

Connecticut Commission on Culture & Tourism

July 16, 2009

Historic Preservation and Museum Division

One Constitution Plaza Second Floor Hartford, Connecticut 06103

860.256.2800 860.256.2763 (f) Ms. Coreen Kelsey Vanaase Hangen Brustlin Inc. 54 Tuttle Place Middletown, CT 06457-1847

Subject:

Verizon Wireless Telecommunications Facility

16 Bell Road Extension

Cornwall, CT

Dear Ms. Kelsey:

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 listed on or eligible for the National Register of Historic Places.

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,

David Bahlman

Deputy State Historic Preservation Officer

DEGEOVED

JUL 20 2009

VANASSE HANGEN BRUSTLIN, INC.

CONNECTICUT

www.cultureandtourism.org



STATE OF CONNECTICUT

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Natural Resources Wildlife Division 79 Elm Street, Sixth Floor Hartford, CT 06106 Natural Diversity Data Base



June 11, 2009

Ms. Coreen Kelsey Vanasse Hangen Brustlin, Inc. 54 Tuttle Place Middletown, CT 06457-1847

Re: Proposed Telecommunications Facility, 16 Bell Rd. Ext., Cornwall, CT.

Dear Ms. Kelsey:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed telecommunications facility, 16 Bell Rd., Ext., Cornwall, CT. According to our information there are no extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on this property.

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

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

Sincerely,

Dawn M. McKay

Biologist/Environmental Analyst 3

Cc: NDDB File # 16951

DMM/hwo



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

East Hartford, Connecticut 06108

Date: April 1, 2010

Project No.: 41240.32

From: Dean Gustafson

Senior Environmental Scientist

te: USFWS Compliance Determination-

updated with new coordinates

Cornwall, CT

16 Bell Road Extension Cornwall, Connecticut

Project Site:

State: Connecticut County: Litchfield

Address: 16 Bell Road Extension, Cornwall, CT

Latitude/Longitude Coordinates: N41°50′44.815″ W73°21′51.476″

Size of Property: ±44 acres

Watershed: Furnace Brook (basin #6010)

Policies regarding potential conflicts between proposed telecommunications facilities and federally-listed endangered and threatened species are detailed in a January 4, 2010 policy statement of the United States Department of the Interior Fish and Wildlife Service (USFWS) New England Field Office. The referenced Site is located in Cornwall, Connecticut (Litchfield County). No federally-listed endangered or threatened species are known to occur in Cornwall, Connecticut (refer to the enclosed listing) and as such the proposed development will not result in an adverse affect to any federally-listed endangered or threatened species. A copy of the January 4, 2010 USFWS policy statement as well as a January 4, 2010 USFWS letter regarding federally-listed endangered and threatened species in Cornwall, Connecticut are enclosed for reference.

The bald eagle has been delisted and maintains protection under the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). No bald eagle nests, roosting or foraging areas were observed on the subject property or are known to exist on the surrounding properties. Therefore, the proposed telecommunications facility will not result in disturbance¹ to Bald Eagles.

¹ "Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, or sheltering behavior." (Eagle Act)

Date: April 1, 2010 Project No.: 41240.32

USFWS January 4, 2010
Telecommunications Policy Statement
and Federally-Listed Endangered and
Threatened Species in Connecticut
USFWS January 4, 2010
No Known Federally-Listed or
Endangered Species Letter



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5087 http://www.fws.gov/newengland

January 4, 2010

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.
- If the above criteria cannot be met, your review of our 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 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 terms, 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 species lists remain valid until January 1, 2011. Updated consultation letters and species lists are available on our website:

(http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm)

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

Sincerely yours

Thomas R. Chapman

Supervisor

New England Field Office



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5087 http://www.fws.gov/newengland

January 4, 2010

To Whom It May Concern:

This project was reviewed for the presence of federally-listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm)

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman

Supervisor

New England Field Office

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN CONNECTICUT

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Fairfield			Coastal Beaches	Westport, Bridgeport and Stratford
Roseate Tern		Endangered	Coastal beaches, Islands and the Atlantic Ocean	Westport and Stratford
	Bog Turtle	Threatened	Wetlands	Ridgefield and Danbury.
Hartford	Dwarf wedgemussel	Endangered	Farmington and Podunk Rivers	South Windsor, East Granby, Simsbury, Avon and Bloomfield.
Litchfield Small whorled Pogonia		Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Sharon.
	Bog Turtle	Threatened	Wetlands	Sharon and Salisbury.
Middlesex	Roseate Tern	Endangered	Coastal beaches, islands and the Atlantic Ocean	Westbrook and New London.
	Piping Plover	Threatened	Coastal Beaches	Clinton, Westbrook, Old Saybrook.
New Haven	Bog Turtle	Threatened	Wetlands	Southbury
	Piping Plover	Threatened	Coastal Beaches	Milford, Madison and West Haven
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	Branford, Guilford and Madison
New London	Piping Plover	Threatened	Coastal Beaches	Old Lyme, Waterford, Groton and Stonington.
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	East Lyme and Waterford.
	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Waterford
Tolland	None			·

⁻Eastern cougar, gray wolf, seabeach amaranth and American burying beetle are considered extirpated in Connecticut.

7/31/2008

⁻There is no federally-designated Critical Habitat in Connecticut.

Transportation Land Development Environmental •

Services



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April 29, 2010

Vanasse Hangen Brustlin, Inc.

Ref: 41240.32

Ms. Alexandria Carter Verizon Wireless 99 East River Drive East Hartford, Connecticut 06108

Re:

Wetland Impact Assessment and NEPA Compliance

Cornwall, CT Facility 16 Bell Road Extension Cornwall, Connecticut

Dear Ms. Carter:

Vanasse Hangen Brustlin, Inc. (VHB) has completed on-site investigations to determine if wetlands and/or watercourses are located on the above-referenced Site. The results of this investigation reveal that forested wetlands are located on the subject property and adjoining along the existing access easement immediately adjacent to a portion of the existing gravel drive. The proposed 70-foot by 34-foot compound and 110-foot monopole tower wireless telecommunications facility (Facility) is located 620± feet west of the closest wetland (wetland flag WF #2-1). Please refer to VHB's Wetlands Delineation Report, dated July 16, 2009, previously submitted under separate cover. The purpose of this letter is to qualitatively assess wetland impacts associated with improvements to the existing gravel drive and determine compliance with NEPA listed category item 7, significant change in surface features (e.g., wetland fill, etc.), and federal wetland permit requirements with U.S. Army Corps of Engineers New England District (Corps). This assessment is also based on a review of site plans prepared by Centek Engineering, dated March 29, 2010, latest revised April 27, 2010.

VHB understands that Verizon Wireless proposes to construct a Facility in the southwestern portion of the ±41 acre subject property located at 16 Bell Road Extension in Cornwall, Connecticut. Access to the Facility will follow an existing gravel drive up to an existing cabin on the property then generally follow a woods road and then finally through undeveloped forest to access the proposed Facility. At approximately the midpoint of the proposed access drive, the existing gravel drive bisects a forested wetland system (identified as Wetlands 1 and 2 in VHB's Wetlands Delineation Report) with a 24inch corrugated metal pipe (CMP) conveying flows from Wetland 2 to Wetland 1 to the south under the road. Portions of the existing gravel drive are of insufficient width to provide vehicular access to the proposed Facility, particularly for construction equipment. Proposed improvements to the existing gravel drive in proximity to wetlands include widening the drive to 12 feet, placement of a new processed stone surface to create a stable road base and replacement of the 24-inch CMP with a 24-inch reinforced concrete pipe (RCP) to withstand the loading associated with equipment and materials to construct the proposed Facility. Improvements to the existing gravel drive will result in permanent wetland fill of 1,300± square feet (SF) and temporary wetland impact of 800± SF. It is important to point out that these wetland impact areas will only take place in areas immediately adjacent to the existing gravel drive, which are characterized as existing disturbed wetland areas. In addition, since wetlands immediately adjoin the existing gravel drive in this area, avoidance of

> 54 Tuttle Place Middletown, Connecticut 06457-1847 **860.632.1500 = FAX 860.632.7879**

Project No.: 41240.32

April 29, 2010 Page 2

wetland impacts is not possible. As a result, the proposed work will not adversely affect the function and value of the currently disturbed wetland areas associated within the existing gravel drive.

In order to determine if a proposed project results in a "significant environmental effect" under NEPA rules with respect to wetland/waterway impacts, a project is evaluated against the Corps' minimal impact threshold criteria to "Waters of the U.S." (e.g., wetlands, waterways, etc.). Generally, if a project is determined to satisfy the requirements of a Category 1 project (minimal impact and eligible without screening by reviewing agencies under the Department of the Army Programmatic General Permit State of Connecticut [PGP]) it is not considered to result in a significant environmental effect and a Finding of No Significant Impact (FONSI) could be issued for the NEPA listed category item 7. In order to support this conclusion, a careful review of the PGP (effective May 311, 2006, expiration date May 31, 2011) criteria for Category 1 eligibility is necessary.

For the proposed project and associated wetland impacts, the following key criteria are required in order to be eligible under Category 1 of the PGP.

Less than 5,000 SF of Inland Waters, Waterway and/or Wetland Fill and Secondary Impacts. Fill impacts include all temporary and permanent fill and excavation discharges resulting from a single and complete project, see #5 of General Requirements. Secondary impacts include but are not limited include to impacts to inland waters, waterways or wetlands drained, dredged, flooded, cleared or degraded resulting from a single and complete project. (See 40 CFR 230.11 (g) and (h))

The proposed improvements to the existing gravel drive carefully considered these requirements (in addition to the PGP's General Requirements) in order to minimize impact to wetland areas and be compliant with a Category 1 determination. First, the total wetland impact of $2,100\pm$ SF is significantly less than the 5,000 SF Category 1 ineligibility trigger. Also, temporary wetland impacts, which account for $800\pm$ SF of the total wetland impact, would be properly restored with the replacement of native wetland soils and planting with native herbaceous and shrub species indigenous to Connecticut.

A small pool caused by inundation impoundment from the gravel drive near wetland flag WF #2-28 was found to contain a few wood frog tadpoles and two sterile salamander egg masses during the wetland delineation performed in July 2009. Based on this limited observation, this small man-made area is providing some limited vernal pool habitat and possibly does not support a dependable hydroperiod for successful amphibian breeding during years of more typical precipitation due to its small size and artificial impoundment. Although obligate vernal pool species have been observed to utilize this small pool, it is not anticipated to provide significant vernal pool habitat as a result of its small size and limited density of individual amphibian species. Temporary impact to wetlands (400± SF area) will occur in proximity to this small pool associated with replacement of the existing 24-inch CMP. The replacement 24-inch RCP will maintain existing pipe elevations and slope so as not to adversely affect the existing hydrology of this small man-made pool. Although the resulting impacts to this small pool are anticipated to be relatively minor considering the lack of diversity of the habitat and its small size and existing disturbance, additional precautions during construction should be considered to further minimize impact to this wetland habitat. Such precautions could include



Project No.: 41240.32

April 29, 2010

Page 3

seasonal restriction for construction of the access drive improvements, contractor awareness, additional erosion control measures and monitoring.

As a result of adherence to the Corps' PGP requirements, the proposed wetland impacts associated with Verizon's development are considered eligible under Category 1 of the PGP and therefore a Finding of No Significant Impact (FONSI) for NEPA listed category item 7 is provided. In addition, as the proposed temporary wetland impacts will be properly restored with native wetland vegetation and permanent impacts are located in existing disturbed areas immediately adjacent to the existing gravel drive, the proposed wetland impacts are not considered to result in a likely adverse impact to wetland functions and values.

If you have any questions concerning this matter do not hesitate to call me.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Dean Gustafson

cc:

Professional Soil Scientist

Kenneth C. Baldwin, Robinson & Cole LLP



Transportation Land Development Environmental Services



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WETLANDS DELINEATION REPORT

Vanasse Hangen Brustlin, Inc.

Date:

July 16, 2009

Project No.:

41240.32

Prepared For:

Ms. Alexandria Carter

Verizon Wireless 99 East River Drive

East Hartford, Connecticut 06108

Site Location:

Cornwall, CT

16 Bell Road Ext.

Cornwall, Connecticut

Site Map:

Wetland Sketch, 06/13/09, VHB

Inspection Date:

July 8, 2009

Field Conditions:

Weather: partially sunny, mid 70's General Soil Moisture: moist

Snow Depth: 0 inches

Local Regulated Upland Review Areas: Wetlands: 200 feet

Frost Depth: 0 inches

Type of Wetlands Identified and Delineated:

Connecticut Inland Wetlands and Watercourses

Tidal Wetlands

U.S. Army Corps of Engineers

Watercourses: 200 feet

Field Numbering Sequence of Wetlands Boundary: Connecticut - WF 1-01 to 07/60 to 20; WF 1-61/67; WF 2-01 to 2-16; WF 2-20 to 2-32

[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:

Dean Gustafson

Professional Soil Scientist

Enclosures

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

www.vhb.com

Attachments

- Wetland Delineation Field Form

- Soil Map
 Soil Report
 Wetland Delineation Sketch Map

Wetland Delineation Field Form

Project Address:	16 Bell Road Ext. Cornwall, Connecticut				Project Number:		41240.32		
Inspection Date:	July 8, 2009			Inspector:		Dean Gustafson, PSS			
Wetland I.D.:	tland 1								
	I				.1				
Field Conditions:	Field Conditions: Weather: partly sunny, mid						Snow Depth: 0 inches		
		General	Soil	Soil Moisture: moist			Frost Depth: 0 inches		
Type of Wetland l	Delin	eation:		Connecticut	\boxtimes				
			L	ACOE					
				Tidal					
Field Numbering	Sequ	ence: WF	1-0	1 to 07/60 to 20;	; WF 1-61/67				
WETLAND HYI	ORO	LOGY:							
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		20021							
NONTIDAL					. F	Т	- 1 Pl 1 I		
Intermittently Flo				rificially Flooded			Permanently Flooded		
Semipermanently				sonally Flooded		7	Temporarily Flooded		
Permanently Satu	rated	· L	Sea	sonally Saturate	d – seepage ∠	<u> </u>	Seasonally Saturated - perched		
Comments:		- HILLIAN TO A STATE OF THE STA							
TIDAL									
Subtidal			Reg	gularly Flooded			Irregularly Flooded 🗌		
Irregularly Flood		=							
Comments: N/A									
WETLAND TYI	PE:								
SYSTEM:									
Estuarine				Riverine			alustrine 🛛		
Lacustrine				Marine					
Comments:									
CLASS:									
Emergent [Scrub-shrub 🛚		F	Forested 🛛		
Open Water							Wet Meadow		
Comments:									
WATERCOURS	SE T	YPE:							
				Intermittent 🖂		T	idal 🔲		
Comments:									
Vernal Pool	ATI(HABIT		Other _		Т			
Comments: N/A									

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS	FIELD IDD/
			MAPPED	CONFIRMED
Raypol silt loam (12)				\boxtimes
Canton and Charlton soils (62)		\boxtimes	\boxtimes	\boxtimes
Charlton-Chatfield complex (73)		\boxtimes	\boxtimes	\boxtimes
Rock outcrop-Hollis complex (76)		\boxtimes		\boxtimes

DOMINANT PLANTS:

Eastern hemlock (Tsuga canadensis)	multiflora rose (Rosa multiflora)			
red maple (Acer rubrum)	yellow birch (Betula alleghaniensis)			
black birch (Betula lenta)	wood fern (Dryopteris sp.)			
sphagnum moss sp.				

WETLAND NARRATIVE:

Wetland 1 is generally located along the south side of the existing gravel driveway that serves the existing residence and cabin on the subject property. The wetland edge is located at the toe of the driveway's fill slope in two locations associated with culvert outfalls conveying flows from wetland areas (Wetland 2) to the north of the driveway. Wetland 1 generally flows to the southeast towards Bell Road Ext. and Popple Swamp Road through shallow seasonal discontinuous intermittent stream channels.

Wetland Delineation Field Form

Project Address:	16 Bell Road Ext. Cornwall, Connecticu				Project Number:		er:	41240.32		
Inspection Date:	July 8, 2009				Inspector:		W	Dean Gustafson, PSS		
Wetland I.D.: Wetland 2										
	L				J					
Field Conditions:		Weather	:: pa	partly sunny, mid 70's		Sno	Snow Depth: 0 inches			
			Soil	Soil Moisture: moist			Fro	st Depth: 0 inches		
Type of Wetland	Delin	eation:		Connecticut						
				ACOE						
				Tidal						
Field Numbering	Seque	ence: WF	7 2-0	01 to 2-16; WF 2-	20	to 2-32				
WETLAND HYI	DRO	LOGY:								
NONTIDAL										
Intermittently Flo	oded	П	Art	tificially Flooded			Т	Permanently Flooded		
Semipermanently				asonally Flooded]		Temporarily Flooded		
Permanently Satu			Sea	asonally Saturated	d –	seepage 🗵] !	Seasonally Saturated - perched		
Comments:										
TIDAL										
Subtidal			Re	gularly Flooded [T		Iı	regularly Flooded		
Irregularly Flooded				<u> </u>						
Comments: N/A										
SYNCTI AND TYN	DT.									
. WETLAND TYI	E:									
SYSTEM:							T			
Estuarine				Riverine			Pal	ustrine 🛛		
Lacustrine				Marine						
Comments:										
CLASS:										
Emergent				Scrub-shrub 🛛	ub 🛛 💮 I			Forested 🛛		
Open Water				Disturbed		We	Wet Meadow			
Comments:										
WATERCOURS	E T	YPE:								
Perennial _				Intermittent 🛛		Tic	ial 🗌			
Comments:										
CDECIAL ACTI	TIC	א זו א מזו ר	ı A mırı							
SPECIAL AQUA	1110	. HABII	AI	Other			T			
Comments: a sma	ıll ma	n-made	pool		vetl	and flag W	F 2-2	28		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

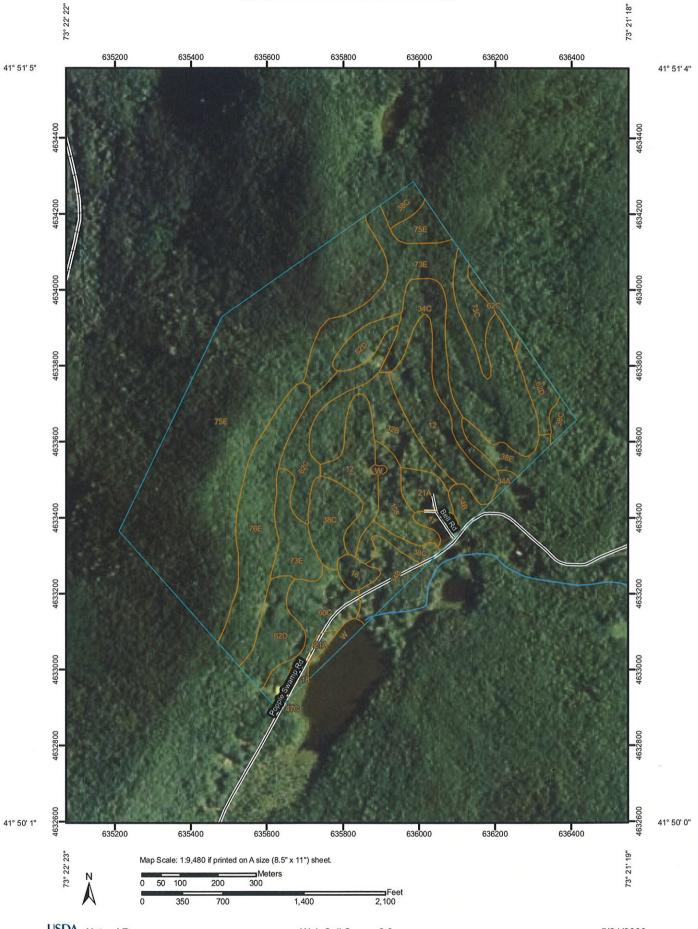
SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Raypol silt loam (12)				\boxtimes
Canton and Charlton soils (62)		\boxtimes		\boxtimes
Charlton-Chatfield complex (73)				\boxtimes
Rock outcrop-Hollis complex (76)			\boxtimes	\boxtimes

DOMINANT PLANTS:

Eastern hemlock (Tsuga canadensis)	green ash (Fraxinus pennsylvanica)
red maple (Acer rubrum)	black birch (Betula lenta)
American elm (Ulmus americana)	wood fern (Dryopteris sp.)
sphagnum moss sp.	Japanese barberry (Berberis thunbergii)
spicebush (Lindera benzoin)	royal fern (Osmunda regalis)
sensitive fern (Onoclea sensibilis)	

WETLAND NARRATIVE:

Wetland 2 is located along the north side of the existing gravel driveway that serves the existing residence and cabin on the subject property. The wetland edge is located at the toe of the driveway's fill slope in two locations associated with culvert outfalls conveying flows to Wetland 1 to the south of the driveway. A small pool caused by inundation impoundment from the gravel driveway near wetland flag WF 2-28 was found to contain a few wood frog tadpoles and two sterile salamander egg masses. This small man-made area is providing some limited vernal pool habitat and likely does not support a dependable hydroperiod for successful amphibian breeding during years of more typical precipitation. Therefore, this area is not considered to provide significant vernal pool habitat.

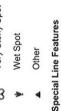


MAP LEGEND

Gully 8 Area of Interest (AOI) Soil Map Units Special Point Features Area of Interest (AOI) Soils

Very Stony Spot Wet Spot









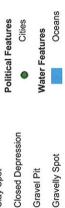
Map Scale: 1:9,480 if printed on A size (8.5" × 11") sheet.

MAP INFORMATION

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

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

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. Date(s) aerial images were photographed: 7/16/2006; 8/5/2006 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background



Gravel Pit

Other

4

Borrow Pit

Blowout

0 X Clay Spot





Miscellaneous Water

0

Perennial Water

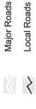
Rock Outcrop Saline Spot Sandy Spot

Marsh or swamp

Lava Flow

Landfill

Mine or Quarry







Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Ø

Stony Spot

Spoil Area

111



Map Unit Legend

State of Connecticut (CT600)							
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI				
12	Raypol silt loam	18.1	8.4%				
16	Halsey silt loam	1.7	0.8%				
17	Timakwa and Natchaug soils	1.7	0.8%				
18	Catden and Freetown soils	0.8	0.4%				
21A	Ninigret and Tisbury soils, 0 to 5 percent slopes	3.6	1.7%				
32B	Haven and Enfield soils, 3 to 8 percent slopes	9.5	4.4%				
34A	Merrimac sandy loam, 0 to 3 percent slopes	0.6	0.3%				
34B	Merrimac sandy loam, 3 to 8 percent slopes	6.1	2.8%				
34C	Merrimac sandy loam, 8 to 15 percent slopes	8.0	3.7%				
38C	Hinckley gravelly sandy loam, 3 to 15 percent slopes	11.2	5.2%				
38E	Hinckley gravelly sandy loam, 15 to 45 percent slopes	2.8	1.3%				
47C	Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony	0.1	0.1%				
60C	Canton and Charlton soils, 8 to 15 percent slopes	7.7	3.5%				
62C	Canton and Charlton soils, 3 to 15 percent slopes, extremely stony	8.5	3.9%				
62D	Canton and Charlton soils, 15 to 35 percent slopes, extremely stony	12.0	5.5%				
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	3.8	1.8%				
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	31.6	14.6%				
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	67.0	30.9%				
76E	Rock outcrop-Hollis complex, 3 to 45 percent slopes	15.3	7.1%				
108	Saco silt loam	4.8	2.2%				
W	Water	1.8	0.8%				
Totals for Area of Inter-	est	216.7	100.0%				

Map Unit Description (Brief)

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

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

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

Report—Map Unit Description (Brief)

State of Connecticut

Description Category: SOI

Map Unit: 12—Raypol silt loam

Raypol Silt Loam This map unit is in the Connecticut Valley Major Land Resource Area. The mean annual precipitation is 37 to 50 inches (940 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Raypol soils. 20 percent minor components. Raypol soils This component occurs on outwash plain terrace, depression, and drainageway landforms. The parent material consists of eolian deposits over sandy and gravelly glaciofluvial deposits. The slope ranges from 0 to 3 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is poorly drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.3 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 6 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 4w Typical Profile: 0 to 8 inches; silt loam 8 to 12 inches; very fine sandy loam 12 to 20 inches; silt loam 20 to 26 inches; silt loam 26 to 29 inches; very fine sandy loam 29 to 52 inches; stratified very gravelly coarse sand to loamy fine sand 52 to 65 inches; stratified very gravelly coarse sand to loamy fine sand

Map Unit: 16—Halsey silt loam

Halsey Silt Loam This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 40 to 48 inches (1016 to 1219 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Halsey soils. 20 percent minor components. Halsey soils This component occurs on outwash plain terrace, depression, and drainageway landforms. The parent material consists of glaciofluvial deposits derived from schist, limestone, and dolomite over sand and gravel. The slope ranges from 0 to 3 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.2 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is occasional. The minimum depth to a seasonal water table, when present, is about 4 inches. The maximum calcium carbonate within 40 inches is about 10 percent. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 1 inches; moderately decomposed plant material 1 to 8 inches; silt loam 8 to 16 inches; silt loam 16 to 28 inches; fine sandy loam 28 to 38 inches; loamy sand 38 to 60 inches; sand

Map Unit: 17—Timakwa and Natchaug soils

Timakwa And Natchaug Soils This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 40 to 50 inches (1016 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Timakwa soils, 40 percent Natchaug soils. 15 percent minor components. Timakwa soils This component occurs on depression landforms. The parent material consists of woody organic material over sandy and gravelly glaciofluvial deposits. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 5.95 in/hr (rapid), with about 16.2 inches (very high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 3.9 LEP (moderate). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 4 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 10 inches; muck 10 to 21 inches; muck 21 to 24 inches; muck 24 to 37 inches; muck 37 to 47 inches; very gravelly loamy coarse sand 47 to 60 inches; gravelly loamy very fine sand Natchaug soils This component occurs on depression landforms. The parent material consists of woody organic material over loamy alluvium, loamy glaciofluvial deposits, or loamy till. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 0.20 in/hr (moderately slow), with about 15.6 inches (very high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 3.9 LEP (moderate). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 2 inches; peat 2 to 4 inches; peat 4 to 6 inches; muck 6 to 11 inches; muck 11 to 18 inches; muck 18 to 24 inches; muck 24 to 33 inches; fine sandy loam 33 to 36 inches; fine sandy loam 36 to 80 inches; loam

Map Unit: 18—Catden and Freetown soils

Catden And Freetown Soils This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 32 to 47 inches (813 to 1194 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 40 percent Catden soils, 40 percent Freetown soils. 20 percent minor components. Catden soils This component occurs on depression landforms. The parent material consists of woody and herbaceous organic material. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The available water capacity is about 24.4 inches (very high). The weighted average shrink-swell potential in 10 to 60 inches is about 10.0 LEP (very high). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 2 inches; muck 2 to 18 inches; muck 18 to 47 inches; muck 47 to 49 inches; muck 49 to 61 inches; muck Freetown soils This component occurs on depression landforms. The parent material consists of woody and herbaceous organic material. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The available water capacity is about 33.1 inches (very high). The weighted average shrink-swell potential in 10 to 60 inches is about 10.0 LEP (very high). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 4 inches; peat 4 to 10 inches; peat 10 to 22 inches; muck 22 to 35 inches; muck 35 to 41 inches; muck 41 to 55 inches; muck 55 to 71 inches; muck 71 to 91 inches; muck

Map Unit: 21A—Ninigret and Tisbury soils, 0 to 5 percent slopes

Ninigret And Tisbury Soils, 0 To 5 Percent Slopes This map unit is in the Connecticut Valley Major Land Resource Area. The mean annual precipitation is 35 to 50 inches (889 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 60 percent Ninigret soils, 25 percent Tisbury soils, 15 percent minor components. Ninigret soils This component occurs on valley and outwash plain terrace landforms. The parent material consists of eolian deposits over glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 0 to 5 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.2 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2w Typical Profile: 0 to 8 inches; fine sandy loam 8 to 16 inches; fine sandy loam 16 to 26 inches; fine sandy loam 26 to 65 inches; stratified very gravelly coarse sand to loamy fine sand Tisbury soils This component occurs on valley and outwash plain terrace landforms. The parent material consists of eolian deposits over sand and gravel. The slope ranges from 0 to 3 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.6 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2w Typical Profile: 0 to 8 inches; silt loam 8 to 18 inches; silt loam 18 to 26 inches; silt loam 26 to 60 inches; stratified very gravelly sand to loamy sand

Map Unit: 32B—Haven and Enfield soils, 3 to 8 percent slopes

Haven And Enfield Soils, 3 To 8 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 40 to 50 inches (1016 to 1270 millimeters) and the average annual air temperature is 45 to 55 degrees F. (7 to 13 degrees C.) This map unit is 60 percent Haven soils, 25 percent Enfield soils. 15 percent minor components. Haven soils This component occurs on valley outwash plain and terrace landforms. The parent material consists of eolian deposits over glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 3 to 8 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 5.1 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2e Typical Profile: 0 to 7 inches; silt loam 7 to 14 inches; silt loam 14 to 20 inches; silt loam 20 to 24 inches; fine sandy loam 24 to 60 inches; stratified very gravelly sand to gravelly fine sand Enfield soils This component occurs on valley outwash plain and terrace landforms. The parent material consists of eolian deposits over glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 3 to 8 percent and the runoff class is medium. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.8 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2e Typical Profile: 0 to 3 inches; slightly decomposed plant material 3 to 4 inches; moderately decomposed plant material 4 to 12 inches; silt loam 8 to 17 inches; silt loam 12 to 20 inches; silt loam 20 to 26 inches; silt loam 26 to 30 inches; silt loam 30 to 37 inches; statified coarse sand to very gravelly loamy sand 37 to 65 inches; statified very gravelly loamy sand to coarse sand

Map Unit: 34A—Merrimac sandy loam, 0 to 3 percent slopes

Merrimac Sandy Loam, 0 To 3 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Merrimac soils. 20 percent minor components. Merrimac soils This component occurs on valley outwash plain, terrace, and kame landforms. The parent material consists of sandy glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 0 to 3 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is somewhat excessively drained. The lowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 4.0 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 1 Typical Profile: 0 to 9 inches; sandy loam 9 to 16 inches; sandy loam 16 to 24 inches; gravelly sandy loam 24 to 60 inches; stratified very gravelly coarse sand to gravelly sand

Map Unit: 34B—Merrimac sandy loam, 3 to 8 percent slopes

Merrimac Sandy Loam, 3 To 8 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Merrimac soils. 20 percent minor components. Merrimac soils This component occurs on valley outwash plain, terrace, and kame landforms. The parent material consists of sandy glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 3 to 8 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is somewhat excessively drained. The slowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 4.0 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2e Typical Profile: 0 to 9 inches; sandy loam 9 to 16 inches; sandy loam 16 to 24 inches; gravelly sandy loam 24 to 60 inches; stratified very gravelly coarse sand to gravelly sand

Map Unit: 34C—Merrimac sandy loam, 8 to 15 percent slopes

Merrimac Sandy Loam, 8 To 15 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Merrimac soils. 20 percent minor components. Merrimac soils This component occurs on valley outwash plain, terrace, and kame landforms. The parent material consists of sandy glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 8 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is somewhat excessively drained. The slowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 4.0 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 3e Typical Profile: 0 to 9 inches; sandy loam 9 to 16 inches; sandy loam 16 to 24 inches; gravelly sandy loam 24 to 60 inches; stratified very gravelly coarse sand to gravelly sand

Map Unit: 38C—Hinckley gravelly sandy loam, 3 to 15 percent slopes

Hinckley Gravelly Sandy Loam, 3 To 15 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 40 to 50 inches (1016 to 1270 millimeters) and the average annual air temperature is 45 to 55 degrees F. (7 to 13 degrees C.) This map unit is 80 percent Hinckley soils. 20 percent minor components. Hinckley soils This component occurs on valley outwash plain, terrace, kame, and esker landforms. The parent material consists of sandy and gravelly glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is excessively drained. The slowest permeability within 60 inches is about 5.95 in/hr (rapid), with about 2.3 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 4e Typical Profile: 0 to 8 inches; gravelly sandy loam 8 to 20 inches; very gravelly loamy sand 20 to 27 inches; very gravelly sand 27 to 42 inches; stratified cobbly coarse sand to extremely gravelly sand 42 to 60 inches; stratified cobbly coarse sand to extremely gravelly sand

Map Unit: 38E—Hinckley gravelly sandy loam, 15 to 45 percent slopes

Hinckley Gravelly Sandy Loam, 15 To 45 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 40 to 50 inches (1016 to 1270 millimeters) and the average annual air temperature is 45 to 55 degrees F. (7 to 13 degrees C.) This map unit is 80 percent Hinckley soils. 20 percent minor components. Hinckley soils This component occurs on valley outwash plain, terrace, kame, and esker landforms. The parent material consists of sandy and gravelly glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 15 to 45 percent and the runoff class is high. The depth to a restrictive feature is greater than 60 inches. The drainage class is excessively drained. The slowest permeability within 60 inches is about 5.95 in/hr (rapid), with about 2.3 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6e Typical Profile: 0 to 8 inches; gravelly sandy loam 8 to 20 inches; very gravelly loamy sand 20 to 27 inches; very gravelly sand 27 to 42 inches; stratified cobbly coarse sand to extremely gravelly sand 42 to 60 inches; stratified cobbly coarse sand to extremely gravelly sand

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

Woodbridge Fine Sandy Loam, 2 To 15 Percent Slopes, Extremely Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Woodbridge soils. 20 percent minor components. Woodbridge soils This component occurs on upland drumlin and hill landforms. The parent material consists of lodgement till derived from schist, granite, and gneiss. The slope ranges from 2 to 15 percent and the runoff class is medium. The depth to a restrictive feature is 20 to 40 inches to densic material. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 3.9 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 7 inches; fine sandy loam 7 to 18 inches; fine sandy loam 18 to 26 inches; fine sandy loam 26 to 30 inches; fine sandy loam 30 to 43 inches; gravelly fine sandy loam 43 to 65 inches; gravelly fine sandy loam

Map Unit: 60C—Canton and Charlton soils, 8 to 15 percent slopes

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

Map Unit: 62C—Canton and Charlton soils, 3 to 15 percent slopes, extremely stony

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

Map Unit: 62D—Canton and Charlton soils, 15 to 35 percent slopes, extremely stony

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

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

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

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

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

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

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

Map Unit: 76E—Rock outcrop-Hollis complex, 3 to 45 percent slopes

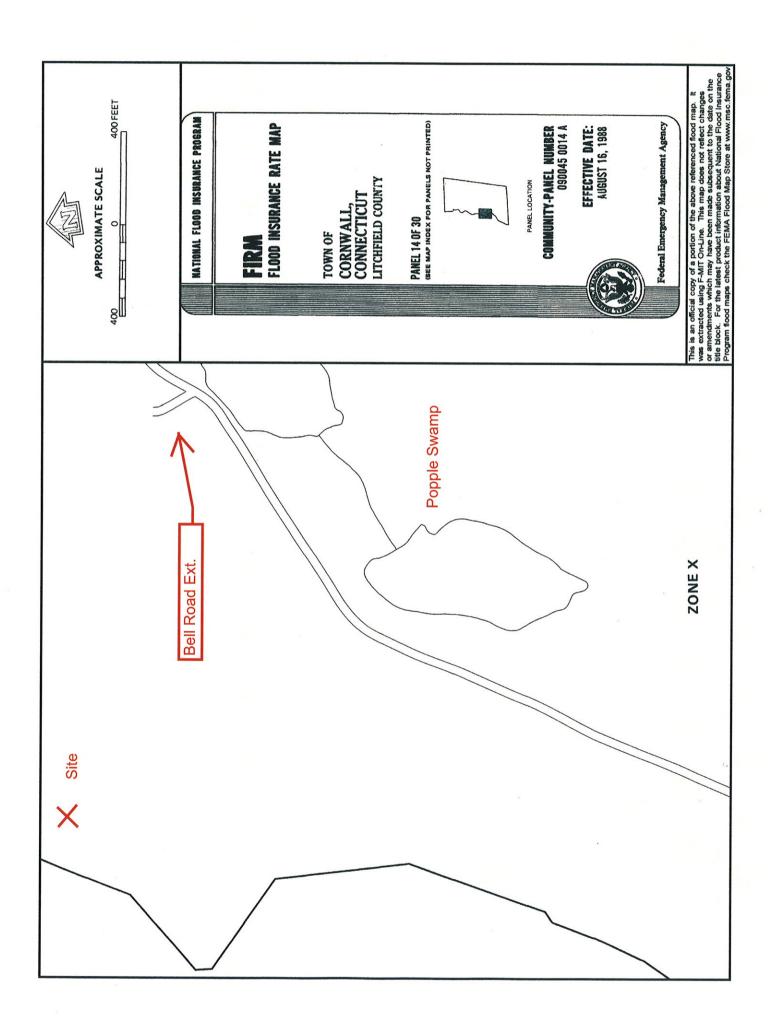
Rock Outcrop-Hollis Complex, 3 To 45 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 54 degrees F. (7 to 12 degrees C.) This map unit is 55 percent Rock Outcrop, 25 percent Hollis soils. 20 percent minor components. Rock Outcrop This component occurs on bedrock controlled landforms. The slope ranges from 3 to 45 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8 Hollis soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from granite, gneiss, and schist. The slope ranges from 3 to 45 percent and the runoff class is medium. The depth to a restrictive feature is 10 to 20 inches to bedrock (lithic). The drainage class is somewhat excessively drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 1.8 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 9 inches; channery fine sandy loam 9 to 15 inches; gravelly fine sandy loam 15 to 25 inches; unweathered bedrock

Map Unit: 108—Saco silt loam

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

Data Source Information

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



	T		
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	Area to be protected from base flood by levees or Federal Flood Protection Systems under construction. BFEs are not determined.	
	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 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from the 100-year flood, or 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 of	undetermined but possible flood hazards.	

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CORNWALLBELL.SRP
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                              Federal Airways & Airspace
                    Airspace Specialist: Clyde Pittman
                    File: CORNWALLBELL
                    Location:
                                Bantam, CT
                    Distance: 10.5 Statute Miles Direction: 143° (true bearing)
                    Latitude: 41°-50'-44.82"
                                                        Longitude: 73°-21'-51.48"
                    SITE ELEVATION AMSL..... 999 ft.
                    STRUCTURE HEIGHT..... 118 ft.
                    OVERALL HEIGHT AMSL.....1117 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 11N)
  FAR 77.13(a)(4): NNR (No Expected TERPS® impact 44N) FAR 77.13(a)(5): NNR (Off Airport Construction)
          NR = Notice Required
          NNR = Notice Not Required
          PNR = Possible Notice Required (depends upon actual IFR procedure)
  Notice to the FAA is not required at the analyzed location and height.
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: 11N: CANDLELIGHT FARMS
Type: A RD: 1030 FAR 77.23(a)(1):
          RD: 103044.2
                          RE: 688
                           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: 44N: SKY ACRES
Type: A
          RD: 113720.1
                          RE: 697
  FAR 77.23(a)(1):
                           DNE
  FAR 77.23(a)(2):
                           DNE - Greater Than 6 NM.
  VFR Horizontal Surface: DNE
  VFR Conical Surface:
                           DNF
  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
                                    Page 1
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CORNWALLBELL.SRP

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

PRIVATE LANDING FACILITIES FACIL IDENT TYP NAME	BEARING TO FACIL		DELTA ARP FA	
CT44 AIR RIPLEY FIELD No Impact to Near Airport Surface. Below surface height of 339 ft above A	145.35 ARP.	4.39	-213	
CT42 AIR WINGS AGO AIRSTRIP No Impact to Near Airport Surface. Below surface height of 341 ft above A		4.41	-468	
OCTO HEL SHARON HOSPITAL NO Impact to Private Landing Facility Structure is beyond notice limit by		5.64	+477	

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.

Nearest AM Station: WHDD @ 19628 meters.

Airspace® Summary Version 2010.3

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04-14-2010 14:02:38

OPTION AND LAND LEASE AGREEMENT

This Agreement made this 27 day of September, 2008, between Ralph J. Gulliver, Jr., with an address of 211 Indian Trail Road, New Milford, Connecticut, hereinafter designated LESSOR and Cellco Partnership d/b/a Verizon Wireless, with its principal offices located at One Verizon Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920 (telephone number 866-862-4404), 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 Bell Road, Cornwall Bridge, Connecticut, on property known as 16 Bell Road Extension as shown on the Tax Map of the Town of Cornwall as Map 07, Block 01, Lot 01 and being further described in Deed Book 59 at Page 459 as recorded in the Office of the Cornwall Town Clerk (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 ten thousand 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, Popple Swamp Road, 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.

NOW THEREFORE, in consideration of the sum of be paid by LESSEE to the LESSOR, 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 foregoing payment shall be made by LESSEE within forty five (45) days of execution of this Agreement or of receipt by LESSEE from LESSOR of the Rental Documentation, as defined in and in accordance with Paragraph 3 of the Agreement below, whichever occurs later. The providing by LESSOR of Rental Documentation to LESSEE shall be a prerequisite for the payment of the foregoing amount or any other option or rental payment, if applicable, by LESSEE, and notwithstanding anything to the contrary herein, LESSEE shall have no obligation to make any payment(s) until Rental Documentation has been supplied to LESSEE.

The option may be exercised at any time on or prior to twelve (12) months after the date of this Agreement. If the option has not been so exercised, it shall be automatically extended for three (3) additional periods of twelve (12) months each, unless LESSEE gives written notice to the LESSOR of its intent not to extend prior to the end of the initial option period or any said additional twelve (12) month period. If the option is extended, LESSEE shall make an additional payment of LESSOR for each twelve (12) month period so extended; such payment to be made within thirty (30) days of each such option so extended, provided LESSOR has supplied to LESSEE the Rental Documentation, as defined in and in accordance with Paragraph 3 of the Agreement below. 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 steps necessary to protect LESSEE's interest in the Premises.

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 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.

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 and thereupon the following agreement shall take effect:

LAND LEASE AGREEMENT

This Agreement, made this day of 2008 between Ralph J. Gulliver, Jr. having a mailing address of 211 Indian Trail Road, New Milford, Connecticut

and having Social Security hereinafter designated LESSOR and Cellco Partnership d/b/a Verizon Wireless, with its principal office located at One Verizon Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920 (telephone number 866-862-4404), hereinafter designated LESSEE. The LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party".

1. PREMISES. 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 Bell Road, Cornwall Bridge, Connecticut, and known as 16 Bell Road Extension, Cornwall Bridge Connecticut and being described as a 100' by 100' parcel containing ten thousand 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, Popple Swamp Road, 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 Cornwall as Map 07, Block 01 Lot 01 and is further described in Deed Book 59 at Page 459 as recorded in the Office of the Cornwall Town Clerk.

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 either to the LESSEE or to the public utility at no cost to the LESSEE.

- 2. <u>SURVEY</u>. 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 ard 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.
- 3. <u>TERM; RENTAL</u>. 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

to be 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 23 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 Commencement Date shall be the first day of the month in which notice of the exercise of the option, as set forth above, is effective. However, LESSOR and LESSEE acknowledge and agree that initial rental payment(s) shall not actually be sent by LESSEE until thirty (30) days after the exercise of the option is effective.

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.

LESSOR hereby agrees to provide to LESSEE certain documentation (the "Rental Documentation") evidencing LESSOR's interest in, and right to receive payments under, this Agreement, including without limitation: (i) documentation, acceptable to LESSEE in LESSEE's reasonable discretion, evidencing LESSOR's good and sufficient title to and/or interest in the Property and right to receive rental payments and other benefits hereunder; (ii) a complete and fully executed Internal Revenue Service Form W-9, or equivalent, in a form acceptable to LESSEE, for any party to whom rental payments are to be made pursuant to this Agreement; and (iii) other documentation requested by LESSEE in LESSEE's reasonable discretion. From time to time during the Term of this Agreement and within thirty (30) days of a written request from LESSEE, LESSOR agrees to provide updated Rental Documentation in a form reasonably acceptable to LESSEE. The Rental Documentation shall be provided to LESSEE in accordance with the provisions of and at the address given in Paragraph 23. Delivery of Rental Documentation to LESSEE shall be a prerequisite for the payment of any rent by LESSEE and notwithstanding anything to the contrary herein, LESSEE shall have no obligation to make any rental payments until Rental Documentation has been supplied to LESSEE as provided herein.

Within fifteen (15) days of obtaining an interest in the Property or this Agreement, any assignee(s) or transferee(s) of LESSOR shall provide to LESSEE Rental Documentation in the manner set forth in the preceding paragraph. From time to time during the Term of this Agreement and within thirty (30) days of a written request from LESSEE, any assignee(s) or transferee(s) of LESSOR agrees to provide updated Rental Documentation in a form reasonably acceptable to LESSEE. Delivery of Rental Documentation to LESSEE by any assignee(s) or transferee(s) of LESSOR shall be a prerequisite for the payment of any rent by LESSEE to such party and notwithstanding anything to the contrary herein, LESSEE shall have no obligation to make any rental payments to any assignee(s) or transferee(s) of LESSOR until Rental Documentation has been supplied to LESSEE as provided herein.

- 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. ANNUAL INCREASE. On the anniversary of the Commencement Date, and for each year thereafter during the Term, the rent shall increase by 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 shall be collectively referred to herein as the "Term".

7. LESSEE shall have the responsibility to pay any personal property, real TAXES. estate taxes, assessments, or charges owed on the Property which LESSOR demonstrates is the result of LESSEE's use of the Premises and/or the installation, maintenance, and operation of the LESSEE's improvements, and any sales tax imposed on the rent (except to the extent that LESSEE is or may become exempt from the payment of sales tax in the jurisdiction in which the Property is located), including any increase in real estate taxes at the Property which LESSOR demonstrates arises from the LESSEE's improvements and/or LESSEE's use of the Premises. To the extent permitted by the local taxing authority, LESSEE shall apply to such authority to have any personal property taxes, real estate taxes, assessments, or charges owed by LESSEE on the property and any increase in real estate taxes arising from the LESSEE's improvements and/or LESSEE's use of the Premises billed directly to LESSEE. LESSEE shall make such application within thirty (30) days of its exercise of its option herein. LESSOR and LESSEE shall each be responsible for the payment of any taxes, levies, assessments and other charges imposed including franchise and similar taxes imposed upon the business conducted by LESSOR or LESSEE at the Property. Notwithstanding the foregoing, LESSEE shall not have the obligation to pay any tax, assessment, or charge that LESSEE is disputing in good faith in appropriate proceedings prior to a final determination that such tax is properly assessed provided that no lien attaches to the Property. Nothing in this Paragraph shall be construed as making LESSEE liable for any portion of LESSOR's income taxes in connection with any Property or otherwise. Except as set forth in this Paragraph, LESSOR shall have the responsibility to pay any personal property, real estate taxes, assessments, or charges owed on the Property and shall do so prior to the imposition of any lien on the Property. In the event LESSEE shall fail to timely pay any taxes due herein and LESSOR is required to pay such taxes to prevent a default, then LESSEE agrees to reimburse LESSOR for such payments, including any interest due, within thirty (30) days of written notice from LESSOR of payment of same.

LESSEE shall have the right, af its sole option and at its sole cost and expense, to appeal, challenge or seek modification of any tax assessment or billing for which LESSEE is wholly or partly responsible for payment. LESSOR shall reasonably cooperate with LESSEE at LESSEE's expense in filing, prosecuting and perfecting any appeal or challenge to taxes as set forth in the preceding sentence, including but not limited to, executing any consent, appeal or other similar document. In the event that as a result of any appeal or challenge by LESSEE, there is a reduction, credit or repayment received by the LESSOR for any taxes previously paid by LESSEE, LESSOR agrees to promptly reimburse to LESSEE the amount of said reduction, credit or repayment. In the event that LESSEE does not have the standing rights to pursue a good faith and reasonable dispute of any taxes under this paragraph, LESSOR will pursue such dispute at LESSEE's sole cost and expense upon written request of LESSEE.

8. <u>USE; GOVERNMENTAL APPROVALS</u>. 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 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 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 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.

9. <u>INDEMNIFICATION</u>. Subject to Paragraph 10 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.

10. <u>INSURANCE</u>.

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 Lessor and \$2,000,000 for Lessee 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.
- 11. <u>LIMITATION OF LIABILITY</u>. Except for indemnification pursuant to paragraphs 9 and 29, 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.
- 12. <u>ANNUAL TERMINATION</u>. 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.
- 13. <u>INTERFERENCE</u>. 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.
- 14. 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 33 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.

- 15. <u>HOLDOVER</u>. 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 14 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 14 and this Paragraph 15, then the rent then in effect payable from and after the time of the expiration or earlier removal period set forth in Paragraph 14 shall be increased to one hundred and ten percent (110%) of the rent applicable during the month immediately preceding such expiration or earlier termination.
- 16. RIGHT OF FIRST REFUSAL. If LESSOR elects, during the Term (i) 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, with or without an assignment of this Agreement to such third party, LESSEE shall have the right of first refusal to meet any bona fide offer of sale or transfer on the same terms and conditions of such offer. If LESSEE fails to meet such bona fide offer within thirty (30) days after written notice thereof from LESSOR, LESSOR may sell or grant the easement or interest in the Property or portion thereof to such third person in accordance with the terms and conditions of such third party offer. For purposes of this Paragraph, any transfer, bequest or devise of LESSOR's interest in the Property as a result of the death of LESSOR, whether by will or intestate succession, shall not be considered a sale of the Property for which LESSEE has any right of first refusal.
- 17. 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.
- 18. QUIET ENJOYMENT. LESSOR covenants that LESSEE, on paying the rent and performing the covenants herein, shall peaceably and quietly have, hold and enjoy the Premises.

- 19. <u>TITLE</u>. 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.
- 20. <u>INTEGRATION</u>. It is agreed and understood that this Agreement contains all 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. 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.
- 21. <u>GOVERNING LAW</u>. 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.
- 22. ASSIGNMENT/SUBLEASE. 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 its 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 non-affiliated or non-related third party use of the Property for colocation, whether it be by sublease, license or other agreement. For the purposes of this Agreement an affiliated party and/or related party shall include any and all entities in which the LESSEE, its principals, affiliates, subsidiaries of its principal holds or otherwise has an ownership interest in.

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: Fifteen percent (15%) to LESSOR and Eighty-five percent (85%) to LESSEE; and shall be payable to LESSOR the latter of the first day of the month following receipt of any rental amount by LESSEE or thirty (30) days following receipt by LESSEE.

LESSEE shall have no liability of any kind or 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 any 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.

- 23. 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. LESSEE may sublet the Premises within its sole discretion, upon notice to LESSOR. 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.
- 24. <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: Ralph J. G

Ralph J. Gulliver, Jr

211 Indian Trail Road, New Milford, Connecticut 06776

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.

- 25. <u>SUCCESSORS</u>. This Agreement shall extend to and bind the heirs, personal representative, successors and assigns of the Parties hereto.
- 26. 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 cure periods. 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 and (3) agrees to accept a cure by Lender of any of LESSOR's defaults, provided such cure is completed within the deadline applicable to LESSOR. 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.
- 27. <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.

28. 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.

- b. In the event there is a breach by LESSOR with respect to any of the 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.
- 29. 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, LESSOR shall use reasonable efforts to mitigate its damages in connection with a default by LESSEE. If LESSEE so performs any of LESSOR's obligations hereunder, the full amount of the reasonable and actual cost and expense incurred by LESSEE shall immediately be owing by LESSOR to LESSEE, and LESSOR shall pay to LESSEE 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.

30. 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.
- 31. <u>CASUALTY</u>. 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.
- 32. <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 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.

- 33. <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.
- 34. <u>APPLICABLE LAWS</u>. 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.
- 35. <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.
- 36. <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.

37. 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 attached hereto (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.

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

Eten Dean By: /pp/l. Tall
WITNESS

Digitt Hillie Its: owner

LESSEE: CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS

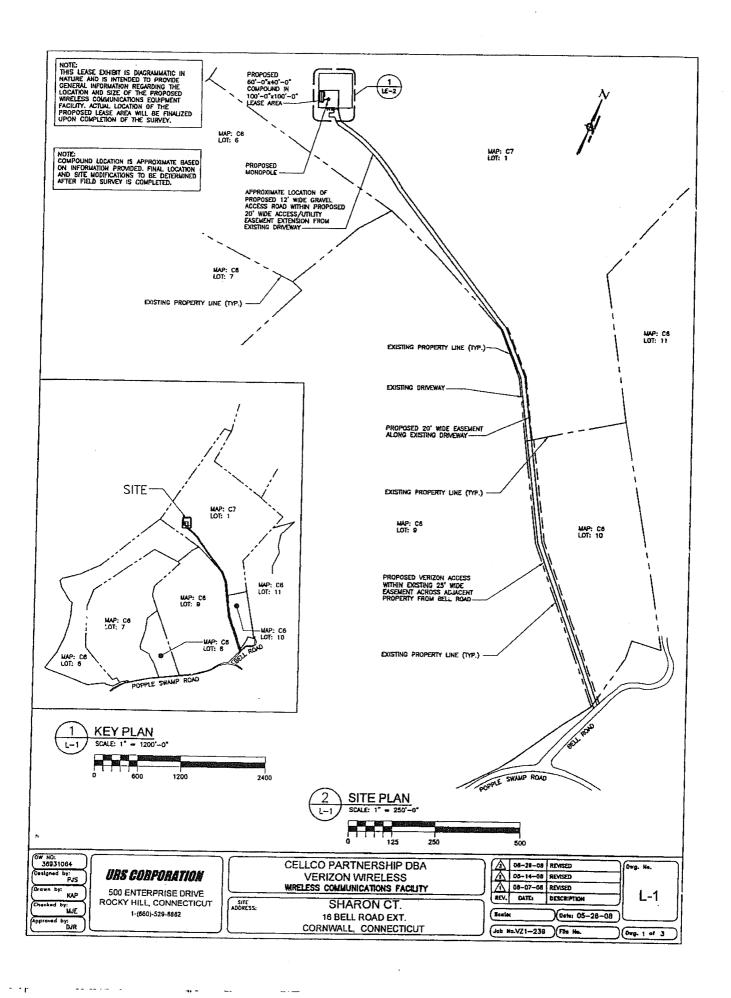
By: David R. Heverling

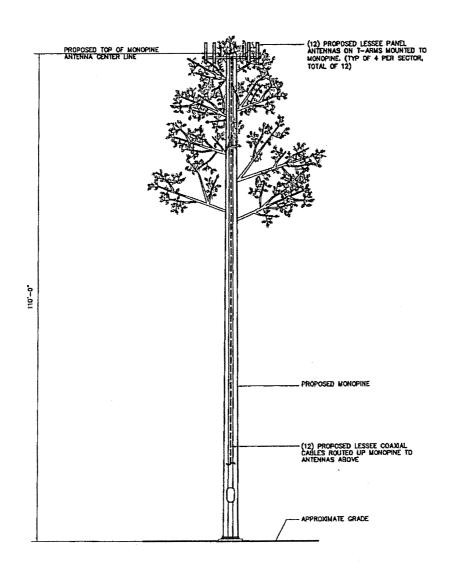
Its:Vice President - Network Northeast Area

9 29 08

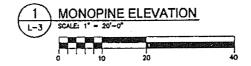
Exhibit "A"

(See Attached Drawings L-1 and L-3)





NOTE:
THIS LEASE EXHIBIT IS DIAGRAMMATIC IN
NATURE AND IS INTENDED TO PROVIDE
GENERAL INFORMATION REGARDING THE
LOCATION AND SIZE OF THE PROPOSED
WHELESS COMMUNICATIONS EQUIPMENT
FACILITY, ACTUAL LOCATION OF THE
PROPOSED LEASE AREA MILL BE FINALIZED
UPON COMPLETION OF THE SURVEY.



OW NOI 36931064 Designed by: PUS KAP Checked by:

URS CORPORATION

500 ENTERPRISE DRIVE ROCKY HILL, CONNECTICUT 1-(860)-529-8882

SITE ADDRESS:

CELLCO PARTNERSHIP DBA VERIZON WRELESS

SHARON CT. 16 BELL ROAD EXT. CORNWALL, CONNECTICUT

			Dwg.
Δ	08-14-08	REVISED	1
Δ	08-07-06	MEVISED	II .
REV.	DATE	DESCRIPTION) L

L-3

(Date: 05-28-08) Societ Jab Ma.VZ1-239 File Me.

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