

CONNECTICUT SITING COUNCIL

APPLICATION OF NORTH ATLANTIC)
 TOWERS, LLC (“NAT”) TO THE)
 CONNECTICUT SITING COUNCIL FOR A) **DOCKET 458**
 CERTIFICATE OF ENVIRONMENTAL)
 COMPATIBILITY AND PUBLIC NEED)
 FOR THE CONSTRUCTION,) **MAY 20, 2015**
 MAINTENANCE AND OPERATION OF A)
 TELECOMMUNICATIONS FACILITY AT)
 CODFISH HILL ROAD IN BETHEL,)
 CONNECTICUT)

**NEW CINGULAR WIRELESS, PCS LLC (AT&T) RESPONSES TO
 CONNECTICUT SITING COUNCIL INTERROGATORIES SET I**

Q1. What FCC licensed frequencies does AT&T utilize in Fairfield County?

A1. Below is the latest list from the FCC database of AT&T’s licenses held in Fairfield County, Connecticut.

Band	Service	Frequency Block	Call Sign
700 MHz	Broadband; Fixed Wireless; Mobile Radio; Phone; Television	710-716	WPWV368
700 MHz	Broadband; Fixed Wireless; Mobile Radio; Phone; Television	740-746	WPWV368
700 MHz	Broadband; Fixed Wireless; Mobile Radio; Phone; Television	722-728	WQJZ617
700 MHz	Broadband; Fixed Wireless; Mobile Radio; Phone; Television	704-710	WQJU459
700 MHz	Broadband; Fixed Wireless; Mobile Radio; Phone; Television	734-740	WQJU459
Broadband PCS	Broadband; Fixed Wireless; Mobile Radio; Phone	1885-1890	KNLG502
Broadband PCS	Broadband; Fixed Wireless; Mobile Radio; Phone	1965-1970	KNLG502
Broadband PCS	Broadband; Fixed Wireless; Mobile Radio; Phone	1850-1855	WPSL626
Broadband PCS	Broadband; Fixed Wireless; Mobile Radio; Phone	1930-1935	WPSL626
Broadband PCS	Broadband; Fixed Wireless; Mobile Radio; Phone	1855-1860	WQGG892
Broadband PCS	Broadband; Fixed Wireless; Mobile Radio; Phone	1935-1940	WQGG892
Cellular	Broadband; Fixed Wireless; Mobile Radio; Phone	835-845	KNKA256
Cellular	Broadband; Fixed Wireless; Mobile Radio; Phone	846.5-849	KNKA256
Cellular	Broadband; Fixed Wireless; Mobile Radio; Phone	880-890	KNKA256
Cellular	Broadband; Fixed Wireless; Mobile Radio; Phone	891.5-894	KNKA256
WCS	Broadband; Fixed Wireless	2310-2315	KNLB204
WCS	Broadband; Fixed Wireless	2355-2360	KNLB204
WCS	Broadband; Fixed Wireless	2345-2350	KNLB297
WCS	Broadband; Fixed Wireless	2305-2310	KNLB312
WCS	Broadband; Fixed Wireless	2350-2355	KNLB312
WCS	Broadband; Fixed Wireless	2315-2320	WPQL636

Q2. Would the proposed site be needed for coverage, capacity, or both? Please Explain.

A2. *The primary need for this site in AT&T's network is coverage as there are a number of underserved areas in Bethel and the adjacent parts of Newtown. This site will provide improved coverage to those areas. It will also provide capacity relief and improved data speeds/service in parts of Bethel as additional benefits.*

Q3. Which frequencies would AT&T install at the proposed site, e.g., 700 MHz, 850 MHz, 1900 MHz, etc.? Would antennas serving all of these frequencies be installed initially, or would some be installed at a later date?

A3. *The answer to this question depends on the eventual in-service date of the site. Based on a projected in-service date in 2016, AT&T would initially provide UMTS services over its cellular(850) and PCS(1900) frequencies and LTE services over its 700 MHz frequencies when the site is placed into service. At some point in the future, AT&T will also provide LTE services over its PCS(1900), cellular(850) and WCS(2300) frequencies.*

Q4. Are all frequencies used to transmit voice and data services? Are all frequencies LTE capable? Please explain.

A4. *All UMTS & LTE frequencies are now used to transmit voice and data services. All frequencies (700MHz, 850MHz, 1900MHz & 2300MHz (WCS)) are LTE capable.*

Q5. What is the service level threshold for which AT&T designs its system? Is the threshold the same for each frequency?

A5. *AT&T's network has historically served customers on 850 and 1900 MHz using GSM and UMTS technologies. For this use and technology, the design criteria has been -74 dBm for in-building reliable service and -82dBm for in-vehicle reliable service. As the network moves toward LTE technology, and to meet the demands of faster data use, AT&T now uses the following design thresholds for the LTE (4G) network:*

- *-83 and -93dBm for 700Mhz LTE*
- *-86 and -96 dBm for 1900MHz LTE*

Q6. What is the existing signal strength within the area AT&T is seeking to cover from this site? (using frequency in Application Attachment G).

A6. *The existing signal strength in the areas that would be covered by the proposed Facility at 850 MHz range from -82 dBm to down to -120 dBm (noise floor), which does not constitute reliable service.*

Q7. What frequency was used for the coverage models in Application Attachment G? Why was this frequency selected for coverage modeling?

A7. *AT&T has used UMTS Cellular (850MHz) frequency for the coverage models in Application Attachment G. This band and technology was chosen because at the time the plots were developed for the filing, LTE was not yet fully deployed and UMTS was the primary network in place in this area in Connecticut providing voice and data service. Since that time, LTE deployment (and usage) has increased and Voice Over LTE (VOLTE) phones are now available, though not ubiquitous; accordingly many phones will still use the UMTS network for voice service if they do not have VOLTE functionality.*

Q8. Please resubmit the coverage models in Application Attachment G using a different color scheme for the roads/town lines (these features are illegible in the Application). Include coverage models for the proposed antenna heights as well coverage models with antenna heights 20 feet lower.

A.8 *Please see Attachment 1.*

Q9. Will the proposed facility support text-to-911 service? Is additional equipment required for this purpose? Is AT&T aware of any Public Safety Answering Points in the area of the proposed site that are able to accept text-to-911?

A9. *The facility itself will be able to support text-to-911 service once 911 call centers (i.e. Public Safety Answering Points or "PSAPs") in Connecticut have the ability to accept and process emergency text messages from the public. It is anticipated that Text-to-911 will be widely available in the United States in the future. For now, PSAPs around the country are still working to accommodate this new text-to-911 functionality and is only currently available in select markets. At this time AT&T is not aware of any PSAPs which are able to accommodate text-to-911 in Connecticut. The FCC is maintaining information regarding text-to-911 as well as a list of areas of the country supporting text-to-911 on its website available at <https://www.fcc.gov/text-to-911>. Once the functionality of text-to-911 is in place, AT&T's facilities, including the proposed facility in this Docket, will be able to support text-to-911. Until such time that local PSAPs are able to support this technology no wireless users in Connecticut should rely on text-to-911.*

Q10. Would AT&T's installation comply with the intent of the *Warning, Alert and Response Network Act of 2006*?

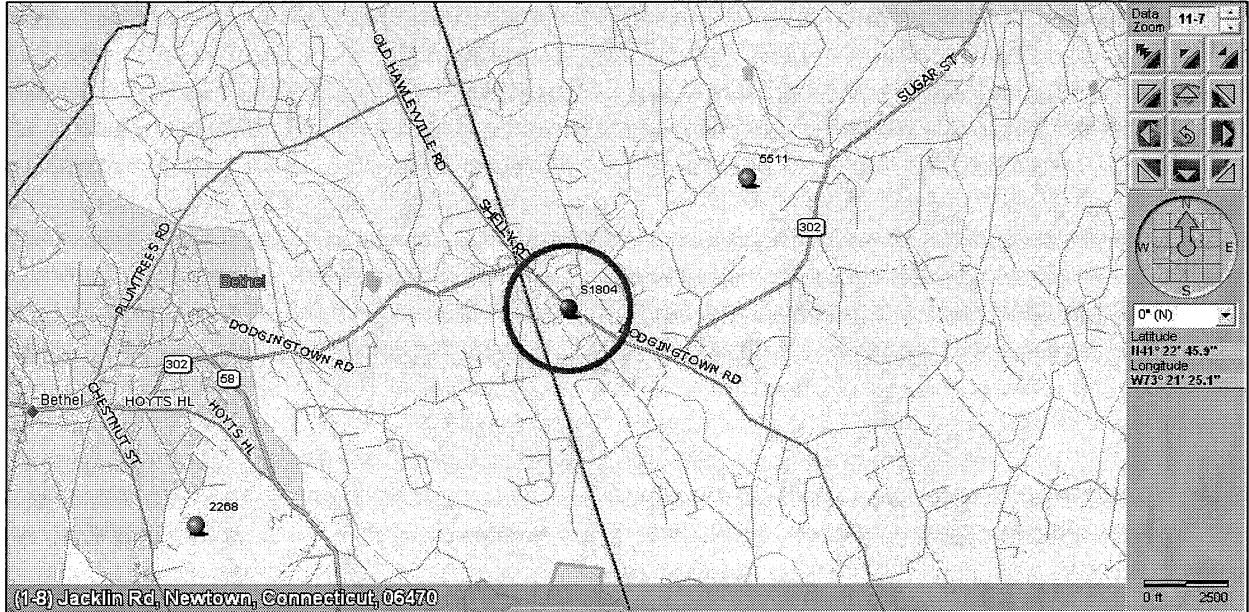
A.10 Yes.

Q.11 Provide a cost estimate for AT&T's equipment/installation.

A.11 *The estimated cost of AT&T's equipment including antennas, cables, remote radio heads, etc is \$250,000.*

Q.12 When was the search area for this proposed facility issued? Please submit a drawing depicting the search area.

A.12 *The original search area for this proposed facility was issued in January, 2010. Below is the picture depicting the search area.*



Q.13 Submit a coverage model for rejected sites 9 (41 Shelly Road Bethel) and 12 (131 Taunton Hill Road, Newtown), as listed in Application Attachment H.

A.13 *Please see Attachment 2. The potential coverage from both the Shelly Road and Taunton Hill Road sites would not provide reliable service to the coverage objective and would not provide adequate overlap with existing sites. Moreover, AT&T's analysis shows that much of the service from either of these two locations would be redundant with existing coverage.*

CERTIFICATE OF SERVICE

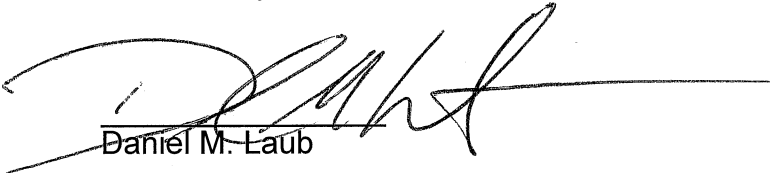
I hereby certify that on this day, an original and fifteen (15) copies of the foregoing was sent electronically and by overnight mail to the Connecticut Siting Council with copies to the following:

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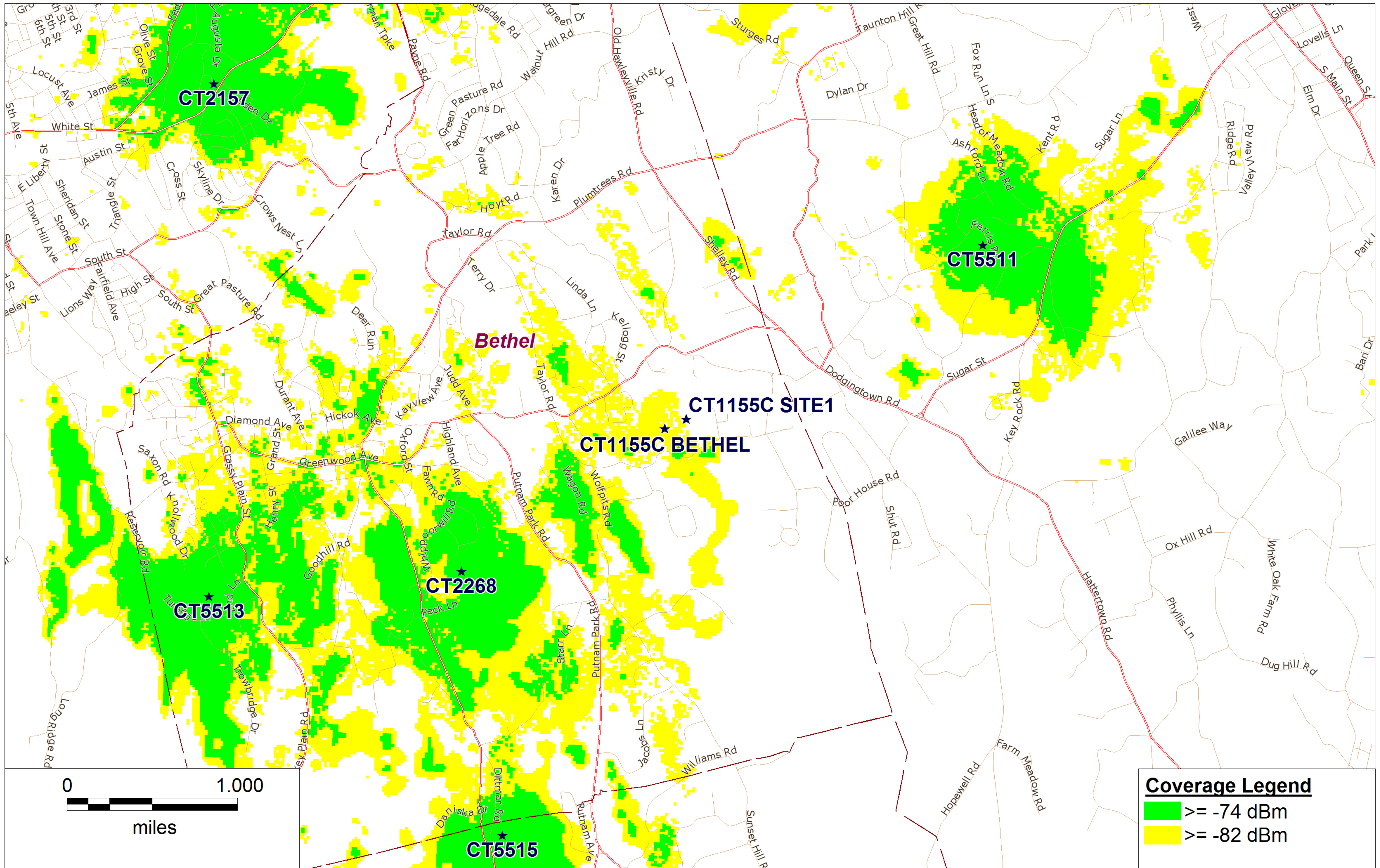
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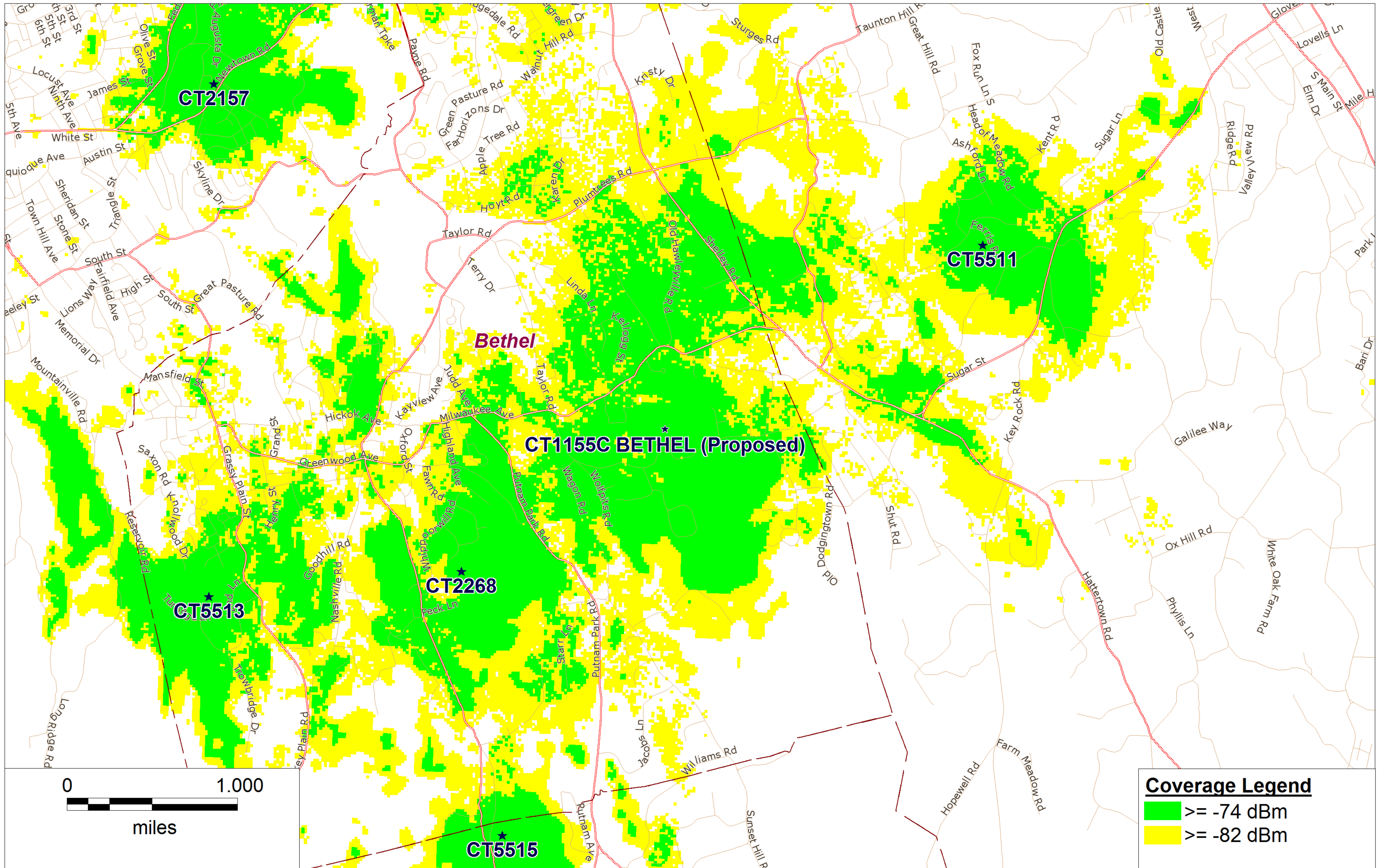
Dated: May 20, 2015


Daniel M. Laub

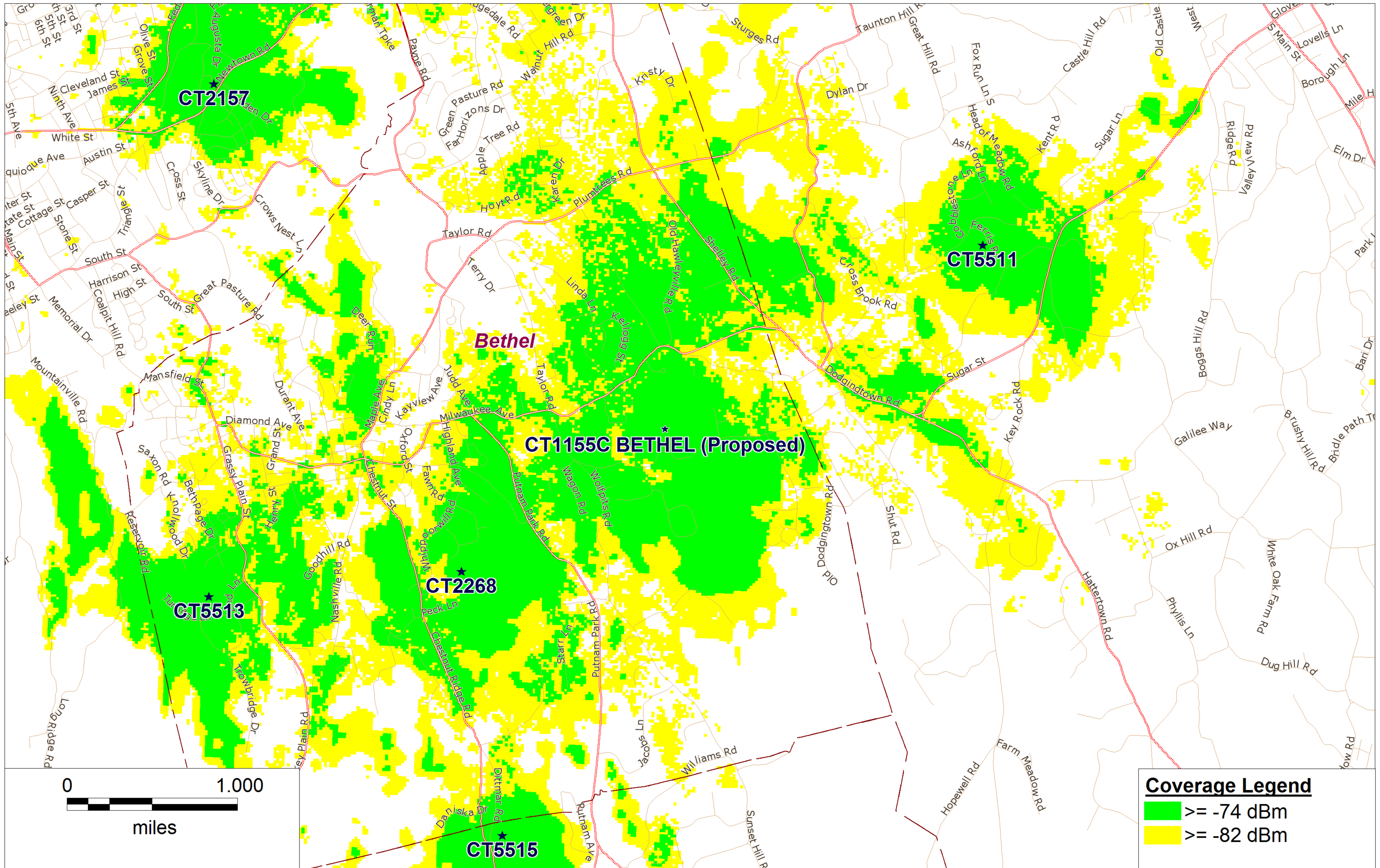
ATTACHMENT 1



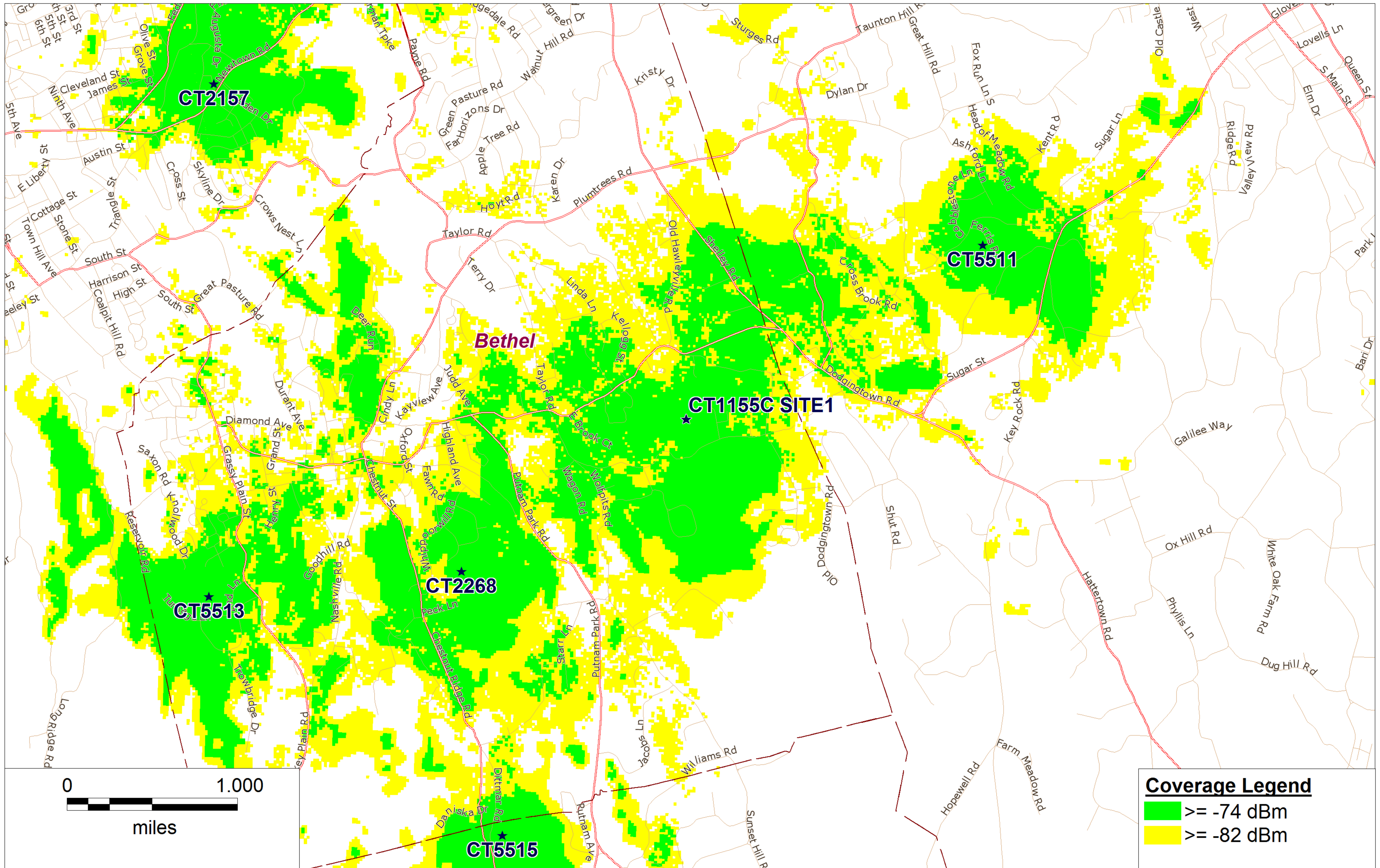
AT&T Current Coverage at Bethel, CT with CT1155C BETHEL and CT1155C SITE1 Turned-off



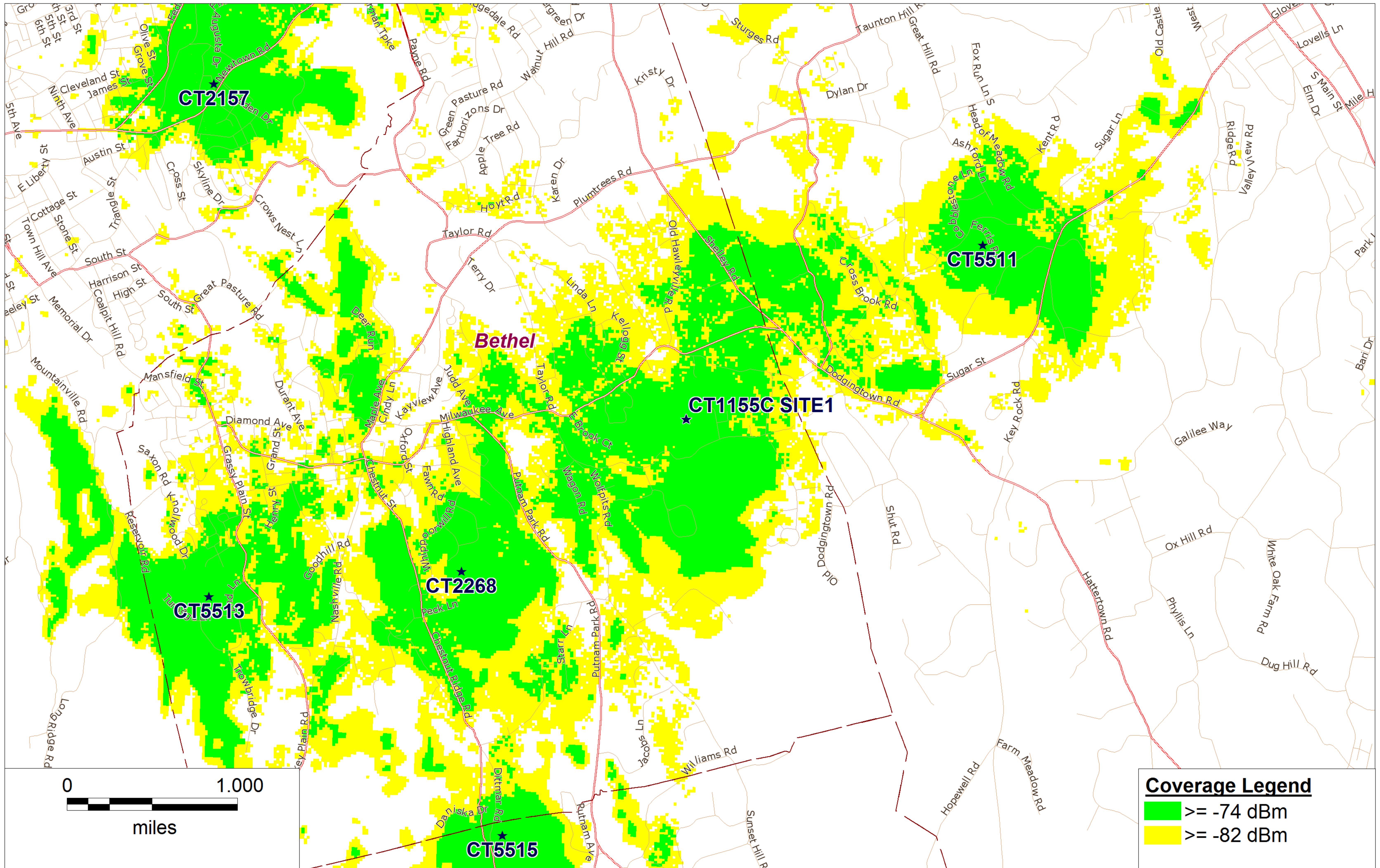
AT&T Proposed Coverage at Bethel, CT with CT1155C BETHEL Turned-on @ 146' AGL



AT&T Proposed Coverage at Bethel, CT with CT1155C BETHEL Turned-on @ 166' AGL

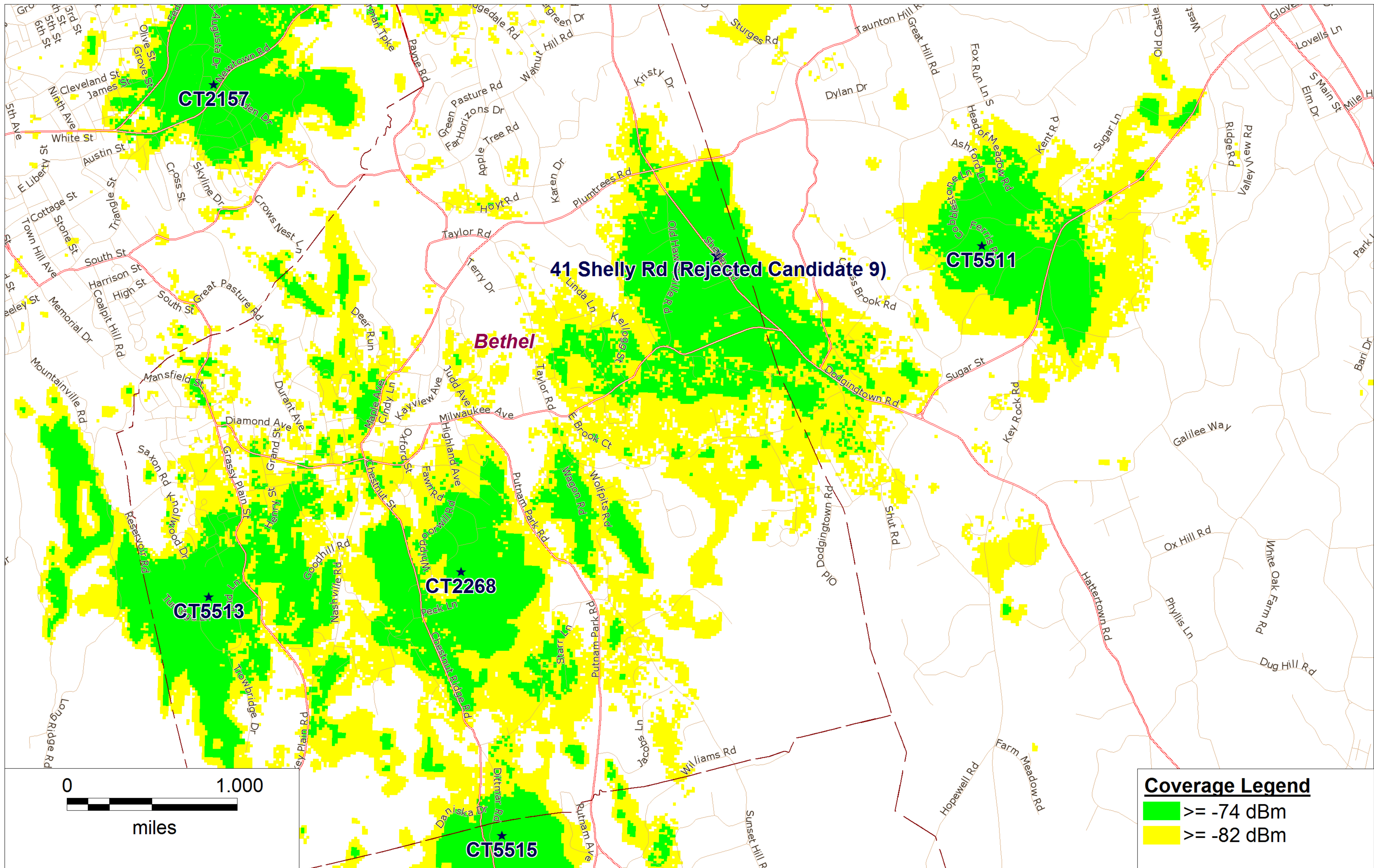


AT&T Proposed Coverage at Bethel, CT with CT1155C SITE1 Turned-on @ 146' AGL

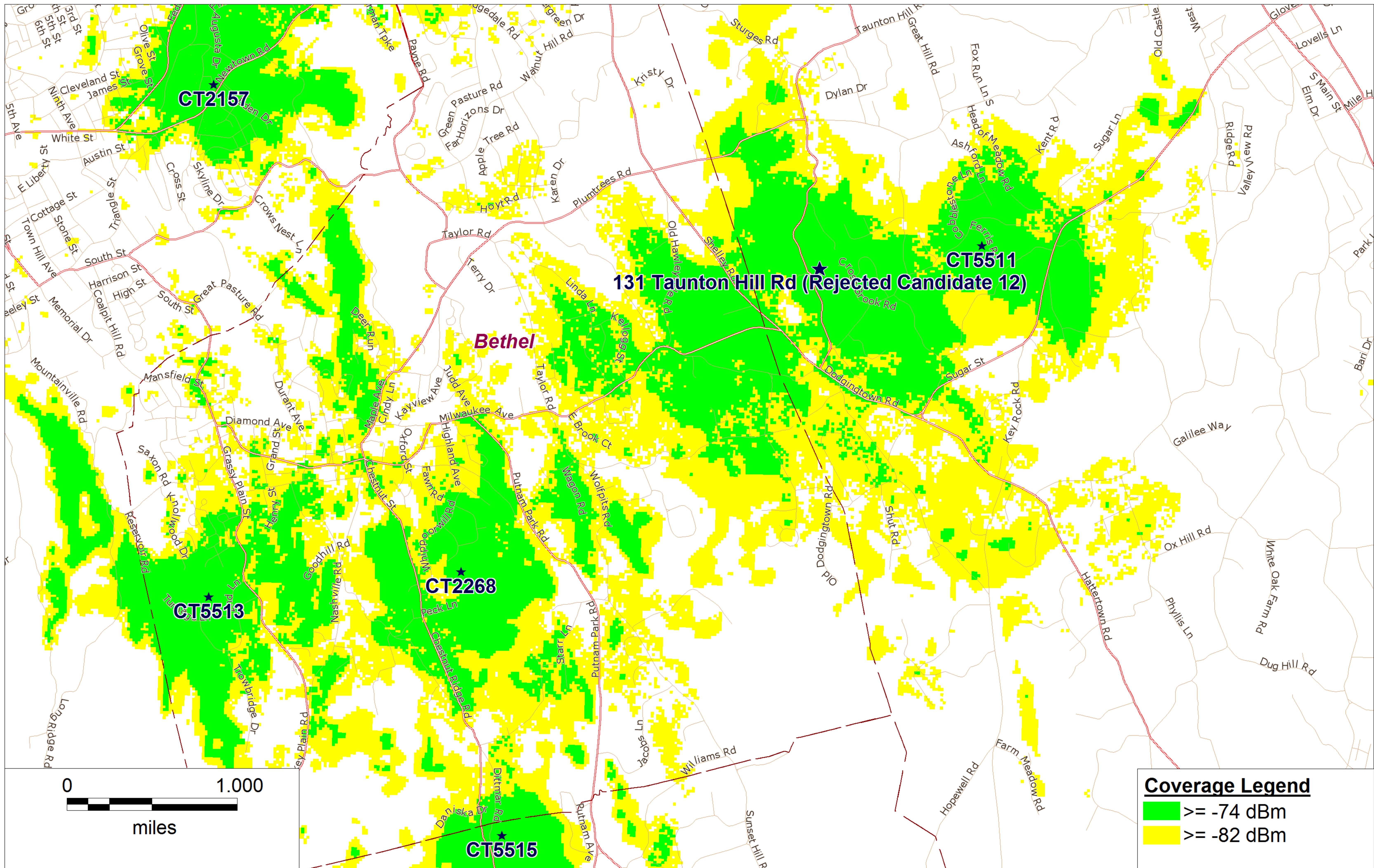


AT&T Proposed Coverage at Bethel, CT with CT1155C SITE1 Turned-on @ 126' AGL

ATTACHMENT 2



AT&T Proposed Coverage at Bethel, CT with Rejected Candidate 9 Turned-on @ 84' AGL



AT&T Proposed Coverage at Bethel, CT with Rejected Candidate 12 Turned-on @ 146' AGL