STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION OF NORTH ATLANTIC TOWERS, LLC and NEW CINGULAR WIRELESS PCS, LLC (AT&T) FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS TOWER FACILITY AT ONE OF TWO SITES: 171 SHORT BEACH ROAD, BRANFORD, OR 82 SHORT BEACH ROAD, EAST HAVEN, CONNECTICUT

DOCKET NO. 427

August 7, 2012

RESPONSES TO SITING COUNCIL'S INTERROGATORIES – SET II

Q1. Determination if the properties at 8 and 9 Hilton Avenue, East Haven, are within the year-round viewshed of the East Haven Site.

A1. *It is anticipated that the properties located at 8 and 9 Hilton Avenue will have seasonal views (during "leaf off" conditions) through the trees of the East Haven Site facility, but would not have year-round views of the facility.*

Q2. Provide the addresses for the residences shown in photos 2 and 3 behind Application Tab 5C.

A2. *The residence shown in photo 2 of the Visual Evaluation Report included in Attachment 5C is located at 54 Hilton Avenue. The residence shown in photo 3 of that visual report is located at 40 Hilton Avenue.*

It is also noted that views from 63 Hilton Avenue will be similar to the views depicted in photos 2 and 3 of the Visual Evaluation Report included in Attachment 5C as 63 Hilton Avenue is across the street from 54 Hilton Avenue.

Q3. Indicate the extent of visibility of the Branford Site from the residences along Little Bay Avenue, Branford.

A3. *Minimal if any views of the proposed Branford Site Facility would be gained directly from Little Bay Lane. There are 4 to 5 residential properties along this street that may have views across the bay where the tower eclipses the tree line (Nos. 28, 40, 50, 54 and 60). In some cases, this could include a majority of the monopole and antenna arrays (similar to those depicted in photos 8, 9 or 17 of the Visual Resource Evaluation Report included in Attachment 4C of the Application).*

Q4. Are there any licensed Day Care facilities within 250 feet of either site?

A4. *No licensed day care facilities are located within 250 feet of either site.*

Q5. Are there any public or private primary or secondary schools within 250 feet of either site?

A5. *No public or private primary or secondary schools are located within 250 feet of either site.*

Q6. Describe any emergency service measures taken to provide service to the Short Beach area during the Irene and Alfred storm events. Please provide the location(s) of any installations (on map), the height of the installation(s), what type of wireless service it provided (frequencies/users), how extensive was coverage compared to the proposed sites, duration of emergency service, and how it was funded.

A6. *As noted in the Application, during the aftermath of Hurricane Irene, AT&T deployed a temporary wireless facility in East Haven so that emergency services personnel, residents and others assisting with the post hurricane recovery had access to vital communication services. At the request of the Federal Emergency Management Agency (FEMA), AT&T deployed a "cell on a light truck" or "COLT" facility, which was parked at the baseball field located at 161 Cosey Beach Avenue in East Haven. The COLT was operational from September 1, 2011 at approximately 1 p.m. to September 10, 2011 until approximately 10:30 p.m.*

The temporary facility was approximately 70' in height and supported AT&T's network or AT&T devices. AT&T assumed all costs associated with the deployment and operation of this temporary facility.

Included in Attachment 1 is a map depicting the location of the COLT (temporary facility) and the location of the proposed Branford Site alternative and the proposed East Haven Site alternative. Also included in Attachment 1 is a plot depicting the approximate coverage provided by the COLT.

Q7. Is it possible to install a single generator to provide emergency power to all of the carriers that locate at the facility? What type of enclosure and fuel tank size would be required for such an installation?

A7. *Yes, technically, it is possible. Assuming both carriers need a 50kW generator, a very conservative assumption is (2) carriers (AT&T and Verizon) require 100kW. The Generac 100kW generator is roughly the same size as the 50 kW model (AT&T's proposed generator is the 50kW model), only about two (2) feet longer.*

Q8. Would a two tower solution consisting of one shorter tower at each proposed location be feasible to serve the Short Beach area? If so, what tower heights would be required to meet AT&T's coverage objectives?

A8. *From a RF perspective only, the combination of an approximately 80' tower at the East Haven Site and an approximately 100' tower at the Branford Site would provide overall coverage to the area. However, for all of the considerations set forth below, it is respectfully submitted that a two tower combination is not viable as an overall coverage solution.*

A two tower combination in this area of the State would be inconsistent with the legislative findings set forth in the Public Utility Environmental Standards Act (PUESA) which states in relevant part that the proliferation of towers in the State should be avoided. Neither of the proposed alternatives as a stand-alone site is significantly higher than the two tower site combination. A two tower site combination would introduce greater overall tower visibility as compared with one of the alternatives proposed in this Application (two tower sites create two visibility viewsheds). Moreover, a two tower combination would result in an unnecessary doubling of the construction, operating and maintenance costs associated with the needed facility. At lower heights, two towers also

reduce the viability of tower sharing as required by Section 16-50p and encouraged by Section 16-50aa of the Connecticut General Statutes.

Therefore, given that either one of the alternatives proposed in this proceeding would provide adequate coverage without significant adverse environmental effects, it is respectfully submitted that a two tower combination is not compatible with the legislative directive to balance public need and environmental impacts when siting wireless telecommunication facilities.

Q9. Please provide information as to the reason for and adequacy of the multiband antenna installations at the following AT&T sites: 922 Danbury Road, Wilton; 80 Shuttle Meadow Road, Southington; 178 New Haven Road a/k/a Kluge Road, Prospect; and 347 East Street, Wolcott.

A9. *Of the four sites listed, three are standard monopole installations and one (922 Danbury Road in Wilton) is a flagpole facility. In the monopole installations, a multiband antenna is being added to the existing antennas to remain. This added antenna will be used for LTE. At the flagpole site, the current single tri-band antenna is being changed out for a single quad-band antenna. For the flagpole installation, there is no option for adding a second antenna for LTE.*

AT&T is currently adding quad-band antennas for LTE to many of its sites in Connecticut. LTE is currently envisioned as being a single band technology at introduction.

Quad-band antennas are not a problem in and of themselves. In fact, virtually all new antennas being installed at AT&T sites are quad-band antennas (including the antennas proposed in this docket). For each sector of antennas, AT&T's facilities are designed to include up to four antennas that can each carry any of the current frequencies, instead of four antennas that can only handle one specific frequency each (one antenna for 700 MHz only, one antenna for 850 MHz only, one antenna for PCS only and one antenna for AWS only). The more frequencies and technologies that an antenna can handle, the more options are available to introduce new frequencies and technologies while minimizing tower work and network disruption. Limitations, however, can sometimes include tower design, structural capacity or lease rights regarding specific antenna designs employed as part of an LTE upgrade.

As indicated at the July 10, 2012 hearing, AT&T generally objects to combining all frequencies and all technologies onto one multiband antenna per sector because it limits flexibility in optimizing the network, it creates combining losses, it may cause RF noise problems that would limit performance and it hampers the incorporation of future technologies. In addition, with the current technology and spectrum resources, a single multiband antenna is essentially "maxed out", thus, preventing the addition of spectrum and more technologies. As such, AT&T avoids such limitations wherever possible for current and future network operations.

Q10. Please describe the balloon fly that occurred on July 10, 2012, including length of the tethers, diameter of the balloons, and whether (sic) conditions as the day progressed.

A10. *At each site location, red helium-filled weather balloons, approximately 4 feet in diameter, were tethered and raised to the proposed heights (103' at the East Haven Site and 120'at the Branford Site) from 12 p.m. (noon) to 6 p.m. Visibility was several miles*

although hazy sunshine predominated the day. From noon until 3:30 p.m., winds were elevated, often above 10 miles per hour, which kept the balloons from their full heights the majority of the time. After 3:30, winds calmed slightly and the balloons achieved their tethered heights at more routine intervals, particularly from about 4:45 p.m. until the conclusion of the floats.

Q11. At the hearing, there was a discussion regarding FAA requirements if the height of the East Haven tower exceeded 103 feet above ground level. Would the installation of a whip antenna on top of the tower cause the facility to be subject to FAA marking/lighting requirements?

A11. *Yes, any attachment, including a whip antenna, which extends beyond 103' AGL, would trigger FAA marking and or lighting requirements at a minimum and/or not be permitted as an obstruction.*

Included in Attachment 2 is a copy of the June 10, 2011 Federal Aviation Administration (FAA) determination for the East Haven Site which states that a maximum height of 103' AGL at the East Haven Site would not exceed obstruction standards. The FAA's determination of no hazard to air navigation for a 103' tall facility at the East Haven Site dated January 19, 2012 is included in Attachment 5A of the Application.

The FAA determination for the Branford Site, dated June 29, 2010, indicates that a facility up to 199' AGL at the Branford Site would not exceed obstruction standards. The FAA determination for the Branford Site is included in Attachment 4A of the Application.

Q12. Is a tower height of 110 feet acceptable to the Applicant at the Branford Site? If no, please explain why not.

A12. *A height of 110' at the Branford Site is not acceptable to AT&T for providing adequate, reliable service. An updated plot of existing coverage and proposed coverage from a facility 110' in height at the Branford Site is included in Attachment 3, replacing a prior plot and demonstrates that at a height of 110', an unacceptable gap for in-vehicle coverage results along Alps Road near the intersection with Elinor Place and Bassett Road.*

Also included in Attachment 4 are plots of Existing Coverage, Existing and Proposed Coverage for the Branford Site at 120' antenna centerline height and Existing and Proposed Coverage for the East Haven Site at 100' antenna centerline height. These plots were updated to include the most current terrain data available.

Q13. The coverage plots do not indicate if coastal waterways have coverage or lack coverage. How important is it for AT&T to provide service to boaters on the water? How far out over the water does a useable signal travel?

A13. *There is some existing coverage over coastal waterways in this area, but particularly in the case of over-water coverage, this existing service is not necessarily reliable. Reliable service over the water requires one dominant server instead of many distant signals arriving at almost the same signal strength. Signals at the in-vehicle level can easily travel five miles or more from the source over open water. This results in similar coverage levels from too many different sources which can overwhelm the ability of the mobile device to separate all these signals. This condition is known as "pilot pollution." Pilot pollution is the reason why an emergency 9-1-1 call from the water is many times not routed to the correct local PSAP (Public Safety Answering Point), which lengthens*

the time that emergency services will reach the 9-1-1 caller. A nearby macro site, such as one of the proposed sites, can establish a single dominant signal, thereby enabling reliable service and preventing "pilot pollution."

A DAS system, which transmits multiple independent signals from a multitude of sites (nodes) with low antenna centerlines, is not capable of providing this single dominant signal. Thus, a DAS system would further degrade existing over-water performance by adding more different signals to the existing "pilot pollution."

Q14. Does the seasonal influx of subscribers in the summer pose any issue of coverage and/or capacity within the service area?

A14. *The seasonal influx of subscribers in the summer creates additional capacity demand, particularly along the shoreline areas. Subscribers depend on their wireless services for voice and data service as well as emergency communication. Indeed, in its 2011 Annual Report, the Office of Statewide Emergency Telecommunications reported that 75% of all 9-1-1 calls are made via wireless phones.*

Q15. Please comment on the Council on Environmental Quality July 3, 2012 letter in regards to avian resources. Please provide an avian resources map for the project area.

A15. *As indicated in the Application, the proposed facilities are consistent with the recommended guidelines of the United States Fish and Wildlife Service (USFWS) to minimize the potential for telecommunications towers to impact bird species. The proposed project sites are located in a Waterfowl Focus Area associated with New Haven Harbor. Connecticut is a member of the Atlantic Coast Joint Venture ("ACJV"), which is a partnership focused on the conservation of habitat for native birds in the Atlantic Flyway of the United States from Maine to Puerto Rico. The partnership consists of 17 states and commonwealths, plus key federal and regional conservation agencies and organizations in the Joint Venture area. The ACJV was originally formed in 1988 as a regional partnership focused on the conservation of waterfowl and wetlands under the North American Waterfowl Management Plan, but has since broadened its mission to the conservation of habitats for all birds. The ACJV has identified waterfowl focus areas recognizing the most important habitats for waterfowl along the Atlantic Flyway. Connecticut contains several of these waterfowl focus areas, all of which have similar infrastructure and other development within and proximate to them (e.g., utility lines and support structures, telecomm towers, power generation plants, urban multi-story buildings). Historically, the biggest mortalities have occurred on cloudy nights during fall migration at tall, lighted television towers (which often reach heights of over 1000 feet). Studies to date indicate that relatively lower towers (less than 200 feet in height) that are un-guyed and unlit do not pose a significant threat to migratory bird species, as supported by the USFWS' guidelines.*

Important Bird Area maps for each site were included in Attachments 4B and 5B of the Application. A table demonstrating compliance with the USFWS guidelines for both proposed Sites was provided in the Applicants' Responses to Siting Council Interrogatories dated June 7, 2012 (response no. 19).

With respect to scenic resources, North Atlantic Towers and AT&T worked cooperatively to design each of the alternate sites to be the lowest, most compact and least intrusive facilities that would provide the necessary coverage footprint. In this case, self-

supporting monopoles have been proposed. Potential stealth options for the Branford Site are shown in Attachment 4B of the Application and photosimulations of the monopine design for the East Haven Site discussed at the July 10th hearing are included herewith in Attachment 5.

CERTIFICATE OF SERVICE

I hereby certify that on this day, a copy of the foregoing was sent electronically and by overnight mail to the Connecticut Siting Council and:

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Dated: August 7, 2012

Christopher B. Fisher

cc: Bret Buggeln, NAT, LLC; Michele Briggs, AT&T;
John Stevens, Infinigy Engineering PLLC; Tony Wells, C-Squared Systems, Inc.
Martin Lavin, C-Squared Systems, Inc.; David Vivian, New Cingular Wireless PCS, LLC
Michael Libertine, All-Points Technology Corporation, P.C. ; Randy Howse;
Lucia Chiocchio, Esq.

1 AERIAL PHOTOGRAPH

2000' 1000' 0 1000' 2000'

APPROX. NORTH

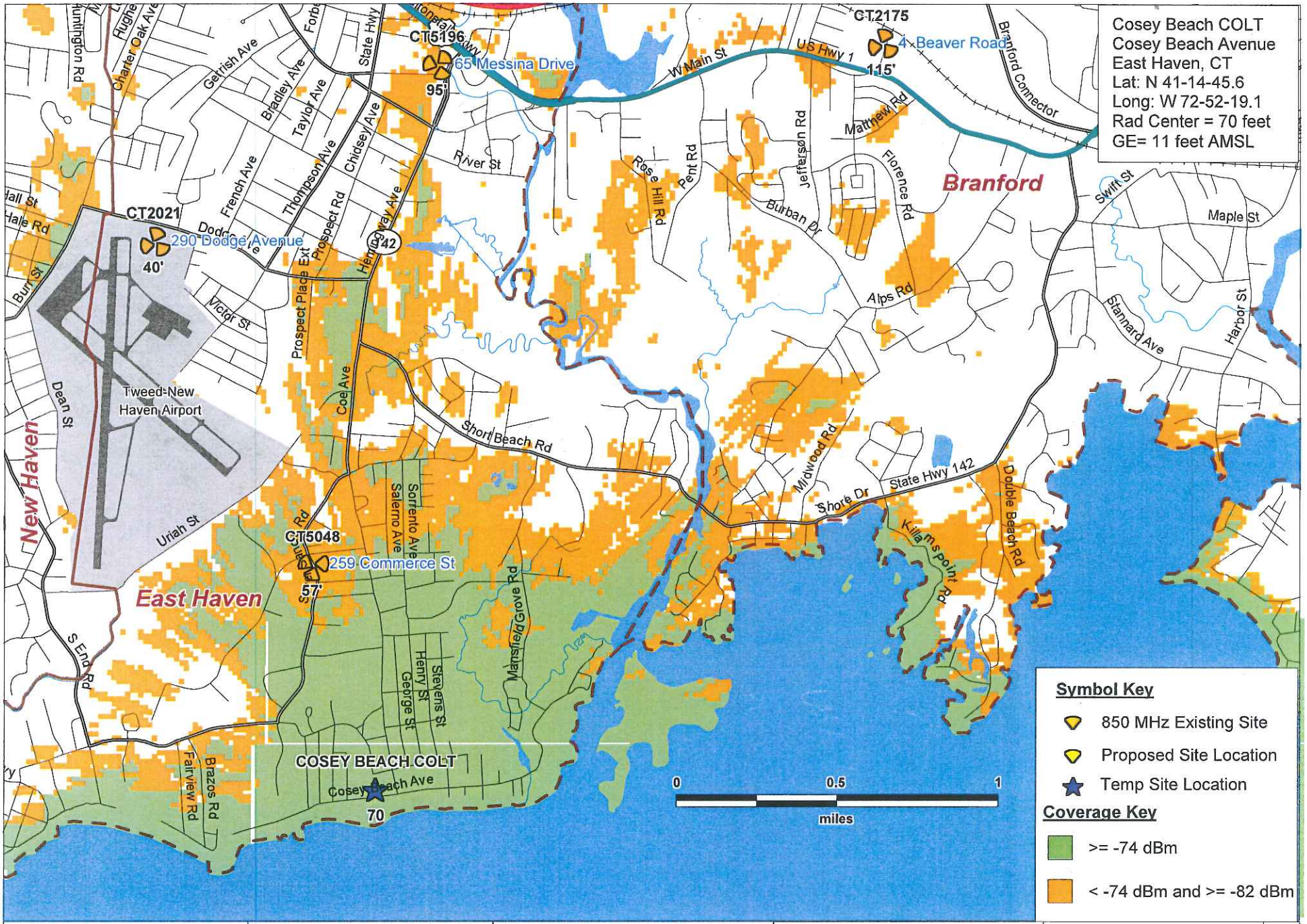
AERIAL PHOTOGRAPH BASED ON GOOGLE EARTH IMAGE DATED 2011

infinigy engineering
11 Herbert Drive
Latham, NY 12110
OFFICE: (518) 690-0790
FAX: (518) 690-0793
INFINIGY PROJECT #: 226-064

AERIAL PHOTOGRAPH: 161 COSEY BEACH ROAD.

SITE NAME: EAST HAVEN RIVERSIDE VFD/BRANFORD, SUPPLEMENTAL INFORMATION

DRAWING SCALE: AS NOTED	DATE: 7/30/2012	REV: 0



Cosey Beach COLT at 70 feet AGL	East Haven, CT	Cosey Beach Avenue East Haven, CT	at&t	PREPARED ON DATE: 08/01/2012 REV 0

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-ANE-939-OE

Issued Date: 06/10/2011

Curtis Miller
Florida Tower Partners, LLC
1001 3rd Avenue West
Suite 420
Bradenton, FL 34205

**** NOTICE OF PRESUMED HAZARD ****

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

Structure:	Monopole CT1109 (D) Branford
Location:	East Haven, CT
Latitude:	41-15-36.43N NAD 83
Longitude:	72-51-20.86W
Heights:	135 feet above ground level (AGL)
	194 feet above mean sea level (AMSL)

Initial findings of this study indicate that the structure as described exceeds obstruction standards and/or would have an adverse physical or electromagnetic interference effect upon navigable airspace or air navigation facilities. Pending resolution of the issues described below, the structure is presumed to be a hazard to air navigation.

If the structure were reduced in height so as not to exceed 103 feet above ground level (162 feet above mean sea level), it would not exceed obstruction standards and a favorable determination could subsequently be issued.

To pursue a favorable determination at the originally submitted height, further study would be necessary. Further study entails distribution to the public for comment, and may extend the study period up to 120 days. The outcome cannot be predicted prior to public circularization.

If you would like the FAA to conduct further study, you must make the request within 60 days from the date of issuance of this letter.

See Attachment for Additional information.

NOTE: PENDING RESOLUTION OF THE ISSUE(S) DESCRIBED ABOVE, THE STRUCTURE IS PRESUMED TO BE A HAZARD TO AIR NAVIGATION. THIS LETTER DOES NOT AUTHORIZE CONSTRUCTION OF THE STRUCTURE EVEN AT A REDUCED HEIGHT. ANY RESOLUTION OF THE ISSUE(S) DESCRIBED ABOVE MUST BE COMMUNICATED TO THE FAA SO THAT A FAVORABLE DETERMINATION CAN SUBSEQUENTLY BE ISSUED.

IF MORE THAN 60 DAYS FROM THE DATE OF THIS LETTER HAS ELAPSED WITHOUT ATTEMPTED RESOLUTION, IT WILL BE NECESSARY FOR YOU TO REACTIVATE THE STUDY BY FILING A NEW FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION.

If we can be of further assistance, please contact our office at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-ANE-939-OE.

Signature Control No: 142120371-144353860 (NPH)
Cindy Whitten
Specialist

Attachment(s)
Additional Information
Map(s)

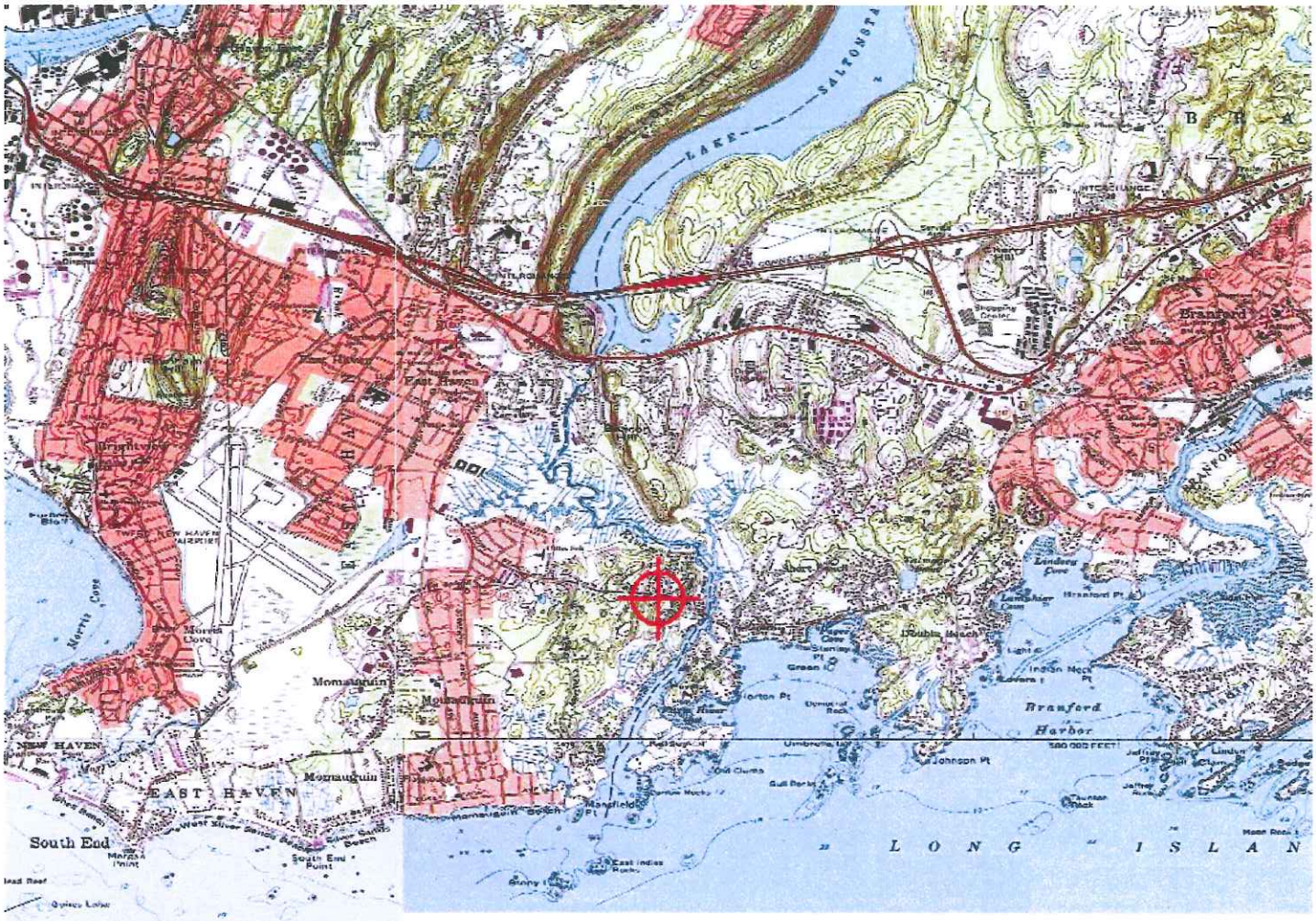
The proposed structure is for a new Monopole Tower at 135 feet above ground level. The proposed structure would be located approximately 1.42 nautical miles (NM) east of the Tweed-New Haven Airport (HVN), New Haven, CT. It is identified as an obstruction under the standards of 14 CFR, Part 77, as applied to the HVN airport as follows:

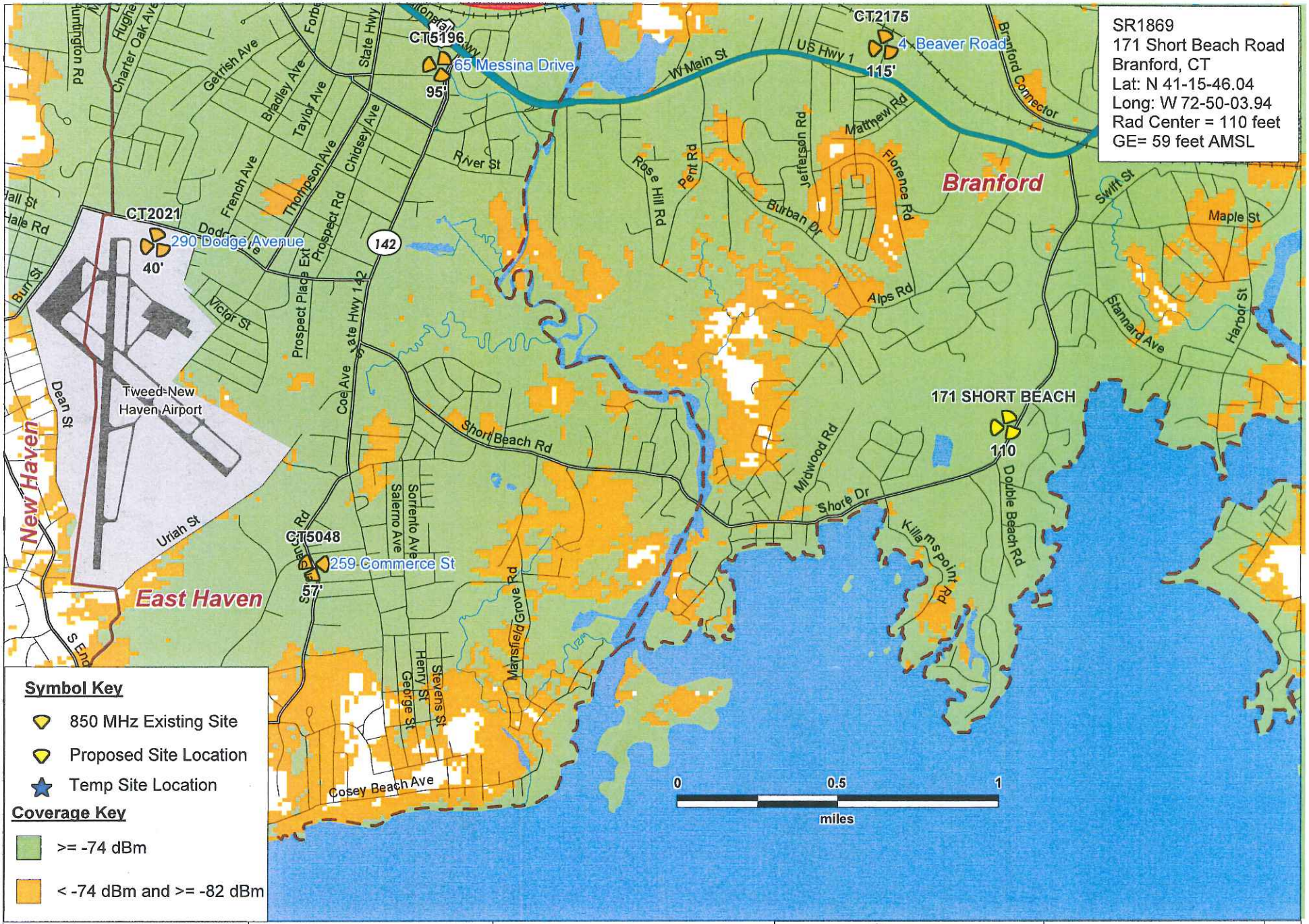
Section 77.19(a): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23; would exceed the horizontal surface by 32 feet.

If further study is requested and concludes that a favorable determination could be made, obstruction marking and lighting would be recommended.

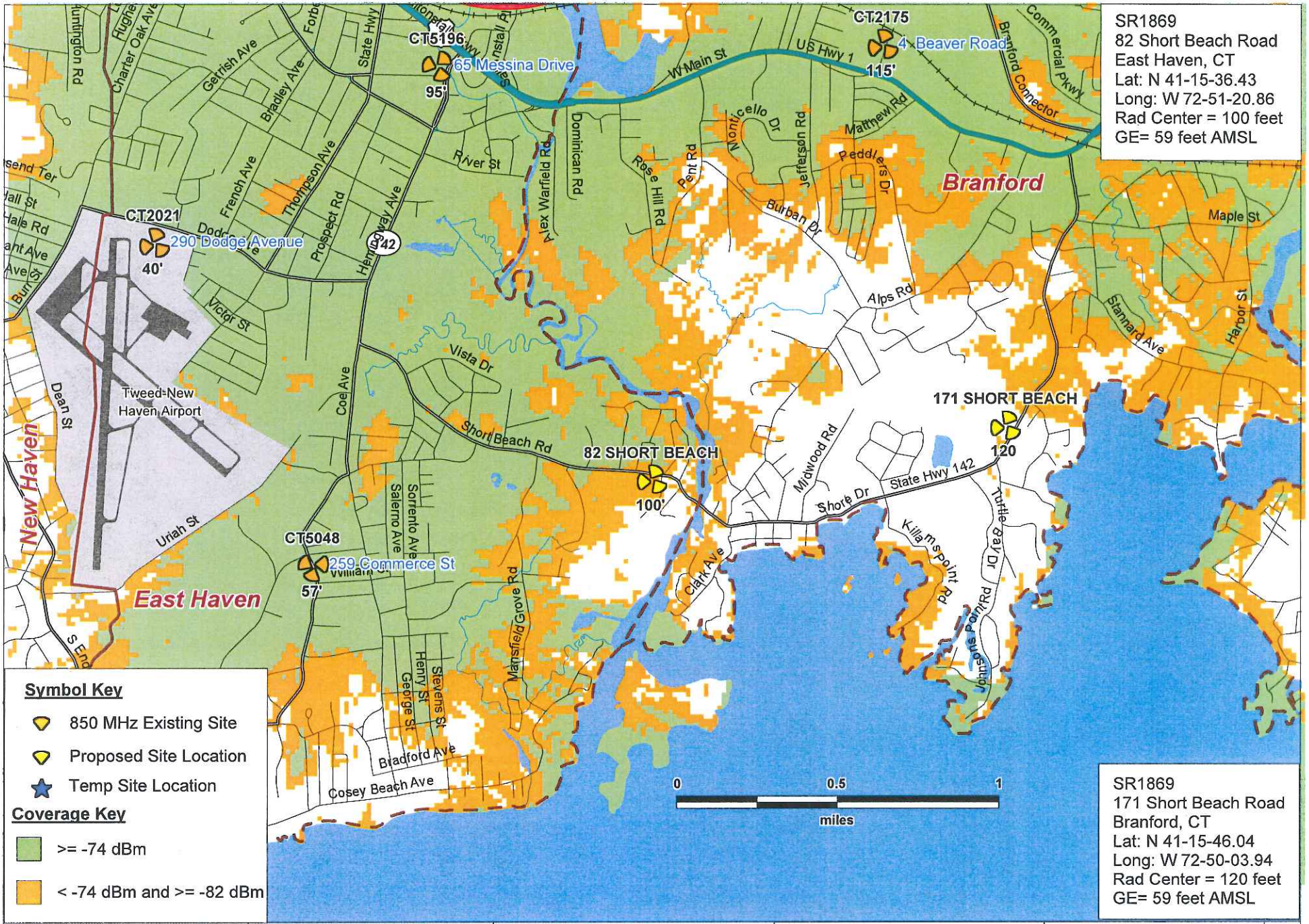
Further study entails distribution to the public for comment, and may extend the study period up to 120 days. The outcome cannot be predicted prior to public circularization.

TOPO Map for ASN 2011-ANE-939-OE

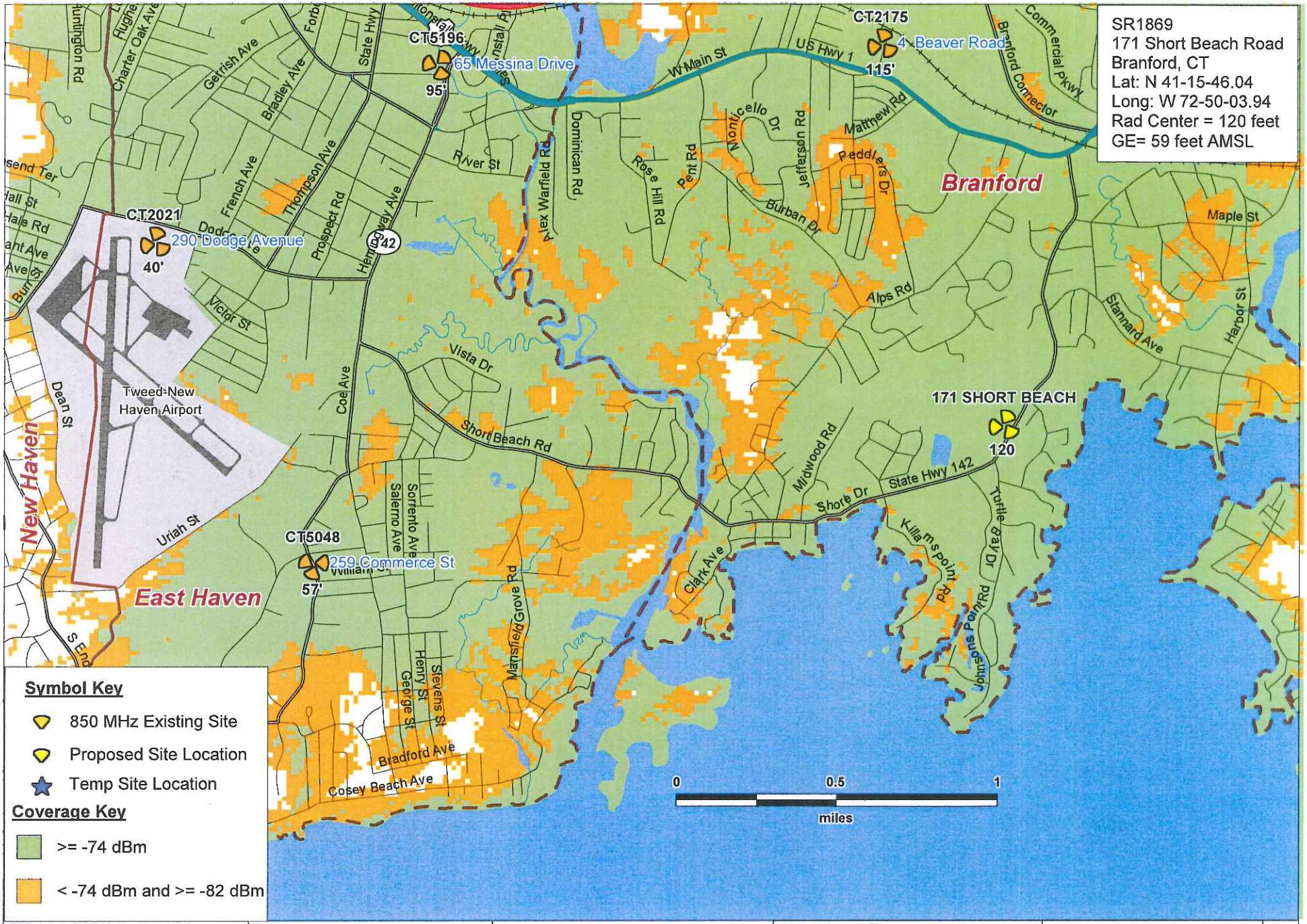




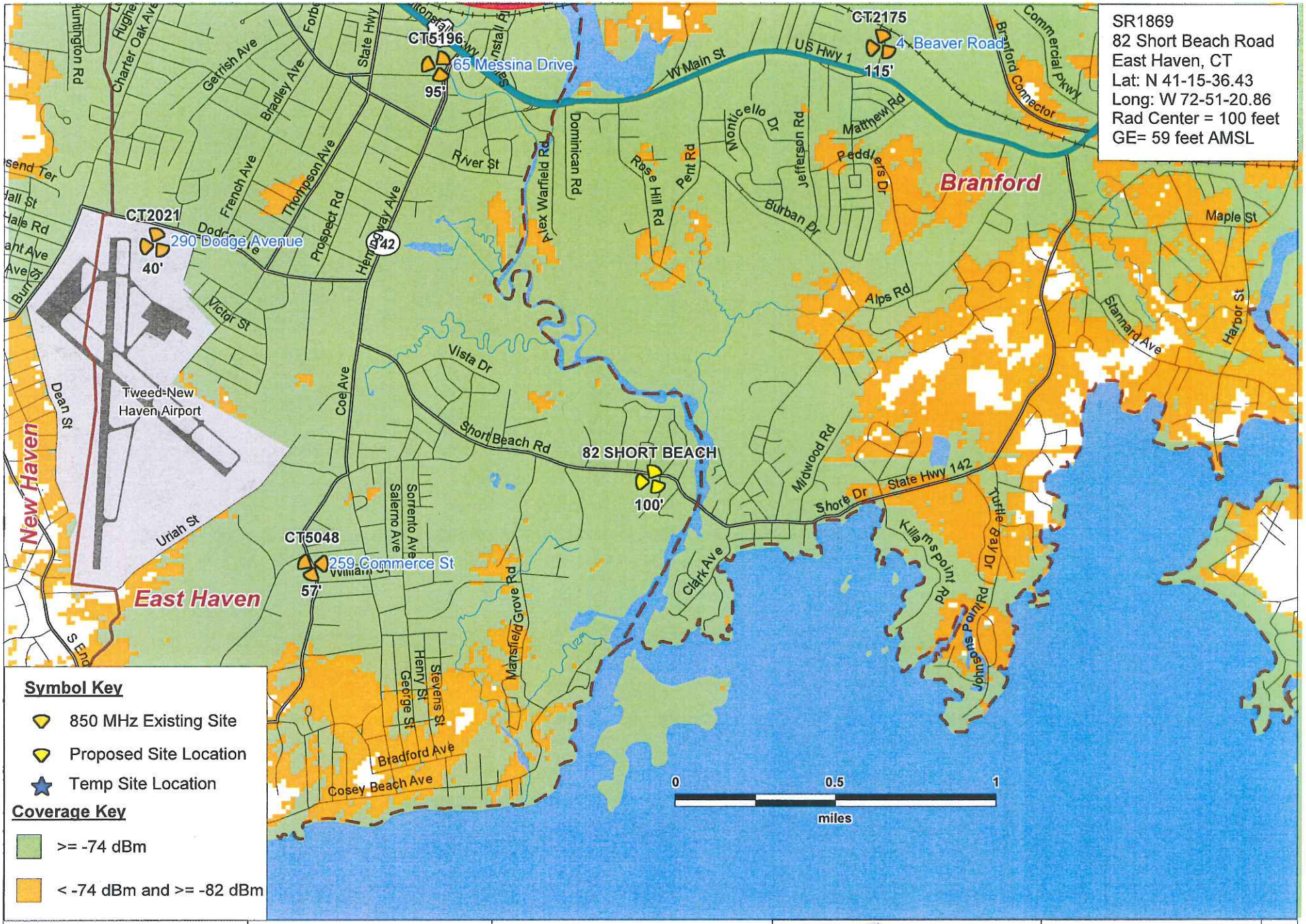
Existing and Proposed Coverage @ 110'	East Haven, CT	171 Short Beach Rd, Branford	at&t	PREPARED ON DATE: 08/01/2012 REV 0



Existing Coverage	Branford and East Haven, CT	82 Short Beach Rd, East Haven 171 Short Beach Rd, Branford	at&t	PREPARED ON DATE: 08/01/2012 REV 0



Existing and Proposed Coverage	East Haven, CT	171 Short Beach Rd, Branford	at&t	PREPARED ON DATE: 08/01/2012 REV 0



Existing and Proposed Coverage	East Haven, CT	82 Short Beach Rd East Haven	at&t	PREPARED ON DATE: 08/01/2012 REV 0