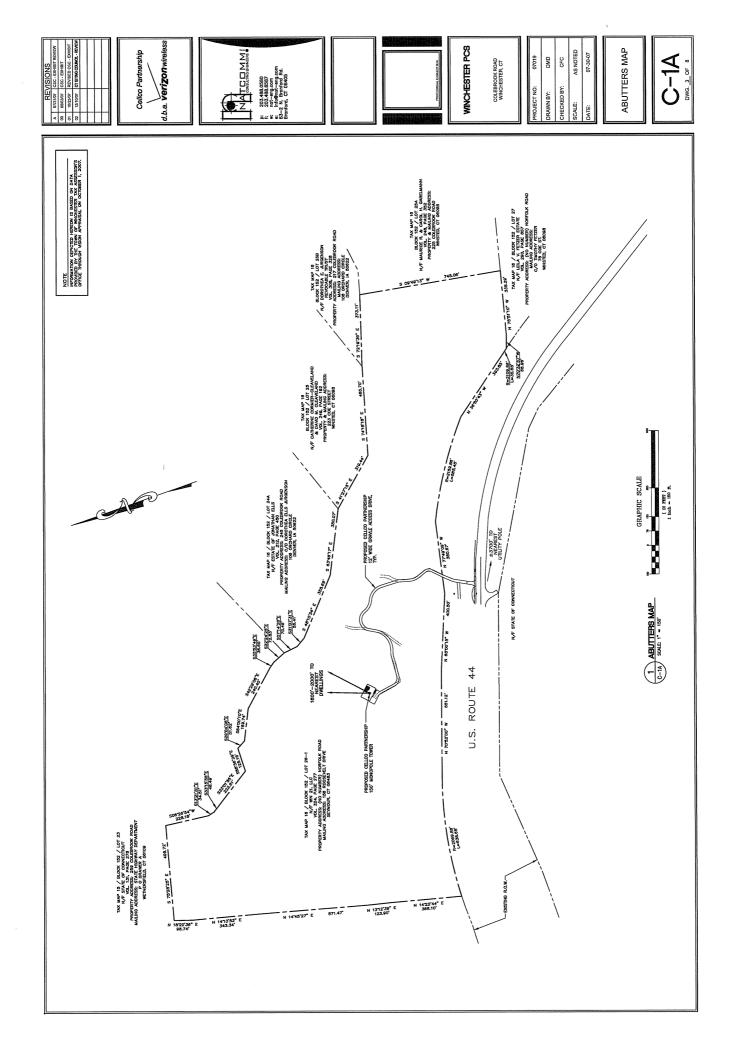
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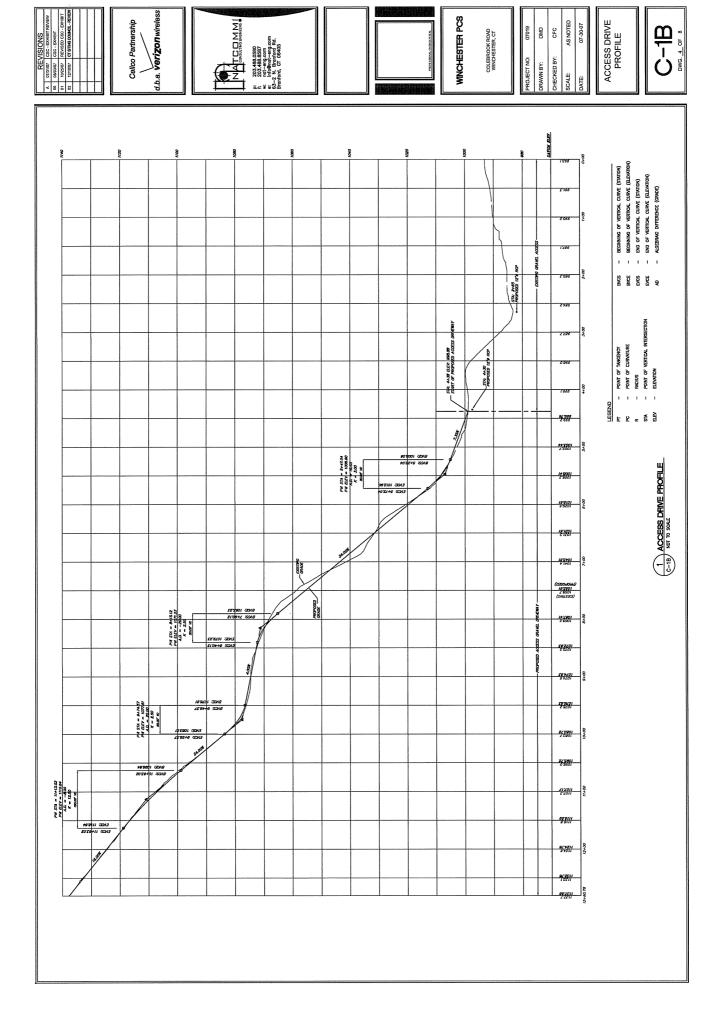
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C2	COMPOUND PLAN AND ELEVATION	05
6-3	SITE DETAILS AND NOTES	05
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6-5	Shelter foundation details and notes	02

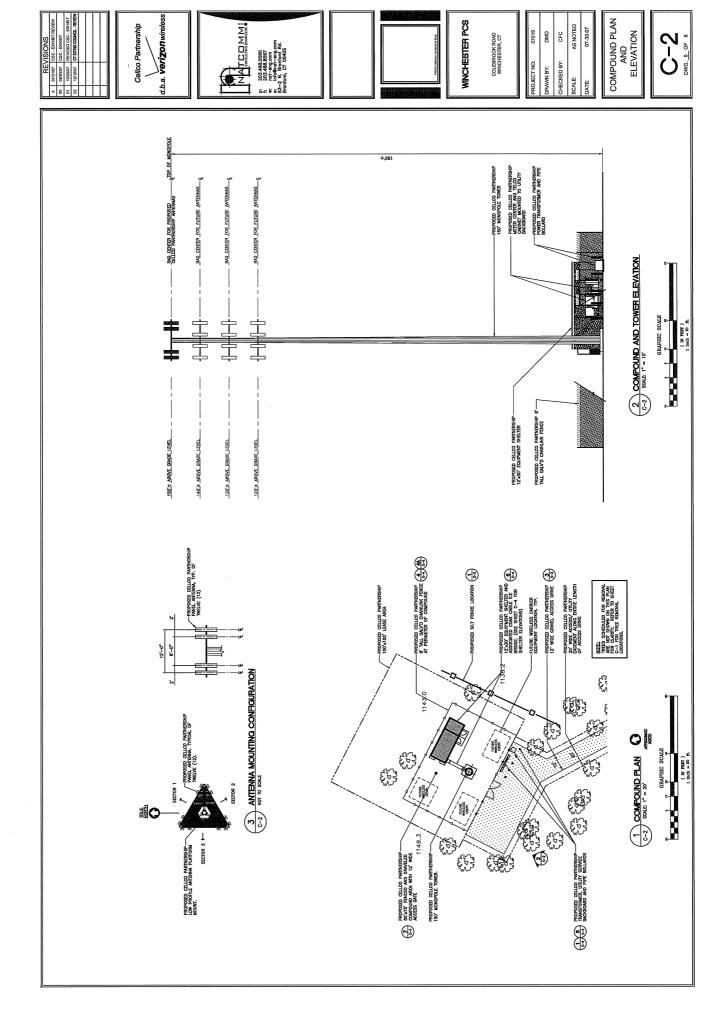
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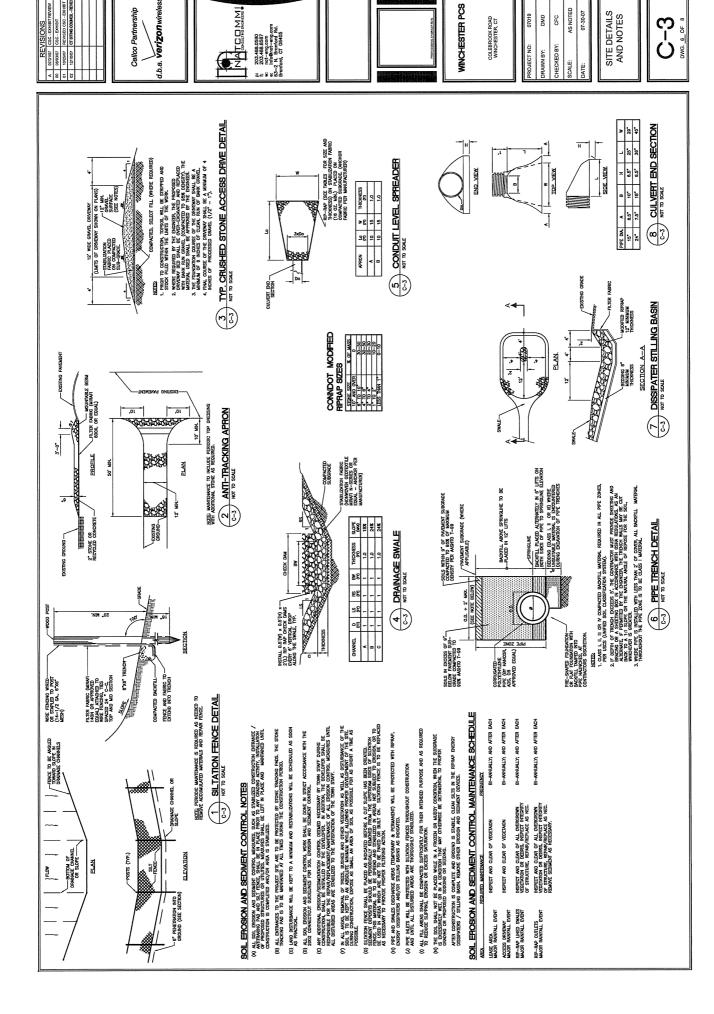
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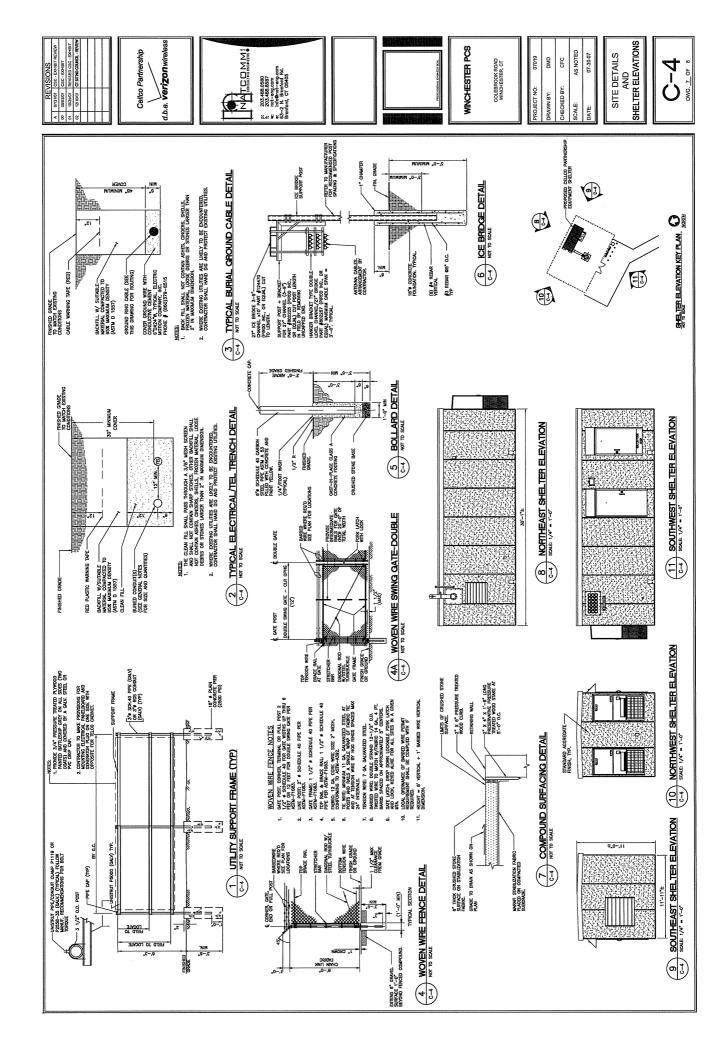


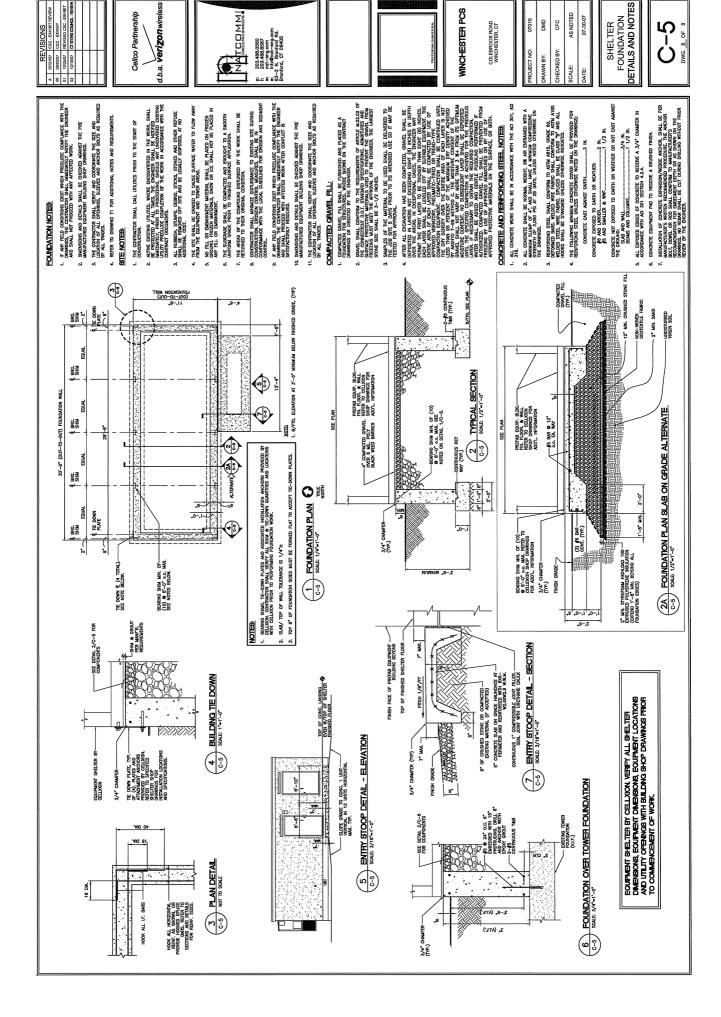












# STATE HISTORIC PRESERVATION OFFICE

### **Connecticut Commission on Culture & Tourism**

October 18, 2007

Historic Preservation & Museum Division

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

59 South Prospect Street Hartford, Connecticut 06106

(v) 860.566.3005 (f) 860.566.5078 Subject: Telecommunications Facilities

Colebrook Road (Route 183)

Winchester, CT

Dear Ms. Dentamaro:

The State Historic Preservation Office has reviewed the above-named project. This office expects that the proposed undertaking will have <u>no effect</u> on historic, architectural, or archaeological resources associated with this significant cultural resource.

This office appreciates the opportunity to have reviewed and commented upon the proposed undertaking.

This comment is provided in accordance with the National Historic Preservation Act and the Connecticut Environmental Policy Act.

For further information, please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

Karen Senich

Deputy State Historic Preservation Officer



.

# Transportation Land Development Environmental Services



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

Memorandum

To: Ms. Alexandria Carter Verizon Wireless 99 East River Drive

Date: February 19, 2008

Project No.: 41240.29

From: Dean Gustafson

Professional Soil Scientist

East Hartford, CT 06108

Re: Wetland Impact Analysis/NEPA Compliance

Winchester PCS

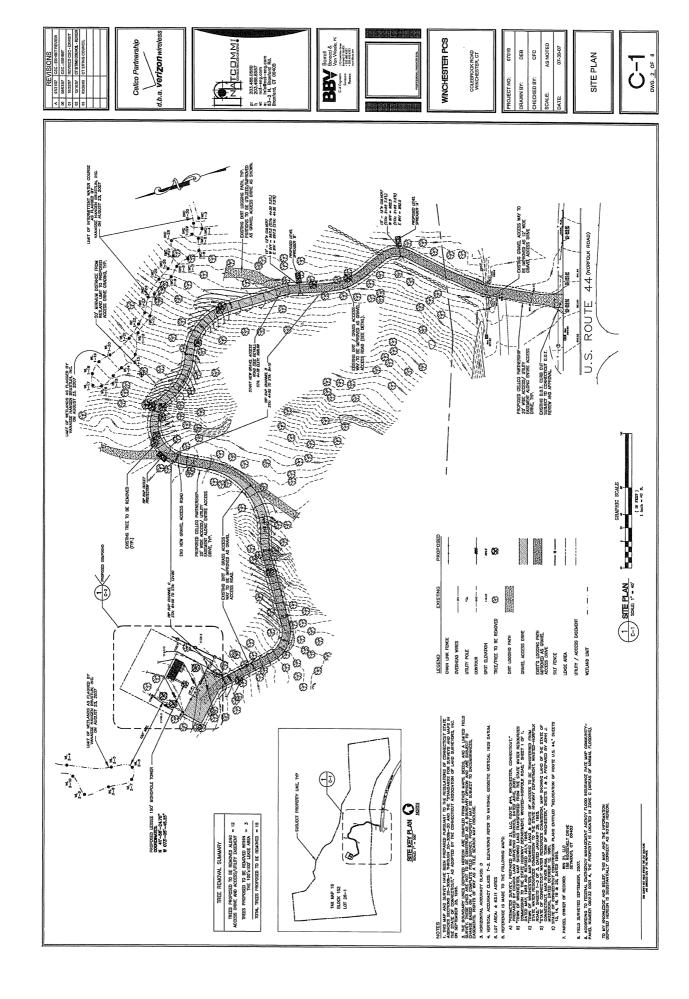
Colebrook Road (Route 44) Winchester, Connecticut

Vanasse Hangen Brustlin, Inc. (VHB) previously completed on-site investigations to determine if wetlands and/or watercourses are located on the above-referenced Site. Refer to Wetlands Delineation Report dated August 23, 2007.

The Site was inspected on August 22, 2007. The property consists of approximately 56 acres of undeveloped land dominated by upland forest habitat. Based on a review of plans prepared by Natcomm, Inc. (latest revised date 02/26/08, as attached) VHB understands that Verizon Wireless proposes to construct a wireless communications facility in the central portion of the subject property. A small wetland system and associated seasonal intermittent watercourse (identified by flag numbers IWC 1-01 to 1-11, WF 1-12 to 1-21, IWC 1-22 to 1-31) occurs in the north-central portion of the property. This intermittent watercourse system is located a minimum of 50 feet north of the northernmost section of the proposed access drive. An additional bedrock controlled wetland depression occurs northwest of the proposed wireless communications facility, a portion of which is identified by wetland flags WF 2-01 to 2-13. This wetland area is located more than 100 feet northwest of the proposed facility. Although work is proposed in proximity to nearby wetland resource areas, no direct impact to wetlands or watercourses is proposed for the Verizon Wireless development. Due to the distance separating the proposed work and the erosion and sedimentation controls to be installed and maintained during construction, the proposed project will not result in a likely adverse impact to nearby wetland or watercourse resources.

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.

Enclosure







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

## Vanasse Hangen Brustlin, Inc.

### WETLANDS DELINEATION REPORT

Date:

August 23, 2007

Project No.:

41240.29

Prepared For:

Ms. Alexandria Carter

Verizon Wireless 99 East River Drive

East Hartford, Connecticut 06108

Site Location:

Norfolk Road, Road (Route 44), Winchester, Connecticut

Site Map:

Wetland Flagging Sketch Map, Dated August 23, 2007

Inspection Date:

August 23, 2007

Local Regulated Upland Review Areas: Wetlands: 100 feet

**Field Conditions:** 

Weather: sunny, low 80's

Snow Depth: 0 inches

General Soil Moisture: moist

Frost Depth: 0 inches

Type of Wetlands Identified and Delineated:

Connecticut Inland Wetlands and Watercourses

Tidal Wetlands

U.S. Army Corps of Engineers

Watercourses: 100 feet

Field Numbering Sequence of Wetlands Boundary: Connecticut - WF 1-01 to 1-57

[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.yhb.com

# **Attachments**

- > Wetland Delineation Field Form

- Soil Map
  Soil Report
  Wetland Delineation Sketch Map

# Wetland Delineation Field Form

Duniant Address	NI-uC-II- D-	- 1 337:1	T Davis at No. 1				
Project Address:	Connecticu	ad, Winchester,	Project Numb	per: 41240.29			
Inspection Date:	August 22,		Inspector:	Matthew Davison			
Wetland I.D.:	Wetland 1						
	L	P. 6 - 14-14-14-14-14-14-14-14-14-14-14-14-14-1	_1				
Field Conditions: Weather: overcast, low 80's				Snow Depth: 0			
	Genera	Soil Moisture: moist	t	Frost Depth: 0			
Type of Wetland I	Delineation:	Connecticut					
		ACOE					
		Tidal					
Field Numbering Sequence: IWC 1-01 to 1-11, WF 1-12 to WF 1-21, IWC 1-22 to 1-31 END							
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		Disturbed 🛛		Wet Meadow			
Comments:							
WATERCOURSI	E TYPE:						
Perennial		Intermittent 🖂	T	Tidal 🗍			
Comments:	· · · · · · · · · · · · · · · · · · ·						
SPECIAL AQUA	TIC HABIT		·····				
Vernal Pool		Other _					
Comments:							

# Wetland Delineation Field Form (Cont.)

WARPELL SULS:	PPED SOI	LS:
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SOIL SERIES	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury				$\boxtimes$
Leicester				$\square$
Charlton-Chatfield complex		$\boxtimes$		$\boxtimes$

### **DOMINANT PLANTS:**

### WETLAND NARRATIVE:

System begins on a hillside terrace as a small seep area dominated by *carex*, most predominant of which is *lurida*. Wetland drains easterly through dense shrub layer (*rhubus* and multifora rose) as an intermittent watercourse (not flowing despite recent rain event). This system is presumed to flow into another wetland system; however, it was not flagged in its entirety.

# Wetland Delineation Field Form

	<del></del>					
Project Address:	Project Address: Norfolk Road, Winchester, Project Connecticut		Project Numb	er:	41240.29	
Inspection Date:	August 22,		Inspector:		Matthew Davison	
Wetland I.D.:	Wetland 2					
	L					
Field Conditions: Weather: overcast, low 80's			Sno	ow Depth: 0		
	Genera	l Soil Moisture: mois	t	Fro	st Depth: 0	
Type of Wetland l	Delineation:	Connecticut	$\boxtimes$			
		ACOE				
		Tidal				
Field Numbering Sequence: WF 2-10 to 2-13, WF 2-01X to 2-07X						
WETLAND HYI	ROLOGY:					
NONTIDAL						
Regularly Flooded	i 🔲	Irregularly Flooded		I	Permanently Flooded	
Semipermanently		Seasonally Flooded		7	remporarily Flooded ⊠	
Permanently Satur	rated 🗌	Seasonally Saturate	d – seepage 🔲	] [	Seasonally Saturated - perched	
Comments:						
TIDAL						
		Regularly Flooded		In	regularly Flooded	
		Temporarily Floode	ed 🗌			
Comments: NA						
WETLAND TYP	E.					
	X2.					
SYSTEM:						
Estuarine		Riverine		Pah	ustrine 🛛	
Lacustrine		Marine		****		
Comments:						
CLASS:						
Emergent Scrub-shrub			Fore	ested 🔀		
		Disturbed			Wet Meadow 🗌	
Comments:						
WATERCOURSI	E TYPE:					
Perennial		Intermittent		Tida	al 🗍	
Comments: NA						
SPECIAL AQUA	FIC HADIT	AT.				
Vernal Pool	IIC DADII	Other Other				
····	le vernal noo	habitat Stained lea	vec at curface ir	dica	ta pariodia floodina	

### Wetland Delineation Field Form (Cont.)

### MAPPED SOILS:

SOIL SERIES	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury				
Leicester				$\boxtimes$
Charlton-Chatfield complex				

### **DOMINANT PLANTS:**

eastern hemlock	
red maple	

### **WETLAND NARRATIVE:**

Bedrock controlled depressional system at the top of a hill. Over-story in this wetland is dominated by hemlock, which differs from surrounding hardwood dominated uplands. Water stained leaves indicate periodic flooding, possible vernal pool habitat. Depression is shallow in the area flagged consequently it would not likely be high quality vernal pool habitat.





Web Soil Survey 2.0 National Cooperative Soil Survey

## MAP LEGEND

Wery Stony Spot	Wet Spot	♣ Other	_	्री बिपापि	Short Steep Slope	Other	Political Features	municipannes	Urban Areas	Water Features	Oceans	Streams and Canals	ortat	Rails	Koads  Interstate Highways
	Area of Interest (AOI)	Soil Map Units			Borrow Pit	Clay Spot	pression	Gravel Pit	Gravelly Spot	Landfill Water	Lava Flow	Marsh	Mine or Quarry Trans	Miscellaneous Water	Perennial Water
Area of In		Soils	Special	10 march	× 🗵	1 *	<b>(</b>	×	•:	0	~	爿	<b>*</b>	0	•

## MAP INFORMATION

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

Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Source of Map: Natural Resources Conservation Service Coordinate System: UTM Zone 18N This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

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

4/12/1991 Date(s) aerial images were photographed:

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

Interstate Highways

No. of London

Rock Outcrop Saline Spot Sandy Spot

State Highways

US Routes

Local Roads Other Roads

* |

Severely Eroded Spot

1

Slide or Slip

Sinkhole

**\$** 

Sodic Spot Spoil Area

ø

Stony Spot

III 🗢

### Natural Resources Conservation Service USDA

### **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	1.4	1.5%					
47C	Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony	1.6	1.6%					
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	9.1	9.5%					
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	31.9	33.1%					
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	38.4	39.8%					
86D	Paxton and Montauk fine sandy loams, 15 to 35 percent slopes, extremely stony	0.9	0.9%					
308	Udorthents, smoothed	13.2	13.6%					
Totals for Area of Interest (A	OI)	96.5	100.0%					

### Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey 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, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

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, Generated)

### State of Connecticut

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

Component: Ridgebury (40%)

The Ridgebury component makes up 40 percent of the map unit. Slopes are 0 to 5 percent. This component is on drainageways on uplands, depressions on uplands. The parent material consists of coarse-loamy lodgment till derived from granite and/ or schist and/or gneiss. Depth to a root restrictive layer, densic material, is 20 to 30 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 7s. This soil meets hydric criteria.

Component: Leicester (35%)



The Leicester component makes up 35 percent of the map unit. Slopes are 0 to 5 percent. This component is on drainageways on uplands, depressions on uplands. The parent material consists of coarse-loamy melt-out till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 70 percent. Nonirrigated land capability classification is 7s. This soil meets hydric criteria.

### Component: Whitman (15%)

The Whitman component makes up 15 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on uplands, drainageways on uplands. The parent material consists of coarse-loamy lodgment till derived from granite and/ or schist and/or gneiss. Depth to a root restrictive layer, densic material, is 12 to 20 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is occasionally ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, October, November, December. Organic matter content in the surface horizon is about 60 percent. Nonirrigated land capability classification is 7s. This soil meets hydric criteria.

Component: Sutton (2%)

Generated brief soil descriptions are created for major components. The Sutton soil is a minor component.

Component: Unnamed, frequently flooded (2%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Component: Unnamed, steep slopes (2%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Component: Woodbridge (2%)

Generated brief soil descriptions are created for major components. The Woodbridge soil is a minor component.

Component: Unnamed, nonstony (1%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Component: Unnamed, silt loam surface (1%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Map Unit: 47C—Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony

### Component: Woodbridge (80%)

The Woodbridge component makes up 80 percent of the map unit. Slopes are 2 to 15 percent. This component is on drumlins on uplands, hills on uplands. The parent material consists of coarse-loamy lodgment till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer, densic material, is 20 to 40 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Paxton (5%)

Generated brief soil descriptions are created for major components. The Paxton soil is a minor component.

Component: Montauk (3%)

Generated brief soil descriptions are created for major components. The Montauk soil is a minor component.

Component: Ridgebury (3%)

Generated brief soil descriptions are created for major components. The Ridgebury soil is a minor component.

Component: Leicester (2%)

Generated brief soil descriptions are created for major components. The Leicester soil is a minor component.

Component: Sutton (2%)

Generated brief soil descriptions are created for major components. The Sutton soil is a minor component.

Component: Unnamed, loamy substratum (2%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Component: Georgia (1%)

Generated brief soil descriptions are created for major components. The Georgia soil is a minor component.

Component: Stockbridge (1%)

Generated brief soil descriptions are created for major components. The Stockbridge soil is a minor component.

Component: Whitman (1%)

Generated brief soil descriptions are created for major components. The Whitman soil is a minor component.

Map Unit: 52C—Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony

Component: Sutton (80%)

The Sutton component makes up 80 percent of the map unit. Slopes are 2 to 15 percent. This component is on depressions on uplands, drainageways on uplands. The parent material consists of coarse-loamy melt-out till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Charlton (5%)

Generated brief soil descriptions are created for major components. The Charlton soil is a minor component.

Component: Canton (4%)

Generated brief soil descriptions are created for major components. The Canton soil is a minor component.

Component: Leicester (3%)

Generated brief soil descriptions are created for major components. The Leicester soil is a minor component.

Component: Paxton (3%)

Generated brief soil descriptions are created for major components. The Paxton soil is a minor component.

Component: Rainbow (2%)

Generated brief soil descriptions are created for major components. The Rainbow soil is a minor component.

Component: Woodbridge (2%)

Generated brief soil descriptions are created for major components. The Woodbridge soil is a minor component.

Component: Narragansett (1%)

Generated brief soil descriptions are created for major components. The Narragansett soil is a minor component.

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

Component: Charlton (45%)

The Charlton component makes up 45 percent of the map unit. Slopes are 3 to 15 percent. This component is on hills, uplands. The parent material consists of coarse-loamy melt-out till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.

Component: Chatfield (30%)

The Chatfield component makes up 30 percent of the map unit. Slopes are 3 to 15 percent. This component is on hills, ridges, uplands. The parent material consists of coarse-loamy melt-out till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer, bedrock (lithic), is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 75 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.

Component: Rock outcrop (6%)

Generated brief soil descriptions are created for major components. The Rock outcrop soil is a minor component.

Component: Hollis (5%)

Generated brief soil descriptions are created for major components. The Hollis soil is a minor component.

Component: Leicester (5%)

Generated brief soil descriptions are created for major components. The Leicester soil is a minor component.

Component: Sutton (5%)

Generated brief soil descriptions are created for major components. The Sutton soil is a minor component.

Component: Unnamed, red parent material (2%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Component: Unnamed, sandy subsoil (2%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

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

Component: Charlton (45%)

The Charlton component makes up 45 percent of the map unit. Slopes are 15 to 45 percent. This component is on uplands, hills. The parent material consists of coarse-loamy melt-out till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Chatfield (30%)

The Chatfield component makes up 30 percent of the map unit. Slopes are 15 to 45 percent. This component is on hills, ridges, uplands. The parent material consists of coarse-loamy melt-out till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer, bedrock (lithic), is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 75 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Rock outcrop (10%)

Generated brief soil descriptions are created for major components. The Rock outcrop soil is a minor component.

Component: Leicester (5%)

Generated brief soil descriptions are created for major components. The Leicester soil is a minor component.

Component: Sutton (5%)

Generated brief soil descriptions are created for major components. The Sutton soil is a minor component.

Component: Hollis (3%)

Generated brief soil descriptions are created for major components. The Hollis soil is a minor component.

Component: Unnamed, red parent material (1%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Component: Unnamed, sandy subsoil (1%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

**Map Unit:** 86D—Paxton and Montauk fine sandy loams, 15 to 35 percent slopes, extremely stony

Component: Paxton (55%)

The Paxton component makes up 55 percent of the map unit. Slopes are 15 to 35 percent. This component is on till plains on uplands, hills on uplands, drumlins on uplands. The parent material consists of coarse-loamy lodgment till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer, densic material, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Montauk (30%)

The Montauk component makes up 30 percent of the map unit. Slopes are 15 to 35 percent. This component is on drumlins on uplands, hills on uplands. The parent material consists of coarse-loamy lodgment till derived from granite and/or coarse-loamy lodgment till derived from gneiss and/or coarse-loamy lodgment till derived from gneiss and/or coarse-loamy lodgment till derived from granite. Depth to a root restrictive layer, densic material, is 20 to 38 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Woodbridge (4%)

Generated brief soil descriptions are created for major components. The Woodbridge soil is a minor component.

Component: Charlton (3%)

Generated brief soil descriptions are created for major components. The Charlton soil is a minor component.

Component: Ridgebury (3%)

Generated brief soil descriptions are created for major components. The Ridgebury soil is a minor component.

Component: Canton (2%)

Generated brief soil descriptions are created for major components. The Canton soil is a minor component.

Component: Stockbridge (1%)

Generated brief soil descriptions are created for major components. The Stockbridge soil is a minor component.

Component: Unnamed, red parent material (1%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Component: Unnamed, stony surface (1%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Map Unit: 308-Udorthents, smoothed

Component: Udorthents (80%)

The Udorthents component makes up 80 percent of the map unit. Slopes are 0 to 35 percent. This component is on leveled land, fills. The parent material consists of drift. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 39 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Udorthents, wet substratum (7%)

Generated brief soil descriptions are created for major components. The Udorthents soil is a minor component.

Component: Unnamed, undisturbed soils (7%)

Generated brief soil descriptions are created for major components. The Unnamed soil is a minor component.

Component: Urban land (5%)

Generated brief soil descriptions are created for major components. The Urban land soil is a minor component.

Component: Rock outcrop (1%)

Generated brief soil descriptions are created for major components. The Rock outcrop soil is a minor component.

### **Data Source Information**

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

MA +CT NH NJ NY RI

Established Series Rev. WHT-SMF-TDT 12/2005

### RIDGEBURY SERIES

The Ridgebury series consists of very deep, somewhat poorly and poorly drained soils formed in till derived mainly from granite, gneiss and schist. They are commonly shallow to a densic contact. They are nearly level to gently sloping soils in low areas in uplands. Slope ranges from 0 to 15 percent. Saturated hydraulic conductivity ranges from moderately low to high in the solum and very low to moderately low in the substratum. Mean annual temperature is about 49 degrees F. and the mean annual precipitation is about 45 inches.

TAXONOMIC CLASS: Loamy, mixed, active, acid, mesic, shallow Aeric Endoaquepts

**TYPICAL PEDON:** Ridgebury sandy loam - on a 3 to 8 percent slope in an extremely stony wooded area at an elevation of about 1095 feet. (Colors are for moist soil.)

A--0 to 5 inches (0 to 12 cm.); black (N 2/0) fine sandy loam; weak medium and coarse granular structure; friable; many very fine, fine and medium tree roots; 5 percent gravel and 5 percent cobbles; very strongly acid; abrupt smooth boundary. (2 to 10 inches thick)

**Bw**--5 to 9 inches (12 to 22 cm.); brown (10YR 4/3) sandy loam; weak medium subangular blocky structure; friable; few fine tree roots; 5 percent gravel and 5 percent cobbles; very strongly acid; abrupt wavy boundary. (3 to 9 inches thick)

**Bg**--9 to 18 inches (22 to 46 cm.); dark gray (10YR 4/1) gravelly sandy loam; massive; friable; 10 percent gravel and 5 percent cobbles; common fine prominent yellowish brown (10YR 5/6) and common medium distinct reddish brown (5YR 4/4) masses of iron accumulation; very strongly acid; gradual wavy boundary. (4 to 17 inches thick)

Cd-18 to 65 inches (46 to 165 cm.); gray (5Y 5/1) gravelly sandy loam; massive; firm; 10 percent gravel and 5 percent cobbles; common fine prominent reddish yellow (7.5YR 6/8) masses of iron accumulation; very strongly acid.

**TYPE LOCATION:** Hampshire County, Massachusetts; Town of Pelham; 1,600 feet east of Route 202 at a point 3,950 feet south of its junction with Amherst Road; USGS Shutesbury quadrangle; latitude 42 degrees 22 minutes 53 seconds N. and longitude 72 degrees 23 minutes 45 second W., NAD 27.

RANGE IN CHARACTERISTICS: Depth to the dense till commonly is 14 to 19 inches. The A horizon has 5 to 25 percent gravel, 0 to 10 percent cobbles, and 0 to 25 percent stones by volume. The B and C horizons have 5 to 25 percent gravel, 0 to 5 percent cobbles and 0 to 5 percent stones. Rock fragments within the soil range from 5 to 35 percent by volume and are subangular fragments. The unlimed soil ranges from very strongly acid through moderately acid but some horizon within a depth of 40 inches is moderately acid.

The O horizon, where present, has hue of 7.5YR to 2.5Y, value of 2, 2.5, or 3 and chroma of 0 to 2.

The A or Ap horizon is neutral or has hue of l0YR to 5Y, value of 2, 2.5, or 3 and chroma of 0 to 2. Texture is sandy loam, fine sandy loam or loam in the fine-earth fraction.

Some pedons have a thin E horizon with hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2. Texture is the same as the A horizon.

The B horizon is neutral or has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 0 to 3. The chroma is 4 in some places. Chroma of 3 or 4 is restricted to subhorizons. Redoximorphic features are few to many and are distinct or prominent. Texture is sandy loam, fine sandy loam, very fine sandy or loam in the fine earth fraction with fifteen percent or more fine sand or coarser and clay content less than 18 percent. The B horizon has subangular blocky structure, weak to moderate very thin to medium platy structure or is massive. It is very friable or friable.

The Cd layer has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4. It commonly has distinct or prominent redoximorphic features which generally become less abundant with depth but the range includes faint. Texture is coarse sandy loam, sandy loam, fine sandy loam, very fine sandy or loam in the fine-earth fraction. Consistence is firm or very firm and brittle. It is massive or has plates. Any physical aggregation is considered to not be pedogenic.

Some pedons have a C horizon below the Cd that is firm but not brittle.

**COMPETING SERIES:** There are no series currently in the same family.

The <u>Painesville</u>, <u>Punsit</u>, and <u>Sun</u> series are in a closely related family. Painesville soils lack a densic contact. Punsit soils have more than 60 percent silt plus very fine sand in the particle size control section. Sun soils formed in till derived from limestone and sandstone.

**GEOGRAPHIC SETTING:** The nearly level to gently sloping Ridgebury soils are in slightly concave areas and shallow drainageways of till uplands. Slope ranges from 0 to 15 percent. The soils formed in loamy till derived mainly from granite, gneiss and schist. Mean annual air temperature ranges from 45 to 52 degrees F. and mean annual precipitation ranges from 40 to 50 inches. Mean growing season ranges from 100 to 195 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These include the Charlton, Chatfield, Hollis, Leicester, Paxton and Sutton, Whitman and Woodbridge soils. Ridgebury is a member of a drainage sequence that includes the well drained Paxton, moderately well drained Woodbridge, and very poorly drained Whitman soils. Charlton and Sutton soils are better drained and have friable substrata. Chatfield and Hollis soils have bedrock within depths of 40 and 20 inches respectively. Leicester soils do not have a densic contact.

**DRAINAGE AND PERMEABILITY:** Commonly poorly drained but the range includes the wetter part of somewhat poorly drained. Runoff is negligible to medium. Saturated hydraulic conductivity ranges from moderately low to high in the solum and very low to moderately low in the substratum. A perched, fluctuating water table above the dense till saturates the solum to or near the surface for 7 to 9 months of the year.

**USE AND VEGETATION:** Largely forested to gray birch, yellow birch, red maple, hemlock, elm, spruce and balsam fir. Cleared areas are used mainly for hay and pasture.

**DISTRIBUTION AND EXTENT:** Glaciated landforms in Connecticut, Massachusetts, New Hampshire, New Jersey, New York, and Rhode Island. (MLRAs 142, 144A, 145, and 149B) The series is extensive.

MLRA OFFICE RESPONSIBLE: Amherst, Massachusetts.

SERIES ESTABLISHED: Franklin County, Vermont, 1948.

**REMARKS:** An analysis of Ridgebury soils in 2002 for 38 surveys showed that this series most commonly has a densic contact at 16 to 24 inches including 8 surveys with the depth to a densic contact at 20 inches. The average depth to a densic contact was 20 inches - the data showed an almost even split between depth class occurrences. A review of characterization data for Ridgebury soils shows a very slight dominance in the acid reaction class. Any physical aggregation in the Cd is considered to not be pedogenic. The type location is currently within the officially designated mesic zone in Massachusetts.

Diagnostic horizons and features in this pedon include:

- 1. Ochric epipedon the zone from 0 to 5 inches (A horizon).
- 2. Aeric feature 100 percent of the zone from 5 to 9 inches has hue of 10YR and both color value moist of 4 and chroma moist of 3 (Bw1 horizon).
- 3. Cambic horizon the zone from 5 to 18 inches (Bw and Bg horizons).
- 3. Densic contact root limiting material begins at 18 inches (Cd).
- 4. Endosaturation the zone from 9 to 18 inches is saturated above the densic contact (Bw2 horizon). A seasonal high water table is perched above the densic materials.
- 5. Reaction the pH in the zone from 10 to 18 inches (control section for reaction) is presumed less than 5.0 in 0.01 M CaCl2 (1:2) (see remarks).
- 6. Series control section the zone from 0 to 28 inches.

**ADDITIONAL DATA:** Reference samples from pedons S00CT013002, S58MA015006, S57MA023004, S77MA005003, S95NH013005, S96NH013002 from Connecticut, Massachusetts, and New Hampshire, samples by NSSL, Lincoln, NE, various years.

National Cooperative Soil Survey U.S.A.

LOCATION LEICESTER

CT+MA NH NY RI

Established Series Rev. MFF-SMF 05/1999

### LEICESTER SERIES

The Leicester series consists of very deep, poorly drained loamy soils formed in friable till. They are nearly level or gently sloping soils in drainageways and low-lying positions on hills. Slope ranges from 0 to 8 percent. Permeability is moderate or moderately rapid in the surface layer and subsoil and moderate to rapid in the substratum. Mean annual temperature is about 50 degrees F., and mean annual precipitation is about 47 inches.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, acid, mesic Aeric Endoaquepts

TYPICAL PEDON: Leicester fine sandy loam - forested, extremely stony. (Colors are for moist soil.)

Oe--0 to 1 inch; black (10YR 2/1) moderately decomposed plant material. (0 to 4 inches thick)

A--1 to 7 inches; black (10YR 2/1) fine sandy loam; moderate medium granular structure; friable; common fine and medium roots; 10 percent gravel and cobbles; strongly acid; clear wavy boundary. (3 to 9 inches thick)

**Bg1**--7 to 10 inches; grayish brown (2.5Y 5/2) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 10 percent gravel and cobbles; common medium prominent yellowish red (5YR 5/6) masses of iron accumulation; strongly acid; gradual wavy boundary.

Bg2--10 to 18 inches; light brownish gray (2.5Y 6/2) fine sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; 10 percent gravel and cobbles; common fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; strongly acid; gradual wavy boundary. (Combined thickness of the Bg horizons is 11 to 32 inches.)

BC--17 to 23 inches; pale brown (10YR 6/3) fine sandy loam; massive; friable; few fine roots; 10 percent gravel and cobbles; many medium distinct yellowish brown (10YR 5/6) and yellowish red (5YR 4/6) masses of iron accumulation; strongly acid; clear wavy boundary. (0 to 8 inches thick)

C1--23 to 42 inches; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; massive; friable; 15 percent gravel and cobbles; many medium distinct yellowish brown (10YR 5/6) masses of iron accumulation and prominent pinkish gray (7.5YR 6/2) iron depletions; strongly acid; gradual wavy boundary. (0 to 15 inches thick)

C2--43 to 65 inches; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; massive; friable; 15 percent gravel and cobbles; few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; strongly acid.

**TYPE LOCATION:** New Haven County, Connecticut; town of Prospect, 5,200 feet north of the Prospect-Bethany town line and 130 feet west of Route 69; USGS Mount Carmel topographic

quadrangle; latitude 41 degrees 28 minutes 49 seconds N. and longitude 72 degrees 58 minutes 49 seconds W., NAD 27

RANGE IN CHARACTERISTICS: Thickness of the solum ranges from 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Rock fragments range from 5 to 35 percent by volume to a depth of 40 inches and up to 50 percent below 40 inches. Except where the surface is stony, the fragments are mostly subrounded pebbles and typically makeup 60 percent or more of the total rock fragments. Unless limed, reaction is very strongly acid or strongly acid in the upper 40 inches and ranges from very strongly acid to moderately acid below.

The A horizon has hue of 10YR, value of 2 or 3 and chroma of 1 or 2. Disturbed pedons have an Ap horizon that includes chroma of 3. The A or Ap horizon is fine sandy loam, very fine sandy loam, or loam in the fine-earth fraction. It has weak or moderate granular structure and is very friable or friable.

Some pedons have a thin Eg horizon below the A horizon. It has hue of 10YR to 5Y, value of 4 to 7, and chroma of 1 or 2. Texture, structure, and consistence are like the underlying B horizon.

The B horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 4. Chroma of 3 and 4 are limited to subhorizons. Chroma of 1 or 2 is in some subhorizon within a 20 inch depth. The horizon has distinct or prominent redoximorphic features. Texture is fine sandy loam, loam, or sandy loam in the fine-earth fraction. Structure is weak granular or subangular blocky, or the horizon is massive.

The BC horizon, where present, has hue of 10YR to 5Y, value of 4 to 6, and chroma of 3 or 4. The horizon has distinct or prominent redoximorphic features. Texture is fine sandy loam, loam, or sandy loam in the fine earth fraction. Structure is weak subangular blocky or massive.

The C horizon has hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 1 to 4. It has redoximorphic features that typically decrease in abundance with depth. Texture is fine sandy loam or sandy loam in the fine-earth fraction. Some pedons have pockets or thin lenses of silt loam, loamy sand, or sand. The horizon is massive or it has weak plates. Consistence commonly is very friable or friable but some pedons have lenses or layers that are firm.

**COMPETING SERIES:** There are no other series currently in the same family.

The Fredon, Lamson, Lyme, Mansfield, Massena, Menlo, Neversink, Newstead, Raynham, Raypol, Red Hook, Ridgebury, Stissing, Sun, and Whitman series are similar soils in related families. Fredon, Lamson, Red Hook, and Raynham soils formed in water sorted materials and are nonacid. Lyme soils are in a frigid family. Mansfield, Menlo, and Whitman soils have a dense substratum and are very poorly drained. The Massena, Newstead, and Sun soils are nonacid. Raypol soils are coarse-loamy over sandy or sandy-skeletal. Ridgebury and Stissing soils are nonacid and have a dense substratum. Neversink soils have rock fragments dominated by sandstone, siltstone, and shale.

**GEOGRAPHIC SETTING:** Leicester soils are nearly level to gently sloping and are in low-lying depressional areas and drainageways of glaciated hills. Slope commonly is less than 3 percent but the range includes 0 to 8 percent. The soils formed in acid glacial till derived mostly from schist, gneiss, and granite. Mean annual temperature ranges from 45 to 52 degrees F., mean annual precipitation ranges from 37 to 49 inches, and the growing season ranges from 115 to 185 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the competing <u>Ridgebury</u> and <u>Whitman</u> soils and the <u>Acton</u>, <u>Broadbrook</u>, <u>Brookfield</u>, <u>Canton</u>, <u>Charlton</u>, <u>Charlton</u>, <u>Charlton</u>, <u>Georgia</u>, <u>Gloucester</u>,

Hollis, Montauk, Narragansett, Paxton, Rainbow, Scituate, Stockbridge, Sutton, Wapping, and Woodbridge soils. The well drained Charlton and the moderately well drained Sutton soils are associated in a drainage sequence. Acton soils are sandy and moderately well drained. Broadbrook, Essex, Montauk, and Paxton soils are well drained with a dense substratum. Brookfield, Canton, Narragansett, and Stockbridge soils are well drained. Chatfield and Hollis soils have bedrock at 20 to 40 and 10 to 20 inch depths, respectively. Georgia and Wapping soils are moderately well drained. Gloucester soils are sandy and excessively drained. Rainbow, Scituate, and Woodbridge soils are moderately well drained and have a dense substratum.

**DRAINAGE AND PERMEABILITY:** Poorly drained. Surface runoff is slow. Permeability is moderate or moderately rapid in the solum and moderate to rapid in the substratum. Leicester soils have a water table at or near the surface much of the year.

**USE AND VEGETATION:** Most areas are wooded. Some areas are in brushy unimproved pasture. Cleared areas are used for hay or pasture. Common trees are red maple, red oak, elm, aspen, gray birch, white pine, balsam fir, red spruce, and ironwood.

**DISTRIBUTION AND EXTENT:** Low-lying areas on glaciated uplands in Connecticut, Massachusetts, New Hampshire, eastern New York, and Rhode Island; MLRAs 144A and 145. The series is of moderate extent.

MLRA OFFICE RESPONSIBLE: Amherst, Massachusetts.

SERIES ESTABLISHED: Windham County, Connecticut, 1947.

**REMARKS:** This revision reflects change in taxonomy to the 8th Edition of the Keys and general updating. Cation exchange activity class placement based upon a review of limited data and similar and associated soils.

The horizons and features recognized in this pedon are:

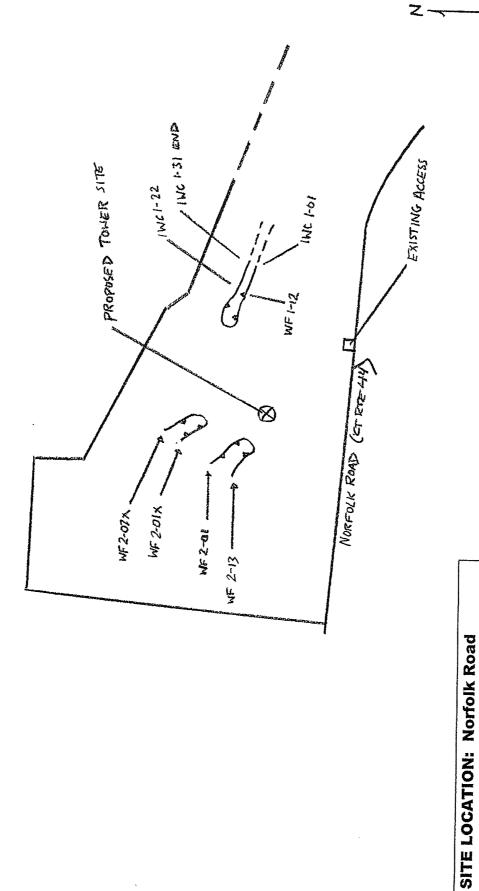
- 1. Ochric epipedon the zone from 1 to 7 inches (A horizon)
- 2. Cambic horizon the zone from 7 to 23 inches (Bg and BC horizons).
- 3. Aquic moisture regime as indicated by chroma of 2 in Bg horizon but with chroma too high within 30 inches (chroma 3 in BC horizon) to qualify for Typic Endoaquepts.
- 4. Endoadquepts subgroup based on saturation to a depth of 200 cm from the mineral soil surface.
- 5. Aeric great group based on matrix color and chroma of 3 or more in one subhorizon between the Ap and 75 cm. (BC horizon).
- 6. Particle-size class in control section from 10 to 40 inches -- coarse loamy.
- 7. Acid reaction class and mesic temperature regime.

National Cooperative Soil Survey U.S.A.

# WETLAND FLAGGING SKETCH

VHB, Inc.

Middletown, CT 06457 54 Tuttle Place



boundary, is approximate. This map is intended for surveying Note: the information shown on this sketch, including the wetland purposes only.

FLAGGED BY: Matthew Davison

Winchester, CT

**DATE: August 23, 2007** 

## Cellco Partnership

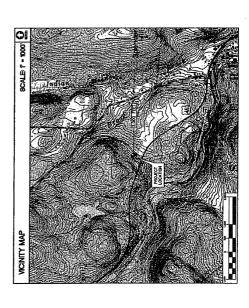
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1.b.a. Verizon wireles

Cellco Partnership

### COLEBROOK ROAD WINCHESTER PCS WINCHESTER, CT



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SITE INFORMATION

GENERAL NOTES

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TINAL DESIGN FOR TOWER AND ANTERIA MOUNTS SHALL BE INCLUDED IN THE FINAL CONSTRUCTION DOCUMENTS.

PROJECT SUMMARY	MARY
SITE NAVE	WINCHESTER PCS
SITE ADDRESS:	COLEBROIK ROAD WINCHESTER, CT 00098
PROPERTY OWNER:	WINZ! LLC 15d RODSEVELT DRVE SEYMOUR, CT 06483
LEASOR	WINZ! ILC 156 ROOSEVELT DRIVE SENIOUR, CT 00403
TEXAGE	CELLCO PARTNERSIND ALBAC VINTERIN MRELESS SE EAST RAVE DONG EAST HARTPORD, CT 08:108
APPLICANT:	CELLOO PARTHERSNIP d.b.o., Vensizoh mireless 99 Esst rayer derke Esst harrend, ct obiog
CONTACT PERSON:	SANDY CARTER CELLCO PARTNERSHP (660) 803–8219
TOWER COORDINATES:	LATITUDE: 41:56'24.6" LOMATUDE: 73:05'46.5" COORDINITS: TAXEN FROM HANDHELD GPS

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WINCHESTER PCS

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C-2	COMPOUND PLAN AND ELEVATION	6
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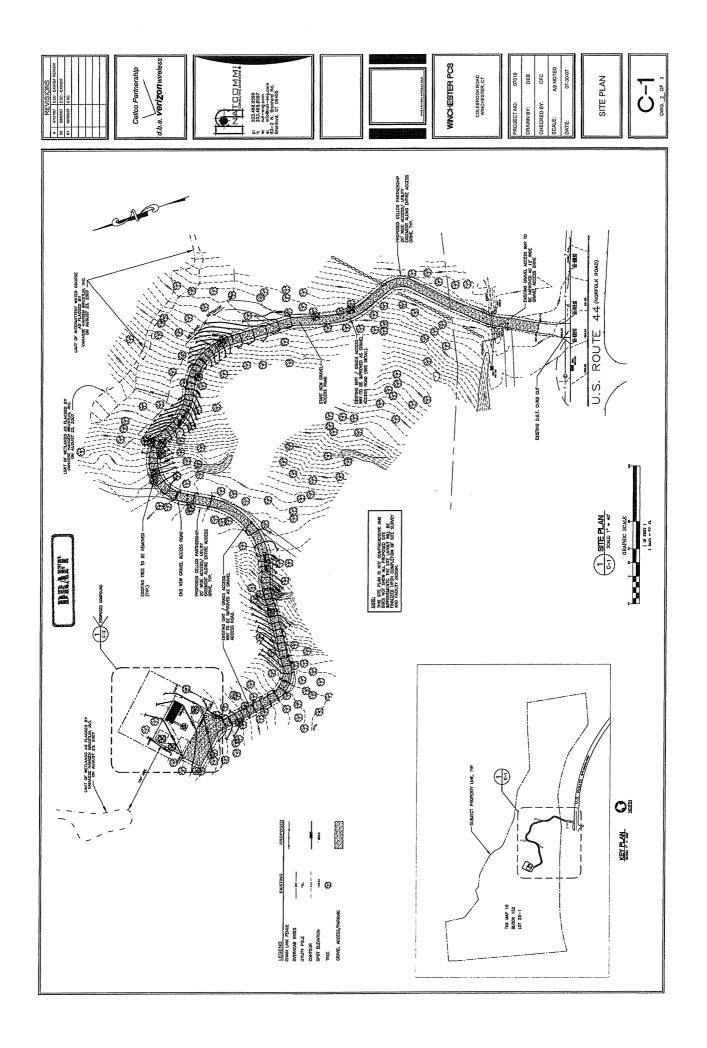
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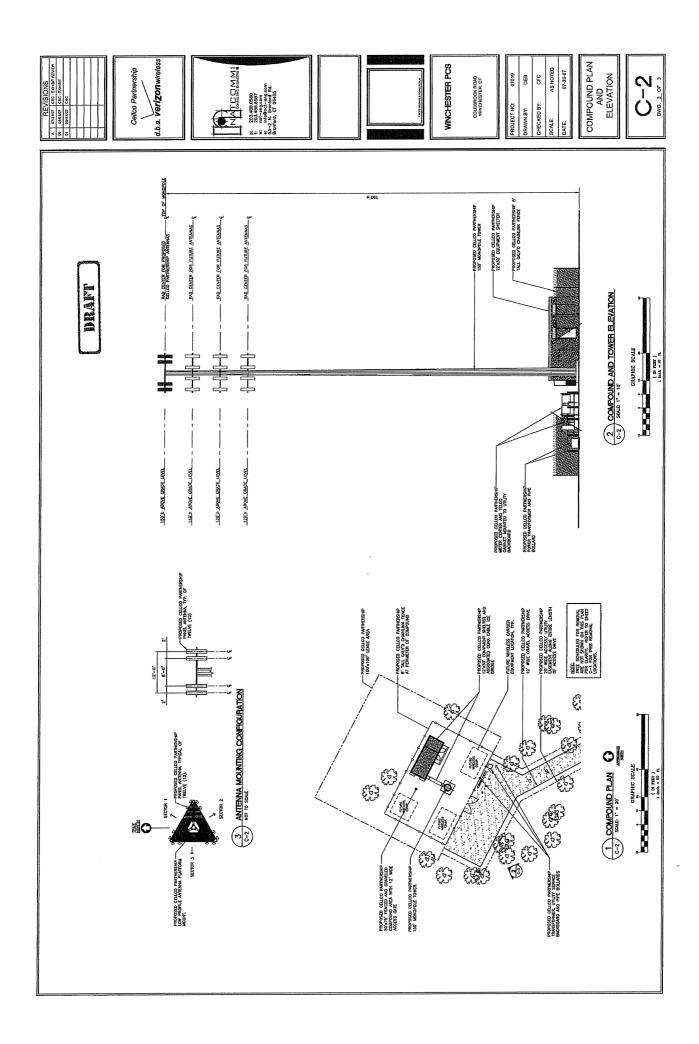
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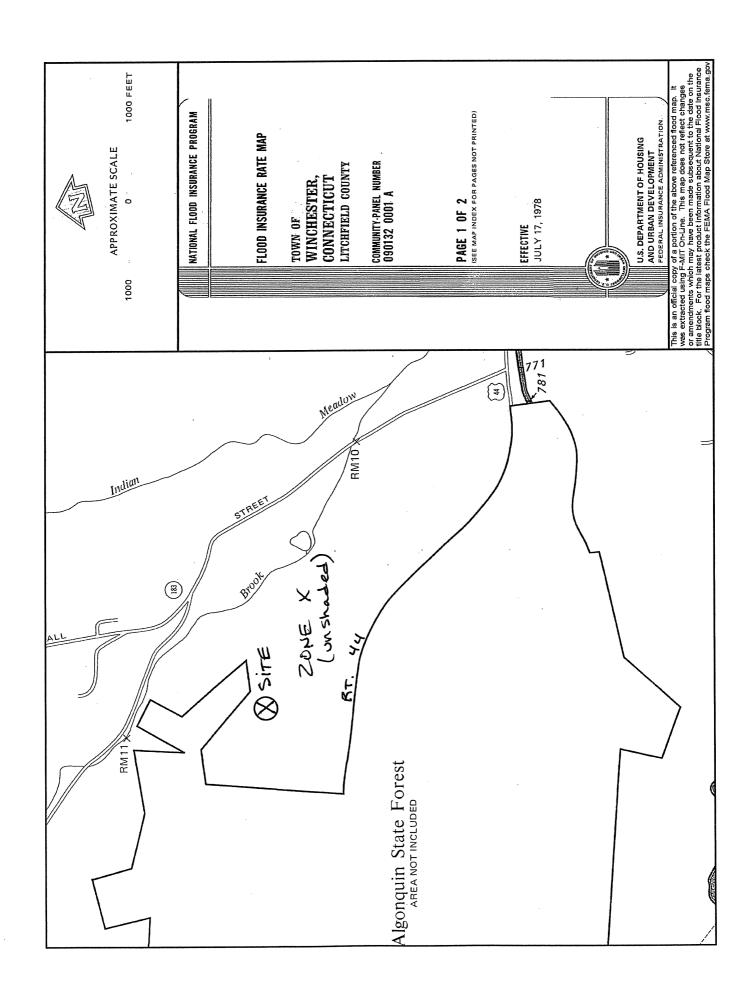
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TLE SHEET







Zone A	The 100	year or base floodplain. There are six types of A Zones:						
	A	The base floodplain mapped by approximate methods, <i>i.e.</i> , BFEs are not determined. This is often called an unnumbered A Zone or an approximate A Zone.						
	A1-30	These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).						
	AE	The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.						
	AO	The base floodplain with sheet flow, ponding, or shallow flooding.  Base flood depths (feet above ground) are provided.						
	AH	Shallow flooding base floodplain. BFEs are provided.						
	A99							
	AR	The base floodplain that results from the decertification of a previously accredited flood protection system that is in the process of being restored to provide a 100-year or greater level of flood protection.						
Zone V and VE	v	The coastal area subject to a velocity hazard (wave action) where BFEs are not determined on the FIRM.						
	VE	The coastal area subject to a velocity hazard (wave action) where BFEs are provided on the FIRM.						
Zone B and Zone X (shaded)	Area of moderate flood hazard, usually the area between the limits of the 10 year and 500-year floods. B Zones are also used to designate base floodplai of lesser hazards, such as areas protected by levees from the 100-year flood shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.							
Zone C and Zone X (unshaded)	Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.							
Zone D	Area o	f undetermined but possible flood hazards.						

Figure 3-10: Flood Insurance Rate Map Zones

Note that the special Flood Hazard Area (SFHA) includes only A and V Zones.

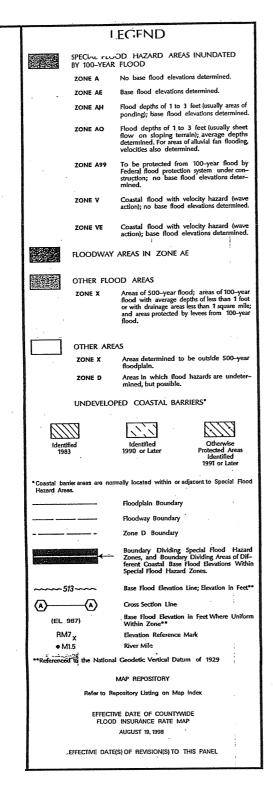


Figure 3-11: New format FIRM legend

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WINCHESTER. SRP
                     ***********
                               Federal Airways & Airspace
                     File: WINCHESTER
                     Location:
                                 Torrington, CT
                     Distance: 7.5 Statute Miles Direction: 193° (true bearing)
                                                          Longitude: 73°-05'-45.25"
                     Latitude: 41°-56'-24.70"
                     SITE ELEVATION AMSL.....1145 ft.
                     STRUCTURE HEIGHT..... 150 ft.
                     OVERALL HEIGHT AMSL.....1295 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 4B9)
FAR 77.13(a)(4): NNR (No Expected TERPS® impact 4B8)
  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: 4B9: SIMSBURY
           RD: 87061
                            RB: 95.88
Type: AIR
                                        RE:
  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: 4B8: ROBERTSON FIELD
             RD: 109666
                            RB: 145.39
Type: AIR
  FAR 77.23(a)(1):
                            DNE
                            DNE - Greater Than 6 NM.
  FAR 77.23(a)(2):
  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
MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
                                     Page 1
```

### WINCHESTER.SRP

FAR 77.23(a)(4) MOCA Altitude Enroute Criteria The Maximum Height Permitted is 2000 ft AMSL

PRIVATE LANDING FACILITIES

FACIL

IDENT TYP NAME

OSCT SEA SEAVAIR'S LANDING

Possible Impact to Private Landing Facility.

Possible Exceeds 200 ft Near Airport Surface height limit.

AIR NAVIGATION ELECTRONIC FACILITIES
No Electronic Facilites Are Within 25,000 ft

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.

No AM Stations were located within 3.2 km.

Airspace® Summary Version 2008.1

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### OPTION AND LAND LEASE AGREEMENT

This Agreement made this 9% day of July, 2007, between Win 21 LLC with a mailing address of 156 Roosevelt Drive, Seymour, Connecticut 06483 and having a Tax Payer Identification #51-6542343, hereinafter designated LESSOR and Cellco Partnership d/b/a Verizon Wireless, with its principal offices located at One Verizon Way, Basking Ridge, New Jersey 07920, hereinafter designated LESSEE. The LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party".

LESSOR is the owner of that certain real property located off of Norfolk Road and Colebrook Road, Town of Winchester, County of Litchfield and State of Connecticut, as shown on the Tax Map of the Town of Winchester, Connecticut as Map 016, Block 152, Lot 026-1 and being further described in Deed Book 324 at Page 277 as recorded in the Clerk's Office of the Town of Winchester, Connecticut (the entirety of LESSOR's property is referred to hereinafter as the "Property"). LESSEE desires to obtain an option to lease a portion of said Property, being described as a 100' by 100' parcel containing 10,000 square feet (the "Land Space"), together with the non-exclusive right (the "Rights of Way") for ingress and egress, seven (7) days a week twenty-four (24) hours a day, on foot or motor vehicle, including trucks over or along a twenty (20') foot wide right-of-way extending from the nearest public right-of-way, Norfolk Road (Route 44), to the Land Space, and for the installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along one or more rights of way from the Land Space, said Land Space and Rights of Way (hereinafter collectively referred to as the "Premises") being substantially as described herein in Exhibit "A" attached hereto and made a part hereof. The Parties agree that LESSOR retains the right to improve the Rights of Way, at LESSOR's sole cost and expense, provided such improvement does not affect LESSEE's rights under this Agreement and/or LESSEE's interest in the Premises.

NOW THEREFORE, in consideration of the sum of to be paid by LESSEE to the LESSOR, which LESSEE will provide upon its execution of this Agreement, the LESSOR hereby grants to LESSEE the right and option to lease said Premises, for the term and in accordance with the covenants and conditions set forth herein.

The option may be exercised at any time on or prior to the date which is one year after the date this Agreement is fully executed. If the option has not been so exercised, it shall be automatically extended for four (4) additional periods of twelve (12) months through and including _______, unless LESSEE gives written notice to the LESSOR of LESSEE's intent not to extend prior to the end of the then applicable twelve (12) month option period. If the option is extended, LESSEE shall make an additional payment of ________ to LESSOR for each twelve (12) month period so extended. The time during which the option may be exercised may be further extended by mutual agreement in writing. If during said option period, or during the term of the lease, if the option is exercised, the LESSOR decides to subdivide, sell or change the status of the Property or his property contiguous thereto he shall immediately notify LESSEE in writing so that LESSEE can take commercially reasonable steps necessary to protect LESSEE's interest in the Premises. Notwithstanding the foregoing, the Parties agree that LESSOR



is permitted to subdivide its Property, excluding the Premises, provided such subdivision does not affect LESSEE's interest in the Premises and/or LESSEE's rights under this Agreement.

This option may be sold, assigned or transferred by the LESSEE without any approval or consent of the LESSOR to the LESSEE's principal, affiliates, subsidiaries of its principal; to any entity which acquires all or substantially all of LESSEE's assets in the market defined by the Federal Communications Commission in which the Property is located by reason of a merger, acquisition or other business reorganization; or to any entity which acquires or receives an interest in the majority of communication towers of the LESSEE in the market defined by the Federal Communications Commission in which the Property is located. As to other parties, this Agreement may not be sold, assigned or transferred without the written consent of the LESSOR, which such consent will not be unreasonably withheld, delayed or conditioned. No change of stock ownership, partnership interest or control of LESSEE or transfer upon partnership or corporate dissolution of LESSEE shall constitute an assignment hereunder.

Should LESSEE fail to exercise this option or any extension thereof within the time herein limited, all rights and privileges granted hereunder shall be deemed completely surrendered, this option terminated, and LESSOR shall retain all money paid for the option, and no additional money shall be payable by either Party to the other.

LESSOR shall cooperate with LESSEE, at no cost to LESSOR, in its effort to obtain all certificates, permits and other approvals that may be required by any Federal, State or Local authorities which will permit LESSEE use of the Premises. LESSOR shall take no action which would adversely affect the status of the Property with respect to the proposed use by LESSEE.

The LESSOR shall permit LESSEE, during the option period, free ingress and egress to the Premises to conduct such surveys, inspections, structural strength analysis, subsurface soil tests, and other activities of a similar nature as LESSEE may deem necessary, at the sole cost of LESSEE. LESSEE shall restore the Premises to its original condition after conducting any such tests.

LESSOR agrees to execute a Memorandum of this Option to Lease Agreement which LESSEE may record with the appropriate Recording Officer. The date set forth in the Memorandum of Option to Lease is for recording purposes only and bears no reference to commencement of either term or rent payments.

Notice of the exercise of the option shall be given by LESSEE to the LESSOR in writing by certified mail, return receipt requested. Notice shall be deemed effective on the date it is posted. On the date of such notice the following agreement shall take effect:

### LAND LEASE AGREEMENT

This Agreement, made this day of , 2007 between Win 21 LLC, with a mailing address of 156 Roosevelt Drive, Seymour, Connecticut and having Tax Payer Identification # hereinafter designated LESSOR and Cellco

Partnership d/b/a Verizon Wireless, with its principal office located at 180 Washington Valley Road, Bedminster, New Jersey 07921, hereinafter designated LESSEE. The LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party".

1. <u>PREMISES</u>. LESSOR hereby leases to LESSEE a portion of that certain parcel of property (the entirety of LESSOR's property is referred to hereinafter as the Property), located off of Norfolk Road (Route 44) and Colebrook Road, Winchester, Connecticut and being described as a 100' by 100' parcel containing 10,000 square feet (the "Land Space"), together with the non-exclusive right (the "Rights of Way") for ingress and egress, seven (7) days a week twenty-four (24) hours a day, on foot or motor vehicle, including trucks over or along a twenty (20') foot wide right-of-way extending from the nearest public right-of-way, Norfolk Road (Route 44), to the Land Space, and for the installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along one or more rights of way from the Land Space, said Land Space and Rights of Way (hereinafter collectively referred to as the "Premises") being substantially as described herein in Exhibit "A" attached hereto and made a part hereof. The Property is also shown on the Tax Map of the Town of Winchester as Map 016, Block 152, Lot 026-1 and is further described in Deed Book 324 at Page 277 as recorded in the Office of the Town Clerk of Winchester, Connecticut.

In the event any public utility is unable to use the Rights of Way, the LESSOR hereby agrees to grant an additional right-of-way of comparable width either to the LESSEE or to the public utility at no cost to the LESSEE.

- 2. SURVEY. LESSOR also hereby grants to LESSEE the right to survey the Property and the Premises, and said survey shall then become Exhibit "B" which shall be attached hereto and made a part hereof, and shall control in the event of boundary and access discrepancies between it and Exhibit "A". Cost for such work shall be borne by the LESSEE.
- TERM. This Agreement shall be effective as of the date of execution by both Parties, provided, however, the initial term shall be for five (5) years and shall commence on the Commencement Date (as hereinafter defined) at which time rental payments shall commence and be due at a total annual rental of paid in equal monthly installments on the first day of the month, in advance, to LESSOR or to such other person, firm or place as LESSOR may, from time to time, designate in writing at least thirty (30) days in advance of any rental payment date by notice given in accordance with Paragraph 22 below. Upon agreement of the Parties, LESSEE may pay rent by electronic funds transfer and in such event, LESSOR agrees to provide to LESSEE bank routing information for such purpose upon request of LESSEE. The Agreement shall commence upon notice of the exercise of the option, as set forth above, by LESSEE to the LESSOR in writing by certified mail, date LESSEE commences installation of the equipment on the Premises falls between the 1st and 15th of the month, the Agreement shall commence on the 1st of that month and if the date installation commences falls between the 16th and 31st of the month, then the Agreement shall commence on the 1st day of the following month (either the "Commencement Date").

LESSOR and LESSEE agree that they shall acknowledge in writing the Commencement Date. LESSOR and LESSEE acknowledge and agree that initial rental payment(s) shall not actually be sent by LESSEE until thirty (30) days after a written acknowledgement confirming the Commencement Date. By way of illustration of the preceding sentence, if the Commencement Date is January 1 and the written acknowledgement confirming the Commencement Date is dated January 14, LESSEE shall send to the LESSOR the rental payments for January 1 and February 1 by February 13.

- 4. <u>EXTENSIONS</u>. This Agreement shall automatically be extended for four (4) additional five (5) year terms unless LESSEE terminates it at the end of the then current term by giving LESSOR written notice of the intent to terminate at least six (6) months prior to the end of the then current term.
- 5. <u>ANNUAL INCREASE</u>. On the first year anniversary of the Commencement Date, and for each year thereafter during the Term, as hereinafter defined, the rent shall increase by over the immediately prior year's rent.
- 6. <u>ADDITIONAL EXTENSIONS</u>. If at the end of the fourth (4th) five (5) year extension term this Agreement has not been terminated by either Party by giving to the other written notice of an intention to terminate it at least three (3) months prior to the end of such term, this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of five (5) years and for five (5) year terms thereafter until terminated by either Party by giving to the other written notice of its intention to so terminate at least three (3) months prior to the end of such term. The initial term and all extensions, including extensions set forth in Paragraph 4 and Paragraph 6 hereof shall be collectively referred to herein as the "Term".
- USE; GOVERNMENTAL APPROVALS. LESSEE shall use the Premises for the purpose of constructing, maintaining, repairing and operating a communications facility and uses incidental thereto. A security fence consisting of chain link construction or similar but comparable construction may be placed around the perimeter of the Premises at the discretion of LESSEE (not including the access easement). All improvements, equipment, antennas and conduits shall be at LESSEE's expense and their installation shall be at the discretion and option of LESSEE. LESSEE shall have the right to replace, repair, add or otherwise modify its utilities, equipment, antennas and/or conduits or any portion thereof and the frequencies over which the equipment operates, whether the equipment, antennas, conduits or frequencies are specified or not on any exhibit attached hereto, during the Term. It is understood and agreed that LESSEE's ability to use the Premises is contingent upon its obtaining after the execution date of this Agreement, at LESSEE's sole expense, all of the certificates, permits and other approvals (collectively the "Governmental Approvals") that may be required by any Federal, State or Local authorities as well as satisfactory soil boring tests which will permit LESSEE use of the Premises as set forth above. LESSOR shall cooperate with LESSEE, at no cost to LESSOR, in its effort to obtain such approvals and shall take no action which would adversely affect the status of the Property with respect to the proposed use thereof by LESSEE. In the event that (i) any of such applications for such Governmental Approvals should be finally rejected; (ii) any Governmental Approval issued to LESSEE is canceled, expires, lapses, or is otherwise withdrawn or terminated by governmental authority; (iii) LESSEE determines that such Governmental Approvals may not be obtained in a timely

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- manner; (iv) LESSEE determines that any soil boring tests are unsatisfactory; (v) LESSEE determines that the Premises is no longer technically compatible for its use, or (vi) LESSEE, in its sole discretion, determines that it will be unable to use the Premises for its intended purposes, LESSEE shall have the right to terminate this Agreement. Notice of LESSEE's exercise of its right to terminate shall be given to LESSOR in writing by certified mail, return receipt requested, and shall be effective upon the mailing of such notice by LESSEE, or upon such later date as designated by LESSEE. All rentals paid to said termination date shall be retained by LESSOR. Upon such termination, this Agreement shall be of no further force or effect except to the extent of the representations, warranties and indemnities made by each Party to the other hereunder. Otherwise, the LESSEE shall have no further obligations for the payment of rent to LESSOR.
- 8. <u>INDEMNIFICATION</u>. Subject to Paragraph 9 below, each Party shall indemnify and hold the other harmless against any claim of liability or loss from personal injury or property damage resulting from or arising out of the negligence or willful misconduct of the indemnifying Party, its employees, contractors or agents, except to the extent such claims or damages may be due to or caused by the negligence or willful misconduct of the other Party, or its employees, contractors or agents.

### INSURANCE.

- a. The Parties hereby waive and release any and all rights of action for negligence against the other which may hereafter arise on account of damage to the Premises or to the Property, resulting from any fire, or other casualty of the kind covered by standard fire insurance policies with extended coverage, regardless of whether or not, or in what amounts, such insurance is now or hereafter carried by the Parties, or either of them. These waivers and releases shall apply between the Parties and they shall also apply to any claims under or through either Party as a result of any asserted right of subrogation. All such policies of insurance obtained by either Party concerning the Premises or the Property shall waive the insurer's right of subrogation against the other Party.
- b. LESSOR and LESSEE each agree that at its own cost and expense, each will maintain commercial general liability insurance with limits not less than \$1,000,000 for injury to or death of one or more persons in any one occurrence and \$500,000 for damage or destruction to property in any one occurrence. LESSOR and LESSEE each agree that it will include the other Party as an additional insured. LESSOR and LESSEE each agree that it shall provide evidence of the coverage required under this Section 9 upon request of the other Party.
- 10. <u>LIMITATION OF LIABILITY</u>. Except for indemnification pursuant to paragraphs 8 and 28, neither Party shall be liable to the other, or any of their respective agents, representatives, employees for any lost revenue, lost profits, loss of technology, rights or services, incidental, punitive, indirect, special or consequential damages, loss of data, or interruption or loss of use of service, even if advised of the possibility of such damages, whether under theory of contract, tort (including negligence), strict liability or otherwise.
- 11. ANNUAL TERMINATION. Notwithstanding anything to the contrary contained herein, provided LESSEE is not in default hereunder beyond applicable notice and cure periods,

LESSEE shall have the right to terminate this Agreement upon the annual anniversary of the Commencement Date provided that three (3) months prior notice is given to LESSOR.

- 12. INTERFERENCE. LESSEE agrees to install equipment of the type and frequency which will not cause harmful interference which is measurable in accordance with then existing industry standards to any equipment of LESSOR or other lessees of the Property which existed on the Property prior to the date this Agreement is executed by the Parties. In the event any afterinstalled LESSEE's equipment causes such interference, and after LESSOR has notified LESSEE in writing of such interference, LESSEE will take all commercially reasonable steps necessary to correct and eliminate the interference, including but not limited to, at LESSEE's option, powering down such equipment and later powering up such equipment for intermittent testing. In no event will LESSOR be entitled to terminate this Agreement or relocate the equipment as long as LESSEE is making a good faith effort to remedy the interference issue. LESSOR agrees that LESSOR and/or any other tenants of the Property who currently have or in the future take possession of the Property will be permitted to install only such equipment that is of the type and frequency which will not cause harmful interference which is measurable in accordance with then existing industry standards to the then existing equipment of LESSEE. The Parties acknowledge that there will not be an adequate remedy at law for noncompliance with the provisions of this Paragraph and therefore, either Party shall have the right to equitable remedies, such as, without limitation, injunctive relief and specific performance.
- 13. REMOVAL AT END OF TERM. LESSEE shall, upon expiration of the Term, or within ninety (90) days after any earlier termination of the Agreement, remove its building(s), antenna structure(s) (except footings), equipment, conduits, fixtures and all personal property and restore the Premises to its original condition, reasonable wear and tear and casualty damage excepted. LESSOR agrees and acknowledges that all of the equipment, conduits, fixtures and personal property of LESSEE shall remain the personal property of LESSEE and LESSEE shall have the right to remove the same at any time during the Term, whether or not said items are considered fixtures and attachments to real property under applicable Laws (as defined in Paragraph 32 below). If such time for removal causes LESSEE to remain on the Premises after termination of this Agreement, LESSEE shall pay rent at the then existing monthly rate or on the existing monthly pro-rata basis if based upon a longer payment term, until such time as the removal of the building, antenna structure, fixtures and all personal property are completed.
- 14. HOLDOVER. LESSEE has no right to retain possession of the Premises or any part thereof beyond the expiration of that removal period set forth in Paragraph 13 herein, unless the Parties are negotiating a new lease or lease extension in good faith. In the event that the Parties are not in the process of negotiating a new lease or lease extension in good faith, LESSEE holds over in violation of Paragraph 13 and this Paragraph 14, then the rent then in effect payable from and after the time of the expiration of earlier removal period set forth in Paragraph 13 shall be increased to the processing such expiration or earlier termination.
  - 15. Intentionally Omitted,

- 16. RIGHTS UPON SALE. Should LESSOR, at any time during the Term decide (i) to sell or transfer all or any part of the Property to a purchaser other than LESSEE, or (ii) to grant to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE, or a larger portion thereof, for the purpose of operating and maintaining communications facilities or the management thereof, such sale or grant of an easement or interest therein shall be under and subject to this Agreement and any such purchaser or transferee shall recognize LESSEE's rights hereunder under the terms of this Agreement. To the extent that LESSOR grants to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE for the purpose of operating and maintaining communications facilities or the management thereof and in conjunction therewith, assigns this Agreement to said third party, LESSOR shall not be released from its obligations to LESSEE under this Agreement, and LESSEE shall have the right to look to LESSOR and the third party for the full performance of this Agreement.
- 17. <u>QUIET ENJOYMENT</u>. LESSOR covenants that LESSEE, on paying the rent and performing the covenants herein, shall peaceably and quietly have, hold and enjoy the Premises.
- 18. TITLE. LESSOR represents and warrants to LESSEE as of the execution date of this Agreement, and covenants during the Term that LESSOR is seized of good and sufficient title and interest to the Property and has full authority to enter into and execute this Agreement. LESSOR further covenants during the Term that there are no liens, judgments or impediments of title on the Property, or affecting LESSOR's title to the same and that there are no covenants, easements or restrictions which prevent or adversely affect the use or occupancy of the Premises by LESSEE as set forth above.
- agreements, promises and understandings between LESSOR and LESSEE and that no verbal or oral agreements, promises or understandings shall be binding upon either LESSOR or LESSEE in any dispute, controversy or proceeding at law, and any addition, variation or modification to this Agreement shall be void and ineffective unless made in writing signed by the Parties or in a written acknowledgment in the case provided in Paragraph 3. In the event any provision of the Agreement is found to be invalid or unenforceable, such finding shall not affect the validity and enforceability of the remaining provisions of this Agreement. The failure of either Party to insist upon strict performance of any of the terms or conditions of this Agreement or to exercise any of its rights under the Agreement shall not waive such rights and such Party shall have the right to enforce such rights at any time and take such action as may be lawful and authorized under this Agreement, in law or in equity.
- 20. GOVERNING LAW. This Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the Laws of the State in which the Property is located.
- 21. <u>ASSIGNMENT/SUBLETTING</u>. This Agreement may be sold, assigned or transferred by the LESSEE without any approval or consent of the LESSOR to the LESSEE's principal, affiliates, subsidiaries of its principal or to any entity which acquires all or substantially

all of LESSEE's assets in the market defined by the Federal Communications Commission in which the Property is located by reason of a merger, acquisition or other business reorganization. As to other parties, this Agreement may not be sold, assigned or transferred without the written consent of the LESSOR, which such consent will not be unreasonably withheld, delayed or conditioned. No change of stock ownership, partnership interest or control of LESSEE or transfer upon partnership or corporate dissolution of LESSEE shall constitute an assignment hereunder. Upon notice to LESSOR, LESSEE may sublet the Premises within its sole discretion, upon terms and conditions within it sole discretion. Said notice shall indicate the rental amount payable by Sublessee to LESSEE and the date of commencement of the rental amounts. Any sublease that is entered into by LESSEE shall be subject to the provisions of this Agreement and shall be binding upon the successors, assigns, heirs and legal representatives of the respective parties hereto. The term "Sublease", "Sublet", "Sublessee" and any other similar term shall apply to any situation by which LESSEE allows a third party use of the Property for co-location, whether it be by sublease, license or other agreement.

- (a) In the event LESSEE Subleases any portion of the Property, in accordance with this Agreement, any rental, if any, paid by any Sublessee(s) and received by LESSEE shall be divided between the LESSOR and LESSEE in the following manner: Twenty percent (20%) to LESSOR and Eighty percent (80%) to LESSEE; and shall be payable to LESSOR the latter of the first day of the month following receipt by LESSEE or thirty (30) days following receipt by LESSEE.
- (b) LESSEE shall have no liability of any nature to the LESSOR for failure to sublet all or any part of the Property to any or all potential Sublessees. Notwithstanding any other provision of this Agreement, the LESSEE shall not be required to obtain approval from the LESSOR for the Subletting of the Property or part thereof. The LESSEE has the sole right to determine whether it will Sublet any portion of the Property or whether it will sublease to any specific Sublessee.
- 22. <u>NOTICES</u>. All notices hereunder must be in writing and shall be deemed validly given if sent by certified mail, return receipt requested or by commercial courier, provided the courier's regular business is delivery service and provided further that it guarantees delivery to the addressee by the end of the next business day following the courier's receipt from the sender, addressed as follows (or any other address that the Party to be notified may have designated to the sender by like notice):

LESSOR: Win 21 LLC

156 Roosevelt Drive Seymour, CT 06483

LESSEE:

Cellco Partnership d/b/a Verizon Wireless 180 Washington Valley Road Bedminster, New Jersey 07921 Attention: Network Real Estate

Notice shall be effective upon actual receipt or refusal as shown on the receipt obtained pursuant to the foregoing.

- 23. <u>SUCCESSORS</u>. This Agreement shall extend to and bind the heirs, personal representative, successors and assigns of the Parties hereto.
- 24. SUBORDINATION AND NON-DISTURBANCE. LESSOR shall obtain not later than fifteen (15) days following the execution of this Agreement, a Non-Disturbance Agreement, as defined below, from its existing mortgagee(s), ground lessors and master lessors, if any, of the Property. At LESSOR's option, this Agreement shall be subordinate to any future master lease, ground lease, mortgage, deed of trust or other security interest (a "Mortgage") by LESSOR which from time to time may encumber all or part of the Property or right-of-way; provided, however, as a condition precedent to LESSEE being required to subordinate its interest in this Agreement to any future Mortgage covering the Property, LESSOR shall obtain for LESSEE's benefit a non-disturbance and attornment agreement for LESSEE's benefit in the form reasonably satisfactory to LESSEE, and containing the terms described below (the "Non-Disturbance Agreement"), and shall recognize LESSEE's right to remain in occupancy of and have access to the Premises as long as LESSEE is not in default of this Agreement beyond applicable notice and The Non-Disturbance Agreement shall include the encumbering party's ("Lender's") agreement that, if Lender or its successor-in-interest or any purchaser of Lender's or its successor's interest (a "Purchaser") acquires an ownership interest in the Property, Lender or such successor-in-interest or Purchaser will (1) honor all of the terms of the Agreement, (2) fulfill LESSOR's obligations under the Agreement, and (3) promptly cure all of the then-existing LESSOR defaults under the Agreement. Such Non-Disturbance Agreement must be binding on all of Lender's participants in the subject loan (if any) and on all successors and assigns of Lender and/or its participants and on all Purchasers. In return for such Non-Disturbance Agreement, LESSEE will execute an agreement for Lender's benefit in which LESSEE (1) confirms that the Agreement is subordinate to the Mortgage or other real property interest in favor of Lender, (2) agrees to attorn to Lender if Lender becomes the owner of the Property, (3) agrees to give Lender copies of whatever notices of default LESSEE must give LESSOR, (4) agrees to accept a cure by Lender of any of LESSOR's defaults, provided such cure is completed within the deadline applicable to LESSOR, (5) agrees to not pay rent more than one month, or one year in the event the rent is paid annually, in advance and (6) agrees that no material modification or material amendment of the Agreement will be binding on Lender unless it has been consented to in writing by Lender. LESSOR and LESSEE agree that, for the purposes of Paragraph 24, nonmaterial amendments or modifications shall include, but shall not be limited to, the

following: (i) any extension of the term of the Agreement, (ii) any addition to, alteration, modification, or replacement of LESSEE's equipment, (iii) any relocation of LESSEE's equipment, (iv) any increase in the rent, and (v) any decrease in the rent, provided however, that such an amendment shall become material should the decrease in rent result in rent lower than the amount then prescribed by the unamended Agreement. In the event LESSOR defaults in the payment and/or other performance of any mortgage or other real property interest encumbering the Property, LESSEE, may, at its sole option and without obligation, cure or correct LESSOR's default and upon doing so, LESSEE shall be subrogated to any and all rights, titles, liens and equities of the holders of such mortgage or other real property interest and LESSEE shall be entitled to deduct and setoff against all rents that may otherwise become due under this Agreement the sums paid by LESSEE to cure or correct such defaults.

25. <u>RECORDING</u>. LESSOR agrees to execute a Memorandum of this Agreement which LESSEE may record with the appropriate recording officer. The date set forth in the Memorandum of Lease is for recording purposes only and bears no reference to commencement of either the Term or rent payments.

#### 26. DEFAULT.

- a. In the event there is a breach by LESSEE with respect to any of the provisions of this Agreement or its obligations under it, including the payment of rent, LESSOR shall give LESSEE written notice of such breach. After receipt of such written notice, LESSEE shall have fifteen (15) days in which to cure any monetary breach and thirty (30) days in which to cure any non-monetary breach, provided LESSEE shall have such extended period as may be required beyond the thirty (30) days if the nature of the cure is such that it reasonably requires more than thirty (30) days and LESSEE commences the cure within the thirty (30) 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 breach within the time periods provided in this Paragraph.
- In the event there is a breach by LESSOR with respect to any of the b. provisions of this Agreement or its obligations under it, LESSEE shall give LESSOR written notice of such breach. After receipt of such written notice, LESSOR shall have thirty (30) days in which to cure any such breach, provided LESSOR shall have such extended period as may be required beyond the thirty (30) days if the nature of the cure is such that it reasonably requires more than thirty (30) days and LESSOR commences the cure within the thirty (30) day period and thereafter continuously and diligently pursues the cure to completion. LESSEE may not maintain any action or effect any remedies for default against LESSOR unless and until LESSOR has failed to cure the breach within the time periods provided in this Paragraph. Notwithstanding the foregoing to the contrary, it shall be a default under this Agreement if LESSOR fails, within five (5) days after receipt of written notice of such breach, to perform an obligation required to be performed by LESSOR if the failure to perform such an obligation interferes with LESSEE's ability to conduct its business on the Property; provided, however, that if the nature of LESSOR's obligation is such that more than five (5) days after such notice is reasonably required for its performance, then it shall not be a default under this Agreement if performance is commenced within such five (5) day period and thereafter diligently pursued to completion.

27. REMEDIES. Upon a default, the non-defaulting Party may at its option (but without obligation to do so), perform the defaulting Party's duty or obligation on the defaulting Party's behalf, including but not limited to the obtaining of reasonably required insurance policies. The costs and expenses of any such performance by the non-defaulting Party shall be due and payable by the defaulting Party upon invoice therefor. In the event of a default by either Party with respect to a material provision of this Agreement, without limiting the non-defaulting Party in the exercise of any right or remedy which the non-defaulting Party may have by reason of such default, the non-defaulting Party may terminate the Agreement and/or pursue any remedy now or hereafter available to the non-defaulting Party under the Laws or judicial decisions of the state in which the Premises are located; provided, however, each Party shall use reasonable efforts to mitigate its damages in connection with a default by the other Party. If a Party so performs any of the other Party's obligations hereunder, the full amount of the reasonable and actual cost and expense incurred by such Party shall immediately be owing by the other Party, and such other Party shall pay upon demand the full undisputed amount thereof with interest thereon from the date of payment at the greater of (i) ten percent (10%) per annum, or (ii) the highest rate permitted by applicable Laws. Notwithstanding the foregoing, if LESSOR does not pay LESSEE the full undisputed amount within thirty (30) days of its receipt of an invoice setting forth the amount due from LESSOR, LESSEE may offset the full undisputed amount, including all accrued interest, due against all fees due and owing to LESSOR until the full undisputed amount, including all accrued interest, is fully reimbursed to LESSEE.

### 28. ENVIRONMENTAL.

- a. LESSOR will be responsible for all obligations of compliance with any and all environmental and industrial hygiene laws, including any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene conditions or concerns as may now or at any time hereafter be in effect, that are or were in any way related to activity now conducted in, on, or in any way related to the Property, unless such conditions or concerns are caused by the specific activities of LESSEE in the Premises.
- b. LESSOR shall hold LESSEE harmless and indemnify LESSEE from and assume all duties, responsibility and liability at LESSOR's sole cost and expense, for all duties, responsibilities, and liability (for payment of penalties, sanctions, forfeitures, losses, costs, or damages) and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding which is in any way related to: a) failure to comply with any environmental or industrial hygiene law, including without limitation any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene concerns or conditions as may now or at any time hereafter be in effect, unless such noncompliance results from conditions caused by LESSEE; and b) any environmental or industrial hygiene conditions arising out of or in any way related to the condition of the Property or activities conducted thereon, unless such environmental conditions are caused by LESSEE.

- c. LESSEE will be responsible for all obligations of compliance with any and all environmental and industrial hygiene laws, including any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene conditions or concerns as may now or at any time hereafter be in effect, that is in any way related to the activities conducted by LESSEE in, on, or in any way related to the Property, unless such conditions or concerns are caused by the activities of the LESSOR.
- d. LESSEE shall hold LESSOR harmless and indemnify the LESSOR from and assume all duties, responsibility and liability at LESSEE's sole cost and expense, for all duties, responsibilities, and liability (for payment of penalties, sanctions, forfeitures, losses, costs, or damages) and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding which is in any way related to: a) LESSEE's failure to comply with any environmental or industrial hygiene law, including without limitation any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene concerns or conditions as may now or at any time hereafter be in effect, unless such compliance results from conditions caused by the LESSOR; and b) any environmental or industrial hygiene conditions arising out of or in any way related to the activities conducted thereon by LESSEE, unless such environmental conditions are caused by the LESSOR.
- 29. CASUALTY. In the event of damage by fire or other casualty to the Premises that cannot reasonably be expected to be repaired within forty-five (45) days following same or, if the Property is damaged by fire or other casualty so that such damage may reasonably be expected to disrupt LESSEE's operations at the Premises for more than forty-five (45) days, then LESSEE may, at any time following such fire or other casualty, provided LESSOR has not completed the restoration required to permit LESSEE to resume its operation at the Premises, terminate this Agreement upon fifteen (15) days prior written notice to LESSOR. Any such notice of termination shall cause this Agreement to expire with the same force and effect as though the date set forth in such notice were the date originally set as the expiration date of this Agreement and the Parties shall make an appropriate adjustment, as of such termination date, with respect to payments due to the other under this Agreement. Notwithstanding the foregoing, the rent shall abate during the period of repair following such fire or other casualty in proportion to the degree to which LESSEE's use of the Premises is impaired.
- 30. <u>CONDEMNATION</u>. In the event of any condemnation of all or any portion of the Property, this Agreement shall terminate as to the part so taken as of the date the condemning authority takes title or possession, whichever occurs first. If as a result of a partial condemnation of the Premises or Property, LESSEE, in LESSEE's sole reasonable discretion, is unable to use the Premises for the purposes intended hereunder, or if such condemnation may reasonably be expected to disrupt LESSEE's operations at the Premises for more than forty-five (45) days, LESSEE may, at LESSEE's option, to be exercised in writing within fifteen (15) days after LESSOR shall have given LESSEE written notice of such taking (or in the absence of such notice, within fifteen (15) days after the condemning authority shall have taken possession) terminate this Agreement as of the date the condemning authority takes such possession.

LESSEE may on its own behalf make a claim in any condemnation proceeding involving the Premises for losses related to the equipment, conduits, fixtures, its relocation costs and its damages and losses (but not for the loss of its leasehold interest). Any such notice of termination shall cause this Agreement to expire with the same force and effect as though the date set forth in such notice were the date originally set as the expiration date of this Agreement and the Parties shall make an appropriate adjustment as of such termination date with respect to payments due to the other under this Agreement. If LESSEE does not terminate this Agreement in accordance with the foregoing, this Agreement shall remain in full force and effect as to the portion of the Premises remaining, except that the rent shall be reduced in the same proportion as the rentable area of the Premises taken bears to the total rentable area of the Premises. In the event that this Agreement is not terminated by reason of such condemnation, LESSOR shall promptly repair any damage to the Premises caused by such condemning authority.

- 31. <u>SUBMISSION OF AGREEMENT/PARTIAL INVALIDITY/AUTHORITY</u>. The submission of this Agreement for examination does not constitute an offer to lease the Premises and this Agreement becomes effective only upon the full execution of this Agreement by the Parties. If any provision herein is invalid, it shall be considered deleted from this Agreement and shall not invalidate the remaining provisions of this Agreement. Each of the Parties hereto warrants to the other that the person or persons executing this Agreement on behalf of such Party has the full right, power and authority to enter into and execute this Agreement on such Party's behalf and that no consent from any other person or entity is necessary as a condition precedent to the legal effect of this Agreement.
- 32. APPLICABLE LAWS. During the Term, LESSOR shall maintain the Property in compliance with all applicable laws, rules, regulations, ordinances, directives, covenants, easements, zoning and land use regulations, and restrictions of record, permits, building codes, and the requirements of any applicable fire insurance underwriter or rating bureau, now in effect or which may hereafter come into effect (including, without limitation, the Americans with Disabilities Act and laws regulating hazardous substances) (collectively "Laws"). LESSEE shall, in respect to the condition of the Premises and at LESSEE's sole cost and expense, comply with (a) all Laws relating solely to LESSEE's specific and unique nature of use of the Premises (other than general office use); and (b) all building codes requiring modifications to the Premises due to the improvements being made by LESSEE in the Premises.
- 33. <u>SURVIVAL</u>. The provisions of the Agreement relating to indemnification from one Party to the other Party shall survive any termination or expiration of this Agreement. Additionally, any provisions of this Agreement which require performance subsequent to the termination or expiration of this Agreement shall also survive such termination or expiration.
- 34. <u>CAPTIONS</u>. The captions contained in this Agreement are inserted for convenience only and are not intended to be part of the Agreement. They shall not affect or be utilized in the construction or interpretation of the Agreement.
- 35. <u>TAXES.</u> LESSEE shall pay any documented increase in real estate taxes levied against the Premises which are directly attributable to the improvements constructed by LESSEE. LESSOR shall provide to LESSEE a copy of any notice, assessment or billing relating to real estate

taxes for which LESSEE is responsible under this section within thirty (30) days of receipt of the same by LESSOR. LESSEE shall have no obligation to make payment of any real estate taxes until LESSEE has received the notice, assessment or billing relating to such payment as set forth in this section.

LESSEE shall have the right, at its sole option and its sole cost and expense, to appeal, challenge or seek modification of any real estate tax assessment or billing for which LESSEE is wholly or partially responsible for payment under this section. LESSOR shall reasonably cooperate with LESSEE in filing, prosecuting and perfecting any appeal or challenge to real estate taxes as set forth in this section, including but not limited to, executing any consent to appeal or other similar document.

IN WITNESS WHEREOF, the Parties hereto have set their hands and affixed their respective seals the day and year first above written.

WITNESS Eugene A. Skowronski

Vasso Pierne

LESSOR: Win 21 LLC

By: Charle Blazze

Its: menber

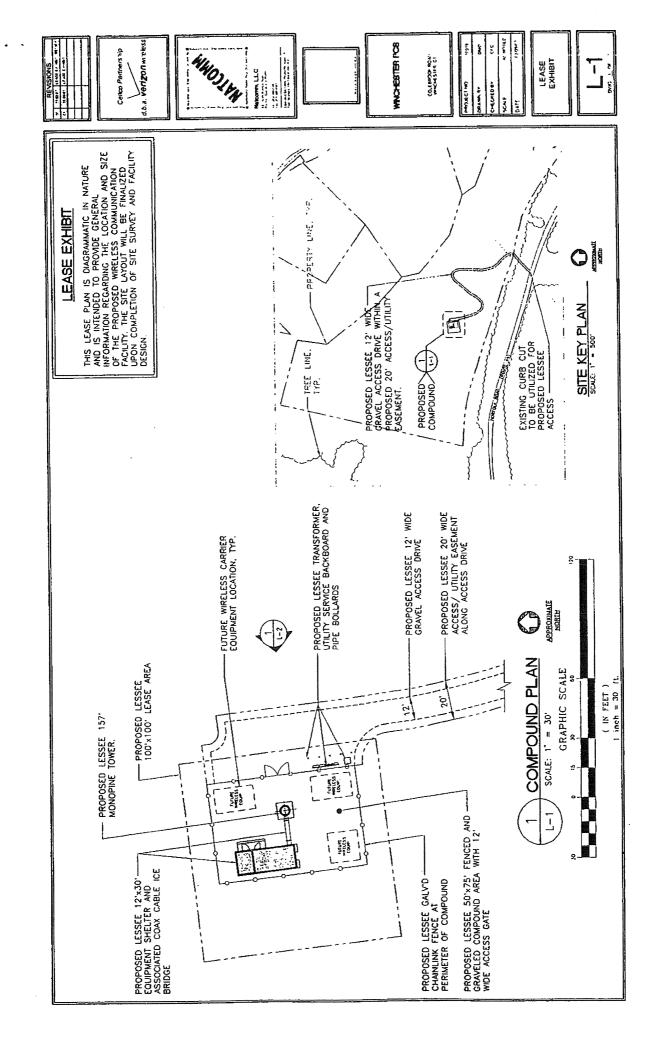
LESSEE: Cellco Partnership d/b/a Verizon Wireless

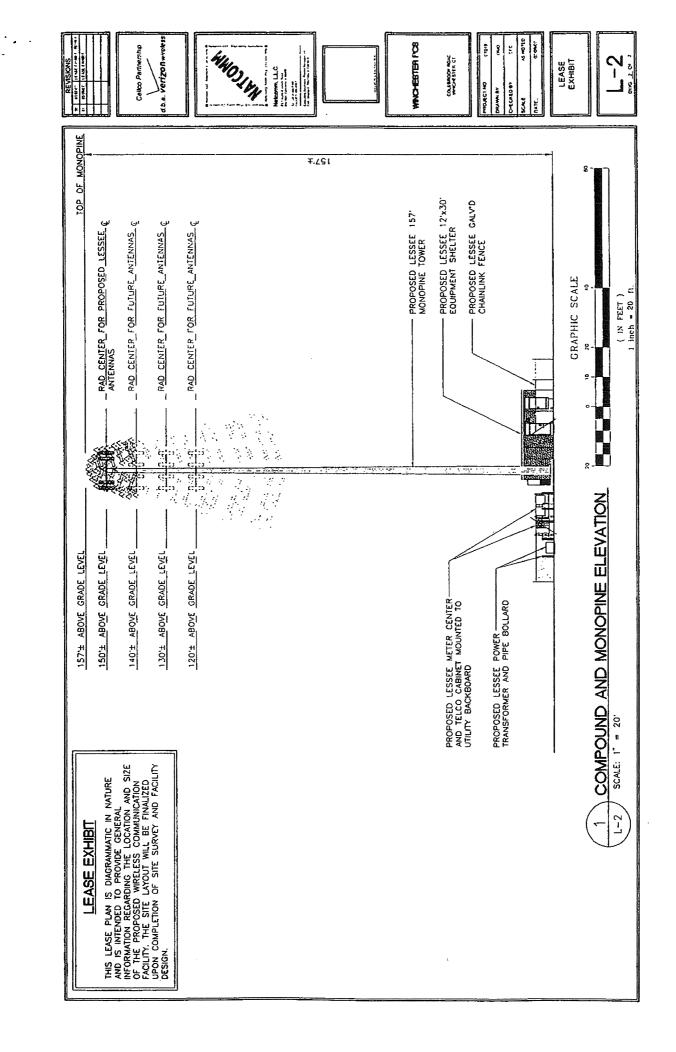
By: David R. Heverling

Its: Vice President Network - Northeast Area

## Exhibit "A"

(See Attached Drawings L-1 and L-2)





# FIRST AMENDMENT TO OPTION AND LAND LEASE AGREEMENT

This First Amendment to Option and Land Lease Agreement ("First Amendment") by and between Win 21 LLC with a mailing address of 156 Roosevelt, Seymour, Connecticut 06483 hereinafter designated LESSOR and Cellco Partnership d/b/a Verizon Wireless, with its principal office located at One Verizon Way, Basking Ridge, NJ 07920 hereinafter designated LESSEE is made and entered into effective as of the date the last party hereto executes this First Amendment as indicated below.

## RECITAL

WHEREAS, LESSOR and LESSEE entered into and executed that certain Option and Land Lease Agreement dated July 9, 2007 (the "Agreement"), whereby LESSOR leased to LESSEE a portion of that certain premises located off of Norfolk Road and Colebrook Road, Town of Winchester and being more particularly described in Volume 324, Page 277 of the Winchester land records and as shown on the Tax Map of the Town of Winchester as Map 016, Block 152, Lot 026-1 (the "Site"); and

WHEREAS, LESSOR and LESSEE desire to amend and modify certain terms and conditions of the Agreement;

NOW THEREFORE, in consideration of the mutual covenants and conditions contained herein and for other good and valuable consideration, the receipt and sufficiency which are hereby acknowledged, LESSOR and LESSEE, intending to be legally bound, do hereby covenant and agree as follows:

1. The Agreement shall be and is hereby amended to add the following as Section 36 of the Agreement:

"36. Governmental Approvals. Notwithstanding anything in the Agreement to the contrary, in the event any Governmental Approval requires LESSEE to install, construct maintain and/or operate a communications tower which differs from the communications tower as depicted on Exhibit A of the Agreement (a "Revised Tower"), LESSOR hereby agrees and authorizes LESSEE to install, construct, maintain and/or operate such Revised Tower. Specifically, the LESSOR acknowledges and agrees that LESSEE may install, construct, maintain and/or operate a Revised Tower which is a monopole type tower, lattice type tower or any other type of tower that may be required by a Governmental Approval."

2. To the extent that there is any conflict between the terms of this First Amendment and the terms of the Agreement, the terms of this First Amendment shall control.

Capitalized terms set forth in this First Amendment shall have the same meanings as the capitalized terms set forth in the Agreement, except as modified by this First Amendment

3. Except as herein expressly modified and amended, the Agreement shall remain in full force and effect pursuant to each and every of its terms and conditions.

IN WITNESS WHEREOF, LESSOR and LESSEE have executed this First Amendment as of the date the last party hereto executes this First Amendment as indicated below.

Win 21 LLC

By: _ Charlos Blazar fr.__

Date: 10/4/07

CELLCO PARTNERSHIP d/b/a Verizon Wireless

Name: David R. Heverling

Title: Vice President - Network

Northeast Area

Date: