



Daniel F. Caruso  
Chairman

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

Internet: [ct.gov/csc](http://ct.gov/csc)

September 28, 2007

Lucia Chiocchio, Esq.  
Cuddy & Feder, LLP  
445 Hamilton Avenue, 14<sup>th</sup> Floor  
White Plains, NY 10601

RE: **DOCKET NO. 333** – Lighttower application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut.

Dear Attorney Chiocchio:

By its Decision and Order dated September 25, 2007, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut.

Enclosed are the Council's Certificate, Findings of Fact, Opinion, and Decision and Order.

Very truly yours,

S. Derek Phelps  
Executive Director

SDP/cm

Enclosures (4)

c: Ronald C. Clark, CONNsult Wireless Services, LLC



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September 28, 2007

TO: Parties and Intervenors

FROM: S. Derek Phelps, Executive Director 

RE: **DOCKET NO. 333** – Lighttower application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut.

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Enclosed are the Council's Findings of Fact, Opinion, and Decision and Order.

SDP/cm

Enclosures (3)

c: Lucia Chiochio, Esq., Cuddy & Feder, LLP  
State Documents Librarian



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Chairman

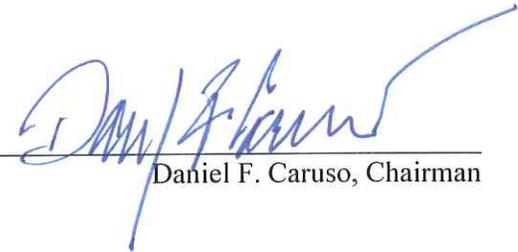
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**CERTIFICATE  
OF  
ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED  
DOCKET NO. 333**

Pursuant to General Statutes § 16-50k, as amended, the Connecticut Siting Council hereby issues a Certificate of Environmental Compatibility and Public Need to Lighttower for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut. This Certificate is issued in accordance with and subject to the terms and conditions set forth in the Decision and Order of the Council on September 25, 2007.

By order of the Council,



\_\_\_\_\_  
Daniel F. Caruso, Chairman

September 25, 2007

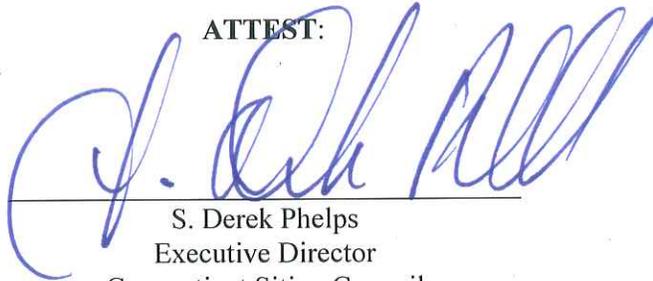
STATE OF CONNECTICUT )

ss. New Britain, Connecticut :

COUNTY OF HARTFORD )

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



S. Derek Phelps  
Executive Director  
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 333 has been forwarded by Certified First Class Return Receipt Requested mail on September 28, 2007, to all parties and intervenors of record as listed on the attached service list, dated May 2, 2007.

ATTEST:



Carriann Mulcahy  
Secretary I  
Connecticut Siting Council

**LIST OF PARTIES AND INTERVENORS**  
**SERVICE LIST**

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
<b>Applicant</b>	National Grid Wireless, Inc.	<p>Lucia Chiocchio, Esq. Cuddy &amp; Feder, LLP 445 Hamilton Avenue, 14<sup>th</sup> Floor White Plains, NY 10601 (914) 761-1300 (914) 761-6405 - fax <a href="mailto:LChiocchio@cuddyfeder.com">LChiocchio@cuddyfeder.com</a></p> <p>Ronald C. Clark CONNsult Wireless Services, LLC 6 Evarts Lane Madison, CT 06443 (203) 645-3301 Rclark.connsult@snet.net</p>
<b>Party (granted 05/01/07)</b>	T-Mobile USA, Inc.	<p>Julie D. Kohler, Esq. Carrie L. Larson, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604 (203) 368-0211 (203) 394-9901 fax <a href="mailto:jkohler@cohenandwolf.com">jkohler@cohenandwolf.com</a> <a href="mailto:clarson@cohenandwolf.com">clarson@cohenandwolf.com</a></p>



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September 28, 2007

TO: Classified/Legal Supervisor  
**333070402**  
The Source  
Shore Publishing Madison Office  
724 Boston Post Road, Suite 202  
PO Box 1010  
Madison, CT 06443

Classified/Legal Supervisor  
**333070402**  
The Shoreline Times  
29-32 Long Hill Road  
P.O. Box 349  
Guilford, CT 06437-0349

FROM: Carriann Mulcahy, Secretary I 

RE: **DOCKET NO. 333** – Lighttower application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut.

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Please publish the attached notice as soon as possible, but not on Saturday, Sunday, or a holiday.

Please send an affidavit of publication and invoice to my attention.

Thank you.

CM



Daniel F. Caruso  
Chairman

# STATE OF CONNECTICUT

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### NOTICE

Pursuant to General Statutes § 16-50p (d), the Connecticut Siting Council (Council) announces that, on September 25, 2007, the Council issued Findings of Fact, an Opinion, and a Decision and Order approving an application from Lighttower for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut. This application record is available for public inspection in the Council's office, Ten Franklin Square, New Britain, Connecticut

**DOCKET NO. 333** – National Grid Wireless, Inc. (now Lighttower) application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut. }

Connecticut  
Siting  
Council

September 25, 2007

## **Findings of Fact**

### **Introduction**

1. National Grid Wireless, Inc. (NGW), in accordance with provisions of Connecticut General Statutes (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on April 2, 2007 for the construction, operation, and maintenance of a wireless telecommunications facility at 17 Cottage Road in Madison, Connecticut. (Lighttower 1, p. 1)
2. On August 17, 2007, NGW submitted a letter to advise the Council that National Grid Wireless, Inc. has changed its corporate name to Lighttower. NGW will herein be referred to as Lighttower. (record)
3. Lighttower is a full service provider of wireless infrastructure and is headquartered in Boxborough, Massachusetts. Lighttower would construct and maintain the proposed facility. (Lighttower 1, p. 3; record)
4. The party in this proceeding is the applicant. The intervenor in this proceeding is Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc. (T-Mobile). (Transcript of June 20, 2007, 3:04 p.m. [Tr. 1], pp. 5, 6)
5. The purpose of the proposed facility is to provide service to coverage gaps within the Town of Madison along the Route 1 (Boston Post Road) corridor in the vicinity of the southern section of the Hammonasset Connector, Hammonasset State Park, the former Griswold Airport property, local roads and adjacent commercial and residential areas. (Lighttower 1, pp. 1, 2)
6. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on June 20, 2007, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Memorial Town Hall Upper, 8 Meetinghouse Lane, Madison, Connecticut. (Tr. 1, p. 3; Transcript of July 20, 2007, 7:01 p.m. [Tr. 2], p. 3)
7. The Council and its staff conducted an inspection of the proposed site on June 20, 2007, beginning at 2:00 p.m. During the field inspection, the applicant flew a balloon approximately 20 feet from the proposed site in front of the existing vegetation to simulate the height of the proposed tower. The balloon flew at a height of 138 feet above ground level to account for a difference in elevation between the proposed site and the area where the balloon was flown. The balloon was aloft beginning at approximately 11:00 a.m. until 6:30 p.m. and remained upright for most of that time. (Tr. 1, pp., 11, 12; Tr. 2, p. 4)
8. Lighttower installed a sign near the access road of the proposed site on June 9, 2007 to notify the public of the proposed project. (Lighttower 2, R. 2)

9. Pursuant to CGS § 16-50l (b), public notice of the application was published in The Source, which is a weekly publication, on March 29 and April 5, 2007 and in The Shoreline Times on March 28 and March 30, 2007. (Lighttower 1, p. 4; Lighttower 2, R. 1; Affidavits of Publication)
10. Pursuant to CGS § 16-50l(b), notice of the application was provided to all abutting property owners by certified mail, return receipt requested. One adjacent landowner, the State of Connecticut, did not return notice. Lighttower provided an additional notice via first class mail to the State of Connecticut, Bureau of Land Management to ensure notice of the application. (Lighttower 1, p. 4, Tab 10; Lighttower 2, R. 2, 3)
11. Pursuant to CGS § 16-50l (b), Lighttower provided notice to all federal, state and local officials and agencies listed therein. (Lighttower 1, Tab 8)

#### State Agency Comment

12. Pursuant to CGS § 16-50j (h), on May 21, 2007 and June 21, 2007, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility; Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Department of Public Utility Control (DPUC), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), and the Department of Transportation (DOT). (Record)
13. The Council received a response letter from the DPH dated June 11, 2007 stating that it has no comments at this time. The DOT also provided a response letter dated June 11, 2007, stating that it has no comments. (Council Admin. Notice State Agency comments Nos. 1, 2; Record)
14. The State Historic Preservation Office (SHPO) provided an e-mail to Lighttower on June 19, 2007 and followed up with a letter dated June 20, 2007. The SHPO determined that the proposed project would have no adverse effect on cultural resources with the condition that if the facility is not in use for six consecutive months the telecommunications facility owner shall remove the tower and equipment. This removal shall occur within 90 days of the end of such six-month period. (Council Admin. Notice State Agency comments No. 3; Record)
15. The following agencies did not respond with comment on the application: DEP, CEQ, DPUC, OPM and DECD. (Record)

#### Municipal Consultation

16. On November 8, 2006, Lighttower submitted a technical report to the First Selectman of the Town of Madison regarding the proposed site. On January 4 and January 18, 2007, Lighttower and T-Mobile representatives met with the Planning and Zoning Commission for public information sessions on the proposed facility. At the meeting on January 18, 2007, the Planning and Zoning Commission made several recommendations including:
  - a. Minimization of tree clearing and removal to maximize screening;
  - b. Avoidance of movement of the tower location in any direction that would increase visibility;
  - c. The access drive should remain gravel and a curve should be designed into the driveway to minimize visibility of the site;
  - d. Design of the proposed 130-foot tower to allow a future expansion to 150 feet in the future, if needed.(Lighttower 1, p. 17, Tab 7)

17. Lighttower addressed all concerns of the Planning and Zoning Commission and incorporated them in the design of the proposed facility. (Lighttower 1, p. 17)
18. The Madison Police Department would install a 10-foot whip antenna at the 75-foot level of the tower and a small equipment cabinet inside the compound. Lighttower is willing to provide space at the proposed facility for municipal public safety and emergency communications for no compensation. (Lighttower 1, p. 10, 18)

#### **Public Need for Service**

19. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 7)
20. In issuing cellular licenses, the federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. T-Mobile is licensed by the Federal Communications Commission (FCC) to provide personal wireless communication service to New Haven County, Connecticut. (Council Administrative Notice Item No. 7; Lighttower 1, pp. 6, 7)
21. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)
22. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 7)
23. In an effort 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. (Lighttower 1, pp. 6, 7)
24. As an outgrowth of the 911 Act, the FCC mandated wireless carriers to provide enhanced 911 services (E911) as part of their networks. E911 allows public safety dispatchers to identify the geographical location of a wireless caller within several hundred feet. The proposed facility would be an integral component of T-Mobile's E911 network in this area. (Lighttower 1, p. 9)

#### **Site Selection**

25. Lighttower established a search ring for the target service area in early 2005. The search ring has an approximately 5,000-foot diameter and encompasses the Hammonasset Connector. (Lighttower 1, p. 8, Tab 4; Lighttower 2, R. 4)

26. Lighttower identified ten existing towers within a three and one-half mile radius of the target area. T-Mobile is located on five of the ten existing towers. The locations of the existing towers are:

<b>Address</b>	<b>Height</b>	<b>Approximate Distance &amp; Direction</b>
665 Boston Post Road, Madison	40-foot lattice	1.8 miles west-southwest
8 Old Route 79, Madison	150-foot monopole (T-Mobile at 120 feet)	2.2 miles west-northwest
35 New Road, Madison	190-foot guyed lattice (T-Mobile at 162 feet)	1.5 miles northwest
21 East Main Street, Clinton	65-foot lattice (T-Mobile at 55 feet)	1.8 miles east
49 East Main Street, Clinton	60-foot lattice	2 miles east
48 East Main Street, Clinton	75-foot lattice	1.9 miles east
40 Cow Hill Road, Clinton	223-foot lattice (T-Mobile at 142 feet)	1.5 miles northeast
64 West Main Street, Clinton	40-foot lattice	1.5 miles east
170 East Main Street, Clinton	150-foot monopole	2.5 miles east
46 Meadow Street, Clinton	195-foot lattice (T-Mobile at 195 feet)	3.3 miles east

(Lighttower 1, Tab 4; Lighttower 2, R. 20)

27. After determining there were no existing structures suitable to provide the necessary coverage, Lighttower began to search for large parcels of undeveloped land, commercial sites and municipally owned properties to accommodate a telecommunications tower. Lighttower investigated 26 parcels/areas, including the proposed site.

<b>Parcel</b>	<b>Reason for rejection</b>
Hammonasset State Park	DEP prohibits development on this parcel
Boston Post Road (DEP parcel west of Hammonasset Connector)	Ten residents abut the property; and a wetlands and/or wetlands buffer crossing would be required to access the site.
Boston Post Road (undeveloped DEP parcel)	Would not provide adequate coverage
Devron Drive	Deed restricted Open Space
Mill Road (DEP parcel)	Abuts residences along Mill Road and Todd's Mill Circle
Cottage Road	Property owners do not want to lease property
1163 Boston Post Road	Would not provide adequate coverage
1291 Boston Post Road	Property owner does not want to lease property
1306 Boston Post Road	Too small (0.39 acres) to support proposed facility
1309 Boston Post Road	Too developed (Lenny & Joe's Fish Tail) to accommodate proposed facility
1315 Boston Post Road	Too developed/high traffic retail site
1320 Boston Post Road	Too small (0.46 acres)
1321 Boston Post Road	Too narrow (96 feet)
1324 Boston Post Road	Too small (0.28 acres)
1333 Boston Post Road	Too small (0.46 acres) and developed
1334 Boston Post Road	Too developed (gas station/convenience store/car wash)
1339 Boston Post Road	Property owner does not want to lease property
1343 Boston Post Road	Property owner does not want to lease property
1347 Boston Post Road	Property owner does not want to lease property
1353 Boston Post Road	Too small and contains commercial offices
1359 Boston Post Road	Too small (0.40 acres)
1362 Boston Post Road	Property owner does not want to lease property; and would not provide adequate coverage
Boston Post Road (adjacent to Griswold Airport)	Would not provide adequate coverage
55 Dudley Lane/63 Dudley Lane/67 Dudley Lane	Too developed with summer cottages (an average of 11.9 cottages per acre)
Boston Post Road (DEP parcel)	DEP would have to conduct an official Request for Proposal process to lease space and has no intent to do so

(Lighttower 1, pp. 8, 9, Tab 4)

28. Microcells, repeaters and distributed antenna systems are not viable technological alternatives for providing coverage to the identified coverage gap. (Lighttower 1, p. 7)

### Site Description

29. The proposed site is located in the northwest corner of an approximately 1.8 acre property located at 17 Cottage Road in Madison. The parcel, owned by Dr. Paul Stonehart, contains two office buildings and associated parking areas. The proposed site is depicted on Figure 1. (Lighttower 1, 10)
30. The property is zoned commercial (CA-1). The Town of Madison's Zoning Regulations do not include specific standards for regulations of wireless facilities. The town's Plan of Conservation and Development recommends improvements in infrastructure to meet the needs of the residents and businesses. The Plan also encourages co-location to minimize the number of towers to serve the town. (Lighttower 1, p. 15)
31. The ground elevation of the proposed site is 27.5 feet above mean sea level (amsl). (Lighttower 1, Tab 5)
32. The proposed facility would consist of a 130-foot monopole within a 62-foot 6-inch by 64-foot lease area. The tower and foundation would be designed to accommodate a future extension to 150 feet above ground level (agl). The tower would be constructed to accommodate the four carriers that are currently active in the Connecticut marketplace. (Lighttower 1, p. 10, Tab 5)
33. The proposed tower would have an approximately 50-inch diameter at the base and taper to approximately 25 inches at the top. Construction of the tower would be in accordance with the American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures." (Lighttower 1, p. 10, Tab 5; Lighttower 2, R. 23)
34. The bottom platform on the proposed structure would be at 100 feet agl. (Tr. 1, p. 15)
35. T-Mobile would install up to 12 panel antennas on a full platform with a centerline of 117 feet agl. (Lighttower 1, p. 9; Lighttower 2, R. 6; T-Mobile 2, R. 1, 9)
36. Cellco Partnership d/b/a Verizon Wireless (Verizon) submitted a letter to the Council on July 5, 2007 stating Verizon's interest in locating antennas at the 127-foot level of the proposed tower. (Record/limited appearance)
37. Lighttower considered the construction of a "stick" style tower at the proposed site but concluded that a traditional monopole would be better able to accommodate the four wireless carriers, the Madison Police Department, and potentially the Madison Fire Department. (Lighttower 2, R. 19)
38. A 60-foot by 60-foot compound would be enclosed by an eight-foot high security fence at the base of the proposed tower. T-Mobile would locate equipment cabinets within the compound. Space would be available within the compound for three additional carriers. Battery backup would be used in case of a power failure. (Lighttower 1, p. 9, Tab 5; T-Mobile 2, R. 2)
39. The property owner, Dr. Stonehart, works in the development of fuel cell technology. Lighttower has discussed with Dr. Stonehart the possibility of installing a fuel cell at the proposed site. If used, a fuel cell would likely provide standby power at first; potentially, in the long run, it could provide operational power. (Tr. 1, p. 13)
40. T-Mobile is investigating the use of fuel cells as an alternate backup power source; however, T-Mobile's corporate headquarters have not approved any fuel cells as acceptable and reliable power sources. (T-Mobile 2, R. 2)

41. Minimal grading would be required for the construction of the proposed access road and compound. The proposed site is located within a level portion of the host property. (Lighttower 1, p. 10, Tab 5)
42. Access to the proposed site would be via a new gravel road extending northward from Cottage Road for a distance of approximately 360 feet, then turning northwest and continuing for a distance of approximately 40 feet. Utilities would parallel the access drive underground to the proposed site. (Lighttower 1, p. 10, Tab 5)
43. The tower setback radius would extend onto adjacent properties to the north (by approximately 60 feet), east (by approximately 12 feet) and west (by approximately 80 feet). Lighttower would be willing to design a yield point into the proposed tower to minimize the tower setback radius, if ordered by the Council. (Lighttower 1, Tab 5)
44. The property to the north, owned by Strathmore Farms Development Company, is a parcel of dedicated open space associated with the Strathmore Farms Subdivision. The property to the east, owned by Robert and Allyce Dowler, has received approval for the construction of a three-story office building. A second office building may be built on the other Dowler-owned property to the southeast of the proposed site. (Lighttower 2, R. 10)
45. The nearest property boundary from the proposed site is approximately 18 feet to the west, which is the boundary with the Hammonasset Connector. (Lighttower 1, Tab 5)
46. There are 23 residences within a 1,000-foot radius of the proposed tower site. The nearest residence, owned by Louis E. and Cynthia S. Ursini, is approximately 480 feet to the north of the tower site. (Lighttower 2, R. 11, 12)
47. Land use in the surrounding area consists of undeveloped commercial property, deeded open space parcels and state-owned property. (Lighttower 1, Tab 5)
48. The estimated construction cost of the proposed facility, not including radio equipment and antennas, is:

Tower foundation (incl. installation)	\$ 70,000
Site development	105,000
Utility installation	50,000
Total	\$ 225,000

(Lighttower 1, p. 19)

#### **Environmental Considerations**

49. An archaeological reconnaissance study of the proposed site indicated that no prehistoric or historic archaeological resources are located within the project area. A State Park Supply Yard is located at 51 Mill Road in Madison, approximately 650 feet from the proposed site, and listed on the National Register of historic places. The DEP owns the State Park Supply Yard and uses it for vehicle and equipment maintenance and storage. The historical significance of the property is due to its social history as a Civilian Conservation Corps site. Between 1933 and 1935 the Civilian Conservation Corps built seven structures on the property. The property and structures were listed as a resource associated with the Connecticut State Park and Forest Depression Era Federal Work Relief Programs; however, not all of the structures currently exist. (Lighttower 1, pp. 12, 13; Lighttower 2, R. 13)

50. Lighttower provided the SHPO with photographs of the State Park Supply Yard as well as photosimulations of the proposed site. On June 11, 2007, Lighttower representatives met with Historical Architect Susan Chandler to discuss the proposed project. SHPO determined that the proposed project would have no adverse effect on cultural resources with the condition that if the facility is not in use for six consecutive months, the telecommunications facility owner shall remove the tower and equipment. (Lighttower 2, R. 13; SHPO comment letter dated June 20, 2007)
51. There are no known extant populations of federal or state Endangered, Threatened or Special Concern Species at the proposed site. (Lighttower 1, p. 13, Tab 6)
52. Seven trees with a diameter of six inches or greater would have to be removed for the construction of the proposed site and access road. (Lighttower 2, R. 14)
53. Vegetation at the proposed site consists of Black Cherry, Red Oak, Sassafras, Shagbark Hickory, Staghorn Sumac, Sugar Maple, White Oak, White Pine and Yellow Birch. Brush is present along the eastern property boundary and along a portion of the southern boundary and a forested area abuts the property to the west. The average tree height in the area of the proposed site is approximately 65 feet above ground level. (Lighttower R 2, R. 15, 16)
54. No blasting is anticipated for the construction of the proposed facility. (Lighttower 2, R. 8)
55. There are no wetlands or watercourses within or near the proposed site. The nearest wetlands to the proposed site are located across Cottage Road, approximately 500 feet to the south. (Lighttower 1, p. 16, Lighttower 2, R. 17)
56. The nearest boundary of Hammonasset State Park is approximately 800 feet south of the proposed site. The main entrance to the park is located approximately one half mile south of the proposed site. The Hammonasset beach is located approximately  $\frac{3}{4}$  of a mile south of the proposed site. (Lighttower 2, R. 18)
57. The nearest active airport is Tweed New Haven Airport, which is located approximately 14.5 miles to the west of the proposed site. The proposed monopole would not require marking or lighting by the Federal Aviation Administration. (Lighttower 1, p. 18; Lighttower 2, R. 5)
58. The maximum power density from the radio frequency emissions of T-Mobile's proposed antennas would be  $0.084 \text{ mW/cm}^2$  or 8.4% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously. (Lighttower 1, Tab 5)

#### Visibility

59. The proposed tower would be visible year-round from approximately 2,709 acres within a two-mile radius of the site (refer to Figure 1). The proposed tower would be seasonally visible from an additional approximately nine acres within a two-mile radius of the site. (Lighttower 1, Tab 5)

60. The visibility of the proposed tower from roads within a two-mile radius of the proposed site is:

<b>Road</b>	<b>Length of Year-Round Visibility</b>	<b>Additional Length of Seasonal Visibility</b>
Route 1	2,200 feet	-
Hammonasset Connector	1,100 feet	-
Mill Road	700 feet	550 feet
Cottage Road	450 feet	-
Deveron Drive	900 feet	240 feet
Edinburgh Lane	650 feet	250 feet
Todd's Mill Circle	150 feet	250 feet
Highland Circle	700 feet	250 feet

(Lighttower 1, Tab 5)

61. The proposed tower would be visible year-round from five residences along Highland Drive, ten residences along Deveron Drive, six residences along Edinburgh Lane, and two residences along Mill Road. The tower would also be visible from the State Park Supply Yard and Hammonasset State Park, which are both sensitive visual receptors. (Lighttower 1, Tab 5)
62. The proposed tower would be seasonally visible from an additional three residences along Deveron Drive, three residences along Highland Avenue, three residences along Edinburgh Lane, one residence along Mill Road and two residences along Todd's Mill Circle. (Lighttower 1, Tab 5)

63. Visibility of the proposed tower from specific locations within a two-mile radius of the site is presented in the table below. The numbers in the locations column of the table correspond to the numbers of the photograph locations shown in Figure 1 of this document.

Location	Visible	Approx. Portion of Tower Visible	Approx. Distance from Tower Location
1. Intersection of Hammonasset Connector and Route 1	Yes	40 feet – unobstructed	0.16 miles south
2. Deveron Drive	Yes	10 feet – unobstructed	0.13 miles north
3. Intersection of Cottage Road and Mill Road	No	-	0.10 miles southeast
4. Intersection of Laurel Crest Road and Stanton Court	No	-	0.3 miles northwest
5. Intersection of Madrina Lane and Signal Hill Road	No	-	0.29 miles southwest
6. Intersection of Todd’s Mill Circle and Mill Road	Yes	35 feet – unobstructed	0.12 miles northeast
7. Hammonasset Park: Meigs Point Nature Center	Yes	Distant view	1.7 miles south
8. Hammonasset Park: Beach	Yes	Distant view	1.5 miles south
9. Hammonasset Park: William F. Miller Campground	Yes	50 feet – unobstructed distant view	0.58 miles southwest
10. Hammonasset Park: Collection Booths	Yes	30 feet – unobstructed	0.41 miles southeast
11. Historic Alis-Bushnell House	No	-	1.65 miles west
12. Historic Meigs-Bishop House	No	-	1.76 miles west
13. Historic Jonathan Murray House	No	-	1.22 miles northwest
14. Clinton Village Historic District	No	-	1.86 miles east
15. Pratt Road	No	-	1.1 miles southeast
16. Highland Drive	Yes	30 feet – unobstructed distant view	0.98 miles east
17. Downing Way	No	-	0.45 miles northeast
18. Intersection of Kingsbridge Way and River Road	No	-	0.49 miles north
19. Edinburgh Lane	Yes	20 feet – unobstructed	0.28 miles northwest
20. Cottage Road	Yes	10 feet year-round 30 feet seasonally	0.16 miles southeast
21. Hammonasset Connector	Yes	35 feet year-round 50 feet seasonally	0.08 miles northwest

(Lighttower 1, Tab 5)

**Existing and Proposed Wireless Coverage – T-Mobile**

64. T-Mobile operates PCS service using frequencies in the 1900 MHz range. T-Mobile designs for a signal level threshold of -84 dBm for in-vehicle coverage and -76 dBm for in-building coverage. (T-Mobile 1, Tab 2, Tab 3; T-Mobile 2, R. 6)

65. T-Mobile needs the proposed site to provide coverage along the southern portion of the Hammonasset Connector, Route 1 and surrounding areas. T-Mobile currently has an approximately one-mile coverage gap along the Hammonasset Connector and an approximately 3.1-mile gap along Route 1. Coverage from existing T-Mobile sites is shown in Figure 3 of this document. (T-Mobile 1, Tab 2)
66. At the 117-foot level, T-Mobile antennas could provide one mile of coverage along the southern portion of the Hammonasset Connector and approximately 2.3 miles of coverage along Route 1. In addition, coverage would extend over the water of Long Island Sound. Coverage from existing T-Mobile sites and the proposed site at 117 feet agl is shown in Figure 4 of this document. (T-Mobile 1, Tab 2, Tab 3; Tr. 1, p. 44)
67. An approximately 0.8 mile coverage gap would remain along Route 1 to the west of the proposed site. A hill along Route 1 would prohibit coverage from the proposed site to continue west, regardless of an increase in antenna height. (T-Mobile 1, Tab 3; Tr. 1, pp. 42, 43)
68. T-Mobile would require a site in the future located to the west of the proposed site; however, no formal search ring currently exists. (Tr. 1, p. 43)

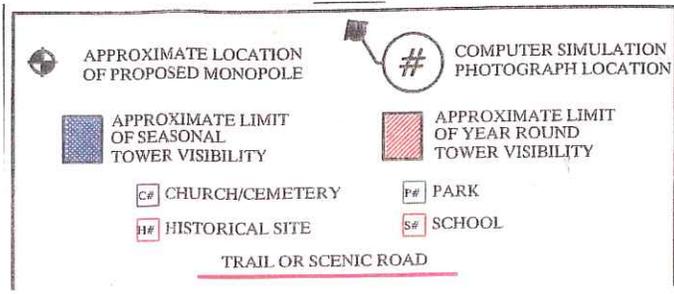
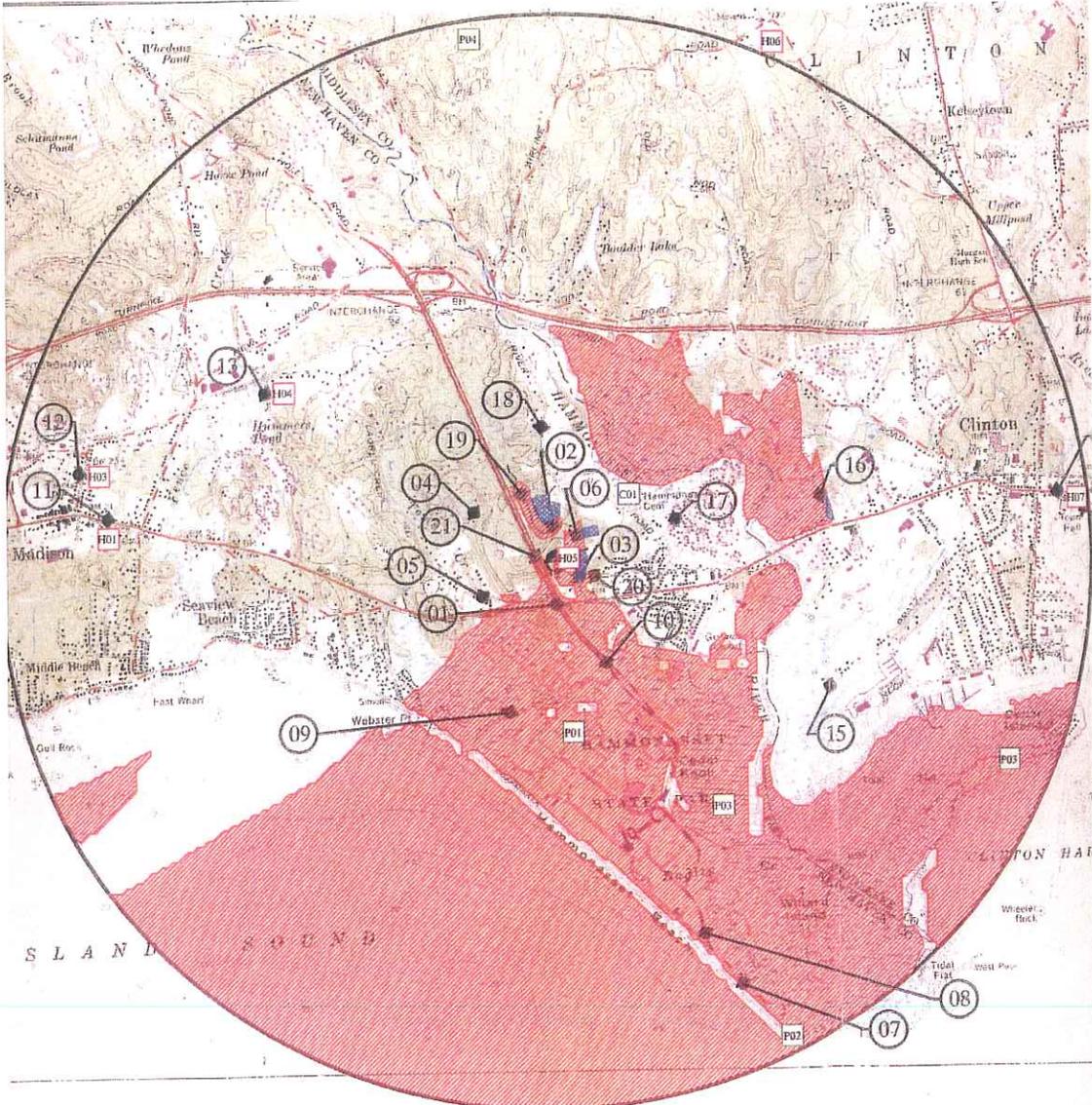


Figure 1. Visibility of the proposed 130-foot tower within a two-mile radius. (Lighttower 1, Tab 5)

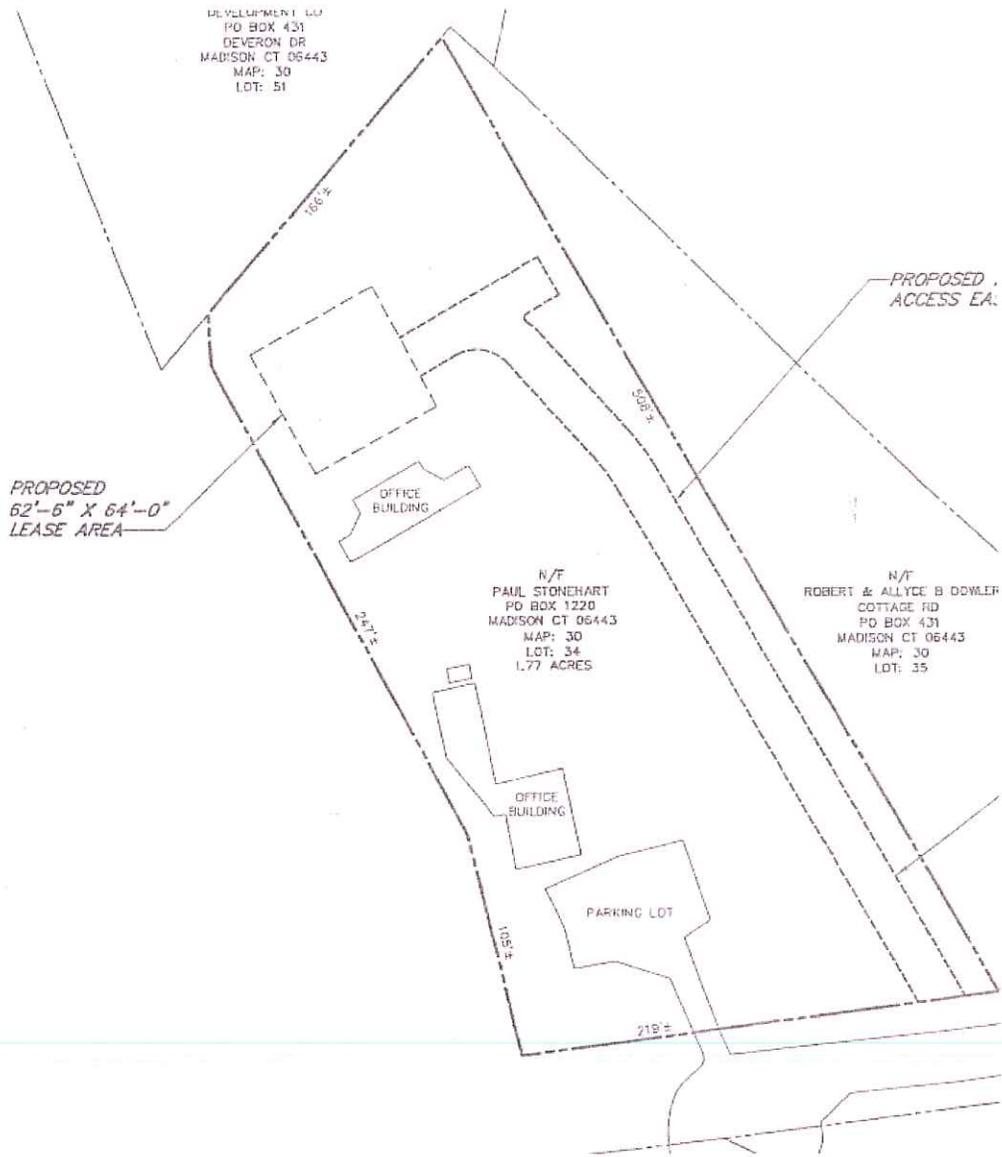


Figure 2. Site drawing showing proposed site on the host property. (Lighttower 1, Tab 5)

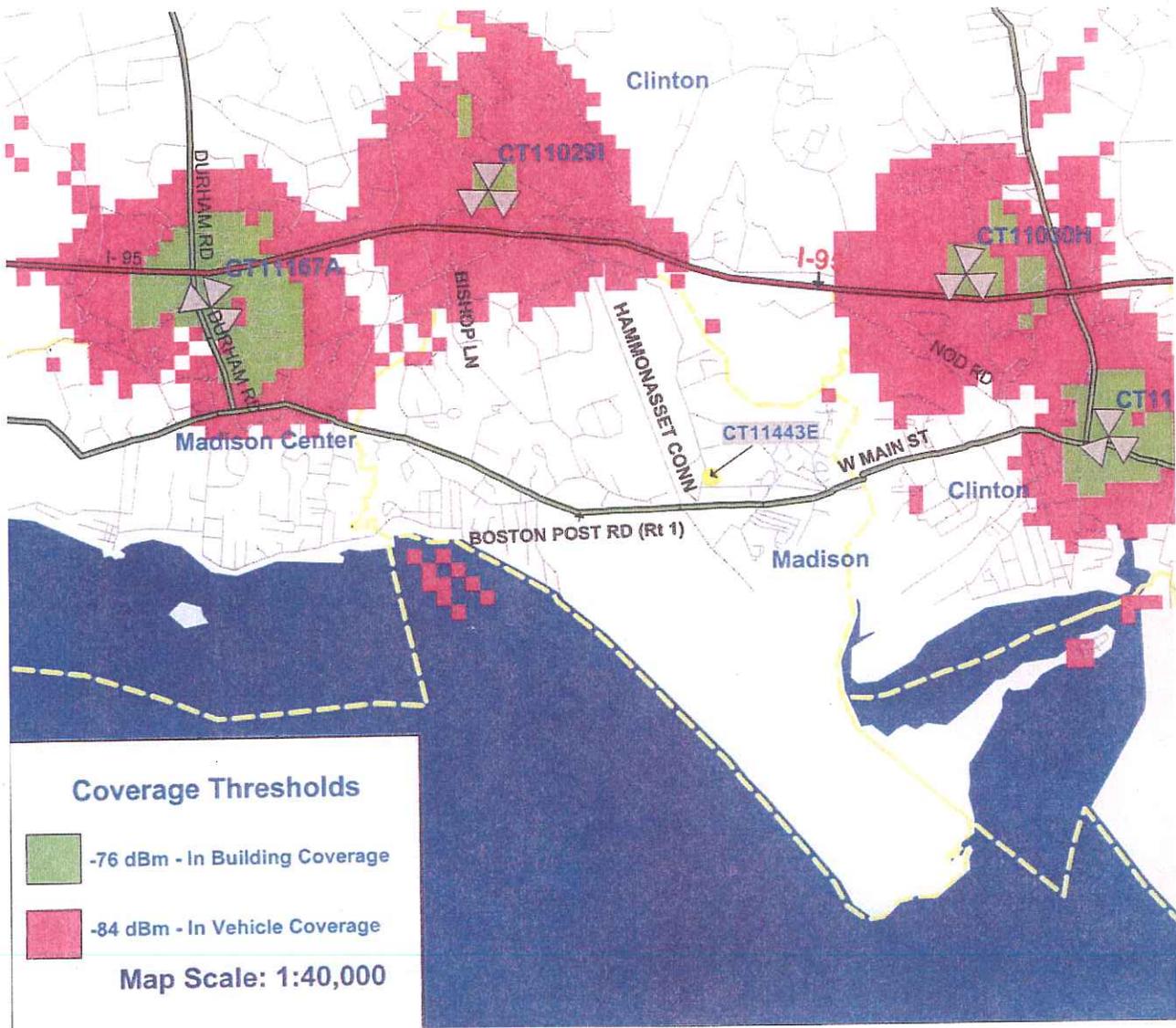


Figure 3. Existing T-Mobile coverage surrounding the proposed site. (T-Mobile 1, Tab 3)

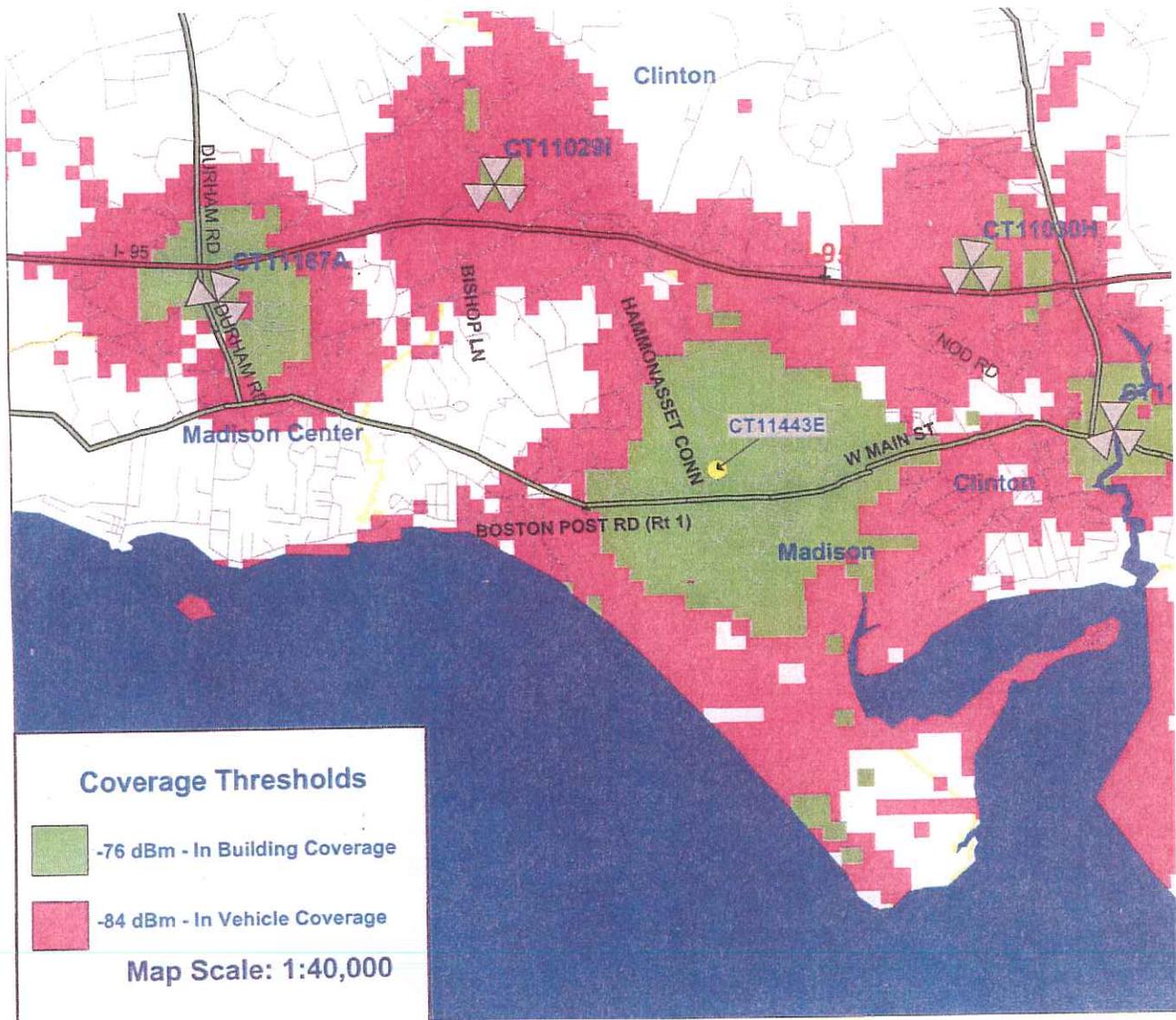


Figure 4. Coverage from existing T-Mobile sites and the proposed site at 117 feet agl. (T-Mobile 1, Tab 3)

**DOCKET NO. 333** – National Grid Wireless, Inc. (now Lighttower) application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut }

Connecticut

Siting

Council

September 25, 2007

### OPINION

On April 2, 2007, National Grid Wireless, Inc. applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility to be located in the Town of Madison, Connecticut. On August 17, 2007, National Grid Wireless submitted a letter to advise the Council that it had changed its corporate name to Lighttower. National Grid Wireless, Inc. will herein be referred to as Lighttower. Lighttower is seeking to develop a facility on property owned by Dr. Paul Stonehart, which contains two office buildings and associated parking. The purpose of the proposed facility is to provide service to coverage gaps along the portion of the Route 1 (Boston Post Road) corridor near the Hammonasset Connector, Hammonasset State Park, the former Griswold Airport property, local roads and adjacent commercial and residential areas. Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc. (T-Mobile) participated as an intervenor in this proceeding to demonstrate their need for this facility.

Lighttower proposes to construct a 130-foot monopole and associated compound on a 1.8 acre parcel, which contains two office buildings and associated parking areas. The proposed site would be located in the northwest corner of the parcel to the north of one of the office buildings. The tower and foundation would be designed to accommodate a future extension to 150 feet above ground level (agl). The tower would be constructed to accommodate four carriers.

The tower setback radius extends onto adjacent properties to the north (by approximately 60 feet), east (by approximately 12 feet) and west (by approximately 80 feet). The Council will order that Lighttower design a yield point into the proposed tower to minimize the tower setback radius.

The proposed 130 foot monopole would be visible year-round from approximately 2,709 acres. A large portion of year-round visibility would be across water, the nearby Long Island Sound. The tower would be seasonally visible from approximately nine acres within a two-mile radius of the site. The tower would be visible year-round from 18 residences as well as the State Park Supply Yard and Hammonasset State Park. Approximately 12 residences would have a seasonal view of the proposed tower. Land use in the surrounding area consists of undeveloped commercial property, deeded open space parcels, and state-owned property. The Council compared the added reliability of wireless service with the views of the monopole from the state park and concluded such views would be diminished by distance and acceptable.

Development of the proposed site and access road would require the removal of seven trees with diameters of six inches or greater. There are no wetlands or watercourses within or near the proposed site.

There are no known extant populations of federal or state Endangered, Threatened or Special Concern Species at the proposed site.

A State Park Supply Yard is located at 51 Mill Road in Madison, approximately 650 feet from the proposed site, and listed on the National Register of Historic Places. The DEP owns the State Park

Supply Yard and uses it for vehicle and equipment maintenance and storage. The historical significance of the property is due to its social history as a Civilian Conservation Corps site. Between 1933 and 1935 the Civilian Conservation Corps built seven structures on the property. The property and structures were listed as a resource associated with the Connecticut State Park and Forest Depression Era Federal Work Relief Programs; however, not all of the structures currently exist.

Consequently, consistent with the State Historic Preservation Office, the Council will order that if the facility is not in use for six consecutive months, the telecommunications facility owner shall remove the tower and equipment.

T-Mobile currently has a gap in coverage along the southern portion of the Hammonasset Connector, Route 1 and surrounding areas. At the 117-foot level of the proposed tower, T-Mobile would provide coverage to the one-mile coverage gap along the southern portion of the Hammonasset Connector and 2.3 miles of coverage to an approximately 3.1 mile coverage gap along Route 1. A hill west of the site blocks the radio frequency and any appreciable increase in antenna height would not provide the necessary coverage. Thus T-Mobile would need additional coverage in that area but no formal search ring has been established.

The Madison Police Department intends to install a whip antenna at the 75-foot level of the proposed tower and an equipment cabinet inside the compound. Thus public safety would benefit by using the proposed tower.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of the antennas proposed to be installed on the tower have been calculated by Council staff to amount to 8.4% of the FCC's Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal and state standards established for the frequencies used by wireless companies. If federal or state standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions.

After reviewing the record in this proceeding, we find a need for coverage in the area of the proposed site. The applicant demonstrated an exhaustive search of existing structures, buildings, or property to achieve coverage objectives and a tower located at the proposed site would enable carriers to fill a need for coverage in the area with minimal environmental impact. Although T-Mobile would locate at the 117-foot level of the proposed structure, the Council further learned that Cellco Partnership d/b/a Verizon Wireless has formally stated its interest in using the site at the 127-foot level and finds that the proposed 130-foot monopole would be necessary to accommodate the needs of future carriers.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, operation, and maintenance of the telecommunications facility at the proposed site, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, operation, and maintenance of a 130-foot monopole telecommunications facility at the proposed site at 17 Cottage Road in Madison, Connecticut.

**DOCKET NO. 333** – National Grid Wireless, Inc. (now Lighttower) application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut.

Connecticut  
Siting  
Council

September 25, 2007

### Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Lighttower, hereinafter referred to as the Certificate Holder, for a telecommunications facility at 17 Cottage Road, Madison, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of T-Mobile and other entities, both public and private, but such tower shall not exceed a height of 130 feet above ground level. The height at the top of the antennas shall not exceed 130 feet above ground level. The monopole shall be designed with a yield point to minimize the tower setback radius.
2. The tower and foundation shall be designed to accommodate a future 20-foot extension for a total tower height of 150 feet above ground level.
3. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Madison for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
  - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
  - b) construction plans for site clearing, grading, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.
4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Madison public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.
9. Any request for extension of the time period referred to in Condition 7 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Madison. Any proposed modifications to this Decision and Order shall likewise be so served.
10. If the facility ceases to provide wireless services for a period of six consecutive months, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
11. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.
12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in The Source and The Shoreline Times.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

**Applicant**

Lightower (formerly National Grid Wireless, Inc.)

**Its Representative**

Lucia Chiochio, Esq.  
Cuddy & Feder, LLP  
445 Hamilton Avenue, 14<sup>th</sup> Floor  
White Plains, NY 10601

**Intervenor**

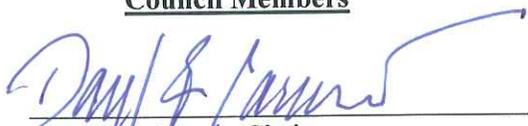
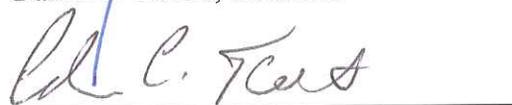
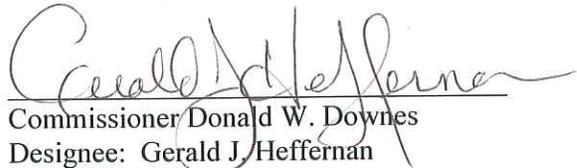
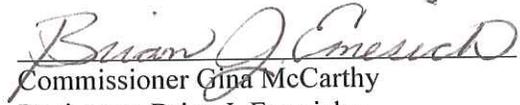
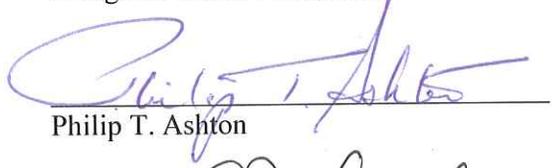
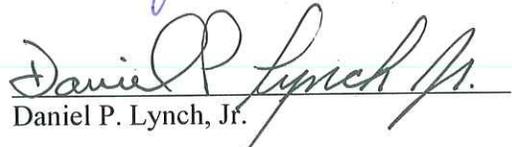
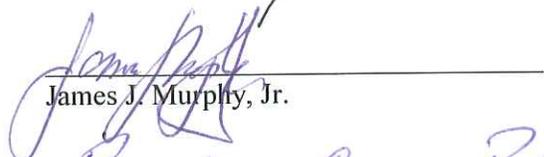
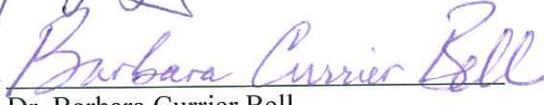
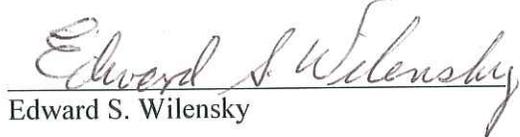
Omnipoint Communications, Inc., a subsidiary of T-Mobile  
USA, Inc.

**Its Representative**

Julie D. Kohler, Esq.  
Carrie L. Larson, Esq.  
Cohen and Wolf, P.C.  
1115 Broad Street  
Bridgeport, CT 06604

**CERTIFICATION**

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 333** – Lightower application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 17 Cottage Road, Madison, Connecticut, and voted as follows to approve the proposed site, located at 17 Cottage Road, Madison, Connecticut:

<u>Council Members</u>	<u>Vote Cast</u>
 Daniel F. Caruso, Chairman	Yes
 Colin C. Tait, Vice Chairman	Yes
 Commissioner Donald W. Downes Designee: Gerald J. Heffernan	Yes
 Commissioner Gina McCarthy Designee: Brian J. Emerick	Abstain
 Philip T. Ashton	Abstain
 Daniel P. Lynch, Jr.	Yes
 James J. Murphy, Jr.	Yes
 Dr. Barbara Currier Bell	Yes
 Edward S. Wilensky	Yes

Dated at New Britain, Connecticut, September 25, 2007.