STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF NATIONAL GRID WIRELESS, INC. FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS FACILITY AT 17 COTTAGE ROAD IN THE TOWN OF MADISON

DOCKET NO._____

Date: March 30, 2007

APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

National Grid Wireless, Inc.
80 Central Street
Boxborough, MA 01719

LIST OF ATTACHMENTS

1. Pre-Filed Testimony of Ronald C. Clark
2. Pre-Filed Testimony of Scott Heffernan
3. Statement of Need with Plots
4. Site Selection Summary
5. Description and Design of Proposed Facility
6. Correspondence with State Agencies
7. Correspondence with the Town of Madison (A copy of the Technical Report is included in the Bulk Filing)
8. Certification of Service on Governmental Officials including List of Officials Served
9. Legal Notice in The Source and The Shoreline Times
10. Notice to Abutting Landowners; Certification of Service; List of Abutting Landowners
11. Connecticut Siting Council Application Guide

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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, National Grid Wireless, Inc. ("NGW", 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 facility (the "Facility") in the Town of Madison. Omnipoint Communications, Inc., a subsidiary of T-Mobile USA Inc. ("T-Mobile") will serve as the anchor tenant. The proposed Facility is a necessary component in T-Mobile's network plan to provide personal wireless communications services in the State of Connecticut and New Haven County and will also afford other wireless carriers the opportunity to provide service. The proposed Facility will provide service within the Town of Madison along the Route 1

(Boston Post Road) corridor in the vicinity of the southern section of the Hammonassett Connector, Hammonassett State Park, the Griswold Airport property, local roads and adjacent commercial and residential areas.

B. Executive Summary

The proposed Facility will consist of a monopole, antennas, associated equipment and other site improvements integral to a wireless communications facility. NGW identified one site for the construction and operation of the proposed Facility. The Site is situated within an approximately 1.8-acre property located at 17 Cottage Road in Madison. The property is owned by Paul Stonehart and has been used for many years for business purposes.

The proposed Facility will be located in the northwest corner of the property, in an area adjacent to the northbound lanes of the Hammonassett Connector. NGW proposes to install a monopole 130 feet in height and a 60' x 60' fenced equipment compound. T-Mobile will locate antennas at a centerline height of 117' above grade level ("AGL") and install unmanned electronic equipment cabinets within the fenced compound. Vehicular access to the facility would extend from Cottage Road northward along a new gravel driveway a distance of approximately 360', then turn northwest a distance of approximately 40' to the proposed Facility. Underground utility connections would extend from Cottage Road and parallel the access drive.

The monopole and compound area will be designed to accommodate use by all of the wireless carriers active in Connecticut and the Town of Madison's public safety communications equipment. A tower of 130' is proposed; however, the tower and foundation would be designed to support extension of the tower to 150' should such an extension be justified in the future. The compound will be enclosed by an 8-foot high security fence. T-Mobile's equipment also would be monitored 24 hours a day, 7 days a week from a remote location.

Included in this application in Attachment 5 are reports with survey based plans and other information detailing the proposed Facility and potential environmental impacts associated therewith. The Applicant respectfully submits that the reports and other supporting documentation included in this Application contain relevant site specific information as required by Statute and the regulations of the Connecticut Siting Council (the "Siting Council" or "Council"). A copy of the Council's Community Antenna Television and Telecommunication Facilities Application Guide with page references from this Application is also included in Attachment 11.

C. The Applicant

The applicant, NGW, is a Massachusetts corporation with offices at 80 Central Street, Boxborough, Massachusetts 01719. NGW will construct and maintain the proposed Facility. NGW does not conduct any business in the State of Connecticut other than the provision of tower facilities and services to personal communications services carriers. T-Mobile is committed to use the proposed Facility as the anchor tenant and will intervene in the Council's proceeding.

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

Cuddy & Feder, LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attention: Lucia Chiocchio, Esq.

A copy of all correspondence shall also be sent to:

Mr. Ronald C. Clark
CONNsult Wireless Services, LLC
6 Evarts Lane
Madison, Connecticut 06443

D. Application Fee

Pursuant to RCSA Section 16-50v-1a(b), a check made payable to the Siting Council in the amount of $1,000 accompanies this Application. The estimated total construction cost is expected to be $225,000. As such, the applicable application fee is $1,000 in accordance with RCSA Section 16-50v-1a(b).

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

NGW is a subsidiary of National Grid USA, the fifth largest public utility in the United States. National Grid serves customers in Massachusetts, Rhode Island, New Hampshire and upstate New York. NGW is **not** engaged in generating electric power in the State of Connecticut. As such, the proposed Facility is not subject to CGS Section 16-50r. The proposed Facility has not been identified in any annual forecast reports. As such, the proposed Facility is not subject to CGS 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 8. Pursuant to CGS 16-50*l*(b), notice of the Applicant's intent to submit this application was published on two occasions in The Source and The Shoreline Times. Copies of the published legal notices are included in Attachment 9. The publisher's affidavits of service will be forwarded upon receipt. Further, in compliance with CGS 16-50*l*(b), notices were sent to each person appearing of record as owner of a property which abuts the site. Certification of

such notice, a sample notice letter, and the list of property owners to whom the notice was mailed are included in Attachment 10.

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's overhaul of the Communications Act of 1934 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 Facility proposed in this Application is an integral component of T-Mobile's wireless network in this area of the State of Connecticut. Currently, a gap in coverage exists in T-Mobile's network in the Town of Madison, specifically along the southern portion of the Hammonassett Connector, Route 1 and adjacent local roads and areas in this portion of New Haven County. The proposed Facility in conjunction with other facilities in Madison and

Clinton is needed by T-Mobile to provide its wireless services to people living and traveling through this area of the State. The Pre-Filed Testimony of Scott Heffernan included in Attachment 2 of this Application details the specific need for the proposed Facility. Attachment 3 of this Application includes a Statement of Radio Frequency ("RF") Need and propagation plots prepared by T-Mobile which further demonstrate and identify the specific need for a Facility in this area of Madison.

B. Statement of Benefits

T-Mobile is a leading provider of advanced wireless services throughout the United States. In recent years, T-Mobile, as well as other carriers, has seen the public's demand for traditional cellular telephone services in a mobile setting develop into a demand 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 can no longer be 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.

To ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 (the "911 Act"). The purpose of this 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 would 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, hikers and boaters.

As an outgrowth of the 911 Act, the FCC mandated wireless carriers, such as T-Mobile, to provide enhanced 911 services ("E911") as part of their communications networks. These services ultimately allow 911 public safety dispatchers to identify a wireless caller's geographical location within several hundred feet. T-Mobile has deployed and continues to deploy network technologies to implement the FCC's E911 mandates.

The proposed Facility in Madison will become an integral component of T-Mobile's E911 network in this area of the State upon construction of the Facility. These factors will apply equally to other wireless carriers as they expand their service in the Madison area through the proposed Facility.

C. Technological Alternatives

The FCC licenses granted to T-Mobile and other wireless carriers authorize them 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 T-Mobile's wireless network, and will also allow other wireless carriers to provide improved service in this area.

Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means to providing service within the target area for this site. As such, they are not an alternative to the proposed Facility. The Applicant submits that there are no equally effective, feasible technological alternatives to construction of a new tower Facility for providing reliable personal wireless services in this area of Connecticut.

IV. Site Selection and Tower Sharing

A. Site Selection

A search area is an area where a coverage and/or capacity problem exists within a carrier's network and where a new wireless facility is needed to provide service to the public. Selection of the property on which the Facility has been proposed was the result of a site search process explained in the Pre-Filed Testimony of Mr. Ronald C. Clark in Attachment 1 and the Site Selection Summary contained in Attachment 4. NGW was aware that a large gap in wireless service existed along the Route 1 corridor in southeast Madison, in the general vicinity of the Hammonassett Connector, Hammonassett State Park and the Griswold Airport property, the target area. NGW began its search for a suitable facility location to serve the target area in early 2005. As a first step, NGW conducted an extensive search of the entire area in an attempt to identify any existing structures (towers, buildings, water tanks, etc.) that could be used as an alternative to a new tower. As part of this review, NGW identified ten existing towers within a three and one-half mile radius of the target area. The list of towers is included in Attachment 4. These towers were evaluated to determine if any could possibly be used to provide service to the target coverage area. NGW's findings indicated that none of these towers (four of which T-Mobile is already collocated upon) used alone, or in conjunction with one another, could be used to fill the coverage void in the target area.

After determining that no existing structures could be used to provide needed coverage, NGW then began to search for larger parcels of undeveloped land, commercial sites and municipally owned properties that might accommodate a telecommunications tower facility. The properties initially identified as potential candidates included many of the commercially zoned properties in the area, the Griswold Airport (through Leyland Alliance, Inc.) property,

Hammonassett State Park, including several ancillary properties near the park owned by the Department of Environmental Protection and open space parcels. The Site Search Map in Attachment 4 depicts the locations reviewed during NGW's search. The reasons for elimination from consideration of all but the proposed site are contained in the Site Selection Summary in Attachment 4. One location was subsequently leased and is the proposed Site for the Facility proposed in this Application.

B. Tower Sharing

To promote the sharing of wireless facilities in the Madison area, NGW has proposed a Facility that can accommodate at least four antenna platforms and equipment for the wireless carriers in the Connecticut marketplace and the Town of Madison's public safety functions. T-Mobile has committed to use the Facility, if approved. To ensure that future carriers' needs can be accommodated, NGW will design the tower and foundation to support an extension of the tower to 150'. Details of the design are included in Attachment 5. NGW is willing to provide, free of charge, space on the proposed monopole for the Town of Madison's public safety communications antennas. The Madison Police Department has expressed a desire to share use of the Facility and provisions have been made to accommodate their equipment.

V. Facility Design

In the northwest corner of the Site, NGW would lease a 4,000 square foot parcel within the approximately 1.8 acre property located on Cottage Road and owned by Paul Stonehart. The proposed Facility would consist of a 130' high self-supporting monopole and a 60 ' x 60' fenced equipment compound. T-Mobile would install up to twelve panel antennas on a platform at a centerline height of 117' AGL and unmanned equipment cabinets within the equipment

compound. The Madison Police Department currently intends to install a single 10' whip antenna mounted at the 75' level of the tower and install a small equipment cabinet inside the compound. The compound would be enclosed by a security fence, 8' in height. Both the monopole and the equipment compound are designed to accommodate the facilities of all wireless carriers active in the Connecticut marketplace and the Town of Madison. If antennas are installed at a centerline height of 130' AGL, the overall height of the proposed Facility would be approximately 133' AGL. The tower and foundation design will allow future extension of the tower to 150'.

Vehicular access to the facility would extend northward from Cottage Road over a new gravel access drive a distance of approximately 360', and then turn northwest a distance of approximately 40' to the proposed Facility. Underground utility connections would extend from Cottage Road and parallel the access drive to the compound. Attachment 5 contains the specifications for the proposed Facility including a site plan, a compound plan, tower elevation, access map and other relevant information contained in a Site Evaluation Report and Facilities and Equipment Specifications. Also included are an environmental assessment statement and a computer-based, predictive viewshed model, photosimulations and sight line graphs. Some of the relevant information included in Attachment 5 reveals that:

- The property is classified in the CA-1 commercial zoning district;
- No wetlands or watercourses are identified within or near the site development area or access drive;
- The property is improved with two office buildings and associated parking areas;
- Minimal grading of the proposed access drive and compound area would be required for the construction of the proposed Facility;

- Minimal clearing would be required for development of the proposed access drive and compound area;
- According to the Department of Environmental Protection, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species at the site;
- An archaeological study indicates that no archaeological resources will be affected by development of the proposed Facility; and
- The proposed Facility will have no impact on water flow, water quality, or air quality and will not emit noise levels in excess of the State noise standards.

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, the proposed Facility will have no significant adverse environmental impacts.

A. Visual Assessment

The visual impact of the proposed Facility would vary from different locations around the tower depending upon factors such as vegetation, topography, distance from the tower, and the location of structures around the tower. Included in Attachment 5 is a Visual Analysis Report which contains a computer-based, predictive viewshed model, photosimulations from 21 views and sight line graphs from 8 locations. The photosimulations for Views 1, 2, and 21 include

photosimulations of "leaf-off" conditions that were prepared at the request of the Madison Planning and Zoning Commission during the municipal consultation process. Views 1 and 21 also include photosimulations of a monopole designed as a "brown stick", also requested by the Planning and Zoning Commission.

In general, the visibility of the proposed tower is limited and scattered. Potential views from Hammonassett State Park will be limited to distant views of the top section of the monopole. Similarly, as shown in the Visual Analysis Report, the homes that may have views of the monopole will have distant views of only the top section of the monopole.

Weather permitting, NGW 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. Solicitation of State Agency Comments

NGW submitted requests for review and comment to the Connecticut State Historic Preservation Officer ("SHPO") and Department of Environmental Protection ("DEP") representatives responsible for the Natural Diversity Data Base and endangered species review. At SHPO's request, NGW conducted an archaeological reconnaissance study of the Site and the study indicated that no prehistoric or historic archaeological resources were identified within the project area. The archaeological reconnaissance study has been forwarded to SHPO.

SHPO also requested photos of the State Park Supply Yard located at 51 Mill Road in the Town of Madison, a location listed on the National Register of historic places. The State Park Supply Yard property is owned by the DEP and is currently used by the DEP for vehicle and equipment maintenance and storage. As demonstrated in the photos of the State Park Supply yard that were forwarded to SHPO, copies of which are included in Attachment 6, the historic

significance of this location does not appear to be related to its visual qualities. Indeed, a review of the National Register listing indicates that the historic significance of this location is due to its social history as a Civilian Conservation Corps site. Moreover, during NGW's municipal consultation with the Town of Madison, the State Park Supply Yard was never raised as a visual receptor during several discussions regarding the visual impact of the proposed Facility. Given the current use of the property, its appearance and the fact that the local community did not express any concern regarding the proposed Facility's impact to the site, it is respectfully submitted that the proposed Facility will have no adverse effect on the State Park Supply Yard, a formal determination for which is pending at SHPO.

According to the DEP, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species at the site. A copy of DEP's correspondence is included in Attachment 6.

C. Power Density Analysis

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 calculation for the proposed Facility, assuming that the antennas were pointed at the base of the tower and all channels were operating simultaneously, has been performed by T-Mobile. The resulting power density for T-Mobile's operations at the proposed site would be approximately 5.67% of the applicable MPE standards.

D. Other Environmental Factors

The proposed Facility would be unmanned, requiring monthly maintenance visits approximately one hour long by each carrier that occupies the Facility. T-Mobile's equipment at the Facility would be monitored 24 hours a day, seven days a week from a remote location. The

proposed Facility would not require a water supply or wastewater utilities. No outdoor storage or solid waste receptacles will be needed. Further, the proposed Facility will not create or emit any smoke, gas, dust or other air contaminants, noise, odors or vibrations. The construction and operation of NGW's proposed Facility will have no significant impact on the air, water, or noise quality of the area.

NGW has evaluated the Site 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. No National Parks, National Forests, National Parkways or Scenic Rivers, State Forest, State Designated Scenic Rivers or State Gamelands are located in the vicinity of the subject site. The subject site is not located in or adjacent to any areas identified as a federal wildlife preserve. Further, according to the site survey and field investigations, no federally regulated wetlands or watercourses 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. Further, as detailed in Section VI.B above, while the top of the proposed monopole may be visible from the State Park Supply Yard, which is listed on the National Register of historic places, it is respectfully submitted that the monopole will have no adverse effect on the State Park Supply Yard given that its historical significance is not related to aesthetics and its current appearance as a maintenance and storage facility for vehicles and equipment. As such, pending a formal SHPO determination, it is believed that the Site will be categorically excluded from any requirement for further environmental review by the FCC in accordance with NEPA and that no permit will be required by that agency prior to construction of the proposed Facility. See 47 C.F.R. §§ 1.1306(b) and 1.1307(a).

VII. Consistency with the Town of Madison'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. Madison's Plan of Conservation and Development

The Town of Madison's Plan of Conservation & Development ("Plan"), dated November 1, 2000, a copy of which is included in Section 1 of the bulk filing, anticipates the demand for wireless services by the Madison community. The Plan recommends that the Town encourage improvements in communication infrastructure to meet the needs of the residents and businesses. The Plan also encourages co-location of facilities to minimize the total number of towers needed to serve the Town. The Applicant respectfully submits that the proposed Facility is consistent with the Town's conservation goals and will enhance townwide wireless communications. (See Plan of Conservation and Development, page 87.)

B. Madison's Zoning Regulations and Zoning Classification

The Site is classified in the Town of Madison's Commercial District (CA-1). The Town of Madison's Zoning Regulations do not include specific standards or regulations for wireless facilities. (See Applicant's Bulk Filing, Section 2.)

C. Planned and Existing Land Uses

The proposed Facility will be located in the undeveloped northwest corner of an approximately 1.8 acre property. The property is used for business purposes and is improved

with two office buildings and associated parking lot. The area immediately surrounding the site consists primarily of undeveloped commercially zoned land, deeded open space and State-owned properties. The site of the former Griswold Airport, located approximately 0.7 miles to the southeast, is proposed for development as housing for an active adult community. Consultation with municipal officials and observations did not indicate any other planned changes to the surrounding land uses.

D. Madison's Inland Wetlands and Watercourses Regulations

The Town of Madison's Inland Wetlands Regulations ("Local Wetlands Regulations") regulate certain activities conducted in or adjacent to "wetlands" as defined therein. One such regulated activity is "any operation within or use affecting a wetland or watercourse by obstruction, by construction, by alteration, by removal or deposition of materials or by pollution of such wetlands....". Regulated areas include any inland wetland or watercourse as defined in the regulations. (See Bulk Filing, Section 4, page 4).

According to the site survey and field investigations conducted at the Site, no wetlands or watercourses are located within or near the site development area or access drive. As such, NGW respectfully submits that the proposed Facility will have no impact to wetlands or watercourses. In accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Council of Soil and Water Conservation, soil erosion control measures and other best management practices will be established and maintained throughout the construction of the proposed Facility.

VIII. Consultations with Local, State and Federal Officials

A. Local Consultations

CGS Section 16-50*l*(e) requires an applicant to consult with the local 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 and alternate sites of the facility.

On November 8, 2006, NGW submitted a letter and a technical report to the First Selectman of the Town of Madison with respect to the proposed site in Madison. The letter, a copy of which is included in Attachment 7, formally introduced the proposed Facility to Town officials and invited the Town to discuss any comments or questions about the Facility with NGW. The Technical Report, a copy of which is being bulk filed, included specifics about the proposed site and addressed the public need for the facility, the site selection process and the environmental effects of the proposed Facility.

As a result of the Technical Report submission, NGW and T-Mobile representatives met with the Planning and Zoning Commission on January 4th and January 18th for public information sessions on the proposed Facility. At the January 4th hearing, the Commission requested supplemental visual materials, which were provided for the January 18th meeting. At the January 18th hearing, the Commission made several recommendations, including minimizing clearing and tree removal, minimizing visibility, maintaining a gravel access drive and consideration of a tower foundation to accommodate expansion. As demonstrated in the application materials attached, NGW has addressed the Commission's comments in the design of the proposed Facility. A copy of the Commission's February 15, 2007 comments is included in Attachment 7.

NGW has also been in contact with the Madison Police Department regarding its use of the proposed Facility. As noted above, NGW will provide space for municipal emergency communications facilities free of charge.

B. Consultations with State Officials

As noted in Section VI.B of this Application, NGW consulted with and requested review of the proposed Facility from DEP and SHPO. Attachment 6 contains DEP's correspondence for the proposed Site and NGW's correspondence with SHPO.

C. Consultation with Federal Agencies

NGW had an analysis performed to determine whether the proposed Facility would require marking or lighting by the Federal Aviation Administration ("FAA"). The result of this analysis, a copy of which is included in Attachment 5, indicates that the proposed Facility would not require FAA registration, let alone FAA review as a potential air navigation obstruction or hazard. As such, no FAA lighting or marking would be required for the tower proposed in this Application.

T-Mobile's FCC license permits it to modify its network by building wireless facilities within its licensed area without prior approval from the FCC provided that a proposed facility does not fall within one of the "listed" categories requiring review under NEPA. The "listed" categories, included in 47 CFR §1.1307, are activities that may affect wilderness areas, wilderness preserves, endangered or threatened species, critical habitats, National Register historic districts, sites, buildings, structures or objects, Indian religious sites, flood plains and federal wetlands. As noted in Section VI.D of this Application, NGW conducted a review for the proposed Site and, pending formal determination from SHPO, believes that the proposed site

does not fall under any of the NEPA "listed" categories of 47 CFR §1.1307. Therefore, it is anticipated that the proposed Facility will not require review by the FCC pursuant to NEPA.

IX. Estimated Cost and Schedule

A. Overall Estimated Cost

The total estimated cost of construction for the proposed Facility is $225,000. This estimate includes:

(1) Tower and foundation costs (including installation) of approximately $70,000;

(2) Site development costs of approximately $105,000; and

(3) Utility installation costs of approximately $50,000.

B. Overall Scheduling

Site preparation work would commence immediately following Council approval of NGW's Development and Management ("D&M") Plan and the issuance of a Building Permit by the Town of Madison. The site preparation phase is expected to be completed within three (3) to four (4) weeks. Installation of the monopole, antennas and associated equipment is expected to take an additional two (2) weeks. The duration of the total construction schedule is approximately six (6) weeks. Facility integration and system testing is expected to require an additional two (2) 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 Town of Madison for wireless service. The foregoing information and attachments also demonstrate that the proposed Facility will not have any substantial adverse environmental effects. The Applicant respectfully submits that the public need for the proposed facility outweighs any potential environmental effects resulting from the construction of the proposed facility at the Site. As such, the Applicant respectfully requests that the Council grant a Certificate of Environmental Compatibility and Public Need to National Grid Wireless for a proposed wireless telecommunication facility in the Town of Madison.

Respectfully Submitted,

By: Lucia Chiocchio

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Lucia Chiocchio, Esq.
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(914) 761-1300
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PRE-FILED TESTIMONY OF
RONALD C. CLARK

1. Q. Mr. Clark, please summarize your professional background in telecommunications.

A. In summary, I have worked in the telecommunications industry for more than thirty years and have been working exclusively in the wireless sector since 1983.

I began my career at the Southern New England Telephone Company (SNET) in 1969. From 1969 through 1983, I held a variety of sales, sales management, marketing and account management positions, all focused on providing telecommunications products, services and technology to SNET's largest business customers.

In 1983, I accepted an offer from SNET's new cellular telephone subsidiary (now AT&T) to organize, staff, train, manage and launch the startup venture's sales operations. For the next four years I was responsible for all operational and marketing aspects of its field sales division. During this period, I also worked with Bell Telephone Laboratories and the cellular telephone manufacturers to identify, study, test and introduce software/hardware based enhancements into the wireless network. I additionally served as SNET's Director on the Cellular Telecommunications Industry Association's (CTIA) Safety Committee. In this capacity, I negotiated for and assisted in planning the integration of wireless 911 emergency calling into the state's public safety answering/dispatch networks.

In 1987, I became Manager of Real Estate Services for SNET's cellular telephone subsidiary. In this capacity I was responsible for wireless site acquisition activities, including identifying, evaluating, selecting, negotiating, leasing and zoning SNET's wireless infrastructure. This included development of all new tower sites, as well as facilities making use of existing towers and other structures (buildings, water tanks, electric transmission towers, etc.). For the next ten years I was directly involved in the acquisition and zoning of more than 200 new wireless sites and testified, literally hundreds of times, as an expert witness on siting matters before municipal land use boards and commissions, the Connecticut Siting Council and State Legislative Committees.

In September 1997, I retired from SNET to accept a position with Nextel Communications, Inc., as Manager of Real Estate Operations. In this capacity I had direct responsibility for the planning, acquisition, zoning, design and construction of Nextel's wireless facilities in Connecticut and in western Massachusetts.

In April of 2002, I formed **CONN**sult Wireless Services, LLC, a consulting management firm that provides a variety of specialized site acquisition, land use and site planning services to selected clients here in Connecticut. It is in that capacity I am representing National Grid Wireless in this Docket.

Additionally, I served for three years as chairman of the Selectmen's Telecommunications Tower Advisory Committee in the Town of Guilford and currently sit on the Planning & Zoning Commission in the Town of Madison.

2. Q. What is the purpose of your testimony?

A. The purpose of this testimony is to provide background information relating to the application of National Grid Wireless, Inc. ("NGW") to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need for the proposed facility in Madison and to explain: (1) NGW's role in developing telecommunications facilities; (2) its methodology for selecting sites; and (3) application of this methodology in the selection of the site proposed in this Application.

3. Q. Please provide a brief description of NGW and its role in developing telecommunications facilities.

A. NGW is a provider of wireless and fiber based infrastructure solutions to telecommunications companies and other communications based industries. Its wireless related activities include developing, operating and maintaining telecommunications towers, locating and installing wireless equipment on public utility structures and other client driven infrastructure services. NGW, headquartered in Boxborough, Massachusetts, was formed to partner itself with the wireless communications industry, by providing shared transmission facilities and other service enhancement opportunities. NGW is a subsidiary of National Grid USA, the fifth largest public utility in the United States. In the northeast, National Grid serves more than 3.3 million electric and natural gas customers in Massachusetts, Rhode Island, New Hampshire and upstate New York. National Grid USA is a subsidiary of National Grid Transco (NYSE: NGG), the fourth largest utility company in the world.

4. Q. How does NGW conduct a wireless site search?

A. NGW focuses on developing strategically located communication facilities to be shared and used by FCC licensed wireless service providers. When a wireless site search is initiated, either at the direction of a wireless carrier or, as a result of its own technical research, NGW first conducts a thorough investigation of the general area to determine if existing structures (buildings, water tanks, silos, electric transmission facilities, other towers, etc.) could reasonably be used as an alternative to a new tower. If it is found that no such alternatives exist, a Phase I search is initiated to identify and catalog all potential, viable tower locations. The next step in the process is investigating each of the identified potential tower sites. This involves, locational evaluations (determining Latitude/Longitude and ground elevation, assessing site proximity to residential areas, studying site topography, existence of natural screening buffers, etc.) consultations with municipal officials, local zoning analyses, contacts and meetings with potential lessors, visibility assessments, environmental analyses, radio propagation studies (with input from its wireless clients) and ultimately, site selection followed by negotiations with willing property owners.

In summary, NGW's three major objectives in seeking new tower sites are: 1) developing facilities only in areas where no viable, non-tower alternatives exist; 2) siting facilities in locations where its client's and the public's service needs are satisfied; and 3) securing proposed tower locations that represent the least environmentally and visually impactive sites available in/around the site search area.

5. Q. Please describe NGW's search for the proposed Madison facility.

A. NGW initiated its search for the proposed Madison facility in early 2005, in response to a determination that wireless coverage was virtually non-existent in the southeast Madison / extreme southwest Clinton area. The significant level of public need for wireless coverage became obvious during the initial search: a site in this area would provide coverage to heavily traveled U S Route 1 (Boston Post Road), the Hammonassett Connector (a limited access highway that connects I-95 to Route 1), Hammonassett State Park (which attracts more than one and one half million visitors annually), robust commercial and retail areas, busy local roads and more than 500 residences.

After conducting a thorough investigation and finding that no existing structures could be used to provide coverage to the area, the first phase of the site search focused on identifying tracts of vacant/underdeveloped land, commercially zoned properties and larger residential parcels that could be considered as potential site candidates. Numerous properties were visited, evaluated and considered. In the end, all but one site was rejected because of wireless coverage issues, property unavailability, land use restrictions, concerns over environmental issues and proximity to residential properties. The proposed site was selected and leased only after detailed studies, engineering/environmental evaluations and related reviews were performed.

6. Q. Please address the unique aspects of this application.

A. This application respectfully submits one (1) site for the Siting Council's consideration. The proposed site in located in the southeast section of Madison, near the intersection of U S Route 1 and the Hammonassett Connector.

The Proposed Site is located on the north side of Cottage Road on a 1.77 parcel of land owned by Mr. Paul Stonehart. The site sits in a wooded area on an elevated plateau at the rear of the property. A 130 foot monopole tower is proposed at this location.

As addressed in Scott Heffernan's Pre-Filed Testimony, the site proposed in this application meets T-Mobile's coverage and capacity needs. In addition, consistent with NGW's Business Plan, the proposed facility has been designed and engineered to accommodate additional wireless equipment and antennas.

7. Q. Has NGW consulted with municipal officials in Madison with regards to its plans?

A. Yes it has. NGW filed its Technical Report with the Town of Madison on November 8, 2006 and, at the Town's request, met with the Planning & Zoning Commission on the evening of January 4, 2007. At the meeting, Attorney Chris Fisher overviewed the project's background, Scott Heffernan explained T-Mobile's need for coverage in the area and Rod Bascom from Clough-Harbour described the design of the facility and reviewed the tower photo simulations contained in the Technical Report. The commission requested that in order to better assess the proposed facility's visual impact, additional photo simulations depicting winter type ("leaves off") conditions be submitted, along with photographs of the compound area. This data was submitted to the Planning & Zoning Commission on January 11, 2007 and subsequently

reviewed and discussed with Attorney Fisher and Mr. Bascom at the Commission's January 18, 2007 meeting. The additional photosimulations have been incorporated in the visual materials included in Attachment 5 of the Application. The Commission further discussed the subject during its meeting on February 15, 2007 and then submitted its findings to the Siting Council on the same date. A copy of the Commission's letter is include in Attachment 7.

Please note: I am a member of the Madison Planning & Zoning Commission and as such, voluntarily recused myself from participating in any of the municipal proceedings.

8. Q. Has the Town of Madison expressed interest in sharing use of the proposed facility?

A. Yes, it has. The Madison Department of Police Services has requested space be reserved at the 70' level of the proposed tower to place a 10' high "Voter-Receiver" whip antenna, to improve two-way radio and mobile data terminal coverage the department's southeast sector. The Madison Volunteer Fire Department has expressed interest in installing radio equipment on-site coincident with a planned communications system upgrade. Their specific requirements are at this time, undetermined.

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

PRE-FILED TESTIMONY OF SCOTT HEFFERNAN

Q.1. Please summarize your professional background in telecommunications.

A. My career in the wireless industry has spanned the past 11 years. For the past two years, my responsibilities as a contractor for T-Mobile have included the design and integration of the T-Mobile wireless network. Prior to this period, I was responsible for the design, integration, optimization and management of network buildouts for commercial wireless carriers, including Nextel, AT&T Wireless, Cingular, and Voicestream (T-Mobile's predecessor). Additionally, I have been involved in network design for government entities such as the Department of Homeland Security, Department of the Army, Department of the Navy, and the United States Marine Corps.

Q.2. What does your testimony address?

A. The purpose of my testimony is to provide information relating to T-Mobile's existing network in this area of the state and to describe the need for a proposed facility in the area. This includes information on the general design of T-Mobile's network and the technical constraints in selecting proposed facilities.

Q.3. Please describe T-Mobile's wireless network in Connecticut.

A. T-Mobile's predecessor entities began building a wireless network to provide PCS service in Connecticut in the mid 1990s. T-Mobile is licensed by the

Federal Communications Commission to provide PCS service using frequencies in the 1900 MHz range. T-Mobile operates approximately 550 sites in Connecticut. Current efforts are directed to providing signal to areas without coverage and meeting demand for additional capacity within areas already served. Each new site must be chosen to meet the need for coverage and/or capacity without creating RF interference among sites.

Q.4. <u>What requirements does the nature of wireless technology place on T-Mobile's selection of cell site locations?</u>

A: Like all personal communications service providers, T-Mobile's wireless network is based on the principle of frequency reuse. Cell site locations must be chosen to provide for sufficient signal strength overlap to allow call hand-off between cells without creating unnecessary duplicative coverage and frequency interference. Terrain variations and local land use policies and development further limit cell site locations.

Technological advances in service, such as the availability of data and video services through customer handsets, are also significant factors in system development. Increased customer demand and expectations resulting from those advances drive the need for additional sites.

T-Mobile's required lower limit threshold is -84 dBm, which is expected to provide reliable in-vehicle coverage. A higher threshold level of -76 dBm is the minimum required to provide reliable in-building coverage. At levels below the -84 dBm threshold, signal degradation would be expected to result in areas of unreliable service to T-Mobile customers for voice and data services. In addition,

levels below -84 dBm would adversely affect T-Mobile's ability to provide reliable E-911 services as mandated by the federal government.

Q.5. Please describe T-Mobile's need for the proposed site.

A. The interrelationship between the proposed site and T-Mobile's existing system is depicted in the propagation plots included in Attachment 3 of the Application. As shown, this proposed site is needed primarily to provide new coverage along the southern portion of the Hammonassett Connector, Route 1 and local roads and areas.

Q.6. How did T-Mobile analyze the proposed site?

A. T-Mobile's RF engineers first utilized propagation prediction tools to determine the potential effectiveness of the proposed location in meeting the identified coverage need. That analysis confirmed that a site at the proposed location would provide signal within the coverage gap along the southern portion of the Hammonassett Connector, Route 1 and local roads and areas.

In order to determine the minimum height required to achieve the coverage objective, T-Mobile then conducted a drive test. The drive test allowed T-Mobile to gather accurate signal strength measurements along the target routes at various heights. The drive test process was performed at antenna heights of 137, 127, 117 and 107 feet AGL.

The drive test revealed that an antenna center line of 117' would allow T-Mobile to achieve the coverage objective levels in this area. At 107', the area

along Route 1 within the targeted area falls below the -84 dBm threshold requirement of T-Mobile's design criteria.

Q.7. Please summarize the results of your analysis.

A. Based upon the results of the analysis conducted at the proposed T-Mobile Madison facility, the minimum height required to fully cover the intended coverage objective is 117 feet AGL. At heights below 117 feet AGL, the coverage within the target area starts to fall below the required minimum T-Mobile coverage threshold of -84 dBm.

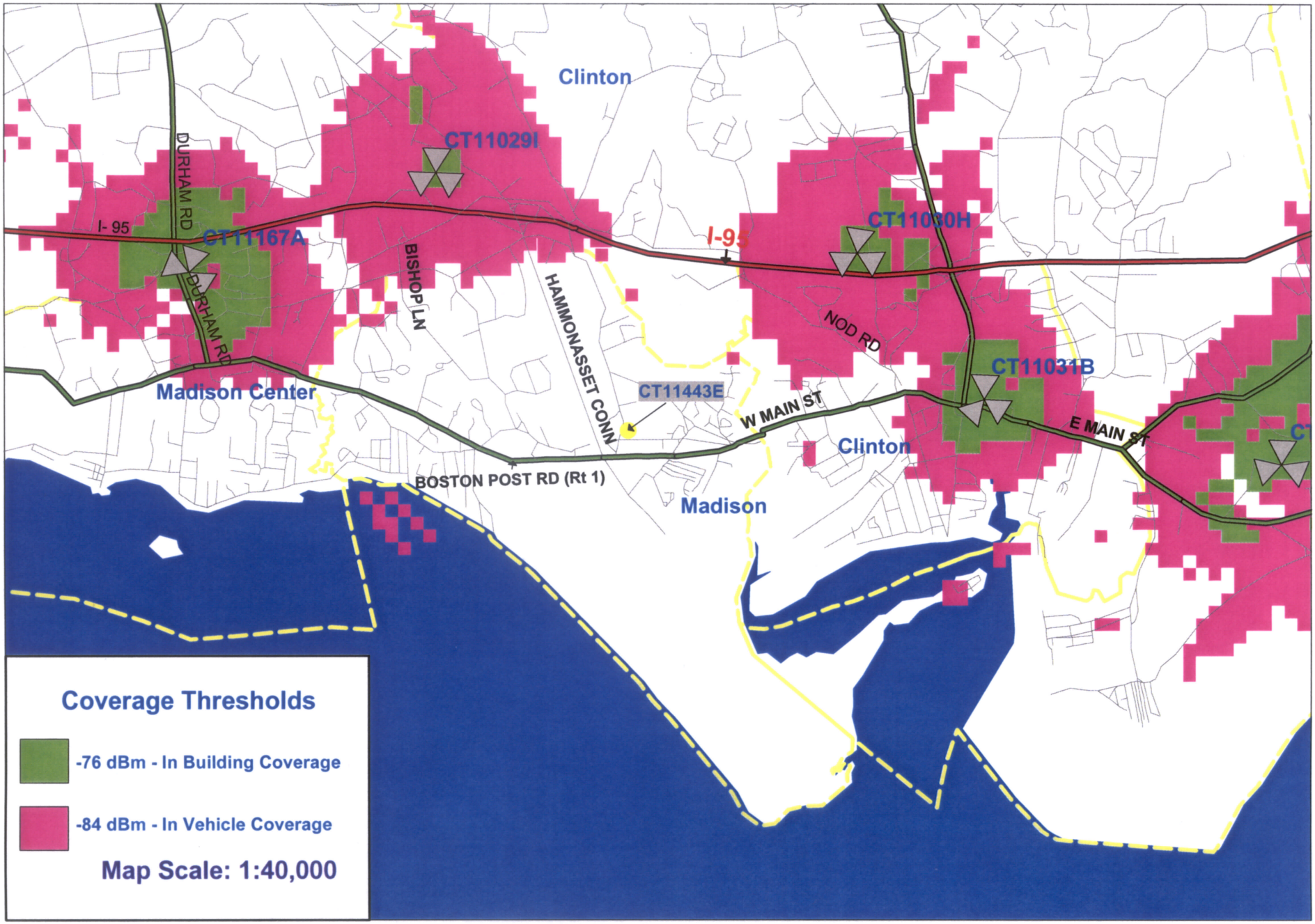
An antenna array 117 feet in height at the Site will allow T-Mobile to provide adequate coverage within the targeted portion of the southern portion of the Hammonassett Connector, Route 1 and the surrounding area.

Statement of Need

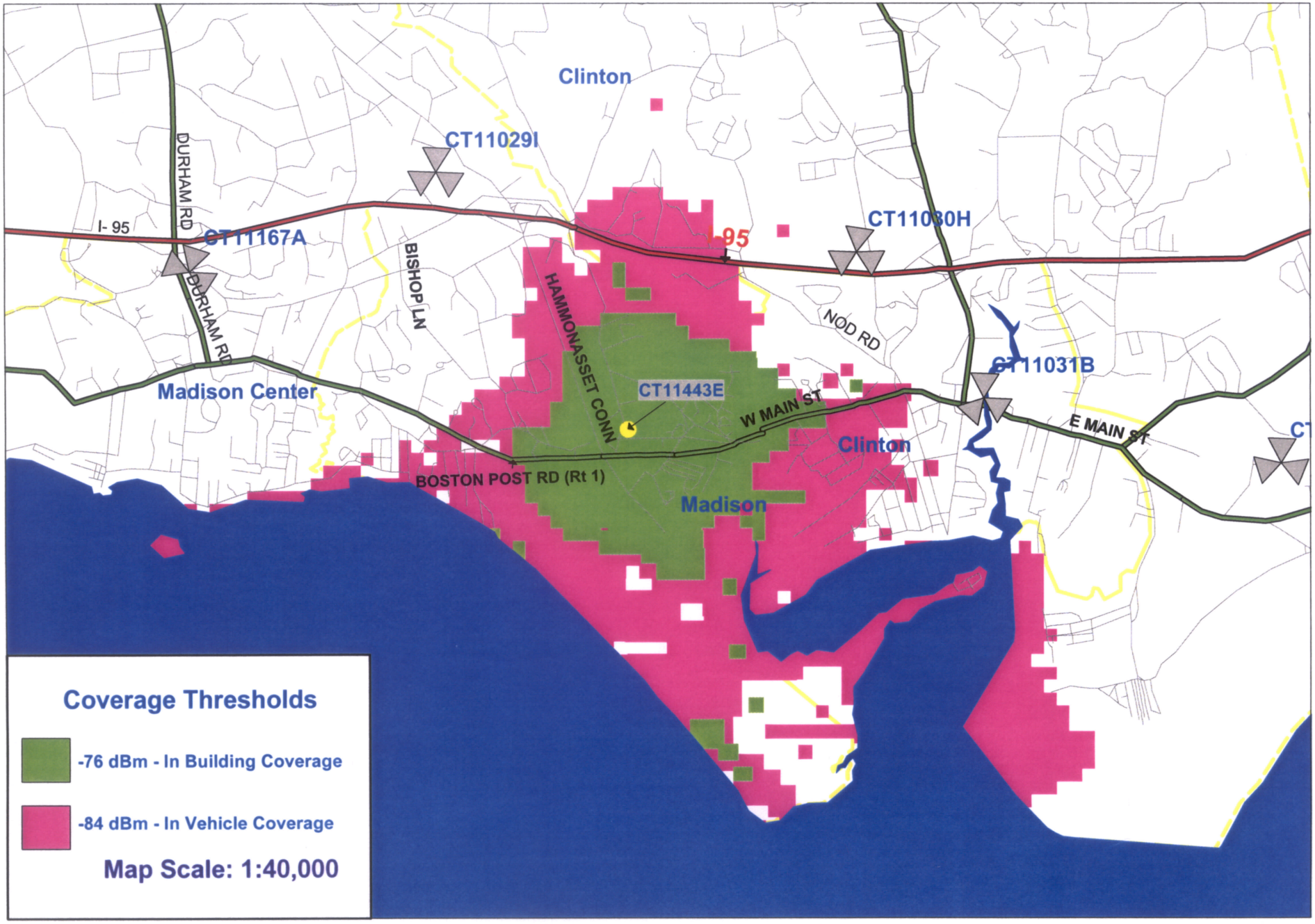
The proposed Madison Facility is necessary to provide wireless coverage in the southeast section of Madison and a portion of the southwest section of Clinton, specifically along the southern section of the Hammonassett Connector, Route 1 and adjacent local roads and areas.

Included herein are coverage propagation plots prepared by T-Mobile for the Site which depict (1) existing on-air coverage from surrounding sites; (2) predicted coverage from the proposed site with antennas mounted at a minimum centerline height of 117' above grade level ("AGL"); and (3) coverage from the proposed site and existing on-air sites. Also included is a chart identifying the existing surrounding sites shown on the enclosed propagation plots.

These propagation maps confirm the need for a site in the area and the effectiveness of the proposed Site in meeting the coverage needs for the area. These propagation plots clearly demonstrate a need for the proposed Facility in the southeast section of Town.



T-Mobile Existing On Air Coverage



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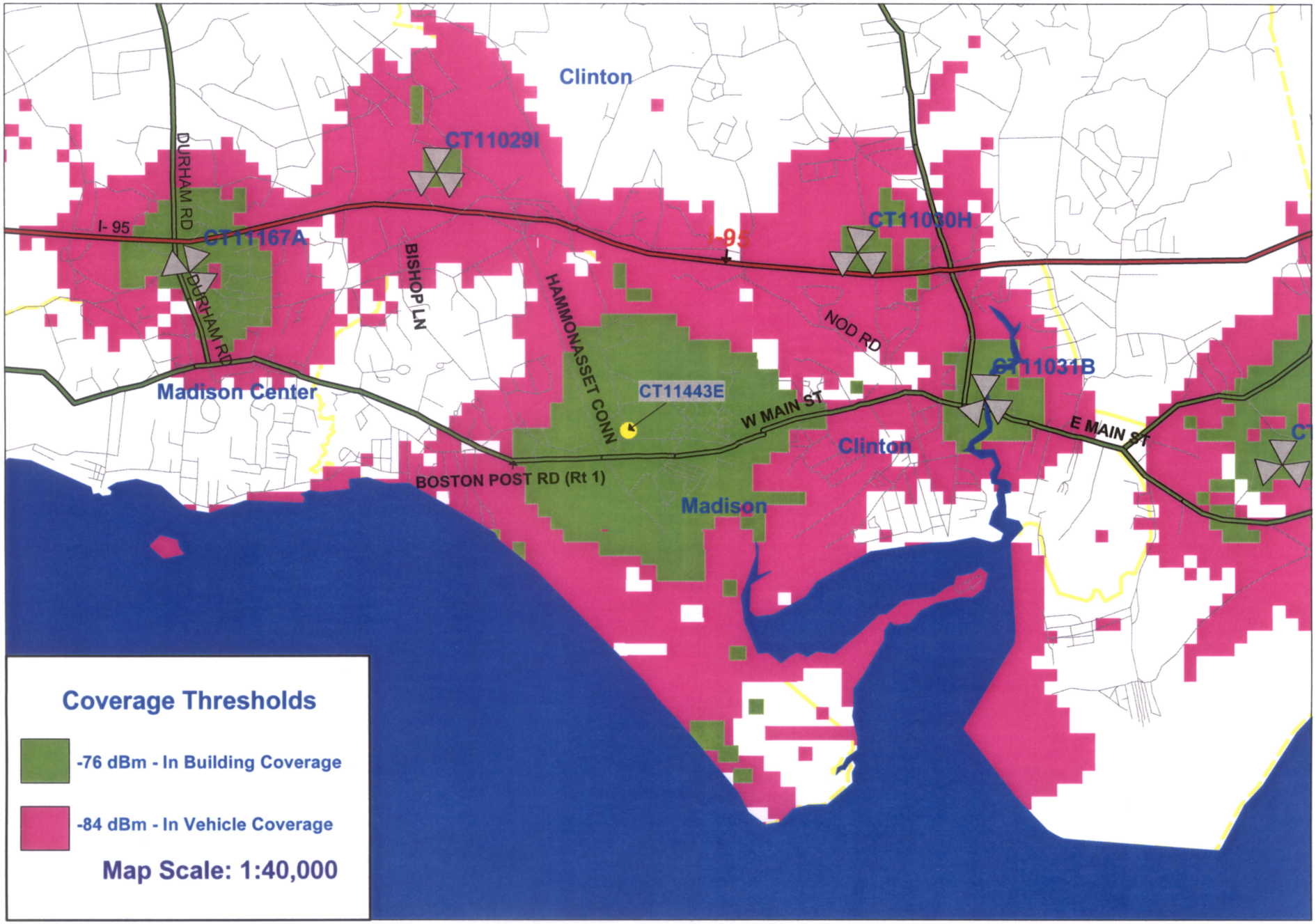
Proposed T-Mobile Madison: CT11443E @ 117'



T-Mobile Existing On Air Coverage With CT11443E @ 117'

Neighboring Site Table

Site Name	Address	City	State	Structure Type	Structure Height	Antenna Height
CT11167-A	8 Old Route 79	Madison	CT	Self Support	150'	120'
CT11029-I	35 New Road	Madison	CT	Guyed Tower	190'	162'
CT11030-H	40 Cow Hill Road	Clinton	CT	Self Support	223'	142'
CT11031-B	21 East Main Street	Clinton	CT	Self Support	65'	55'
CT11429-A	46 Meadow Street	Clinton	CT	Self Support	195'	192'

Site Selection Summary

This section provides the description of NGW's general site search process, the identification of the target search area and the alternative sites considered for development of the proposed Madison Facility.

Aware that a large gap in wireless coverage exists along the Route 1 (Boston Post Road) corridor in southeast Madison, in the general vicinity of the Hammonassett Connector, Hammonassett State Park and Griswold Airport (the "target area"), NGW began its search for a suitable facility location in early 2005. As a first step, NGW conducted an extensive search of the entire area in an attempt to identify any existing structures (towers, buildings, water tanks, etc.) that could be used as an alternative to a new tower. As part of this review, NGW identified ten existing towers within a three and one-half mile radius of the target area. These towers, a list of which is attached, were evaluated to determine if any could possibly be used to provide service to the target coverage area. NGW's findings indicated that none of these towers (four of which T-Mobile is already collocated upon) used alone, or in conjunction with one another, could be used to fill the coverage void.

After determining that no existing structures could be used to provide needed coverage, NGW then began to search for and inventory larger parcels of undeveloped land, commercial sites, municipally owned properties, etc. that might potentially accommodate a telecommunications tower facility. The search included investigation of local land records, the Siting Council's wireless facilities database, study of aerial and satellite photographs, topographical map analysis and numerous investigative visits. The properties initially identified as potential candidates included many of the commercially zoned properties in the area, the Griswold Airport property (through Leyland Alliance, Inc.), Hammonassett State Park, including several ancillary properties near the park owned by the Department of Environmental Protection and open space parcels. In all, more than twenty different sites were identified and investigated. Some candidates were rejected because radio propagation analysis revealed the site location would not provide adequate wireless coverage. Other candidates were eliminated because the property owner was not interested in leasing their land. Others properties were not pursued because of environmental and/or technical issues. A list of all sites investigated and the reasons why each was ultimately rejected is included below.

1. **Hammonassett State Park:** The Department of Environmental Protection (DEP) prohibits commercial development within this 968 acre property.

2. **Boston Post Road:** This DEP-owned parcel, located west of the Hammonassett Connector, was rejected because ten residences directly abut the property. In addition, an extensive wetlands and/or wetlands buffer crossing would be required to access the site.

3. **Boston Post Road:** This undeveloped property, owned by the DEP, was located too far west to provide needed carrier coverage.

4. **Devron Drive**: This property is deed restricted for Open Space. It abuts the proposed site to the north.

5. **Mill Road:** This DEP-owned land was rejected because it directly abuts residences along Mill Road and Todd's Mill Circle.

6. **Cottage Road**: The owners of this property have received commercial development approvals and do not wish to lease the property for the proposed Facility. This parcel is the abutting property east of the proposed site.

7. **1163 Boston Post Road**: This parcel is located too far west to provide needed wireless coverage.

8. **1291 Boston Post Road:** The owner of this property is not interested in leasing space for a wireless facility.

9. **1306 Boston Post Road:** This commercially developed parcel is too small (0.39 acres) to support the proposed facility.

10. **1309 Boston Post Road**: This property is too heavily developed and utilized (Lenny & Joe's Fish Tail) to accommodate a wireless facility.

11. **1315 Boston Post Road:** This densely developed, high traffic retail site is not suited for wireless tower development.

12. **1320 Boston Post Road:** This small (0.46 acre), triangularly shaped property is too small to support development of a wireless facility.

13. **1321 Boston Post Road:** This developed parcel was too narrow (96') to be considered.

14. **1324 Boston Post Road**: This developed parcel is too small (0.28 acres) to accommodate the proposed facility.

15. **1333 Boston Post Road:** This half acre parcel is too small (0.46 acre) and densely developed to accommodate a wireless facility.

16. **1334 Boston Post Road**: This property is too intensely developed (gas station /convenience store and car wash) to support the proposed wireless facility. In addition, numerous summer cottages directly abut the property.

17. **1339 Boston Post Road:** The owner of this property is not interested in leasing property for a wireless facility.

18. **1343 Boston Post Road:** The property owner is not interested in leasing space for a wireless facility.

19. **1347 Boston Post Road:** The property owner is not interested in leasing land.

20. **1353 Boston Post Road:** This small parcel, site of a commercial office condominium, is not large enough to accommodate the proposed facility.

21. **1359 Boston Post Road:** This small (0.40 acre), commercially developed, triangle-shaped parcel is too small to accommodate the proposed facility.

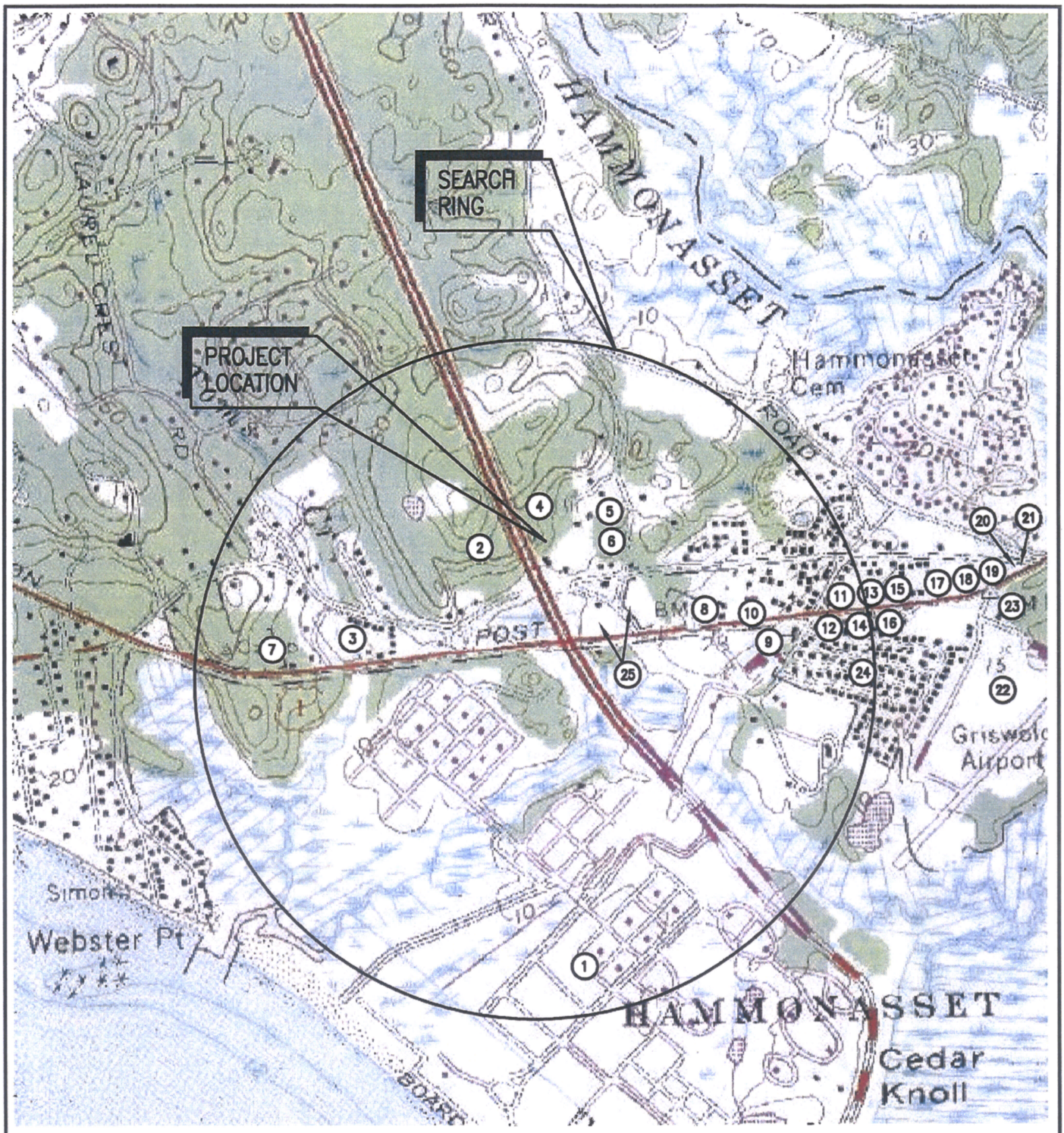
22. **1362 Boston Post Road:** The contracted purchaser, Leyland Alliance, Inc., is seeking its final approvals for development of an active adult community on the property and is not interested in leasing space. The site is also located too far east to provide usable coverage to all carriers.

23. **Boston Post Road:** This undeveloped state-owned property lies too far to the east to provide carriers with needed coverage. Further, the property abuts Griswold Airport (site of a proposed residential community) and a large grouping of summer cottages.

24. **55 Dudley Lane, 63 Dudley Lane and 67 Dudley Lane:** These three parcels, each owned by a different party, range in size from 2.6 to 8.25 acres, but are much too densely populated with summer cottages (average: 11.9 cottages per acre) to accommodate a wireless facility.

25. **Boston Post Road:** In late 2005, National Grid Wireless initiated discussions with the DEP to lease a portion of these parcels. In response to a proposal submitted by NGW, the DEP indicated that they could not entertain NGW's proposal as the DEP must conduct and official Request for Proposal (RFP) process to lease space for a facility. The DEP also indicated that at this time, there are no plans being made to commence developing an RFP.

-- **17 Cottage Lane:** This is the Proposed Site Location.



1 SITE SEARCH MAP
SCALE: 1" = 1000'

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SCALE IN FEET

TRUE NORTH

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CHA PROJ. NO. – 14980-1001

nationalgrid Wireless
NATIONAL GRID WIRELESS
80 CENTRAL STREET
BOXBOROUGH, MA 01719
PHONE: (978) 264-6000
FAX: (978) 264-6124

SITE NAME:
STONEHART
SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT 06443
NEW HAVEN COUNTY

SHEET TITLE:
SITE SEARCH MAP

DATE:
02/05/07

REVISION:
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File: I:\14980\SITES\1001 MADISON-CT\20\MADISON-SITE SELECTION MAP.DWG Saved: 2/23/2007 10:47:27 AM Plotted: 2/23/2007 10:47:53 AM User: Lusitani, Paul

EXISTING TOWER LIST

There are ten communications towers located within three and one-half miles of the proposed Madison site. Five of these existing towers are currently in use by T-Mobile.

OWNER/ OPERATOR	ADDRESS	COORDINATES	HEIGHT/ TYPE	SOURCE	NOTES
Madison Fire Department	665 Boston Post Road Madison	41-16-48 72-35-46	40' Lattice	Field Verification	
Madison (former PD facility)	8 Old Rt. 79 Madison	41-17-09 72-36-07	150' Monopole	CSC Database	T-Mobile located at 120'
CL&P	35 New Rd. Madison	41-17-36.3 72-34-42.1	190' Guyed Lattice	CSC Database	T-Mobile located at 162'
COMCAST	21 East Main St. Clinton	41-16-43 72-31-36	65' Lattice	CSC Database	T-Mobile located at 55'
Clinton Fire Department	49 East Main St. Clinton	41-16-43 72-31-23	60' Lattice	Field Verification	
Clinton (former PD facility)	48 East Main St. Clinton	41-16-38 72-31-26	75' Lattice	Field Verification	
Verizon	40 Cow Hill Rd. Clinton	41-17-19 72-32-21	223' Lattice	CSC Database	T-Mobile located at 142'
Quality Auto Sales	64 West Main St. Clinton	41-16-43 72-32-01	40' Lattice	Field Verification	
Clinton PD HQ	170 East Main St. Clinton	41-16-30 72-30-45	150' Monopole	Field Verification	
SBA Towers	46 Meadow St. Clinton	41-16-30.7 72-29-51.7	195' Lattice	CSC Database	T-Mobile located at 192'

PROPOSED SITE

17 Cottage Road
Madison, Connecticut

Land of
Paul Stonehart

Assessor's Map 30, Lot 34

1.77 Acres

GENERAL FACILITY DESCRIPTION

The proposed Madison Site facility is a 63' x 64' leased area located in the northwest corner of an approximately 1.77 acre parcel at 17 Cottage Road, Madison. The Madison facility would consist of a 130-foot self-supporting monopole tower designed to be expanded to 150' and a 60' x 60' site compound designed to accommodate the associated unmanned equipment either in single-story equipment buildings or on concrete pads. The tower as designed would accommodate four sets of antennas. Initially, antennas and related equipment for T-Mobile's use would be installed. The tower and equipment buildings would be enclosed by an 8-foot high security fence with a gate. Vehicle access to the site would extend northward from Cottage Road along a new gravel access drive a distance of approximately 360', then turn northwest a distance of approximately 40' to the compound. Underground utility connections would extend from Cottage Road and parallel the proposed access drive into the compound.

1 **2004 AERIAL PHOTO**
SCALE: 1" = 1000'

0 500 1000
SCALE IN FEET

TRUE NORTH

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Wireless
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PHONE: (978) 264-6000
FAX: (978) 264-6124

SITE NAME:
STONEHART
SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT 06443
NEW HAVEN COUNTY

SHEET TITLE:
AERIAL PHOTO

DATE:
08/28/06

REVISION:
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SITE EVALUATION REPORT

LOCATION

A. COORDINATES: 41°-16'-33.64" N, 72°-33'-41.5" W

B. GROUND ELEVATION: 27.5' AMSL

C. USGS MAP: Clinton, CT

D. SITE ADDRESS: 17 Cottage Road, Madison, CT

E. ZONING WITHIN ¼ MILE OF SITE: Land within ¼ mile of the proposed site is zoned primarily CA-1 and CB-1 Commercial and R-2 Residential, with three properties classified in the Special Exception Area.

DESCRIPTION

A. SITE SIZE: 62'-6" x 64'

LESSOR'S PARCEL: 1.77± acres

B. TOWER TYPE/HEIGHT: Monopole/130' AGL, expandable to 150'

C. SITE TOPOGRAPHY AND SURFACE: The site is located within a level undeveloped portion of the lessor's property which is improved with office buildings and a parking lot.

D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: Much of the lessor's parcel is improved with office buildings and associated parking lot. The property slopes upward from Cottage Road to the rear of the property. No wetlands or watercourses were identified on the property.

E. LAND USE WITHIN ¼ MILE OF SITE: The area surrounding the property consists primarily of undeveloped commercial property, deeded open space parcels and large tracts of State-owned property.

FACILITIES

A. POWER COMPANY: Connecticut Light and Power

B. POWER PROXIMITY TO SITE: Power is available from Cottage Road.

C. TELEPHONE COMPANY: SNET

D. PHONE SERVICE PROXIMITY: Same as power

E. VEHICLE ACCESS TO SITE: Vehicular access to the site would extend northward from Cottage Road over a new gravel access drive a distance of approximately 360', then proceed northwest a distance of approximately 40' to the compound.

F. OBSTRUCTION: None

G. CLEARING AND FILL REQUIRED: Minimal clearing and minimal grading would be required for development of the access drive and the site compound. Detailed plans would be provided to the Connecticut Siting Council in a Development and Management Plan after Council approval of the proposed facility.

LEGAL

A. PURCHASE [ ] LEASE [X]

B. OWNER: Paul Stonehart

C. ADDRESS: P.O. Box 1220, Madison, CT 064443

D. DEED ON FILE AT: Town of Madison
Vol. 239, page 105

1 **USGS TOPO MAP: CLINTON 41072-C5**

SCALE: 1" = 2000'

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SCALE IN FEET

TRUE NORTH

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REVISION:
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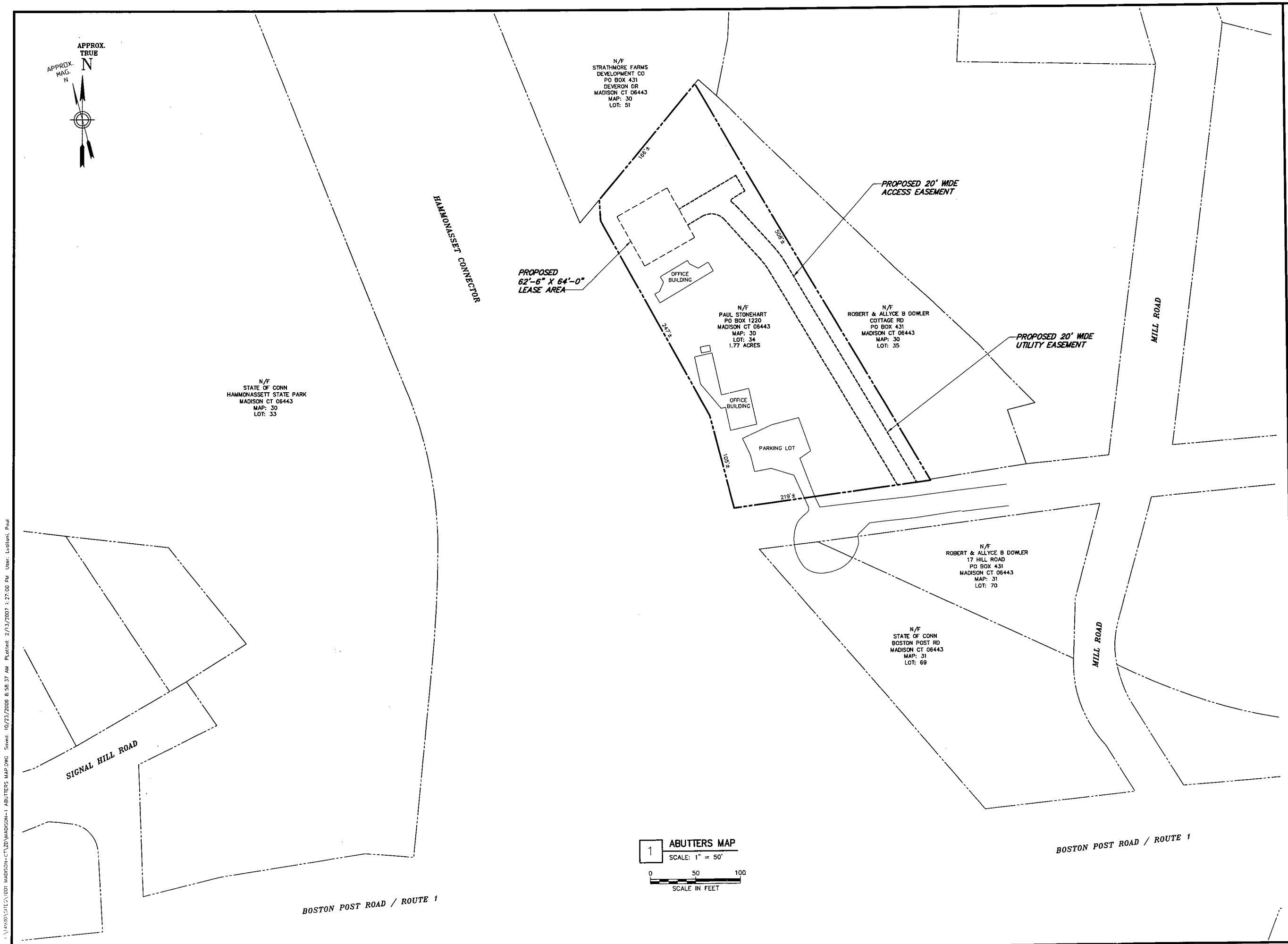

1 ABUTTERS MAP
SCALE: 1" = 50'

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CHA PROJECT NO:
14980 – 1001 – 1601

NO.	SUBMITTAL		
0	05/25/06	ISSUED FOR REVIEW	
	BY: PAL	CHK: FM	APP'D: JPS
1	08/28/06	REVISED PER COMMENTS	
	BY: PAL	CHK: FM	APP'D: JPS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

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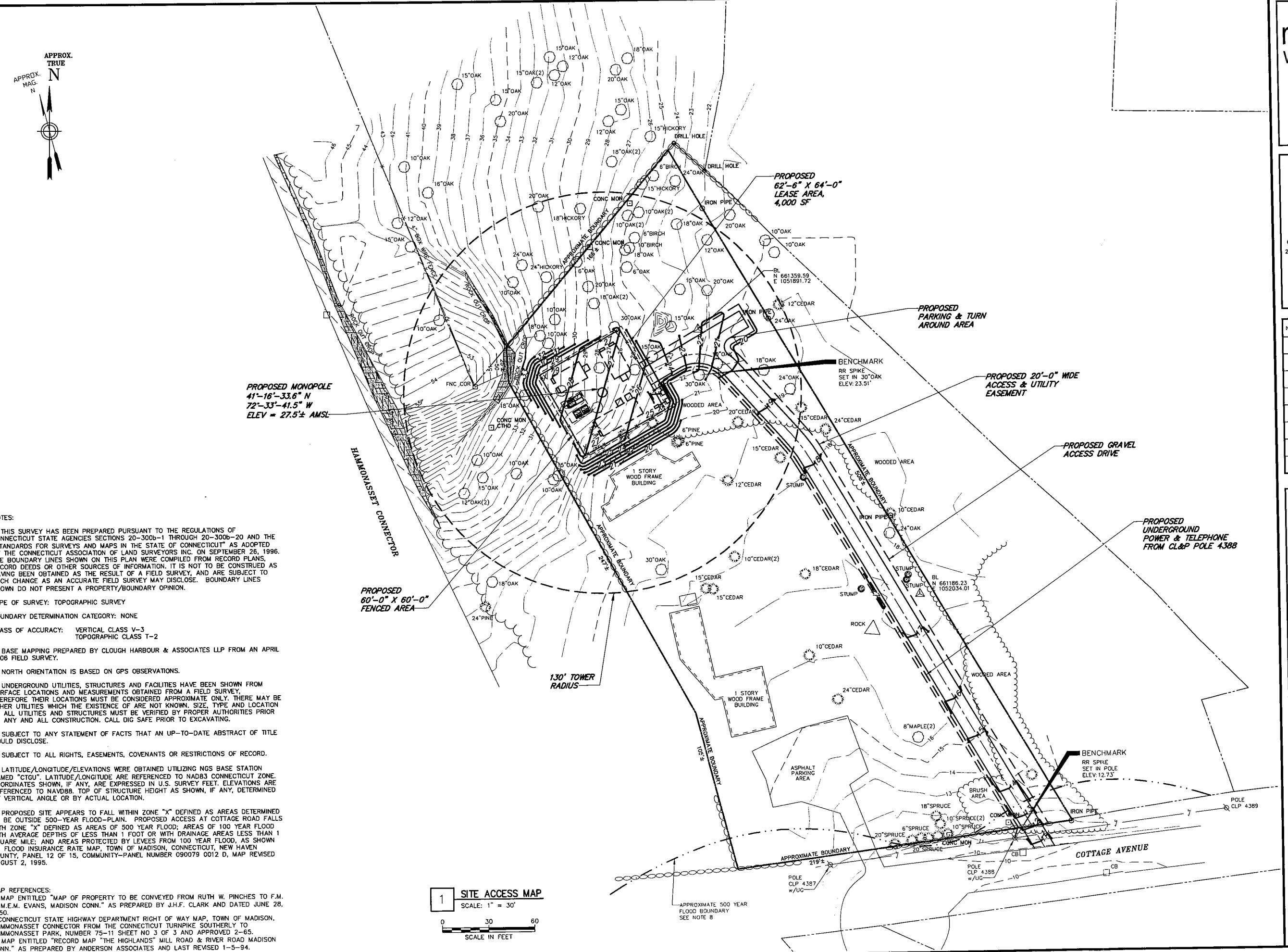
STONEHART

SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT
06443
NEW HAVEN COUNTY

SHEET TITLE
ABUTTERS MAP

SHEET NUMBER
A01



1 SITE ACCESS MAP
SCALE: 1" = 30'
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SCALE IN FEET

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 RECORD PLANS, RECORD DEEDS OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND ARE SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. BOUNDARY LINES SHOWN DO NOT PRESENT A PROPERTY/BOUNDARY OPINION.

TYPE OF SURVEY: TOPOGRAPHIC SURVEY

BOUNDARY DETERMINATION CATEGORY: NONE

CLASS OF ACCURACY: VERTICAL CLASS V-3
TOPOGRAPHIC CLASS T-2

2. BASE MAPPING PREPARED BY CLOUGH HARBOUR & ASSOCIATES LLP FROM AN APRIL 2006 FIELD SURVEY.

3. NORTH ORIENTATION IS BASED ON GPS OBSERVATIONS.

4. UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES 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 TO EXCAVATING.

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

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

7. LATITUDE/LONGITUDE/ELEVATIONS WERE OBTAINED UTILIZING NGS BASE STATION NAMED "CTGU". 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.

8. PROPOSED SITE APPEARS TO FALL WITHIN ZONE "X" DEFINED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD-PLAIN. PROPOSED ACCESS AT COTTAGE ROAD FALLS WITH ZONE "X" DEFINED AS AREAS OF 500 YEAR FLOOD; AREAS OF 100 YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 100 YEAR FLOOD, AS SHOWN ON FLOOD INSURANCE RATE MAP, TOWN OF MADISON, CONNECTICUT, NEW HAVEN COUNTY, PANEL 12 OF 15, COMMUNITY-PANEL NUMBER 090079 0012 D, MAP REVISED AUGUST 2, 1995.

MAP REFERENCES:
1. MAP ENTITLED "MAP OF PROPERTY TO BE CONVEYED FROM RUTH W. PINCHES TO F.M. & M.E.M. EVANS, MADISON CONN." AS PREPARED BY J.H.F. CLARK AND DATED JUNE 28, 1950.
2. CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP, TOWN OF MADISON, HAMMONASSET CONNECTOR FROM THE CONNECTICUT TURNPIKE SOUTHERLY TO HAMMONASSET PARK, NUMBER 75-11 SHEET NO 3 OF 3 AND APPROVED 2-65.
3. MAP ENTITLED "RECORD MAP "THE HIGHLANDS" MILL ROAD & RIVER ROAD MADISON CONN." AS PREPARED BY ANDERSON ASSOCIATES AND LAST REVISED 1-5-94.

File: I:\14980\SITE\1001 MADISON-CT\ZD\MADISON-2 SITE ACCESS MAP.DWG Saved: 2/13/2007 1:27:22 PM Plotted: 2/13/2007 1:27:42 PM User: Lustian, Paul

nationalgrid Wireless

NATIONAL GRID WIRELESS
80 CENTRAL STREET
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PHONE: (978) 264-6000
FAX: (978) 264-6124

Drawing Copyright © 2006 Clough Harbour & Associates LLP

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CLOUGH HARBOUR & ASSOCIATES LLP
2139 Silas Deane Highway, Suite 212 · Rocky Hill, CT 06067-2336
Main: (860) 257-4557 · www.cloughharbour.com

CHA PROJECT NO:
14980 – 1001 – 1601

NO.	SUBMITTAL		
0	05/25/06	ISSUED FOR REVIEW	
	BY: PAL	CHK: FM	APP'D: JPS
1	08/28/06	REVISED PER COMMENTS	
	BY: PAL	CHK: FM	APP'D: JPS

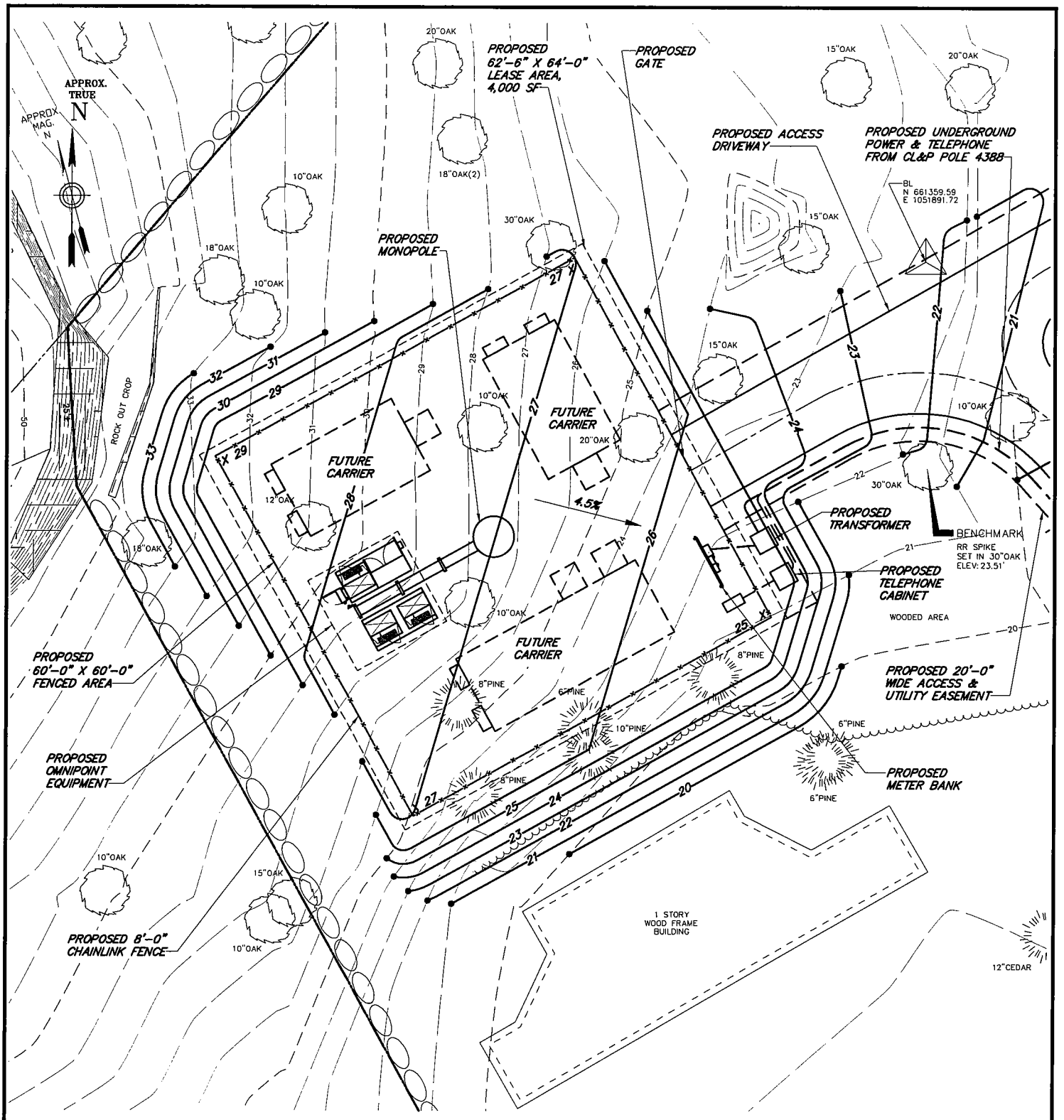
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:
STONEHART

SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT
06443
NEW HAVEN COUNTY

SHEET TITLE
SITE ACCESS MAP

SHEET NUMBER
A02



1 COMPOUND PLAN
SCALE: 1" = 20'
0 10 20
SCALE IN FEET

BASEMAP NOTES:
1. BASEMAP INFORMATION IS BASED ON A SURVEY PERFORMED BY CLOUGH HARBOUR & ASSOCIATES LLP IN APRIL 2006.

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CHA PROJ. NO. – 14980-1001

nationalgrid Wireless

NATIONAL GRID WIRELESS
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BOXBOROUGH, MA 01719
PHONE: (978) 264-6000
FAX: (978) 264-6124

SITE NAME:
STONEHART

SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT 06443
NEW HAVEN COUNTY

SHEET TITLE:
COMPOUND PLAN

DATE:
08/28/06

REVISION:
0

FACILITIES AND EQUIPMENT SPECIFICATION
(NEW TOWER & EQUIPMENT)

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: TBD

B. TYPE: Monopole

C. HEIGHT: 130', expandable to 150'

D. DIMENSIONS: Approx. 5' diameter at base
Approx. 1 ½' diameter at top

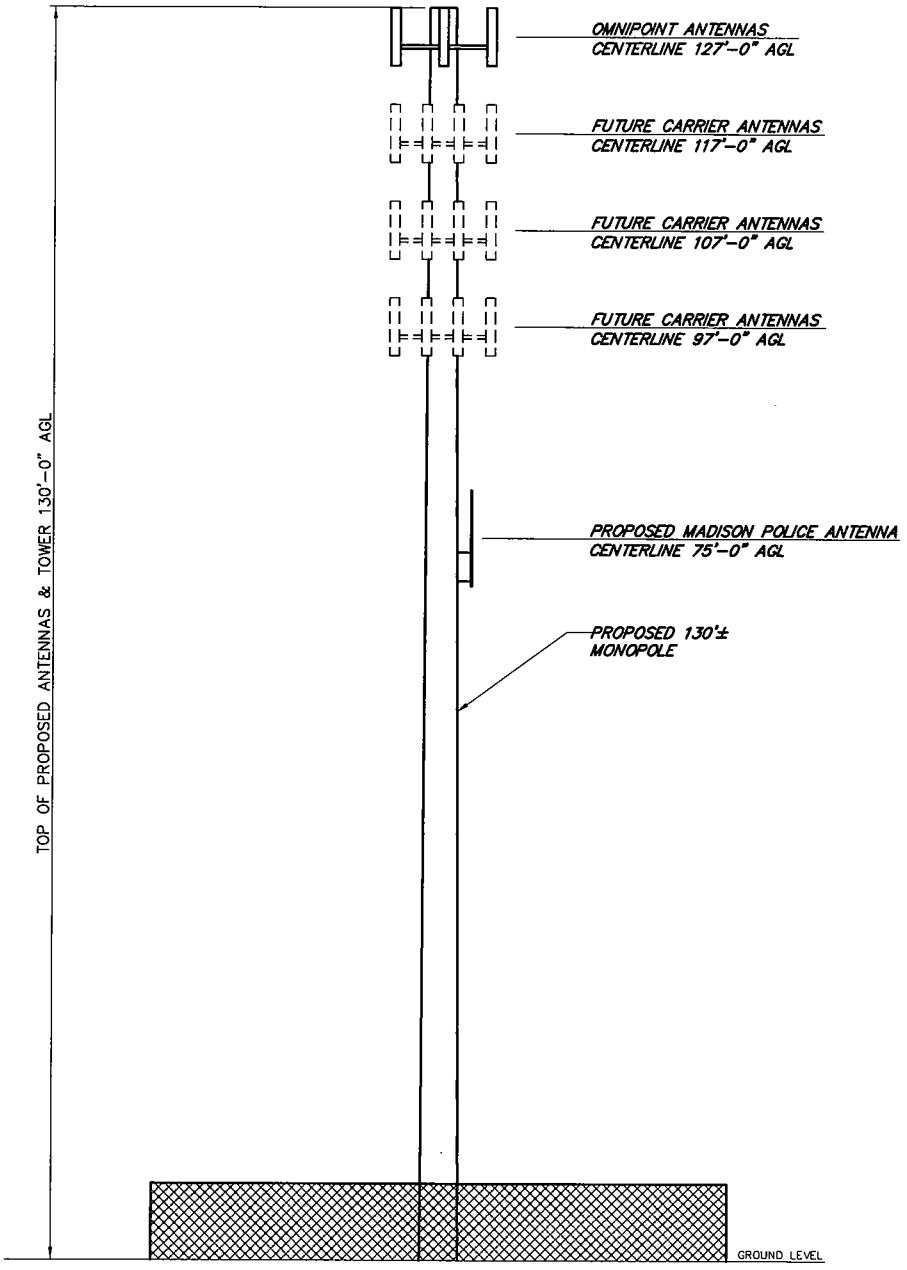
II. TOWER LOADING:

A. T-MOBILE – up to 12 panel antennas
1. MODEL: Panel antennas, model APXV18-209014-C, or similar
2. DIMENSIONS: Approximately 5' in length
3. POSITION ON TOWER: Antenna centerline of 117' AGL on low profile platform
4. TRANSMISSION LINES: up to 12 internal to the monopole

B. Future carriers - TBD

III. ENGINEERING ANALYSIS AND CERTIFICATION:

In accordance with the 2005 Connecticut State Building Code and the Electronic Industries Association Standard EIA/TIA-222-F, "Structural Standards for Steel Antenna Towers and Antenna Support Structures" for Madison, the tower would be designed to withstand wind pressures equivalent to an 85 MPH (fastest mile) wind velocity and a 74 MPH (fastest mile) wind velocity concurrent with one-half inch solid ice accumulation. The foundation design would be based on soil conditions at the site.



1 **TOWER ELEVATION**
SCALE: 1" = 20'

0 10 20
SCALE IN FEET

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CHA PROJ. NO. – 14980–1001

nationalgrid
Wireless

NATIONAL GRID WIRELESS
80 CENTRAL STREET
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PHONE: (978) 264–6000
FAX: (978) 264–6124

SITE NAME:
STONEHART
SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT 06443
NEW HAVEN COUNTY

SHEET TITLE:
TOWER ELEVATION

DATE:
02/05/07

REVISION:
1

AVIATION SYSTEMS, INC.
Phone: 310-530-3188 Fax: 310-530-3850
crisj@aviationsystems.com
www.aviationsystems.com

FAR PART 77 AIRSPACE OBSTRUCTION REPORT

To:
Abby Harrington
National Grid Wireless
80 Central Street
Boxboro, MA 01719

Date: October 25, 2006

Location: Madison, CT
Client Case No: CT-05002/Madison Stonehart
ASI Case No: 06-O-0369.015

SUMMARY OF FINDINGS:

At this location any structure over 47 feet AGL will have to be filed with the FAA. A structure up to 130 feet AGL should receive a routine approval.

SITE DATA:

Structure: Antenna Tower

Coordinates: 41°-16'-33.24" / 072°-33'-43.17" **[NAD 27]**
41°-16'-33.60" / 072°-33'-41.50" **[NAD 83]**

Site Ground Elevation: 28 ' **[AMSL]**
Studied Structure Height (with Appurtenances): 130 ' **[AGL]**
Total Overall Height: 158 ' **[AMSL]**

SEARCH RESULTS:

- The nearest public use or military air facility subject to FAR Part 77 is Griswold Airport.
- The studied structure is located 0.58 NM / 3,540 feet NorthWest (313 ° True) of the Griswold Airport Runway 06.
- Other public or private airports or heliports within 3 NM: ☑ None ☐ Printout attached
- AM radio station(s) within 3NM: ☑ None ☐ Printout attached

Highlighted AM stations on printout require notice under FCC Rules and Policy (Ref.: 47 CFR 73.1692).

ASI Case No: 06-O-0369.015

FINDINGS

- **FAA Notice (Ref.: FAR 77.13 (a)(1); FAR 77.13 (a)(2) i, ii,iii):**

☐ Not required at studied height.

☑ Required at studied height.

☑ The No Notice Maximum height is 47 feet AGL.

IMPORTANT: Our report is intended as a planning tool. If notice is required, actual site construction activities are not advisable until an FAA Final Determination of No Hazard is issued.

- **Obstruction Standards of FAR Part 77 (Ref.: FAR 77.23 (a)(1),(2),(3),(4),(5)):**

☑ Not exceeded at studied height.

☐ Exceeded at studied height and Extended Study may be required.

☐ Maximum nonexceedance height is _____ feet AGL.

- **Marking and Lighting (Ref.: AC 70/7460-1K, Change 1):**

☑ Will not be required.

☐ Will be required at studied height, if structure exceeds:

☐ 200 feet AGL

☐ Obstruction Standard

- **Operational Procedures (Ref.: FAR 77.23 (a)(3), (4); FAA Order 7400.2; FAA Order 8260.3B):**

☑ Not affected at studied height (FAA should issue a Determination of No Hazard.)

☐ Affected at studied height and the FAA will consider the studied structure to be a hazard to air navigation.

☐ Maximum height that would not affect operational procedures is _____ feet AMSL.

Conclusions/Comments

Actions:

ASI will file with ANE FAA Region and State ☑ Yes ☐ No

ENVIRONMENTAL ASSESSMENT STATEMENT

PHYSICAL IMPACT

A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the cell site. No wetlands or watercourse were identified within or near the site development area or access road. The equipment used will discharge no pollutants. Best management practices will be used during construction to control storm water and erosion.

B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at this proposed cell site would emit no air pollutants of any kind.

C. LAND

Minimal clearing and minimal grading would be required for development of the access drive and the site compound. The remaining land of the lessor would remain unchanged by the construction and operation of the cell site.

D. NOISE

The equipment to be in operation at the proposed site after construction would emit no noise other than the installed heating, air conditioning and ventilation systems. Some noise is anticipated during cell site construction, which is expected to take approximately four to six weeks.

E. POWER DENSITY

The worst-case calculation of power density for operation of T-Mobile's antennas at the facility would be approximately 5.67% of the applicable FCC/ANSI standards.

F. VISIBILITY

The potential visibility of the proposed monopole was assessed within an approximate two-mile radius using a computer-based, predictive viewshed model, photosimulations from 21 views and sight line graphs from 8 locations (see attached). As shown, areas of visibility will be limited to views of the top section of the monopole, with the largest intermittent areas of visibility to the south. There will be limited views of the top of the monopole from Hammonassett State

Park and the Historic State Park Supply Yard. An existing lattice tower is now visible from the same areas within the Hammonassett State Park.

E. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the site is located appears to exhibit no scenic, natural or recreational characteristics that would be affected by the proposed site. Hammonassett State Park is located to the south of the proposed site and the State Park Supply Yard is located to the north.

The Connecticut Department of Environmental Protection has reviewed the proposed location. Based on its review of the Natural Diversity Data Base, "there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species at the site in question."

At SHPO's request, NGW conducted an archaeological reconnaissance study the Site and the study indicated that no prehistoric or historic archaeological resources were identified within the project area. The archaeological reconnaissance study has been forwarded to SHPO.

SHPO also requested photos of the State Park Supply Yard, which is listed on the National Register of historic places for its social significance as a Civilian Conservation Corps structure. As demonstrated in detail in the application materials included herein, the proposed Facility should have no adverse effect on the State Park Supply Yard. Documentation regarding the existing use by the DEP of the Park Supply Yard for vehicle and equipment maintenance and storage has been forwarded to SHPO for a formal determination in this regard.

T-Mobile

T-Mobile USA Inc.
100 Filley St, Bloomfield, CT 06002-1853
Phone: (860) 692-7100
Fax: (860) 692-7159

Technical Memo

To: Christine Farrell
From: Scott Heffernan - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CT11443E
Date: October 12, 2006

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile PCS antenna installation on a Monopole at 17 Cottage Street, Madison, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

1) The emissions from T-Mobile transmitters are in the 1935-1945 MHz frequency band.
2) The antenna array consists of three sectors, with 3 antennas per sector.
3) The model number for each antenna is APXV18-209014-C.
4) The antenna center line height is 117 ft.
5) The maximum transmit power from any sector is 3185.09 Watts Effective Radiated Power (EiRP) assuming 12 channels per sector.
6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
7) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
8) The average ground level of the studied area does not change significantly with respect to the transmitting location

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile PCS antenna installation on a Monopole at 17 Cottage Street, Madison, CT, is 0.05671 mW/cm^2. This value represents 5.671% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm^2) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area.

T-Mobile USA Corporation Proprietary

New England Market

T-Mobile

Worst Case Power Density

Site:	CT11443E
Site Address:	17 Cottage Street
Town:	Madison
Tower Height:	120 ft.
Tower Style:	Monopole
Base Station TX output	25 W
Number of channels	12
Antenna Model	APXV18-209014-C
Cable Size	1 5/8
Cable Length	150 ft.
Antenna Height	117.0 ft.
Ground Reflection	1.6
Frequency	1945.0 MHz
Jumper & Connector loss	4.50 dB
Antenna Gain	16.5 dBi
Cable Loss per foot	0.0116 dB
Total Cable Loss	1.7400 dB
Total Attenuation	6.2400 dB
Total EIRP per Channel	54.24 dBm
(In Watts)	265.42 W
Total EIRP per Sector	65.03 dBm
(In Watts)	3185.09 W
nsg	10.2600
Power Density (S) =	0.056715 mW/cm^2
T-Mobile Worst Case % MPE =	5.6715%

Equation Used :

$$S = \frac{(1000)(grf)^2(Power)*10^{(nsg/10)}}{4\pi(R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total

Carrier	% of Standard
Verizon	NA
Cingular	NA
Sprint PCS	NA
AT&T Wireless	NA
Nextel	NA
Total Excluding T-Mobile	0.0000 %
T-Mobile	5.6715
Total % MPE for Site	**5.6715%**

Relative Gain Power Density

Antenna Relative Gain Factor	0.0 dBi
Total Attenuation	6.2400 dB
Total EIRP per Channel	54.24 dBm
(In Watts)	265.42 W
Total EIRP per Sector	65.03 dBm
(In Watts)	3185.09 W
nsg	10.2600
Power Density (S) =	0.056715 mW/cm^2
T-Mobile Relative Gain % MPE =	5.6715%

Visual Analysis Report

Proposed Telecommunications Facility
17 Cottage Road
Madison, CT 06443

October 2006 - Revision 0

Prepared for:
National Grid Wireless
80 Central Street
Boxborough, MA 01719

Prepared by:
Clough Harbour & Associates LLP
2139 Silas Deane Highway, Suite 212
Rocky Hill, CT 06067
CHA Project 14980-1001-1601

INTRODUCTION:

Clough Harbour & Associates LLP (CHA) conducted a visibility study for the proposed 130'-0" monopole located at 17 Cottage Road, Madison, CT. The purpose of the study was to determine the visual impact, if any, that a proposed 130'-0" monopole would have on the surrounding community within a two mile radius study area. Two techniques were utilized to determine the visual impact within the study area: a computer model using topography and vegetation as constraints to estimate the visual limits and a field analysis to verify the visual limits determined from the computer model. Research of the study area was also conducted to determine locations of sensitive visual receptors.

SITE & STUDY AREA DESCRIPTION:

The subject parcel is approximately 1.77 acres. The northern rear portion of the property is wooded and the remainder of the property is open with two one-story office buildings and a small asphalt parking area. The proposed facility is located at the rear of the property within the wooded area. The base of the tower will be 27.5' AMSL. The wooded area surrounding the proposed facility will act as a visual buffer to the adjacent parcels.

The topography within the study area consists of hills ranging from 20' AMSL to 150' AMSL. Approximately 1125 acres, or 14%, of the 8,053 acre study area is covered with vegetation. The rolling hills and mild vegetation in the study area will help screen the facility in portions of the surrounding study area. Watercourses occupy approximately 2,136 acres, or 27%, of the study area. There are seven historical sites, one state park, three schools, and one cemetery within the study area. There are no designated scenic roads within the study area.

COMPUTER MODEL VISUAL ANALYSIS:

A computer model was developed using a proprietary AutoCAD-based application developed by our Technology Solutions Group to estimate how the surrounding topography and vegetation within a 2 mile radius may obstruct the monopole's visibility. The visibility calculations are completed using digital elevation models (DEM), which is a model of the earth's surface represented by a grid of elevations spaced 10 or 30 meters and is based on USGS topography maps. Each point in the DEM is independently tested for visibility based on the surrounding topography developed form the USGS maps. Once all points have been tested, a map is generated showing areas of visibility and areas screened by topography. Knowing which areas are screened by topography will assist in field determining which areas within the study area may have seasonal visibility. Next, vegetation within the study area is added to the map by digitizing it from 2004 aerial photographs. CHA's application utilizes a vegetation outline layer which is assigned the standard 65' height. A new map is generated showing only areas of visibility based on topography and the vegetation constraint. The visible areas on the map based on the surrounding topography and vegetation will be verified during the field visual analysis.

Sight lines were also computer generated from USGS topography maps using Maptech Terrain Navigator 2002. Eight sight lines were produced showing the visibility along a two mile radius from the North, Northeast, East, Southeast, South, Southwest, West, and Northwest. A key location near the extents of the 2 mile radius, such as a park, major intersection, or school, was selected and utilized for the point of beginning for each of the sightlines. The sightlines are produced from the key locations near the extents of the 2 mile radius to the center of the proposed tower. All major streets, residences, parks, schools, etc that pass through the sightline are noted. Vegetation shown on the sightlines was determined from the 2004 aerial photos and assumed to be 65' in height. The sight lines supplement the computer generated viewshed map by further illustrating how the topography and trees around the site will affect the monopole's visibility within the two mile study area.

VISUAL RECEPTOR RESEARCH:

Research of the surrounding study area was conducted to determine the locations of sensitive visual receptors such as historic sites, historic districts, schools, churches, cemeteries, parks, playgrounds, recreational areas, beaches, and scenic roads. Historic sites and districts were determined from national and state registers. Surrounding schools, churches, cemeteries, parks, playgrounds, recreational areas, and beaches were determined from street maps and town

GIS data. Scenic roads were determined from the CTDOT list of designated scenic roads. All of the above sensitive visual receptors were added to the viewshed map.

FIELD VISUAL ANALYSIS:

On October 19, 2006 a field visual analysis was conducted to verify the sensitive visual receptors and the limit of visibility determined from our research and computer model. Weather conditions were favorable on the date of the visibility study as it was a clear and sunny day with winds between 4 and 7 MPH; therefore, visibility of the balloon from surrounding areas was not affected. In general, the field visibility study was conducted as follows: A 60" diameter red balloon was flown at a height of 130'-0" above existing grade. Once the balloon was flown, CHA completed a field drive of the surrounding area to determine the visibility of the balloon, and thus the proposed tower. Visibility from the sensitive visual receptors was our primary focus so photos were taken from each of these locations. Photos were also taken from major streets, intersections, and residential areas; from key areas where the balloon was visible; and from key areas where it was not visible. The limits of visibility determined from the computer model were field verified and adjusted as needed. Areas of potential seasonal visibility were field determined and marked on the viewshed map. Finally, the number of residences within the seasonal and year round visible areas was determined.

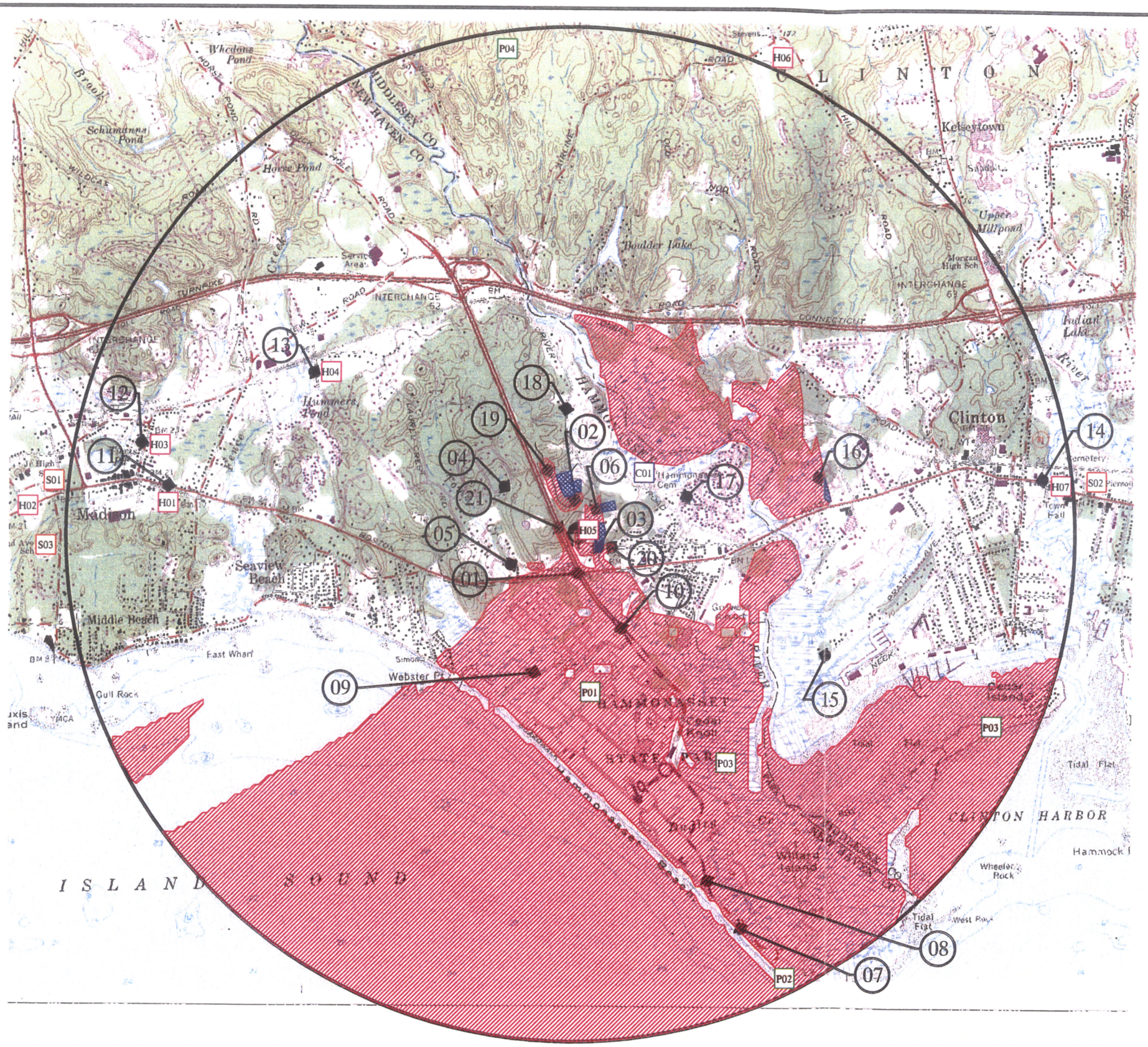
CONCLUSION:

The results of our visual study are summarized in the following attachments: Attachment A: Viewshed Map, Attachment B: Photosimulations, and Attachment C: Sightlines. In conclusion, the year round visual impact to the surrounding community within a two mile radius is limited to the red hatched areas on the viewshed map, which is approximately 33.6%, or 2,709 Acres, of the total study area. The limit of year round visibility includes the area surrounding the following public streets: a 2,200' stretch along Route 1, an 1,100' stetch along the Hammonasset Connector, 700' stretch along Mill Road, a 450' stretch along Cottage Road, a 900' stretch along Deveron Drive, a 650' stretch along Edinburgh Lane, a 150' stretch along Todd's Mill Circle, and a 700' stetch along Highland Drive. Some of these areas contain residential properties and will impact the following number of residences: five residences along Highland Drive, ten residences along Deveron Drive, six residences along Edinburgh Lane, and two residences along Mill Road. The proposed monopole will be seen year round from two of the sensitive visual receptors listed on the viewshed map, which is the Historic State Park Supply Yard located at 51 Mill Road and a majority of the Hammonasset State Park. An existing lattice tower is also visible from the Hammonasset State park. The existing lattice tower could be seen to the east from most of the locations that the proposed monopole could be seen from. The proposed monopole is closer to the park and was more prominent than the existing lattice tower.

Immediately outside some of the limits of year round visibility, trees start to screen the proposed monopole giving the potential for seasonal views. The blue hatched areas on the viewshed map indicate the seasonal visual impact, which is approximately 0.1%, or 9 acres, of the total study area. The limit of seasonal visibility includes the area surrounding the following public streets: a 250' stretch along Highland Drive, a 550' stretch along Mill Road, a 250' stretch along Todd's Mill Circle, a 240' stretch along Deveron Drive, and a 250' stretch along Edinburgh Lane. These areas contain residential properties and will impact the following number of residences: three residences along Highland Drive, three residences along Deveron Drive, three residences along Edinburgh Lane, one residence along Mill Road, and two residences along Todd's Mill Circle. The proposed monopole will not be seen seasonally from any of the sensitive visual receptors listed on the viewshed map.

The remainder of the two mile radius study area is screened by topography (1,828 acres, 22.7%) & vegetation (3,507 Acres, 43.6%). Photos documenting the non-visible and visible conditions described above have been included in the photo-simulations with their locations marked on the viewshed map.

ATTACHMENT A
VIEWSHED MAP



NOTES:

1. Only visible areas are shown on the map utilizing the process described in note 2. The remainder of the map has been estimated to be nonvisible utilizing the process described in note 3.
2. Seasonal and year round areas of visibility were estimated from a field visual analysis within public R.O.W. and public properties. Areas shown on private property were interpolated from the field visual analysis.
3. Nonvisible areas were estimated from a computer generated topography & vegetation analysis and field verification of vegetation & building screening within public R.O.W and public properties. Vegetation limits were determined from 2004 aerial photos and is assumed to be 65' high. Verification of vegetation height, coverage, and type within private areas not visible from public R.O.W or public properties was not field verified.
4. Historical areas were determined from national and state historical registers.
5. Parks, schools, cemeteries, and churches were determined from street maps and field observations.
6. Scenic roads, if any, were determined from the CTDOT list of designated scenic roads and field observations.

Legend

- APPROXIMATE LOCATION OF PROPOSED MONOPOLE
- # COMPUTER SIMULATION PHOTOGRAPH LOCATION
- APPROXIMATE LIMIT OF SEASONAL TOWER VISIBILITY
- APPROXIMATE LIMIT OF YEAR ROUND TOWER VISIBILITY
- C# CHURCH/CEMETERY
- P# PARK
- H# HISTORICAL SITE
- S# SCHOOL
- TRAIL OR SCENIC ROAD

Visibility by Acreage

ITEM	APPROXIMATE ACRES	% OF TOTAL AREA
2 MILE RADIUS AREA	8,053	100%
NOT VISIBLE DUE TO TOPOGRAPHY	1,828	22.7%
NOT VISIBLE DUE TO VEGETATION	3,507	43.6%
VISIBLE YEAR ROUND	2,709	33.6%
POTENTIAL SEASONAL VISIBILITY	9	0.1%

Distances from Photo Locations to Tower

PHOTO	DISTANCE (FT)	PHOTO	DISTANCE (FT)
01	830	12	9,300
02	700	13	6,460
03	530	14	9,800
04	1,820	15	5,800
05	1,535	16	5,200
06	640	17	2,400
07	8,945	18	2,600
08	7,740	19	1,460
09	3,060	20	850
10	2,140	21	400
11	8,700		

Visibility by Residence

STREET	RESIDENCES
HIGHLAND DRIVE	5 (Y) 3 (S)
DEVERON DRIVE	10 (Y) 3 (S)
EDINBURGH LANE	6 (Y) 3 (S)
MILL ROAD	2 (Y) 1 (S)
TODDS MILL CIRCLE	2 (S)

(S) = SEASONAL VIEW
(Y) = YEAR ROUND VIEW

Historic Sites:

- H01 ALIS-BUSHNELL HOUSE 853 BOSTON POST ROAD
- H02 MADISON GREEN HISTORIC DISTRICT 446-589 BOSTON POST ROAD AND STRUCTURES SURROUNDING THE GREEN
- H03 MEIGS-BISHOP HOUSE 45 WALL STREET
- H04 JONATHAN MURRAY HOUSE 76 SCOTLAND ROAD
- H05 STATE PARK SUPPLY YARD 51 MILL ROAD
- H06 WILLIAM STEVENS HOUSE 131 COW HILL ROAD
- H07 CLINTON VILLAGE HISTORIC DISTRICT ALONG CEMETERY ROAD, CHURCH, EAST MAIN, AND LIBERTY STREETS, OLD POST ROAD, AND WATERSIDE LANE

Parks:

- P01 HAMMONASSET STATE PARK AND BEACH
- P02 HAMMONASSET BEACH BOAT LAUNCH
- P03 HAMMONASSET NATURAL AREA PRESERVE
- P04 COCKAPONSET STATE FOREST

Church/Cemetery:

- C01 HAMMONASSET CEMETERY

Schools:

- S01 ACADEMY ELEMENTARY SCHOOL
- S02 ABRAHAM PIERSON SCHOOL
- S03 ISLAND AVENUE ELEMENTARY SCHOOL

Scenic Roads:

1. No roads within the 2 mile radius are listed on the CTDOT list of scenic roads.
2. No scenic road sign designations were observed during the field visual analysis.

2 MILE VIEWSHED ANALYSIS MAP

MADISON VISUAL IMPACT ASSESSMENT

PREPARED FOR:

nationalgrid Wireless

NATIONAL GRID WIRELESS
80 CENTRAL STREET
BOXBOROUGH, MA 01719
PHONE: (978) 264-6000
FAX: (978) 264-6124

PREPARED BY:

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CHA Project No. 14980-1001-1601

OCTOBER 2006

0 625' 1250' 2500' 5000'

NORTH

FIGURE VS-MADISON

ATTACHMENT B
PHOTOSIMS

Photosim for conceptual purposes only - actual antenna & equipment locations to be determined based on final engineering design

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DATE: OCT 2006

SITE: STONEHART

VIEW 1 - EXISTING
VIEW LOOKING NORTH FROM
INTERSECTION OF HAMMONASSET
CONNECTOR & ROUTE 1

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VIEW LOOKING NORTH FROM
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VIEW 1 - EXISTING
VIEW LOOKING NORTH FROM
INTERSECTION OF HAMMONASSET
CONNECTOR & ROUTE 1

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DATE: JAN 2007

SITE: STONEHART

VIEW 1 - PROPOSED
VIEW LOOKING NORTH FROM
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CONNECTOR & ROUTE 1

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DATE: JAN 2007

SITE: STONEHART

VIEW 1 - EXISTING
VIEW LOOKING NORTH FROM
INTERSECTION OF HAMMONASSET
CONNECTOR & ROUTE 1

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DATE: JAN 2007

SITE: STONEHART

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INTERSECTION OF HAMMONASSET
CONNECTOR & ROUTE 1

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DATE: OCT 2006

SITE: STONEHART

VIEW 2 - EXISTING
VIEW LOOKING SOUTH FROM
DEVERON DRIVE IN RESIDENTIAL
NEIGHBORHOOD

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DATE: JAN 2007

SITE: STONEHART

VIEW 2 - EXISTING
VIEW LOOKING SOUTH FROM
DEVERON DRIVE IN RESIDENTIAL
NEIGHBORHOOD

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BOXBOROUGH, MA 01719

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DATE: JAN 2007

SITE: STONEHART

VIEW 2 - PROPOSED
VIEW LOOKING SOUTH FROM
DEVERON DRIVE IN RESIDENTIAL
NEIGHBORHOOD

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DATE: OCT 2006

SITE: STONEHART

VIEW 3 - NOT VISIBLE
VIEW LOOKING WEST FROM
INTERSECTION OF COTTAGE ROAD
& MILL ROAD

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NATIONAL GRID WIRELESS
30 CENTRAL STREET
BOXBOROUGH, MA 01719

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SITE: STONEHART

VIEW 4 - NOT VISIBLE
VIEW LOOKING SOUTHEAST FROM INTERSECTION OF LAUREL CREST ROAD & STANTON COURT

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DATE: OCT 2006

SITE: STONEHART

VIEW 5 - NOT VISIBLE
VIEW LOOKING EAST FROM
INTERSECTION OF MADRINA LANE &
SIGNAL HILL ROAD

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Wireless

NATIONAL GRID WIRELESS
30 CENTRAL STREET
BOXBOROUGH, MA 01719

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DATE: OCT 2006

SITE: STONEHART

VIEW 6 - PROPOSED
VIEW LOOKING SOUTHWEST FROM INTERSECTION OF TODD'S MILL CIRCLE & MILL ROAD

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80 CENTRAL STREET
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DATE: OCT 2006

SITE: STONEHART

VIEW 8 - PROPOSED
VIEW LOOKING NORTHWEST FROM
HAMMONASSET PARK:
HAMMONASSET BEACH

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80 CENTRAL STREET
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DATE: OCT 2006

SITE: STONEHART

VIEW 9 - EXISTING
VIEW LOOKING NORTH FROM HAMMONASSET PARK: WILLIAM F. MILLER CAMPGROUND

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DATE: OCT 2006

SITE: STONEHART

VIEW 9 - PROPOSED
VIEW LOOKING NORTH FROM
HAMMONASSET PARK: WILLIAM F.
MILLER CAMPGROUND

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30 CENTRAL STREET
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DATE: OCT 2006

SITE: STONEHART

VIEW 11 - NOT VISIBLE
VIEW LOOKING EAST FROM HISTORIC ALISBUSHNELL HOUSE & MADISON GREEN HISTORIC DISTRICT

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DATE: OCT 2006

SITE: STONEHART

VIEW 12 - NOT VISIBLE
VIEW LOOKING SOUTHEAST FROM
HISTORIC MEIGS-BISHOP HOUSE

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DATE: OCT 2006

SITE: STONEHART

VIEW 13 - NOT VISIBLE
VIEW LOOKING SOUTHEAST FROM HISTORIC JONATHAN MURRAY HOUSE

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DATE: OCT 2006

SITE: STONEHART

VIEW 16 - EXISTING
VIEW LOOKING SOUTHWEST FROM HIGHLAND DRIVE IN RESIDENTIAL NEIGHBORHOOD

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DATE: OCT 2006

SITE: STONEHART

VIEW 17 - NOT VISIBLE
VIEW LOOKING SOUTHWEST FROM DOWNING WAY IN RESIDENTIAL NEIGHBORHOOD

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DATE: OCT 2006

SITE: STONEHART

VIEW 18 - NOT VISIBLE
VIEW LOOKING SOUTH FROM
INTERSECTION OF KINGSBRIDGE
WAY & RIVER ROAD

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80 CENTRAL STREET
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DATE: OCT 2006

SITE: STONEHART

VIEW 19 - PROPOSED
VIEW LOOKING SOUTH FROM
EDINBURGH LANE IN RESIDENTIAL
NEIGHBORHOOD

nationalgrid
Wireless

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30 CENTRAL STREET
BOXBOROUGH, MA 01719

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DATE: OCT 2006

SITE: STONEHART

VIEW 20 - EXISTING
VIEW LOOKING WEST FROM
COTTAGE ROAD

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Wireless

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80 CENTRAL STREET
BOXBOROUGH, MA 01719

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DATE: JAN 2007

SITE: STONEHART

VIEW 20 - EXISTING
VIEW LOOKING WEST FROM
COTTAGE ROAD

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Wireless

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80 CENTRAL STREET
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DATE: JAN 2007

SITE: STONEHART

VIEW 20 - PROPOSED
VIEW LOOKING WEST FROM
COTTAGE ROAD

nationalgrid
Wireless

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80 CENTRAL STREET
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DATE: OCT 2006

SITE: STONEHART

VIEW 21 - EXISTING
VIEW LOOKING SOUTHEAST FROM
HAMMONASSET CONNECTOR

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VIEW 21 - EXISTING
VIEW LOOKING SOUTHEAST FROM
HAMMONASSET CONNECTOR

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DATE: JAN 2007

SITE: STONEHART

VIEW 21 - PROPOSED
VIEW LOOKING SOUTHEAST FROM
HAMMONASSET CONNECTOR

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DATE: JAN 2007

SITE: STONEHART

VIEW 21 - EXISTING
VIEW LOOKING SOUTHEAST FROM
HAMMONASSET CONNECTOR

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SITE: STONEHART

VIEW 21 - PROPOSED
VIEW LOOKING SOUTHEAST FROM
HAMMONASSET CONNECTOR

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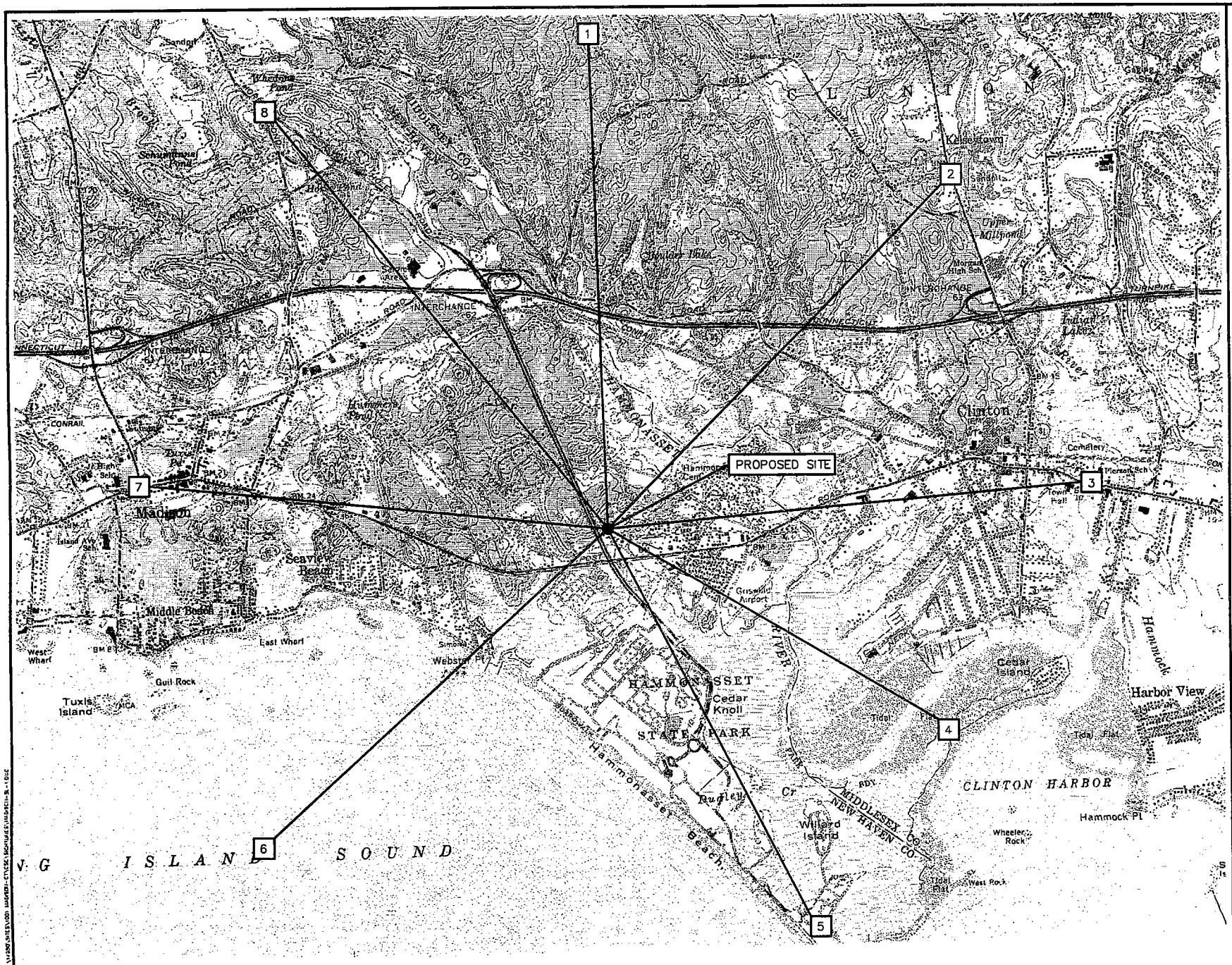
ATTACHMENT C
SIGHTLINES



NOTE:
1. MAPPING BASED ON USGS QUAD MAPS.
2. # = SIGHT LINE NUMBER
3. ● = TOWER LOCATION

GRAPHIC SCALE

3000 0 1500 3000

1 inch = 3000 ft.

TRUE NORTH

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FAX: (978) 264-6124

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Email: (860) 257-4537 · www.cloughharbour.com

CHA PROJECT NO:
14980 – 1001 – 1601

NO.	SUBMITTAL		
0	05/25/06	ISSUED FOR REVIEW	
	BY: PAL	CHK: PAL	APP'D: PAL

SITE NAME:
STONEHART

SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT
06443
NEW HAVEN COUNTY

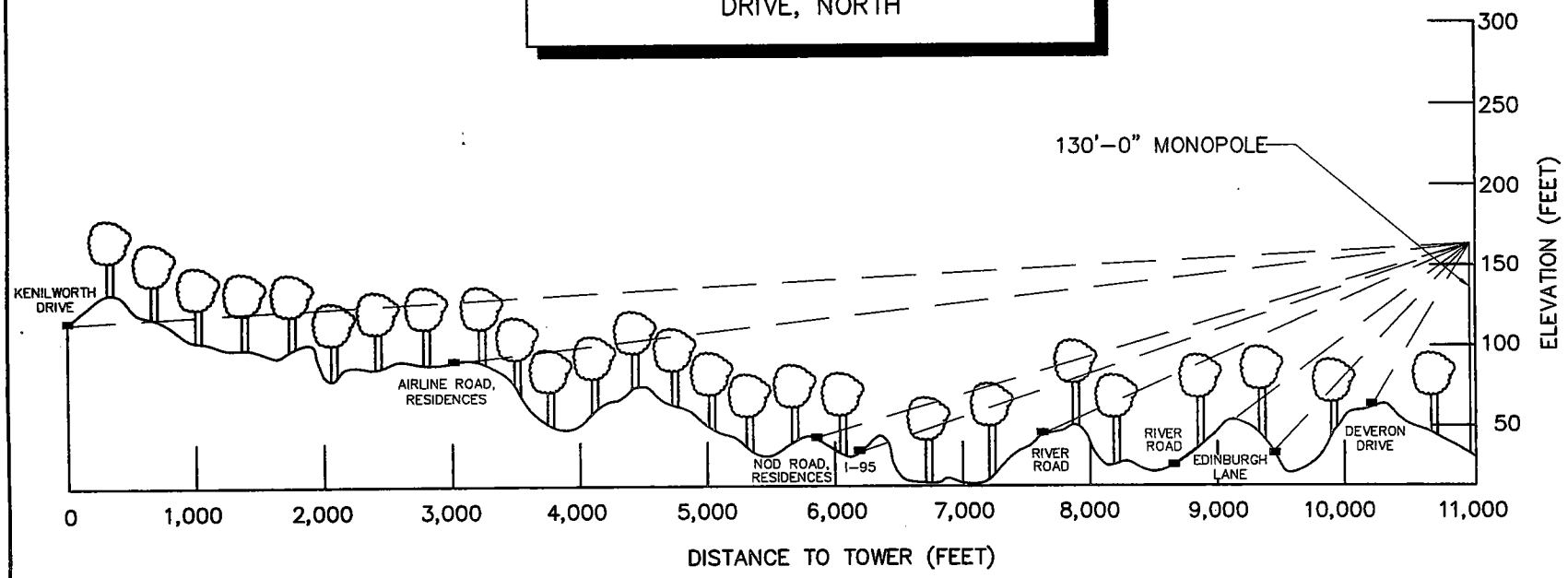
SHEET TITLE

SIGHTLINES LOCATION MAP

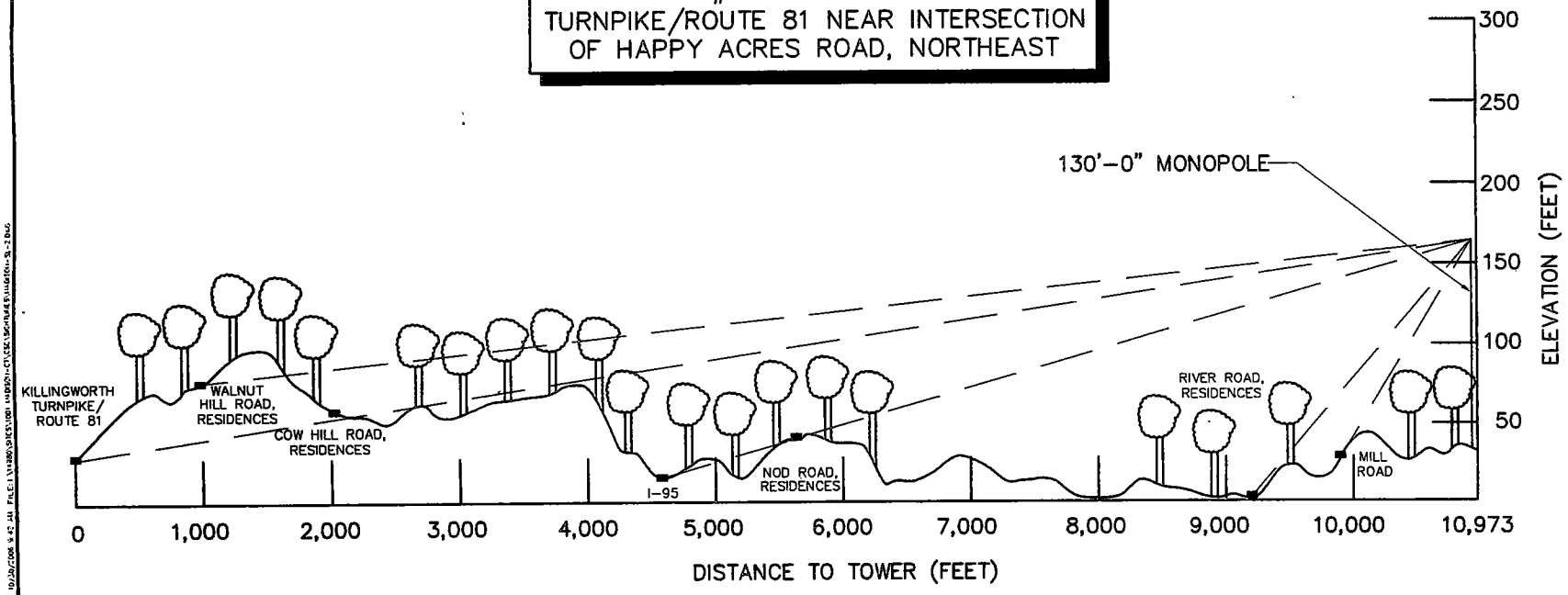
SHEET NUMBER

SL–1

SIGHTLINE #1 – FROM KENILWORTH DRIVE, NORTH



SIGHTLINE #2 – FROM KILLINGWORTH TURNPIKE/ROUTE 81 NEAR INTERSECTION OF HAPPY ACRES ROAD, NORTHEAST



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SITE NAME:
STONEHART

SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT
06443
NEW HAVEN COUNTY

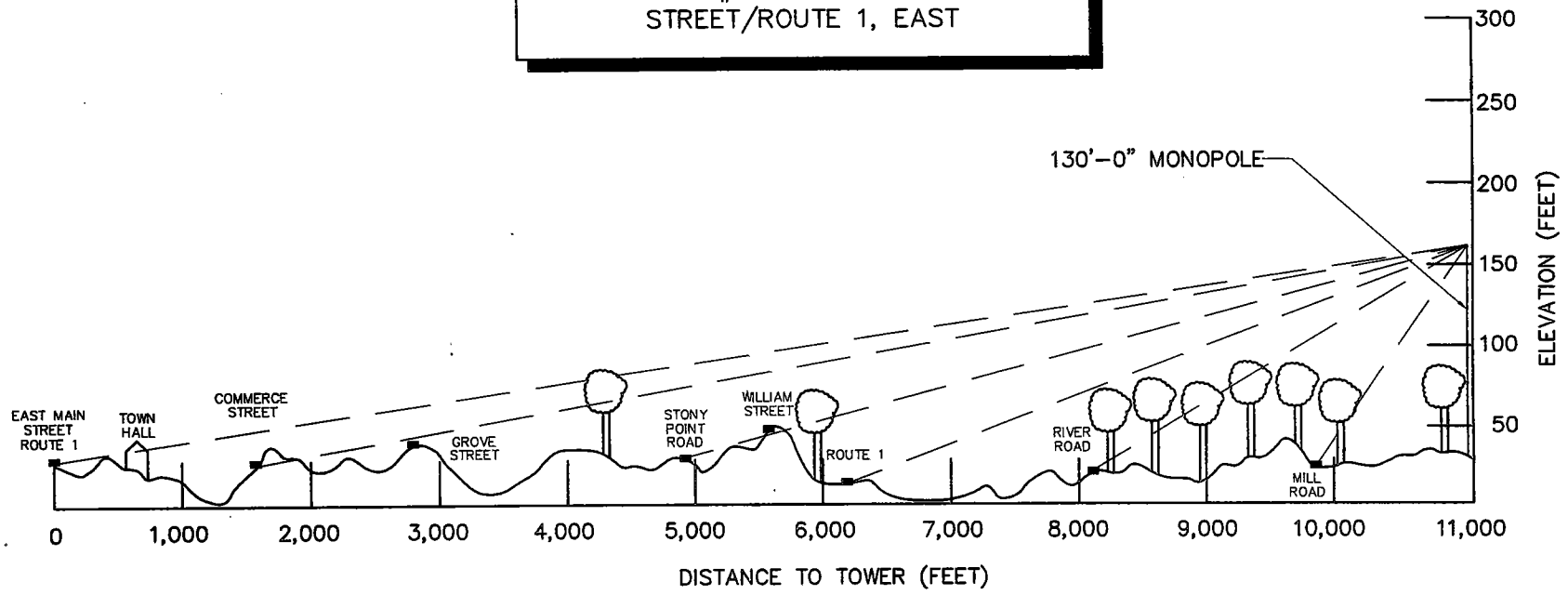
SHEET TITLE

SIGHTLINES # 1 & # 2

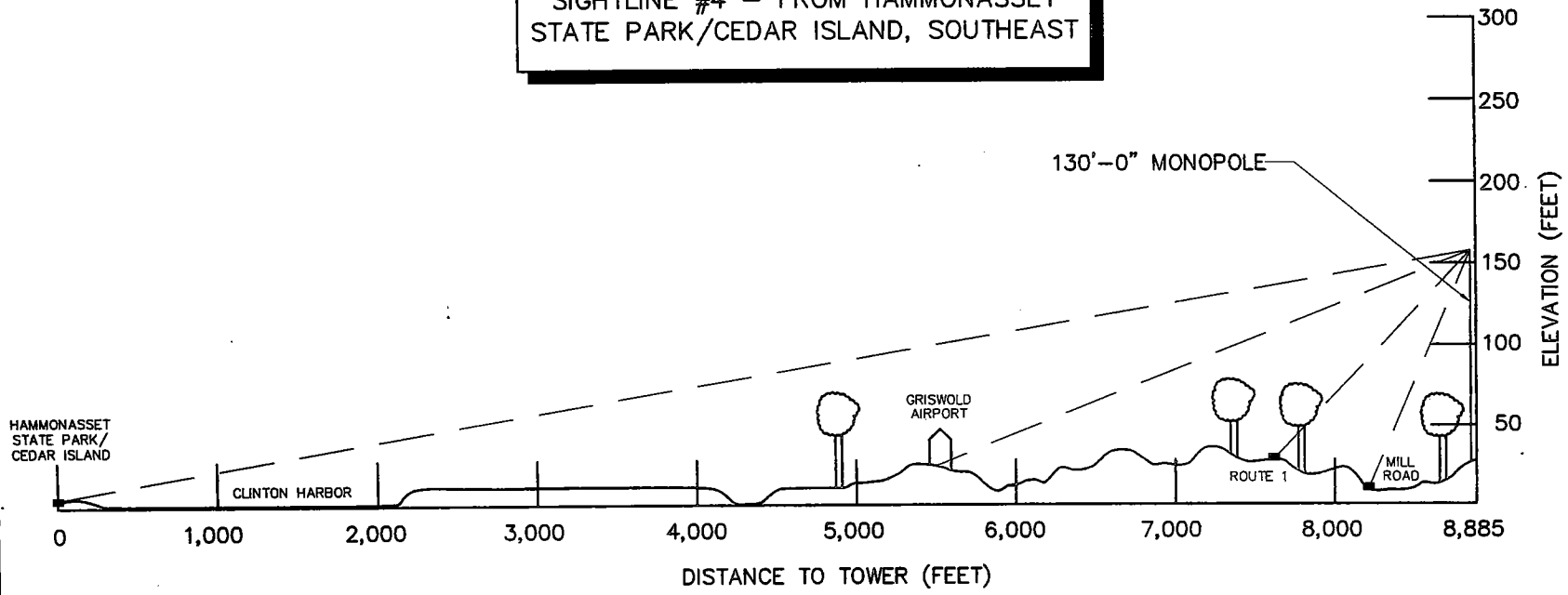
SHEET NUMBER

SL–2

SIGHTLINE #3 – FROM EAST MAIN STREET/ROUTE 1, EAST



SIGHTLINE #4 – FROM HAMMONASSET STATE PARK/CEDAR ISLAND, SOUTHEAST



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	BY: PAL	CHK: PAL	APP'D: PAL

SITE NAME:
STONEHART

SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT
06443
NEW HAVEN COUNTY

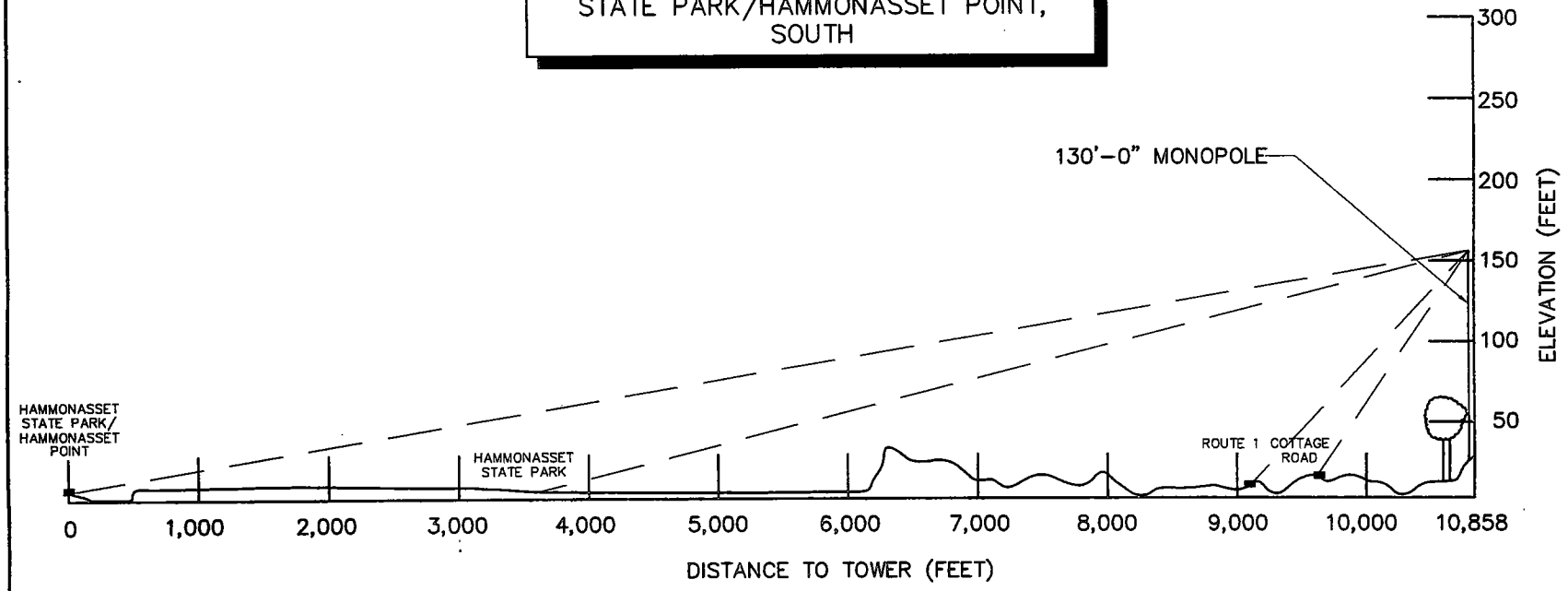
SHEET TITLE

SIGHTLINES # 3 & # 4

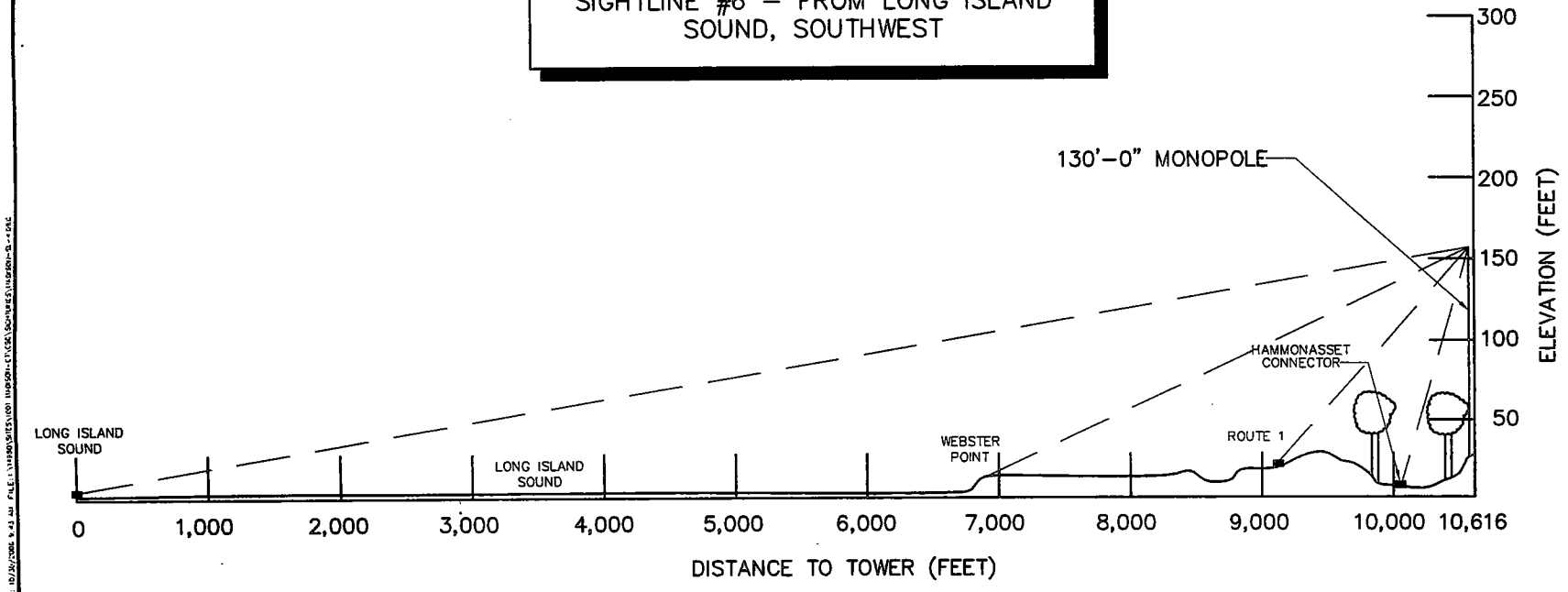
SHEET NUMBER

SL–3

SIGHTLINE #5 – FROM HAMMONASSET STATE PARK/HAMMONASSET POINT, SOUTH



SIGHTLINE #6 – FROM LONG ISLAND SOUND, SOUTHWEST



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	BY: PAL	CHK: PAL	APP'D: PAL

SITE NAME:
STONEHART

SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT
06443
NEW HAVEN COUNTY

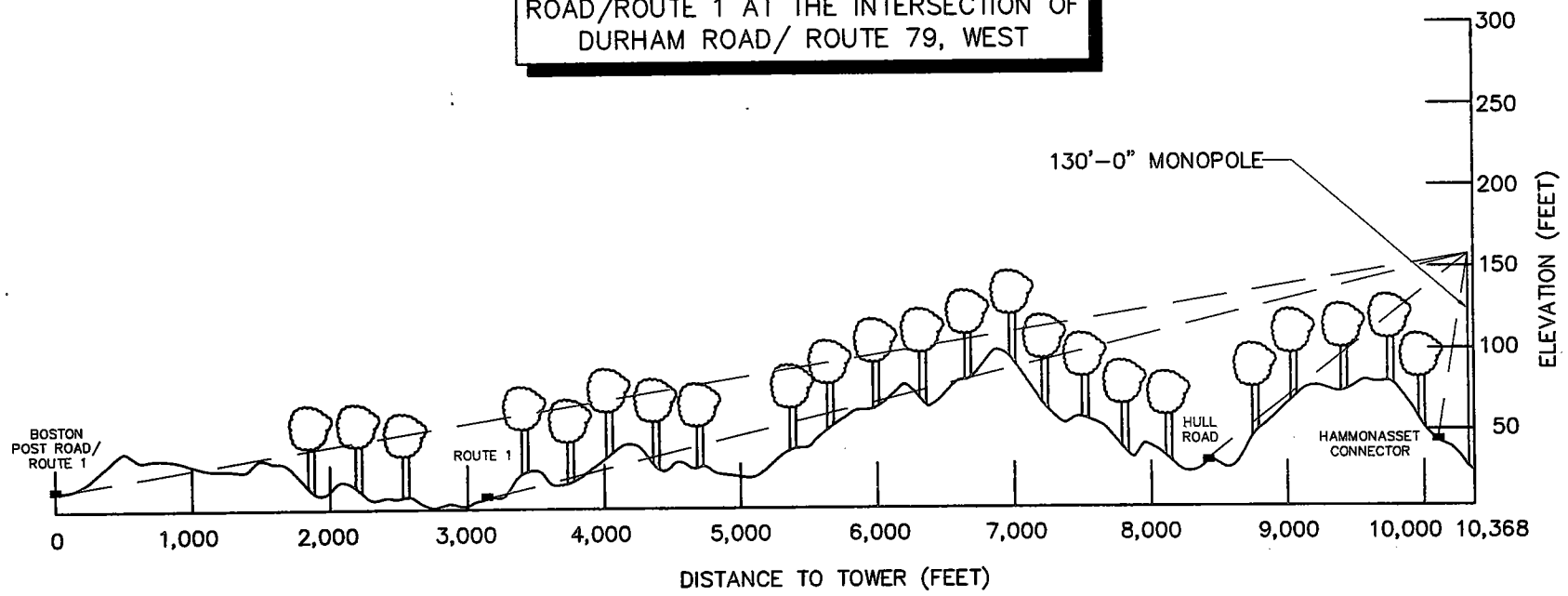
SHEET TITLE

SIGHTLINES # 5 & # 6

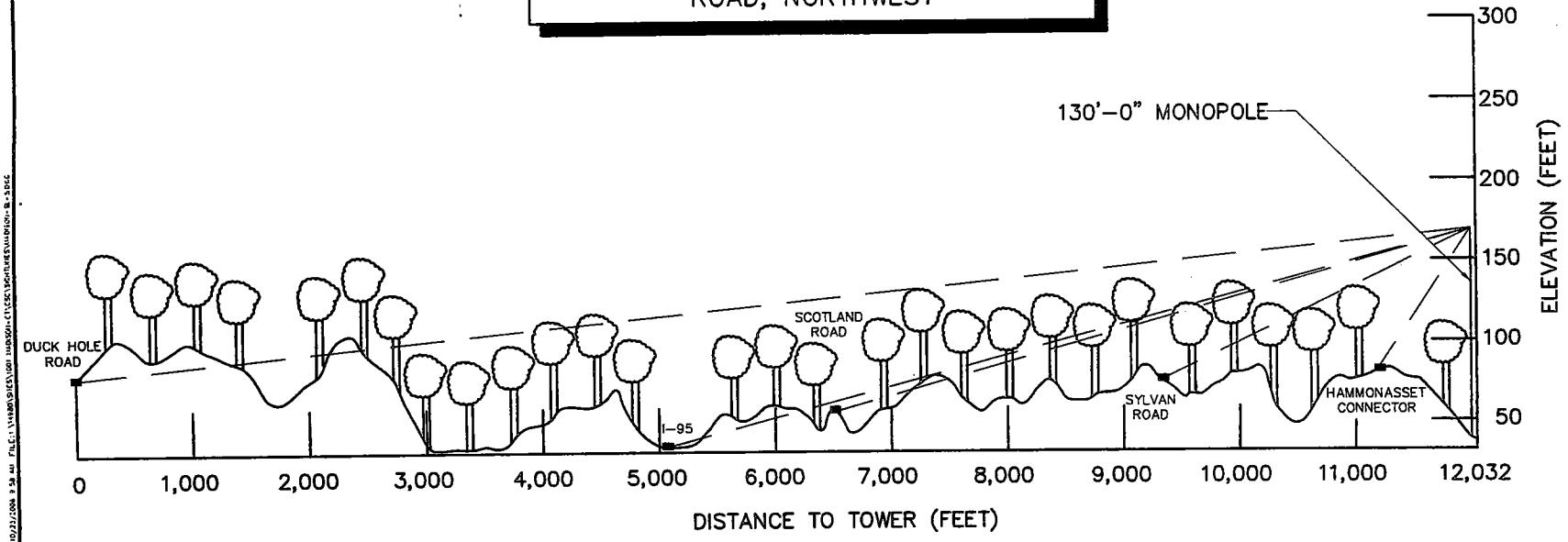
SHEET NUMBER

SL–4

SIGHTLINE #7 – FROM BOSTON POST ROAD/ROUTE 1 AT THE INTERSECTION OF DURHAM ROAD/ ROUTE 79, WEST



SIGHTLINE #8 – FROM DUCK HOLE ROAD AT THE INTERSECTION OF HORSE POND ROAD, NORTHWEST



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CHA PROJECT NO:
14980 – 1001 – 1601

NO.	SUBMITTAL		
0	05/25/06	ISSUED FOR REVIEW	
	BY: PAL	CHK: PAL	APP'D: PAL

SITE NAME:
STONEHART

SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT
06443
NEW HAVEN COUNTY

SHEET TITLE

SIGHTLINES
7 & # 8

SHEET NUMBER

SL–5

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

September 20, 2006

Ms. Nicole E. Frazer
Clough Harbour & Associates, LLP
111 Winners Circle
P.O. Box 5269
Albany, NY 12205-0269

re: Stonehart Telecommunications Facility at 17 Cottage Road in Madison, Connecticut

Dear Ms. Frazer:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed telecommunication facility for Stonehart at 17 Cottage Road in Madison, Connecticut. According to our information, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur at the site in question.

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 Natural Resources Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

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

Sincerely,

Dawn M. McKay
Biologist/Environmental Analyst 3

RECEIVED
SEP 28 2006
Clough, Harbour & Associates LLP

Chiocchio, Lucia

From: Yarnall, Gretchen [GYarnall@blcompanies.com]
Sent: Monday, March 26, 2007 4:30 PM
To: Chandler, Susan
Cc: Frazer, Nicole; Braun, Olivia; Kodlick, Jim; rclark.connsult@snet.net; Chiocchio, Lucia; plusitani@cha-llp.com
Subject: Stonehart tower site: Madison, New Haven County
Attachments: MADISON DEP SITE PHOTOS & KEY.pdf; Draft letter to SHPO- Supply Yard.doc

Hello Susan,

Please review the attached photographs which are keyed to a quadrangle map. I've also attached a letter, drafted by our cellular client, to you, that sums up their recent site investigations and their opinion on the proposed 127-foot tall monopole tower's effect on the Supply Yard.

As you requested via e-mail, we still intend to submit photosims of the proposed tower taken from within the Supply Yard. Those will be coming to you shortly. We hope that you will consider all of this additional information when rendering your opinion of effect.

Thank you for your attention in this matter.

Gretchen E. Yarnall
Senior Project Manager

BL Companies
One South Market Square
213 Market Street, 6th Floor, Harrisburg, PA 17101
717-651-9850 (telephone) 717-651-9858 (fax)
gyarnall@blcompanies.com

An Employee Owned Company
www.blcompanies.com

Susan,

Sorry for the delay in getting back to you on this one.

We did some additional background review and have learned that the State Park Supply Yard location was listed in 1986 as a thematic resource because of the site's use as a Depression Era Federal Work Relief Program by the Civilian Conservation Corps. There is very limited additional information on the site but it was apparently a warehouse/commercial location.

In talking with National Grid's consultants responsible for their upcoming Siting Council application, including one who lives in the Town of Madison, they were surprised because this site is locally known simply as a maintenance yard and warehouse for the Department of Environmental ("DEP") and its Mosquito Control Unit. The site is not open to the public and basically looks like most any maintenance/construction yard. During National Grid's consultation with the Town of Madison, the DEP site was never raised as an important visual receptor nor were any concerns raised on the local level regarding the proposed facility's proximity to this site.

As you requested, attached are additional photos identifying the location of the proposed National Grid Wireless tower on property to the west and additional photos which show you existing conditions at the DEP site. Needless to say, given the reason for the listing and the current use of the property and its appearance, we don't believe that a nearby tower site would in any way adversely effect the historic significance of the State Park Supply Yard. Let me know once you've had a chance to review the attached as I know the National Grid group is filing their Siting Council application shortly.

Thanks.

1 **PHOTO KEY MAP**
SCALE: 1" = 300'

0 150 300
SCALE IN FEET

TRUE NORTH

Drawing Copyright © 2006 Clough Harbour & Associates LLP

CHA
CLOUGH HARBOUR & ASSOCIATES LLP
2139 Silas Deane Highway, Suite 212 · Rocky Hill, CT 06067-2336
Main: (860) 257-4557 · www.cloughharbour.com

CHA PROJ. NO. – 14980-1001

nationalgrid
Wireless

NATIONAL GRID WIRELESS
80 CENTRAL STREET
BOXBOROUGH, MA 01719
PHONE: (978) 264-6000
FAX: (978) 264-6124

SITE NAME:
STONEHART
SITE ADDRESS:
17 COTTAGE ROAD
MADISON, CT 06443
NEW HAVEN COUNTY

SHEET TITLE:
PHOTO KEY

DATE:
03/26/07

REVISION:
0

File: I:\14980\SITES\1001 MADISON-CT\NEPA\SHPO\PHOTO-LOG.DWG Saved: 3/26/2007 11:05:34 AM Plotted: 3/26/2007 11:05:56 AM User: Lusitani, Paul

STATE OF CT.
D.E.P.
WETLANDS
RESTORATION
UNIT

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 8, 2006

VIA OVERNIGHT MAIL
First Selectman Thomas S. Scarpati
Town of Madison
Madison Town Hall
8 Campus Drive
Madison, Connecticut 06443

Re: Proposed Wireless Telecommunications Tower Facility
17 Cottage Road
Madison, Connecticut

Dear First Selectman Scarpati:

We are writing to you on behalf of our client, National Grid Wireless, Inc. ("NGW"), with respect to the above referenced matter which involves a proposed wireless telecommunications tower facility to be located at 17 Cottage Road in the Town of Madison. 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 16-501(e) of the Connecticut General Statutes does nevertheless require that NGW 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 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 in the Town of Madison and commence the sixty day consultation period that is required prior to NGW'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 in the Town. The enclosed Technical Report includes information provided by T-Mobile, a federally licensed wireless carrier, regarding its need for the proposed Facility. T-Mobile has committed to locating at the site and will serve as the anchor tenant. We trust that this information will prove helpful to you and others in the Town in formulating any recommendations Madison 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 the Town elect to conduct a public meeting or hearing 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,

Christopher B. Fisher

Enclosure

cc: Joseph MacDougald, Chairman, Planning & Zoning Commission
Ron Clark, CONNsult Wireless Services, Inc.
Abby Harrington, National Grid Wireless, Inc.
Jennifer Gaudet, Optasite
Lucia Chiocchio, Esq.

TOWN OF MADISON

CONNECTICUT

LAND USE OFFICE

8 CAMPUS DRIVE
MADISON, CONNECTICUT 06443-2563
(203) 245-5632
FAX (203) 245-5613

February 15, 2007

S. Derek Phelps
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Proposed Wireless Telecommunications Tower Facility
17 Cottage Road
Madison, Connecticut

Dear Mr. Phelps:

The Madison Planning and Zoning Commission received notice of the proposed tower facility referenced above from Cuddy & Fedder on November 9, 2006. A public information meeting was held on January 4, 2007 with a presentation by the applicant. This meeting was continued to January 18, 2007 for receipt of additional information requested by the Commission. Based on the information presented and discussed, the Commission offers the following comments.

The Commission accepts the fact that there is a need for better cellular service in this area of Town, but is concerned with the aesthetics in this densely populated area, which is also visible from Hammonasset State Park, visited annually by over a million people. Therefore, the Commission requests the following:

- Tree clearing and removal should be minimized. The visual screening described by the applicant is dependent upon the significant amount of onsite vegetation which the applicant indicates will remain. The applicant has also represented that the location has been selected such that only four (4) trees greater than 6 inches in diameter will need to be removed.
- Movement of the tower location on the property in any direction that would increase its visibility, especially to the residential properties to the north and east, should be avoided.
- The access driveway surface should remain gravel as proposed. This will minimize its visibility as well as any environmental impact from increased impervious surface. It is

also recommended that a curve be designed into the driveway in order to eliminate a straight view down the length of the driveway.

- The applicant has indicated that, at a total height of 130 feet, the facility will be able to accommodate all known carriers. The Commission lacks the technical expertise to verify this and defers to the Council. If it appears that 130' may not be sufficient to locate all known or expected carriers, the Commission requests that the Council consider whether it would be advisable to overbuild the foundation of this facility in order to accommodate a future increase in height up to maximum of 150 feet if this eliminates the potential of a second structure in the immediate vicinity. The Commission's concern with the aesthetics of this location is such that it believes a facility exceeding 150 feet would be unacceptable. However, further visibility studies may indicate that a facility exceeding the 130 feet proposed, but less than 150 feet, is more acceptable than a second, more visible facility. Therefore, it may be wise to plan for such an extension with the understanding that the Town would have an additional opportunity for comment if and when the height increase is proposed.

The Commission thanks the Council for this opportunity to comment, and the applicant for its willingness to present the proposal at multiple Commission meetings and provide the Commission with additional information when requested. Please feel free to contact Marilyn Ozols, Planning and Zoning Administrator, if you have any questions relative to the above comments.

Sincerely,

Joseph A. MacDougald
Chairman, Planning and Zoning Commission

cc: Cuddy & Feder, LLP
445 Hamilton Avenue, 14th Floor
White Plains, NY 10601-5196
Christopher B. Fisher, Esq.
Lucia Chiocchio, Esq.

CERTIFICATION OF SERVICE

I hereby certify that on this ___ th day of _____, 2007, copies of National Grid Wireless, Inc.'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:

Federal, State and Regional

The Honorable Richard Blumenthal
Attorney General
Office of the Attorney General
55 Elm Street
Hartford, CT 06106
(860) 808-5318

Department of Environmental Protection
Regina McCarthy, Commissioner
79 Elm Street
Third Floor
Hartford, CT 06106
(860) 424-3001

Department of Public Health
J. Robert Galvin, M.D., M.P.H,
Commissioner
410 Capitol Avenue
P.O. Box 340308
Hartford, CT 06134-0308
(860) 509-8000

Council on Environmental Quality
Karl J. Wagener, Executive Director
79 Elm Street
Hartford, CT 06106
(860) 424-4000

Department of Public Utility Control
Donald W. Downes, Chair
10 Franklin Square
New Britain, CT 06051
(860) 827-1553

Office of Policy and Management
Robert L. Genuario, Secretary
450 Capitol Avenue
Hartford, CT 06106-1308
(860) 418-6200

Department of Economic and Community Development
James F. Abromaitis, Commissioner
505 Hudson Street
Hartford, CT 06106-71067
(860) 270-8000

Department of Transportation
Ralph J. Carpenter, Commissioner
2800 Berlin Turnpike
Newington, CT 06131-7546
(860) 594-3000

South Central Regional Council of Governments - Regional Planning Commission
Sharon Huxley, Chair
127 Washington Ave, 4th Fl. W.
North Haven, Connecticut 06473
(203) 234-7555

State Senate
Edward Meyer
12th Senatorial District
Legislative Office Building
Room 1000
Hartford, CT 06106-1591

State Representative
Deborah W. Heinrich
101th Assembly District
Legislative Office Building
Room 4000
Hartford, CT 06106-1591

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

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

Town of Madison

Town of Madison
First Selectman Thomas Scarpati
Town Hall
8 Campus Drive
Madison, CT 06443

Town of Madison
Town Clerk
Dolly Bean
Town Hall
8 Campus Drive
Madison, CT 06443

Town of Madison
Planning and Zoning Commission
Joseph MacDougald, Chair
Town Hall
8 Campus Drive
Madison, CT 06443

Town of Madison
Conservation Commission
George McManus, Chair
Town Hall
8 Campus Drive
Madison, CT 06443

Town of Madison
Zoning Board of Appeals
Stephen Blunden, Chair
Town Hall
8 Campus Drive
Madison, CT 06443

Town of Madison
Inland/Wetlands Agency
Town Hall
8 Campus Drive
Madison, CT 06443

Dated_____

_____

Lucia Chiocchio, Esq.
Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attorneys for:
National Grid Wireless, Inc.

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 March 28, 2007 or thereafter by National Grid Wireless, Inc. (the "Applicant") for a certificate of environmental compatibility and public need for the construction and maintenance of a telecommunications facility in Madison, Connecticut. The location being considered for the proposed telecommunications facility (the "Facility") is an approximately 1.8 acre parcel located at 17 Cottage Road owned by Paul Stonehart. The proposed Facility will be located in the northwest corner of the parcel and will consist of a 130-foot self-supporting monopole tower and a 60'x 60' fenced equipment compound designed to accommodate unmanned equipment either in single-story equipment buildings or on concrete pads.

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 T-Mobile and other federally licensed wireless carriers to provide service in this area of the Town. The Application explains the need, purpose and benefits of the Facility and also describes the environmental impacts of the proposed Facility.

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. The balloon will be flown from approximately noon to 5 p.m., or such other time specified by the Siting Council. Notice of the public hearing will be provided by the Siting Council.

Interested parties and residents of the Town of Madison, Connecticut are invited to review the Application during normal business hours after March 28, 2007 at any of the following offices:

Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Town of Madison
Dolly Bean, Town Clerk
8 Campus Drive
Madison, CT 06443

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

Lucia Chiocchio, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, New York 10601
(914) 761-1300
Attorneys for the Applicant

March___ , 2007

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

XXX
XXX
Madison, CT XXXXX

Re: Proposed Wireless Communications Facility
National Grid Wireless, Inc.
Application for Approval by the Connecticut Siting Council
Madison, Connecticut

Dear _____:

We are writing to you on behalf of our client, National Grid Wireless, Inc. ("NGW") with respect to the above referenced application to the Connecticut Siting Council for approval for a proposed wireless communications tower facility (the "Facility") within the Town of Madison. State law requires that owners of record of property which abuts a parcel on which the proposed facility may be located must be sent notice of the submission of the application.

The location being considered for the proposed telecommunications Facility is an approximately 1.8 acre parcel located at 17 Cottage Road and owned by Paul Stonehart. The Facility would be situated in the northwest corner of the parcel and consist of a 130-foot self-supporting monopole tower and a 60' x 60' site compound designed to accommodate related unmanned equipment either in single-story equipment buildings or in outdoor equipment cabinets mounted on concrete pads. The tower and ground mounted equipment would be enclosed by an 8-foot high security fence with a locked gate. Vehicular access to the site will extend from Cottage Road, along a new gravel access drive northward along the eastern border of the host parcel, then vector northwest to the proposed Facility. Underground utility connections would extend along the access drive from Cottage Road.

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.

Very truly yours,

Lucia Chiocchio

ADJACENT PROPERTY OWNERS
17 COTTAGE ROAD, MADISON, CT

The following information was collected from the Tax Assessors' records and the land records at Town Hall, Town of Madison.

Property Owners and Mailing Addresses

Map 30 Lot 33; Map 31, Lot 69
Bureau of Land Management
79 Elm Street
Hartford, Connecticut 06106

Map 30 Lot 51
Strathmore Farms Development Co
PO Box 431
Deveron Drive
Madison, CT 06443

Map 30 Lot 35; Map 31 Lot 70
Robert and Allyce B. Dowler
17 Hill Road
P.O. Box 431
Madison, Connnecticut 06443

Map 30 Lot 34
Mr. Paul Stonehart
P.O. Box 1220
Madison, Connecticut 06443

CERTIFICATION OF SERVICE

I hereby certify that on the 27 th day of March, 2007 a copy of the foregoing letter was mailed by certified mail, return receipt requested to each of the abutting properties owners on the attached list.

3/27/07
Date

Lucia Chiarelli
Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601

Attorneys for:
National Grid Wireless, Inc.

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, page 2 Attachment 5: 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, page 2 V: Facility Design: pages 9-11
(C) A statement of the purpose for which the application is made;	I.A Purposed 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 Applicant, page 3
(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 Applicant, page 3
(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, page 5 Attachment 1: Pre-Filed Testimony of Ronald C. Clark Attachment 2: Pre-Filed Testimony of Scott Heffernan Attachment 3: Statement of Need with 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, page 6
(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	I.B. Executive Summary, page 2 V: Facility Design: pages 9-11 Attachment 5: Description and Design of Proposed Facility VI.C: Power Density Analysis, page 13

Application Guideline	Location in Application
boundary where persons are likely to be exposed to maximum power densities from the facility; **(5)** A map showing any fixed facilities with which the proposed facility would interact; **(6)** The coverage signal strength, and integration of the proposed facility with any adjacent fixed facility, to be accompanied by multi-colored propagation maps of red, green and yellow (exact colors may differ depending on computer modeling used, but a legend is required to explain each color used) showing interfaces with any adjacent service areas, including a map scale and north arrows; and **(7)** For cellular systems, a forecast of when maximum capability would be reached for the proposed facility and for facilities that would be integrated with the proposed facility.	Attachment 3: Statement of Need with 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 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 5: Description and Design of Proposed Facility
(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 5: Description and Design of Proposed Facility VI. Environmental Compatibility, pages 11-14
(L) A description of the existing and planned land uses of the named sites and surrounding areas;	VII.C. Planned and Existing Land Uses, page 15
(M) A description of the scenic, natural, historic, and recreational characteristics of the named sites and surrounding	VI. Environmental Compatibility, pages 11-14

Application Guideline	Location in Application
areas including officially designated nearby hiking trails and scenic roads;	
(N) Sight line graphs to the named sites from visually impacted areas such as residential developments, recreational areas, and historic sites;	Attachment 5: Description and Design of Proposed Facility: visual analysis
(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, page 8 Attachment 1: Pre-Filed Testimony of Ronald C. Clark Attachment 4: Site Selection 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, page 8 IV.B: Tower Sharing, page 9 V. Facility Design Attachment 1: Pre-Filed Testimony of Ronald C. Clark Attachment 4: Site Selection Summary
(Q) A description of the technological alternatives and a statement containing justification for the proposed facility;	III.C. Technological Alternatives, page 7
(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, page 8 Attachment 4: Site Selection Summary Attachment 1: Pre-Filed Testimony of Ronald C. Clark
(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, page 8 Attachment 4: Site Selection Summary Attachment 1: Pre-Filed Testimony of Ronald C. Clark
(T) A statement describing hazards to human health, if any, with such supporting data and references to regulatory standards;	VI. Environmental Compatibility, pages 11-14
(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 19
(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 19

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, page 11
(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 11-14 Attachment 6: Correspondence with State Agencies Attachment 5: Description and Design of Proposed Facility 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;	Attachment 5: Description and Design of Proposed Facility
(Z) Such information as the applicant may consider relevant.	