STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION OF NEW CINGULAR WIRELESS PCS, LLC (AT&T) FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS TOWER FACILITY AT WEWAKA BROOK ROAD, BRIDGEWATER, CONNECTICUT

DOCKET NO._____

November 18, 2010

APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

SBA Towers III LLC
One Research Drive, Suite 200C
Westborough, Massachusetts 01581

New Cingular Wireless PCS, LLC
("AT&T")
500 Enterprise Drive
Rocky Hill, Connecticut 06067

LIST OF ATTACHMENTS

1. Statement of Radio Frequency Need with Coverage Plots
2. Site Search Summary with Map Identifying Sites Searched and Existing Tower/Cell Sites Listing
3. Description and Design of Proposed Facility with Drawings, Topographical Map, Aerial Map
4. Bridge Design for Wewaka Brook Crossing
5. Environmental Assessment Statement with Tree Removal Information, Site Data, Power Density Report, and Aeronautical Study (Determination of No Hazard to Air Navigation)
6. Wetlands and Vernal Pools Assessment
7. Visual Analysis Report
8. Correspondence with the Department of Environmental Protection (DEP) and U.S. Fish and Wildlife Service (USFWS) Compliance review
9. Correspondence with the State Historic Preservation Officer (SHPO)
10. Correspondence with the Town of Bridgewater[1]
11. Certification of Service on Governmental Officials including List of Officials Served
12. Copy of legal notice published in the Housatonic Times and The Spectrum; Notice to Abutting Landowners; Certification of Service; List of Abutting Landowners
13. Connecticut Siting Council Application Guide

[1] A Copy of the Technical Report submitted to the Town is included in the Bulk Filing.

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION OF SBA TOWERS III (SBA) AND NEW CINGULAR WIRELESS PCS, LLC (AT&T) FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS TOWER FACILITY AT WEWAKA BROOK ROAD IN THE TOWN OF BRIDGEWATER

DOCKET NO._____

November 17, 2010

APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

I. Introduction

A. Purpose and Authority

Pursuant to Chapter 277a, Sections 16-50g et seq. of the Connecticut General Statutes ("CGS"), as amended, and Sections 16-50j-1 et seq. of the Regulations of Connecticut State Agencies ("RCSA"), as amended, SBA Towers III and New Cingular Wireless PCS, LLC ("AT&T" or the "Applicant"), hereby submits an application and supporting documentation (collectively, the "Application") for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless communications tower facility (the "Facility") in the Town of Bridgewater. The proposed Facility is a necessary component of AT&T's wireless network and its provision of personal wireless communications services to the public in the eastern portion of Bridgewater.

B. Executive Summary

Wireless coverage in the Bridgewater area suffers from significant gaps in service due to the overall lack of wireless infrastructure in this area of the State. In 2007, AT&T identified a site search area centered on the central to southern portion of Bridgewater and Route 133.

AT&T's principal coverage objective as part of this site search was to find a location from which to provide service to residents, businesses and visitors to the Bridgewater area and along Route 133 and other local roads in the area. Upon identification of the site search area, AT&T's real estate personnel conducted field reviews in the area to ascertain the existence of any existing commercial wireless infrastructure, tower sites or other tall structures. Sites were cataloged by AT&T real estate personnel and evaluated by AT&T's radiofrequency engineers. Independently, SBA soon followed with its own investigation for a tower site in this area. Having learned of their independent searches in the area, AT&T and SBA agreed to work together to identify suitable locations for a telecommunications tower facility.

As part of their due diligence, AT&T and SBA also reviewed the Connecticut Siting Council database for any record of telecommunications tower facilities in the Bridgewater area. In this area of Bridgewater, there are no known commercial wireless sites in existence. A rooftop antenna mast at the fire department located in Bridgewater's town center was rejected for use by AT&T based on a lack of adequate coverage to the coverage objective. This location was also previously reviewed by another wireless carrier and at that time the fire department determined that it was not interested in leasing property for a wireless facility.

The tower proposed in this Docket will work in conjunction with the AT&T tower approved in Docket 376 at 24 Dingle Brook Lane in Newtown to the south. An existing State of Connecticut Department of Transportation owned tower to the north could potentially fill in a separate gap in coverage (identified by AT&T as search ring 1252) in the northern portion of Bridgewater. Given the lack of any tall structures or towers to utilize, AT&T and SBA focused on potential properties on which a new tower could be constructed to provide wireless service to the public in this area of the State. Due to difficult terrain in this part of the State, many of the

properties presented by the Applicants real estate personnel for consideration would not enable AT&T to adequately meet the service objectives for the area.

SBA subsequently leased property at the higher elevations of Wewaka Brook Road owned by Mary Allen. The parcel totals approximately 51.2 acres in size and maintains an address of 0 Wewaka Brook Road ("Allen Parcel"). Currently the parcel is largely undeveloped and used for agricultural purposes.[2] The town of Bridgewater identifies the tax parcel on which the tower compound is proposed as 15-3-1. Access to the proposed Facility would be provided by an easement over lands adjacent to Wewaka Brook Road identified as 89 Wewaka Brook Road and owned by Ed and Cynthia Bennett.

The proposed Facility consists of a 170' monopole and associated unmanned equipment located in the northwestern portion of the Allen parcel. AT&T will mount up to twelve (12) panel antennas on a low profile platform at a centerline height of 167' above grade level (AGL). A 12' by 20' equipment shelter will be installed adjacent to the tower within a 45' x 80' fenced gravel compound. Vehicular access to the facility will be provided initially over an existing access drive and dirt road 280' from Wewaka Brook Road, and then over a new 2,215' gravel access drive. Total distance of site access is 2,495 feet. Utilities to serve the proposed facility would extend underground from pole number 1242 on Wewaka Brook Road and generally follow the existing access drive to be improved up to the tower compound location. The site will be constructed for co-location by other carriers.

Included in this Application and its accompanying attachments are reports, plans and visual materials detailing the proposed Facility, the environmental effects associated therewith, a summary of SBA's and AT&T's technical consultation and other correspondence with State and

[2] While it maintains frontage on Wewaka Brook Road, properties in Bridgewater without existing, direct access to an abutting road/street are identified as 0.

local agencies. A copy of the Council's Community Antennas Television and Telecommunication Facilities Application Guide with page references from this Application is also included in Attachment 14.

C. The Applicants

SBA is a Delaware limited liability company. SBA is a subsidiary of SBA Communications Corporation, a publicly traded company and a leading independent owner and operator of wireless infrastructure nationwide. SBA owns and maintains over 7,800 telecommunications facilities nationwide. SBA maintains offices at One Research Drive, Suite 200C, Westborough Massachusetts 01581. SBA will construct and maintain the proposed Facility save for AT&T's equipment and antennas and be the Certificate holder.

New Cingular Wireless PCS, LLC ("AT&T"), is a Delaware limited liability company with an office at 500 Enterprise Drive, Rocky Hill, Connecticut 06067. The company's member corporation is licensed by the Federal Communications Commission ("FCC") to construct and operate a personal wireless services system, which has been interpreted as a "cellular system", within the meaning of CGS Section 16-50i(a)(6). The company does not conduct any other business in the State of Connecticut other than the provision of personal wireless services under FCC rules and regulations.

Correspondence and/or communications regarding this Application shall be addressed to the attorneys for the applicants:

Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
(914) 761-1300
Attention: Daniel M. Laub, Esq.
Christopher B. Fisher, Esq.

A copy of all correspondence shall also be sent to:

AT&T
500 Enterprise Drive
Rocky Hill, Connecticut 06067
Attention: Michele Briggs

SBA
One Research Drive
Suite 200C
Westborough, MA 01581
Attention: Hollis Redding

D. Application Fee

Pursuant to RCSA Section 16-50v-1a(b), a check made payable to the Siting Council in the amount of $1,250 accompanies this Application.

E. Compliance with CGS Section 16-50*l*(c)

Neither AT&T nor SBA are engaged in generating electric power in the State of Connecticut. As such, the proposed Facility is not subject to Section 16-50r of the Connecticut General Statutes. Furthermore, the proposed Facility has not been identified in any annual forecast reports therefore is not subject to Section 16-50*l*(c).

II. Service and Notice Required by CGS Section 16-50*l*(b)

Pursuant to CGS Section 16-50*l*(b), copies of this Application have been sent by certified mail, return receipt requested, to municipal, regional, State, and Federal officials. A certificate of service, along with a list of the parties served with a copy of the Application is included in Attachment 11. Pursuant to CGS 16-50*l*(b), notice of the Applicant's intent to submit this application was published on two occasions in the Housatonic Times and The Spectrum papers of general circulation in the Town of Bridgewater. Copies of the published legal notices are included in Attachment 13. The publisher's affidavits of publication will be forwarded separately. Further, in compliance with CGS 16-50*l*(b), notices were sent by certified, return receipt mail on October 14, 2010 to each person appearing of record as owner of a property

which abuts the property on which the facility is proposed. Certification of such notice, a sample notice letter, and the list of property owners to whom the notice was mailed are included in Attachment 13.

III. Statements of Need and Benefits

A. Statement of Need

As the Council is aware, the United States Congress, through adoption of the Telecommunications Act of 1996, recognized the important public need for high quality telecommunication services throughout the United States. The purpose of the Telecommunication Act was to "provide for a competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies to all Americans." H.R. Conf. Rep. No. 104-458, 206, 104th Cong., Sess. 1 (1996). With respect to wireless communications services, the Telecommunications Act of 1996 expressly preserved State and/or local land use authority over wireless facilities, placed several requirements and legal limitations on the exercise of such authority and preempted State or local regulatory oversight in the area of emissions as more fully set forth in 47 U.S.C. § 332(c)(7). In essence, Congress struck a balance between legitimate areas of State and/or local regulatory control over wireless infrastructure and the public's interest in its timely deployment to meet the public need for wireless services. The importance of wireless service was recently recognized by President Barack Obama. In a December 2, 2009 proclamation, the President proclaimed that cellular phone towers (among other assets) are critical infrastructure vital to the United States. (See Proclamation 8460-Critical Infrastructure Protection Month, December 2, 2009).

The Facility proposed in this Application is an integral component of AT&T's network in its FCC licensed areas throughout the State. Currently, gaps in reliable coverage exist in the

central and southern portion of Bridgewater along Route 133 and other local roads and surrounding areas. The proposed Facility, in conjunction with other existing and proposed facilities in Bridgewater, Southbury and Newtown, is needed by AT&T to provide its wireless services to people living, working and traveling through this area of the State. Attachment 1 of this Application includes a Statement of Radio Frequency ("RF") Need and propagation plots which identify and demonstrate the specific AT&T need for a wireless transmitting facility in this area of Bridgewater.

B. Statement of Benefits

Carriers have seen the public's demand for traditional cellular telephone services in a mobile setting develop into the requirement for anytime-anywhere wireless connectivity with the ability to send and receive voice, text, image and video. Wireless devices have become integral to the telecommunications needs of the public and their benefits are no longer considered a luxury. People today are using their wireless devices more and more as their primary form of communication for both personal and business needs. Modern devices allow for calls to be made, the internet to be reached and other services to be provided irrespective of whether a user is mobile or stationary and provided network service is available. The Facility as proposed by AT&T would allow it and other carriers to provide these benefits to the public.

Moreover, AT&T will provide Enhanced 911 services from the site as required by the Wireless Communications and Public Safety Act of 1999 (the "911 Act"). The purpose of this Federal legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. In enacting the 911 Act, Congress recognized that networks that provide for the rapid, efficient deployment of emergency services would enable faster delivery of emergency care with reduced fatalities and severity of injuries. With each year since passage of the 911 Act,

additional anecdotal evidence supports the public safety value of improved wireless communications in aiding lost, ill or injured individuals such as motorists and hikers. Carriers are simply able to help 911 public safety dispatchers identify wireless caller's geographical locations within several hundred feet, a significant benefit to the community associated with any new wireless site.

C. Technological Alternatives

The FCC licenses granted to AT&T authorize it to provide wireless services in this area of the State through deployment of a network of wireless transmitting sites. The proposed Facility is a necessary component of AT&T's wireless network. Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means of providing coverage within the service area for this site. These technologies are suited for small, specifically-defined areas where new coverage is needed, such as commercial buildings, shopping malls or tunnels or dense urban environments providing supplemental capacity. Closing the coverage gap in central and southern Bridgewater involves the provision of coverage along Routes 133 and providing coverage to the widely dispersed homes in the area. As such, other technologies are not viable as an alternative to the need for a macrocell site in this area of the State. The Applicant submits that there are no effective technological alternatives to construction of a new cell site facility for providing reliable personal wireless services in this area of Connecticut.

IV. Site Selection and Tower Sharing

A. Site Selection

AT&T began its investigation of the area with benchmark drive data on a gap in its wireless coverage in central and southern Bridgewater. AT&T then established a "site search area" in the general geographical location where the installation of a wireless facility would

potentially address the identified coverage problem while still allowing for orderly integration of a site into AT&T's network, based on the engineering criteria of hand-off, frequency reuse and interference avoidance. In any site search area, AT&T seeks to avoid the unnecessary proliferation of towers and to reduce the potential adverse environmental effects of a needed facility, while at the same time ensuring the quality of service provided by the site to users of its network. The search area is largely wooded with low density residential uses and no tall structures were identified that could provide service for AT&T.

AT&T and SBA also searched the Siting Council's database to identify other existing or proposed wireless sites outside of its site search area to understand how they might interact with AT&T's proposed site in Bridgewater. AT&T noted the Connecticut DOT transmission tower on Second Hill Road but has identified that location to service the northern portion of Town. The Second Hill Road Department of Transportation tower location is not a viable alternative to AT&T's proposed tower in this Application.

As such, and only after determining that no existing structures could be used to provide required coverage to this area, AT&T and SBA commenced a search for potential tower sites. The search included review by AT&T radiofrequency engineers and investigative visits by AT&T and SBA real estate personnel. The predominant land use in the search area is single-family residential and agricultural. AT&T reviewed several properties in and out of the search area as potential candidates. For various reasons, a majority of the properties reviewed were rejected by AT&T's radiofrequency engineers due in large part to the intervening terrain that serves to obstruct service to the intended coverage area. As such, and as part of the Applicant's due diligence, one potential tower site was identified; the proposed site located on the Allen Property with access via the Bennett Property.

Of note, AT&T and SBA continued to investigate other locations as suggested as a result of the municipal consultation process. One property included 50 Stuart Road East which could provide service to the area of need, but lease terms could not be agreed upon with the property owner. Another site suggested by the Town was the Town Garage. This site was previously reviewed in 2008 as well. The Town Garage is unable to provide coverage to the south where reliable service is needed and to overlap with AT&T's site approved in Docket 376. Additionally, while not specifically requested by the Town, the fire department property was looked at once again but it was determined once more that this location would not provide the necessary coverage to the south. A nearby property[3] with an address of 000 Hut Hill Road was also examined however it would also not provide service or hand off to sited providing service from the south.

Ultimately, tower siting options in this area are very limited. The proposed tower site location benefits from a higher relative terrain to the major coverage objectives in the area. Additionally, the site's location is such that a tower at the proposed location will reliably provide service along Route 133, including to the Town center and several local roads and numerous properties in the area.

B. Tower Sharing

To maximize co-location opportunities and minimize the potential for towers needed by other carriers, the proposal is for a 170' monopole tower and facility compound that can accommodate at least three additional carriers' antenna platforms and associated equipment.

[3] BTA Map #22 Parcel 1- Tax Address is 000 Hut Hill Road. (West Side of Hut Hill between Sarah Sanford road and Becket road) a/k/a Parcel B on A-2 survey prepared for Hut Hill Bridgewater, LLC filed in the land records.

V. Facility Design

SBA has leased a 10,000 square foot area on a parcel totaling approximately 51.4 acres, owned by Mary Allen and accessed via the property at 89 Wewaka Brook Road owned by Ed and Cynthia Bennett. The proposed Facility would consist of a 170' high self-supporting monopole within a 45' x 80' fenced equipment compound located in the northwestern portion of the property. AT&T would install up to twelve (12) panel antennas on a platform at a centerline height of approximately 167'AGL and unmanned equipment within the compound. The compound would be enclosed by an 8' tall chain link fence.

Both the monopole and the equipment compound are designed to accommodate the facilities of at least three other wireless carriers. Vehicle access to the compound will extend from Wewaka Brook Road westerly along an existing access drive and over a bridge which is proposed to be replaced. Access then proceeds over a new gravel access drive a total distance of approximately 2,495' to the proposed compound. Utilities to serve the proposed facility would extend underground from pole number 1242 on Wewaka Brook Road and generally follow the access drive to the site.

Attachments 3, 4, 5, 6 and 7 contain the specifications for the proposed Facility. Included in attachment 3 are an abutters map, site access maps, a compound plan, tower elevation, replacement bridge plan and other relevant details of the proposed Facility. Attachment 4 includes the preliminary design for the proposed bridge replacement. Attachment 5 is an environmental assessment statement followed by a Preliminary Wetlands and Vernal Pools Assessment included as Attachment 6. Attachment 7 is a Visual Resource Evaluation Report. Some of the relevant information included in Attachments 3 through 7 reveals that:

- The property is classified locally in the Town of Bridgewater RR4 zoning district;

- Grading and clearing of the proposed access drive and compound area as well as replacement of the existing bridge over Wewaka Brook would be required for the construction of the proposed Facility;
- Design of all proposed drainage improvements, would comply with the ConnDOT Drainage Manual and meet all requirements specified therein;
- The proposed access drive improvements will allow safe access by emergency vehicles;
- All impacts to local wetland resources have been avoided to the maximum extent possible;
- Where wetlands cannot be avoided the proposal limits permanent and temporary impacts to the maximum extent possible;
- The proposed Facility will have minimal impact on water flow, water quality, or air quality;
- Year-round, above the tree canopy visibility of the proposed tower is limited to approximately 64 acres (less than 1%) of the more than 8,000 acre study area
- Seasonal visibility is limited to 60 acres (less than 1%) of the more than 8,000 acre study area;
- After review of a habitat evaluation, the Connecticut Department of Environmental Protection ("DEP") determined that there are no known extant populations of Federal or State endangered, threatened or special concern species occurring at the site.
- The State Historic and Preservation Officer has determined, after a site visit and balloon float, that a tower at the proposed location will have no adverse effect on historic or cultural resources.

VI. Environmental Compatibility

Pursuant to CGS Section 16-50p, the Council is required to find and to determine as part of the Application process any probable environmental impact of the facility on the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forest and parks, air and water purity and fish and wildlife. As demonstrated in this Application and the accompanying Attachments and documentation, AT&T and SBA submit that the proposed Facility will not have significant adverse environmental effects and/or any such effects are unavoidable in this area of the State in providing reliable service to the public.[4]

A. Visual Assessment

It is anticipated that the proposed 170' tall monopole will be visible from approximately 124 acres within the 8,042 study area, with approximately half being year-round and half seasonal coming in a leaf-off condition. The majority of anticipated year-round visibility occurs over portions of Skyline Ridge Road, Hut Hill Road, Northrop Road, and Stuart Road. Overall, intervening topography, and/or existing vegetation serve to significantly minimize the potential for year-round views of the proposed Facility. Included in Attachment 7 is a Visual Analysis Report which contains a viewshed map and photosimulations of off-site views. As shown in the report and photosimulations, most areas of visibility are expected distant to the site. Weather permitting, SBA will raise a balloon with a diameter of at least three (3) feet at the proposed Site on the day of the Council's first hearing session on this Application, or at a time otherwise specified by the Council.

B. Historic and Habitat Assessments

[4] The Applicants' environmental assessment includes additional follow up and updated consultation with various municipal, State and Federal governmental entities required for the Facility design updates.

Various consultations with municipal, State and Federal governmental entities and AT&T consultant reviews for potential environmental impacts are summarized and included in Attachments 7, 8 and 9. Project consultants submitted requests for review from Federal, State and Tribal entities including the United States Fish & Wildlife ("USFW") Service, the Connecticut State Historic Preservation Officer ("SHPO") and the Connecticut Department of Environmental Protection ("DEP").

SBA's consultants conducted a preliminary habitat evaluation and submitted the results to DEP for review. In correspondence dated June 11, 2010, the DEP determined that there are no known extant populations of Federal or State endangered, threatened or special concern species occurring at the site. DEP's response are included in Attachment 8.

SBA's consultants provided SHPO with data regarding the lack of visibility of the proposed Facility from any historic resources. At SHPO's request a site visit and special balloon float (with a 3-foot weather balloon raised to the height of the proposed tower) were arranged for on September 23, 2010. Subsequent to this visit and balloon float SHPO issued a "no effect" determination which is included in Attachment 10.

C. Power Density

In August 1996, the FCC adopted a standard for exposure to Radio Frequency ("RF") emissions from telecommunications facilities like those proposed in this Application. To ensure compliance with applicable standards, a maximum power density report was produced by AT&T and is included herein as part of Attachment 4. As demonstrated in this report, the calculated worst-case emissions from the site are only 4.56% of the MPE standard.

D. Access Drive, Bridge Replacement and Wetlands/Vernal Pool Assessment

The proposed access drive and compound area will require clearing and grading. Approximately 102 trees with a diameters of six inches or greater at breast height will be

removed for the construction of the access drive and compound. The design of all drainage improvements will be done in accordance with the ConnDOT Drainage Manual and meet the criteria specified.

In addition to the improvements for the proposed access drive, replacement of the existing bridge over Wewaka Brook, a perennial stream, is proposed to provide safe access for emergency vehicles, site technicians and heavy construction equipment to the proposed Facility. The existing bridge will not accommodate the design load and dimensional requirements for construction and equipment access for the proposed development. The existing stream banks are vegetated, in some cases with invasive species, and in some cases armored with stone, but there is some erosion of these banks including along concrete abutments supporting the existing bridge. Details of a proposed temporary crossing ("Crossing") as well as the proposed bridge, including an analysis of the mitigation of potential environmental impacts of these activities, are included in Attachments 4, 5 and 6.

The Crossing design utilizes culverts placed in Wewaka Brook to fill in the narrowest portion of the waterway to provide access during demolition of the existing bridge and construction of the new bridge. Located immediately to the south of the existing bridge, the Crossing will temporarily impact 400 square feet of stream resource and once the bridge is completed the bed and banks of Wewaka Brook will be properly restored with native stream be materials and native plantings. Demolition and construction activities will be completed in a manner to avoid and minimize work in Wewaka Brook. The replacement bridge will be of a pre-cast concrete design including new footings, abutments, and deck. Upon completion the bridge's span between abutments will increase by 10' over existing conditions for a total of 26' (5' on either side of the existing stream). As set forth in the Preliminary Wetlands and Vernal Pools

Assessment in Attachment 6, this increase in width offers two advantages over existing conditions: the hydraulic opening will be increased for Wewaka Brook and the abutments will now be pulled back out of the waterway and protected from deterioration. Overall the design minimizes impacts to Wewaka Brook as it significantly reduces and limits construction time and disturbance generally.

In addition to the proposed Crossing and replacement bridge over Wewaka Brook, the access drive will have some direct impact on two other wetlands resources. These are identified in the Preliminary Wetlands and Vernal Pools Assessment as Wetlands 3 and 4. In both cases, direct impacts and design in the wetlands were avoided as much as conditions allowed. Where improvements in the wetlands were required, direct impacts were coupled with mitigation measures to avoid and limit adverse impacts to the maximum extent possible. Wetland 3 is a relatively narrow headwater palustrine forested wetlands conveying seasonal hillside seepage and surface flow south through an intermittent watercourse channel. An existing woods trail currently courses through Wetland 3 and the proposed 12' wide gravel access drive would utilize this same route. Total direct impact to Wetlands 3 would be approximately 818.5 square feet including the installation of a new culvert and road fill material. An additional 250 square feet of Wetland 3 would be impacted temporarily during road construction. Details of the proposed improvements and mitigation measures are included in Attachments 3 and 6.

Wetlands 4 is a palustrine wetland with forested, scrub/shrub, wet meadow and agricultural disturbed habitats. An existing trail/track courses through Wetland 4. The proposed access drive veers from this existing route to skirt around the south of this wetlands to avoid crossing this wetland as much as possible while linking up with the existing trail/track on the west side of Wetland 4. This route does not avoid Wetland 4 entirely, but will result in only

approximately 62.6 square feet of permanent wetland impact, with an additional 150 square feet of temporary impact during construction. The associated impacts occur immediately adjacent to an existing gravel drive characterized by existing disturbed areas.

Three other wetlands on the property identified as Wetlands 1, 2 and 6 will experience no direct or indirect impacts as a result of the proposed Facility. It should be noted that Wetlands 1 and 2 were surveyed and confirmed as vernal pools. Accordingly, project consultants conducted an impact analysis to analyze the potential impact the project could have on these vernal pools and the surrounding upland habitat. This is included in Attachment 6 and incorporated in the Preliminary Wetlands and Vernal Pools Assessment. This assessment finds that the "proposed project will not result in direct physical impact to the nearby vernal pools". Indeed, while both vernal pools currently warrant the highest conservation priority rating of "Tier 1", the results of the analysis demonstrate that the proposed development "will not result in further degradation of the existing tier rating or the terrestrial habitat integrity of either Vernal Pool 1 or 2 due to the small area of disturbance created within the Critical Terrestrial Habitat (100 to 750 feet from the pool's edge) by the proposed project and avoidance of any impact to the 100 foot Vernal Pool Envelope." In addition to the limited amount of disturbance, the facility will be unmanned and thus required no water or septic connections further limiting any impact.

E. Other Environmental Factors

The proposed Facility would be unmanned, requiring monthly maintenance visits approximately one hour long. AT&T's equipment at the Facility would be monitored 24 hours a day, seven days a week from a remote location. The proposed Facility does not require a water supply or wastewater utilities. No outdoor storage or solid waste receptacles will be needed. Further, the proposed Facility will not generally create or emit any smoke, gas, dust or other air

contaminants, noise, odors or vibrations other than installed heating and ventilation equipment. Temporary power outages could require the limited use of equipment batteries and provisions have been made for a permanent on-site diesel fuel generator. Overall, the construction and operation of the proposed Facility will have no significant impact on the air, water, or noise quality of the area.

A "Determination of No Hazard to Air Navigation" was obtained from the Federal Aviation Administration ("FAA") and is included in Attachment 5. Aeronautical Study number 2010-ANE-672-OE notes that neither marking and lighting nor registration are necessary for this facility. As such, no FAA tower lighting or marking are proposed as part this Application.

The proposed facility has also been reviewed in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969 ("NEPA"). The Site was not identified as a wilderness area, wildlife preserve, National Park, National Forest, National Parkway, Scenic River, State Forest, State Designated Scenic River or State Gameland. Further, according to the site survey and field investigations, no Federally regulated wetlands or watercourses or threatened or endangered species will be impacted by the proposed Facility. Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps of the proposed site indicate that the Site is not located within a 100 year or 500 year floodplain.

VII. Consistency with the Town of Bridgewater's Land Use Regulations

Pursuant to the Council's Application Guide, included in this section is a narrative summary of the consistency of the project with the local municipality's zoning and wetland regulations and plan of conservation and development. A description of the zoning classification of the Site and the planned and existing uses of the proposed site location are also detailed in this Section.

A. Bridgewater's Plan of Conservation and Development

The Bridgewater Plan of Conservation and Development, dated February 2001, does not addresses wireless facilities under its consideration of utilities, nor even generally. See Bulk Filing, Section 1.

B. Town of Bridgewater's Zoning Regulations and Zoning Classification

The Site is classified in the Town of Bridgewater's RR4 Zoning District. The Town of Bridgewater Zoning Regulations Section 5.11 is entitled "Telecommunications Facilities". (See Town of Bridgewater Zoning Regulations, Applicant's Bulk Filing, Section 2). Consistency of the proposed Facility with the substantive provisions of this section is set forth in the table below. The first two columns include the guidelines and the third column applies these standards to the proposed monopole Facility.

C. Local Zoning Guidelines and Dimensional Requirements

Section from the Zoning Regulations	**Standard or Preference**	**Proposed Facility**
5.11.06(a)(1) Height	Towers shall be no taller than necessary to reasonable accommodate the proposed use	The proposed tower height is required to provide services to the targeted coverage area
5.11.06(a)(2) Location	Applications should include a review of the search for and reason to use the proposed locations as well as review alternative/existing locations.	An exhaustive site search was conducted that included existing and approved structures, towers within and outside of the search area and sites suggested by Town representatives.
5.11.06(a)(3) Fall Zone	Provide a fall zone entirely located on the parcel (or on adjoining parcels with owners consent).	The proposed tower is setback from adjoining property lines a distance greater than the distance of the tower.
5.11.06(a)(4) Co-Location	Provide space for collocation of at least two (2) other carriers if the tower is over 100' in height.	The proposed Facility, which is over 100' in height, is designed to accommodate up to three (3) carriers in addition to AT&T.
5.11.06(b)(1) Visibility	Adequate evidence that the visibility of the proposed	The proposed Facility will be visible from various vantage points in the community but

	telecommunications facilities from surrounding areas has been minimized to the extent possible (including provision of a viewshed analysis, balloon float and other methods). No lights shall be on the tower unless required.	will not have a detrimental impact to any documented scenic area or vista. A viewshed and photosimulations were provided to the Town as part of the technical report and as part of this application. A balloon float was conducted on notice to the Town and will also be conducted at the Siting Council's hearing on this matter. No tower lighting is proposed.
Section from the Zoning Regulations	**Standard or Preference**	**Proposed Facility**
5.11.06(b)(2) Safety	The facility must comply with state and federal requirements regarding electromagnetic emissions and aviation safety and not interfere with public safety communications	The proposed facility complies with applicable state and federal radio frequency emissions standards. The proposed facility poses no hazard to air travel and no tower lighting is required or proposed. No interference with other FCC licensed operators is anticipated and any interference issues will be properly responded in accordance with FCC regulations.
5.11.06(b)(3) Protection of Natural and Historic Resources	Consider the extent to which the proposed telecommunications facility may unreasonably harm or otherwise affect any natural or historic resources on or near the lot on which the facility has been proposed and demonstrate that such resources have been considered in formulating the proposal for the facility.	SBA and AT&T have conducted an in depth analysis of potential impacts to the natural and historic resources of the proposed tower site. The location itself will not impact any critical wildlife habitats or historic or archaeological resources. The DEP determined that there are no known extant populations of Federal or State endangered, threatened or special concern species occurring at the site. SHPO issued a "no effect" determination regarding historic or archaeological resource. Wetlands impacts have been avoided and mitigated to the extent practicable.

D. Planned and Existing Land Uses

Properties immediately surrounding the subject site include low-density single family residential homes, agricultural uses and properties owned by land trusts. Consultation with municipal officials did not indicate any planned changes to the existing or surrounding land uses. One new residence is proposed to be built on the property approximately 1,556' immediately to

the south of the proposed facility. A copy of the Town's Zoning Map is included in the accompanying Bulk Filing.

E. Town of Bridgewater's Inland Wetlands and Watercourses Regulations

The Town of Bridgewater's Inland Watercourses Regulations ("Local Wetlands Regulations") regulate certain activities conducted in "Wetlands" and "Watercourses" and "Buffer Areas" as defined therein. Wetlands are delineated on the property as noted above. The Town of Bridgewater upland review area ("Buffer" area) includes those areas 100' from a wetland or watercourse. Attachment 6 includes a Preliminary Wetlands and Vernal pools Assessment providing an analysis of on-site wetlands including maps and photos of on-site wetlands and finds that the proposed activities will not result in adverse impacts to wetland resources.

VIII. Consultations with Local Officials

CGS Section 16-50*l*(e) requires an applicant to consult with the municipality in which a proposed facility may be located and with any adjoining municipality having a boundary of 2,500 feet from the proposed facility concerning the proposed facility. A Technical Report was filed with the Bridgewater First Selectman on July 16, 2010. A public information session was coordinated with the First Selectman's office and held on September 6, 2010 in Bridgewater. Representatives of the Bridgewater Board of Selectmen as well as members of the public attended the public information session. Representatives of SBA, AT&T and consultants invovled with the project including radio frequency engineers, soil scientist, visual impact analyst, site acquisition specialists and project engineer and counsel for the Applicants were in attendance. The Applicants' team conducted a power point presentation that included information provided in the Technical Report and also answered numerous questions from Town officials and public.

Subsequent to the public information session, AT&T conducted a balloon float at the site to gather additional visual data in conjunction with a request from SHPO. Representatives of AT&T notified the Town in advance of balloon float and notice was included on the Town's website. Subsequently, the First Selectman requested a delay of the submission of the application so that the Inlands Wetlands Commission could conduct a site visit and provide its comments and recommendations to the Applicant. A site visit with the Wetlands Commission was held on Tuesday October 5, 2010. No written comments or recommendations have been received to date as a result of the technical report submission, the balloon float or the site visit with wetlands commission members.

The municipal consultation did result in a few suggested alternative sites that were investigated by SBA and AT&T. The First Selectman and a few members of the public provided information regarding properties for evaluation as alternative sites. The alternatives suggested included the Town Garage and a property across the street from the Fire Department and property located at 50 Stuart Road East. AT&T and SBA had investigated most of these suggested sites previously. It was determined that due to their locations, neither the Town Garage, the fire department property or parcels nearby the fire department property would provide service to the area where coverage is needed. Mr. Wright was contacted again to gauge interest and lease terms could not be negotiated. Copies of correspondence with the Town of Bridgewater are included in Attachment 10.

IX. Estimated Cost and Schedule

A. Overall Estimated Cost

The total estimated cost of construction for the proposed Facility is $485,000, including:

(1) Tower and foundation costs (including installation) of approximately $100,000;

(2) Site development costs of approximately $200,000;

(3) Utility installation costs of approximately $90,000; and

(4) Facility installation costs of approximately $95,000.

B. Overall Scheduling

Site preparation work would commence immediately following Council approval of a Development and Management ("D&M") Plan and the issuance of a Building Permit by the Town of Bridgewater. The site preparation phase is expected to be completed within ten to twelve weeks. Installation of the monopole, antennas and associated equipment is expected to take an additional two weeks. The duration of the total construction schedule is approximately twelve to fourteen weeks. Facility integration and system testing is expected to require an additional two weeks after the construction is completed.

X. Conclusion

This Application and the accompanying materials and documentation clearly demonstrate that a public need exists in the eastern portion of Bridgewater and surrounding areas for the provision of wireless services to the public by AT&T and other wireless carriers. Further, that a new tower facility is required to effectively and reliably provide such services to the public. The Application also documents the significant terrain limitations and therefore limited tower siting options in this part of the State in providing services to the public. The Applicants submit that the proposed Facility on Wewaka Brook Road will not have any substantial adverse environmental effects and/or that any such effects are unavoidable and can be mitigated to the maximum extent possible. As such, the Applicants respectfully submit that the public need for the proposed Facility outweighs any potential environmental effects resulting from the construction of the proposed Facility such that a Certificate of Environmental Compatibility and Public Need should be issued for the proposed wireless telecommunications facility at Wewaka Brook Road in the Town of Bridgewater.

Respectfully Submitted,

By: _____

Christopher B. Fisher, Esq.
Daniel M. Laub, Esq.
Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
(914) 761-1300
Attorneys for the Applicant

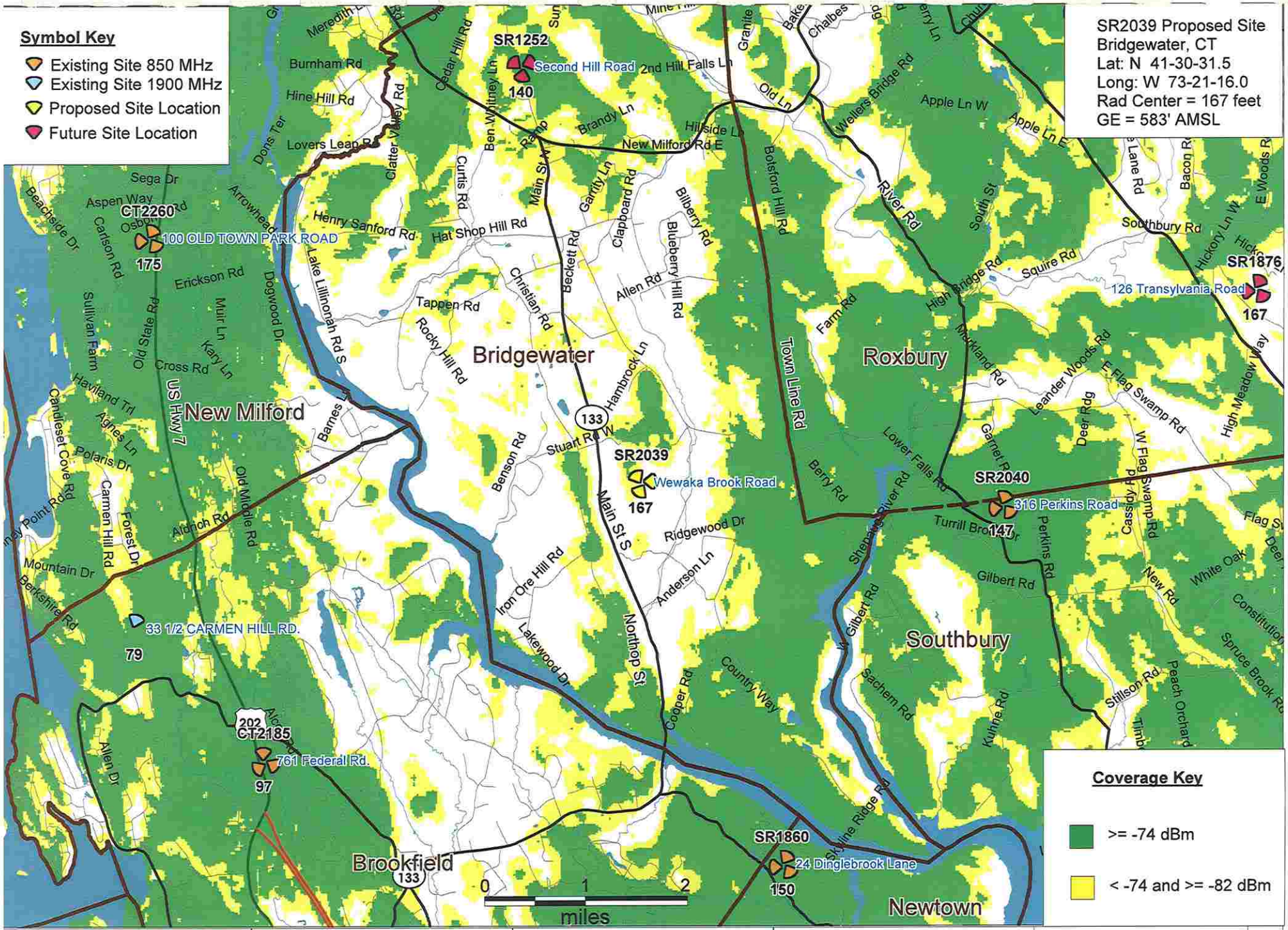
Statement of Public Need

The proposed facility will provide wireless communications service along State Route 133 and other roads and properties in the surrounding area in Bridgewater. The facility is needed by AT&T in conjunction with other existing and proposed facilities to provide service to the public. Attached are coverage plots which depict the coverage provided by AT&T's existing and proposed facilities in this area of the state as well as the coverage from the proposed facility predicted with existing coverage from adjacent and proposed sites. Also included are a topographical map and a 3-Dimensional terrain map both depicting the varied topography of the area. Additionally, a chart and map containing information regarding surrounding existing and proposed wireless communications sites is attached. No existing or approved tower sites will serve the area of need in this part of the Town of Bridgewater. As demonstrated by these materials, a facility in this area of Bridgewater is required for AT&T to reliably serve the public.

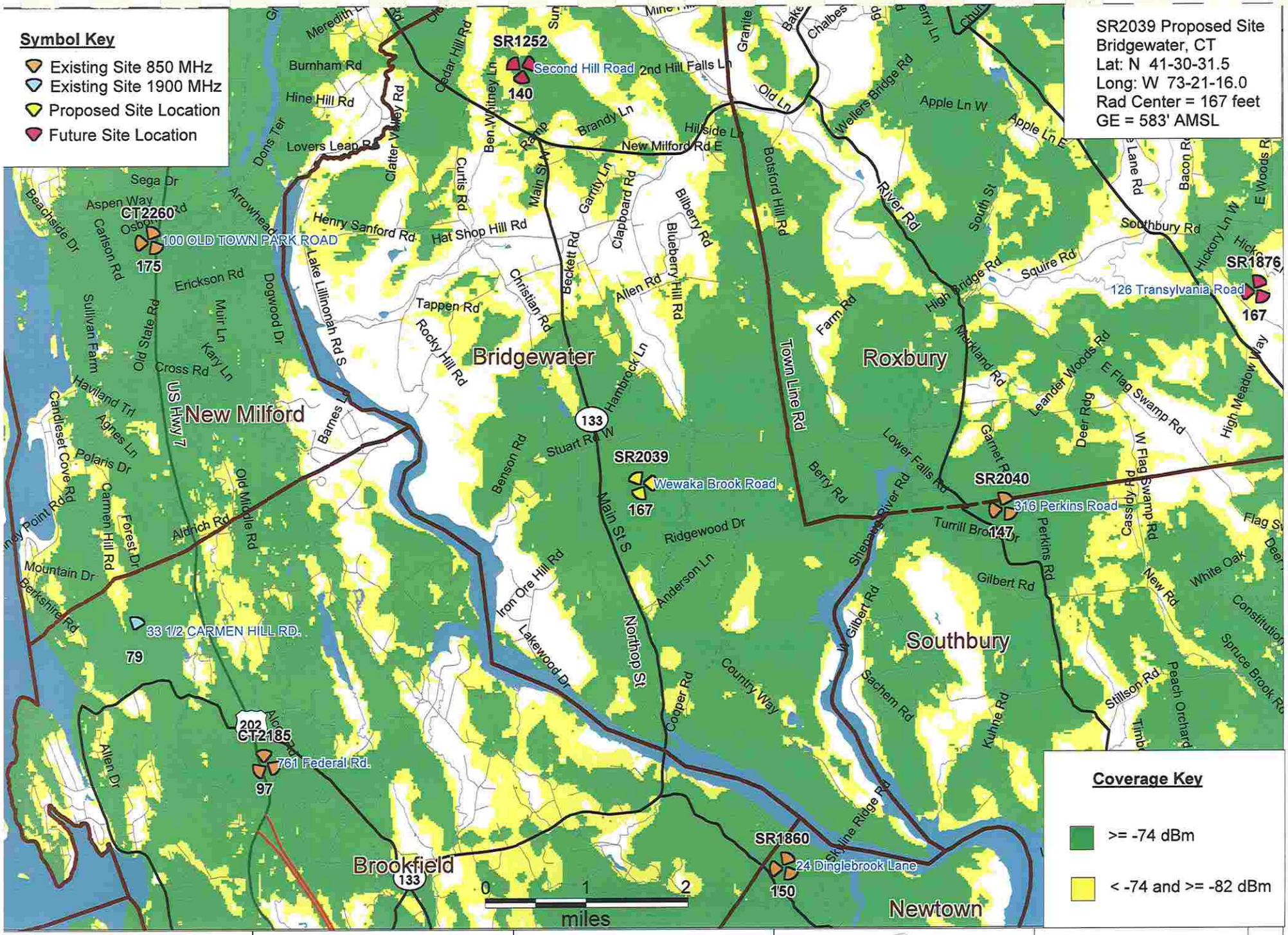
Existing Tower/Cell Site Listing

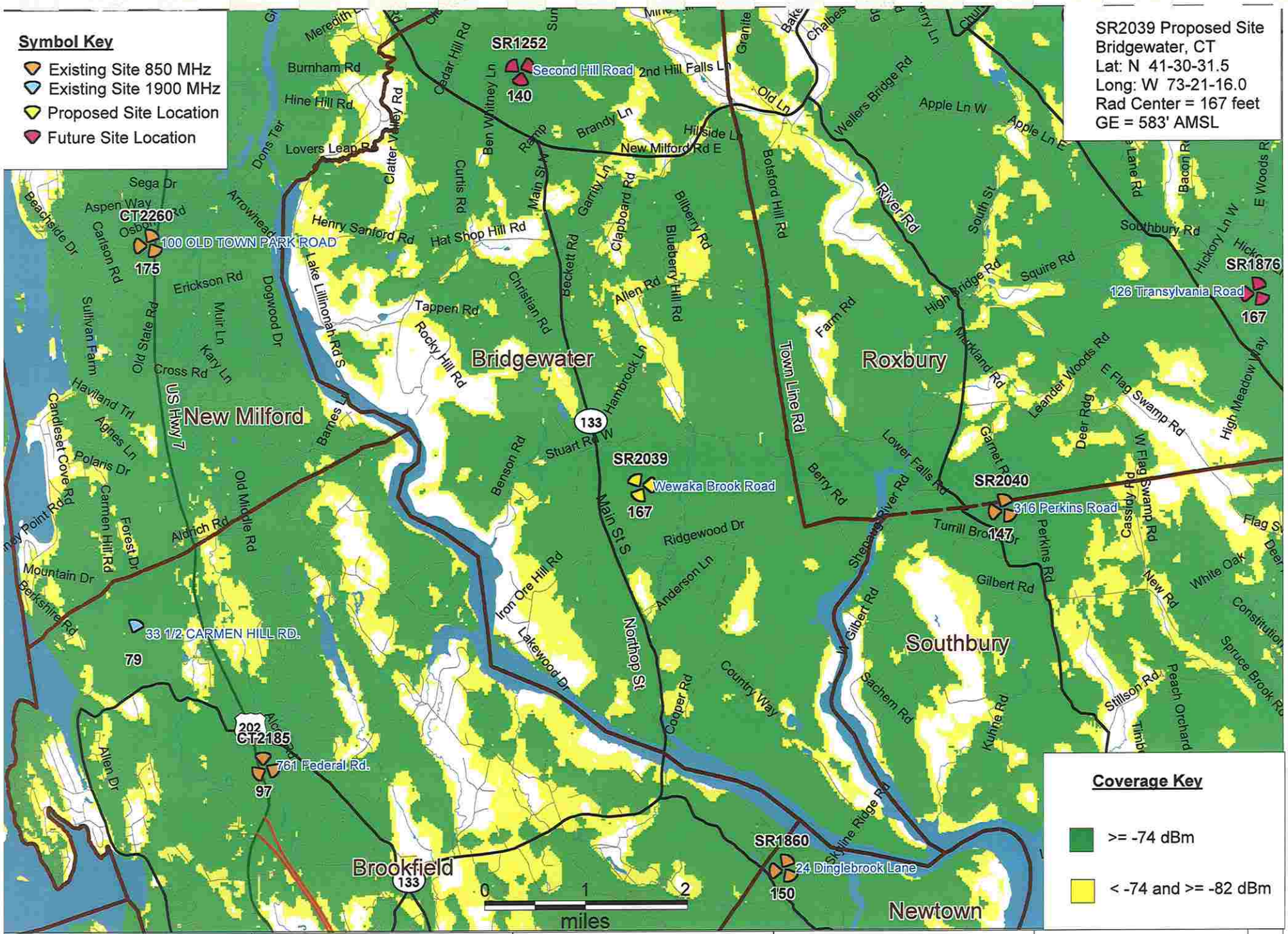
There are twelve (12) communications facilities located within approximately four (4) miles of the site search area for the proposed site in Bridgewater, including eight (8) towers and four "power mounts" located on CL&P infrastructure. Each location is also shown on the following map. None of the existing facilities set forth below would provide adequate and reliable coverage to the target area. Indeed, many of the towers listed are currently being used or considered for use by AT&T to provide service outside of the area targeted for service for this proposed Bridgewater Facility.

Tower Owner	Address	Height	Tower Type	Lat	Long	Source
Charter Communications	39 Carmen Hill Road, Brookfield	80'	Self-supporting lattice	41-29-35	73-25-37	CSC Web page
Aurora of Danbury	39 Carmen Hill Road. Brookfield	500'	Guyed lattice	41-29-36.26	73-25-43.65	CSC Database/FAA Webpage/Field Review
CL&P	761 Federal Road, Brookfield	91'	Power mount	41-28-44	73-24-30	CSC Database/Field Review
VoiceStream	586 Danbury Road, New Milford	99'	Flagpole	41-30-16.2	73-25-13.44	CSC Database/Field Review
DPS	W. Flagg Swamp Road, Southbury	180'	Self-supporting lattice	41-30-24	73-17-02	CSC Database/Field Review
Cingular (AT&T)	24 Dinglebrook Lane, Newtown	150'	Monopole	41-28-1.01	73-20-2.05	CSC Database/Field Review
State of CT	Second Hill Road, Bridgewater	100'	Monopole	41-33-16.5	73-22-20	Field Review
Town of Bridgewater Fire Department	Main Street South, Bridgewater	65'	Telephone pole	41-31-53.6	73-21-54.6	Field Review
SBA	2 Huckleberry Hill Road, Brookfield	60'	Flagpole	41-27-8.6	73-24-14.06	CSC Web page
CL&P (structure #10183)	Hilltop View Lane, New Milford	130'	Power mount	41-32-23.96	73-25-34.28	CSC Database/Field Review
CL&P (structure #10184)	18 Hilltop View Lane, New Milford	150'	Power mount	41-32-17.32	73-25-33.1	CSC Database/Field Review
CL&P (pole # 10185)	5 Old Town Park Road, New Milford	160'	Power mount	41-32-9.38	73-25-32.41	CSC Database/Field Review
Nextel	35 Lower County Road, Roxbury	180'	Self-supporting lattice	41-33-33	73-17-33	CSC Database/FAA Webpage/Field Review

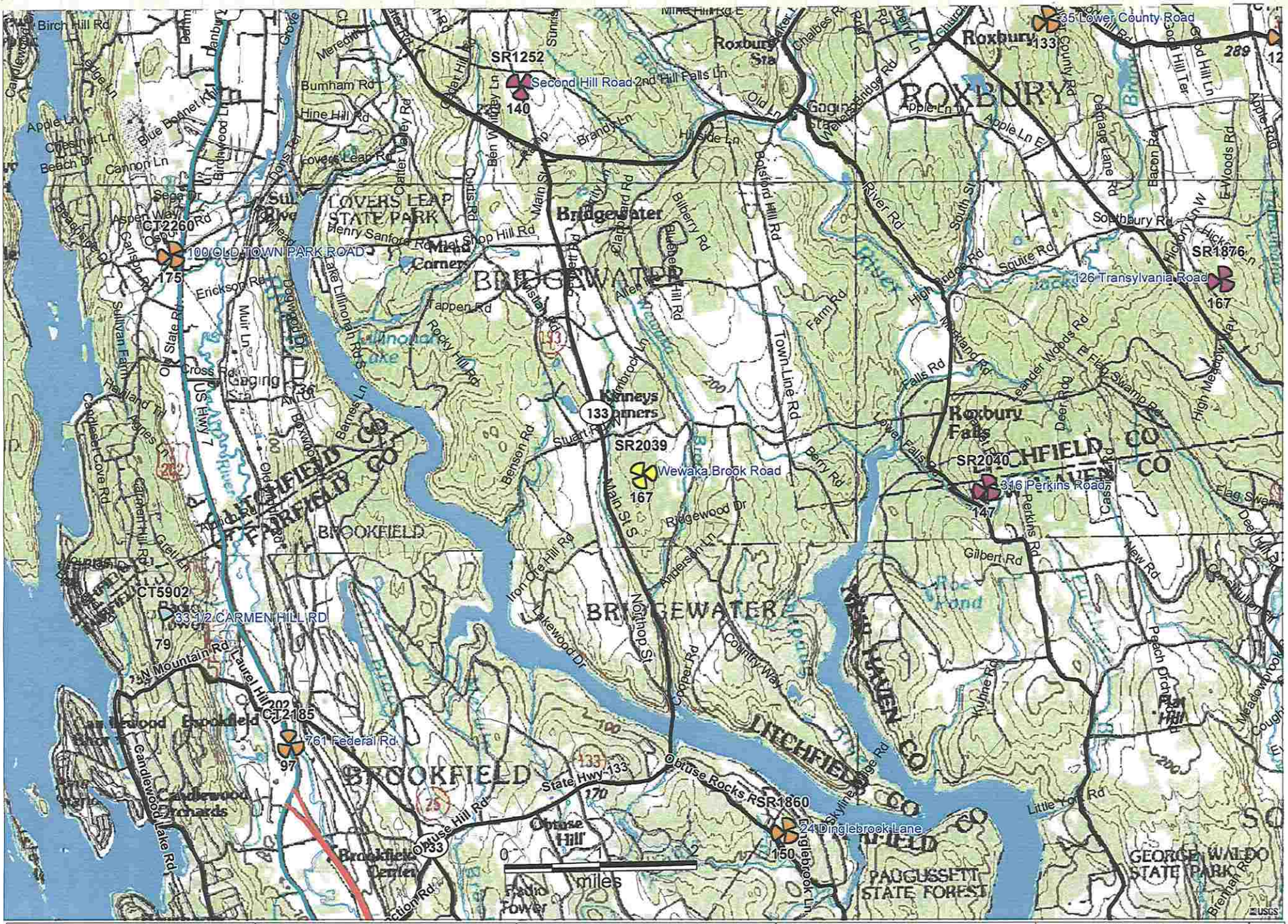


Existing Coverage	**Bridgewater South**	**Wewaka Brook Road** **Bridgewater CT 06752**	at&t	PREPARED ON DATE: 11/16/2010 REV 0

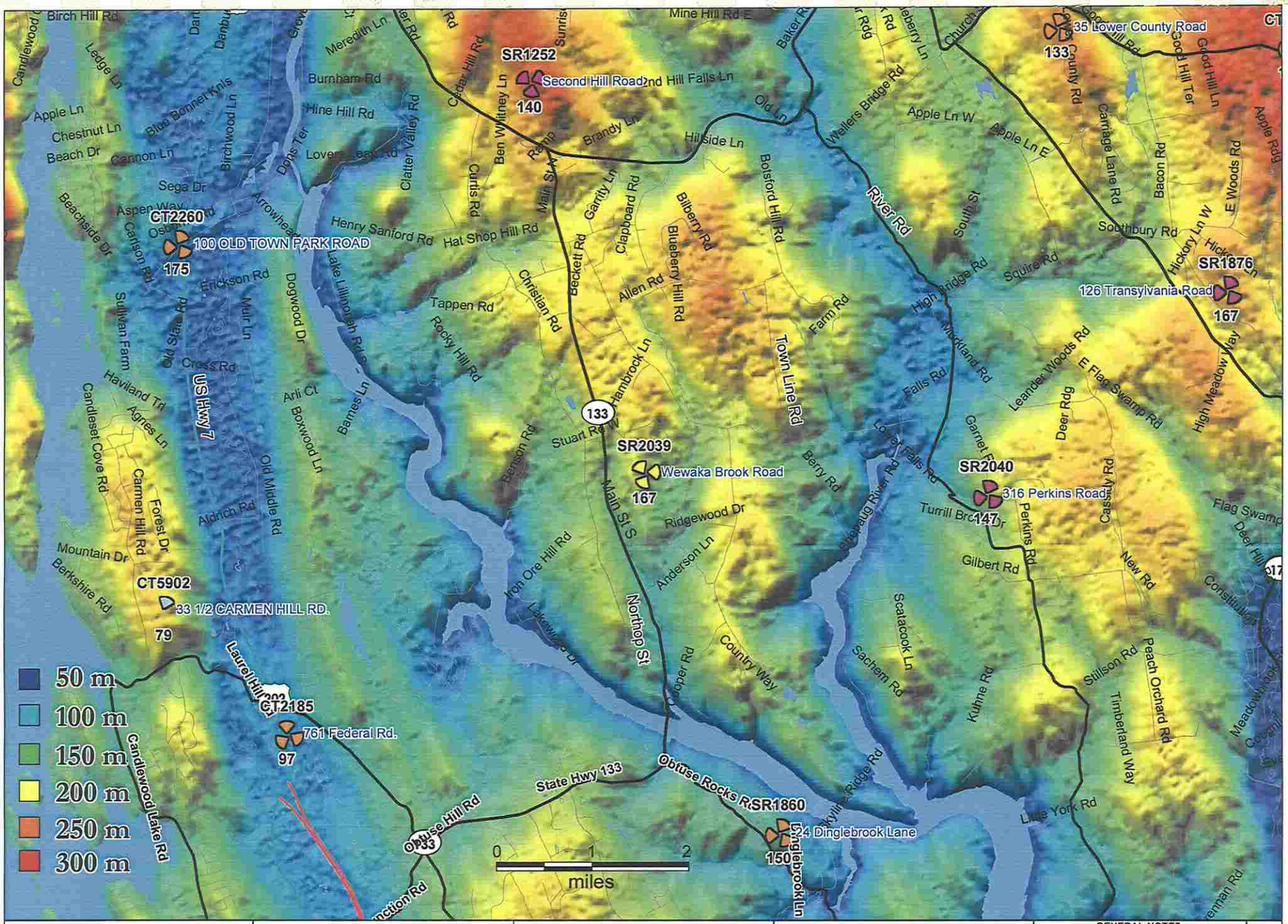

Symbol Key
Existing Site 850 MHz
Existing Site 1900 MHz
Proposed Site Location
Future Site Location
SR2039 Proposed Site
Bridgewater, CT
Lat: N 41-30-31.5
Long: W 73-21-16.0
Rad Center = 167 feet
GE = 583' AMSL
SR1252
Second Hill Road
140
CT2260
100 OLD TOWN PARK ROAD
175
SR1876
126 Transylvania Road
167
SR2039
Wewaka Brook Road
167
SR2040
316 Perkins Road
147
33 1/2 CARMEN HILL RD.
79
CT2185
761 Federal Rd.
97
SR1860
24 Dinglebrook Lane
150
Bridgewater
Roxbury
New Milford
Southbury
Brookfield
Newtown
133
202
US Hwy 7
0 1 2
miles
Coverage Key
>= -74 dBm
< -74 and >= -82 dBm
Existing & Proposed Coverage
Bridgewater South
Wewaka Brook Road
Bridgewater CT 06752
at&t
PREPARED ON
DATE: 11/16/2010
REV 0



Existing & Proposed & Future Coverage	**Bridgewater South**	**Wewaka Brook Road** **Bridgewater CT 06752**	at&t	PREPARED ON DATE: 11/16/2010 REV 0



Topo	**Bridgewater South**	**Wewaka Brook Road** **Bridgewater CT 06752**	at&t	GENERAL NOTES PREPARED ON DATE: 10/18/2010 REV 0



3-D Terrain	Bridgewater South	Wewaka Brook Road Bridgewater CT 06752	at&t	GENERAL NOTES PREPARED ON DATE: 10/18/2010 REV 0

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DeLorme

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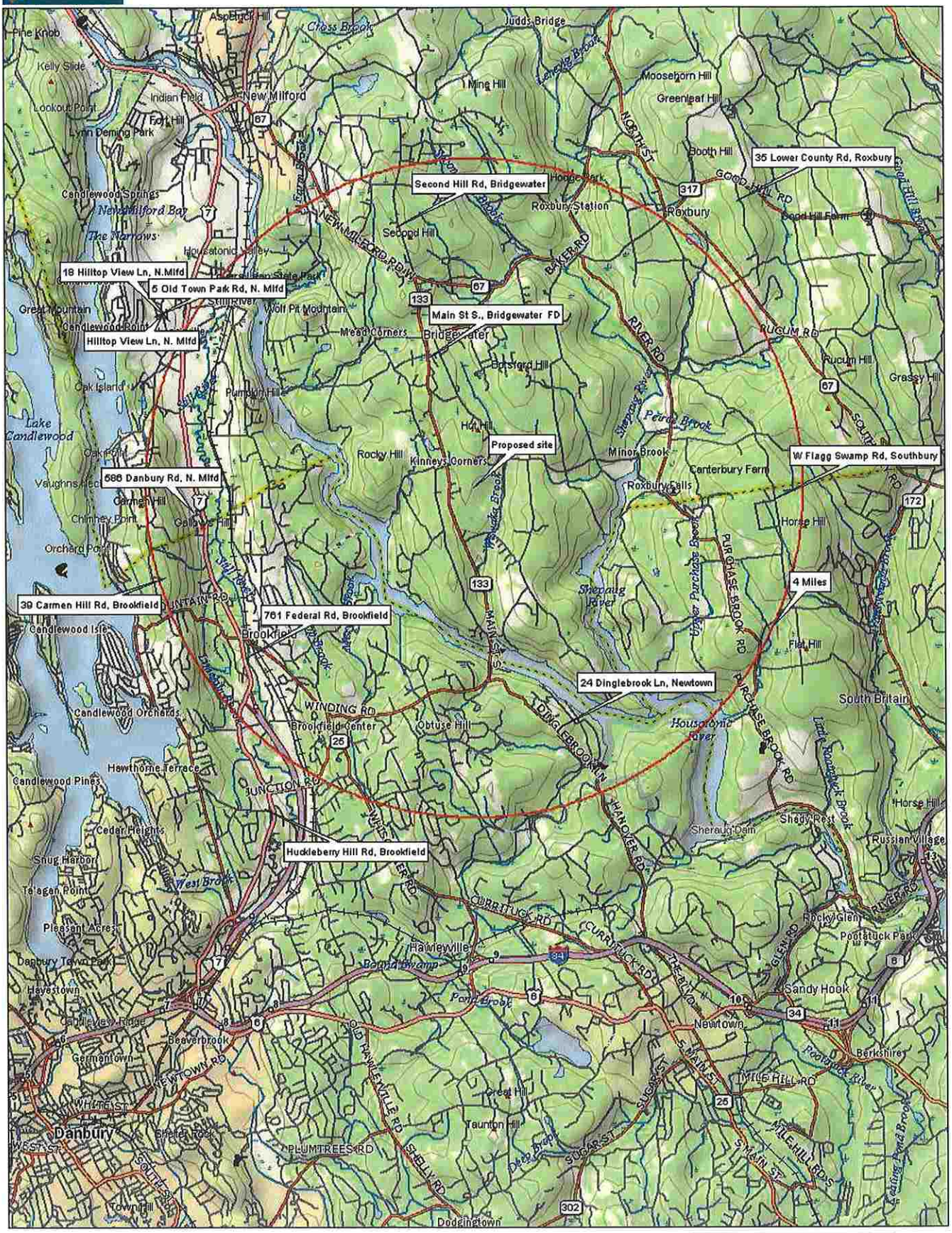

Data use subject to license.

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www.delorme.com

MN (13.6° W)

0 ½ 1 1½ 2 2½ mi

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Site Search Summary

As noted in "Section 1" of this Report, there are no existing towers or structures within four (4) miles of the targeted search area which would sufficiently address the coverage deficiencies in AT&T's network.

In addition to assessing the feasibility of utilizing existing communication facilities, representatives for SBA and AT&T also identified and investigated fourteen (14) potential new sites/areas for the construction of a new tower wireless facility. A description of each site investigated is set forth below. Where applicable, the reason for eliminating the property from further consideration is also included.

1. 50 Stuart Rd East, Assessor Parcel #14-31: SBA investigated the possibility of locating the proposed facility on this property. SBA & owner were not able to reach an agreement to lease this property.

2. 66 Northrop St, Assessor Parcel #14-4: Land owner did not respond to SBA inquiries to lease parcel.

3. 149 Northrop St, Assessor Parcel #10-3: Land owner did not respond to SBA inquiries to lease parcel.

4. 129 & 0 Stuart Rd East, Assessor Parcel #14-44: Land owners stated they were not interested in locating a communications facility on their property.

5. 0 Stuart Rd East, Assessor Parcel #14-55: Parcel was rejected due to a Land Trust Restriction.

6. 58 Hambrock Lane, Assessor Parcel #18-15: Property owner was not interested. AT&T radio frequency engineers rejected this location as it will not cover target area to the south.

7. 50 Stuart Rd East, Assessor Parcel #14-31: Property owner was interested but unable to reach lease terms. The site would be very visible because of open fields. AT&T radio frequency engineers stated that this site does not cover area to the south as well as the Facility at the proposed location.

8. Wewaka Brook Rd. Assessor Parcel #15-1. This property is the southern portion of the proposed parcel. Property owner was interested but AT&T radio frequency engineers rejected the location as its elevation was too low to provide acceptable coverage on Route 133.

9. Northrup St. Benson Rd, Christian Rd, Hut Hill Rd. Assessor Parcel #s 10-41,14-9,14-18 & 18-9 (National Conservancy Property). Property owner stated they were not interested in locating a communications facility on their property. This location was also rejected by AT&T's radio frequency engineers.

10. 370 Northrup St. Assessor Parcel #7-9. Property owner did not respond to AT&T inquiries to lease the parcel. AT&T's radio frequency engineers also indicated that this location is located too far south and will not hand off to a search ring to the north.

11. 293 Wewaka Brook Rd. Assessor Parcel #10-23. Property owner did not respond to AT&T inquiries to lease the parcel. AT&T's radio frequency engineers also indicated that this location is too far south and will not hand off to a search ring to the north.

12. Northrup St. Assessor Parcel #7-1-1. Property owner did not respond to AT&T inquiries to lease the parcel. AT&T's radio frequency engineers also indicated that this location is located too far south and will not hand off to a search ring to the north.

13. 000 Hut Hill Road. Assessor Parcel #22-1. This property is adjacent to the fire department and was rejected by AT&T's radio frequency engineers.

14. 324 Hut Hill Road (Town Garage). This site was suggested by the First Selectman but was rejected by AT&T's radio frequency engineers.

General Facility Description

Facility Parcel
0 Wewaka Brook Road
Owner: Mary Allen
51.2 Acre Parcel

Access Parcel
89 Wewaka Brook Road
Owner: Edward and Cynthia Bennett
4.0 Acre Parcel

The tower compound of the proposed telecommunications facility is located at the northerly edge of a clearing on an undeveloped portion of a 51.2 acre parcel owned by Mary Allen, located at 0 Wewaka Brook Road in Bridgewater. The proposed facility consists of a 100' by 100' leased area situated at the northwestern portion of the parcel and a new self-supporting monopole tower, 170' in height, with associated unmanned equipment at grade.

AT&T will install up to twelve (12) panel antennas at the 167' centerline height of the tower together with an associated 12' x 20' radio equipment shelter at the tower base on a concrete pad within the compound. The tower compound developed by SBA would consist of a 45' by 80' area to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. The tower compound developed by SBA would be enclosed by an 8' foot high chain link fence. Vehicle access to the facility would be provided through the property at 89 Wewaka Brook Road by an existing 280' asphalt access driveway in addition to a new 2,215' long by 12' wide gravel drive extension. The access drive improvements also include the replacement of an existing bridge over Wewaka Brook on the access parcel. Utility connections will be run underground from existing CL&P pole #1242 to provide necessary power and telecommunications service to the proposed facility.

Site Evaluation Report

I. LOCATION

A. COORDINATES: 41° 30' 31.43" N 73° 21' 15.8" W

B. GROUND ELEVATION: 582' AMSL Elevation (in feet)

C. USGS MAP: Roxbury Quad

D. SITE ADDRESS: 0 & 89 Wewaka Brook Road, Bridgewater, Connecticut 06752

E. ZONING WITHIN 1/4 MILE OF SITE: Residential / Agricultural

II. DESCRIPTION

A. SITE SIZE: 45' by 80'

B. LESSOR'S PARCELS: +/-55.2 Acres (Total)

C. TOWER TYPE/HEIGHT: Monopole/170' AGL

D. SITE TOPOGRAPHY AND SURFACE: Topography of the subject property is sloped. The host property consists of adjoining parcels host one residence and but are largely undeveloped.

E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The surrounding terrain ranges in elevation from 194' AMSL to 860' AMSL. A review of the site together with available site information provided by Federal, State and local databases indicates that there is an on-site wetland system portions of the access drive and proposed bridge are within A4 and B designated flood zones (i.e. within a 100-year flood zone).

F. LAND USE WITHIN 1/4 MILE OF SITE: General land use activities surrounding the subject property include low-density residential uses, wooded and undeveloped land, agricultural fields and various roads. There are no residences located within 1,000 feet of the proposed site. The closest residence is approximately 1,140' to the southeast of the proposed tower. A new home is being constructed approximately 1,556' immediately south of the proposed tower compound.

III. FACILITIES

A. POWER COMPANY: Connecticut Light and Power

B. POWER PROXIMITY TO SITE: Electric power will be available for use from a proposed underground power line connecting to an existing CL&P pole.

C. TELEPHONE COMPANY: AT&T

D. PHONE SERVICE PROXIMITY: Telephone facilities/service will be available from a proposed underground line connecting to an existing utility pole.

E. VEHICLE ACCESS TO SITE: Access to the facility would be provided by an existing asphalt access driveway, a new 2,215'gravel drive extension 12' in width and a replacement for an existing bridge crossing Wewaka Brook.

F. OBSTRUCTIONS: None

G. CLEARING AND FILL REQUIRED: The facility will require the removal of 102 trees and clearing of brush. Detailed plans would be included in a Development and Management Plan ("D&M" plan) after any approval of the facility which may be issued by the Connecticut Siting Council.

IV. LEGAL: Host Parcel

A. PURCHASE [ ] LEASE [X]

B. OWNER: Mary Allen

C. ADDRESS: 0 Wewaka Brook Road, Bridgewater, Connecticut 06752

V. LEGAL: Access Parcel

A. PURCHASE [ ] EASEMENT [X]

B. OWNER: Edward & Cynthia Bennett

C. ADDRESS: 89 Wewaka Brook Road, Bridgewater, Connecticut 06752

Facilities and Equipment Specification

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: To be determined

B. TYPE: Self-Supporting monopole

C. HEIGHT: 170' AGL
DIMENSIONS: Approximately 4½' in diameter at the base, tapering to approximately 2' at the top.

D. LIGHTING: None as set forth in attached FCC determination

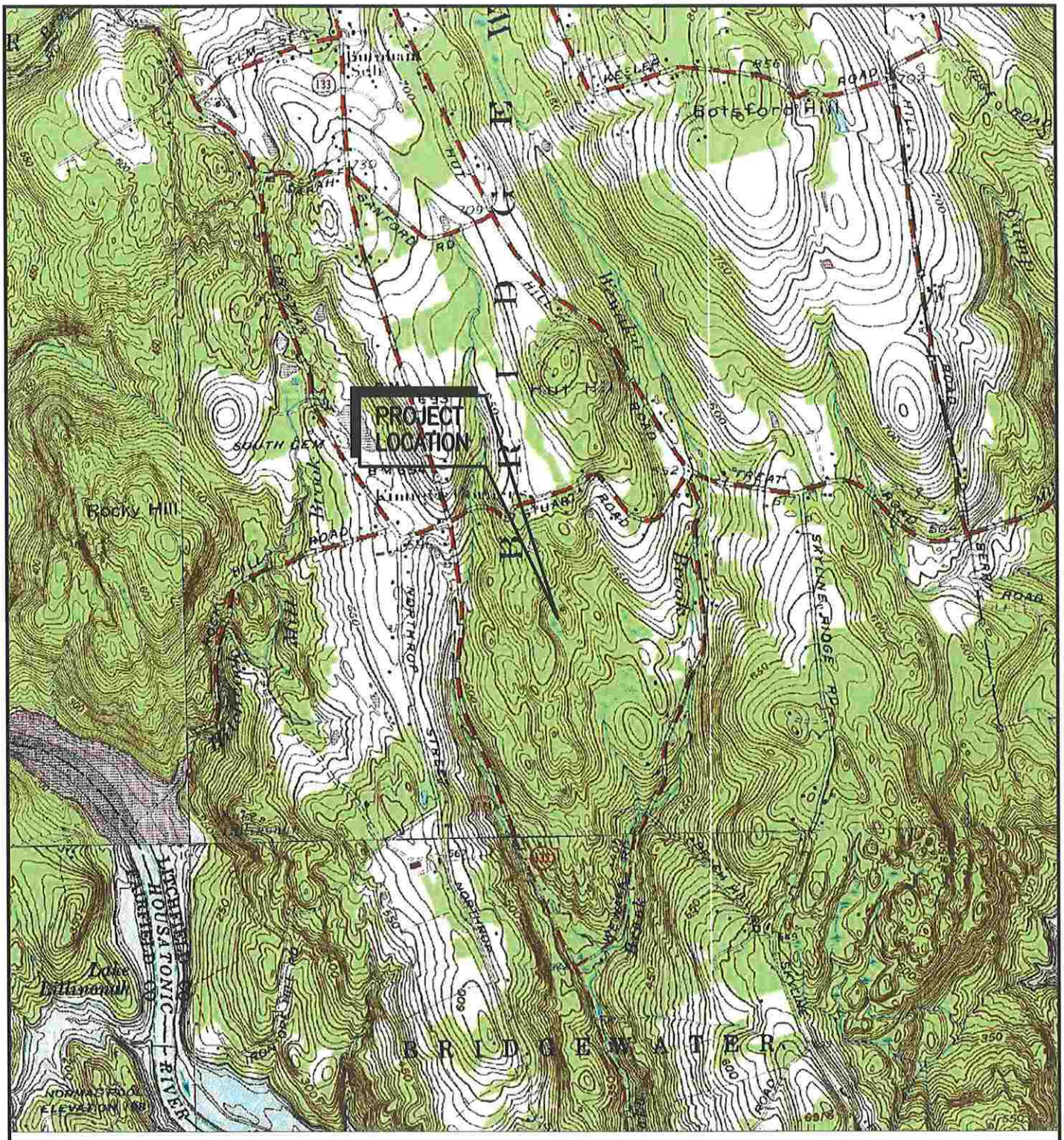
II. TOWER LOADING:

A. AT&T – up to 12 panel Antennas, along with up to 12 TMA/Diplexers
   a. Model – Powerwave P90-14-XLH-RR or equivalent panel antenna
   b. Antenna Dimensions – approximately 48"H x 12"W x 6"D
   c. Position on Tower – 167' centerline AGL
   d. Transmission Lines – MFG/Model: Commscope Aluminum; Size 1-5/8"

B. Future Carriers – To be determined

III. ENGINEERING ANALYSIS AND CERTIFICATION:

The tower will be designed in accordance with American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with 2005 Connecticut Amendment. The foundation design would be based on soil conditions at the site. The details of the tower and foundation design will be provided as part of the final D&M plan.



1 **1992 USGS TOPO MAP: ROXBURY 41073-E3**

SCALE: 1" = 2000'

0 1000 2000

SCALE IN FEET

TRUE NORTH

CHA
2139 Silas Deane Highway, Suite 212 · Rocky Hill, CT 06067-2336
Main: (860) 257-4557 · www.chacompanies.com

SBA
SBA TOWERS III LLC
5900 BROKEN SOUND PARKWAY
BOCA RATON, FL 33487-2797
OFFICE: (561) 226-9523
FAX: (561) 226-3572

CT 11934
BRIDGEWATER
WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752
LITCHFIELD COUNTY
CHA PROJ. NO. – 15363-1054-43000

SHEET TITLE:
USGS TOPO MAP

DATE:
05/26/10

REVISION: 0

DATE: 11/4/2010 10:16 AM FILE: I:\15363\SITES\1054 BRIDGEWATER 4 BENNETT\ZD\BRIDGEWATER CSC.DWG

1 **2004 AERIAL PHOTO**
SCALE: 1" = 1000'
0 500 1000
SCALE IN FEET

TRUE NORTH

CHA
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SHEET TITLE:
AERIAL PHOTO

DATE:
05/26/10

REVISION: 0

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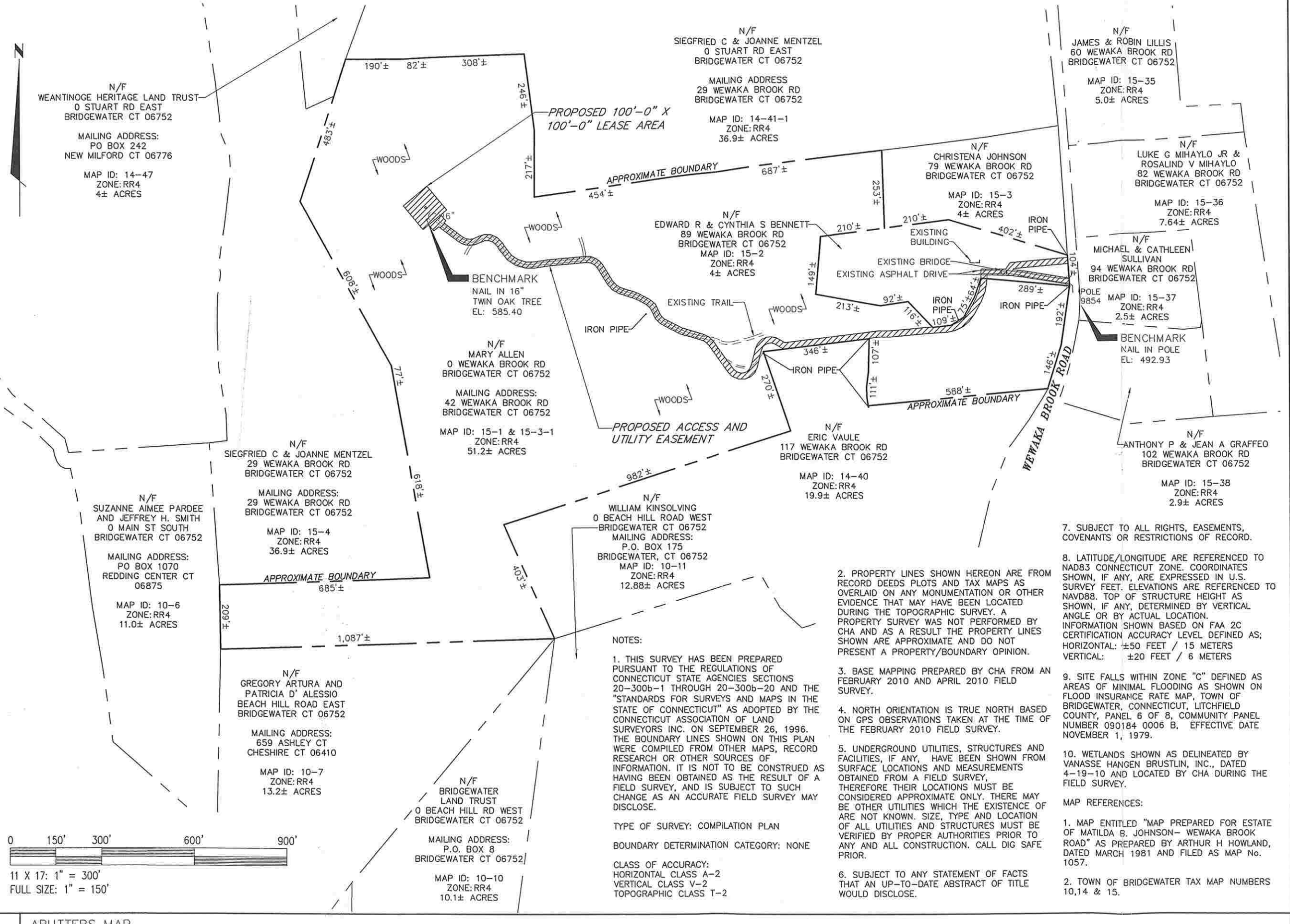


NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. ON SEPTEMBER 26, 1996. THE BOUNDARY LINES SHOWN ON THIS PLAN WERE COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.

TYPE OF SURVEY: COMPILATION PLAN

BOUNDARY DETERMINATION CATEGORY: NONE

CLASS OF ACCURACY:
HORIZONTAL CLASS A-2
VERTICAL CLASS V-2
TOPOGRAPHIC CLASS T-2

2. PROPERTY LINES SHOWN HEREON ARE FROM RECORD DEEDS PLOTS AND TAX MAPS AS OVERLAID ON ANY MONUMENTATION OR OTHER EVIDENCE THAT MAY HAVE BEEN LOCATED DURING THE TOPOGRAPHIC SURVEY. A PROPERTY SURVEY WAS NOT PERFORMED BY CHA AND AS A RESULT THE PROPERTY LINES SHOWN ARE APPROXIMATE AND DO NOT PRESENT A PROPERTY/BOUNDARY OPINION.

3. BASE MAPPING PREPARED BY CHA FROM AN FEBRUARY 2010 AND APRIL 2010 FIELD SURVEY.

4. NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FEBRUARY 2010 FIELD SURVEY.

5. UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES, IF ANY, HAVE BEEN SHOWN FROM SURFACE LOCATIONS AND MEASUREMENTS OBTAINED FROM A FIELD SURVEY, THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL DIG SAFE PRIOR.

6. SUBJECT TO ANY STATEMENT OF FACTS THAT AN UP-TO-DATE ABSTRACT OF TITLE WOULD DISCLOSE.

7. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.

8. LATITUDE/LONGITUDE ARE REFERENCED TO NAD83 CONNECTICUT ZONE. COORDINATES SHOWN, IF ANY, ARE EXPRESSED IN U.S. SURVEY FEET. ELEVATIONS ARE REFERENCED TO NAVD88. TOP OF STRUCTURE HEIGHT AS SHOWN, IF ANY, DETERMINED BY VERTICAL ANGLE OR BY ACTUAL LOCATION. INFORMATION SHOWN BASED ON FAA 2C CERTIFICATION ACCURACY LEVEL DEFINED AS;
HORIZONTAL: ±50 FEET / 15 METERS
VERTICAL: ±20 FEET / 6 METERS

9. SITE FALLS WITHIN ZONE "C" DEFINED AS AREAS OF MINIMAL FLOODING AS SHOWN ON FLOOD INSURANCE RATE MAP, TOWN OF BRIDGEWATER, CONNECTICUT, LITCHFIELD COUNTY, PANEL 6 OF 8, COMMUNITY PANEL NUMBER 090184 0006 B, EFFECTIVE DATE NOVEMBER 1, 1979.

10. WETLANDS SHOWN AS DELINEATED BY VANASSE HANGEN BRUSTLIN, INC., DATED 4-19-10 AND LOCATED BY CHA DURING THE FIELD SURVEY.

MAP REFERENCES:

1. MAP ENTITLED "MAP PREPARED FOR ESTATE OF MATILDA B. JOHNSON- WEWAKA BROOK ROAD" AS PREPARED BY ARTHUR H HOWLAND, DATED MARCH 1981 AND FILED AS MAP No. 1057.

2. TOWN OF BRIDGEWATER TAX MAP NUMBERS 10,14 & 15.

1 | ABUTTERS MAP

SBA
SBA TOWERS III LLC
5900 BROKEN SOUND
PARKWAY, NW
BOCA RATON, FL 33487-2797
TEL: (561) 226-9523
FAX: (561) 226-9368

CHA
2139 Silas Deane Highway, Suite 212 - Rocky Hill, CT 06067-2336
Main: (860) 257-4557 - www.chacompanies.com

A&E PROJECT #:	15363-1054-43000
DRAWN BY:	PAL
CHECKED BY:	PAL

REVISIONS

NO.	DATE	DESCRIPTION
1	10/12/10	UPDATED ABUTTERS
2	10/27/10	ISSUED CSC CERTIFICATE

PROJECT No.
15363-1054-43000

SITE NAME:
BRIDGEWATER

SITE NUMBER:
CT 11934

SITE ADDRESS:
WEWAKA BROOK ROAD
BRIDGEWATER,C T 06752

DESIGN TYPE:
RAW LAND

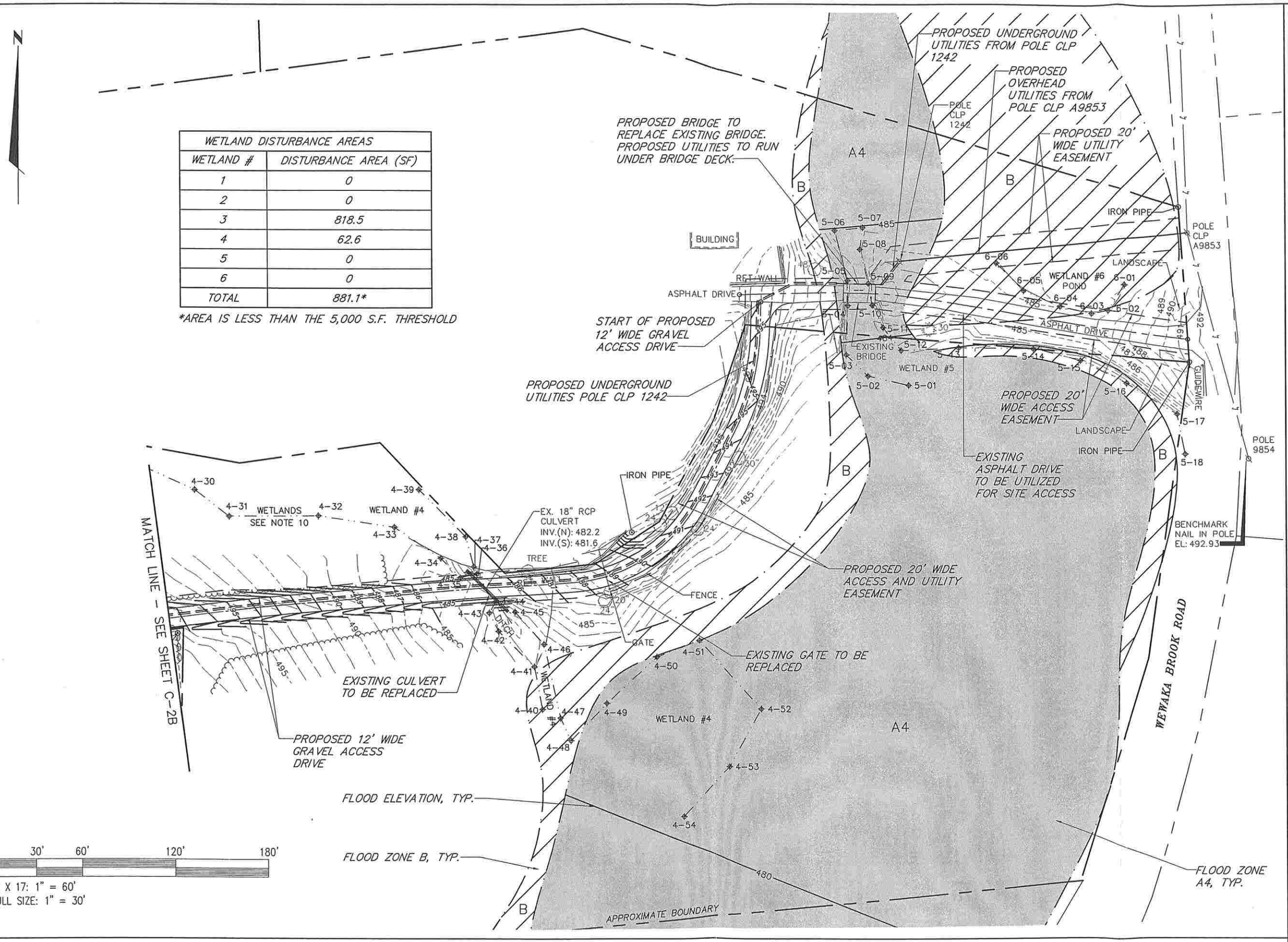
SHEET TITLE:
ABUTTERS MAP

DRAWING NO.
C-1

REVISION:
A

WETLAND DISTURBANCE AREAS	
WETLAND #	DISTURBANCE AREA (SF)
1	0
2	0
3	818.5
4	62.6
5	0
6	0
TOTAL	881.1*

*AREA IS LESS THAN THE 5,000 S.F. THRESHOLD



1 SITE ACCESS MAP

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BOCA RATON, FL 33487-2797
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FAX: (561) 226-9368

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REVISIONS

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15363-1054-43000

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BRIDGEWATER

SITE NUMBER:
CT 11934

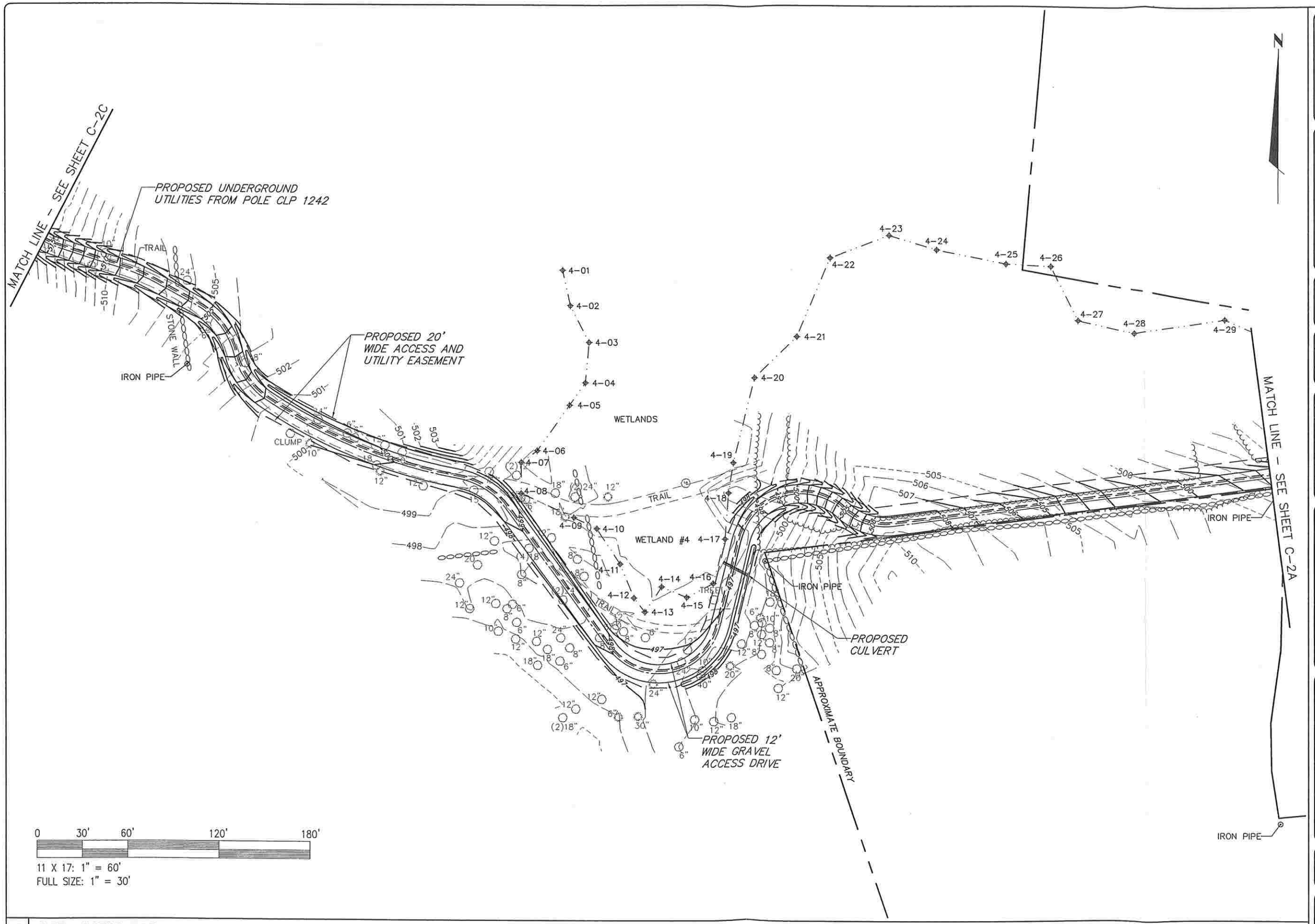
SITE ADDRESS:
WEWAKA BROOK ROAD
BRIDGEWATER,C T 06752

DESIGN TYPE:
RAW LAND

SHEET TITLE:
SITE ACCESS MAP

DRAWING NO.
C-2A

REVISION:
A



1 SITE ACCESS MAP

SBA

SBA TOWERS III LLC
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PARKWAY, NW
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CHECKED BY:	PAL

REVISIONS

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SITE NAME:
BRIDGEWATER

SITE NUMBER:
CT 11934

SITE ADDRESS:
WEWAKA BROOK ROAD
BRIDGEWATER,C T 06752

DESIGN TYPE:
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SHEET TITLE:
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DRAWING NO.
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REVISION:
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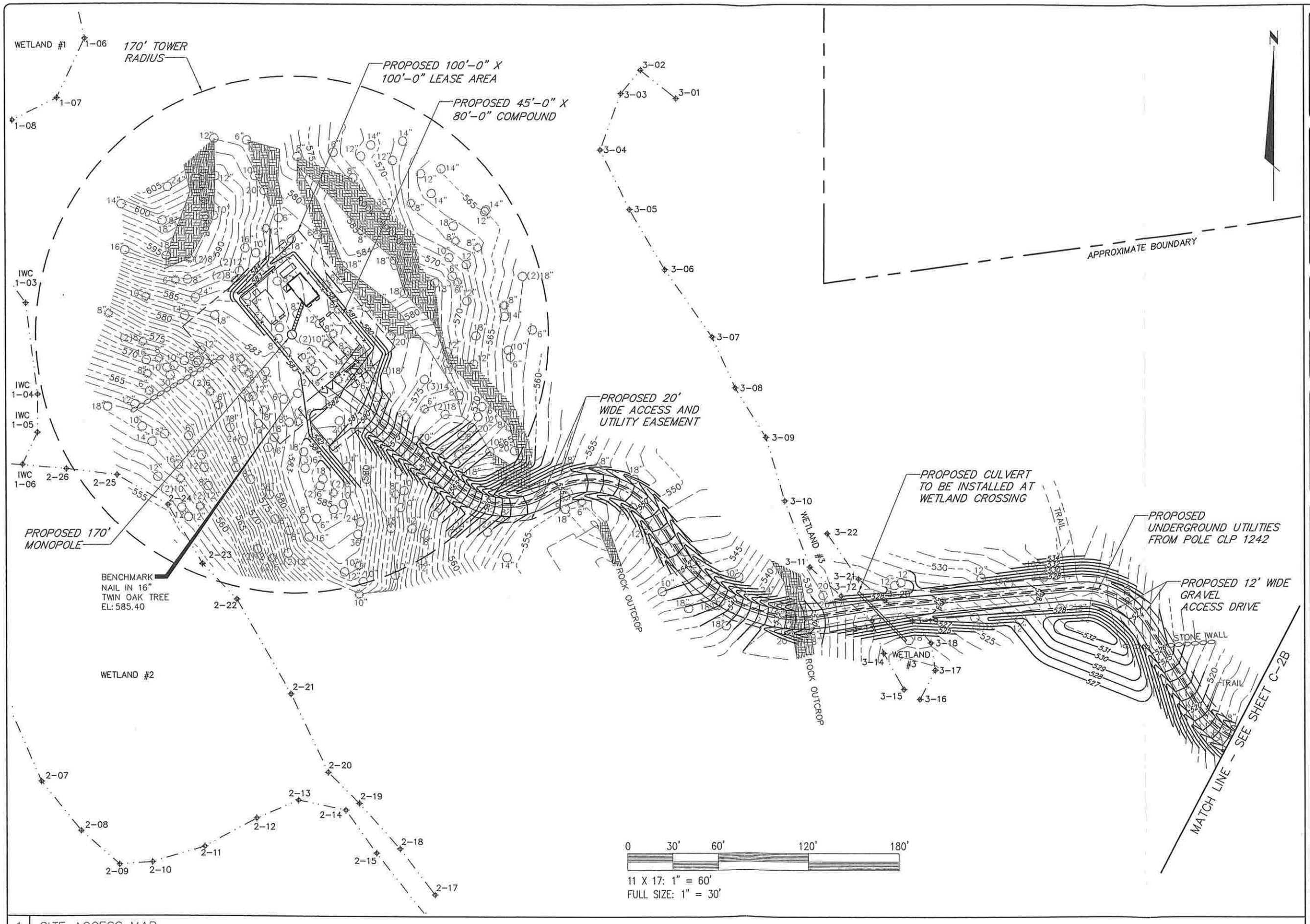

1 SITE ACCESS MAP

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DRAWN BY:	PAL
CHECKED BY:	PAL

REVISIONS

NO.	DATE	DESCRIPTION
1	10/27/10	ISSUED CSC CERTIFICATE

PROJECT No.
15363-1054-43000

SITE NAME:
BRIDGEWATER

SITE NUMBER:
CT 11934

SITE ADDRESS:
WEWAKA BROOK ROAD
BRIDGEWATER,C T 06752

DESIGN TYPE:
RAW LAND

SHEET TITLE:
SITE ACCESS MAP

DRAWING NO.
C-2C

REVISION:
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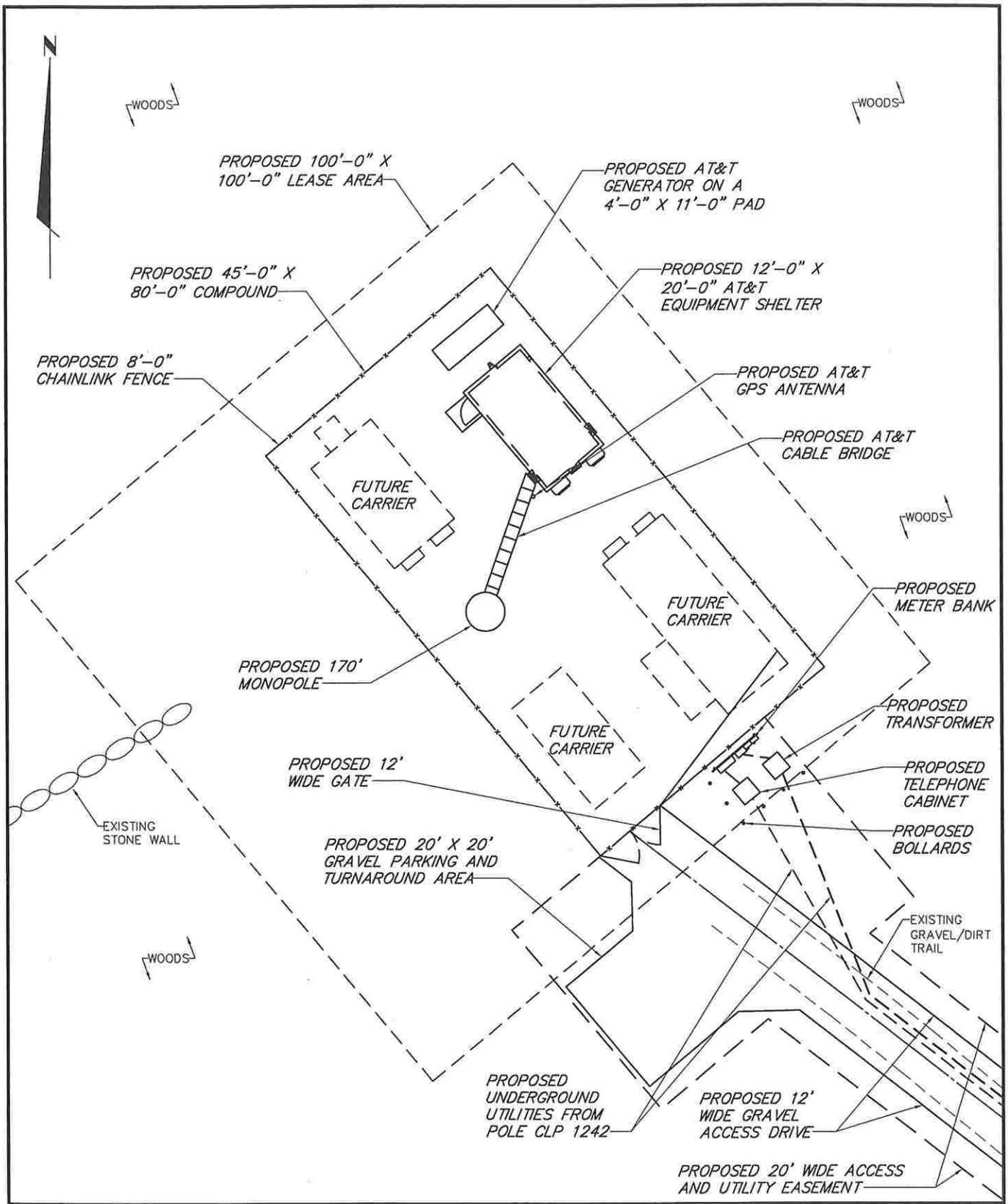

CHA
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OFFICE: (561) 226-9523
FAX: (561) 226-3572

CT 11934
BRIDGEWATER
WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752
LITCHFIELD COUNTY
CHA PROJ. NO. – 15363-1054-43000

SHEET TITLE:
COMPOUND PLAN

DATE:
05/26/10

REVISION: 0

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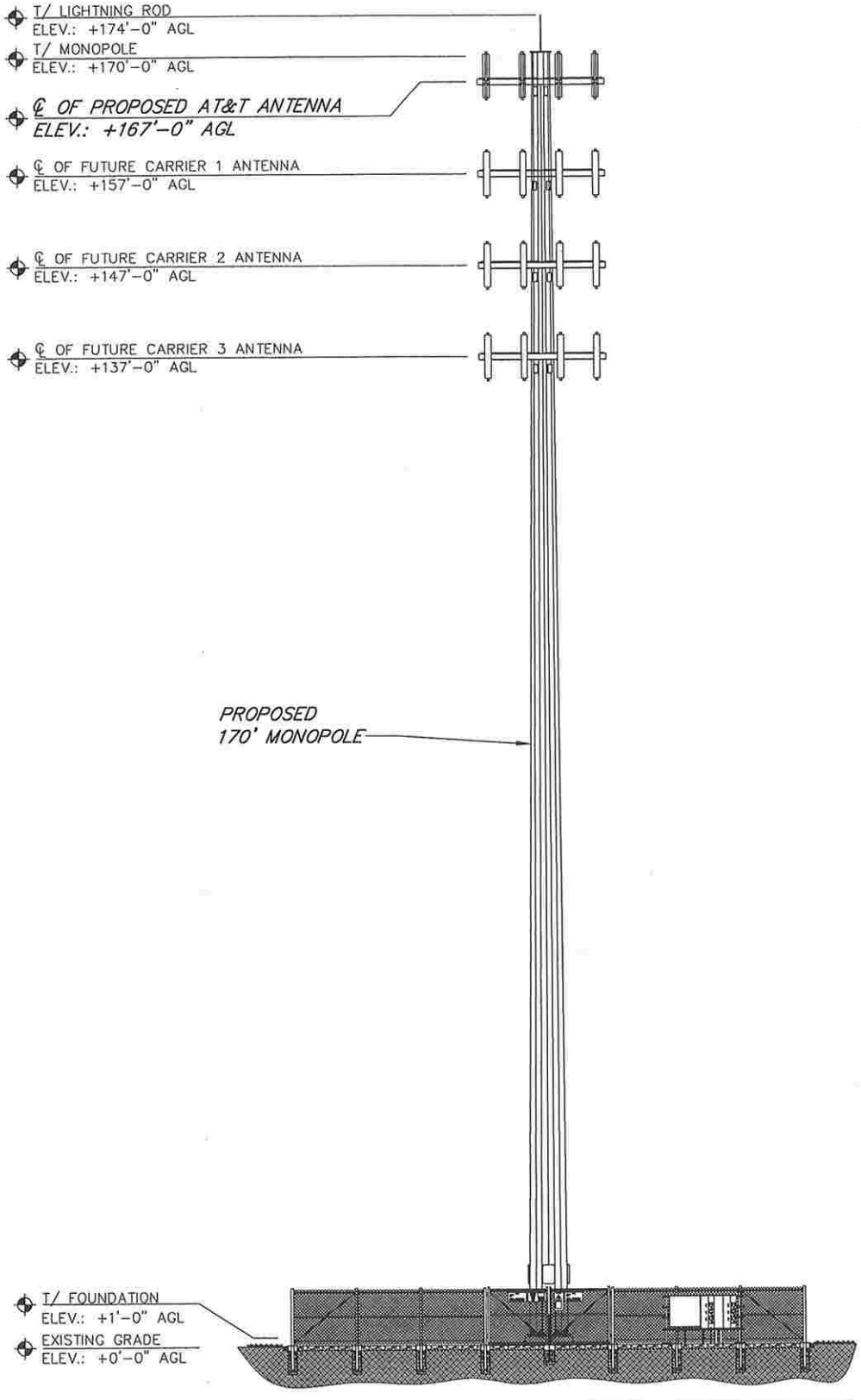

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CT 11934
BRIDGEWATER
WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752
LITCHFIELD COUNTY
CHA PROJ. NO. - 15363-1054-43000

SHEET TITLE:
TOWER ELEVATION

DATE:
05/26/10

REVISION: 0

DATE: 11/4/2010 10:16 AM FILE:I:\15363\SITES\1054 BRIDGEWATER 4 BENNETT\ZD\BRIDGEWATER CSC.DWG

PRELIMINARY BRIDGE DESIGN FOR WEWAKA BROOK CROSSING

CT11934 – BRIDGEWATER WEWAKA BROOK ROAD BRIDGEWATER, CT 06752

CHA Project Number: 15363.1054.43000

Prepared for:
SBA Towers III LLC
5900 Broken Sound Parkway, NW
Boca Raton, FL 33487-2797

Prepared by:

2139 Silas Deane Highway
Rocky Hill, Connecticut 06067
(860) 257-4557

November 4, 2010 Rev. 0

TABLE OF CONTENTS

1.0 INTRODUCTION

A preliminary bridge design has been completed for the required bridge replacement at the Wewaka Brook crossing. The intent of the preliminary design is to determine the bridge type, size, and location as well as any temporary access paths that will be required so we can determine temporary and permanent waterway and wetland impacts. The proposed preliminary design is subject to final engineering design and calculations; therefore, what is shown in this report may require adjustment as we move towards a final design. The following sections provide a description of the existing bridge, the planned temporary crossing at Wewaka Brook, the planned demolition procedure for the existing bridge, and a description of the preliminary bridge design that is being considered as a replacement for the existing bridge.

2.0 EXISTING BRIDGE

The existing bridge spans across Wewaka Brook and provides access to the property from Wewaka Brook Road. The bridge falls within flood Zone A4 and B for Wewaka Brook. The clear span between the abutment faces is approximately 16'-0". The superstructure consists of four 24" deep steel I-beams with an 11'-6" wide wood plank deck installed perpendicular to the steel beams. A second layer of wood planking is installed on top of the first layer of planking in the locations of the wheel paths and runs parallel to the steel beams. The substructure consists of two concrete abutments without footings. The abutments are deteriorating at their interface with the water flow in Wewaka Brook. The steel beams for the superstructure sit on top of the concrete abutments. The grade across the bridge is approximately 7.8%. Below is a photo of the existing bridge conditions.

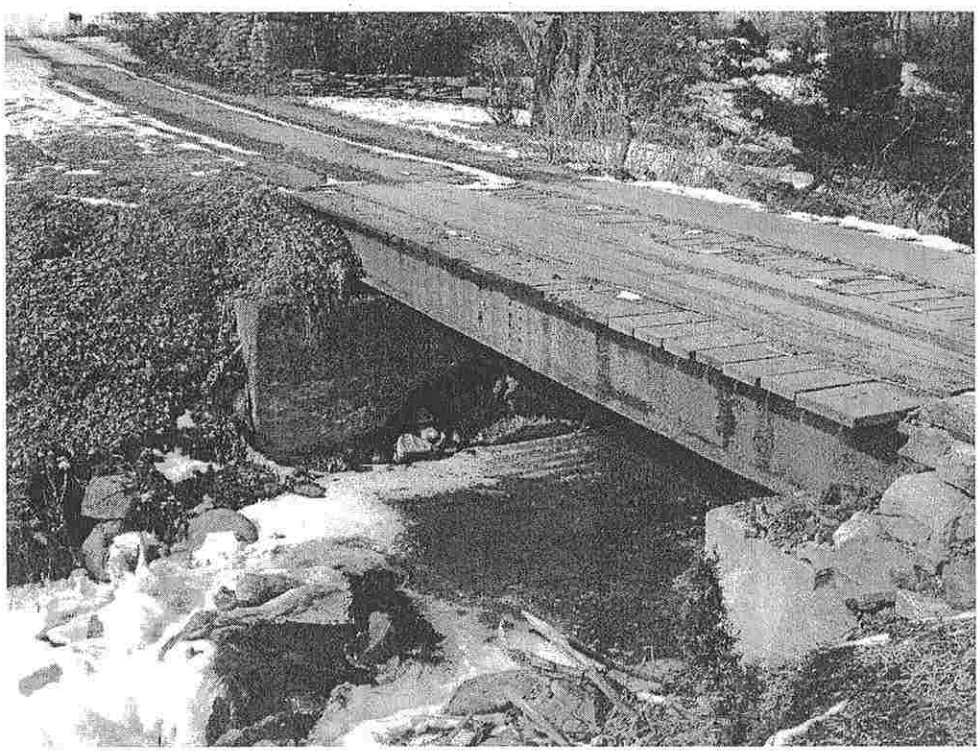


Photo 1: Existing Bridge Structure Across Wewaka Brook

3.0 TEMPORARY CROSSING

A temporary crossing at Wewaka Brook is required during demolition of the existing bridge and during construction of the new bridge. The temporary crossing will be utilized by the property owners and construction personnel working on the tower facility. Placing a temporary crossing directly to the North or the South of the existing bridge was evaluated. To the North, the wetlands and waterway are narrower and the sides of the waterway are almost parallel to one another making it a good location for a temporary crossing. However, there are physical obstructions and space limitations that restrict a temporary crossing to the North. A large 48" tree exists just to the Northwest of the bridge. The large tree has an extensive drip line and is low enough to the ground to create height restrictions. Many of the branches and most likely the tree would need to be removed to create a temporary crossing in this area. Also, there are small trees, brush, and a utility pole to the Northeast of the existing bridge. To the South, the wetlands and waterway are wider and the sides of the waterway are not parallel to one another so the crossing is more complex. However, there is much more open space and no anticipated tree impact. Due to space limitations and physical obstructions, it was decided that a temporary crossing to the South would be best. Temporary culverts will be placed in Wewaka Brook to fill the narrowest portion of the waterway just to the South of the Bridge. The remainder of the brook will be temporarily filled on the sides and above the culverts to create a temporary access road over the brook. A crushed rock road will be constructed on either side of the culvert to connect the brook crossing with the existing asphalt road to the West and East. The existing fence and gate on the West side of Wewaka Brook will need to be relocated to provide adequate space for access. The temporary crossing will temporarily impact 400 square feet of wetlands. The temporary crossing is illustrated in Section 6, sheets EX-1 and EX-2.

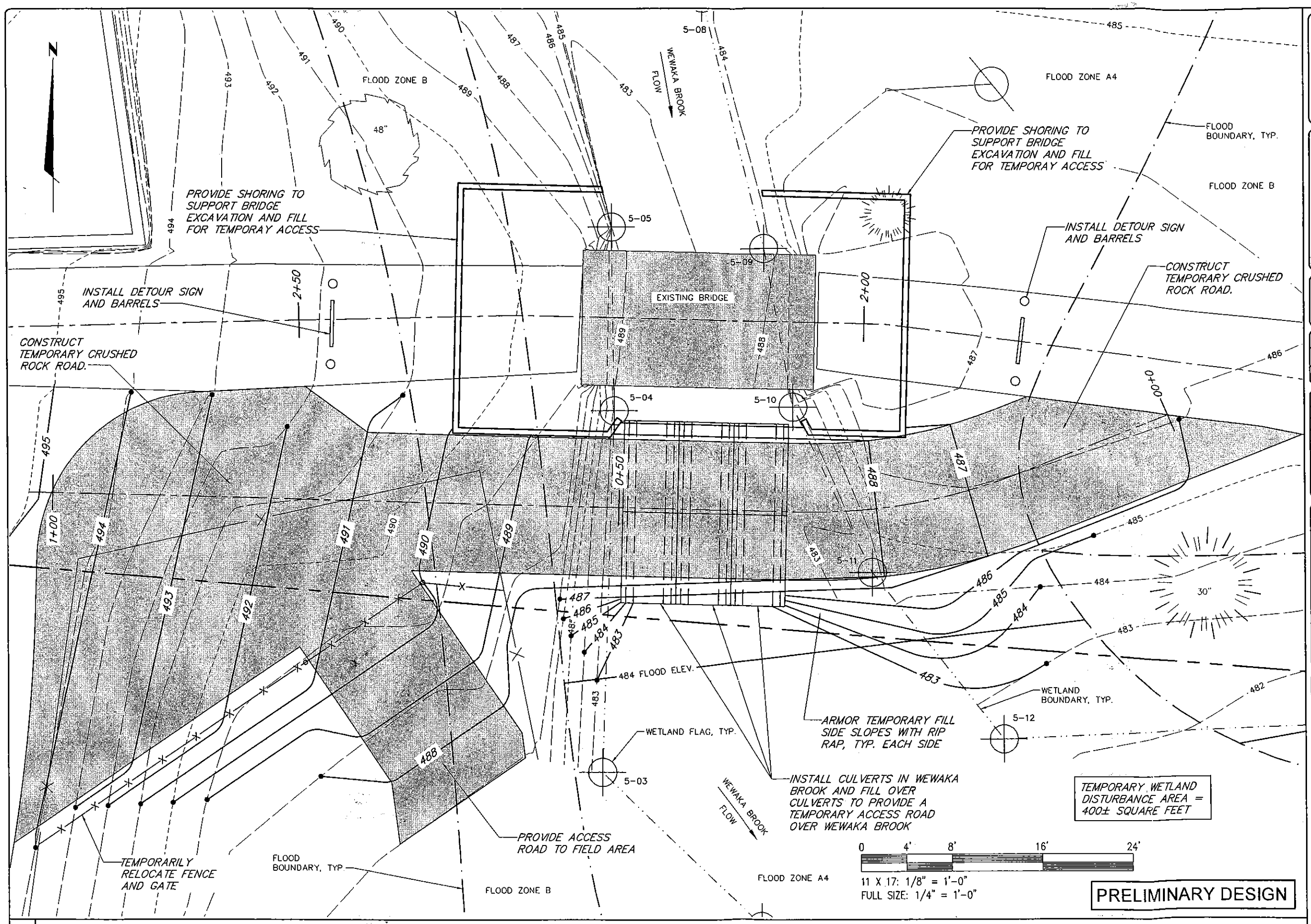
4.0 BRIDGE DEMOLITION

The bridge demolition process will be completed in a way to avoid working in Wewaka Brook and the nearby wetlands as much as possible. Working from the rear side of each abutment during demolition will offer the minimal amount of impact to the waterway and wetlands. Demolition of the existing bridge will begin by installing shoring around the limits of excavation required for the bridge demolition process and for construction of the new bridge. Next, sand bags or a similar type of water protection barrier will be placed between the limits of shoring along the water edge to contain the water and prevent it from flooding the excavated area. Once the shoring and water barrier are in place, excavation on the rear side of each abutment can begin. The rear of each abutment will be excavated down to the bottom of the existing concrete abutments which will expose the steel beam attachment to the concrete abutments as well as the entire back side of the abutments. Next, all steel beam anchors will be removed and the entire superstructure will be lifted off the abutments with a crane so it can be cut and dismantled away from the waterway. This will help keep debris from falling into the waterway during demolition since no cutting of the superstructure will occur over the waterway. Finally, the concrete abutments will be removed by tilting them back away from the waterway. The abutment can then be dismantled into smaller pieces after it is tilted back away from the waterway. The planned demolition process is illustrated in Section 6, sheets EX-3 and EX-4.

5.0 PROPOSED BRIDGE

The proposed bridge structure will consist entirely of precast concrete elements. The footings, abutments, and deck will be individual precast concrete elements that will be assembled on site to reduce construction time. The clear opening between the abutment faces will be 26'-0" which is an increase of 10'-0" from the existing 16'-0" clear opening. The clear opening will be increased by 5'-0" on either side of the waterway. The increase in clear opening will offer two benefits: the hydraulic opening will be increased for Wewaka Brook and the abutments will be pulled out of the waterway so they can be protected from deterioration. The side slopes in front of the bridge abutments will be 3:1 slopes, armored with riprap, and will extend above the flood elevation. The side slopes to the North and South of the widened bridge will be cut back at a 1:1 maximum slope to provide a gradual transition from the widened hydraulic opening to the existing waterway. The cut 1:1 slopes will be armored with riprap. The existing grade will be maintained across the bridge at 8% and the bridge deck will tie into the existing road grade on either side of the bridge. The cross section of the bridge will be increased from 11'-6" to 16'-0" so we can provide an increased travelway width of 13'-0" and 1'-6" wide curbs with metal guardrails on either side of the travelway. The existing asphalt road on either side of the bridge will be tapered to tie into the widened bridge travelway. The proposed bridge is illustrated in Section 6, sheets EX-5, EX-6, and EX-7.

6.0 BRIDGE PLANS, PROFILES, AND SECTIONS



1 TEMPORARY ACCESS SITE PLAN

SBA
SBA TOWERS III LLC
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487-2797
TEL: (561) 226-9523
FAX: (561) 226-9368

CHA
2139 Silas Deane Highway, Suite 212 · Rocky Hill, CT 06067-2336
Main: (860) 257-4557 · www.chacompanies.com

A&E PROJECT #:	15363-1054-43000
DRAWN BY:	PAL
CHECKED BY:	PAL

REVISIONS

NO.	DATE	DESCRIPTION
1	10/27/10	ISSUED CSC CERTIFICATE

PROJECT No.
15363-1054-43000

SITE NAME:
BRIDGEWATER

SITE NUMBER:
CT 11934

SITE ADDRESS:
WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752

DESIGN TYPE:
RAW LAND

SHEET TITLE:
TEMPORARY ACCESS SITE PLAN

DRAWING NO.
EX-1

REVISION:
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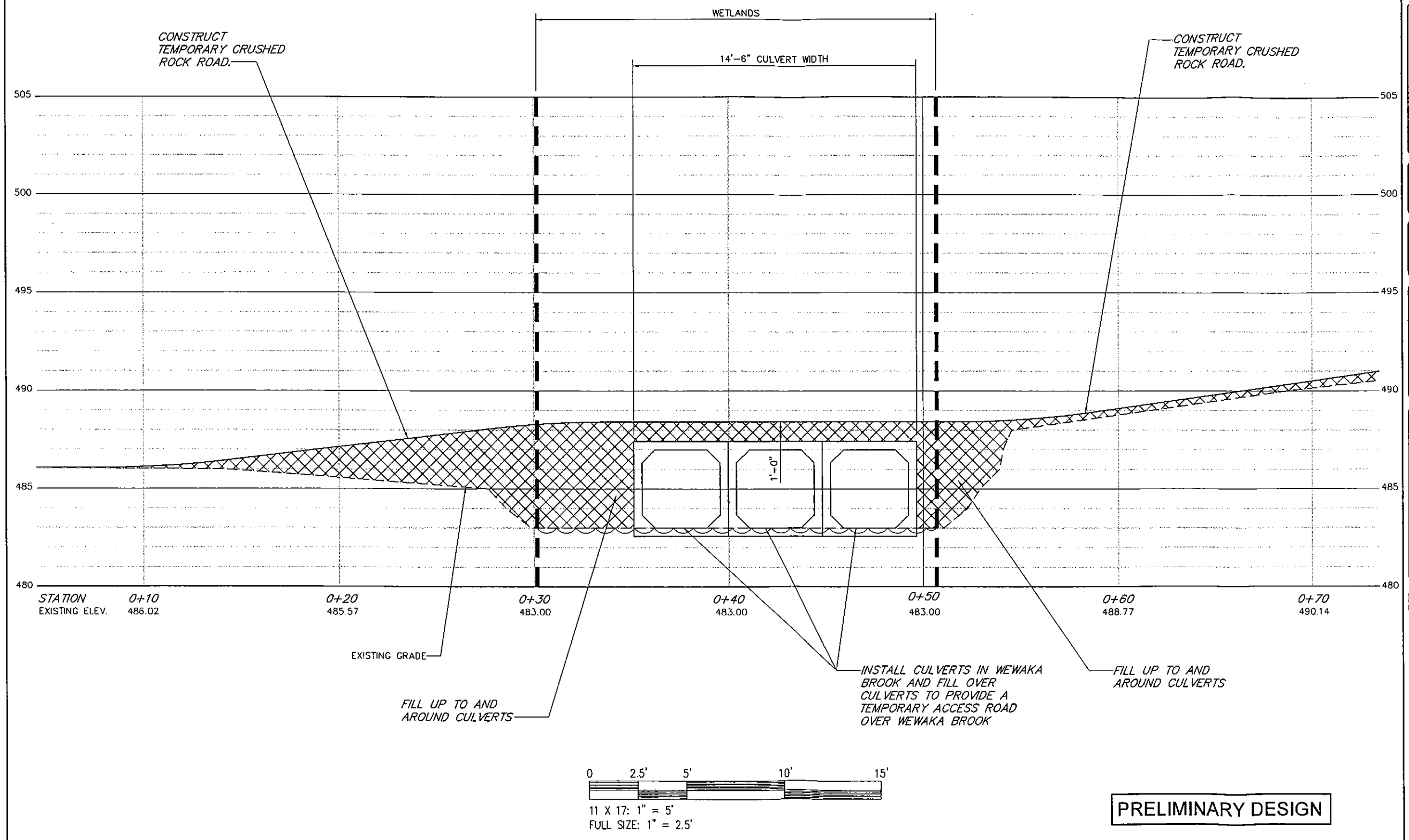

PRELIMINARY DESIGN

1 TEMPORARY ACCESS PROFILE

SBA TOWERS III LLC
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487-2797
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REVISIONS

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15363-1054-43000

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BRIDGEWATER

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CT 11934

SITE ADDRESS:
WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752

DESIGN TYPE:
RAW LAND

SHEET TITLE:
TEMPORARY ACCESS PROFILE

DRAWING NO.
EX-2

REVISION:
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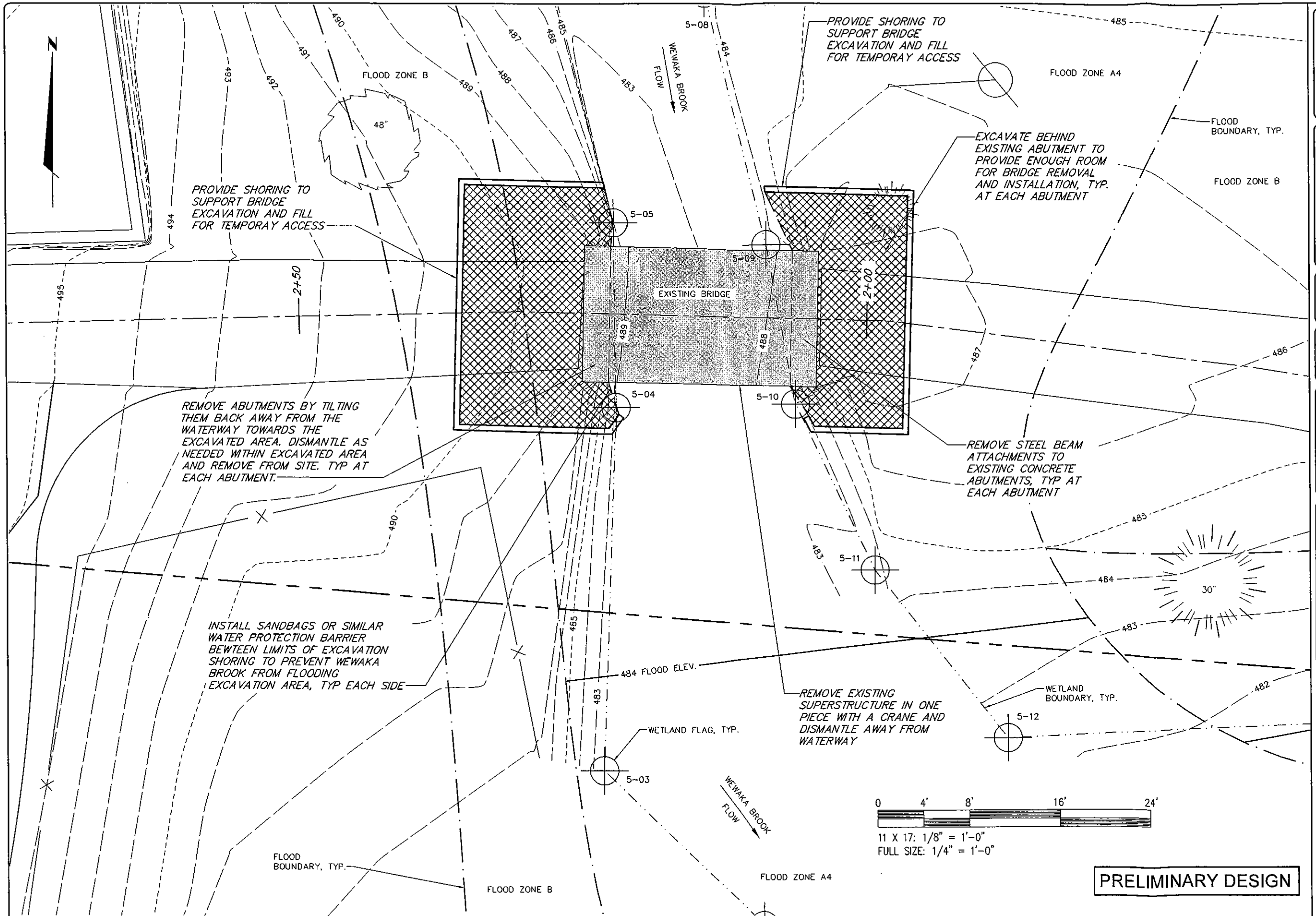

1 BRIDGE DEMOLITION SITE PLAN

SBA
SBA TOWERS III LLC
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487-2797
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BRIDGEWATER

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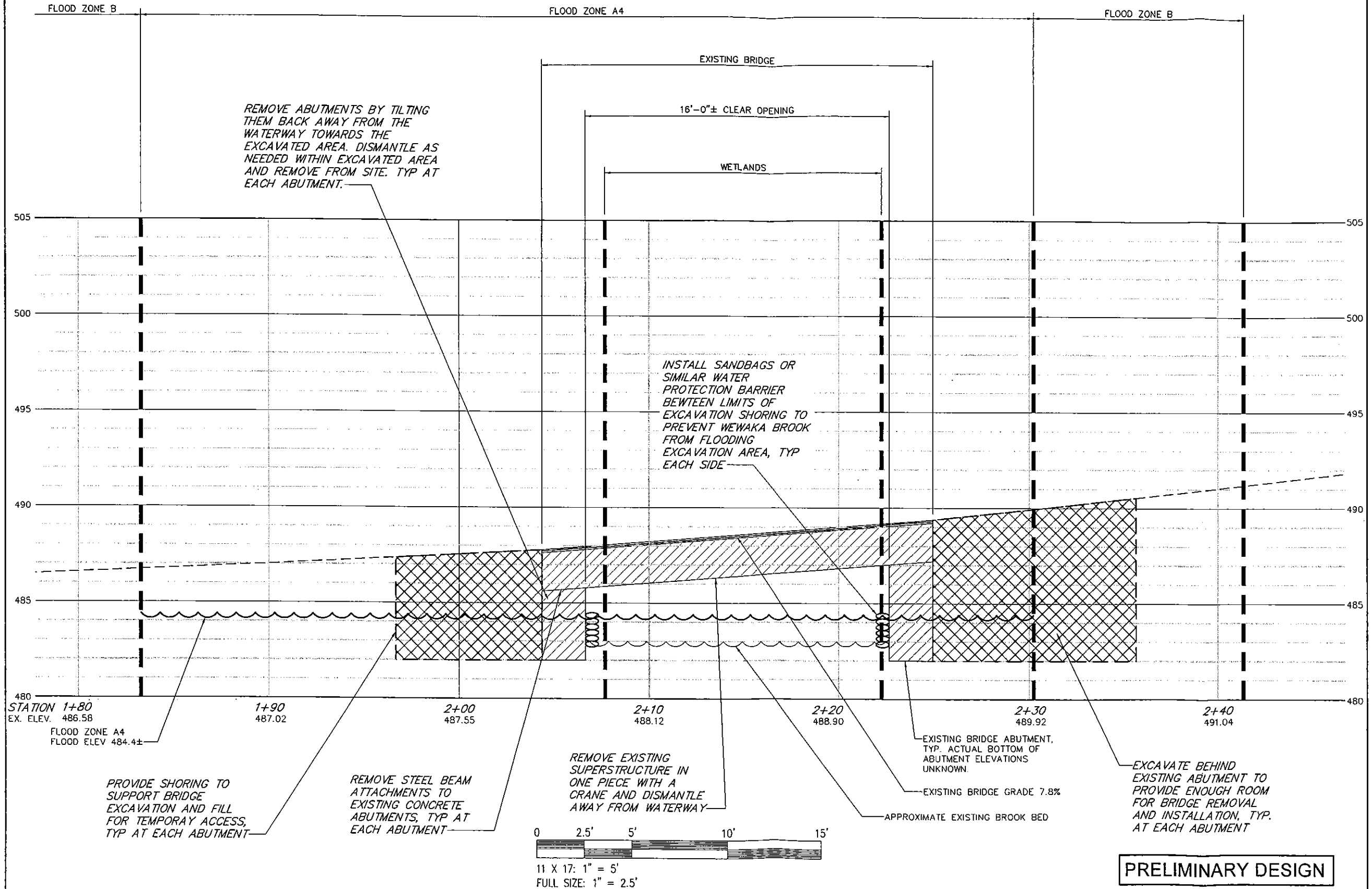
CT 11934

SITE ADDRESS:
WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752

DESIGN TYPE:
RAW LAND

SHEET TITLE:
BRIDGE DEMOLITION SITE PLAN

DRAWING NO.: EX-3
REVISION: A



1 BRIDGE DEMOLITION PROFILE

SBA TOWERS III LLC
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SITE NUMBER:
CT 11934

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WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752

DESIGN TYPE:
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SHEET TITLE:
BRIDGE DEMOLITION PROFILE

DRAWING NO.
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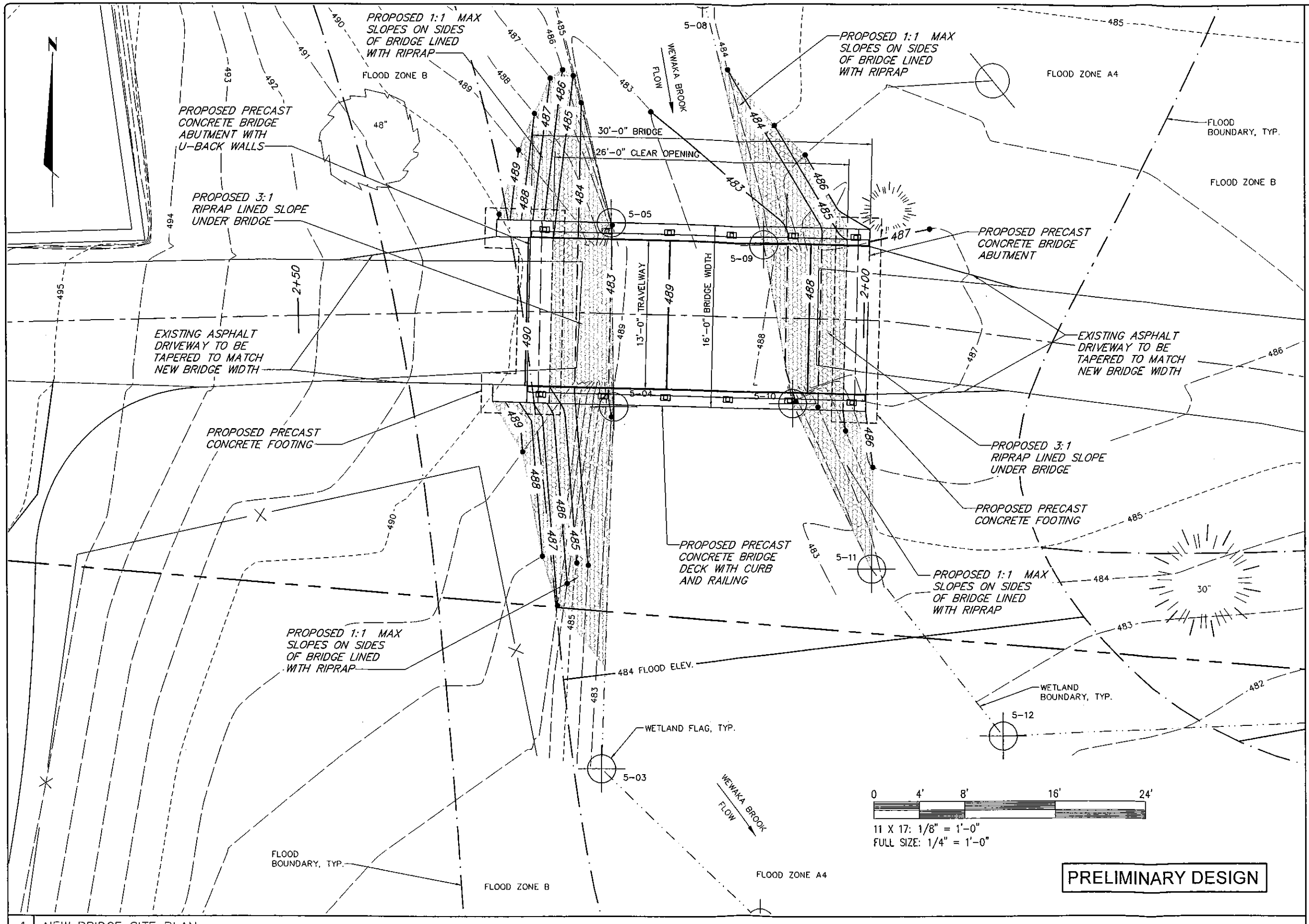

1 NEW BRIDGE SITE PLAN

SBA TOWERS III LLC
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487-2797
TEL: (561) 226-9523
FAX: (561) 226-9368

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2139 Silas Deane Highway, Suite 212 - Rocky Hill, CT 06067-2336
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SITE NUMBER:
CT 11934

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WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752

DESIGN TYPE:
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SHEET TITLE:
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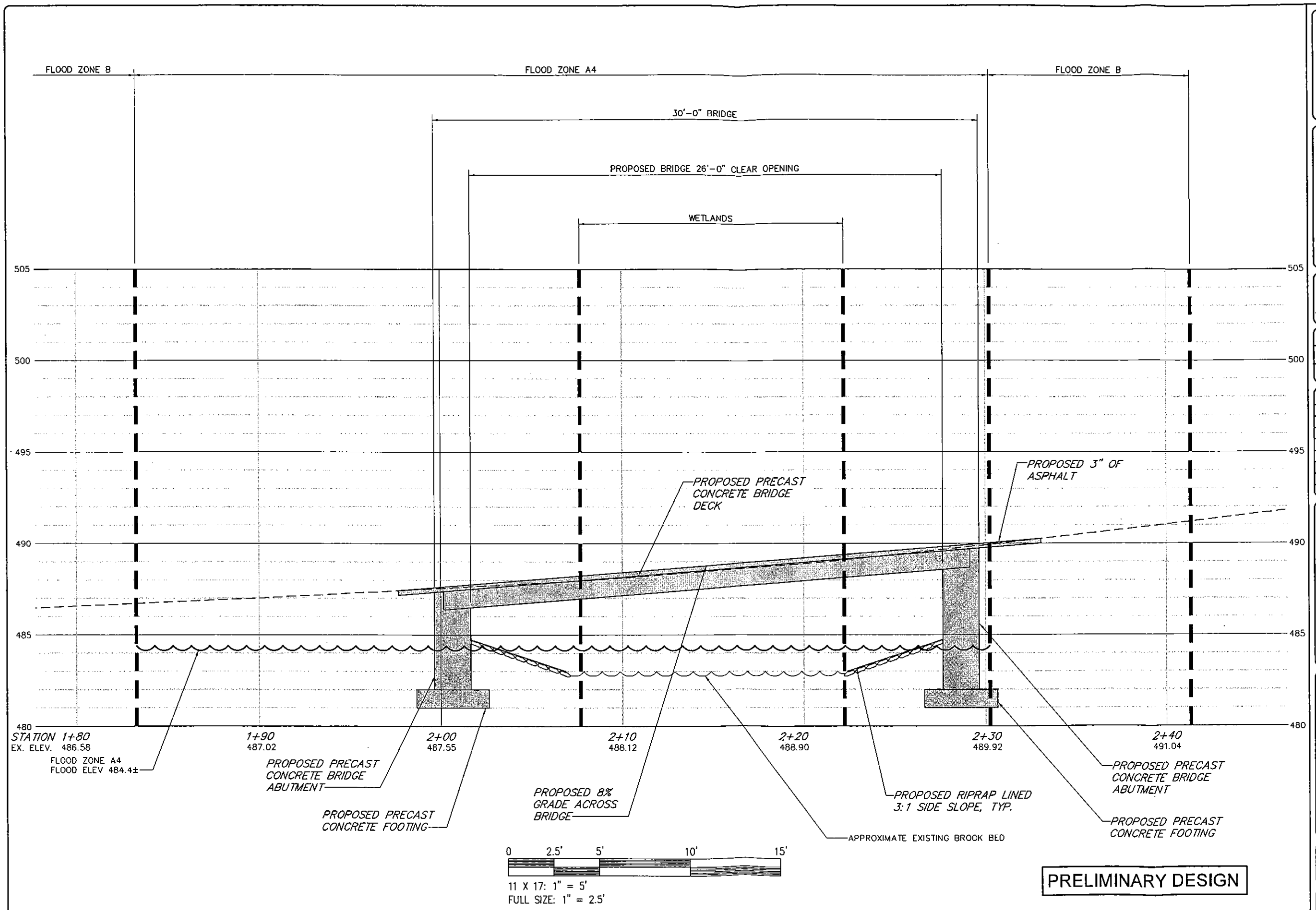
REVISION: A



1 NEW BRIDGE PROFILE

SBA TOWERS III LLC
5900 BROKEN SOUND
PARKWAY, NW
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FAX: (561) 226-9368

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Main: (860) 257-4057 · www.chacompanies.com

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SITE NUMBER:
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WEWAKA BROOK ROAD
BRIDGEWATER, CT 06752

DESIGN TYPE:
RAW LAND

SHEET TITLE:
NEW BRIDGE PROFILE

DRAWING NO.
EX-6

REVISION:
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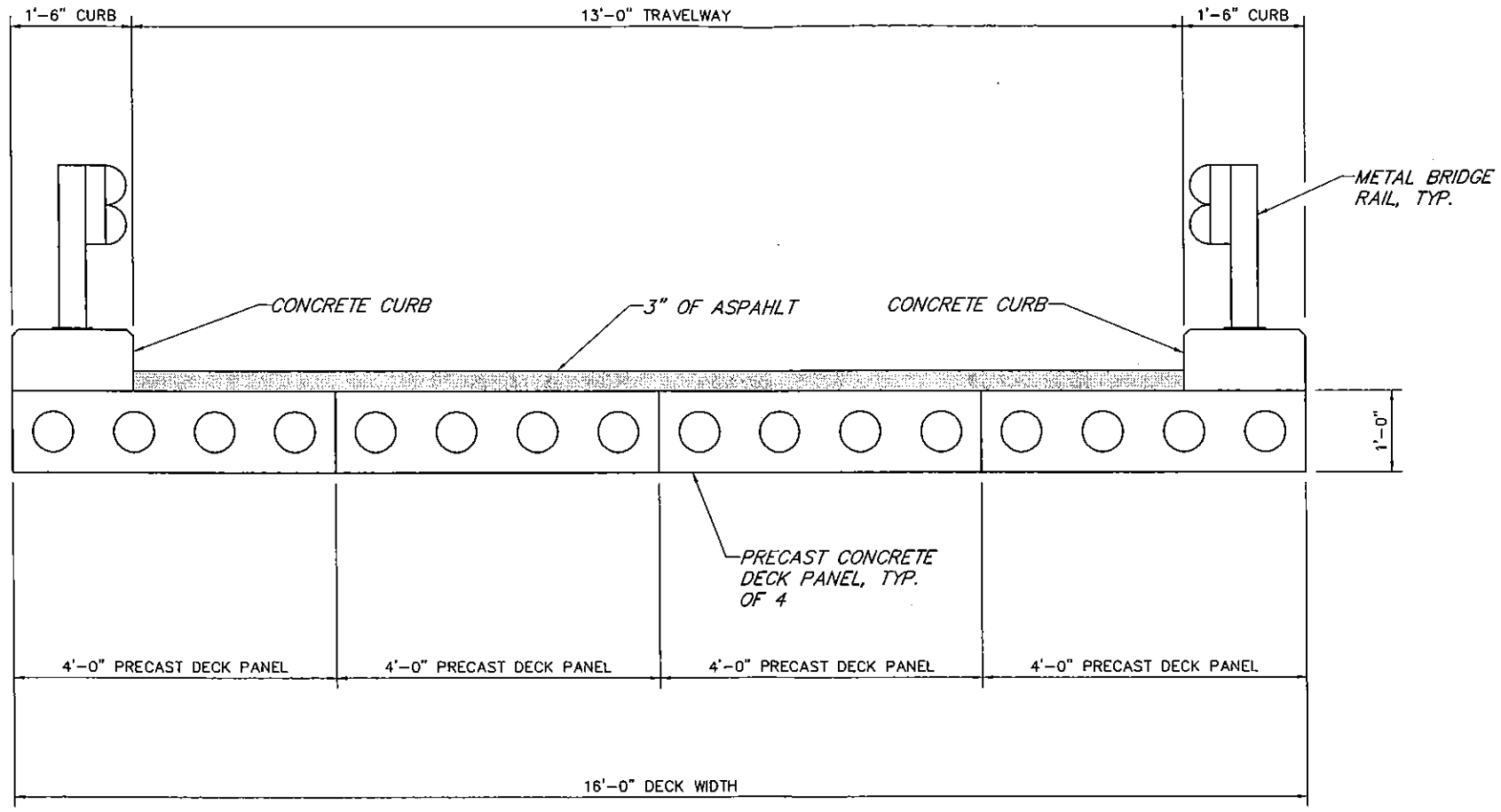

0 1' 2' 4' 6'

11 X 17: 1/2" = 1'–0"
FULL SIZE: 1" = 1'–0"

PRELIMINARY DESIGN

1 BRIDGE SECTION

SBA TOWERS III LLC
5900 BROKEN SOUND
PARKWAY, NW
BOCA RATON, FL 33487–2797
TEL: (561) 226–9523
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BRIDGEWATER, CT 06752

DESIGN TYPE:
RAW LAND

SHEET TITLE:
BRIDGE SECTION

DRAWING NO.
EX-7

REVISION:
A

Environmental Assessment Statement

I. PHYSICAL IMPACT

A. WATER FLOW AND QUALITY

No significant water flow and/or water quality changes or impacts are anticipated as a result of the construction or operation of the proposed facility. The construction and operation of the tower and related site improvements will have no direct effect on any off-site watercourses or waterbodies, and the equipment associated with the facility will discharge no pollutants to area surface or groundwater systems. Some activity will occur directly within delineated wetland areas for construction of the access drive. However, the overall facility design will minimize and mitigate impacts to the wetland's hydrologic functional role to the maximum extent possible and result in no significant adverse effects. Best Management Practices to control storm water and soil erosion during construction will be implemented.

B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at the proposed facility would emit no air pollutants of any kind. A diesel-powered generator for emergency power is proposed which will have compliant air emissions associated with its operation.

C. LAND

Clearing and grading will be necessary for the access drive and the compound area. The remaining land of the host parcel and the access parcel would 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. Some construction related noise would be anticipated during facility construction, which is expected to take approximately six to eight weeks. Temporary power outages could involve sound from the emergency generator.

E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the facility would be 4.56% of the federally promulgated emissions standard. Attached is a copy of a Power Density Report dated July 15, 2010, prepared by AT&T's radio frequency consultant C Squared Systems.

F. VISIBILITY

The potential visual impact of the proposed monopole was determined by preparation of the attached Visual Analysis 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. The majority of year-round visibility associated with the proposed Facility occurs over portions of Northrop Street, located to the west of the proposed facility and portions of Skyline Road located to the east. Year-round visibility would be limited to these areas due to the topography and vegetative cover in the area. Visual evaluation and photos documenting the visible conditions described above have been included in the Photosimulations with their locations marked on the Viewshed Map.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the facility is located and immediate surrounding areas exhibit no scenic, natural, historic or recreational characteristics that has been formally documented as unique. The Connecticut State Historic Preservation Officer ("SHPO") has determined that the proposed Facility will have no adverse affect on cultural and historical resources. The Connecticut Department of Environmental Protection ("CTDEP") Natural Diversity Database ("NDDB") maps for the proposed site have been reviewed. Attached is a letter from CTDEP confirming that there are no nearby threatened or endangered species and accordingly no impact on these species is anticipated. In addition, no federal endangered or threatened species will be impacted as per the US Department of the Interior.

May 26, 2010

SBA Towers III LLC
5900 Broken Sound Parkway
Boca Raton, FL 33487

RE: Tree Inventory
Site: Bridgewater
Wewaka Brook Road
Bridgewater, CT 06752
CHA # 15363-1054-43000

A site survey was completed at the subject site in February and April of 2010. A requirement of the survey involved determining the location of all trees within the topographic survey area with a diameter at breast height of 6" or larger. As can be seen on the site access map, there are one-hundred two (102) trees with a diameter of 6" or larger within the area of the proposed access road and compound which need to be removed for construction of the facility. The quantity and size of trees being removed is summarized in the below table:

Tree Diameter	Number of Trees to be Removed
6"	16
8"	25
10"	10
12"	16
14"	5
15"	1
16"	3
18"	11
20"	7
24"	7
40"	1
TOTAL	**102**

If you have any questions, comments or need further information, please do not hesitate to contact our office.

Very truly yours,

CLOUGH HARBOUR & ASSOCIATES LLP

Paul Lusitani

Paul Lusitani
Project Engineer

I:\15363\Sites\1054 Bridgewater 4 Bennett\ZD\BRIGEWATER-TREE INVENTORY 05-21-10.doc

Site Number: CT 11934
Site Name: Bridgewater
Site Address: Wewaka Brook Road, Bridgewater, CT 06752

Access distances:

Distance of access over existing asphalt driveway: 280'
Distance of access over new gravel driveway: 2,215'
Total distance of site access: 2,495'

Distance to Nearest Wetlands:

Proposed access road to cross Wetland #3 between Sta. 17+70 and Sta.17+90. Access road to cross between wetland flags 3-20 and 3-19, and wetland flags 3-13 and 3-12. The area of disturbance to Wetland #3 will be 818.5 ft^2.

An existing culvert connecting Wetland #4 is proposed to be replaced. The existing culvert crosses Wetland #4 between wetland flags 4-35 and 4-36 on the north side of the access drive, and at wetland flag 4-44 on the south side of the access drive. The area of disturbance to Wetland #4 will be 62.6 ft^2.

The total area of disturbance to wetlands is 881.1 ft^2, which is less than the 5,000 ft^2 threshold.

Distance to Property Lines:

480' to the northern property boundary
1,050' to the southern property boundary
350' to the western property boundary
350' to the eastern property boundary

Residence Information:

There are no residences within 1,000' feet of the tower. The closest residence is 1,140' southwest of the proposed tower.

Tree Removal Count:

See tree letter.

Distance to Nearest Town (Must notify town if less than 2,500'):

The nearest town to the proposed tower is Roxbury. The town boundary is 5,950' to the east.

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

C Squared Systems, LLC

July 15, 2010

Connecticut Siting Council

Subject: New Cingular Wireless, Bridgewater, 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 42 & 89 Wewaka Brook Road, Bridgewater, 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^2)	Limit	% FCC MPE Limit General Public/ Uncontrolled
Ground Level	AT&T UMTS	167	880	1	500	0.0069	0.5867	1.18%
	AT&T UMTS	167	1900	1	500	0.0069	1.0000	0.69%
	AT&T GSM	167	880	3	296	0.0123	0.5867	2.10%
	AT&T GSM	167	1900	1	427	0.0059	1.0000	0.59%
							Total	**4.56%**

Summary: Under worst-case assumptions, the RF Power Density at the proposed site located at 42 & 89 Wewaka Brook Road, Bridgewater, CT will not exceed 4.56% of the FCC MPE limit for General Public/Uncontrolled Environments.

Sincerely,

anthony wells

Anthony Wells
Managing Partner

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2010-ANE-672-OE

Issued Date: 07/12/2010

Clinton Papenfuss
SBA Towers
5900 Broken Sound Parkway NW
Boca Raton, FL 33487

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Antenna Tower CT 11934-S
Location:	Bridgewater, CT
Latitude:	41-30-31.50N NAD 83
Longitude:	73-21-16.00W
Heights:	174 feet above ground level (AGL)
	757 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part I)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 01/12/2012 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (816) 329-2508. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2010-ANE-672-OE.

Signature Control No: 127768464-128175023 (DNE)
Vee Stewart
Specialist

Attachment(s)
Frequency Data

cc: FCC

Frequency Data for ASN 2010-ANE-672-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1850	1910	MHz	1640	W
1930	1990	MHz	1640	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W

Transportation
Land Development
Environmental
Services

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

November 11, 2010

Vanasse Hangen Brustlin, Inc.

Ref: 40999.33

Ms. Hollis M. Redding
SBA Towers III LLC
One Research Drive, Suite 200 C
Westborough, MA 01581

Re: Preliminary Wetlands and Vernal Pools Assessment
Proposed SBA Towers III LLC Facility
Wewaka Brook Road
Bridgewater, Connecticut

Dear Ms. Redding:

Vanasse Hangen Brustlin, Inc. (VHB) is pleased to provide the following preliminary assessment of impacts to wetlands and vernal pools located on the subject property which will be affected by the proposed development of a wireless telecommunications facility. The findings of this assessment are presented below.

Introduction

According to the Town of Bridgewater Tax Assessor's Office, the host property consists of two (2) parcels of land located west of Wewaka Brook Road. The host property totals 55.2± acres of land. The smaller 4± acre parcel is developed with a residence at 89 Wewaka Brook Road. The larger 51.2± parcel is undeveloped consisting of active agricultural pasture land and animal paddock areas, Christmas trees and mature forested areas. Wewaka Brook crosses the easternmost portion of the host property with access currently provided by a bridge consisting of a wooden deck, steel support and concrete abutments. Surrounding land use within the vicinity of the host property is rural residential and agriculture interspersed with undeveloped areas of wooded land.

VHB understands that SBA Towers II LLC is proposing to construct a new telecommunications facility which will consist of a 170± tall monopole tower within a 45-foot by 80-foot fenced-enclosed compound area. AT&T antennas will be attached to the monopole tower with a 12-foot by 20-foot equipment shelter installed at its base. The proposed 12-foot wide gravel access drive will initiate from the existing gravel driveway on the property off of Wewaka Brook Road and will extend in a northwesterly direction toward the compound. Refer to site plans prepared by CHA, latest revision 10/20/10, provided under separate cover for further details.

Based on current Site Plans prepared by CHA, the access/utilities easement to provide access to the proposed Facility would originate off of Wewaka Brook Road and continue in a west/northwesterly direction towards the proposed lease and compound area. The total linear distance of the proposed

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email: info@vhb.com
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easement is approximately 2,495 linear feet (ln. ft.). The proposed 100-foot by 100-foot lease area is situated within the northwestern portion of the host property, which is currently forested. With the exception of the last 140± ln. ft., the proposed access drive will generally follow an existing access route. Starting from Wewaka Brook Road this existing access is characterized as follows with approximate lengths provided: a gravel driveway (270± ln. ft.), gravel farm road (285± ln. ft.), pastured farm road (675± ln. ft.) and wooded path (1,125± ln. ft.).

The proposed access drive travels over or in proximity to a total of six (6) delineated wetland systems. Wetlands were identified and delineated by a VHB Professional Soil Scientist on April 19, 2010. Details of the delineated wetlands are contained in the enclosed Wetlands Delineation Report. A summary of identified wetland areas and a preliminary assessment of impacts resulting from the proposed development is provided in the following section.

Preliminary Wetland Assessment

For descriptive purposes, each identified and delineated wetland area was assigned a number, starting from the proposed Facility location with Wetland 1 and ending with Wetland 6 at the eastern end of the project (e.g., existing paved driveway entrance off Wewaka Brook Road). An enclosed Wetland Resources Map depicts the locations of the six wetland areas in relationship to the proposed project. Photographs of the wetland areas are provided in the attached photolog documentation.

Wetland 1 This wetland is characterized as an isolated depressional palustrine forested wetland that contains a seasonal outlet into a poorly defined intermittent watercourse (IWC) channel at that flows to the south/southwest through an upland forested slope down to Wetland 2. The wetland is well vegetated along the perimeter and overhanging mature trees shade most of this feature, however, little interior vegetation exists. This wetland has the physical characteristics of a classical style vernal pool. Several spotted salamander (*Ambystoma maculatum*) egg masses and numerous wood frog (*Rana sylvatica*) tadpoles, both species considered obligate vernal pool species, were observed at the time of the wetland delineation (04/19/10). Therefore, this wetland is considered to contain both the physical and biological characteristics of a vernal pool habitat. Additional discussion of vernal pool habitat is provided in a subsequent section of this report. An adult wood duck (*Aix sponsa*) was observed in the wetland at the time of the inspection; a wood duck box is located on a tree at the southeast end of the wetland. During an October 5, 2010 inspection a single marbled salamander (*Ambystoma opacum*), also classified as an obligate vernal pool species, was discovered during a cover search within the dried up vernal pool limits. Other amphibians observed within or nearby this wetland include northern spring peeper (*Pseudacris crucifer crucifer*), red-spotted newt (*Notophthalmus viridescens viridescens;* eft stage observed), green frog (*Rana clamitans melanota*), redback salamander (*Plethodon cinereus*) and gray treefrog (*Hyla versicolor*).

No direct or indirect impact to Wetland 1 will result from the proposed development. The closest construction activity to Wetland 1 is 178± feet southeast of wetland flag 1-07. A detailed discussion of potential impact to vernal pool habitat is provided in a subsequent section.

Wetland 2 Also characterized as a depressional palustrine forested and scrub/shrub wetland, this resource contains semipermanent shallow inundation across the majority of the interior of the

delineated wetland system. Steep ledge outcrops and talus piles characterize the western edge of the wetland system. Dense vegetation characterize both the interior and perimeter of the wetland. During the wetland delineation (04/19/10), numerous spotted salamander egg masses and wood frog tadpoles were observed along with chorusing northern spring peepers within some of the deeper pools contains within the interior of the wetland. This wetland contains a cryptic type of vernal pool habitat, primarily supported by these deeper interior pools. A wood duck box was noted on a tree in the south central portion of the wetland. Wetland 2 appears to outlet during seasonal peak hydroperiods at the southeast end of the wetland through a subsurface path that opens back up into a surface intermittent watercourse feature that conveys flows to the south. Other amphibians observed within or nearby this wetland include northern spring peeper, green frog, red-spotted newt (both aquatic and eft stages observed), redback salamander and gray treefrog. Since Wetlands 1 and 2 are only 200± feet apart and have a seasonal surface hydraulic connection, it is likely that a strong amphibian migration exists between the two vernal pools which further adds to the significance of these special aquatic habitats.

No direct or indirect impact to Wetland 2 will result from the proposed development. The closest construction activity to Wetland 2 is 100± feet northeast near wetland flag 2-24 associated with grading for the gravel turnaround area adjacent to the Facility. The southwest corner of the Facility is 125± feet northeast of the closest wetland near wetland flag 2-24. A detailed discussion of potential impact to vernal pool habitat is provided in a subsequent section.

Wetland 3 A relatively narrow headwater palustrine forested wetland, this wetland conveys seasonal hillside seepage and shallow surface flows south through a poorly formed and diffuse narrow intermittent watercourse (IWC) channel. An existing woods trail crosses this wetland (generally between wetland flags 3-13 and 3-20) at a relatively narrow section of the wetland. A distinct flow path or channel is not evident across the woods trail stone bed surface that crosses this wetland corridor. Where the IWC is well formed within the interior of the wetland, the channel is typically 12 to 18 inches wide and approximately 6 inches deep or less.

The existing wooded trail crossing over Wetland 3 is proposed to be improved with the 12-foot wide gravel access drive. Approximately 818.5 square feet of wetlands will be directly impacted with the installation of a culvert and road fill material. Temporary wetland impacts associated with construction of this crossing (e.g., installation of erosion control measures and clearing of mature vegetation) are estimated at 250 square feet. The current preliminary design for this wetland crossing consists of a large diameter pipe with 2:1 side slopes. A reduction of approximately 300 square feet of wetland impact would result from increasing the side slopes to 1:1, which would be armored with stone (native stone from the construction project is recommended where possible). Since a distinct channel is not present within this section of the wetland, a series of three smaller pipes along with a french mattress encasing the pipes and extending out laterally to just beyond the wetland limits to the east and west is recommended. Using the french mattress and small culverts is considered a wetland-sensitive design that will mitigate for some of the impacts resulting from the crossing. The french mattress is a structure placed under the road surface consisting of coarse rock wrapped in fabric that allows water to freely pass through the lower road bed material. It provides road support while maintaining subsurface water flow on both sides of the wetland, minimizing impact to the wetland hydrology either on the upstream or downstream side. The use of several small culverts will avoid the concentration of seasonal surface water flows and alteration of the wetland hydrology as well. Areas

adjoining the proposed crossing temporarily impacted by construction activities would be restored using a New England wetland seed mix and native wetland shrubs.

An alternate to this proposed wetland crossing was evaluated to determine if avoidance of this wetland impact was prudent and feasible. In order to avoid crossing this wetland, a proposed alternative access route would start from the east side of the existing wetland crossing, travel along the east and north sides of the headwater wetland then turn west to the proposed Facility location. A significant portion of this alternate access route (600± linear feet) would be located within 100 feet of Wetland 3 and in close proximity to this wetland. This wetland buffer area is characterized by mature forest and would require clearing numerous trees to accommodate such an access route. In addition, the section of this access route that turns to the west to gain access to the proposed Facility is characterized by steep slopes and bedrock outcrops requiring extensive grading, rock removal and resulting tree clearing. Therefore, it was determined that utilizing the existing wetland crossing with the recommended mitigation measures to minimize wetland disturbance would result in less overall impact to Wetland 3.

The minor wetland impacts (500± square feet of permanent impact when using steeper side slopes) proposed to improve this existing crossing are not considered to result in a likely adverse impact to this resource when considering the recommended mitigation measures and the lack of a prudent and feasible alternative to avoid such impacts. Although the resulting impacts to this wetland area are anticipated to be relatively minor, additional precautions during construction should be considered to further minimize impact to downstream areas. Such precautions will include, but are not limited to, appropriate erosion control protective measures and regular monitoring of such controls. These protective measures will be incorporated into the final plans during the Development and Management phase, provided the project is approved by the Connecticut Siting Council.

Wetland 4 This wetland is characterized as a palustrine wetland with forested, scrub/shrub, wet meadow and agricultural disturbed habitats. A broad, primarily forested wetland area forms the western delineated portion of the wetland system. This portion of the wetland drains to the north then east, narrowing considerably as it flows east into an intermittent watercourse feature with narrow bordering vegetated wetland. This portion of the wetland corridor becomes further constricted by active agricultural pasture and animal paddock areas to the north and a Christmas tree area to the south. These agricultural activities have resulted in disturbance to this portion of the wetland corridor in the form of stream bank erosion, small artificial impoundments of the stream to create a series of three small agricultural ponds, a farm road culvert crossing and finally flowing through an active pasture before converging with Wewaka Brook off the subject property to the southeast. An existing farm road crosses a narrow section of the seasonal stream with an 18-inch reinforced concrete pipe (RCP) and stone and earth fill to form a stable road bed.

The proposed access drive deviates off the existing trail through the western end of Wetland 4 to avoid direct wetland impacts. The proposed drive will swing around the south and of this wetland area to avoid crossing the wetland and link back up with the existing trail on the west side of Wetland 4. Improvement to the existing crossing of Wetland 4 is required to provide a stable and suitably wide access route to the proposed Facility. Improvements to this crossing will generally consist of replacement of the existing 18-inch reinforced concrete pipe with an appropriately sized culvert with fill cover to create a stable 12-foot wide access drive. Improvements to this existing

wetland/intermittent stream crossing will only result in 62.6± square feet of permanent wetland impact. Temporary wetland impacts associated with construction of this crossing (e.g., installation of erosion control measures and clearing of mature vegetation) are estimated at 150 square feet. It is important to point out that this wetland impact area, both temporary and permanent areas, will only take place in areas immediately adjacent to the existing gravel drive, which are characterized by existing disturbed areas.

The minor wetland impacts proposed to improve this existing crossing are not considered to result in a likely adverse impact to this resource due to the existing disturbance (e.g., culvert and fill crossing) and active agricultural land use disturbance (e.g., pasture, animal paddock areas, etc.) within and proximate to this wetland resource. Although the resulting impacts to this wetland area are anticipated to be relatively minor considering the existing disturbance to this habitat, additional precautions during construction should be considered to further minimize impact to downstream areas. Such precautions will include, but are not limited to, appropriate erosion control protective measures and regular monitoring of such controls. These protective measures will be incorporated into the final plans during the Development and Management phase, provided the project is approved by the Connecticut Siting Council.

Wetland 5 This riparian corridor consists of the delineated banks of Wewaka Brook, a perennial stream. This stream is currently crossed by a bridge associated with the driveway to the subject property's residence and agricultural operation. Delineated portions of the stream banks are vegetated with maintained lawn and shrubs, including several invasive species, and immediately border an active pasture. Portions of the bank are also armored with stone. Some bank erosion was noted in a few areas, including along the concrete abutments supporting the bridge. Although a survey has not been performed, Wewaka Brook is assumed to be a relatively high quality water resource that provides cold water fisheries habitat.

Replacement of the existing bridge over Wewaka Brook is required to accommodate the design load and dimensional requirements for construction equipment access for the proposed development. Details of the bridge replacement project are contained in CHA's Preliminary Bridge Design for Wewaka Brook Crossing, dated November 4, 2010, provided under separate cover. A summary of the bridge replacement is provided below for the purposes of assessing impacts to Wewaka Brook.

A temporary crossing at Wewaka Brook is required for access during demolition of the existing bridge and construction of the new bridge. Due to space limitations and physical obstructions, temporary crossing to the south of the existing bridge is recommended. Temporary culverts will be placed in Wewaka Brook to fill the narrowest portion of the waterway just to the south of the existing bridge. The remainder of the brook will be temporarily filled on the sides and above the culverts to create a temporary stable access road over the brook. A crushed rock road will be constructed on either side of the temporary culverts to connect the brook crossing with the existing drive to the west and east. The temporary culvert crossing of Wewaka Brook will temporarily impact 400 square feet of stream resource. Upon removal of the temporary crossing, the stream bed and banks of Wewaka Brook will be properly restored with native stream bed material and plantings of native conservation/wildlife seed mix and shrubs along the bank for permanent stabilization. This stream bank restoration work will

also include removal of invasive non-native shrubs, which will be replaced with native shrubs. Stream bed gradients will be properly restored to pre-construction conditions and elevations.

The bridge demolition process will be completed in a way to avoid/minimize work in Wewaka Brook. Demolition activities will occur from the rear side of each abutment to avoid impact to the stream. Demolition of the existing bridge will begin by installing shoring around the limits of excavation required for the bridge demolition process and for construction of the new bridge, creating a protective isolation barrier between construction activities and the stream. Sand bags and/or similar types of water protection barriers will be placed between the limits of shoring along the water edge to contain the water and prevent it from flooding the excavated area thereby minimizing release of sediment in the stream. Once the shoring and water barrier protective measures are in place, excavation on the rear side of each abutment will begin. Next, all steel beam anchors will be removed and the entire superstructure will be lifted off the abutments with a crane so it can be cut and dismantled away from the stream, avoiding debris from falling into Wewaka Brook. Finally, the concrete abutments will be removed by tilting them back away from the stream.

The proposed bridge replacement structure will consist entirely of precast concrete elements, including the footings, abutments and deck to minimize disturbance to Wewaka Brook. This construction method will significantly reduce construction time, which will also minimize disturbance to the stream resource. The bridge's clear opening between the abutments faces will be 26 feet, providing an increase of 10 feet from the existing 16-foot clear opening. The clear opening will be increased by 5 feet on either side of the stream. The increase in clear opening will offer two benefits: the hydraulic opening will be increased for Wewaka Brook and, the abutments will be pulled out of the waterway so they can be protected from deterioration.

For the proposed Wewaka Brook crossing improvements, the following criteria excerpted (in *italics*) from the U.S. Army Corps of Engineers (Corps) Connecticut Programmatic General Permit were evaluated in order to qualitatively evaluate impacts to this stream resource.

> *Unconfined in-stream work, including construction, installation or removal of cofferdam structures or placement of fill, is limited to the period July 1 through September 30 except in instances where a specific written exception has been issued by the CT DEP.*
>
> *The following are required for driveway/roadway crossings constructed on brooks, streams, rivers and their tributaries. These provisions do not apply to crossings of drainage ditches or waters with no definable channel. Driveway crossings using a bridge or open-bottom structure must: span at least 1.2 times the watercourse bank full width, have an openness ratio[1] equal to or greater than 0.25 meters, and allow for continuous flow of the 50-year frequency storm flows.*

The proposed preliminary Wewaka Brook crossing carefully considered these design requirements in order to be compliant with the natural stream crossing design standards required by the Corps and CTDEP. Unconfined in-stream work will not occur within Wewaka Brook outside of the July 1 to

[1] **Openness Ratio:** The cross-sectional area (in square meters) of the opening of a structure divided by the length (measured in meters) of the structure. For a box culvert, openness ratio = (height x width)/length (measured in meters). The imbedded portion of the culvert is not included in the cross-sectional area used for calculating the openness ratio.

September 30 period. The proposed bridge design increases the existing stream clear opening from 16 feet to 26 feet which results in a 1.625 times the stream's bank full width (exceeding the 1.2 design requirement) and provides for an openness ratio of 1.74 meters (exceeding the 0.25 meters design requirement). To minimize impact to Wewaka Brook associated with the proposed culverts for the temporary crossing, the culvert gradient (slope) will be no steeper than the streambed gradient immediately upstream and downstream of the culvert. In addition, the culverts will be imbedded 12 inches below the streambed so as not to impede the movement of fish and other aquatic organisms. A hydraulic analysis will be performed during preparation of the final plans at the Development and Management phase, provided the project is approved by the Connecticut Siting Council, to ensure the new crossing will allow for continuous flow of the 50-year frequency storm flows. At a minimum, the proposed bridge structure would increase the stream opening (square feet) by approximately 60 percent.

The temporary impacts to Wewaka Brook proposed to improve this existing crossing are not considered to result in a likely adverse impact to this resource with the mitigating protective design considerations, restrictions and restoration activities previously noted. Although the resulting impacts to Wewaka Brook are anticipated to be relatively minor considering the improvements to be made to the stream crossing, additional precautions during construction will be employed to further minimize impact to downstream areas. Such precautions will include, but are not limited to, appropriate erosion control protective measures and regular monitoring of such controls. These additional details will be incorporated into the final plans during the Development and Management phase, provided the project is approved by the Connecticut Siting Council. Further detailed design analysis of the bridge replacement may result in additional minimization of stream impacts and may reveal additional mitigation opportunities.

Wetland 6 This wetland is characterized as a small man-made pond (0.1± acre) adjacent to the north side of the driveway entrance from Wewaka Brook Road. Wewaka Brook is located nearby to the west and south. The pond edge is primarily maintained lawn with some landscape plantings along the upland edge.

No direct or indirect impact to Wetland 2 will result from the proposed development.

Preliminary Vernal Pool Assessment

The following narrative describes the vernal pool inspection methodology, the characteristics of the identified vernal pools, the amphibian species observed and provides a preliminary analysis of potential impacts to these special aquatic habitats resulting from the proposed development.

Vernal pools provide an important wildlife habitat type. They are generally small, seasonally-inundated wetlands that lack fish populations and provide breeding habitat for obligate vernal pool species such as wood frogs (*Rana sylvatica*) and spotted salamander (*Ambystoma maculatum*). Numerous other wildlife species use vernal pools and the areas immediately adjacent for feeding, cover, and/or overwintering habitat.

The methods employed on the subject property to conclusively identify potential vernal pool habitat include a variety of recognized scientific field exploration techniques. Potential vernal pools are conclusively identified based on both physical characteristics (i.e., occurs within a confined depression or basin that lacks a permanent outlet stream, standing water for approximately two months during the growing season, lacks any fish population, and dries out most years) and the occurrence of one or more obligate wildlife species (i.e., spotted salamander, marbled salamander [*Ambystoma opacum*], wood frog, and fairy shrimp [*Eubranchipus vernalis*]). The vernal pool physical and biological identification methodology utilized in this study generally follows the guidelines noted in *A Guide to the Identification and Protection of Vernal Pool Wetlands of Connecticut*[2] and *Guidelines for Certification of Vernal Pool Habitat*[3] along with various amphibian and vernal pool species field guides[4].

Vernal Pool Study Results

Two vernal pools were identified in the western portion of the subject property. These vernal pools, referred previously in this document as Wetlands 1 and 2 (hereinafter referred to as Vernal Pools 1 and 2), were inspected in the field on April 19, 2010 by Dean Gustafson, a VHB Senior Wetland Scientist experienced in vernal pool identification. The location of the two identified vernal pools are illustrated on the enclosed Vernal Pool Evaluation map. Photographs of the vernal pools and identified obligate species are provided in the attached photolog documentation.

VHB surveyed the potential vernal pools for direct evidence of obligate and facultative species breeding (e.g., congressing, presence of egg masses, and/or larvae and adult amphibians and invertebrates such as fairy shrimp and fingernail clam shells) and indirect evidence (e.g., chorusing) during the April 19, 2010 inspection to determine if vernal pool habitat is actually provided by these wetland areas. The potential vernal pool's interior was inspected with the aid of hip waders to visually survey the water column (using polarized sunglasses) and survey the pool and bottom with an aquatic dip net. Water depths typically encountered in Wetland 1 measured at 18 to 24 inches deep while Wetland 2's deeper pools were shallower at generally 12 to 18 inches. In addition, a cover search was performed (i.e., downed tree limbs, logs, large rocks) in the vicinity of the vernal pool's edge for adult salamanders and frogs.

Both Vernal Pools 1 and 2 were found to contain the necessary physical and biological characteristics to provide vernal pool habitat. The pools consist of confined basins with Wetland 2 containing semi-permanent to permanent inundation. Surface flows between the two vernal pools do occur through a poorly formed intermittent watercourse feature that is anticipate only to flow during the spring peak hydroperiod.

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[2] Donahue, D.F. 1997. A Guide to the Identification and Protection of Vernal Pool Wetlands of Connecticut. State University of Connecticut Cooperative Extension System.

[3] Massachusetts Natural Heritage and Endangered Species Program. 2001. Guidelines for the Certification of Vernal Pool Habitat.

[4] DeGraaf, R.M. and D.D. Rudis. 1983. Amphibians and Reptiles of New England. The University of Massachusetts Press. 83 pp.
Kenney, L.P. and M.R Burne. 2000. A Field Guide to the Animals of Vernal Pools. Mass Div Fish. & Wildlife. NHESP. 77 pp.
Klemens, M.W. 1993. Amphibians and Reptiles of Connecticut and Adjacent Regions. State Geological and Natural History Survey of Connecticut Bulletin 112. 318 pp.
Maine Audubon, The University of Maine and Maine Department of Inland Fisheries and Wildlife. 2003. Maine Citizen's Guide to Locating and Documenting Vernal Pools. 97 pp.
State Geological and Natural History Survey of Connecticut Bulletin 112. 318 pp.

Numerous wood frog tadpoles and discarded egg mass remnants were observed within both pools. In addition, several spotted salamander egg masses were noted in both pools. In addition, several adult green frogs, a wood frog tadpole predator, were observed and heard chorusing along both pool margins during the inspection. While green frogs are considered a facultative vernal pool species, they use a wide variety of aquatic habitats (permanent, temporary, pristine, disturbed)[5] for breeding and therefore are not considered to be an obligate vernal pool indicator species[6]. No state-listed species were identified during the vernal pools assessment. As a result of these observations, the vernal pools were found to contain the required biological characteristics and therefore are conclusively identified as a vernal pool habitat.

Impact Analysis

The following section details a recognized scientific method for analyzing the potential impact a project may have on a particular vernal pool and its surrounding upland habitat. In addition, an analysis of potential hydraulic impacts to the vernal pools resulting from the proposed development is provided.

Physical Impact to Pool and Surrounding Terrestrial Habitat

The proposed project will not result in direct physical impact to the nearby vernal pools. It is widely documented that vernal pool dependent amphibians are not only solely dependent upon the actual vernal pool habitat for breeding and egg and juvenile development but require surrounding upland habitat for most of their adult lives. Recent studies recommend protection of adjacent habitat up to 750 feet from the vernal pool edge for obligate pool-breeding amphibians.[7]

In order to evaluate potential impacts to this surrounding upland habitat as well as the vernal pool, the two vernal pools were assessed using methodology developed by Calhoun and Klemens (2002). This methodology assesses vernal pool ecological significance based on two parameters: 1) biological value of the vernal pool, and 2) conditions of the critical terrestrial habitat. The biological rating is based on the presence of federal or state-listed species and abundance and diversity of vernal pool indicator species. Note: due to the time of year the evaluation was conducted (wood frog egg masses had already hatched), a conservative estimate of greater than 25 egg masses was used in the evaluation based on the numerous tad poles observed in each pool. The terrestrial habitat is assessed based on the integrity of the vernal pool's envelope (within 100 feet of the pool's edge) and the critical terrestrial habitat (within 100-750 feet of the pool's edge). Pools with 25% or less developed areas in the critical terrestrial habitat are identified as having high priority for maintaining less that 25% development, including site clearing, grading and construction, within this terrestrial habitat (Calhoun and Klemens,

[5] Klemens, M.W. 1993. Amphibians and Reptiles of Connecticut and Adjacent Regions. State Geological and Natural History Survey of Connecticut Bulletin 112. Pg. 127

[6] Massachusetts Natural Heritage and Endangered Species Program, January 1, 2001. Guidelines for the Certification of Vernal Pool Habitat. Pg. 6

[7] Oscarson, D.B. and A.J.K. Calhoun. 2007. Developing Vernal Pool Conservation Plans at the Local Level Using Citizen-Scientists. Wetlands. Vol. 27, No. 1. 80-95. & Calhoun, A.J.K. and M.W. Klemens. 2002. Best Development Practices (BDPs): Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States. WCS/MCA Technical Paper No. 5.

2002). Based on these data, the conservation priority rating of Tier I, Tier II or Tier III was assigned to the vernal pool, with Tier I considered to have relatively high breeding activity and intact terrestrial habitat and Tier III pools representing lower amphibian productivity and fragmented terrestrial habitat.

Vernal Pools 1 and 2 were rated based on this criterion for both the existing condition and the proposed condition to determine if the proposed wireless telecommunications project disturbances would result in a reduction in the tier rating system or reduce the terrestrial habitat integrity below the 75% non-development threshold. The results of the rating system reveal that both vernal pools currently have the highest conservation priority rating of Tier I. The post-development analysis, as detailed below, reveals that the proposed development will not result in further degradation of the existing tier rating or terrestrial habitat integrity of either Vernal Pool 1 or 2 due to the small area of disturbance created within the Critical Terrestrial Habitat (100 to 750 feet from the pool's edge) by the proposed project and avoidance of any impact to the 100 foot vernal Pool Envelope.

The total area of the critical terrestrial habitat to Vernal Pool 1 is 49.49± acres with no development currently existing. The proposed wireless telecommunications facility compound and access road will develop 0.5± acre, which represents development of only 1.0% of the total critical terrestrial habitat of Vernal Pool 1. The total area of the critical terrestrial habitat to Vernal Pool 2 is 54.83± acres with no development currently existing. The proposed wireless telecommunications facility compound and access road will develop 0.66 acre, which represents development of only 1.2% of the total critical terrestrial habitat of Vernal Pool 1. Both of these disturbances are well below the recommended 25% development threshold. Details of the rating system and calculations used to evaluate the existing and proposed conditions of the terrestrial habitat are provided in the attached Vernal Pool Assessment Sheets.

Therefore, based on this analysis the proposed development will not result in a likely adverse impact to existing amphibian productivity for either vernal pool and will not adversely impact the terrestrial habitat due to the limited amount of disturbance proposed. Impact to the vernal pool terrestrial habitat is further minimized by the unmanned nature of the facility and the limited traffic it generates (e.g., approximately one trip per month per carrier).

Hydraulic Alterations

Another consideration when evaluating a project's potential impact to vernal pool habitat includes evaluating land-use changes (i.e., clearing, increase in impervious surface) that could alter the watershed of a vernal pool. Direct inputs of stormwater flows into a pool may produce sudden water level increases in a short period of time and may lengthen the duration of flooding (hydroperiod). Diversion of stormwater flows past a pool may have the opposite effect of decreasing water levels and shortening the pool's hydroperiod. In addition, stormwater features that create temporary pools of water (decoy pools) can result in a biological "sink" as breeding amphibians deposit eggs into a water body without the necessary hydraulic period to allow for successful development of the eggs into juveniles.

Site clearing and grading activities will not de-water the nearby vernal pools or alter surface water drainage patterns associated with either pool. The location of the proposed facility was intentionally positioned so that no alternation to the drainage area that feeds vernal pool 2 (vernal pool 1 is located upgradient of the proposed facility) would be altered and would not result in a direct discharge of stormwater into either pool. Any runoff generated by the proposed compound would flow to the northeast and east away from vernal pool 2. Any runoff generated by the proposed 12-foot wide gravel access drive in proximity to vernal pool 2 would flow away to the east.

Impervious surfaces associated with the proposed facility have been minimized with the use of a relatively narrow 12-foot wide gravel access road and gravel surface within the wireless telecommunications facility compound that promotes infiltration. In addition, the proposed development will not create decoy pools that could adversely affect breeding amphibians. Therefore, the proposed development will not result in a likely adverse impact to the hydrology of these nearby vernal pools.

Conclusions and Management Recommendations

No direct impact to Vernal Pools 1 or 2 will result from the proposed development. The vernal pools were evaluated for their ability to provide vernal pool habitat, for the presence of obligate (or indicator) vernal pool species and how the proposed development may affect the habitat. No state listed species were identified as occurring in any of the vernal pools. This study revealed that the proposed project would not result in a significant impact to the terrestrial habitat used by adult amphibians that breed in these vernal pools and that the project will not influence the vernal pool's hydroperiod or hydrology. Based on these results, the proposed wireless telecommunications facility project will not result in a likely adverse impact to vernal pool habitat.

However, since the proposed development is in relative close proximity to both vernal pools and there is a possibility that adult amphibians may be encountered during construction activities, certain protective measures are recommended.

Due to the proximity of proposed development activities to sensitive wetland resource areas that provide vernal pool habitat, VHB recommends the following protective measures to avoid unintentional impact to these habitats.

- An extensive erosion and sedimentation control plan be developed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* to properly protect these special aquatic resources. Silt fencing will act as an exclusion to amphibians from active construction areas and avoid amphibian mortality associated with construction equipment traffic.

- A thorough cover search of the construction area will be performed by a properly qualified professional for amphibians prior to and following installation of silt fencing to remove any amphibians from the work zone prior to the initiation of construction activities.
- A properly qualified professional independent of the site contractor will monitor the installation and maintenance of erosion and sedimentation controls throughout the construction project and perform periodic sweep for amphibians to ensure that nearby

wetlands are protected and amphibians are not trapped within the construction zone of the project.

- Construction of the wireless telecommunications facility will be seasonally restricted from occurring between March 1 to May 15 to avoid construction activities and potential disturbance during the peak amphibian migration and breeding period. Access drive construction activities located move than 750 feet from the vernal pools are not seasonally restricted from this period, excepting in-stream work seasonal restrictions associated with the bridge replacement as previously described.

- Any ruts or artificial depressions that could hold water created unintentionally by site clearing/construction activities will be properly filled in and permanently stabilized with vegetation to avoid the creation of decoy pools that could intercept amphibians moving toward the vernal pools.

- Erosion control measures will be removed no later than 30 days following final site stabilization so as not to impede migration of amphibians or other wildlife.

- Restrict the usage of herbicides and pesticides at the proposed wireless telecommunications facility and along the proposed access drive.

Summary

Additional analysis of wetland resource impacts will be performed during the Development and Management phase, provided the project is approved by the Connecticut Siting Council. Further detailed design analysis may result in additional minimization of wetland impacts and may provide additional mitigation opportunities. However, the protective measures and mitigation described herein do not result in wetland and watercourse impacts that are considered to cause a likely significant adverse impact.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Dean Gustafson
Senior Wetland Scientist

cc: Ernie Lacasse, SBA Towers III, LLC
Kevin Dey, SAI Communications, LLC
Daniel M. Laub, Cuddy & Feder LLP

Figures

- **Wetland Resources Map**
- **Vernal Pool Evaluation Map**

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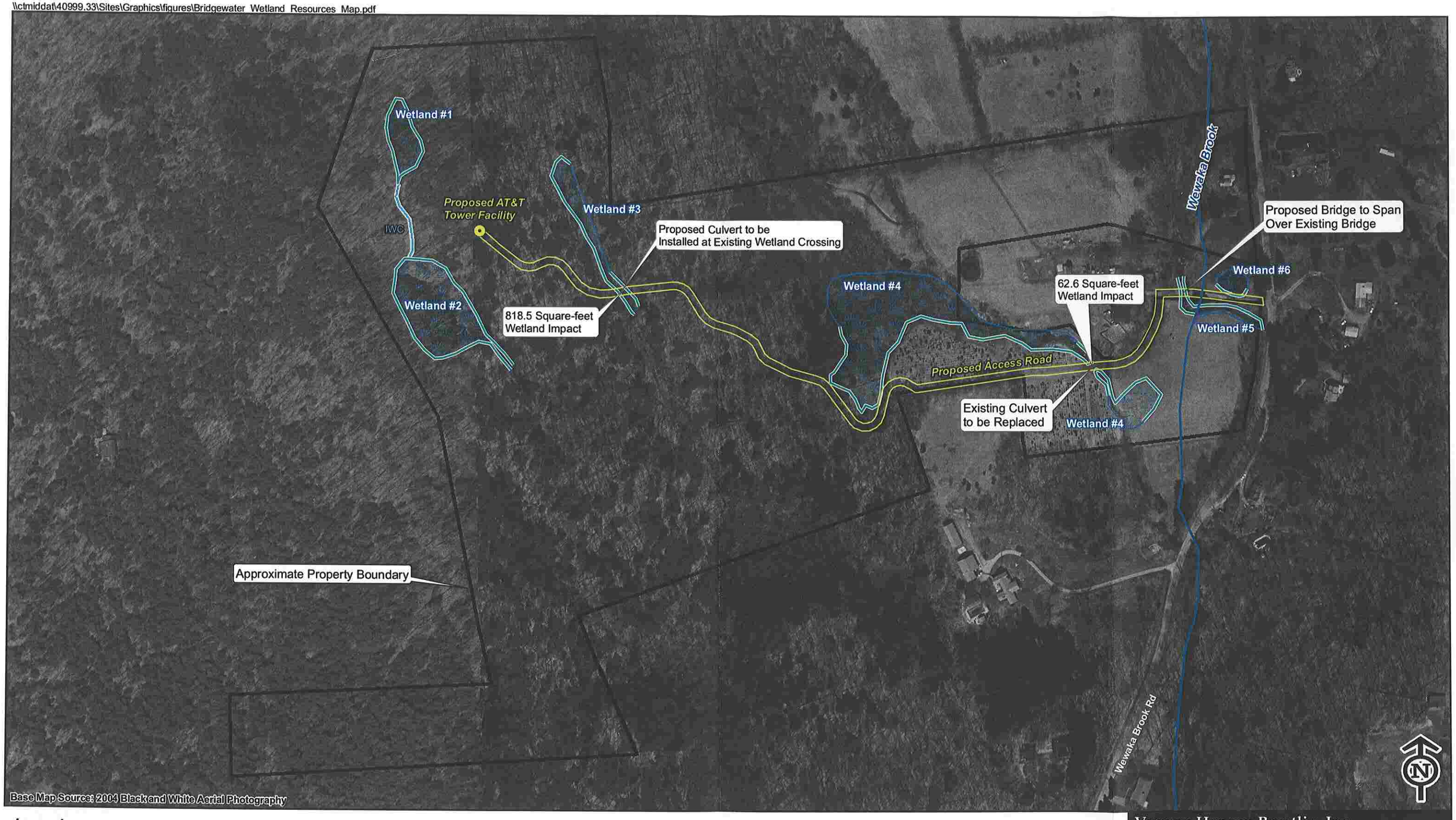

Legend

- Proposed AT&T Tower Facility
- Proposed Access Drive
- Delineated Wetland Boundary
- CTDEP Wetlands
- Approximate Property Boundary

400 200 0 400 Feet

Vanasse Hangen Brustlin, Inc.

Wetland Resources Map
Proposed SBA Towers II LLC
Telecommunications Facility
Bridgewater
Wewaka Brook Road
Bridgewater, Connecticut

SBA

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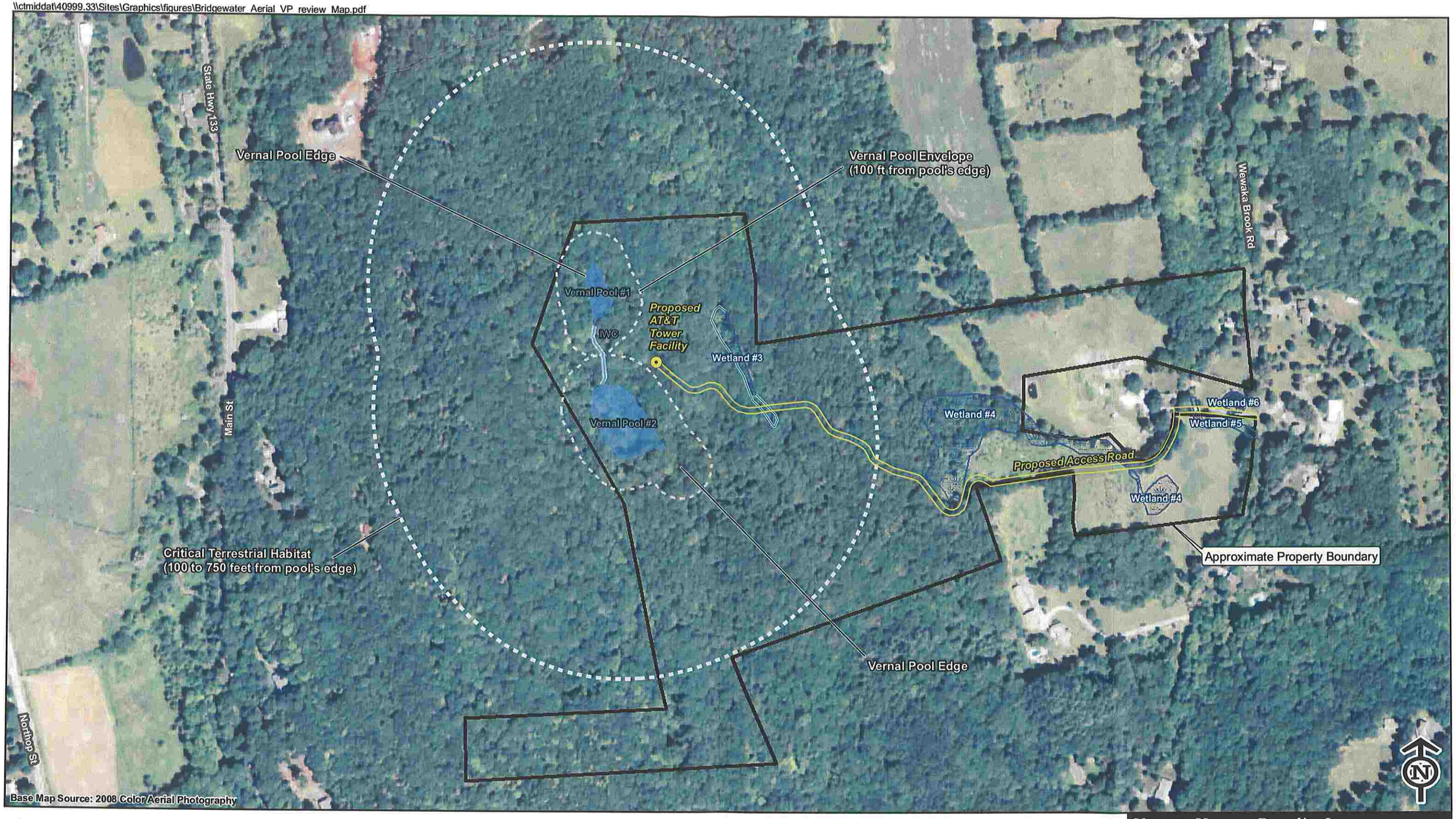


Legend

- Proposed AT&T Tower Facility
- Proposed Access Drive
- Intermittent Watercouse Line
- Wetland Boundary
- Wetlands
- Vernal Pool
- Vernal Pool Buffers
- Approximate Property Boundary

500 250 0 500 Feet

Vanasse Hangen Brustlin, Inc.

Vernal Pool Evaluation
Proposed SBA Towers II LLC
Telecommunications Facility
Bridgewater
Wewaka Brook Road
Bridgewater, Connecticut

SBA

Wetlands Delineation Report

Transportation
Land Development
Environmental
Services

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

WETLANDS DELINEATION REPORT

Vanasse Hangen Brustlin, Inc.

Date:	May 21, 2010
Project No.:	40999.33
Prepared For:	Ms. Hollis M. Redding SBA Towers II LLC One Research Drive, Suite 200 C Westborough, MA 01581
Site Location:	89 Wewaka Brook Road Bridgewater, Connecticut
Site Map:	VHB Wetland Sketch, 04/19/10
Inspection Date:	April 19, 2010
Field Conditions:	Weather: partly cloudy, mid 60's General Soil Moisture: moist Snow Depth: none Frost Depth: none

Type of Wetlands Identified and Delineated:

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

Inland Wetland Regulated Upland Review Areas: Wetlands: 100 feet Watercourses: 100 feet

Field Numbering Sequence of Wetlands Boundary: WF 1-01 to 1-17; IWC 1-01 to 1-06 WF 2-01 to 2-16; WF 2-17 to 2-27; WF 3-01 to 3-15; WF 3-16 to 3-22; WF 4-01 to 4-39; WF 5-01 to 5-06; WF 5-07 to 5-18

[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

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:	89 Wewaka Brook Road Bridgewater, CT	Project Number:	40999.33
Inspection Date:	4/19/10	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 1		

Field Conditions:	Weather: ptly. cloudy, mid 60's	Snow Depth: none
	General Soil Moisture: moist	Frost Depth: none
Type of Wetland Delineation:	CT Inland ☒	
	CT Tidal ☐	
	ACOE ☐	
Field Numbering Sequence: WF 1-01 to 1-17; IWC 1-01 to 1-06		

WETLAND HYDROLOGY:

NONTIDAL

Regularly Flooded ☐	Irregularly Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments:		

TIDAL

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Seasonally Flooded ☐	Temporarily Flooded ☐	
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments:		

CLASS:

Emergent ☐	Scrub-shrub ☐	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments:		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☒	Tidal ☐
Comments: watercourse feature is seasonal and flows south/southwest to Wetland 2		

SPECIAL AQUATIC HABITAT:

Vernal Pool ☒	Other ☐	
Comments: wood frog tadpoles & spotted salamander egg masses observed		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury, Leicester, and Whitman soils (3)	☒	☐	☒	☒
Charlton-Chatfield complex (73)	☐	☒	☒	☒
Hollis-Chatfield-Rock outcrop complex (75)	☐	☒	☒	☒
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

DOMINANT PLANTS:

red maple (*Acer rubrum*)	swamp white oak (*Quercus bicolor*)
yellow birch (*Betula alleghaniensis*)	eastern hemlock (*Tsuga Canadensis*)
common spicebush (*Lindera benzoin*)	sweet pepperbush (*Clethra alnifolia*)
swamp azalea (*Rhododendron viscosum*)	tussock sedge (*Carex stricta*)
skunk cabbage (*Symplocarpus foetidus*)	sedges (*Carex spp.)*

WETLAND NARRATIVE:

Wetland 1 is characterized as an isolated depressional palustrine forested wetland that contains a seasonal outlet into a poorly defined intermittent watercourse (IWC) channel at that flows to the south/southwest through an upland forested slope down to Wetland 2. The wetland is well vegetated along the perimeter but contains little interior cover. This wetland has the physical characteristics of a classical style vernal pool. Spotted salamander (*Ambystoma maculatum*) egg masses and wood frog (*Rana sylvatica*) tadpoles, both species considered obligate vernal pool species, were observed at the time of the wetland delineation. Therefore, this wetland is considered to contain both the physical and biological characteristics of a vernal pool habitat. An adult wood duck (*Aix sponsa*) was observed in the wetland at the time of the inspection; a wood duck box is located on a tree at the southeast end of the wetland.

Wetland Delineation Field Form

Project Address:	89 Wewaka Brook Road Bridgewater, CT	Project Number:	40999.33
Inspection Date:	4/19/10	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 2		

Field Conditions:	Weather: ptly. cloudy, mid 60's	Snow Depth: none
	General Soil Moisture: moist	Frost Depth: none
Type of Wetland Delineation:	CT Inland ☒	
	CT Tidal ☐	
	ACOE ☐	
Field Numbering Sequence: WF 2-16 to 2-01/WF 2-27 to 2-17		

WETLAND HYDROLOGY:

NONTIDAL

Regularly Flooded ☐	Irregularly Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☒	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments: semipermanent shallow open water		

TIDAL

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Seasonally Flooded ☐	Temporarily Flooded ☐	
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments:		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments:		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☒	Tidal ☐
Comments:disconnected intermittent watercourse provides a seasonal outlet to the south		

SPECIAL AQUATIC HABITAT:

Vernal Pool ☒	Other ☐	
Comments: wood frog tadpoles, spotted salamander egg masses & chorusing northern spring peepers		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury, Leicester, and Whitman soils (3)	☒	☐	☒	☒
Charlton-Chatfield complex (73)	☐	☒	☒	☒
Hollis-Chatfield-Rock outcrop complex (75)	☐	☒	☒	☒
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

DOMINANT PLANTS:

red maple (*Acer rubrum*)	buttonbush (*Cephalanthus occidentalis*)
sweet pepperbush (*Clethra alnifolia*)	cinnamon fern (*Osmunda cinnamomea)*
winterberry (*Ilex verticillata)*	skunk cabbage (*Symplocarpus foetidus*)
common duckweed (*Lemna minor*)	common spicebush(*Lindera benzoin*)
eastern hemlock (*Tsuga Canadensis*)	swamp azalea (*Rhododendron viscosum*)
tussock sedge (*Carex stricta*)	sedges (*Carex spp.*)

WETLAND NARRATIVE:

Wetland 2 is characterized as a depressional palustrine forested and scrub/shrub wetland that contains semipermanent shallow inundation across the majority of the interior of the delineated wetland system. Steep ledge outcrops and talus piles characterize the western edge of the wetland system. Dense vegetation characterize both the interior and perimeter of the wetland During the wetland delineation, numerous spotted salamander (*Ambystoma maculatum*) egg masses and wood frog (*Rana sylvatica*) tadpoles were observed along with chorusing northern spring peepers (*Pseudacris crucifer crucifer*) within some of the deeper pools contains within the interior of the wetland. This wetland contains a cryptic type of vernal pool habitat, primarily supported by these deeper interior pools. A wood duck box was noted on a tree in the south central portion of the wetland. Wetland 2 appears to outlet during seasonal peak hydroperiods at the southeast end of the wetland through a subsurface path that opens back up into a surface intermittent watercourse feature that flows to the south.

Wetland Delineation Field Form

Project Address:	89 Wewaka Brook Road Bridgewater, CT	Project Number:	40999.33
Inspection Date:	4/19/10	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 3		

Field Conditions:	Weather: ptly. cloudy, mid 60's	Snow Depth: none
	General Soil Moisture: moist	Frost Depth: none
Type of Wetland Delineation:	CT Inland ☒	
	CT Tidal ☐	
	ACOE ☐	
Field Numbering Sequence: WF 3-01 to 3-15; WF 3-16 to 3-22 (open ended)		

WETLAND HYDROLOGY:

NONTIDAL

Regularly Flooded ☐	Irregularly Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments:		

TIDAL

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Seasonally Flooded ☐	Temporarily Flooded ☐	
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments:		

CLASS:

Emergent ☐	Scrub-shrub ☐	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments:		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☒	Tidal ☐
Comments: narrow discontinuous seasonal intermittent watercourse flows to south		

SPECIAL AQUATIC HABITAT:

Vernal Pool ☐	Other ☐	
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 (3)	☒	☐	☒	☒
Charlton-Chatfield complex (73)	☐	☒	☒	☒
Hollis-Chatfield-Rock outcrop complex (75)	☐	☒	☒	☒
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

DOMINANT PLANTS:

red maple (*Acer rubrum*)	green ash (*Fraxinus pennsylvanica*)
common spicebush(*Lindera benzoin*)	cinnamon fern (*Osmunda cinnamomea)*
skunk cabbage (*Symplocarpus foetidus*)	

WETLAND NARRATIVE:

Wetland 3 is characterized as a relatively narrow headwater palustrine forested wetland that is seasonally saturated from hillside seepage. The wetland conveys seasonal shallow flows south through a poorly formed and diffuse narrow intermittent watercourse (IWC) channel. An existing woods trail crosses this wetland (generally between wetland flags 3-13 through 3-20) at a relatively narrow section of the wetland. A distinct flow path or channel is not evident across the woods trail stone bed surface that crosses this wetland corridor. Where the IWC is well formed within the interior of the wetland, the channel is typically 12 – 18 inches wide and approximately 6 inches deep or less.

Wetland Delineation Field Form

Project Address:	89 Wewaka Brook Road Bridgewater, CT	Project Number:	40999.33
Inspection Date:	4/19/10	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 4		

Field Conditions:	Weather: ptly. cloudy, mid 60's	Snow Depth: none
	General Soil Moisture: moist	Frost Depth: none
Type of Wetland Delineation:	CT Inland ☒	
	CT Tidal ☐	
	ACOE ☐	
Field Numbering Sequence: WF 4-01 to 4-39 (open ended); WF 4-40 to 4-54 (open ended)		

WETLAND HYDROLOGY:

NONTIDAL

Regularly Flooded ☐	Irregularly Flooded ☐	Permanently Flooded ☒
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☒	Seasonally Saturated - perched ☐
Comments:		

TIDAL

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Seasonally Flooded ☐	Temporarily Flooded ☐	
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments:		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☒
Open Water ☒	Disturbed ☒	Wet Meadow ☒
Comments:		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☒	Tidal ☐
Comments: watercourse is impounded and channelized in areas and contains a farm road crossing		

SPECIAL AQUATIC HABITAT:

Vernal Pool ☐	Other ☐	
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 (3)	☒	☐	☒	☒
Merrimac sandy loam (34)	☐	☒	☒	☒
Charlton-Chatfield complex (73)	☐	☒	☒	☒
Canton and Charlton soils (60)	☐	☒	☒	☒
Paxton and Montauk fine sandy loams (85)	☐	☒	☒	☒
Pootatuck fine sandy loam (102)	☒	☐	☒	☒
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

DOMINANT PLANTS:

red maple (*Acer rubrum*)	cinnamon fern (*Osmunda cinnamomea)*
green ash (*Fraxinus pennsylvanica*)	eastern hemlock (*Tsuga Canadensis*)
American elm (*Ulmus americana*)	common spicebush(*Lindera benzoin*)
multiflora rose (*Rosa multiflora*)*	highbush blueberry (*Vaccinium corymbosum*)
winterberry (*Ilex verticillata*)	Japanese barberry (*Berberis thunbergii*)*
skunk cabbage (*Symplocarpus foetidus*)	tussock sedge (*Carex stricta*)
broadleaf cattail (*Typha latifolia)*	
* denotes non-native invasive species	

WETLAND NARRATIVE:

Wetland 4 is characterized as a palustrine wetland with forested, scrub/shrub, wet meadow and agricultural disturbed habitats. A broad primarily forested wetland area forms the western delineated portion of the wetland system. The wetland drains to the east, narrowing considerably as it flows to the east eventually transitioning into an intermittent watercourse feature with narrow bordering vegetated wetland. This portion of the wetland corridor becomes further constricted by active agricultural pasture and animal paddock areas to the north and a Christmas tree area to the south. These agricultural activities have resulted in disturbance to this portion of the wetland corridor in the form of stream bank erosion, small artificial impoundments of the stream to create a series of three small agricultural ponds, a farm road culvert crossing and finally flowing through an active pasture before converging with Wewaka Brook off the subject property to the southeast. An existing farm road crosses a narrow section of the seasonal stream with an 18-inch reinforced concrete pipe (RCP) and stone and earth fill to form a stable road bed.

Wetland Delineation Field Form

Project Address:	89 Wewaka Brook Road Bridgewater, CT	Project Number:	40999.33
Inspection Date:	4/19/10	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 5		

Field Conditions:	Weather: ptly. cloudy, mid 60's	Snow Depth: none
	General Soil Moisture: moist	Frost Depth: none
Type of Wetland Delineation:	CT Inland ☒	
	CT Tidal ☐	
	ACOE ☐	
Field Numbering Sequence: WF 5-01 to 5-06; WF 5-07 to 5-18		

WETLAND HYDROLOGY:

NONTIDAL

Regularly Flooded ☐	Irregularly Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments:		

TIDAL

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Seasonally Flooded ☐	Temporarily Flooded ☐	
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☒	Palustrine ☐
Lacustrine ☐	Marine ☐	
Comments: Wewaka Brook riparian corridor		

CLASS:

Emergent ☐	Scrub-shrub ☒	Forested ☐
Open Water ☒	Disturbed ☒	Wet Meadow ☐
Comments:		

WATERCOURSE TYPE:

Perennial ☒	Intermittent ☐	Tidal ☐
Comments: Wewaka Brook		

SPECIAL AQUATIC HABITAT:

Vernal Pool ☐	Other ☒	
Comments: assumed cold water fisheries resource		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Merrimac sandy loam (34)	☐	☒	☒	☒
Paxton and Montauk fine sandy loams (84)	☐	☒	☒	☒
Pootatuck fine sandy loam (102)	☒	☐	☒	☒
Udorthents, smoothed (308)	☐	☒	☐	☒
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

DOMINANT PLANTS:

multiflora rose (*Rosa multiflora*)*	Japanese barberry (*Berberis thunbergii*)*
common reed (*Phragmites australis)**	blueflag iris (*Iris versicolor*)
bush honeysuckle (*Lonicera spp.*)*	bebb willow (*Salix bebbian*)
jewelweed (*Impatiens capensis*)	
* denotes non-native invasive species	

WETLAND NARRATIVE:

Wetland 5 consists of the delineated banks of Wewaka Brook, a perennial stream. This stream is currently crossed by a bridge associated with the paved driveway to the subject property's residence and agricultural operation. Delineated portions of the stream banks are vegetated with maintained lawn and shrubs. Portions of the bank are also armored with stone. Some bank erosion was noted in a few areas, including along the concrete abutments supporting the bridge. Wewaka Brook is assumed to provide cold water fisheries habitat.

Wetland Delineation Field Form

Project Address:	89 Wewaka Brook Road Bridgewater, CT	Project Number:	40999.33
Inspection Date:	4/19/10	Inspector:	Dean Gustafson, PSS
Wetland I.D.:	Wetland 6		

Field Conditions:	Weather: ptly. cloudy, mid 60's	Snow Depth: none
	General Soil Moisture: moist	Frost Depth: none
Type of Wetland Delineation:	CT Inland ☒	
	CT Tidal ☐	
	ACOE ☐	
Field Numbering Sequence: WF 6-01 to 6-06		

WETLAND HYDROLOGY:

NONTIDAL

Regularly Flooded ☐	Irregularly Flooded ☐	Permanently Flooded ☒
Semipermanently Flooded ☐	Seasonally Flooded ☐	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated – seepage ☐	Seasonally Saturated - perched ☐
Comments:		

TIDAL

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Seasonally Flooded ☐	Temporarily Flooded ☐	
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments:		

CLASS:

Emergent ☐	Scrub-shrub ☐	Forested ☐
Open Water ☒	Disturbed ☒	Wet Meadow ☐
Comments: small man-made pond		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☐	Tidal ☐
Comments: N/A		

SPECIAL AQUATIC HABITAT:

Vernal Pool ☐	Other ☐	
Comments: N/A		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Merrimac sandy loam (34)	☐	☒	☒	☒
Paxton and Montauk fine sandy loams (84)	☐	☒	☒	☒
Pootatuck fine sandy loam (102)	☒	☒	☒	☒
Udorthents, smoothed (308)	☐	☒	☐	☒
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

DOMINANT PLANTS:

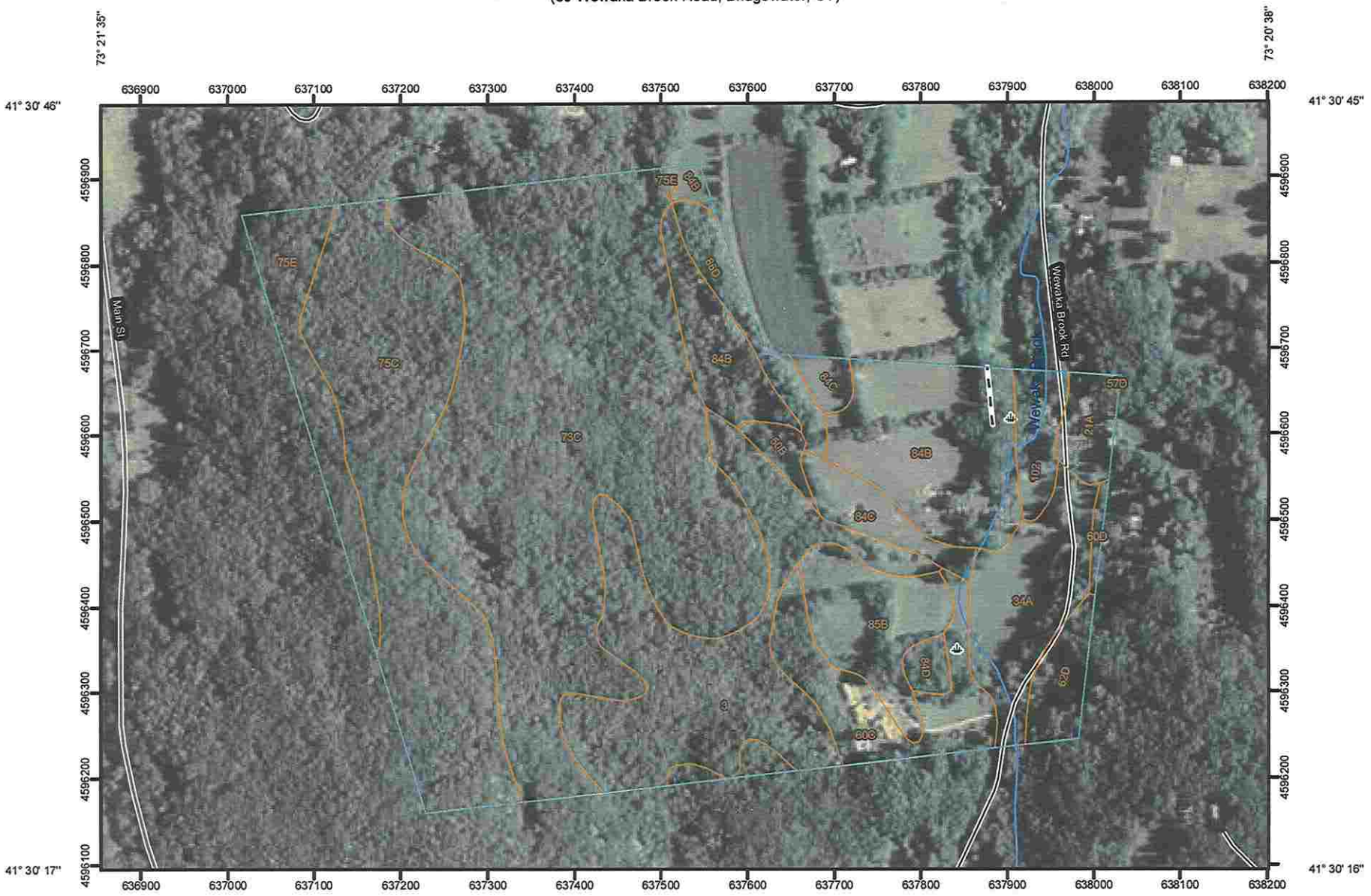
broadleaf cattail (*Typha latifolia)*	common reed (*Phragmites australis)**

* denotes non-native invasive species

WETLAND NARRATIVE:

Wetland 6 is characterized as a small man-made pond (0.1± acre) adjacent to the north side of the paved driveway to the subject property's residence and agricultural operation. Wewaka Brook is located nearby to the west and south. The pond edge is primarily maintained lawn with some landscape plantings along the upland edge.

Soil Map—State of Connecticut
(89 Wewaka Brook Road, Bridgewater, CT)



Map Scale: 1:6,390 if printed on A size (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 350 700 1,400 2,100

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: 1:6,390 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: 8/5/2006

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	15.6	12.0%
21A	Ninigret and Tisbury soils, 0 to 5 percent slopes	1.8	1.4%
34A	Merrimac sandy loam, 0 to 3 percent slopes	6.4	5.0%
50B	Sutton fine sandy loam, 3 to 8 percent slopes	0.9	0.7%
57D	Gloucester gravelly sandy loam, 15 to 25 percent slopes	0.0	0.0%
60C	Canton and Charlton soils, 8 to 15 percent slopes	5.7	4.4%
60D	Canton and Charlton soils, 15 to 25 percent slopes	0.3	0.3%
62D	Canton and Charlton soils, 15 to 35 percent slopes, extremely stony	2.1	1.6%
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	45.0	34.6%
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	19.8	15.2%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	5.1	4.0%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	13.4	10.3%
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	3.1	2.4%
84D	Paxton and Montauk fine sandy loams, 15 to 25 percent slopes	0.7	0.6%
85B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony	5.3	4.1%
86D	Paxton and Montauk fine sandy loams, 15 to 35 percent slopes, extremely stony	2.5	2.0%
102	Pootatuck fine sandy loam	2.0	1.6%
Totals for Area of Interest		**130.0**	**100.0%**

Map Unit Description (Brief)

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

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

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

Report—Map Unit Description (Brief)

State of Connecticut

Description Category: SOI

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

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

Map Unit: 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: 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: 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: 57D—Gloucester gravelly sandy loam, 15 to 25 percent slopes

Gloucester Gravelly Sandy Loam, 15 To 25 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 35 to 50 inches (889 to 1270 millimeters) and the average annual air temperature is 45 to 50 degrees F. (7 to 10 degrees C.) This map unit is 80 percent Gloucester soils. 20 percent minor components. Gloucester soils This component occurs on upland hill landforms. The parent material consists of sandy and gravelly melt-out till derived from schist, granite, and gneiss. The slope ranges from 15 to 25 percent and the runoff class is medium. The depth to a restrictive feature is greater than 60 inches. The drainage class is somewhat excessively drained. The slowest permeability within 60 inches is about 5.95 in/hr (rapid), with about 3.0 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 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 4 inches; gravelly sandy loam 4 to 12 inches; gravelly sandy loam 12 to 25 inches; very gravelly loamy sand 25 to 35 inches; very gravelly loamy coarse sand 35 to 60 inches; very gravelly loamy coarse sand

Map Unit: 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 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 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: 60D—Canton and Charlton soils, 15 to 25 percent slopes

Canton And Charlton Soils, 15 To 25 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 15 to 25 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 4e 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 25 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 4e 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 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: 75C—Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes

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

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

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

Map Unit: 84B—Paxton and Montauk fine sandy loams, 3 to 8 percent slopes

Paxton And Montauk Fine Sandy Loams, 3 To 8 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 35 to 50 inches (889 to 1270 millimeters) and the average annual air temperature is 45 to 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 3 to 8 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 2e 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 3 to 8 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 2e 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: 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: 84D—Paxton and Montauk fine sandy loams, 15 to 25 percent slopes

Paxton And Montauk Fine Sandy Loams, 15 To 25 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 15 to 25 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 4e 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 15 to 25 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 4e 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: 85B—Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony

Paxton And Montauk Fine Sandy Loams, 3 To 8 Percent Slopes, Very Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 35 to 56 inches(889 to 1422 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 3 to 8 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 6s 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 3 to 8 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 6s 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: 86D—Paxton and Montauk fine sandy loams, 15 to 35 percent slopes, extremely stony

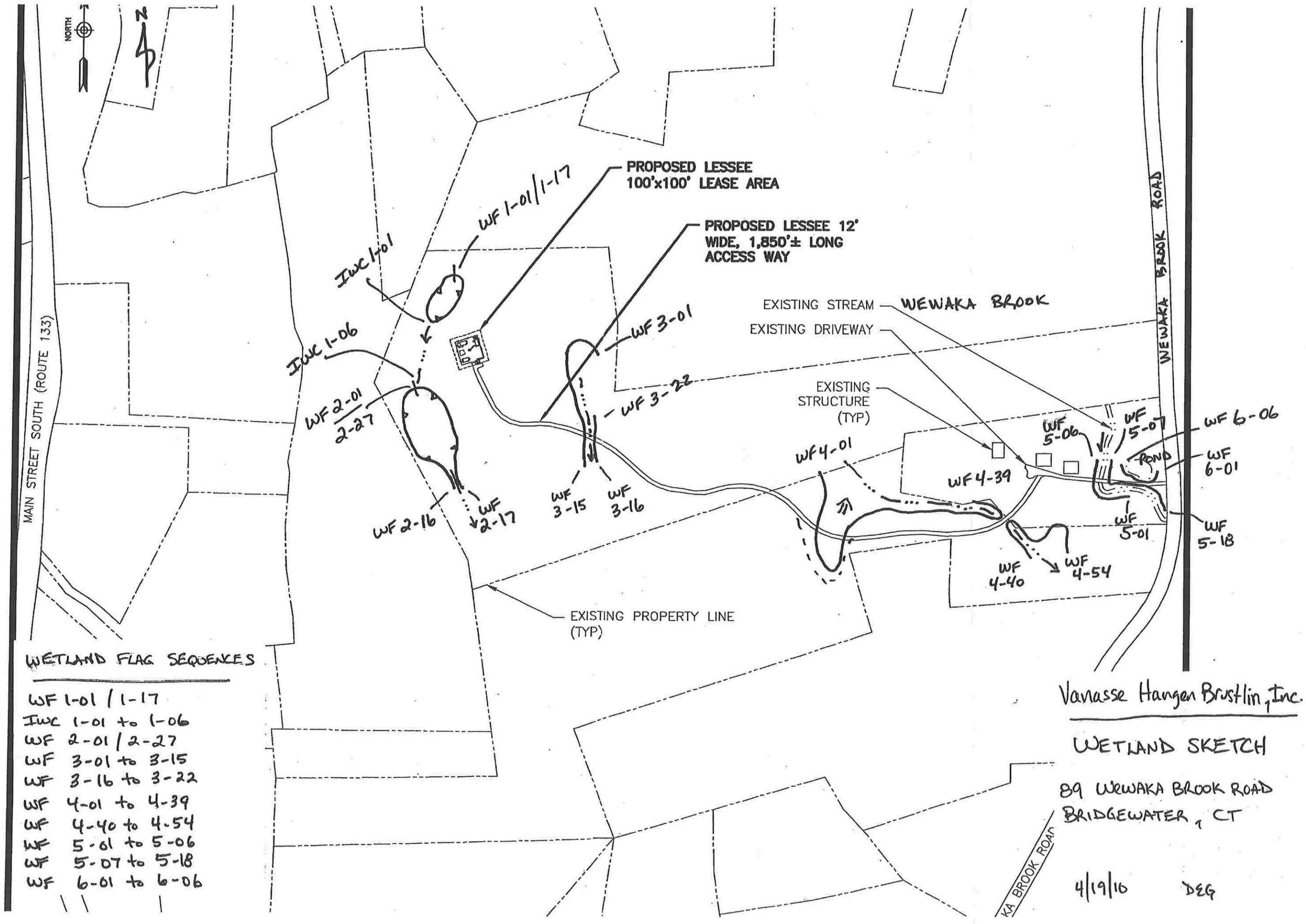
Paxton And Montauk Fine Sandy Loams, 15 To 35 Percent Slopes, Extremely Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 35 to 56 inches (889 to 1422 millimeters) and the average annual air temperature is 45 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 15 to 35 percent and the runoff class is very high. 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 7s 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 15 to 35 percent and the runoff class is medium. 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 7s 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: 102—Pootatuck fine sandy loam

Pootatuck Fine Sandy Loam 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 45 to 54 inches (1143 to 1372 millimeters) and the average annual air temperature is 45 to 54 degrees F. (7 to 12 degrees C.) This map unit is 80 percent Pootatuck soils. 20 percent minor components. Pootatuck soils This component occurs on flood plain landforms. The parent material consists of alluvium. The slope ranges from 0 to 3 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 5.9 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is frequent. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 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 4 inches; fine sandy loam 4 to 16 inches; fine sandy loam 16 to 21 inches; fine sandy loam 21 to 29 inches; sandy loam 29 to 35 inches; stratified very gravelly coarse sand to loamy fine sand 35 to 40 inches; stratified very gravelly coarse sand to loamy fine sand 40 to 65 inches; stratified very gravelly coarse sand to loamy fine sand

Data Source Information

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



WETLAND FLAG SEQUENCES

WF 1-01 / 1-17
IWC 1-01 to 1-06
WF 2-01 / 2-27
WF 3-01 to 3-15
WF 3-16 to 3-22
WF 4-01 to 4-39
WF 4-40 to 4-54
WF 5-01 to 5-06
WF 5-07 to 5-18
WF 6-01 to 6-06

Vanasse Hangen Brustlin, Inc.

WETLAND SKETCH

89 WEWAKA BROOK ROAD
BRIDGEWATER, CT

4/19/10 DEG

Vernal Pool Assessment Sheets

VERNAL POOL ASSESSMENT SHEET[1]
Vernal Pool 1

A. Biological Value of the Vernal Pool

(1) Are there any state-listed species (Endangered, Threatened, or Special Concern) present or breeding in the pool?
Yes_____ No___X___

(2) Are there two or more vernal pool indicator species breeding (i.e., evidence of egg masses, spermatophores [sperm packets], mating, larvae) in the pool?
Yes___ X ____ No_____

(3) Are there 25 or more egg masses (regardless of species) present in the pool by the conclusion of the breeding season?
Yes___X*___ No_____
(* assumed based on spotted egg masses and number of wood frog tadpoles)

B. Existing Condition of the Critical Terrestrial Habitat

(1) Is at least 75% of the land 100 feet from the pool undeveloped?
Yes___ X ____ No_____

(2) Is at least 50% of the habitat from 100-750 feet of the pool undeveloped?
Yes___ X ____ No_____

C. Proposed Condition of the Critical Terrestrial Habitat[2]

(1) Is at least 75% of the land 100 feet from the pool undeveloped?
Yes___ X ___ No_____

(2) Is at least 50% of the habitat from 100-750 feet of the pool undeveloped?
Yes___ X ___ No_____

NOTE: For these purposes, "undeveloped" means open land largely free of roads, structures, and other infrastructure. It can be forested, partially forested, or open agricultural land.

D. Cumulative Assessment

Number of questions answered YES in Category A	Number of questions answered YES in Category B/C	Rating (I = highest priority)
1-3	2	Tier I
1-3	1	Tier II
0	1-2	Tier III
1-3	0	Tier III

E. Vernal Pool Impact Assessment Summary

	Category A	Category B/C	Tier Rating
Existing Condition	2	2	I
Proposed Condition[3]	2	2	I

[1] Vernal Pool Assessment Sheet (source: Calhoun and Klemens 2002)

[2] Existing % Total VPE (100 feet) Disturbance = 37.2%; Existing % Total CTH (100-750 feet) Disturbance = 54.4%.

[3] It is assumed that the biological data collected for the existing condition will be equal to the proposed condition for the purposes of this evaluation.

VERNAL POOL ASSESSMENT SHEET[1]
Vernal Pool 2

A. Biological Value of the Vernal Pool

(1) Are there any state-listed species (Endangered, Threatened, or Special Concern) present or breeding in the pool?
Yes_____ No___X___

(2) Are there two or more vernal pool indicator species breeding (i.e., evidence of egg masses, spermatophores [sperm packets], mating, larvae) in the pool?
Yes___ X ____ No_____

(3) Are there 25 or more egg masses (regardless of species) present in the pool by the conclusion of the breeding season?
Yes___X*___ No_____
(* assumed based on spotted egg masses and number of wood frog tadpoles)

B. Existing Condition of the Critical Terrestrial Habitat

(1) Is at least 75% of the land 100 feet from the pool undeveloped?
Yes___ X ____ No_____

(2) Is at least 50% of the habitat from 100-750 feet of the pool undeveloped?
Yes___ X ____ No_____

C. Proposed Condition of the Critical Terrestrial Habitat[2]

(1) Is at least 75% of the land 100 feet from the pool undeveloped?
Yes___ X ___ No_____

(2) Is at least 50% of the habitat from 100-750 feet of the pool undeveloped?
Yes___ X ___ No_____

NOTE: For these purposes, "undeveloped" means open land largely free of roads, structures, and other infrastructure. It can be forested, partially forested, or open agricultural land.

D. Cumulative Assessment

Number of questions answered YES in Category A	Number of questions answered YES in Category B/C	Rating (I = highest priority)
1-3	2	Tier I
1-3	1	Tier II
0	1-2	Tier III
1-3	0	Tier III

E. Vernal Pool Impact Assessment Summary

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[3] It is assumed that the biological data collected for the existing condition will be equal to the proposed condition for the purposes of this evaluation.

Photograph Documentation

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

Photo 1: Overview of Wetland/Vernal Pool 1, looking south. (04/19/10)

Photo 2: Overview of Wetland/Vernal Pool 1, looking south. (10/05/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

Photo 3: Overview of Wetland/Vernal Pool 2, looking southwest. (04/19/10)

Photo 4: Overview of Wetland/Vernal Pool 2, looking west. (10/05/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

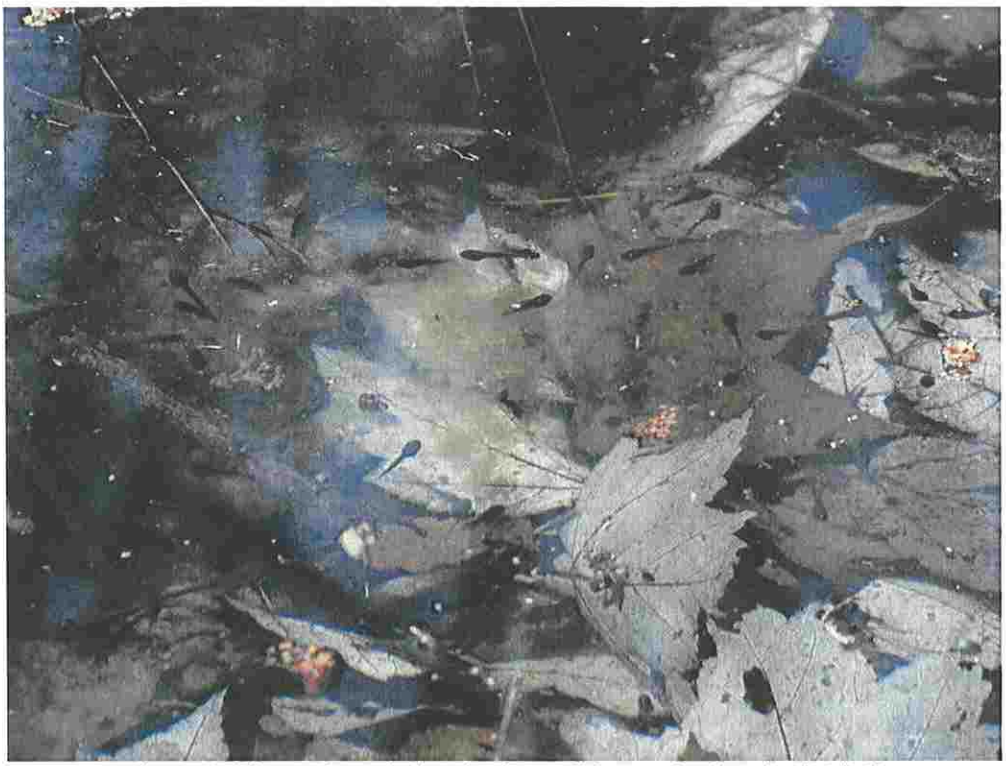


Photo 5: View of newly hatched wood frog tadpoles. (04/19/10)

Photo 6: View of spotted salamander egg mass. (04/19/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

Photo 7: View of spotted salamander. (10/05/10)

Photo 8: View of Wetland 3, looking north. (04/19/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

Photo 9: View of Wetland 3 woods trail crossing, looking west. (04/19/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT
Photo 10: View of existing trail through southwestern end of Wetland 4, looking west. (04/19/10)

Photo 11: View of channelized section of Wetland 4, looking east. (04/19/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

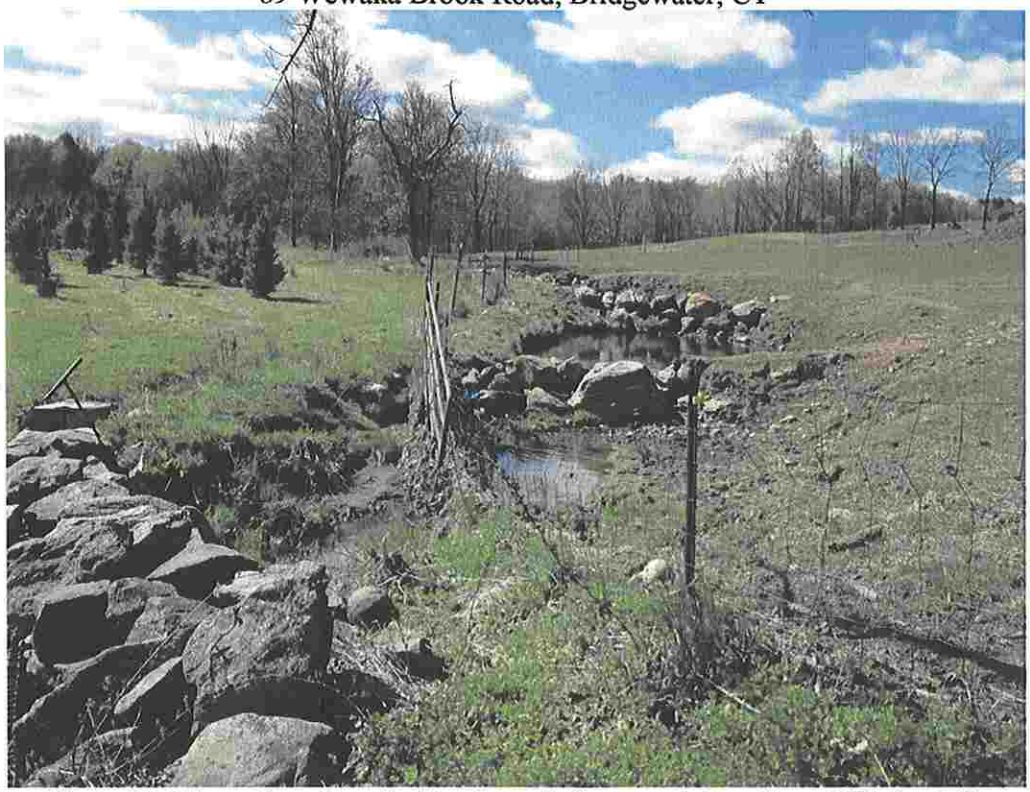


Photo 12: View of small agricultural ponds (impounded section of Wetland 4), looking northwest. (04/19/10).

Photo 13: View of farm road crossing of Wetland 4, looking east. (10/05/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

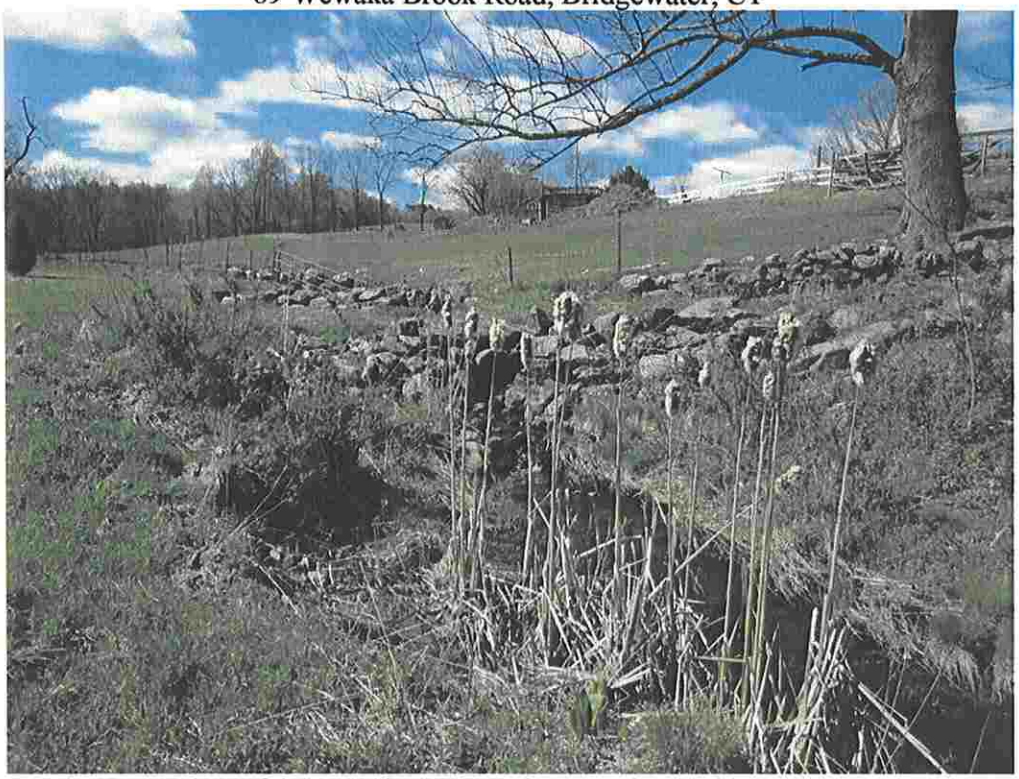


Photo 14: View of farm road crossing of Wetland 4, looking upstream (north) at culvert. (04/19/10)

Photo 15: View of driveway bridge over Wewaka Brook (Wetland 5), looking north. (04/19/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

Photo 16: View of bank erosion along Wewaka Brook, looking north. (04/19/10)

Photo 17: View of bridge abutment erosion, looking at west abutment. (10/05/10)

Vanasse Hangen Brustlin, Inc.
PHOTOLOG DOCUMENTATION
Proposed SBA Towers II LLC Facility
89 Wewaka Brook Road, Bridgewater, CT

Photo 18: View of Wetland 6 (small man-made pond), looking east toward Wewaka Brook Road. (04/19/10)

Visual Resource Evaluation Report

Proposed Wireless Telecommunications Facility

Bridgewater

Wewaka Brook Road
Bridgewater, CT

Prepared for SBA

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

October 2010

Visual Resource Evaluation

SBA Towers II LLC seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need to construct a wireless telecommunications facility ("Facility") to be located on property at 0 and 89 Wewaka Brook Road ("Host Property") in the town of Bridgewater, Connecticut. This Visual Resource Evaluation was conducted to approximate the visibility of the proposed Facility within a two-mile radius of the Site ("Study Area"). Attachment A contains a map that depicts the location of the proposed Facility and the limits of the Study Area. Also contained in Attachment A is a photograph of the proposed Facility location.

Project Introduction

The proposed Facility includes the construction of a 170-foot tall monopole designed to support up to four antenna platforms with associated ground equipment to be located within a fenced enclosure at the base of the tower. Based on information provided by the project engineer, Clough Harbor Associates, LLP, the proposed Facility is located at approximately 582 feet above mean sea level (AMSL). Access to the proposed Facility would initially utilize an existing residential driveway off Wewaka Brook Road, but would then follow portions of an existing dirt drive and woods road currently located on the Host Property (to be improved to accommodate service vehicles) that extend to the project area in a westerly direction.

Site Description and Setting

The Host Property is comprised of two adjoining parcels that are identified in the Town of Bridgewater land records as 0 Wewaka Brook Road (51.2 Acres) and 89 Wewaka Brook Road (4.0 Acres). The proposed compound area and a significant portion of the proposed 12-foot wide gravel access drive would be located on 0 Wewaka Brook Road which is mostly wooded and undeveloped. 89 Wewaka Brook Road is currently occupied by a single-family residence and several associated outbuildings and includes frontage along Wewaka Brook Road. Land use within the general vicinity of the proposed Facility and Host Property is mainly comprised of low-density residential development; undeveloped, forested land; and agricultural fields. In total, the Study Area contains roughly 45 linear miles of roadways.

The topography within the two-mile radius surrounding the proposed Facility is characterized by both the Housatonic River/Lake Lillinonah and the Shepaug River, which flow north to south through the western and eastern portions of the Study Area, respectively and the rolling hills that generally parallel these water bodies. Ground elevations within the Study Area range from approximately 194 feet AMSL along the Housatonic River/Lake Lillinonah to approximately 860 feet AMSL on top of Botsford Hill located to the northeast of the proposed Facility. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species interspersed with stands of mature evergreen species. The tree canopy occupies approximately 5,932 acres of the 8,042-acre study area (74%). During the in-field activities associated with this analysis, an infra-red laser range finder was used to

accurately determine the average tree canopy height throughout the Study Area. Numerous trees were selected for measurement and the average tree canopy established, in this case 65 feet. Lastly, the Study Area features approximately 551 acres of surface water that includes portions of the Housatonic River/Lake Lillinonah, the Shepaug River and several small ponds located to the north/northeast of the proposed Facility.

METHODOLOGY

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

Visibility Analysis

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

Once the data are entered, a series of constraints are applied to the computer model to achieve an estimate of where the Facility will be visible. Initially, only topography is used as a visual constraint; the tree canopy is omitted to evaluate all areas of potential visibility without any vegetative screening. Although this is an overly conservative prediction, the initial omission of this layer provides a reference for comparison once the tree canopy is established and also assists in the evaluation of potential seasonal visibility of the proposed Facility. An estimated tree canopy height of 50 feet is initially utilized to prepare a preliminary viewshed map for use during the Study Area reconnaissance. The average height of the tree canopy, in this case 65 feet, is determined in the field using a hand-held

infra-red laser range finder. The forested areas within the Study Area were then overlaid on the DEM with a height of 65 feet added and the visibility calculated. The forested areas are then extracted from the areas of visibility, with the assumption that a person standing among the trees will not be able to view the Facility beyond a distance of approximately 500 feet. Depending on the density of the vegetation in these areas, it is assumed that some locations within this range will provide visibility of at least portions of the Facility based on where one is standing.

Also included on the map is a data layer, obtained from the Connecticut State Department of Environmental Protection (CTDEP), which depicts various land and water resources such as state parks and forests, recreational facilities, dedicated open space and CTDEP boat launches and other categories. This layer is useful in identifying potential visual impacts to any sensitive receptors that may be located within the Study Area. Lastly, based on a review of available data published by the Connecticut Department of Transportation and Housatonic Valley Council of Elected Officials (HVCEO), it was determined that there are currently no state- or locally-designated scenic roadways within the Study Area.

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

Balloon Float and Study Area Reconnaissance

Vanasse Hangen Brustlin Inc., (VHB) conducted balloon floats at the proposed Facility on June 15, 2010 and September 23, 2010 to further evaluate the potential viewshed within the Study Area. The balloon floats consisted of raising and maintaining an approximate four-foot diameter, helium-filled weather balloon at the proposed site location at a height of 170 feet. Once the balloon was secured, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area with an emphasis on nearby residential areas and other potential sensitive receptors in order to evaluate the results of the preliminary viewshed map and to document where the balloon was, and was not, visible above and/or through the tree canopy. During both balloon floats, the temperature was approximately 80 degrees Fahrenheit with calm wind conditions and sunny skies.

Photographic Documentation

During the balloon float, VHB personnel drove the public road system to inventory those areas where the balloon was and was not visible. The balloon was photographed from several vantage points to document the actual view towards the proposed Facility. Several locations where the balloon was not visible are also included in order to provide documentation from select areas. The locations of the photos are described below:

View	Location	Orientation	Dist. To Site	Visibility
1	Skyline Ridge Road	Northwest	± 0.81-Mile	Year-Round
2	Skyline Ridge Road adjacent to house #66	Southwest	± 0.70-Mile	Year-Round
3	Skyline Ridge Road adjacent to house #66	Southwest	± 0.71-Mile	Year-Round
4	Northrop Street adjacent to house #211	Northeast	± 0.82-Mile	Year-Round
5	Northrop Street	Northeast	± 0.78-Mile	Year-Round
6	Northrop Street adjacent to house #160	Northeast	± 0.59-Mile	Year-Round
7	Northrop Street adjacent to house #147	Southeast	± 0.50-Mile	Year-Round
8	Northrop Street adjacent to house #119	Northeast	± 0.47-Mile	Year-Round
9	Northrop Street adjacent to house #70	Southeast	± 0.45-Mile	Year-Round
10	Stuart Road adjacent to house #129	Southwest	± 0.35-Mile	Year-Round
11	Route 133	Southeast	± 0.58-Mile	Year-Round
12	Adjacent to #50 Stuart Road	Southeast	± 0.33-Mile	Year-Round
13	Hut Hill Road north of Sarah Sanford Road	Southeast	± 1.29-Mile	Non-Visible
14	Stuart Road	Southwest	± 0.42-Mile	Non-Visible
15	Route 133 at Stuart Road	Southeast	± 0.41-Mile	Non-Visible
16	Wewaka Brook Road east of Route 133	North	± 0.94-Mile	Non-Visible
17	Wewaka Brook Road at host property	West	± 0.39-Mile	Non-Visible
18	Wewaka Brook Road at Stuart Road	Southwest	± 0.54-Mile	Non-Visible

Photographs of the balloon from the view points listed above were taken with a Nikon D-80 digital camera body and Nikon 18 to 135 mm zoom lens. For the purposes of this report, the lens was set to 50mm. "The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm."[1]

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

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

Photographic Simulation

Photographic Simulations were generated for the ten locations identified above where the balloon was visible (Views 1-12). The Photographic Simulations represent a scaled depiction of the proposed monopole from these locations. The height of the Facility is determined based on the location of the balloon in the photographs and a scaled, three dimensional model of the proposed monopole is simulated into the photographs. The aspect and rotation of the three dimensional model is adjusted in the simulations in order to reflect the visual perspective and specific sector(s) of the monopole that would be viewed from each photographic location. Both the photographic simulations and non-visible shots (Views 13-18) included in this evaluation are contained in Attachment A.

■

CONCLUSIONS

Based on this analysis, areas from where the proposed 170-foot monopole would be visible above the tree canopy comprise approximately 62 acres within the 8,042- acre Study Area. As depicted on the attached viewshed map (included as Attachment B), the majority of year-round visibility associated with the proposed Facility occurs over portions of Northrop Street, located to west of the proposed Facility, and portions of Skyline Ridge Road located to the east. These areas also extend to the open fields that parallel both roadways. The viewshed map also depicts areas of potential year-round visibility along select portions of Stuart Road (View 10) located approximately 0.36-mile to the northeast of the proposed Facility; a limited stretch of Route 133 located to the north of Stuart Road; portions of the Host Property located to the east of the proposed Facility; and on several private properties located to the northeast, northwest and southwest of the proposed Facility that are mainly comprised of open, undeveloped fields. VHB estimates that at least partial year-round views of the proposed Facility may be achieved from portions of approximately 17 residential properties located within the Study Area. This includes two residences located along Skyline Ridge Road; One residence located along Route 133; eight residential properties located along an approximate 0.85-mile segment of Northrop Road; two residential properties located along Wewaka Brook Road; two residential properties along Stuart Road; and two residences located along Hut Hill Road. Overall however, the intervening topography and/or existing vegetation serve to significantly minimize the potential for year-round views of the proposed Facility from other locations within the Study Area.

Several additional areas where seasonal (i.e. during "leaf off" conditions) views are anticipated were also identified as part of this evaluation. These areas are depicted on the attached viewshed map and comprise approximately 61 additional acres. Overall, areas of anticipated seasonal visibility are limited to the general vicinity of the Host Property as well as select portions of Wewaka Brook Road where seasonal views of the proposed Facility may be achieved from approximately four residential properties; Northrop Street where seasonal views may extend to approximately five residential properties; Skyline Ridge Road where approximately six residences may have leaf-off views of the proposed Facility; Route 133 where seasonal views may be achieved from one residential property; and Stuart Road where seasonal views may be achieved from approximately three residential properties.

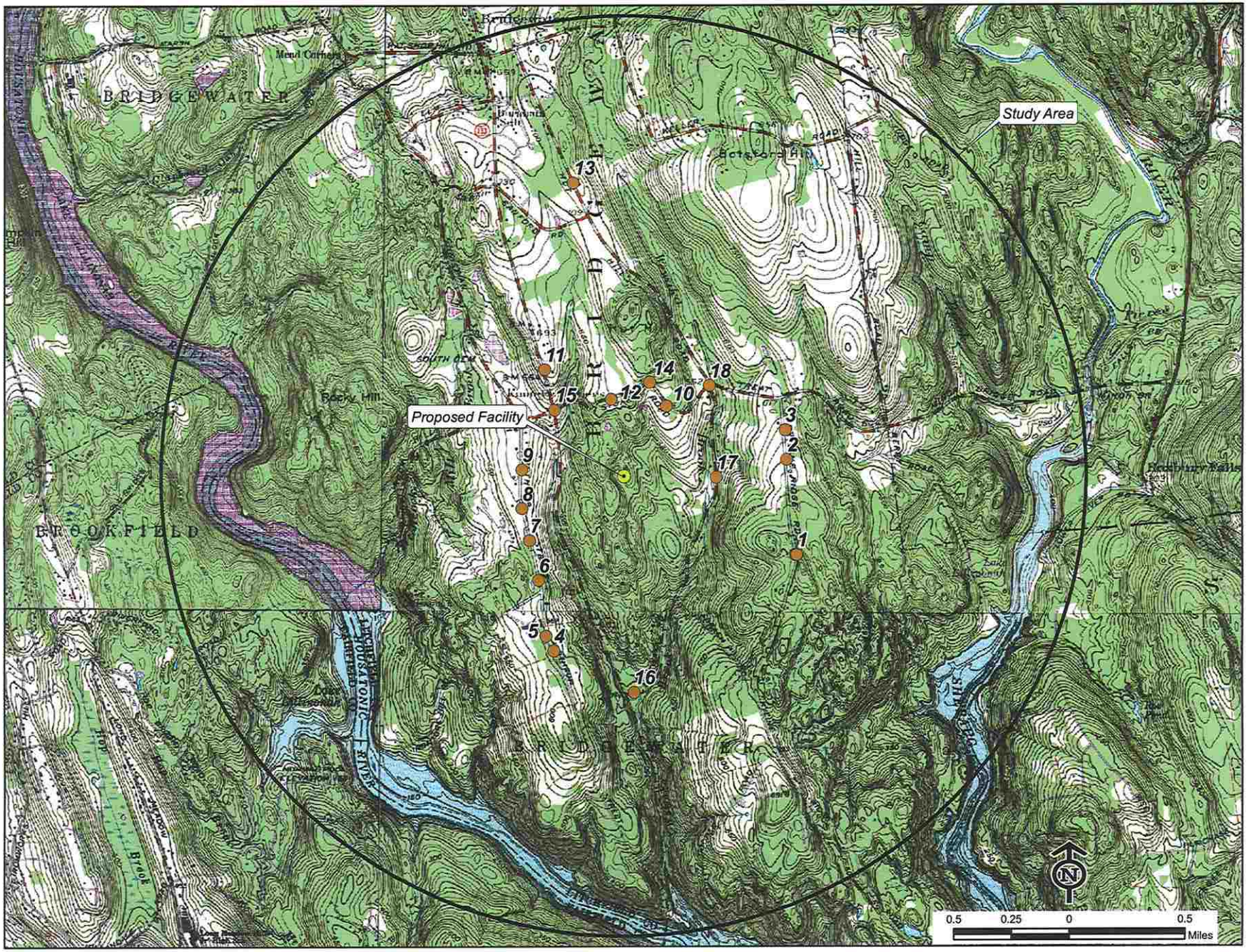
Attachment A

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

PHOTOGRAPHIC DOCUMENTATION

PROPOSED PROJECT AREA

PHOTOLOG MAP



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PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	SKYLINE RIDGE ROAD	NORTHWEST	0.81 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	SKYLINE RIDGE ROAD	NORTHWEST	0.81 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	SKYLINE RIDGE ROAD ADJACENT TO HOUSE #66	SOUTHWEST	0.70 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	SKYLINE RIDGE ROAD ADJACENT TO HOUSE #66	SOUTHWEST	0.70 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	SKYLINE RIDGE ROAD ADJACENT TO HOUSE #30	SOUTHWEST	0.71 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	SKYLINE RIDGE ROAD ADJACENT TO HOUSE #30	SOUTHWEST	0.71 MILE +/-	YEAR-ROUND

SBA VHB

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PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	NORTHROP STREET ADJACENT TO HOUSE #211	NORTHEAST	0.82 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	NORTHROP STREET ADJACENT TO HOUSE #211	NORTHEAST	0.82 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	NORTHROP STREET	NORTHEAST	0.78 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	NORTHROP STREET	NORTHEAST	0.78 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	NORTHROP STREET ADJACENT TO HOUSE #160	NORTHEAST	0.59 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	NORTHROP STREET ADJACENT TO HOUSE #160	NORTHEAST	0.59 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	NORTHROP STREET ADJACENT TO HOUSE #147	NORTHEAST	0.50 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	NORTHROP STREET ADJACENT TO HOUSE #147	NORTHEAST	0.50 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	NORTHROP STREET ADJACENT TO HOUSE #119	NORTHEAST	0.47 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	NORTHROP STREET ADJACENT TO HOUSE #119	NORTHEAST	0.47 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	NORTHROP STREET ADJACENT TO HOUSE #70	SOUTHEAST	0.45 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	NORTHROP STREET ADJACENT TO HOUSE #70	SOUTHEAST	0.45 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	STUART ROAD ADJACENT TO HOUSE #129	SOUTHWEST	0.35 MILE +/-	YEAR-ROUND

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	STUART ROAD ADJACENT TO HOUSE #129	SOUTHWEST	0.35 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	ROUTE 133	SOUTHEAST	0.58 MILE +/-	NOT VISIBLE

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	ROUTE 133	SOUTHEAST	0.58 MILE +/-	NOT VISIBLE

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	ADJACENT TO #50 STUART ROAD	SOUTHEAST	0.33 MILE +/-	YEAR-ROUND

SBA

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	ADJACENT TO #50 STUART ROAD	SOUTHEAST	0.33 MILE +/-	YEAR-ROUND

SBA VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	HUT HILL ROAD NORTH OF SARAH SANFORD ROAD	SOUTHEAST	1.29 MILES +/-	NOT VISIBLE

SBA

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	STUART ROAD	SOUTHWEST	0.42 MILE +/-	NOT VISIBLE

SBA

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	ROUTE 133 AT STUART ROAD	SOUTHEAST	0.41 MILE +/-	NOT VISIBLE

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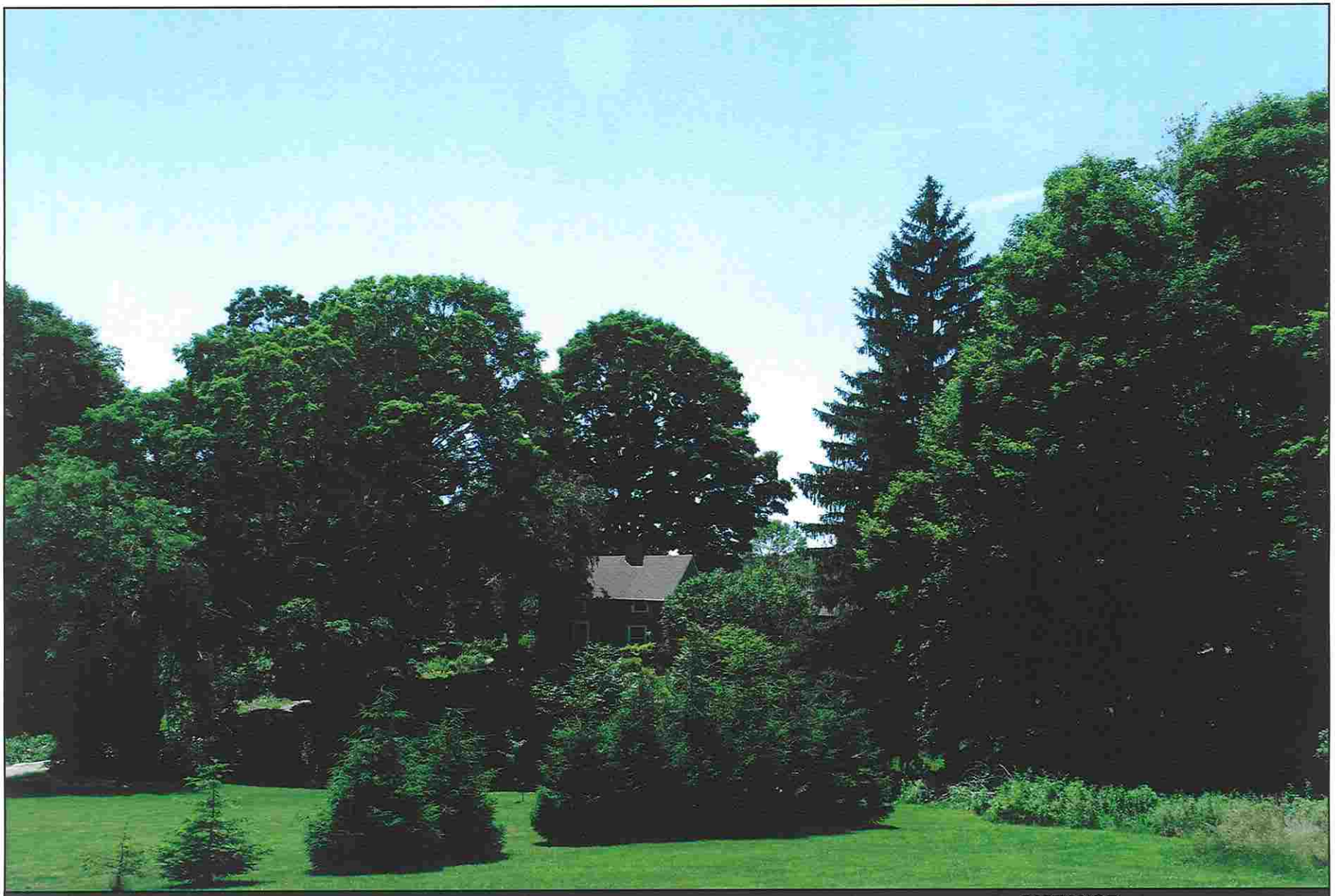
PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	WEWAKA BROOK ROAD EAST OF ROUTE 133	NORTH	0.94 MILE +/-	NOT VISIBLE

PHOTOGRAPHIC DOCUMENTATION



VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
17	WEWAKA BROOK ROAD AT HOST PROPERTY	WEST	0.39 MILE +/-	NOT VISIBLE

PHOTOGRAPHIC DOCUMENTATION

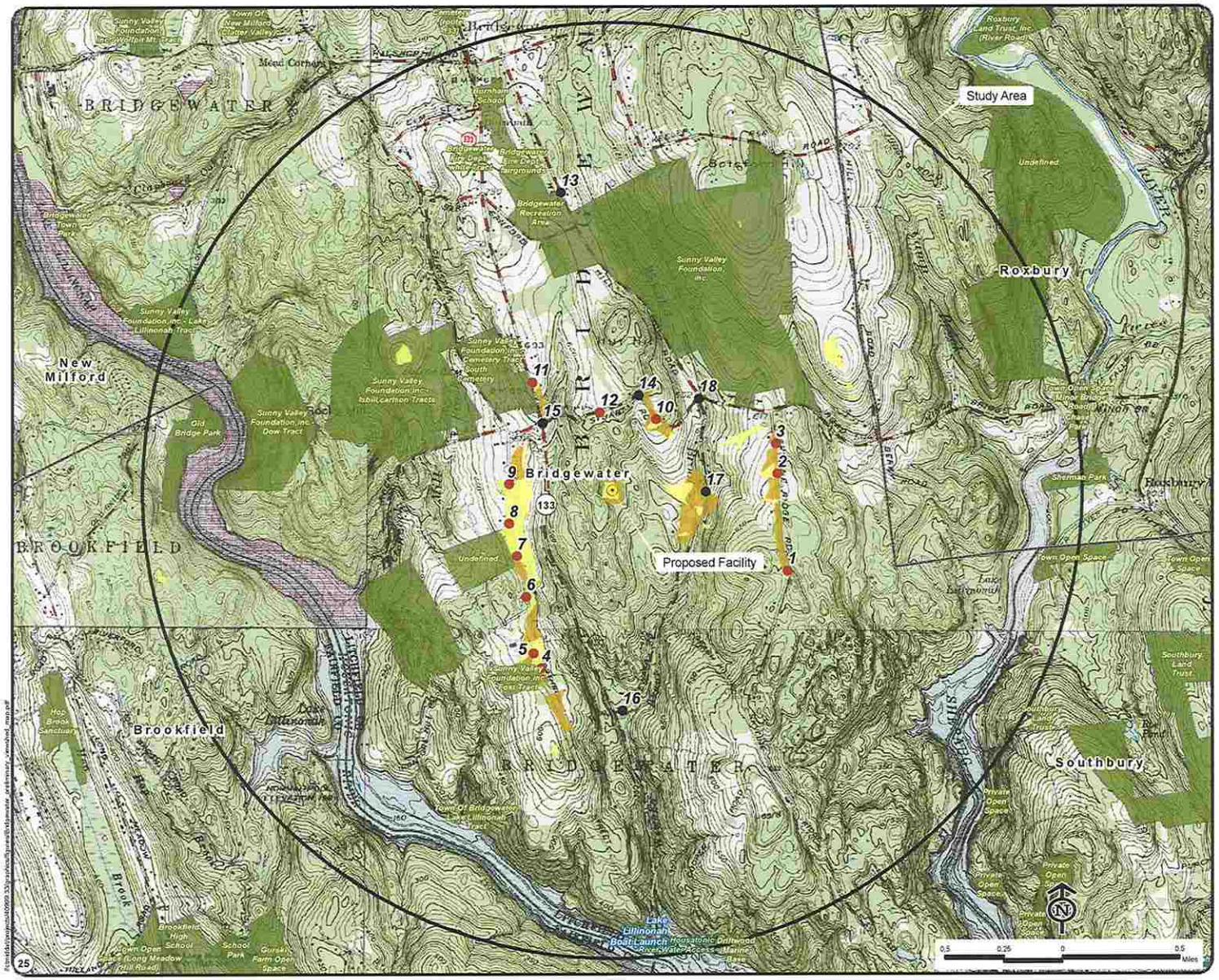
VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	WEWAKA BROOK ROAD AT STUART ROAD	SOUTHWEST	0.54 MILE +/-	NOT VISIBLE

SBA

VHB

Attachment B

Viewshed Map



Viewshed Analysis
Proposed SBA Towers II LLC
Telecommunications Facility
Bridgewater
Wewaka Brook Road
Bridgewater, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 170 feet.
- Existing tree canopy height estimated at 65 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

DATA SOURCES:
- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2008 digital orthophotos with 1-meter pixel resolution; digitized by VHB, 2010
- Base map comprised of Danbury (1984), Newtown (1984), New Milford (1984) and Roxbury (1984) USGS Quadrangle Maps
- Municipal and Private Open Space data layer provided by CT DEP, 1997
- Federal Open Space data layer provided by CT DEP, 2004
- CT DEP Property data layer provided by CT DEP, April 2010
- CT DEP boat launches data layer provided by CT DEP, Dec 2009
- Scenic Roads layer derived from available State and Local listings

Map Compiled October, 2010

Legend

- Proposed Tower Location

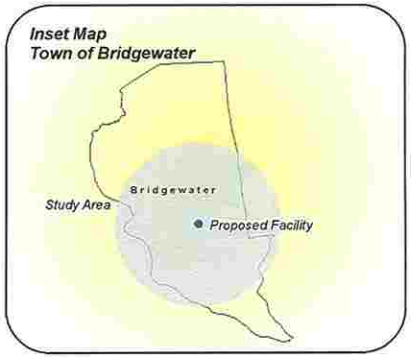
Photographs - June 15, 2010 and September 23, 2010
- Balloon is not visible
- Balloon visible above trees

- Year-Round Visibility (Approximately 62 acres)
- Seasonal Visibility (Approximately 61 acres)

- Protected Municipal and Private Open Space (CT DEP, 1997)
  - Cemetery
  - Preservation
  - Conservation
  - Existing Preserved Open Space
  - Recreation
  - General Recreation
  - School
  - Uncategorized

- CT DEP Property (CT DEP, May 2010)
  - State Forest
  - State Park
  - DEP Owned Waterbody
  - State Park Scenic Reserve
  - Historic Preserve
  - Natural Area Preserve
  - Fish Hatchery
  - Flood Control
  - Other
  - State Park Trail
  - Water Access
  - Wildlife Area
  - Wildlife Sanctuary

- Federal Open Space (CT DEP, 2004)
- Boat Launches (CT DEP, Dec 2009)
- Scenic Road (State and Local)
- Town Line



VHB SBA

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, 2010

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

Re: Proposed SBA Wireless Facility, 89 Wewaka Brook Rd., Bridgewater, 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 SBA wireless facility, 89 Wewaka Brook Rd., Bridgewater, 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 # 17790

DMM/hpw

Transportation
Land Development
Environmental
Services

Vanasse Hangen Brustlin, Inc.

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

Memorandum

To: Ms. Hollis Redding
SBA Towers II LLC
One Research Drive
Suite 200C
Westborough, MA 01581

Date: October 12, 2010

Project No.: 40999.33

From: Dean Gustafson
Senior Environmental Scientist

Re: USFWS Compliance Determination
Wireless Telecommunications Facility
CT-11934 – Bridgewater 4
Wewaka Brook Road
Bridgewater, Connecticut

Project Site:
State: Connecticut
County: Litchfield
Address: Wewaka Brook Road, Bridgewater, CT
Latitude/Longitude Coordinates: N41°30'31.5" W73°21'16.0"
Size of Property: ±55.2 acres
Watershed: Housatonic River (#6000)

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 Bridgewater, Connecticut (Litchfield County). No federally-listed endangered or threatened species are known to occur in Bridgewater, 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 Bridgewater, 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 disturbance[1] 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, feeding, or sheltering behavior." (Eagle Act)

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:

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

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;
5. repair or replacement of existing towers and/or equipment, provided such activities do not significantly increase the existing tower mass and height, or require the addition of guy wires.

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

January 4, 2010

Future Coordination with this Office Relative to New Telecommunication Facilities

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

1. If the facility will be installed within or on an existing structure, such as in a church steeple or on the roof of an existing building, no further coordination with this office is necessary. Similarly, new antennas or towers in urban and other developed areas, in which no natural vegetation will be affected, do not require further review.

2. If the above criteria cannot be met, your review of 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 terns, bog turtles, Jesup's milk-vetch or other such species that are found on coastal beaches, riverine habitats or in wetlands because communication towers typically are not located in these habitats.

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

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN CONNECTICUT

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Fairfield	Piping Plover	Threatened	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.
-There is no federally-designated Critical Habitat in Connecticut.

7/31/2008

Transportation
Land Development
Environmental
Services

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

RECEIVED
OCT 07 2010
VANASSE HANGEN BRUSTLIN, INC.

balloon.

Vanasse Hangen Brustlin, Inc.

July 7, 2010

Ref: 40999.33

Mr. Daniel Forrest
Commission on Culture & Tourism
State Historic Preservation Office
One Constitution Plaza, Second Floor
Hartford, CT 06103

89

NO ADVERSE EFFECT
DEPUTY SHPO
STATE HISTORIC PRESERVATION OFFICE
Date 10·4·10 Project

Re: Proposed SBA Towers II LLC Telecommunications Facility
CT11934-Bridgewater
Wewaka Brook Road
Bridgewater, Connecticut

Dear Mr. Forrest:

Vanasse Hangen Brustlin, Inc. (VHB) has been retained by SBA Towers II LLC to review environmental resource information outlined in 47 CFR Ch.1 § 1.1307 sections (a) and (b) for environmental consequences pursuant to the Federal Communications Commission ("FCC or Commission") requirements. VHB determines the presence of resources listed under the National Environmental Policy Act (NEPA) on or near sites where SBA Towers II LLC proposes to locate a facility. Results of this screening process for the above referenced proposed facility in Bridgewater are depicted on the enclosed Cultural Resources Screen map.

SBA Towers II LLC is proposing to construct a new wireless telecommunications facility on portions of property located off of Wewaka Brook Road in Bridgewater, Connecticut. The facility, consisting of a ±170-foot tall monopole, antennas, and associated ground equipment, will be installed within a 45' x 80' fenced enclosed compound within a 100' x 100' lease area. The proposed access/utilities easement will initiate from the existing asphalt-paved driveway off 89 Wewaka Brook Drive and then continue along a proposed 12' wide gravel access drive in a westerly direction towards the proposed compound lease area. AT&T antennas will be attached to the monopole at a centerline height of 167 feet and associated ground equipment will be installed at its base. The compound area will be developed for use for future wireless service providers. See attached Site Plans for details.

The Cultural Resources Screen did not reveal the existence of any historic resources listed or eligible for listing on the National Register of Historic Places or Indian religious sites at or within a 0.5-mile radius (the area of potential effects; APE) of the project area. As a result, it is VHB's opinion that no visual or direct effects exist within the APE.

A *Preliminary Archaeological Assessment* prepared by Heritage Consultants, LLC dated June 28, 2010 was completed for the proposed project area. Heritage Consultants, LLC concluded that "A review of previously recorded cultural resources on file with the Connecticut Historic Preservation Office revealed that no archeological sites, previously identified built cultural resources, or properties listed on or eligible for listing on the National Register of Historic Places are located within 0.8 km (0.5 mi) of the proposed tower location. In conclusion, although the project area has been only minimally impacted by historic and modern occupation and landuse, its natural characteristics suggest that it is unlikely that significant intact cultural deposits exist within the Area of Potential Effect associated with the proposed cellular communications tower.

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

CUDDY & FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

July 16, 2010

VIA FEDERAL EXPRESS
First Selectman William Stuart
Town of Bridgewater
44 Main Street South
Bridgewater, CT 06752
(860) 354-2731

Re: SBA & AT&T
Proposed Wireless Telecommunications Tower Facility
48 and 89 Wewaka Brook Road
Bridgewater, Connecticut

Dear First Selectman Stuart:

We are writing to you on behalf of our clients, SBA Towers II LLC ("SBA") and New Cingular Wireless PCS, LLC ("AT&T") with respect to the above captioned matter involving a proposed wireless telecommunications tower facility to be located at 48 Wewaka Brook Road in the Town of Brookfield with access provided via 89 Wewaka Brook Road. The facility as proposed is a 170' monopole in a compound located in a wooded area east of State Route 133 between Beach Hill and Stuart Roads.

As you may know, jurisdiction over such facilities rests exclusively with the State of Connecticut Siting Council pursuant to Section 16-50i and x of the Connecticut General Statutes. Section 16-50l(e) of the Connecticut General Statutes does nevertheless require that SBA and AT&T consult with a municipality prior to such an application being filed with the Siting Council. The purpose of such local consultation is to give the municipality in which a facility has been proposed an opportunity to provide the applicant with any recommendations or preferences it may have prior to the applicant's filing of an application. As set forth in the statute, any such recommendations must be issued by the municipality within sixty days of its receipt of technical information concerning the proposed facility from the applicant.

The purpose of this letter is to formally notify you of the proposed facility and commence the sixty day consultation period that is required prior to SBA and AT&T's filing of any application with the Siting Council. Enclosed is a "Technical Report" for your review and consideration which includes information about the need for the proposed tower facility, a summary of the site selection process and the environmental effects of a tower that has been proposed. The enclosed Technical Report also includes information provided by AT&T regarding its lack of service in this area of the State and how the proposed facility would integrate into its network.

We trust that this information will prove helpful to you and others in Bridgewater in formulating any recommendations you may have about the proposal. We would appreciate the opportunity to meet with you to review the Technical Report and will follow this letter with a call to schedule

such a meeting to discuss the proposed facility at your convenience. Additionally, should Bridgewater elect to conduct a public meeting about the proposal during the consultation period, we would ask that you let us know at your earliest convenience so that we may have representatives available to discuss the project.

Thank you for your consideration of this letter and its enclosures. We look forward to meeting with you.

Very truly yours,

Daniel M. Laub

Enclosure
cc w/ enclosures:

Lois Carreira, Land Use Coordinator
Hollis Redding, SBA
Ernest Lacasse, SBA
Michelle Briggs, AT&T
Kevin Dey, SAI Communications
Christopher B. Fisher, Esq.

CUDDY & FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

August 19, 2010

VIA FAX AND OVERNIGHT DELIVERY
First Selectman William Stuart
Town of Bridgewater
44 Main Street South
Bridgewater, CT 06752
Phone: (860) 354-2731
Fax: (860) 350-5944

Re: SBA & AT&T
Proposed Wireless Telecommunications Tower Facility
48 and 89 Wewaka Brook Road
Bridgewater, Connecticut

Dear First Selectman Stuart:

I am writing to you on behalf of our clients SBA Towers II ("SBA") and New Cingular Wireless PCS, LLC ("AT&T") in connection with the above referenced facility. This is to confirm that our team of consultants for the proposed tower facility are available for a public meeting on September 7th at 7:00 pm. As per a voicemail message from your assistant Anne Marie Lindblom, I am advised that this date and time are amenable to the Town and that the location of this public meeting will be the Senior Center at 132 Hut Hill Road in Bridgewater.

Our team will be able to provide an overview of the proposed facility and will endeavor to answer questions that the public may have. As you know, jurisdiction over such facilities rests exclusively with the State of Connecticut Siting Council pursuant to Section 16-50i and x of the Connecticut General Statutes and this public information session is part of the municipal consultation for such facilities as set forth in Section 16-50l(e) of the Connecticut General Statutes.

We look forward to seeing you on September 7th and thank you for your continued consideration of this matter. Should you have any questions or need anything further in the interim please do not hesitate to contact me.

Very truly yours,

Daniel M. Laub

Enclosure

cc: Hollis Redding, SBA; Ernest Lacasse, SBA; Michelle Briggs, AT&T; Kevin Dey, SAI Communications; Christopher B. Fisher, Esq.

CUDDY & FEDER LLP

445 HAMILTON AVENUE
WHITE PLAINS, NEW YORK 10601-5196

(914) 761-1300
FACSIMILE (914) 761-5372
www.cuddyfeder.com

500 FIFTH AVENUE
NEW YORK, NEW YORK 10110
(212) 944-2841
FACSIMILE (212) 944-2843

300 WESTAGE BUSINESS CENTER
FISHKILL, NEW YORK 12524
(845) 896-2229
FACSIMILE (845) 896-3672

NORWALK, CONNECTICUT

TO: First Selectman William Stuart

FROM: Daniel M. Laub

MAIN OFFICE NO. 860.354.2731

TELECOPIER NO. 860.350.5944

DATE: 8/19/10 **PAGES:** 2 **CLIENT:** 36112 **MATTER:** 3
(Including Cover)

MESSAGE:
Please see letter included with this fax.

OPERATOR: _____ (914) 761-1300 Ext. _____
IF THERE ARE ANY PROBLEMS, PLEASE NOTIFY OPERATOR IMMEDIATELY.

C&F: 685845.1

P. 01

TRANSACTION REPORT

AUG-19-2010 THU 04:55 PM

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
AUG-19	04:54 PM	2#778#8603505944	48″	3	SEND	OK	226	

TOTAL : 48S PAGES: 3

CUDDY & FEDER LLP

445 HAMILTON AVENUE
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500 FIFTH AVENUE
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300 WESTAGE BUSINESS CENTER
FISHKILL, NEW YORK 12524
(845) 896-2229
FACSIMILE (845) 896-3672

NORWALK, CONNECTICUT

TO: First Selectman William Stuart

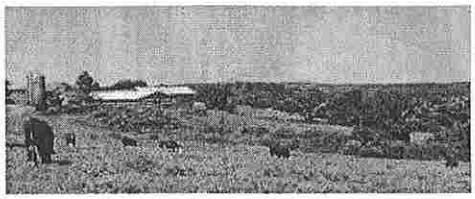
FROM: Daniel M. Laub

MAIN OFFICE NO. 860.354.2731

TELECOPIER NO. 860.350.5944

DATE: 8/19/10 **PAGES:** 2 (Including Cover) **CLIENT:** 36112 **MATTER:** 3

MESSAGE:


Our Town
Recreation
Senior Center

- Town Departments
- Boards & Commissions
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- About Bridgewater
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Search the
Town of Bridgewater website
by entering your keyword in the
box below:

SEARCH

Welcome
to the Official Web Site for the

Town of Bridgewater, Connecticut.

This site is provided as a service to our residents and neighbors, and will enhance the Town's ability to provide better information to our community.

If you can't find what you were looking for, have any suggestions for information on this site, or just want to ask a question, contact the town using the link at the bottom of this page.

News and Announcements

Click on the links below for more information

CELL TOWER PROPOSAL
***CLICK TO VIEW*: TECHNICAL REPORT / ADDITIONAL MAPS**

(these are large pdf files and will take some time to download)

Legal Notice: TOWN MEETING on September 24th, 7 PM
Balloon Float at proposed site on Thursday, Sept. 23rd, 10AM-12PM

HARVEST HOUSE TOUR
to benefit Bridgewater Land Trust
Saturday, September 25th

PLAYGROUND APPEAL for BURNHAM SCHOOL

VACANCY: Board of Finance (Republican) ***click for more information***

Bridgewater Food Pantry at Bridgewater Congregational Church

FILE OF LIFE PACKETS NOW AVAILABLE (provided by BVFD EMS)

NEIGHBORHOOD WATCH ALERT SYSTEM

Volunteers Needed:

- **Lake Lillinonah Authority**
- **NW Coordinator, Public Safety Communications**
- **Cablevision**

Contact a member of the

Laub, Daniel M.

From: Laub, Daniel M.
Sent: Friday, September 24, 2010 3:17 PM
To: 'William T. Stuart'
Subject: RE: extension

Dear First Selectman Stuart:

Thank you for your message and for speaking with me earlier today.

I am pleased to advise you that after consulting with our clients we can accommodate your request and will wait on submitting the application for three weeks. We are available for a meeting with the Wetlands Commission where we will have our wetlands consultant available to present specifics of the proposal and answer any questions the commission may have. We can also arrange for a site visit as you mentioned and can make sure the path of the drive and the compound are staked for review. We request that we do that within the next two weeks so that both the Town and our consultants have a week for any follow up correspondence/ technical recommendations prior to filing. Please provide some proposed dates when the Wetlands Commission would be available for this review.

Thank you once again for your time and consideration in this regard.

Best Regards,

Daniel M. Laub
CUDDY&
FEDER LLP
ATTORNEYS AT LAW
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
dlaub@cuddyfeder.com

From: Anne Marie Lindblom [mailto:ALindblom@bridgewatertownhall.org] **On Behalf Of** William T. Stuart
Sent: Friday, September 24, 2010 12:52 PM
To: Laub, Daniel M.
Subject: extension

Dear Dan,
The Town of Bridgewater would like an extension of three weeks to give our Wetlands Commission an opportunity to review the plan on the Allen property/site. In addition the First Selectman, acting as the Driveway official would like a chance to review the driveway plan.

Thank you,

William T. Stuart

Anne Marie Lindblom
Assistant to the First Selectman
Town of Bridgewater
PO Box 216, Bridgewater, CT 06752
Phone: 860-354-2731
Fax: 860-350-5944
alindblom@bridgewatertownhall.org

CUDDY& FEDER LLP

445 Hamilton Avenue, 14th Floor
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Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

September 29, 2010

VIA FAX AND FEDEX

Mr. Robert Kelly, Chairman
Conservation and Inland Wetlands Commission
c/o Lois Carreira
Town of Bridgewater
44 Main Street South
Bridgewater, CT 06752
Phone: (860) 354-2832
Fax: (860) 350-5944

Hon. William Stuart
First Selectman
Town of Bridgewater
44 Main Street South
Bridgewater, CT 06752
Phone: (860) 354-2731
Fax: (860) 350-5944

Re: SBA & AT&T
Proposed Wireless Telecommunications Tower Facility
Wewaka Brook Road
Bridgewater, Connecticut

Dear First Selectman Stuart and Chairman Kelly:

I am writing to you on behalf of our clients SBA and New Cingular Wireless PCS, LLC ("AT&T") in connection with the proposed wireless facility at Wewaka Brook Road.

As per my discussions and email correspondence with you both, I am writing to confirm a site visit with representatives of the Inlands Wetlands Commission and First Selectman Stuart this coming Tuesday, October 5, 2010 beginning at 9:00 am. Parking is available in the driveway of 89 Wewaka Brook Road and our team will meet you there.

As per Chairman Kelly's request I am also enclosing with the hardcopy of this letter six (6) additional copies of the project plan drawings, aerial photo, topographic map, and other information for the use and review of the Inland Wetlands Commission in conjunction with the coming site visit.

Thank you once again for your time and consideration in this matter. We look forward to meeting with you at 89 Wewaka Brook Road on Tuesday, October 10, 2010 at 9:00 am.

Very truly yours,

Daniel M. Laub

Enclosures

cc: Hollis Redding, SBA; Ernest Lacasse, SBA; Michelle Briggs, AT&T; Kevin Dey, SAI Communications; Christopher B. Fisher, Esq.

CUDDY & FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

November 12, 2010

VIA FEDEX
First Selectman William T. Stuart
Town of Bridgewater
44 Main Street South
P.O. Box 216
Bridgewater, CT 06752
Phone: (860) 354-5250

Re: SBA & AT&T
Proposed Wireless Telecommunications Tower Facility
Wewaka Brook Road
Bridgewater, Connecticut

Dear First Selectman Stuart:

On behalf of our clients SBA and New Cingular Wireless PCS, LLC ("AT&T"), and as per your request, enclosed please find six (6) additional copies of the Technical Report in connection with the proposed wireless facility at Wewaka Brook Road.

Please also note that the additional two sites you asked our team to review did not produce any alternative site locations. A site at the Town Garage would not provide adequate service to the area where coverage is needed. Further, lease terms could not be agreed upon with Mr. Wright for his property on Stuart Road.

By way of update I also wanted to let you know that the final applications for the proposed facility on Wewaka Brook Road are going to print and will be filed with the Siting Council within the next few business days. Copies will be forwarded to you and other officials in the Town of Bridgewater.

Thank you once again for your time and consideration in this matter.

Very truly yours,

Daniel M. Laub

Enclosures

cc: Hollis Redding, SBA; Ernest Lacasse, SBA; Michelle Briggs, AT&T; Kevin Dey, SAI Communications; Christopher B. Fisher, Esq.

CERTIFICATION OF SERVICE

I hereby certify that on the 9th day of November, 2010 copies of AT&T's Application and Attachments for a Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance and Operation of a Wireless Telecommunications Facility were sent by certified mail, return receipt requested, to the following:

State and Regional

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

Department of Environmental Protection
Amey Marrella, Commissioner
79 Elm Street
Third Floor
Hartford, CT 06106

Department of Public Health
J. Robert Galvin, Commissioner
410 Capitol Avenue
Hartford, CT 06134-0308

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

Department of Public Utility Control
Kevin M. DelGobbo, Chair
10 Franklin Square
New Britain, CT 06051

Office of Policy and Management
Brenda L. Sisco, Acting Secretary
450 Capitol Avenue
Hartford, CT 06106-1308

Connecticut Commission on Culture & Tourism
Historic Preservation and Museum Division
One Constitution Plaza, 2nd Floor
Hartford, CT 06103

Connecticut Department of Emergency
Management and Homeland Security
Peter J. Boynton, Commissioner
25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042

Department of Economic and Community
Development
Joan McDonald, Commissioner
505 Hudson Street
Hartford, CT 06106-71067

Department of Transportation
Jeffery A. Parker, Commissioner
2800 Berlin Turnpike
Newington, CT 06131-7546

Department of Agriculture
F. Philip Prelli, Commissioner
165 Capitol Avenue
Hartford, CT 06106

Housatonic Valley Council of Elected Officials
Jonathan Chew, Executive Director
Old Town Hall
162 Whisconier Road
Brookfield, Connecticut 06804

State Representative
Hon. Arthur O'Neill
69th Assembly District
L.O.B. Room 4200
Hartford, CT 06106

State Senator
Hon. Robert Kane
32nd Senate District
LOB Room 3400
Hartford, CT 06106

Federal

Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

U.S.Senator Christopher Dodd
448 Russell Senate Office Building
Washington, DC 20510

U.S. Representative Christopher Murphy
5th District
114 West Main St., Suite 206
New Britain, CT 06051

U.S. Senator Joseph Lieberman
706 Hart Office Building
Washington, DC 20510

Town of Bridgewater

Town of Bridgewater
Hon. William Stuart, First Selectman
Town Hall
44 Main Street South
P.O. Box 216
Bridgewater, CT 06752

Conservation and Inland Wetlands Commission
Mr. Robert Kelly, Chairman
Town Hall
44 Main Street South
P.O. Box 216
Bridgewater, CT 06752

Town of Bridgewater
Ms. Cheryl Pinkos
Town Hall
44 Main Street South
P.O. Box 216
Bridgewater, CT 06752

Town of Bridgewater
Ms. Lois Carreira,
Zoning Enforcement Officer & Land Use Coordinator
Town Hall
44 Main Street South
P.O. Box 216
Bridgewater, CT 06752

Town of Bridgewater
Planning and Zoning Commission
Mr. Leo Null, Chairman
Town Hall
44 Main Street South
P.O. Box 216
Bridgewater, CT 06752

Town of Bridgewater
Mr. Joseph Manley, Building Inspector
Town Hall
44 Main Street South
P.O. Box 216
Bridgewater, CT 06752

Town of Bridgewater
Mr. Arthur Foote, Chairman
Zoning Board of Appeals
44 Main Street South
P.O. Box 216
Bridgewater, CT 06752

Dated 11/19/10

Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attorneys for AT&T

NOTICE

Notice is hereby given, pursuant to Section 16-50*l*(b) of the Connecticut General Statutes and Section 16-50*l*-1(e) of the Regulations of Connecticut State Agencies of an Application to be filed with the Connecticut Siting Council ("Siting Council") on or after October 18, 2010 by SBA Towers III LLC ("SBA") and New Cingular Wireless PCS, LLC ("AT&T") for a certificate of environmental compatibility and public need for the construction and maintenance of a wireless telecommunications facility in Bridgewater, Connecticut. The property being considered for the proposed wireless telecommunications facility (the "Facility") is 0 Wewaka Brook Road (tax map identification number 15-3-1) with access via the adjoining property at 89 Wewaka Brook Road. The proposed Facility will be located in the northern portion of the parcel and is proposed as a 170-foot self-supporting tower. The tower, antennas and ground equipment will all be within a 45' x 80' fenced equipment compound designed to accommodate unmanned equipment in either single-story equipment buildings or on concrete pads. Access to the Facility will be over an existing access drive from Wewaka Brook Road and then over a new 12 foot wide gravel access drive approximately 2,215 feet in length to the proposed equipment compound.

The location, height and other features of the proposed Facility are subject to review and potential change under provisions of the Connecticut General Statutes Sections 16-50g et. seq.

The Facility is being proposed to allow AT&T to provide service in this area of Town. The Application explains the need, purpose and benefits of the Facility and also describes the environmental impacts of the proposed Facility. The Facility will be available for co-location by other wireless carriers.

A balloon, representative of the proposed height of the monopole, will be flown at the proposed site on the first day of the Siting Council public hearing on the Application, which will take place in Town, or on such other date specified by the Siting Council and a time to be determined by the Siting Council, but anticipated to be between the hours of 12pm and 5pm.

Interested parties and residents of the Town of Bridgewater, Connecticut are invited to review the Application during normal business hours after October 18, 2010 at any of the following offices:

Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Cheryl L. Pinkos, Town Clerk
Town of Bridgewater
44 Main Street South, P.O. Box 216
Bridgewater, CT 06752-0216

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

Christopher B. Fisher, Esq.
Daniel M. Laub, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, New York 10601
(914) 761-1300
Attorneys for the Applicant

October 13, 2010

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
XXXXXXXXX
XXXXXXXXX
XXXXXXXXX

Re: AT&T
Proposed Wireless Telecommunications Tower Facility
Wewaka Brook Road, Bridgewater Connecticut

Dear Sir or Madam:

We are writing to you on behalf of our client AT&T with respect to the above referenced matter and our client's intent to file an application with the State of Connecticut Siting Council for approval of a proposed wireless communications tower facility (the "Facility") within the Town of Bridgewater. State law requires that owners of record of property that abuts a parcel on which a facility is proposed be sent notice of an applicant's intent to file an application with the State agency that regulates tower facilities.

The property being considered for the proposed Facility is located at is 0 Wewaka Brook Road (tax map identification number 15-3-1) with access via the adjoining property at 89 Wewaka Brook Road . The proposed Facility will be located in the northern portion of the parcel and is proposed as a 170-foot self-supporting tower. The tower, antennas and ground equipment will all be within a 45' x 80' fenced equipment compound designed to accommodate unmanned equipment in either single-story equipment buildings or on concrete pads. Access to the Facility will be over an existing access drive (aka Wewaka Brook Road) and new 12 foot wide access drive approximately 2,215 feet in length to the proposed equipment compound.

The location, height and other features of the proposed Facility are subject to review and potential change by the Connecticut Siting Council under the provisions of Connecticut General Statutes §16-50g et seq.

If you have any questions concerning this application, please do not hesitate to contact the Connecticut Siting Council or the undersigned after October 22, 2010, the date on which the application is expected to be on file with the State.

Very truly yours,

Daniel M. Laub, Esq.

DML/ec

CERTIFICATION OF SERVICE

I hereby certify that on the 13th day of October 2010, a copy of the foregoing letter was mailed by certified mail, return receipt requested to each of the abutting properties owners on the accompanying list.

10/17/10
Date

Daniel M. Laub
Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601

Attorneys for:
SBA & AT&T

ADJACENT PROPERTY OWNERS
0 and 89 Wewaka Brook Road, Bridgewater, Connecticut

The following information was collected from the Town of Bridgewater's Tax Assessors' records:

Map Id: 14-47
Weantinoge Heritage Land Trust
PO Box 242
New Milford, Connecticut 06776

Map Id: 10-6
Suzanne Aimee Pardee &
Jeffrey H. Smith
PO Box 1070
Redding Center, Connecticut 06875

Map Id: 15-4
Siegfried C. & Joanne Mentzel
29 Wewaka Brook Road
Bridgewater, Connecticut 06752

Map Id: 10-7
Gregory Artura and
Patricia D'Alessio
659 Ashley Court
Cheshire, Connecticut 06410

Map Id: 15-1; 15-3-1
Mary Allen
42 Wewaka Brook Road
Bridgewater, Connecticut 06752

Map Id: 10-10
Bridgewater Land Trust
PO Box 8
Bridgewater, Connecticut 06752

Map Id: 10-11
William Kinsolving
PO Box 175
Bridgewater, Connecticut 06752

Map Id: 15-3
Christena Johnson
79 Wewaka Brook Road
Bridgewater, Connecticut 06752

Map Id: 15-35
James & Robin Lillis
60 Wewaka Brook Rd
Bridgewater, Connecticut 06752

Map Id: 15-36
Luke G. Mihaylo Jr. &
Rosalind V. Mihaylo
82 Wewaka Brook Rd
Bridgewater, Connecticut 06752

Map Id: 15-37
Michael & Cathleen Sullivan
94 Wewaka Brook Rd
Bridgewater, Connecticut 06752

Map Id: 15-38
Anthony P. & Jean A. Graffeo
102 Wewaka Brook Rd
Bridgewater, Connecticut 06752

Map Id: 15-2
Edward R & Cynthia S. Bennett
89 Wewaka Brook Rd
Bridgewater, Connecticut 06752

Map Id: 14-40
Eric Vaule
117 Wewaka Brook Rd
Bridgewater, Connecticut 06752

Application Guideline	Location in Application
(A) An Executive Summary on the first page of the application with the address, proposed height, and type of tower being proposed. A map showing the location of the proposed site should accompany the description;	I.B: Executive Summary, pages 1-4 Attachment 3: Description and Design of Proposed Facility
(B) A brief description of the proposed facility, including the proposed locations and heights of each of the various proposed sites of the facility, including all candidates referred to in the application;	I.B: Executive Summary, pages 1-4 V: Facility Design: pages 11-12
(C) A statement of the purpose for which the application is made;	I.A: Purpose and Authority, page 1
(D) A statement describing the statutory authority for such application;	I.A: Purpose and Authority, page 1
(E) The exact legal name of each person seeking the authorization or relief and the address or principle place of business of each such person. If any applicant is a corporation, trust, or other organized group, it shall also give the state under the laws of which it was created or organized;	I.C: The Applicants, pages 4-5
(F) The name, title, address, and telephone number of the attorney or other person to whom correspondence or communications in regard to the application are to be addressed. Notice, orders, and other papers may be served upon the person so named, and such service shall be deemed to be service upon the applicant;	I.C: The Applicants, pages 4-5
(G) A statement of the need for the proposed facility with as much specific information as is practicable to demonstrate the need including a description of the proposed system and how the proposed facility would eliminate or alleviate any existing deficiency or limitation;	III.A: Statement of Need, pages 6-7 Attachment 1: Statement of Need with Coverage Plots
(H) A statement of the benefits expected from the proposed facility with as much specific information as is practicable;	III.B: Statement of Benefits, pages 7-8
(I) A description of the proposed facility at the proposed prime and alternative sites including: **(1)** Height of the tower and its associated antennas including a maximum "not to exceed height" for the facility, which may be higher than the height proposed by the Applicant; **(2)** Access roads and utility services; **(3)** Special design features; **(4)** Type, size, and number of transmitters and receivers, as well as the signal frequency and conservative worst-case and estimated operational level approximation of electro magnetic radiofrequency power density levels (facility using FCC Office of Engineering and Technology Bulletin 65, August 1997) at the base of the tower base, site compound boundary where persons are likely to be exposed to maximum power densities from the facility; **(5)** A map showing any fixed facilities with which the proposed facility would interact;	I.B. Executive Summary, pages 1-4 V: Facility Design, pages 10-12 Attachment 3: Description and Design of Proposed Facility Attachment 4: Preliminary Bridge Design VI.C: Power Density, page 14 Attachment 1: Statement of Need with Coverage Plots Attachment 5: Environmental Assessment

Application Guideline	Location in Application
(6) The coverage signal strength, and integration of the proposed facility with any adjacent fixed facility, to be accompanied by multi-colored propagation maps of red, green and yellow (exact colors may differ depending on computer modeling used, but a legend is required to explain each color used) showing interfaces with any adjacent service areas, including a map scale and north arrows; and (7) For cellular systems, a forecast of when maximum capability would be reached for the proposed facility and for facilities that would be integrated with the proposed facility.	Attachment 1: Statement of Need with Coverage Plots
(J) A description of the named sites, including : (1) The most recent U.S.G.S. topographic quadrangle map (scale 1 inch = 2000 feet) marked to show the site of the facility and any significant changes within a one mile radius of the site; (2) A map (scale not less than 1 inch = 200 feet) of the lot or tract on which the facility is proposed to be located showing the acreage and dimensions of such site, the name and location of adjoining public roads or the nearest public road, and the names of abutting owners and the portions of their lands abutting the site; (3) A site plan (scale not less than 1 inch = 40 feet) showing the proposed facility, fall zones, existing and proposed contour elevations, 100 year flood zones, waterways, and all associated equipment and structures on the site; (4) Where relevant, a terrain profile showing the proposed facility and access road with existing and proposed grades; and (5) The most recent aerial photograph (scale not less than 1 inch = 1000 feet) showing the proposed site, access roads, and all abutting properties.	Attachment 3: Description and Design of Proposed Facility Attachment 7: Visual Resource Evaluation Report
(K) A statement explaining mitigation measures for the proposed facility including: (1) Construction techniques designed to specifically minimize adverse effects on natural areas and sensitive areas; (2)Special design features made specifically to avoid or minimize adverse effects on natural areas and sensitive areas; (3) Establishment of vegetation proposed near residential, recreation, and scenic areas; and (4) Methods for preservation of vegetation for wildlife habitat and screening.	Attachment 3: Description and Design of Proposed Facility VI: Environmental Compatibility, pages 13-18 Attachment 4: Preliminary Bridge Design Attachment 5: Environmental Assessment Statement Attachment 6: Preliminary Wetland and Vernal Pools Assessment
(L) A description of the existing and planned land uses of the named sites and surrounding areas;	VII.D: Planned and Existing Land Uses, pages 20
(M) A description of the scenic, natural, historic, and recreational characteristics of the named sites and surrounding areas including officially designated nearby hiking trails and	VI: Environmental Compatibility, pages 13-18 Attachment 3: Environmental Assessment

Application Guideline	Location in Application
scenic roads;	Statement
(N) Sight line graphs to the named sites from visually impacted areas such as residential developments, recreational areas, and historic sites;	Attachment 7: Visual Resource Evaluation Report
(O) A list describing the type and height of all existing and proposed towers and facilities within a four mile radius within the site search area, or within any other area from which use of the proposed towers might be feasible from a location standpoint for purposes of the application;	IV.A: Site Selection, pages 8-10 Attachment 2: Site Search Summary
(P) A description of efforts to share existing towers, or consolidate telecommunications antennas of public and private services onto the proposed facility including efforts to offer tower space, where feasible, at no charge for space for municipal antennas;	IV.A: Site Selection, pages 8-10 IV.B: Tower Sharing, page 10 V: Facility Design, pages 11-12 Attachment 1: Statement of Need Attachment 2: Site Search Summary
(Q) A description of the technological alternatives and a statement containing justification for the proposed facility;	III.C: Technological Alternatives, page 8 Attachment 1: Statement of Need with Coverage Plots
(R) A description of rejected sites with a U.S.G.S. topographic quadrangle map (scale 1 inch = 2,000 feet) marked to show the location of rejected sites;	IV.A: Site Selection, pages 7-8 Attachment 2: Site Search Summary
(S) A detailed description and justification for the site(s) selected, including a description of siting criteria and the narrowing process by which other possible sites were considered and eliminated, including, but not limited to, environmental effects, cost differential, coverage lost or gained, potential interference with other facilities, and signal loss due to geographical features compared to the proposed site(s);	IV.A: Site Selection, pages 8-10 Attachment 2: Site Search Summary
(T) A statement describing hazards to human health, if any, with such supporting data and references to regulatory standards;	VI: Environmental Compatibility, pages 12-13
(U) A statement of estimated costs for site acquisition, construction, and equipment for a facility at the various proposed sites of the facility, including all candidates referred to in the application;	IX.A: Overall Estimated Cost, page 22
(V) A schedule showing the proposed program of site acquisition, construction, completion, operation and relocation or removal of existing facilities for the named sites;	IX.B: Overall Scheduling, page 22

Application Guideline	Location in Application
(W) A statement indicating that, weather permitting, the applicant will raise a balloon with a diameter of at least three feet, at the sites of the various proposed sites of the facility, including all candidates referred to in the application, on the day of the Council's first hearing session on the application or at a time otherwise specified by the Council. For the convenience of the public, this event shall be publicly noticed at least 30 days prior to the hearing on the application as scheduled by the Council; and	VI. A: Visual Assessment, pages 13
(X) Such information as any department or agency of the state exercising environmental controls may, by regulation, require including: 1. A listing of any Federal, State, regional, district, and municipal agencies, including but not limited to the Federal Aviation Administration; Federal Communications Commission; State Historic Preservation Officer; State Department of Environmental Protection; and local conservation, inland wetland, and planning and zoning commissions with which reviews were conducted concerning the facility, including a copy of any agency position or decision with respect to the facility; and 2. The most recent conservation, inland wetland, zoning, and plan of development documents of the municipality, including a description of the zoning classification of the site and surrounding areas, and a narrative summary of the consistency of the project with the Town's regulations and plans.	VI: Environmental Compatibility, pages 12-13 Attachment 8: Correspondence with CTDEP and USFWS Attachment 9: Correspondence with SHPO Attachment 10: Correspondence with the Town of Bridgewater VII: Consistency with the Town of Bridgewater Land Use Regulations, pages 18-21 Bulk Filing
(Y) Description of proposed site clearing for access road and compound including type of vegetation scheduled for removal and quantity of trees greater than six inches diameter at breast height and involvement with wetlands;	V: Facility Design, pages 11-12 Attachment 5: Environmental Assessment Statement (Tree Inventory)
(Z) Such information as the applicant may consider relevant.	