

## Attachment 4

## SECTION 4

### Environmental Assessment Statement

#### I. PHYSICAL IMPACT

##### A. WATER FLOW AND QUALITY

A delineated wetland was identified on the proposed site, the nearest point being 52' from the western boundary of the proposed compound. The area of compound development is a previously disturbed portion of the site abutting the existing asphalt parking lot. The proposed facility will be constructed in accordance with federal, state and local regulations, and Best Management Practices to control storm water and soil erosion will be implemented to prevent any effect to this wetland.

##### B. AIR QUALITY

Under ordinary operating conditions, the tower, antennas and telecommunications equipment used at the proposed facility would emit no air pollutants of any kind. A diesel generator used only for emergency power will comply with DEEP air standards associated with its operation.

##### C. LAND

Some minimal clearing and grading will be necessary in the compound area. The remainder of the parcel will remain unchanged by the construction and operation of the facility.

##### D. NOISE

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system. Temporary power outages could involve sound from the emergency generator. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks.

##### E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the facility would be 11.14% of the MPE standard. Attached is a copy of a Power Density Report indicating same.

##### F. VISIBILITY

The potential visual impact of the proposed stealth monopole was determined by preparation of the attached Visual Resource Evaluation Report. The potential visibility

was assessed within an approximate two (2) mile radius using a computer-based, predictive view shed model and in-field visual analysis. Given relative height and surrounding terrain, the monopole would be visible primarily from those residences in the immediate vicinity of the site (approximately ¼ mile radius from the site). No visibility was documented at any schools in the area. Photographic simulations of the tower site from various vantage points were prepared and which assumed an internal antenna design for the tower.

## II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the facility is located exhibits no scenic, natural, historic or recreational characteristics which are unique. The parcel is, however, adjacent to the Merritt Parkway which is on the National Register of Historic Places. The Connecticut State Historic Preservation Officer (“SHPO”) conducted a thorough review of the project and design options and concluded that the facility as revised and currently proposed will not adversely impact any historic or cultural resources including the Merritt Parkway. The Connecticut Department of Energy and Environmental Protection (“CTDEEP”) Natural Diversity Database (“NDDB”) maps for the proposed site have been reviewed and consultation with CTDEEP completed. In its September 2, 2010 letter, the CTDEEP concluded that there are no known populations of species of concern occurring on this property. At this point in time, there are no known historic, State scenic, natural or recreational values that would be impacted by the proposed tower facility.

## TOWAIR Determination Results

### \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

#### DETERMINATION Results

**Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.**

#### Your Specifications

##### NAD83 Coordinates

Latitude	41-08-09.7 north
Longitude	073-27-22.7 west

##### Measurements (Meters)

Overall Structure Height (AGL)	42.7
Support Structure Height (AGL)	42.7
Site Elevation (AMSL)	59.9

##### Structure Type

TOWER - Free standing or Guyed Structure used for Communications Purposes

#### Tower Construction Notifications

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

[CLOSE WINDOW](#)

# 1-A CERTIFICATION

**Client:** AT&T  
500 Enterprise Drive  
Rocky Hill, CT 06067

**Site Number:** SR1038  
**Site Address:** 284 New Canaan Road  
Norwalk, CT 06850

**Horizontal Datum:**  GPS Survey

**Vertical Datum:**  GPS Survey

**Structure Type:**  New Tower  Water Tank  
 Existing Tower  Smoke Stack  
 Roof Top  C.O.W.  
 Temporary Site  Other: \_\_\_\_\_

**Latitude:** 41°08'09.74" North - NAD 83

**Longitude:** 73°27'22.68" West - NAD 83

(Center of Proposed Transparent Flagpole Base)

**Ground Elevation:** 196.6 AMSL (Above Mean Sea Level) – NAVD 88

(Ground at Proposed Transparent Flagpole Base)

**Support Structure Height:** (Top Proposed Tower) 140.0' AGL (Above Ground Level)

**Proposed Height to AT&T Antenna Tip:**  
(Top of Highest proposed antenna) 139.5' AGL

**Proposed Total Overall AT&T Antenna Height:**  
(Top of Highest proposed antenna) 336.1' AMSL

**Design RAD Center Height:** 137.0' AGL  
(Center of Highest proposed antenna)

**Certification:** I certify that the latitude of 41°08'09.74" North and the longitude 73°27'22.68" West are accurate to within +/- 20 feet horizontally, and that the ground elevation of 196.6' AMSL is accurate to within +/- 3 feet vertically. The horizontal datum (coordinate) are in terms of the North American Datum of 1983 (NAD 83) and are expressed in degrees, minutes and seconds. The vertical datum (elevations) are in terms of the North American Vertical Datum of 1988 and are expressed in feet.

**Company:** The LRC Group  
160 West Street, Suite E  
Cromwell, CT 06416  
Phone: 860-635-2877; Fax: 860-635-4226

**Signature:**   
John F. Wagenblatt L.S. No. 17791

**Date:** October 4, 2010  
Revised July 8, 2011



Tony Wells  
 C Squared Systems  
 920 Candia Road  
 Manchester, NH 03109  
 603-657-9702  
 Tony.Wells@csquaredsystems.com



July 7, 2011

Connecticut Siting Council

Subject: New Cingular Wireless, Norwalk, CT

Dear Connecticut Siting Council:

C Squared Systems has been retained by New Cingular Wireless to investigate the RF Power Density at the proposed site located at 284 New Canaan Avenue, Norwalk CT.

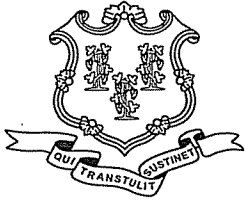
Calculations were done in accordance with FCC OET Bulletin 65. These worst-case calculations assume that all transmitters are simultaneously operating at full power and pointing directly at the ground. The calculation point is 6 feet above ground level to model the RF power density at the head of a person standing at the base of the tower.

Location	Carrier	Antenna Centerline Height Above Ground Level (Ft.)	Operating Frequency (MHz)	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Power Density (mw/cm <sup>2</sup> )	Limit	% FCC MPE Limit General Public/Uncontrolled
Ground Level	AT&T UMTS	137	880	1	500	0.0105	0.5867	1.79%
	AT&T UMTS	137	1900	1	500	0.0105	1.0000	1.05%
	AT&T LTE	127	700	1	500	0.0123	0.4667	2.63%
	AT&T GSM	117	880	3	296	0.0259	0.5867	4.42%
	AT&T GSM	117	1900	1	427	0.0125	1.0000	1.25%
	<b>Total</b>							

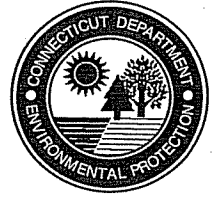
**Summary:** Under worst-case assumptions, the RF Power Density at the proposed site located at 284 New Canaan Avenue, Norwalk CT will not exceed 11.14% of the FCC MPE limit for General Public/Uncontrolled Environments.

Sincerely,

Anthony Wells  
 Managing Partner



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

September 2, 2010

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

Re: SR 1038, AT&T Cell Tower at 284 New Canaan Ave, Norwalk, CT

Dear Ms. Kelsey:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for SR 1038, AT&T Cell Tower at 284 New Canaan Ave, Norwalk, 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.

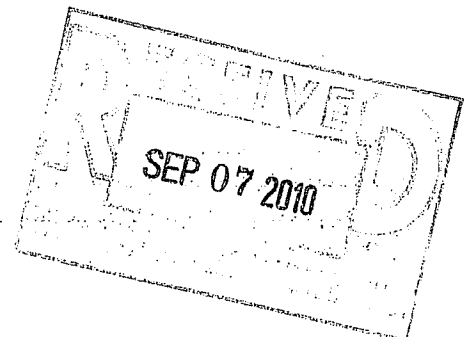
Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Environmental Protection's Natural History Survey and cooperating 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  
Cc: NDDB File # 17950

DMM/hpw





*Vanasse Hangen Brustlin, Inc.*

54 Tuttle Place  
Middletown, Connecticut 06457  
Telephone 860 632-1500  
FAX 860 632-7879  
www.vhb.com

**Memorandum**

To: SAI Communications, Inc.  
22 Keewaydin Drive  
Salem NH 03079

Date: December 20, 2012

Project No.: 41502.47

From: Jeffrey Peterson  
Senior Environmental Scientist

Re: CTDEEP Natural Diversity Data Base  
(NDDDB) Threatened and Endangered  
Species Review  
284 New Canaan Avenue  
Norwalk, Connecticut

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At the request of SAI Communications, Inc. regarding the above referenced wireless telecommunications facility, VHB has reviewed pertinent Connecticut Department of Energy and Environmental Protection (CTDEEP) data to address the Threatened or Endangered Species & Critical Habitats component for the National Environmental Policy Act (NEPA) Compliance Report.

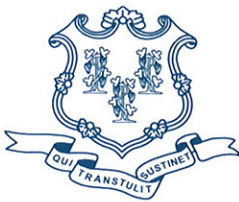
After filing a Natural Diversity Data Base letter with the CTDEEP Natural Diversity Data Base (NDDDB) for the above referenced Site in August 2010, VHB received clearance from the CTDEEP NDDDB in a letter<sup>1</sup> dated September 2, 2010 stating that there were no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on the property.

VHB reviewed the most recent NDDDB mapping (see attached December 2012 Natural Diversity Data Base Areas map of Norwalk) and found that the Site is not located within *a buffered area, or overlapping a lake, pond or wetland that has shading; or upstream or downstream (by less than ½ mile) from a shaded area.* As such further consultation with the CTDEEP regarding the NDDDB threatened or endangered species is not required. Since the site is not in one of the areas described in italics above, one may assume that the project would have no detrimental effect on known extant populations of Federal or State Endangered or Threatened species, or species of Special Concern.

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<sup>1</sup> Letter from Dawn McKay – NDDDB #17950





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

September 2, 2010

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

Re: SR 1038, AT&T Cell Tower at 284 New Canaan Ave, Norwalk, CT

Dear Ms. Kelsey:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for SR 1038, AT&T Cell Tower at 284 New Canaan Ave, Norwalk, 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  
Cc: NDDB File # 17950



DMM/hpw



# Natural Diversity Data Base Areas

## NORWALK, CT

December 2012

-  State and Federal Listed Species & Significant Natural Communities
-  Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Significant Natural Communities. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a number of data sources. Exact locations of species have been buffered to produce the general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center. A new mapping format is being employed that more accurately models important riparian and aquatic areas and eliminates the need for the upstream/downstream searches required in previous versions.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

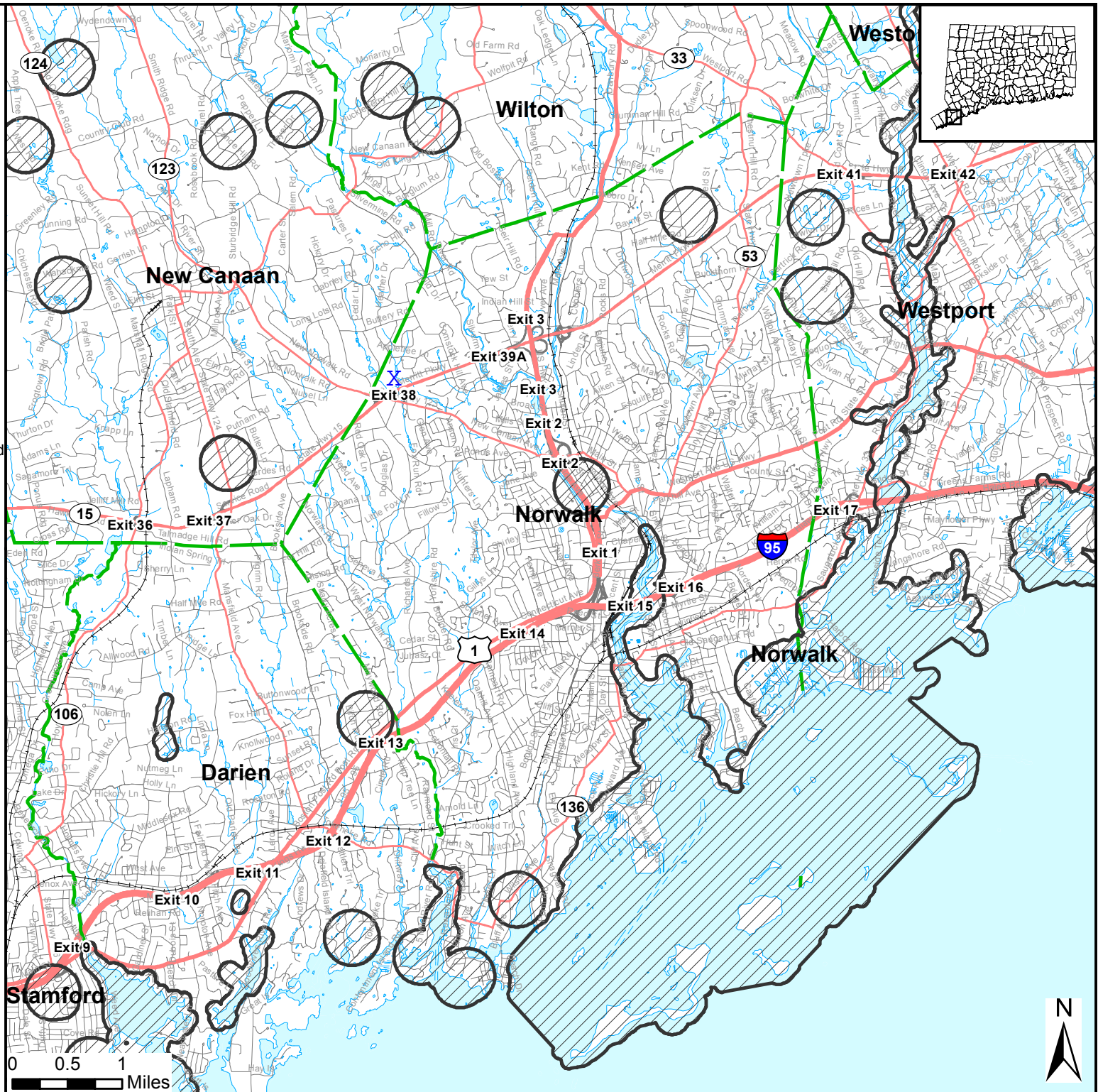
[www.ct.gov/deep/nddbrequest](http://www.ct.gov/deep/nddbrequest)

This file has PDF Layers. Look for the Layers tab on the left. Expand the layers and use the "eye" icons to change visibility.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)  
79 Elm St., Hartford CT 06106  
Phone (860) 424-3011



Connecticut Department of Energy & Environmental Protection  
Bureau of Natural Resources  
Wildlife Division







Vanasse Hangen Brustlin, Inc.

**WETLANDS DELINEATION REPORT**

**Date:** December 2, 2010  
**Project No.:** 41502.19  
**Prepared For:** Mr. David Vivian  
New Cingular Wireless PCS, LLC  
500 Enterprise Drive, Suite 3A  
Rocky Hill, Connecticut, 06067  
**Site Location:** National Guard Armory – 284 New Canaan Avenue, Norwalk, Connecticut  
**Site Map:** Wetland Sketch, dated September 3, 2010  
**Inspection Date:** September 3, 2010  
**Field Conditions:** Weather: partly cloudy, mid 80's  
Snow Depth: 0 inches  
General Soil Moisture: moist  
Frost Depth: 0 inches

**Type of Wetlands Identified and Delineated:**

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

**Local Regulated Upland Review Areas:** Wetlands: 50 feet Watercourses: 100 feet


**Field Numbering Sequence of Wetlands Boundary:** WF 1-01 to 1-60; WF 1-61 to 1-68; WF 2-01 to 2-10;  
WF 3-01 to 3-09; WF 4-01 to 4-04

*[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 Forms
  - Soil Map
  - Soil Report
  - Wetland Delineation Sketch Map

**Wetland Delineation Field Form**

Project Address:	284 New Canaan Avenue Norwalk, Connecticut	Project Number:	41502.19
Inspection Date:	September 3, 2010	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 1		

Field Conditions:	Weather: partly cloudy, mid 80's	Snow Depth: 0 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 1-01 to 1-60 & WF 1-61 to 1-68		

**WETLAND HYDROLOGY:**

**NONTIDAL**

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input checked="" type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments:		

**TIDAL**

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

**WETLAND TYPE:**

**SYSTEM:**

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

**CLASS:**

Emergent <input type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input checked="" type="checkbox"/>	Wet Meadow <input checked="" type="checkbox"/>
Comments: typical red maple swamp		

**WATERCOURSE TYPE:**

Perennial <input type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: dug intermittent channel flows east under existing access drive		

**SPECIAL AQUATIC HABITAT:**

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

### Wetland Delineation Field Form (Cont.)

**MAPPED SOILS:**

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury, Leicester, and Whitman soils, extremely stony (3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Scarboro muck (15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Canton and Charlton soils (60)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Charlton-Chatfield complex (73)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Udorthents-Urban land complex (306)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**DOMINANT PLANTS:**

red maple ( <i>Acer rubrum</i> )	black gum ( <i>Nyssa nigra</i> )
yellow birch ( <i>Betula alleghaniensis</i> )	green ash ( <i>Fraxinus pennsylvanica</i> )
pepperbush ( <i>Clethra alnifolia</i> )	highbush blueberry ( <i>Vaccinium corymbosum</i> )
musclewood/hornbeam ( <i>Carpinus caroliniana</i> )	multiflora rose ( <i>Rosa multiflora</i> )*
northern arrowwood ( <i>Viburnum recognitum</i> )	rice cutgrass ( <i>Leersia oryzoides</i> )
skunk cabbage ( <i>Symplocarpus foetidus</i> )	sensitive fern ( <i>Onoclea sensibilis</i> )
cinnamon fern ( <i>Osmunda cinnamomea</i> )	reed canarygrass ( <i>Phalaris arundinacea</i> )
jewelweed ( <i>Impatiens capensis</i> )	smallspike false nettle ( <i>Boehmeria cylindrica</i> )
New York fern ( <i>Thelypteris noveboracensis</i> )	royal fern ( <i>Osmunda regalis</i> )
narrowleaf cattail ( <i>Typha angustifolia</i> )	silky dogwood ( <i>Cornus amomum</i> )
arrowleaf tearthumb ( <i>Polygonum sagittatum</i> )	sedge spp. ( <i>Carex</i> spp.)
goldenrod spp. ( <i>Solidago</i> spp.)	purple loosestrife ( <i>Lythrum salicaria</i> )*
sweet flag ( <i>Acorus calamus</i> )	

\* indicates non-native invasive species

**WETLAND NARRATIVE:**

Wetland 1 is primarily a forested swamp wetland system that encompasses the northern and western portions of the subject property in proximity to the proposed wireless telecommunications facility. The closest distance from the fenced compound to wetlands is approximately 54 feet to wetland flag WF 1-10. Within the interior of the west central portion of the delineated wetland is a dug channel that conveys intermittent stream flows to the east through a box culvert under the existing access drive from the western portion of the wetland system. The northern portion of the wetland flows north eventually into Silvermine Brook, located 250± feet north of the proposed facility. The portion of the delineated wetland east of this culvert (WF 1-61 to 1-68) is characterized as a wet meadow/shrub habitat. A significant portion of the delineated wetland edge is disturbed by previous site improvements associated with the National Guard Armory development.

**Wetland Delineation Field Form**

Project Address:	284 New Canaan Avenue Norwalk, Connecticut	Project Number:	41502.19
Inspection Date:	September 3, 2010	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 2		

Field Conditions:	Weather: partly cloudy, mid 80's	Snow Depth: 0 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 2-01 to 2-10		

**WETLAND HYDROLOGY:**

**NONTIDAL**

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments:		

**TIDAL**

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

**WETLAND TYPE:**

**SYSTEM:**

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

**CLASS:**

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input checked="" type="checkbox"/>	Wet Meadow <input checked="" type="checkbox"/>
Comments: receives stormwater discharge from Rt. 123 and Carter Street		

**WATERCOURSE TYPE:**

Perennial <input type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: shallow intermittent channel/sheet flow over uplands into Wetland 1 at WF 1-59		

**SPECIAL AQUATIC HABITAT:**

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

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

**MAPPED SOILS:**

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury, Leicester, and Whitman soils, extremely stony (3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Canton and Charlton soils (60)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Charlton-Chatfield complex (73)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Udorthents-Urban land complex (306)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**DOMINANT PLANTS:**

red maple ( <i>Acer rubrum</i> )	silky dogwood ( <i>Cornus amomum</i> )
yellow birch ( <i>Betula alleghaniensis</i> )	green ash ( <i>Fraxinus pennsylvanica</i> )
jewelweed ( <i>Impatiens capensis</i> )	

**WETLAND NARRATIVE:**

Wetland 2 is a disturbed forested wetland system that contains sediment deposition from stormwater discharges from Rt. 123 and Carter Street. The wetland flows to the east then northeast through a shallow intermittent channel within the wetland interior then sheet flow over uplands before it enters the southern end of Wetland 1.



**Wetland Delineation Field Form**

Project Address:	284 New Canaan Avenue Norwalk, Connecticut	Project Number:	41502.19
Inspection Date:	September 3, 2010	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 3		

Field Conditions:	Weather: partly cloudy, mid 80's	Snow Depth: 0 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 3-01 to 3-09		

**WETLAND HYDROLOGY:**

**NONTIDAL**

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input checked="" type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: stormwater detention basin		

**TIDAL**

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

**WETLAND TYPE:**

**SYSTEM:**

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

**CLASS:**

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input checked="" type="checkbox"/>	Wet Meadow <input checked="" type="checkbox"/>
Comments: receives stormwater discharge from the site development		

**WATERCOURSE TYPE:**

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

**SPECIAL AQUATIC HABITAT:**

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

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

**MAPPED SOILS:**

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury, Leicester, and Whitman soils, extremely stony (3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Canton and Charlton soils (60)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Charlton-Chatfield complex (73)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Udorthents-Urban land complex (306)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**DOMINANT PLANTS:**

red maple ( <i>Acer rubrum</i> )	tussock sedge ( <i>Carex stricta</i> )
bebb willow ( <i>Salix bebbian</i> )	meadowsweet ( <i>Spiraea latifolia</i> )
sweet flag ( <i>Acorus calamus</i> )	spotted Joe-Pye-weed ( <i>Eupatoriadelphus maculatus</i> )
cinnamon fern ( <i>Osmunda cinnamomea</i> )	sensitive fern ( <i>Onoclea sensibilis</i> )
arrowleaf tearthumb ( <i>Polygonum sagittatum</i> )	narrowleaf cattail ( <i>Typha angustifolia</i> )
jewelweed ( <i>Impatiens capensis</i> )	purple loosestrife ( <i>Lythrum salicaria</i> )*

\* indicates non-native invasive species

**WETLAND NARRATIVE:**

Wetland 3 is a vegetated detention basin feature that drains through a culvert to the northwest into Wetland 1 at wetland flag WF 1-54.

### Wetland Delineation Field Form

Project Address:	284 New Canaan Avenue Norwalk, Connecticut	Project Number:	41502.19
Inspection Date:	September 3, 2010	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 4		

Field Conditions:	Weather: partly cloudy, mid 80's	Snow Depth: 0 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 4-01 to 4-04		

#### WETLAND HYDROLOGY:

##### NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input checked="" type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated - seepage <input type="checkbox"/>	Seasonally Saturated - perched <input checked="" type="checkbox"/>
Comments: receives runoff from parking lot		

##### TIDAL

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

#### WETLAND TYPE:

##### SYSTEM:

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

##### CLASS:

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

#### WATERCOURSE TYPE:

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

#### SPECIAL AQUATIC HABITAT:

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

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

**MAPPED SOILS:**

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Aquents (disturbed wetland soil, no symbol)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Udorthents-Urban land complex (306)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**DOMINANT PLANTS:**

arrowleaf tearthumb ( <i>Polygonum sagittatum</i> )	narrowleaf cattail ( <i>Typha angustifolia</i> )
boneset ( <i>Eupatorium perfoliatum</i> )	purple loosestrife ( <i>Lythrum salicaria</i> )*

\* indicates non-native invasive species

**WETLAND NARRATIVE:**

Wetland 4 is a disturbed wetland area apparently created by compacted poorly draining fill that receives stormwater runoff from the adjoining parking lot.

Soil Map—State of Connecticut  
(National Guard Armory, 284 New Canaan Avenue, Norwalk, CT)




Map Scale: 1:3,660 if printed on A size (8.5" x 11") sheet.



## MAP LEGEND






















### Area of Interest (AOI)




 Area of Interest (AOI)

### Soils




 Soil Map Units

### Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

-  Very Stony Spot
-  Wet Spot
-  Other



### Special Line Features

-  Gully
-  Short Steep Slope
-  Other






### Political Features

-  Cities

### Water Features

-  Oceans
-  Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

## MAP INFORMATION

Map Scale: 1:3,660 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: UTM Zone 18N NAD83

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 7, Dec 3, 2009

Date(s) aerial images were photographed: 7/16/2006

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



## Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, extremely stony	4.1	8.6%
4	Leicester fine sandy loam	11.1	23.5%
15	Scarboro muck	15.6	33.1%
38E	Hinckley gravelly sandy loam, 15 to 45 percent slopes	1.2	2.6%
50B	Sutton fine sandy loam, 3 to 8 percent slopes	1.6	3.4%
60B	Canton and Charlton soils, 3 to 8 percent slopes	1.8	3.9%
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	5.4	11.3%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	0.0	0.0%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	0.5	1.0%
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	0.5	1.0%
260B	Charlton-Urban land complex, 3 to 8 percent slopes	0.0	0.0%
306	Udorthents-Urban land complex	5.4	11.3%
W	Water	0.1	0.3%
<b>Totals for Area of Interest</b>		<b>47.3</b>	<b>100.0%</b>

## Map Unit Description (Brief)

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

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

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

## Report—Map Unit Description (Brief)

### State of Connecticut

**Description Category:** SOI

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



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

**Map Unit:** 4—Leicester fine sandy loam

**Leicester Fine Sandy 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 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 Leicester soils. 20 percent minor components. Leicester soils This component occurs on upland drainageway and depression landforms. The parent material consists of melt-out till 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 poorly drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 9 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 4w Typical Profile: 0 to 7 inches; fine sandy loam 7 to 10 inches; fine sandy loam 10 to 18 inches; fine sandy loam 18 to 24 inches; fine sandy loam 24 to 43 inches; gravelly fine sandy loam 43 to 65 inches; gravelly fine sandy loam

**Map Unit: 15—Scarboro muck**

**Scarboro Muck** 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 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Scarboro soils. 20 percent minor components. Scarboro soils This component occurs on outwash plain terrace, depression, and drainageway landforms. The parent material consists of organic material over sandy glaciofluvial deposits derived from gneiss, granite, and schist. The slope ranges from 0 to 2 percent and the runoff class is very 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 1.98 in/hr (moderately rapid), with about 4.8 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.8 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 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 12 inches; muck 12 to 17 inches; loamy sand 17 to 31 inches; statified sand to loamy fine sand 31 to 72 inches; statified very gravelly coarse sand to loamy fine 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:** 50B—Sutton fine sandy loam, 3 to 8 percent slopes

**Sutton Fine Sandy Loam, 3 To 8 Percent Slopes** This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 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 Sutton soils. 20 percent minor components. Sutton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, gneiss, and schist. 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 moderately well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.5 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 6 inches; fine sandy loam 6 to 12 inches; fine sandy loam 12 to 24 inches; fine sandy loam 24 to 28 inches; fine sandy loam 28 to 36 inches; gravelly fine sandy loam 36 to 65 inches; gravelly sandy loam

**Map Unit:** 60B—Canton and Charlton soils, 3 to 8 percent slopes

Canton And Charlton 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 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 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 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 2e 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 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 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 2e Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam

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

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

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



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

**Map Unit:** 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:** 84C—Paxton and Montauk fine sandy loams, 8 to 15 percent slopes

**Paxton And Montauk Fine Sandy Loams, 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 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 55 percent Paxton soils, 30 percent Montauk soils, 15 percent minor components. Paxton soils This component occurs on upland hill and drumlin landforms. The parent material consists of lodgement till derived from granite, gneiss, and schist. The slope ranges from 8 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 well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 3.4 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is 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 3e Typical Profile: 0 to 8 inches; fine sandy loam 8 to 15 inches; fine sandy loam 15 to 26 inches; fine sandy loam 26 to 65 inches; gravelly fine sandy loam Montauk soils This component occurs on upland hill and drumlin landforms. The parent material consists of sandy lodgement till derived from granite and gneiss. The slope ranges from 8 to 15 percent and the runoff class is low. The depth to a restrictive feature is 20 to 38 inches to densic material. The drainage class is well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), 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 about 27 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 3e Typical Profile: 0 to 4 inches; fine sandy loam 4 to 14 inches; fine sandy loam 14 to 25 inches; sandy loam 25 to 39 inches; gravelly loamy coarse sand 39 to 60 inches; gravelly sandy loam

**Map Unit:** 260B—Charlton-Urban land complex, 3 to 8 percent slopes



**Charlton-Urban Land Complex, 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 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 40 percent Charlton soils, 35 percent Urban Land, 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 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 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 2e 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 Urban Land Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. The slope ranges from 3 to 8 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8

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

**Udorthents-Urban Land Complex** This map unit is in the New England and Eastern New York Upland, Southern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 55 degrees F. (7 to 13 degrees C.) This map unit is 50 percent Udorthents soils, 35 percent Urban Land, 15 percent minor components. Udorthents soils This component occurs on cut (road, railroad, etc.), railroad bed, road bed, spoil pile, urban land, fill, and spoil pile landforms. The slope ranges from 0 to 25 percent and the runoff class is medium. The depth to a restrictive feature varies, but is commonly greater than 60 inches. The drainage class is typically well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 9.0 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.4 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table is greater than 60 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 3e Typical Profile: 0 to 5 inches; loam 5 to 21 inches; gravelly loam 21 to 80 inches; very gravelly sandy loam Urban Land Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. The slope ranges from 0 to 35 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8

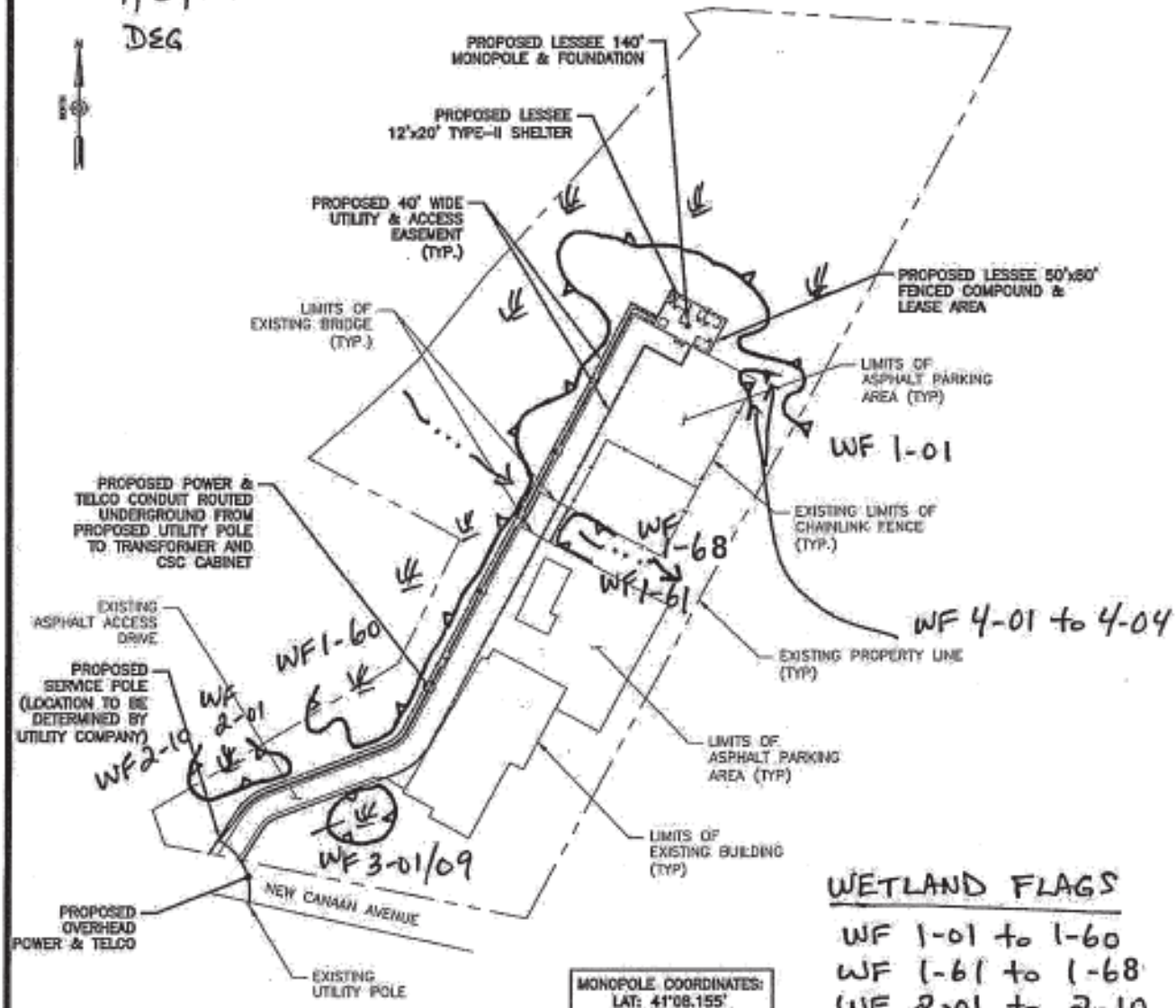
## Data Source Information

Soil Survey Area: State of Connecticut  
Survey Area Data: Version 7, Dec 3, 2009

# WETLAND SKETCH - Vanasse Hangen Brustlin, Inc.

9/3/10

DEG



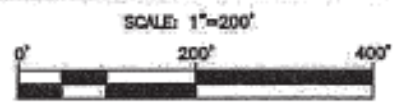
## WETLAND FLAGS

- WF 1-01 to 1-60
- WF 1-61 to 1-68
- WF 2-01 to 2-10
- WF 3-01/3-09
- WF 4-01 to 4-04

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## OVERALL LEASE PLAN 1



<b>Dewberry</b> Dewberry-Goodkind, Inc. A Dewberry Company 59 Elm Street, Suite 101 New Haven, CT 06510 p. (203) 776-2277 f. (203) 776-2288	DGI PROJECT#: 50013469	DRAWING TITLE: <b>OVERALL LEASE PLAN</b>	500 ENTERPRISE DRIVE 3RD FLOOR ROCKY HILL, CT 06867
	REVISION: B	SITE: NATIONAL GUARD ARMORY 284 NEW CANAAN AVENUE NORWALK, CT 06850	
DESIGNED BY: DU	CHECKED BY: BAD	DATE: 2/26/10	