

# HOMELAND TOWERS, LLC (HOMELAND) NEW CINGULAR WIRELESS PCS, LLC (AT&T)

# Application to the State of Connecticut Siting Council

For a Certificate of Environmental Compatibility and Public Need

-EASTERN SALISBURY FACILITY-

Docket No. \_\_\_\_

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DANBURY, CONNECTICUT 06810

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Introduction

#### I. Introduction

#### A. Purpose and Authority

Pursuant to Chapter 277a, § 16-50g et seq. of the Connecticut General Statutes (C.G.S.), as amended, and § 16-50j-1 et seq. of the Regulations of Connecticut State Agencies (R.C.S.A.), as amended, Homeland Towers, LLC ("Homeland") and New Cingular Wireless PCS, LLC ("AT&T") (together the "Applicants"), hereby submit 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 telecommunications tower facility (the "Facility"). The Facility is proposed on a 169.3 acre parcel of land owned by Salisbury School Inc. (the "Parcel") with an address of 250 Canaan Road (Route 44) in the Town of Salisbury. The Parcel includes a large undeveloped wooded area to the north of a maintenance garage and athletic fields. The Facility is proposed in the area at the edge of the undeveloped Parcel. Construction of the Facility will permit AT&T and other FCC licensed wireless carriers to provide reliable wireless services to residents, businesses, schools, municipal facilities and visitors to eastern Salisbury.

#### B. <u>Executive Summary</u>

The need for reliable wireless services in eastern parts of the Town of Salisbury is well known and well documented. The lack of service is fundamentally due to the absence of any existing tower infrastructure or other wireless facility siting opportunities in that part of the community. The area is characterized by significant changes in ground elevation resulting in challenging topography for signal propagation as well as several forested parcels. Over the course of the past several years, numerous wireless carriers and tower companies have explored various siting options in eastern Salisbury.

AT&T and Homeland independently investigated different parcels of land within eastern Salisbury for construction of a new tower facility. Their site search efforts date back several years. There are no tall structures located at the higher elevations in this area of the Town of Salisbury. Other sites investigated were either unavailable or inappropriate for the siting of a tower facility or technically inadequate to satisfy coverage requirements in this part of the state.

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As part of Homeland's site search, in February of 2012, it engaged in discussions with Town officials. As part of exploring potential properties, Town officials identified Salisbury School as a possibility due to the large acreage owned by the school.

The tower facility is proposed as a 150' monopole, designed as a monopine, with faux branches extending to an overall height of 157' above grade level ("AGL"), within a 4,000 square foot fenced compound. AT&T's antennas would be installed at the 146' level of the tower with an equipment shelter and generator in the compound. The tower and fenced area are designed to support the antennas and equipment of other FCC licensed wireless carriers. Access and utilities to the facility will be extended from Canaan Road (Route 44). The facility will be unmanned with no sanitary or water services and generates on average 1 vehicle trip per month by each wireless carrier consisting of a service technician in a light duty van or truck.

The Applicants respectfully submit that the public need for a tower in eastern Salisbury far outweighs any potential adverse environmental effects from the Facility as proposed in this Application. Indeed, the proposed Facility will provide the important benefit of reliable wireless services to the Salisbury School and surrounding community and will not have a substantial adverse effect on the aesthetics or scenic quality of the neighborhood.

#### C. The Applicants

The Applicant, Homeland Towers LLC ("Homeland"), is a New York limited liability company with offices at 22 Shelter Rock Lane, Danbury, Connecticut. Homeland Towers currently owns and/or operates numerous tower facilities in the state of New York and is developing tower sites in Connecticut. Homeland Towers entered into a long term lease with Salisbury School Inc. Homeland Towers will construct, maintain and own the proposed Facility and would be the Certificate holder.

The Applicant, New Cingular Wireless PCS, LLC ("AT&T"), is a Delaware limited liability company with an office at 500 Enterprise Drive, Rocky Hill, Connecticut 06067. The company's member corporation is licensed by the Federal Communications Commission ("FCC") to construct and operate a personal wireless services system, which has been interpreted as a "cellular system", within the meaning of C.G.S. Section 16-50i(a)(6).

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Neither company conducts any other business in the State of Connecticut other than the development of tower sites and provision of personal wireless services under FCC rules and regulations. Correspondence and/or communications regarding this Application shall be addressed to the attorneys for the Applicants:

Cuddy & Feder, LLP

445 Hamilton Avenue, 14<sup>th</sup> Floor

White Plains, New York 10601

Attention: Christopher B. Fisher, Esq.
Lucia Chiocchio, Esq.

A copy of all correspondence shall also be sent to:

Homeland Towers, LLC

22 Shelter Rock Lane, Bldg C.

Danbury, CT 06810

Attention: Ray Vergati

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

#### D. Application Fee

Pursuant to R.C.S.A. § 16-50v-1a (b), a check made payable to the Siting Council in the amount of \$1,250 accompanies this Application. Included in this Application and its accompanying attachments are reports, plans and visual materials detailing the design and location for the proposed Facility and the environmental effects associated therewith. A copy of the Siting Council's Community Antennas Television and Telecommunication Facilities Application Guide with page references from this Application is also included in Attachment 14.

#### E. Compliance with C.G.S. §16-50/(c)

Neither of the Applicants is engaged in generating electric power in the State of Connecticut. Therefore, the Facility is not subject to C.G.S. § 16-50r. Furthermore, the proposed Facility has not been identified in any annual forecast reports. Accordingly, the proposed Facility is not subject to § 16-50/ (c).

#### II. Service and Notice Required by C.G.S. § 16-50/(b)

Pursuant to C.G.S. § 16-50/ (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 13. Pursuant to C.G.S. § 16-50/ (b), notice of the Applicant's intent to submit this application was published on two occasions in <a href="https://published.org/linearing-number-10">The Lakeville Journal</a>, the publication used for planning and zoning notices in the Town of Salisbury. The text of the published legal notice is included in Attachment 12. The original affidavits of publication will be provided to the Siting Council once received from the publisher. Furthermore, in compliance with C.G.S. § 16-50/ (b), notices were sent to each person or entity appearing of record as the owner of a property which abuts the premises on which the Facility is proposed. Certification of such notice, a sample notice letter, and the list of property owners to whom the notice was mailed are also included in Attachment 12.

#### III. Statements of Need and Benefits

#### A. Statement of Need

#### 1. <u>United States Policy & Law - Wireless Facilities</u>

United States policy and laws continue to support the growth of wireless networks. In 1996, the United States Congress recognized the important public need for high quality wireless communications service throughout the United States in part through adoption of the Telecommunications Act (the "Act"). A core purpose of the Act was to "provide for a competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies to all Americans." H.R. Rep. No. 104-458, at 206 (1996) (Conf. Rep.). With respect to wireless communications services, the Act 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.

Eighteen years later, it remains clear that the current White House administration, The Congress and the FCC continue to take a strong stance and act in favor of the provision of wireless service to all Americans. In December 2009, President Obama issued Proclamation 8460 which included wireless facilities within his definition of the nation's critical infrastructure and declared in part:

Critical infrastructure protection is an essential element of a resilient and secure nation. Critical infrastructure are the assets, systems, and networks, whether physical or virtual, so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, public health or safety. From water systems to computer networks, power grids to cellular phone towers, risks to critical infrastructure can result from a complex combination of threats and hazards, including terrorist attacks, accidents, and natural disasters.<sup>1</sup>

President Obama further identified the critical role of robust mobile broadband networks in his 2011 State of the Union address.<sup>2</sup> In 2009, The Congress directed the FCC to develop a national broadband plan to ensure that every American would have access to "broadband capability" whether by wire or wireless. What resulted in 2010 is a document entitled "Connecting America: The National Broadband Plan" (the "Plan").<sup>3</sup> Although broad in scope, the Plan's goal is undeniably clear:

<sup>&</sup>lt;sup>1</sup> Presidential Proclamation No. 8460, 74 C.F.R. 234 (2009).

<sup>&</sup>lt;sup>2</sup> Cong. Rec. H459 (Jan. 25, 2011), also *available at* http://www.whitehouse.gov/the-press-office/2011/01/25/ remarks-president-state-union-address. Specifically the President stressed that in order "[t]o attract new businesses to our shores, we need the fastest, most reliable ways to move people, goods, and information–from high-speed rail to high-speed Internet."

<sup>&</sup>lt;sup>3</sup> Connecting America: The National Broadband Plan, Federal Communications Commission (2010), *available at* http://www.broadband.gov/plan/.

[A]dvance consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, employee training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.<sup>4</sup> [internal quotes omitted]

The Plan notes that wireless broadband access is growing rapidly with "the emergence of broad new classes of connected devices and the rollout of fourth-generation (4G) wireless technologies such as Long Term Evolution (LTE) and WiMAX." A specific goal of the Plan is that "[t]he United States should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation."

In April 2011, the FCC issued a Notice of Inquiry concerning the best practices available to achieve wide-reaching broadband capabilities across the nation including better wireless access for the public. The public need for timely deployment of wireless infrastructure is further supported by the FCC's Declaratory Ruling interpreting § 332(c)(7)(B) of the Telecommunications Act and establishing specific time limits for decisions on land use and zoning permit applications. More recently, the critical importance of timely deployment of wireless infrastructure to American safety and economy was confirmed in the Middle Class Tax Relief and Job Creation Act of 2012, which included a provision, Section 6409, that preempts a discretionary review process for eligible modifications of existing wireless towers or base stations.

<sup>&</sup>lt;sup>4</sup> Id. at XI.

<sup>&</sup>lt;sup>5</sup> Id. at 76.

<sup>&</sup>lt;sup>6</sup> Id. at 25.

<sup>&</sup>lt;sup>7</sup> FCC 11-51: Notice of Inquiry, In the Matter of Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting, available at http://transition.fcc.gov/Daily\_Releases/Daily\_Business/2011/db0407/FCC-11-51A1.pdf.

<sup>&</sup>lt;sup>8</sup> WT Docket No. 08-165- Declaratory Ruling on Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review and to Preempt Under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance ("Declaratory Ruling").

<sup>&</sup>lt;sup>9</sup> Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, §6409 (2012), *available at* <a href="http://gpo.gov/fdsys/pkg/BILLS-112hr3630enr/pdf/BILLS-112hr3630enr.pdf">http://gpo.gov/fdsys/pkg/BILLS-112hr3630enr/pdf/BILLS-112hr3630enr.pdf</a>; see also H.R. Rep. No. 112-399 at 132-33 (2012)(Conf. Rep.), *available at* <a href="http://www.gpo.gov/fdsys/pkg/CRPT-112hrpt399/pdf/CRPT-112hrt399.pdf">http://www.gpo.gov/fdsys/pkg/CRPT-112hrpt399/pdf/CRPT-112hrt399.pdf</a>.

#### 2. <u>United States Wireless Usage Statistics</u>

Over the past thirty years, wireless communications have revolutionized the way Americans live, work and play. The ability to connect with one another in a mobile environment has proven essential to the public's health, safety and welfare. As of June 2012, there were an estimated 321.7 million wireless subscribers in the United States. Wireless network data traffic was reported at 341.2 billion megabytes, which represents a 111% increase from the prior year. Other statistics provide an important sociological understanding of how critical access to wireless services has become. In 2005, 8.4% of households in the United States had cut the cord and were wireless only. By December 2012, that number grew exponentially to an astonishing 38.2% of all households. Connecticut in contrast lags behind in this statistic with 20.6% wireless only households.

Wireless access has also provided individuals a newfound form of safety. Today, approximately 70% of *all* 9-1-1 calls made each year come from a wireless device. Beginning May 15, 2014, wireless carriers in the U.S. will voluntarily support Text-to-911, a program that allows users to send text messages to emergency services as an alternative to placing a phone call. AT&T and other licensed FCC wireless carriers will support Text-to-911. Parents and teens have also benefited from access to wireless

<sup>&</sup>lt;sup>10</sup> See, generally, History of Wireless Communications, *available at* <a href="http://www.ctia.org/media/industry\_info/index.cfm/AID/10388">http://www.ctia.org/media/industry\_info/index.cfm/AID/10388</a> (2011)

<sup>&</sup>lt;sup>11</sup> CTIA's Wireless Industry Indices: Semi-Annual Data Survey Results, A Comprehensive Report from CTIA Analyzing the U.S. Wireless Industry, Mid-Year 2012 Results (Semi-Annual Data Survey Results). See also, "CTIA-The Wireless Association Semi-Annual Survey Reveals Historical Wireless Trend" available at <a href="http://www.ctia.org/media/press/body.cfm/prid/2133.">http://www.ctia.org/media/press/body.cfm/prid/2133.</a>

<sup>12</sup> Id

<sup>&</sup>lt;sup>13</sup> CTIA Wireless Quick Facts, available at <a href="http://www.ctia.org/your-wireless-life/how-wireless-works/wireless-quick-facts">http://www.ctia.org/your-wireless-life/how-wireless-works/wireless-quick-facts</a> citing Early Release of Estimates from the National Health Interview Survey, December 2012, National Center for Health Statistics, June 2013.

<sup>&</sup>lt;sup>14</sup> CTIA Wireless Quick Facts

<sup>&</sup>lt;sup>15</sup> Early Release of Estimates from the National Health Interview Survey, December 2012, National Center for Health Statistics, June 2013. See also, "Wireless Substitution: State-level Estimates From the National Health interview Survey, 2012", National Health Statistics Report, No. 70, December 18, 2013.

<sup>&</sup>lt;sup>16</sup> Wireless 911 Services, FCC, available at http://www.fcc.gov/guides/wireless-911-services

<sup>&</sup>lt;sup>17</sup> See *Text-to-911: What you need to know (FAQ) available at* <a href="http://www.cnet.com/news/text-to-911-what-you-need-to-know-faq">http://www.cnet.com/news/text-to-911-what-you-need-to-know-faq</a>. It should be noted that while the carriers have committed to supporting 911 texting in their service areas, text-to-911 will not be available everywhere. Emergency call centers, called PSAPs (Public Safety Answering Points), are the bodies in charge of implementing text messaging in their areas. These PSAPs are under the jurisdiction of their

service. In a 2010 study conducted by Pew Internet Research, 78% of teens responded that they felt safer when they had access to their cell phone. In the same study, 98% of parents of children who owned cell phones stated that the main reason they have allowed their children access to a wireless device is for the safety and protection that these devices offer.

Wireless access to the internet has also grown exponentially since the advent of the truly "smartphone" device. Cisco reported in 2011 that global mobile data traffic grew in 2010 at a rate faster than anticipated and nearly tripling again for the third year in a row.<sup>20</sup> It was noted in 2010, mobile data traffic alone was three times greater than all global Internet traffic in 2000. Indeed, with the recent introduction of tablets and netbooks to the marketplace, this type of growth is expected to persist with Cisco projecting that mobile data traffic will grow at a compound annual growth rate (CAGR) of 92% from 2010 to 2015.<sup>21</sup>

#### 3. Public Need For A Tower For Wireless Services

The Facility proposed in this Application will be an integral component of AT&T's network in its FCC licensed areas throughout the state. There is a significant deficiency in all carriers' wireless communications service in the eastern part of The proposed facility in eastern Salisbury will provide reliable services in AT&T's network to an area of the Town including Canaan Road (State Route 44), Taconic Road, Twin Lakes Road and other parts of Salisbury. The proposed Facility will also provide reliable service to Salisbury School which has student/faculty/employee population of approximately 450. The facility is needed in conjunction with other existing and proposed facilities for AT&T to provide reliable wireless services to the public that are not currently provided in this part of the State. Attachment 1 is a Radio Frequency Engineering Report with coverage plots depicting the "Current Coverage" provided by AT&T's existing facilities in this area of the state

local states and counties, not the FCC, which governs the carriers. See also, What You Need to Know About Text-to-911 available at <a href="https://www.fcc.gov/text-to-911">www.fcc.gov/text-to-911</a>.

<sup>&</sup>lt;sup>18</sup> Amanda Lenhart, *Attitudes Towards Cell Phones*, Pew Research, *available at* http://www.pewinternet.org/Reports/2010/Teens-and-Mobile-Phones/Chapter-3/Overall-assessment-of-the-role-of-cell-phones.aspx

<sup>&</sup>lt;sup>19</sup> ld.

<sup>&</sup>lt;sup>20</sup> Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2010-2015, February 1, 2011.

<sup>&</sup>lt;sup>21</sup> ld.

and "Proposed Coverage" as predicted from the proposed facilities together with existing coverage from adjacent sites. Additional statistics regarding the overall area, population and roadway miles of expanded coverage in the community are included in AT&T's report.

#### B. <u>Statement of Benefits</u>

The coverage area for reliable wireless services encompasses a large area of eastern Salisbury. The benefits to the residents of the Town from the proposed tower Facility are significant and include among others:

- In-building emergency and wireless services at the Salisbury School and outdoor service at numerous athletic fields where access to emegency communications and reliable wirleess services is not readily available;
- In-building emergency and wireless service to thousands of residents who live in the coverage area and depend on Salisbury's police, fire and ambulance and do not otherwise have access to reliable wireless services for mobile 911 calls;
- In-vehicle services along several State and other arterial roads used for access to both schools in the coverage area and by residents.

Eastern Salisbury is an area that unquestionably experiences significant gaps in both emergency communications and reliable wireless services.

Beyond the above noted benefits, carriers have seen the public's demand for traditional cellular telephone services in a mobile setting develop into a requirement for anytime-anywhere wireless connectivity with critical reliance placed on the ability to send and receive, voice, text, image and video. Provided that network service is available, modern devices allow for interpersonal and internet connectivity, irrespective of whether a user is mobile or stationary, which has led to an increasing percentage of the population to rely on their wireless devices as their primary form of communication for personal, business and emergency needs. The proposed facility would allow AT&T and all other carriers to provide these benefits to the public that are not offered by any other form of communication system.

Moreover, AT&T will provide "Enhanced 911" services from the Facility, as required by the Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113

Stat. 1286 (codified in relevant part at 47 U.S.C. § 222) ("911 Act"). The purpose of this federal legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. In enacting the 911 Act, Congress recognized that networks that provide for the rapid, efficient deployment of emergency services would enable faster delivery of emergency care with reduced fatalities and severity of injuries. With each year since passage of the 911 Act, additional anecdotal evidence supports the public safety value of improved wireless communications in aiding lost, ill, or injured individuals, such as motorists and hikers. Carriers are able to help 911 public safety dispatchers identify wireless callers' geographical locations within several hundred feet, a significant benefit to the community associated with any new wireless site.

In 2009, Connecticut became the first state in the nation to establish a statewide emergency notification system. The CT Alert ENS system utilizes the state Enhanced 911 services database to allow the Connecticut Department of Homeland Security and Connecticut State Police to provide targeted alerts to the public and local emergency response personnel alike during life-threatening emergencies, including potential terrorist attacks, Amber Alerts and natural disasters. Pursuant to the Warning, Alert and Response Network Act, Pub. L. No. 109-437, 120 Stat. 1936 (2006) (codified at 47 U.S.C. § 332(d)(1) (WARN), the FCC has established the Personal Localized Alerting Network (PLAN). PLAN will require wireless service providers to issue text message alerts from the President of the United States, the U.S. Department of Homeland Security, the Federal Emergency Management Agency and the National Weather Service using their networks that include facilities such as the one proposed in this Telecommunications facilities like the one proposed in this Application Application. enable the public to receive e-mails and text messages from the CT Alert ENS system on their mobile devices. The ability of the public to receive targeted alerts based on their geographic location at any given time represents the next evolution in public safety, which will adapt to unanticipated conditions to save lives.

#### C. <u>Technological Alternatives</u>

The FCC licenses granted to wireless carriers operating in Connecticut authorize them to provide wireless services in this area of the state through deployment of a network of wireless transmitting sites. Salisbury is a community with significant changes in ground elevation with mainly forested land and challenging topography for frequency

transmission in all directions. At this time, there are no known existing tower sites or structures in the eastern Salisbury area that would meet the technical requirements and/or are available for lease or acquisition for construction of a tower site could support a wireless facility.

In addition, repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means to providing such services within Salisbury. These technologies are better suited for specifically defined areas where new coverage is necessary, such as commercial buildings, shopping malls, and tunnels, or to address capacity. Closing the coverage gaps and providing reliable wireless services in eastern Salisbury requires a tower site that can provide reliable service over a footprint that spans several hundred acres. The Applicants submit that there are no equally effective, feasible technological alternatives to a new tower for providing reliable personal wireless services in the eastern Salisbury area.

#### IV. Site Selection and Tower Sharing

#### A. <u>Site Selection</u>

AT&T, indeed all other licensed carrier networks, currently do not provide reliable services in most areas of eastern Salisbury. Carriers, including AT&T have been engaged in site searches in the Salisbury area over a period of several years. This particular site search area in Salisbury is predominated by significant ranges in ground elevation with mainly forested land and challenging topography. No tall structures are located at the higher elevations in this area of the Town of Salisbury. The entire area consists principally of a mix of single family residential structures, wooded land and agricultural fields.

AT&T and Homeland independently investigated a number of different parcels of land within eastern Salisbury for construction of a new tower facility. Their site searches date back several years. As part of these searches Homeland also collaborated with Town officials. As provided in Attachment 2, other than the proposed location, other sites investigated were either unavailable or inappropriate for the siting of a tower facility or technically inadequate to satisfy AT&T's coverage requirements for this area of need.

#### B. <u>Tower Sharing</u>

The proposed Facility is designed to accommodate the antennas and equipment of AT&T and up to five (5) additional wireless carriers for wireless services networks in the Town of Salisbury.

#### V. Facility Design

The proposed Facility includes an approximately 60' x 80' lease area located in the central portion of the approximately 169.3 acre Parcel located at 250 Canaan Road. The tower is proposed as a new self-supporting monopole 150' in height, designed as a monopine with faux branches extending to an overall height of approximately 157' AGL. The monopine design is proposed at the request of the School. AT&T would install up to twelve (12) panel antennas and related equipment at a centerline height of 146' above grade level (AGL) on the tower. The tower would be designed for future shared use of the structure by other FCC licensed wireless carriers.

The tower compound would consist of a 50' x 80' area (4,000 sq. ft.) to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. The tower compound would be enclosed by an 8' high chain link fence. An AT&T 12'x 16' equipment shelter would be installed at the tower base on a concrete pad within the tower compound together with provisions for a fixed back-up power generator.

Vehicle access to the facility would be provided from Canaan Road (Route 44) over the existing 24' wide paved access drive, then along an existing gravel access drive that will be upgraded, then along an existing logging drive a distance of approximately 580' that will be upgraded with a gravel surface. Utility connections would be routed underground from on-site utility services. Attachments 3 and 4 contain the specifications for the proposed Facility, including an abutters map, existing conditions survey, site plan, compound plan and tower elevation, sedimentation and erosion control details and other relevant details of the proposed Facility.

Included as Attachments 5, 6, 7 and 8 are various documents obtained or created as part of the Applicants' environmental review including a Visibility Analysis (Attachment

- 8). Some of the relevant information included in Attachments 5, 6, 7 and 8 reveals that:
  - Total area of disturbance is approximately 21,000 square feet; 10 trees will be removed. Site improvements entail approximately 575 cubic yards of cut for utility trenching and approximately 160 cubic yards of fill. Approximately 225 cubic yards of crushed stone are needed for the compound and driveway construction.
  - On-site management of stormwater and erosion controls are required during and after construction due to steep slopes and on-site wetlands; with the proposed mitigation measures and controls, the proposed Facility will have little to no impact on water flow or water quality. No direct impacts to any wetlands or watercourses are anticipated.
  - Topography, vegetation and the relative height of the proposed facility will obscure, partially or totally, views of the tower from most locations within the two-mile radius study area during leaf-on conditions.

The Applicants submit that construction on the Parcel will involve similar or relatively fewer environmental effects as compared with its current development.

#### VI. Environmental Compatibility

Pursuant to C.G.S. §16-50p (a) (3) (B), the Siting Council is required to find and determine as part of the Application process any probable 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, the Facility will be constructed in compliance with applicable regulations and guidelines, and best practices will be followed to ensure that the construction of the proposed Facility will not have a significant adverse environmental impact. In addition, the regular operation and monthly maintenance of the Facility will not have a significant environmental impact.

#### A. <u>Visual Assessment</u>

Included in Attachment 8 is a Visibility Analysis which contains a view shed map and photo simulations of off-site views. As detailed in the enclosed Visibility Analysis, it is anticipated that approximately 343 acres of the 8,042-acre study area will have visibility of the proposed Facility, and only 138+/- additional acres of visibility is expected year-round. Topography, vegetation and the relative height of the tower will obscure, partially or totally, views of the tower from most locations in the study area during leaf-on conditions. The visual assessment concludes that the majority of the views would occur from the host property due to its location within a heavily wooded valley, with the exception of the lower portion of Washnee Lake and a few isolated elevated areas. The principal resource associated with a scenic quality in the viewshed area is a small portion of Canaan Road (State scenic road) and some locations on the eastern-most trails within the Edith Scoville Memorial Sanctuary. There are no views from the Appalachian Trail which is located over 1.5 miles away.

No occupied Salisbury School structures are located within 250' of the Facility. No commercial child care centers are located within 250' of the Parcel. Moreover, the Visibility Analysis demonstrates that the facility will not have a substantial adverse effect on the aesthetics or scenic quality of the neighborhood.

Weather permitting, the Applicants will raise a balloon with a diameter of at least three (3) feet at the proposed site on the day of the Siting Council's first hearing session on this Application, or at a time otherwise specified by the Siting Council.

#### B. <u>CT DEEP, SHPO and Other State and Federal Agency Comments</u>

Various consultations and analyses for potential environmental impacts are summarized and included in Attachments 9 and 10. Representatives of the Applicants submitted requests for review from federal and state entities including the Connecticut Department of Energy and Environmental Protection (CTDEEP) and the Connecticut State Historic Preservation Officer (SHPO). CTDEEP indicated that there is a potential for the presence of the State-listed bat species and recommended that construction activities take place during the hibernation period from November 1 through March 30. Homeland will comply with this recommendation. In addition, the CTDEEP advised that the site may be a suitable habitat for the long-eared bat, which is slated for

Federal-listing. Homeland asked its consultants to assume the presence of such species and develop a protection plan. SHPO review is pending and research by the project consultants to date indicates no potential adverse effect on any historic resources eligible for or listed on the National Register of Historic Places. See Cultural Resources Screening Maps in Attachment 10. As required by statute, this Application is being served on state and local agencies, which may choose to comment on the Application prior to the close of the Siting Council's public hearing.

#### C. Power Density

In August of 1996, the FCC adopted a standard for Maximum Permissible Exposure (MPE) for RF emissions from telecommunications facilities like the one proposed in this Application. The tower site will fully comply with federal and state MPE standards. The cumulative worst-case calculation of power density from AT&T's operations would be 2.41% of the MPE standard. A maximum power density report is included in Attachment 7.

#### D. Wetlands, Drainage & Other Environmental Factors

The proposed Facility would be unmanned, requiring monthly maintenance visits approximately one hour long. Carriers that maintain antennas and equipment at an approved Facility monitor their facility 24 hours a day, seven days a week from a remote location. The proposed Facility does not require a water supply or wastewater utilities. No outdoor storage or solid waste receptacles will be needed. Furthermore, the proposed Facility will neither create nor emit any smoke, gas, dust, other air contaminants, noise, odors, nor vibrations other than those created by any heating and ventilation equipment or generators installed by the carriers. During power outages and weekly equipment cycling an emergency generator would be utilized with air emissions in compliance with State of Connecticut requirements.

The Parcel and surrounding area is sloped from north to south with areas of the subject parcels and adjacent Town open space constituting steep slopes. As such, the Applicants have designed and engineered various erosion and stormwater controls for the site to ensure no significant adverse impacts to wetlands or adjacent parcels. Two wetland areas were delineated on the Parcel. No direct impacts to wetlands or watercourses are associated with the proposed Facility. A wetland investigation is

included in Attachment 6. As noted therein, portions of Wetland 2 are located approximately 8' from the proposed gravel access drive. The wetlands investigation report concludes that while an alternative access drive location further from the wetland is available, the use of the existing cleared and partially improved access drive is more prudent given the potential impacts associated with the construction of a new alternative access drive. Overall, the construction and operation of the proposed Facility will not have a significant impact on wetlands or water quality and drainage will be appropriately managed on-site.

#### E. <u>National Environmental Policy Act Review</u>

The Applicants have evaluated the project in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852(codified in relevant part at 42 U.S.C. § 4321 et seq.) ("NEPA"). The parcel was not identified as a wilderness area, wildlife preserve, National Park, National Forest, National Parkway, Scenic River, State Forest, State Designated Scenic River or State Gameland. Furthermore, according to the site survey and field investigations, no federally regulated wetlands or watercourses will be impacted by the proposed Facility.

#### F. <u>Air Navigation</u>

The proposed Facility was analyzed for potential impacts to air navigation. The Applicants obtained an FAA 1-A Survey as well as an independent FAA Aeronautical Evaluation conducted by Site Safe. Both indicate no marking or lighting of the tower for air navigation safety is required and that the tower will not be an obstruction to aviation. See materials included in Attachment 4.

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

Pursuant to the Siting Council's Application Guide, a narrative summary of the consistency of the project with the Town's zoning and wetland regulations and plan of conservation and development is included in this section. 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. <u>Salisbury's Plan of Conservation and Development</u>

The Salisbury Plan of Conservation & Development ("POCD"), effective June 30, 2012 is included in the Bulk Filing. POCD Section 4.3 addresses wireless service and infrastructure and notes the lack of reliable service outside of the service area of the existing facility at the Town garage. Thus one of the strategies in POCD Section 4.3 is to improve "cell phone coverage in Salisbury". It is respectfully submitted that the proposed Facility fulfills this strategy by providing reliable wireless service to the eastern areas of Salisbury.

#### B. <u>Salisbury's Zoning Regulations and Zoning Classification</u>

The Town of Salisbury Zoning Regulations set forth general requirements for communications tower siting in Article X. The Facility site is classified in the RR-1 (residential) zoning district where wireless communications facilities are permitted subject to Special Permit and Site Plan approval. The table below provides a review of general requirements of tower facilities under the Town of Salisbury Zoning Regulations accompanied by conformity of the Facility with those requirements.

Section from the Zoning Regulations	Standard or Preference	Proposed Facility
1001.1 &	Commercial advertising shall not be	No illumination is required by
1001.2	allowed. Signs, lights or illumination	the FAA and none is proposed.
	shall not be permitted unless	No advertising signs are
	required by FAA or FCC	proposed and any other signage
		would be minimal in scale and
		nature and be limited to no
		trespassing, warning, FCC
		registration and associated signs
		on the compound fencing.

Section from the	Standard or Preference	Proposed Facility	
Zoning Regulations			
1001.4	Related unnamed equipment and/or storage buildings are permitted provided it contains no more than 750 sq. ft. of gross floor area and is not more than 12' in height.	The proposed equipment shelter is approximately 12' x 16' in size and less than 12' in height.	
1000.7(a)	Minimum lot area for new tower facilities; 2 acres	The subject Parcel is approximately 169.3 acres.	
1000.7(c)	Application shall include a tower plan proposal report.	See Attachment 1 AT&T's Statement of Radio Frequency (RF) Need with Coverage Plots, Attachment 2 Summary of Site Search and Attachment 3 Description and Design of Proposed Facility.	
1000.7(d)	A soil report/geotechnical report is required verifying the design specification of the tower foundation.	A geotechnical investigation/report will be submitted as part of any D&M submission to the CSC.	
1000.8	Environmental Impact and Evaluation Site Emission Report	As set forth herein, the proposed Facility will not result in any significant adverse environmental impacts.	
1000.8	Application should include an analysis of the combined worst case RF density including a listing of each transmitter, its frequency limits, signal band width and upper limit of both peak and average power of each transmitter.	An RF Power Density is included in Attachment 7 and demonstrates compliance with applicable standards.	

Section from the Zoning Regulations	Standard or Preference	Proposed Facility
1000.10	A new tower shall have an 8 foot minimum height fence. The application should include a planting plan including evergreen tree screening. All existing vegetation shall be preserved to the greatest extent possible.	Drawings and details of the proposed Facility are included in Attachments 3 and 4. Existing mature vegetation and topography will limit visibility of the tower base and equipment. A monopine design is proposed. An 8' fence is proposed.

#### C. <u>Planned and Existing Land Uses</u>

The Facility is proposed on a 169.3 acre parcel of land owned by the Salisbury School Inc. with adjacent Town owned open space and single family residences in this part of Salisbury. Consultation with municipal officials did not indicate any other planned changes to the existing or surrounding land uses. Copies of the Town of Salisbury Zoning Code, Inland Wetlands Regulations, Zoning Map and Plan of Conservation and Development are included in the Bulk Filing.

#### D. <u>Salisbury's Inland Wetlands and Watercourses Regulations</u>

The Salisbury Inland Wetlands Regulations ("Local Wetlands Regulations") regulate certain activities conducted in "Wetlands" and "Watercourses" as defined therein. The Town established upland review areas for wetlands and watercourses of 75' for regulated activities. As set forth in the Wetland Investigation Report in Attachment 6, the proposed facility is located approximately 128' southwest of Wetland #1 and 100' north of Wetland #2. The limit of grading for the proposed gravel drive is approximately 8' from Wetland #2 at its closest point. As such the project would constitute a regulated activity under Local Wetlands Regulations.

While an alternate access route further from Wetland 2 is available, the Wetland Investigation Report concludes that the alternate access route would require significantly more grading with a larger area of disturbance and significantly greater

tree removal than the proposed access drive. Given that the proposed access drive will be located along an existing cleared and partially improved access drive, the Applicants submit that the proposed access drive is the feasible and prudent location to minimize impacts. Additionally, a comprehensive stormwater management system will be designed as part of the D&M Plan. Further, all appropriate sediment and erosion control measures will be designed and employed in accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Connecticut Council of Soil and Water Conservation and DEP (2002). Soil erosion control measures and other best management practices will be established and maintained throughout the construction of the proposed Facility. The Applicants do not anticipate an adverse impact on any wetland or water resources as part of construction or longer term operation of the Facility and respectfully submit any indirect impacts would be less than those associated with development of the Parcel for a use as a single family residence.

#### VIII. Consultation with Town Officials

C.G.S. § 16-50/ generally requires an applicant to consult with the municipality in which a new tower facility may be located for a period of ninety days prior to filing any application with the Siting Council. With respect to the Facility as proposed in this Application, a Technical Report was filed with the Town of Salisbury on May 30, 2014. On or about the last week of June, Homeland had discussions with First Selectman Rand who advised he had referred the matter to other Town agencies for review and comment. A follow up letter was sent to Selectman Rand on August 1, 2014 inquiring as to the Town's preferred consultation process. A follow up call with First Selectman Rand from the Applicants' representatives in September confirmed that the Town had no preferences and no official comment on the proposed Facility.

#### IX. Estimated Cost and Schedule

#### A. Overall Estimated Cost

The total estimated cost of construction for the proposed Facility is represented in the table below.

Requisite Component:	Cost (USD)	
Tower & Foundation	160,000	
Site Development	105,000	
Utility Installation	45,000	
Facility Installation	45,000	
Subtotal Homeland Towers Cost	355,000	
Antennas and Equipment	250,000	
Subtotal AT&T Cost	250,000	
Total Estimated Costs	605,000	

#### B. Overall Scheduling

Site preparation work would commence following Siting Council approval of a Development and Management ("D&M") Plan and the issuance of a Building Permit by the Town of Salisbury. The site preparation phase is expected to be completed in 4-5 weeks. Installation of the monopole, antennas and associated equipment is expected to take an additional three weeks. The duration of the total construction schedule is approximately 8 weeks. Facility integration and system testing for carrier equipment is expected to require an additional 2 weeks after construction is completed.

#### X. Conclusion

This Application and the accompanying materials and documentation clearly demonstrate that a public need for a new tower in eastern Salisbury exists to provide both emergency communications and wireless services to the public. AT&T and all other wireless carriers have gaps in reliable communications in and around this area of the state. The Applicants respectfully submit that the public need for the proposed Facility outweighs any potential environmental effects from development of the tower, none of which have been identified as substantial or significant. Accordingly, the Applicants respectfully request that the Siting Council grant a Certificate of Environmental Compatibility and Public Need to Homeland Towers for a new wireless telecommunications Facility in eastern Salisbury.

Respectfully Submitted,

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White Plains, New York 10601

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Attorneys for the Applicants

# ATTACHMENT 1

#### STATEMENT OF PUBLIC NEED

The proposed facility in Eastern Salisbury will provide reliable wireless communications services to an area of the Town including Canaan Road (State Route 44), Taconic Road, Twin Lakes Road and other areas in eastern The proposed facility will also provide reliable service to the Salisbury. Salisbury School which has а student/faculty/employee population approximately 450. The facility is needed in conjunction with other existing and proposed facilities for AT&T to provide reliable wireless services to the public that are not currently provided in this part of the State. Attached is a Radio Frequency Engineering Report with coverage plots depicting the "Current Coverage" provided by AT&T's existing facilities in this area of the state and "Proposed Coverage" as predicted from the proposed facilities together with existing coverage from adjacent sites. Additional statistics regarding the overall area, population and roadway miles of expanded coverage in the community are included in the attached Radio Frequency Analysis Report.

# Radio Frequency Analysis Report

# S4073D 250 Canaan Road, Salisbury, CT



May 22, 2014



C Squared Systems, LLC 65 Dartmouth Drive, A3 Auburn, NH 03032 Phone: (603) 644-2800 Fax: (603) 644-2801 Support@csquaredsystems.com

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## 1. Overview

C Squared Systems was retained by New Cingular Wireless PCS, LLC ("AT&T") to investigate the extent of coverage that could be potentially obtained by constructing the proposed wireless communications facility at 250 Canaan Road, Salisbury, CT at 146 feet AGL.

AT&T is licensed by the FCC to provide wireless communications services throughout the State of Connecticut including the Town of Salisbury where the proposed facility would be located.

This report addresses AT&T's need for the proposed wireless facility and confirms that there are no other suitable existing structures that could address the coverage gaps in their wireless communications network. The coverage analysis completed by C Squared Systems confirms: AT&T has a gap in reliable service in Salisbury, and that the Proposed Facility provides AT&T with coverage in that service gap. Included as attachments in this report are coverage maps detailing the existing network and expected coverage from the proposed facility, pertinent site information, and terrain and network layout maps.

# 2. Technology Advances & Design Evolution

AT&T provides digital voice and data services using 3<sup>rd</sup> Generation (3G) UMTS technology in the 800 MHz and 1900 MHz frequency band, and is in the midst of deploying advanced 4<sup>th</sup> Generation (4G) services over LTE technology in the 700 MHz and 1900 MHz frequency bands as allocated by the FCC. As part of their network expansion and ongoing technology advancements in Connecticut and elsewhere in the Country, the 4G LTE network rollout will build on the existing 3G data services that utilize UMTS technology. These data networks are used by mobile devices for fast web browsing, media streaming, and other applications that require broadband connections. The mobile devices that benefit from these advanced data networks are not limited to basic handheld phones, but also include devices such as smartphones, PDA's, tablets, and laptop air-cards. With the evolving rollout of 4G LTE services and devices, AT&T customers will have even faster connections to people, information, and entertainment.

It is important to note that with AT&T's migration from 3G to 4G services come changes in the base station infrastructure and resultant changes in the operating thresholds required by the LTE network. In the past, AT&T has presented receive signal thresholds of -74 dBm for their in-building coverage threshold and -82 dBm for their in-vehicle coverage threshold. Those thresholds were based on network requirements to support 2G/3G data speeds and past usage demand. Today, customers expect low latency and faster data speeds as evidenced by increasing data usage trends and customer demand.

AT&T's 4G LTE technology is designed to thresholds of -83 dBm and -93 dBm for their 700 MHz LTE and -86 dBm and -96 dBm for their 1900 MHz LTE.<sup>1</sup> The stronger thresholds (-83 dBm and -86 dBm) yield greater throughputs and improved customer experience. The -93 dBm and -96 dBm thresholds are the minimum acceptable levels required to meet customer expectations for 4G service.

o +1-

<sup>&</sup>lt;sup>1</sup> The threshold range differences between the 700 MHz and 1900 MHz frequency bands directly correlates to the type branch diversity receivers deployed in AT&T's receiver design.

# 3. Coverage Objective

There is a significant coverage deficiency in the existing AT&T wireless communications network along Canaan Rd (Route 44), Taconic Rd, Twin Lakes, and the neighboring residential areas in Salisbury, referred to herein as the "targeted area". A deficiency in coverage is evidenced by the inability to adequately and reliably transmit/receive quality calls and/or utilize data services offered by the network. Seamless reliable coverage provides users with the ability to successfully originate, receive, and maintain quality calls and data applications throughout a service area. Appropriate overlapping coverage is required for users to be able to move throughout the service area and reliably "hand-off" between cells to maintain uninterrupted connections.

Due to terrain characteristics and the distance between the targeted coverage area and the existing sites, AT&T's options to provide services in this area are quite limited (maps of the terrain in this area and the distance to neighboring AT&T sites from the proposed site are included as Attachments 1 & 2, respectively.). AT&T's network requires deployment of antennas throughout the area to be covered. These antennas are connected to receivers and transmitters that operate in a limited geographic area known as a "cell." AT&T's wireless network, including their wireless handsets and devices, operate by transmitting and receiving low power radio frequency signals to and from these cell sites. The signals are transferred to and from the landline telephone network and routed to their destinations by sophisticated electronic equipment. The size of the area served by each cell site is dependent on several factors, including the number of antennas used, the height at which the antennas are deployed, the topography of the land, vegetative cover and natural or man-made obstructions in the area. As customers move throughout the service area, the transmission from the portable devices is automatically transferred to the AT&T facility with the best connection to the device, without interruption in service provided that there is overlapping coverage from the cells.

In order to define the extent of the coverage gap to be filled, both propagation modeling and real-world drive testing has been conducted in the area of Salisbury. Propagation modeling uses PC software to determine the network coverage based on the specific technical parameters of each site including, but not limited to, location, ground elevation, antenna models, antenna heights, and also databases of terrain and ground cover in the area. Drive testing consists of traveling along area roadways in a vehicle equipped with a sophisticated setup of test devices and receivers that collect a variety of network performance metrics. The data are then processed and mapped in conjunction with the propagation modeling to determine the coverage gaps.

Analysis of the propagation modeling and drive testing in Salisbury reveal that AT&T's network is unreliable throughout much of the area due to gaps in coverage, and that there is a service deficiency as a result. In order to fill in these coverage gaps and improve the network reliability to Salisbury, a new facility is needed in the area.

Table 1 below approximates the current coverage gap of AT&T's 700 MHz and 1900 MHz (PCS) LTE technology in the vicinity of the proposed site.

	Existing 700 MHz LTE Coverage Gap		Existing 1900 MHz LTE Coverage Gap		
Population: <sup>2</sup>	(≥ -83 dBm)	1,147	(≥ -86 dBm)	1,279	
ropulation:-	(≥ -93 dBm)	857	(≥ -96 dBm)	1,034	
A == = (== i2).	(≥ -83 dBm)	22.45	(≥ -86 dBm)	24.04	
Area (mi²):	(≥ -93 dBm)	18.49	(≥ -96 dBm)	20.90	
·					
	Main:	6.65	Main:	8.32	
Roadway (mi):	Secondary:	32.45	Secondary:	35.90	
	Total:	39.10	Total:	44.22	

Table 1: Estimated Existing Coverage Gap Statistics

C Squared Systems, LLC 3 May 22, 2014

<sup>&</sup>lt;sup>2</sup> Population figures are based upon 2010 US Census Block Data

Included with this report are Attachments 1-8, which are explained below to help describe AT&T's network in and around Salisbury, and the need for the proposed facility.

- Attachment 1: 3D Terrain Map details the terrain features around the area of deficient service being targeted by the proposed site in Salisbury. These terrain features play a key role in determining site designs and dictating the unique coverage achieved from a given location. This map is included to provide a visual representation of the ridges and valleys that must be considered when siting a wireless facility. The green and blue shades correspond to lower elevations, whereas the yellow and red shades indicate higher elevations.
- Attachment 2: Map of Distance to Neighbor Sites Salisbury provides an overview of AT&T's network of sites in the
  area, with distances shown from the proposed Salisbury site to the existing and proposed sites in the surrounding
  area.
- Attachment 3: Neighbor Site Data and Distance to Proposed Site provides site specific information of existing and planned neighboring sites used to perform the coverage analysis provided in Attachments 4 through 7.
- Attachment 4: "Existing 700 MHz LTE Coverage" for the Current AT&T Network depicts 700 MHz LTE coverage from existing sites and demonstrates that there are currently gaps in 700 MHz LTE coverage effecting service within the targeted area. The coverage shown is where the signal strengths are: > -83 dBm (minimum level required reliable, high quality service and performance at 700 MHz) and, > -93 dBm (minimum required for adequate level of service at 700 MHz). In an effort to provide the required levels of coverage to these areas, AT&T is proposing to install a wireless facility at the Rose Hill Road location.
- Attachment 5: "Existing & Proposed 700 MHz LTE Coverage" with Salisbury Site for the AT&T Network shows how this proposed site would fill in the existing coverage gaps and improve AT&T's 700 MHz LTE network within the targeted area, as detailed in Table 2.
- Attachment 6: "Existing 1900 MHz LTE Coverage" for the Current AT&T Network depicts 1900 MHz LTE coverage from existing sites and demonstrates that there are currently gaps in the 1900 MHz LTE coverage effecting service within the targeted area. The coverage shown is where the signal strengths are > -86 dBm (minimum level required for reliable high quality service and performance at 1900 MHz) and > -96 dBm (the minimum required for adequate level of service at 1900 MHz).
- Attachment 7: "Existing & Proposed 1900 MHz LTE Coverage" with Salisbury Site for the AT&T Network shows how this proposed site would fill in the existing coverage gaps and improve AT&T's 1900 MHz LTE network within the targeted area, as detailed in Table 2.
- Attachment 8: Connecticut DOT Average Annual Daily Traffic Data Salisbury shows the available vehicular traffic volume data for the subject area from the Connecticut Department of Transportation. This data shows as many as 4,400 vehicles per day passing through the subject area on Canaan Rd east of Taconic Rd. This location is west of the proposed site.

Table 2 below lists the coverage statistics that were compiled for each frequency band of the proposed site:

	Incremental Coverage Proposed Site (7		Incremental Coverage from Proposed Site (1900 MHz)		
Population Coverages	(≥ -83 dBm)	78	(≥ -86 dBm)	55	
Population Coverage:3	(≥ -93 dBm)	188	(≥ -96 dBm)	116	
A C	(≥ -83 dBm)	2.89	(≥ -86 dBm)	2.01	
Area Covered (mi <sup>2</sup> ):	(≥ -93 dBm)	5.38	(≥ -96 dBm)	3.61	
	Main:	1.71	Main:	1.15	
Roadway Coverage (mi):	Secondary:	9.51	Secondary:	4.72	
	Total:	11.22	Total:	5.87	

Table 2: Coverage Statistics

C Squared Systems, LLC 5 May 22, 2014

 $<sup>^{\</sup>rm 3}$  Population figures are based upon 2010 US Census Block Data

## 4. Conclusion

AT&T has identified an area of deficient coverage affecting the central portion of Salisbury, including key traffic corridors through the residential areas of Town. The proposed Salisbury facility will bring the needed fill-in coverage to significant portions of Canaan Rd, Taconic Rd, and the residential neighborhoods in the vicinity of these roads, all of which are currently within this coverage gap of AT&T's network.

No existing structures were identified and available that would be able to satisfy the coverage requirements needed for this area. The location and the minimum height selected were chosen to achieve an optimal balance between meeting coverage objectives, overcoming the tree line for signal propagation, minimizing the aesthetic impact to the community, and future collocation.

As discussed in this report and depicted in the attached plots, the proposed AT&T site will provide the public need for service in this area, by providing an appropriate coverage footprint for the Salisbury community along with effective connectivity to the rest of AT&T existing network.

Without a site in this area, at the height requested, significant gaps in service will exist within the Town of Salisbury, and the identified public need for reliable wireless services in this area will not be met.

## 5. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate.

Anthony Wells

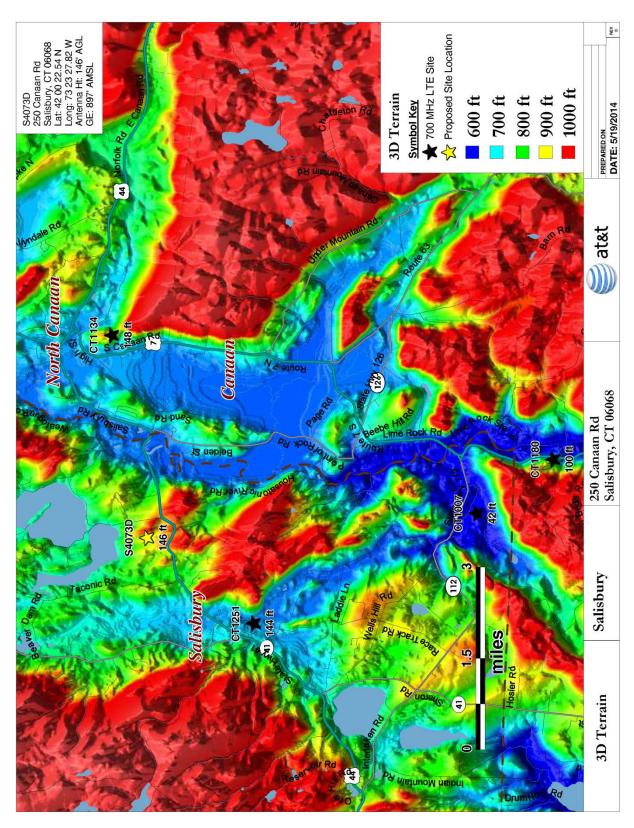
C Squared Systems, LLC

anthony ruells

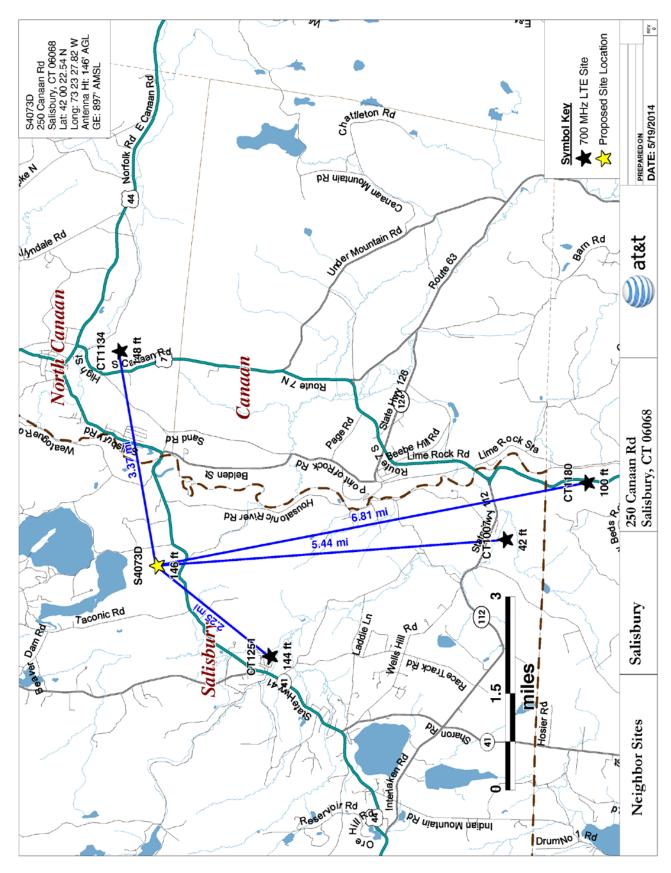
May 22, 2014

Date

# 6. Attachments



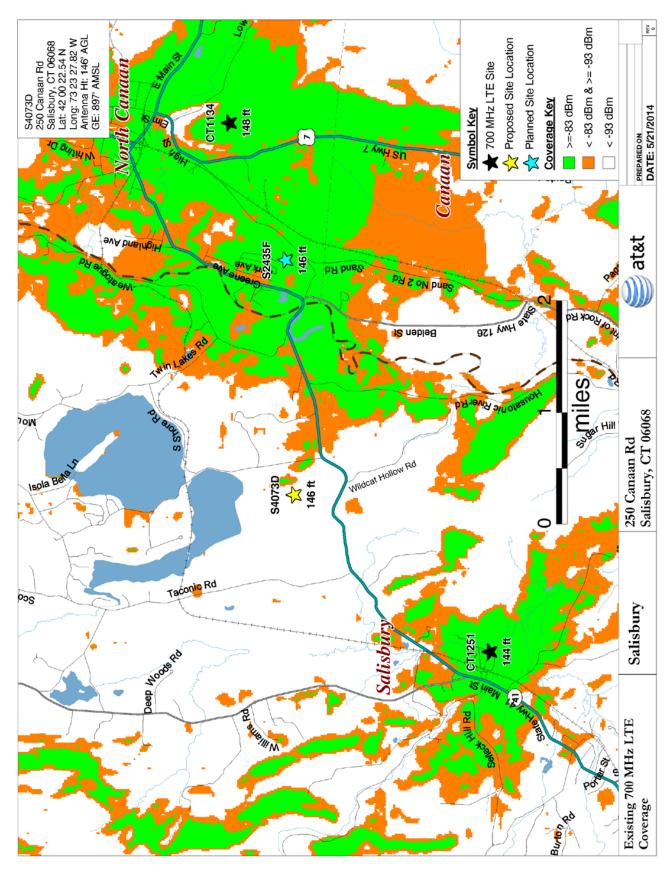
Attachment 1: 3D Terrain Map



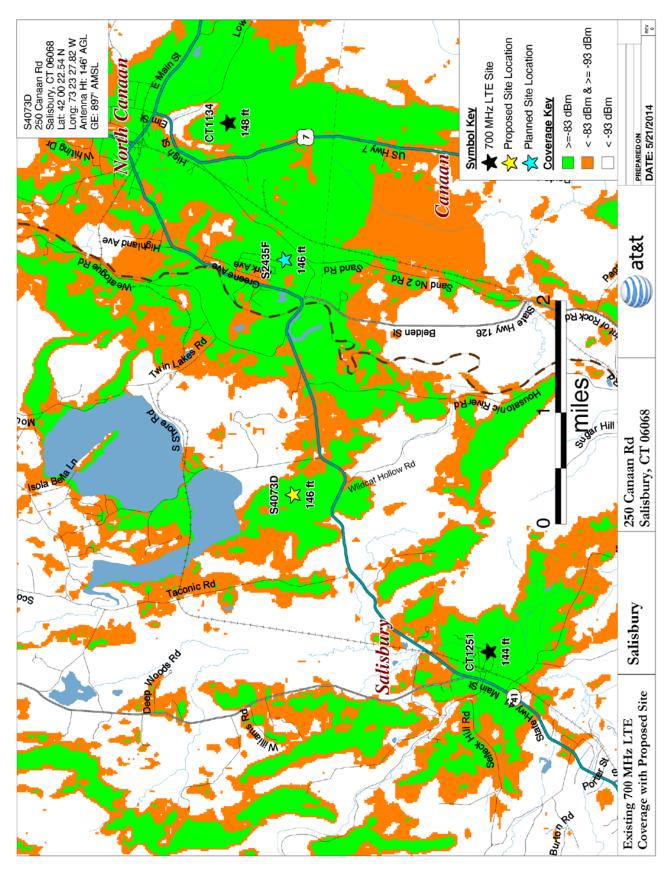
Attachment 2: Map of Distance to Neighbor Sites - Salisbury

Site Name	Address	Town	Latitude	Longitude	Antenna Centerline (feet)	Distance to Proposed Site (miles)	Structure Type	Ground Elevation (feet)
CT1007	497 Lime Rock Rd	Lakeville	41.9278	-73.3832	42	5.44	Monopole	597
CT1134	38 Lower Rd	North Canaan	42.01466	-73.3263	148	3.37	Lattice	967
CT1180	477 Route 7	Sharon	41.90945	-73.366	100	6.81	Monopole	732
CT1251	52 Library St	Salisbury	41.98084	-73.4184	144	2.25	Monopole	667
S2435F	12 Boinay Hill Rd	North Canaan	42.00736	-73.3502	146	2.10	Proposed	872

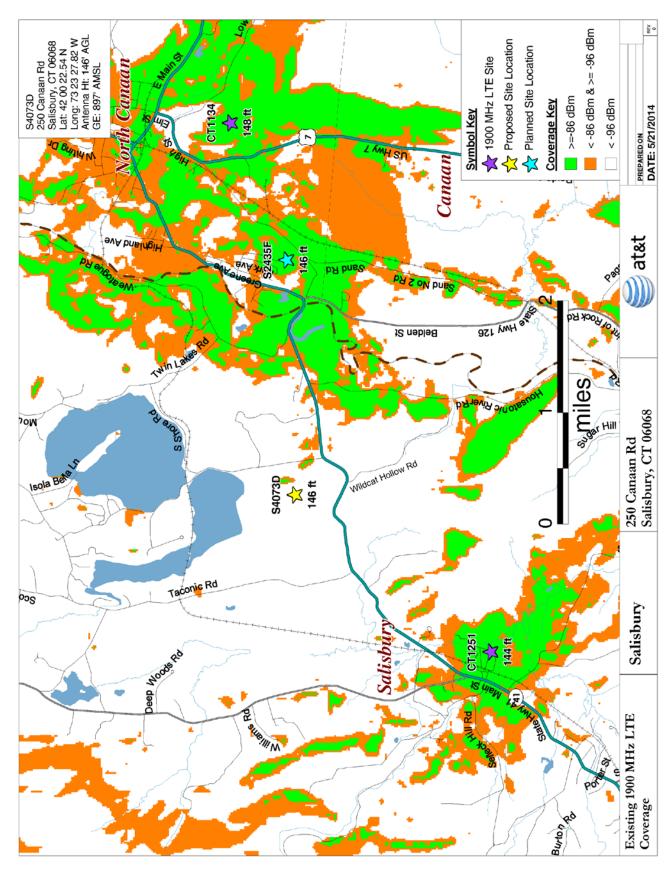
Attachment 3: Neighbor Site Data and Distance to Proposed Site



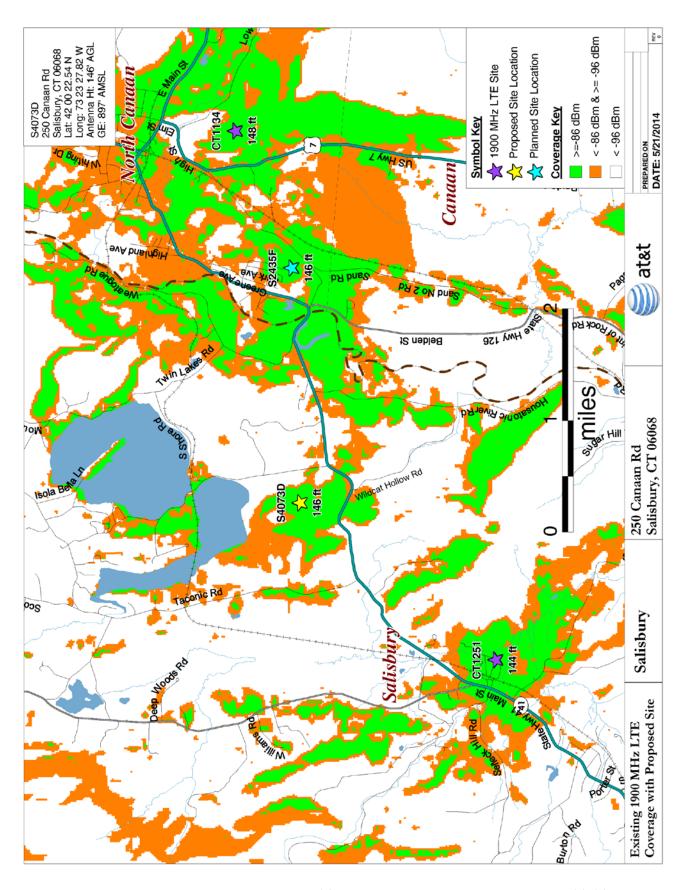
Attachment 4: "Existing 700 MHz LTE Coverage" for the Current AT&T Network



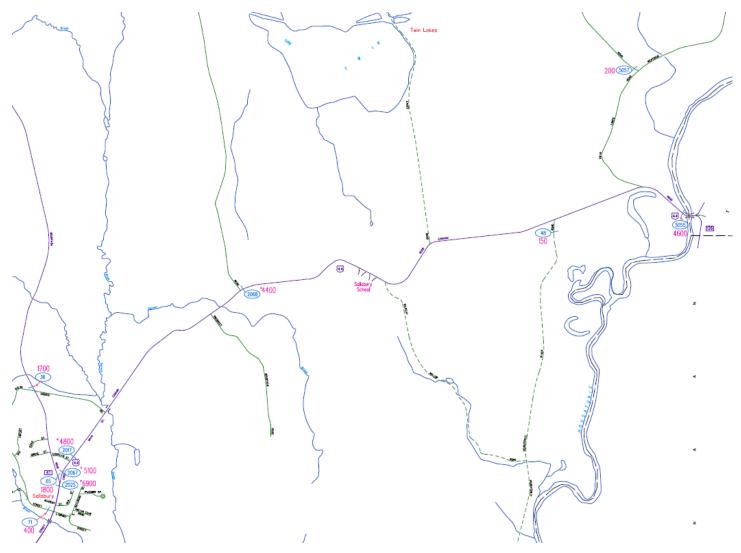
Attachment 5: "Existing & Proposed 700 MHz LTE Coverage" with Salisbury Site for the AT&T Network



Attachment 6: "Existing 1900 MHz LTE Coverage" for the Current AT&T Network



Attachment 7: "Existing & Proposed 1900 MHz LTE Coverage" with Salisbury Site for the AT&T Network



Attachment 8: Connecticut DOT Average Annual Daily Traffic Data – Salisbury

# ATTACHMENT 2

## SITE SEARCH SUMMARY

In general, the wireless industry develops "site search areas" to initiate a site selection process in areas where new wireless infrastructure is required to provide reliable wireless services to the public. A site search area is a general geographic location where the installation of a new wireless facility would address identified coverage and/or capacity constraints within wireless networks. Site search areas are also developed with an overall understanding of local terrain, tree canopies and other local morphologies and development patterns. Further consideration is given by wireless network operators on how any new wireless infrastructure will integrate into a wireless network based on the unique aspects of cellular design that include consumer mobility and the reuse of frequencies licensed by the FCC throughout the network's architecture.

In any site search area, tower companies and wireless carriers seek to avoid the unnecessary proliferation of towers in accordance with Connecticut policy, while at the same time ensuring the quality of service provided by any proposed site to users of wireless networks. Once a site search area is identified, real estate professionals will review the area with particular attention to any tall structures above the tree line which may exist in the site search area (e.g. water tanks, above ground transmission lines, church steeples). In the absence of any viable existing structures, parcels located within the site search area will be evaluated for the potential to construct and operate a new tower facility. In order to be viable, a tower site candidate must be capable of providing adequate coverage in wireless networks. In addition, all viable candidates must have a willing landowner with whom commercially reasonable lease terms may be negotiated.

As part of a site search process, the wireless industry will typically review local zoning regulations to identify any community preferences articulated by regulation. Often, the wireless industry will also consult informally with municipal officials prior entering into a lease with a given property in the site

search area in order to identify any other general community preferences related to tower facility siting. Homeland Towers met with First Selectman Curtis Rand in February of 2012 to discuss the preliminary search area, at which meeting Selectman Rand suggested the Salisbury School due to the large acreage they own. Overall, and based on the regulatory process set forth in state law that involves the Siting Council, the wireless industry evaluates tower site candidates and qualifies any candidates from the state's perspective, which is to balance the need for any new tower site and minimize environmental impacts where possible.

This particular site search area in Salisbury is predominated by significant ranges in ground elevation with mainly forested land and challenging topography. No tall structures are located at the higher elevations in this area of the Town of Salisbury. The entire area consists principally of single family residential structures, schools, and mainly forested land.

This section includes a chart identifying existing wireless facilities within approximately 4 miles of the proposed Facility. An aerial map identifying these existing wireless facilities is also enclosed. As shown in the chart, AT&T is located on many of these existing facilities and none can provide service to the area in eastern Salisbury where service is needed.

As noted below, both AT&T and Homeland independently investigated different parcels of land within eastern Salisbury for construction of a new tower facility. Their site searches date back several years. As set forth below, other than the proposed candidate location these other sites were either unavailable or inappropriate for the siting of a tower facility or technically inadequate to satisfy AT&T's entire coverage requirements in this area of need.

## PROPERTIES INVESTIGATED BY HOMELAND TOWERS

Homeland Towers identified and investigated five (5) sites in and around the eastern Salisbury site search area. Descriptions of the sites Homeland investigated are set forth below along with a map depicting the approximate location of the sites investigated.

## 1. 250 Canaan Road (Route 44), Salisbury, CT

Map/Lot: 16/5

Owner: Salisbury School Inc.

Zoning District: RR1

Parcel Size: 169.3 acres

Deed Vol/Pg: 52/197

Lat/Long: 42° 0'22.38"N/ -73°23'27.21"W

Ground Elevation: 900' +/-

This property is the Candidate site.

# 2. Housatonic River Road, Salisbury, CT

Map/Lot: 16/1-3

Owner: Salisbury School Inc.

Zoning District: RR1

Parcel Size: 148.6 acres Deed Vol/Pg: 134/1024

Lat/Long: 41°59'19.45"N/- 73°22'53.74"W

Ground Elevation: 790 +/-

Salisbury School did not want to lease to Homeland Towers for a cell tower on this parcel as they wanted to keep the parcel undeveloped. Parcel is also approximately 1.25 miles to the south from Route 44 and targeted coverage area.

# 3. Taconic Road, Salisbury, CT

Map/Lot: 19/9

Owner: The Town of Salisbury

Zoning District: RR1

Parcel Size: 275.9 acres Deed Vol/Pg: 113/446

Lat/Long: 42° 0'5.77"N/ - 73°23'53.72"W

Ground Elevation: 950 +/-

This parcel is the Edith Scoville Memorial Sanctuary. There are multiple conservation restrictions and covenants on this parcel that will not allow development of a tower or vehicular traffic on parcel.

# 4. 251 Canaan Road, Salisbury, CT

Map/Lot: 15/41

Owner: Salisbury School, Inc.

Zoning District: C20

Parcel Size: 225 23 acres

Deed Vol/Pg: 129/515

Lat/Long: 41°59'50.43"N/ - 73°23'20.48"W

Ground Elevation: 987 +/-

Salisbury School did not want to lease to Homeland Towers for a cell tower on this parcel which contains their main campus. In addition, they stated that they would not allow any antennas on any of the existing campus structures.

# 5. Canaan Road, Salisbury, CT

Map/Lot: 16/4

Owner: Salisbury School, Inc.

Zoning District: RR1

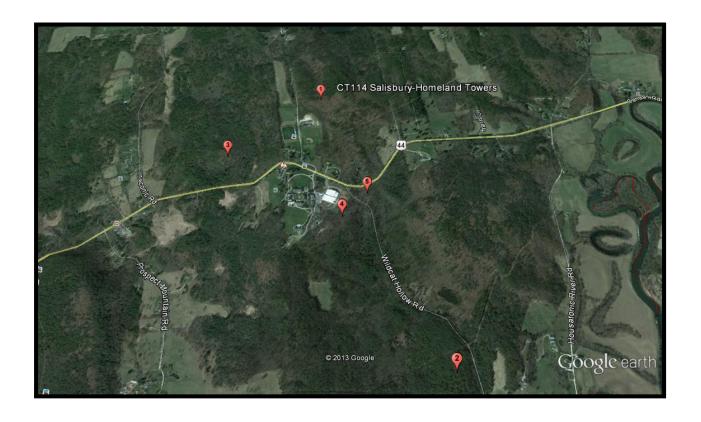
Parcel Size: 125.1 acres Deed Vol/Pg: 162/963

Lat/Long: 41°59'55.95"N/ - 73°23'13.54"W

Ground Elevation: 970' +/-

Salisbury School did not want to lease to Homeland Towers for a cell tower on this parcel as they wanted to keep the parcel undeveloped.

# HOMELAND TOWERS SITE SEARCH MAP



## PROPERTIES INVESTIGATED BY AT&T

AT&T investigated four (4) sites in and around the Salisbury site search area where the construction of a new site might be feasible. Descriptions of sites AT&T investigated are set forth below along with a map depicting the approximate location of the sites investigated.

1. Address: 250 Canaan Road (Route 44)

Owner: Homeland Towers, LLC/Salisbury School, Inc.

Map/Lot: 16-05 Deed: 52/197

Zoning District: RR1

Lot Size: Approximately 169.30 Acres

42.006216N -73.390891W

This property is the candidate site.

2. Address: 167 Canaan Road (Salisbury Garden Center)

Map/Lot: 15-46 Deed: 198/787

Owner: Salisbury Realty, LLC

Zoning District: RR1

Lot Size: Approximately 5.26 acres

41.996591N -73.404721W

AT&T proposed a monopole in the southeast corner of the property; the site was ruled out due to AT&T due diligence regarding wetland resources on site.

3. Address: 171 Canaan Road

Map/Lot: 15-45 Deed: 238/288

Owner: Peter Oliver

Zoning District: RR1

Lot Size: Approximately 1.27 acres

41.997541N -73.403686W

This property is for sale with several small buildings to be demolished; location was not pursued further due to uncertainty regarding property ownership.

4. Address: 15 Prospect Mountain Road

Map/Lot: 15-52

Deed: 142/68

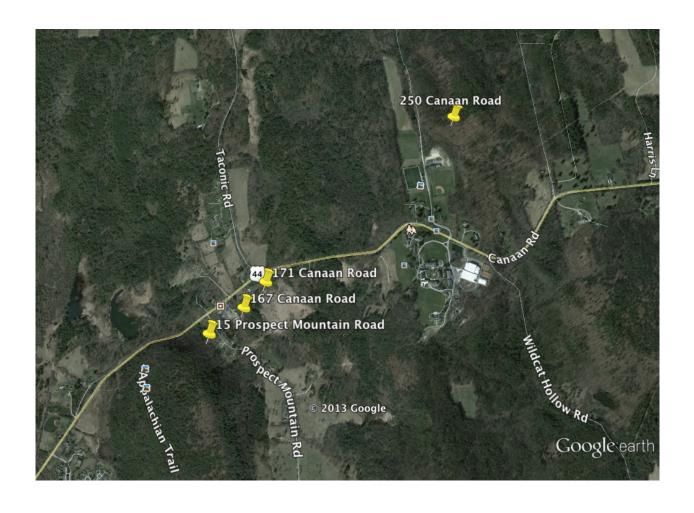
Owner: Bradley & Shirley Moyer

Zoning District: RR1 Lot Size: 2.95 acres

41.995447 -73.406809W

Smaller residential property with wooded land which was not deemed suitable for siting.

# AT&T SITE SEARCH MAP



## EXISTING TOWER/CELL SITE LISTING

There are 5 communications towers, 1 power mount (attachment to a telephone pole), and 1 roof top installation located within approximately four (4) miles of the proposed site in Salisbury. Each location is depicted on the following map, with the address that corresponds to the list below. Not one of the below existing facilities does currently, or could, provide adequate coverage to the area of eastern Salisbury where reliable service is needed. Indeed, most of the locations listed below are currently being used or proposed for use by AT&T to provide service outside of the area targeted for service by the proposed Eastern Salisbury Facility.

Address	Town	Latitude	Longitude	Antenna Centerline (feet)	Distance to Proposed Site (miles)	Structure Type	AT&T Site No.
497 Lime Rock Race Track	Salisbury	41.927806	73.38325	53	5.46	Tele. Pole	CT1007
52 Library Street	Salisbury	41.980833	73.41833	153	2.31	Monopole	CT1251
Bunker Hill Road	Salisbury	42.001194	73.44	80	2.58	Lattice Tower	
112 Main Street	N. Canaan	42.02772	73.33059	44	3.42	Building	
38 Lower Road	N. Canaan	42.014722	73.326388	143'	3.37	Lattice Tower	CT1134
Rte. 7, 29 Ashley Falls Road	N. Canaan	42.042813	73.326419	116′	4.14	Lattice Tower	
188 Rte. 7 South	Falls Village	41.94455	73.36048	150'	4.55	Monopine	CT2413

## **EXISTING SITES MAP**



# ATTACHMENT 3

## GENERAL FACILITY DESCRIPTION

250 Canaan Road

Map 16, Lot 5

Salisbury, Connecticut

Owner: Salisbury School Inc.

169.3 Acre Parcel

The proposed site is an approximately 169.3 acre parcel with an address of 250 Canaan Road, with access from Canaan Road and owned by Salisbury School Inc. The property is currently improved with a maintenance garage, campus houses, athletic fields and undisturbed wooded areas.

The proposed telecommunications facility includes an approximately 60' x 80' lease area located in the central portion of the parcel. The tower is proposed as a new self-supporting monopole 150' in height, designed as a monopine, with faux branches extending to an overall height of approximately 157' AGL. AT&T would install up to twelve (12) panel antennas and related equipment at a centerline height of 146' above grade level (AGL) on the tower. The tower would be designed for future shared use of the structure by other FCC licensed wireless carriers. An AT&T 12' x 16' equipment shelter would be installed at the tower base on a 12' x 24' concrete pad within the tower compound together with provisions for a fixed back-up power generator.

The tower compound would consist of a 50' x 80' area to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. The tower compound would be enclosed by an 8' high chain link fence. Vehicle access to the facility would be provided from Canaan Road (Route 44) over the existing 24' wide access drive on site, then along an existing gravel access drive that will be upgraded and then along an existing logging road distance of approximately 580' that will be upgraded with a gravel surface to the proposed tower compound. Utility connections would be routed underground from on-site electrical and telephone service.

## SITE AND FACILITY DESCRIPTION

#### I. LOCATION

- A. COORDINATES: 42° 00' 22.54" N 73° 23' 27.82" W
- B. GROUND ELEVATION: 897'± AMSL
- C. USGS MAP: USGS 7.5 Quadrangle for Bish Bash Falls, Sharon, Ashley Falls and South Canaan
- D. SITE ADDRESS: 250 Canaan Road, Salisbury, CT 06068
- E. ZONING WITHIN ¼ MILE OF SITE: Abutting areas are zoned Rural Residence 1 (RR-1) to the north, east, and west. Rural Residence 1 (RR-1) and Rural Residence 3 (RR-3) zones are located to the south. A protected Land Zone abuts the subject site to the west.

#### II. DESCRIPTION

- A. SITE SIZE: 169.3 AC (VOL 52, PAGE 197)
- B. LEASE AREA/COMPOUND AREA: 4800 SF/4000 SF
- C. TOWER TYPE/HEIGHT: A 150' Monopine with faux tree branches extending to an overall height of 157' AGL.
- D. SITE TOPOGRAPHY AND SURFACE: Subject site slopes north to south and is located within a parcel owned by a private school. Athletic fields occupy lands to the south and west and wooded areas comprise land to the north and east.
- E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR

WATER: The proposed compound is located near the center (wooded area) of a 169.3 acre parcel which is currently occupied with athletic fields, associated maintenance structures, and campus "houses". To the north and east are undisturbed wooded areas. To the south and west are undisturbed wooded areas and existing athletic fields. There are wetlands on-site to the north (±128') and to the south (±100') of the proposed facility.

F. LAND USE WITHIN ¼ MILE OF SITE: Undisturbed wooded area and residential land to the east and west. Undisturbed wooded area and Washinee Lake to the north. The Salisbury School campus to the south.

## III. FACILITIES

A. POWER COMPANY: Northeast Utilities Service Company

B. POWER PROXIMITY TO SITE: 600'±

C. TELEPHONE COMPANY: AT&T

D. PHONE SERVICE PROXIMITY: 1,500'±

E. VEHICLE ACCESS TO SITE: Access to the proposed telecommunication facility will be along an existing access drive, then along an upgraded existing gravel access driveway and a proposed extension (580'±) along a logging road.

F. OBSTRUCTION: Ledge

G. CLEARING AND FILL REQUIRED: Total area of disturbance is 21,000 s.f.; 10 trees will need to be removed. The site improvements shall entail approximately 575 CY of cut for utility trenching in addition to 160 CY of fill and approximately 225 CY of crushed stone for the compound and driveway construction.

#### IV. LEGAL

A. PURCHASE [ ] LEASE [X]

B. OWNER: Salisbury School Inc.

C. ADDRESS: Route 44 East

Salisbury, CT 06068

D. DEED ON FILE AT: VOLUME 52, PAGE 197

## FACILITIES AND EQUIPMENT SPECIFICATION

- I. TOWER SPECIFICATIONS:
  - A. MANUFACTURER: To be determined
  - B. TYPE: Self-Supporting monopine
  - C. HEIGHT: 150' AGL with faux branches up to 157' AGL
    DIMENSIONS: Approximately 5' in diameter at the base, tapering to approximately 3.5' at the top of monopole.
  - D. FAA TOWER LIGHTING: None required per the report attached.
- II. TOWER LOADING:
  - A. AT&T up to 12 panel antennas
    - a. Model CCI HPA-65R-BUU-H8 or equivalent panel antenna
    - b. Antenna Dimensions approximately 96"H x 12"W x 7"D
    - c. Position on Tower 146' centerline AGL
    - d. Transmission Lines MFG/Model: Commscope Aluminum; Size 1-5/8"
    - e. Remote Radio Heads & Surge Arrestor
  - B. Future Carriers -future wireless carriers to be determined

## III. ENGINEERING ANALYSIS AND CERTIFICATION:

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



# **Site Impact Statement**

Site: Salisbury

Site Address: 250 Canaan Road

Salisbury, CT 06068

#### Access distances:

Distance of upgraded gravel access driveway & extension: 580 feet

#### **Distance to Nearest Wetlands**

100'+/- south of the proposed facility

#### **Distance to Property Lines:**

2,617'+/- to the northern property boundary from the tower 1,913'+/- to the southern property boundary from the tower 1,012'+/- to the western property boundary from the tower 652'+/- to the eastern property boundary from the tower

2,555'+/- to the northern property boundary from the compound 1,876'+/- to the southern property boundary from the compound 938'+/- to the western property boundary from the compound 629'+/- to the eastern property boundary from the compound

#### **Residence Information:**

There are no single family residences within 1,000' feet of the compound. The closest on site occupiable building is the "Trustee House" (1,500'+/-). The closest off site residence is located at 284 Canaan Road (Map 16, Lot 6) (2,150'+/-).

#### **Special Building Information:**

There are existing wetlands located on site, north and south of the proposed facility.

#### **Tree Removal Count:**

Ten trees will need to be removed to construct the equipment areas.

6" - 10"dbh 0 trees 10" - 14"dbh 0 trees 14" or greater dbh 10 trees

**Cut/Fill:** The site improvements shall entail approximately 575 CY of cut for utility trenching, approximately 160 CY of fill and approximately 225 CY of crushed stone for the compound and driveway construction.

Clearing/Grading Necessary: Total area of disturbance = 21,000 SF



**Tree Inventory** 

May 2, 2014

Cuddy & Feder, LLP Attn: Christopher Fisher, Esq. 445 Hamilton Avenue 14<sup>th</sup> Floor White Plains, NY 10601

RE: Tree Inventory

Site: CT114 Salisbury 250 Canaan Road Salisbury, CT 06068

Dear Mr. Fisher:

A Tree Inventory was completed at the subject site on February 27, 2014 and April 22, 2014 to determine the size and quantity of existing trees that will need to be removed for the installation of the proposed facility. The proposed site has suitable access, but clearing and earthwork will be required to improve the access route and to construct the compound area. Installation of the proposed compound area improvements will require the removal of 10 trees.

6" – 10" dbh – 0 trees 10" – 14"dbh – 0 trees 14" or greater dbh – 10 trees

The area to be disturbed for construction of the compound area will be approximately 4,800 square feet of existing brush/wooded area. The area to be cleared is located on the interior of the overall parcel. An existing onsite logging road will require upgrade and extension to connect to the proposed compound. The total combined area of disturbance for compound, access drive, and utility improvements is 21,000 sf.

Sincerely,

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

Scott M. Chasse, P.E.

Principal

Y CORPORATION, P.C.

Y CORPORATION, P.C.

No.19728

No.19728

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ALL-POINTS TECHNOLOGY CORPORATION, P.C.

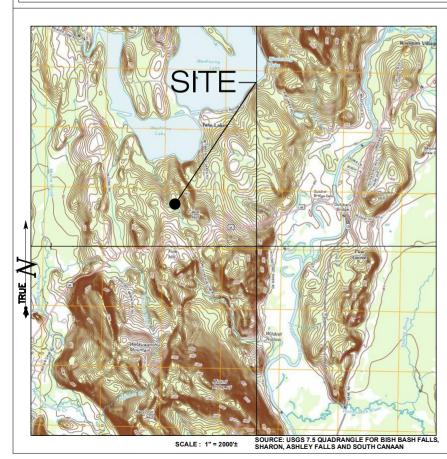
3 SADDLEBROOK DRIVE · KILLINGWORTH, CT 06419 · PHONE 860-663-1697 · FAX 860-663-0935

# ATTACHMENT 4

# **LOCATION MAP**



# **USGS TOPOGRAPHIC MAP**





# NEW CINGULAR WIRELESS PCS, LLC (AT&T)

500 ENTERPRISE DRIVE ROCKY HILL, CT 06067



3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM PHONE: (860)-663-1697 FAX: (860)-663-0935

# **CONTACT PERSONNEL**

HOMELAND TOWERS
22 SHELTER ROCK ROAD
BUILDING C
DANBURY, CONNECTICUT 06810

CO-APPLICANTS
AT&T MOBILITY
500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067

LANDLORD

SALISBURY SCHOOL INC.
ROUTE 44 EAST
SALISBURY, CT 06068

HOMELAND PROJECT MANAGER: RAYMOND VERGATI (203) 297-6345

DMELAND PROJECT ATTORNE'
CUDDY & FEDER, LLP
445 HAMILTON AVENUE
14TH FLOOR
WHITE PLAINS, NY 10601

NU (860) 496-5267 RICHARD REYNOLDS - CASE #2286103

> TELCO PROVIDER: AT&T: (800)-727-8368

OALL BEFORE YOU DIG: (800) 922-4455

GOVERNING CODES: 2009 CONNECTICUT BUILDING CODE (2003 IBC BASIS) NATIONAL ELECTRIC CODE

# SITE INFORMATION

SALISBURY 250 CANAAN ROAD SALISBURY, CT 06068

HOMELAND TOWERS SITE NUMBER:
CT-114

APT FILING NUMBER:
CT-283-170

HOMELAND TOWERS
22 SHELTER ROCK ROAD
BUILDING C
DANBURY, CT 06810

ALL-POINTS
TECHNOLOGY CORPORATION
3 SADDLERROOK DRIVE PHONE: (860-661-1697

PERMITTING DOCUMENTS TITLE SHEET **SALISBURY** 250 CANAAN ROAD **AND INDEX** SALISBURY, CT 06068 APT FILING NUMBER: CT-283-170 **RAW LAND** APT DRAWING NUMBER: CT-114 T-1 **DEVELOPMENT SITE** DRAWN BY: RCB SCALE: AS NOTED CHECKED BY: SMC DATE: 05/02/14 REVISIONS: SHEET NUMBER T-1 REV.3: REV.4:

# **HOMELAND TOWERS**

22 SHELTER ROCK ROAD BUILDING C DANBURY, CT 06810 (203) 297-6345

# **DRAWING INDEX**

T-1 TITLE SHEET & INDEX

A-1 ABUTTERS MAP

EX-1 EXISTING CONDITIONS SURVEY

SP-1 SITE PLAN

\*SITE INFORMATION:

-SITE ID NUMBER:

-SITE ADDRESS:

-MAP

-LOTS:

SALISBURY

250 CANAAN ROAD

SALISBURY, CT 06068

SP-2 COMPOUND SITE PLAN & TOWER ELEVATION

-LATITUDE -

-LONGITUDE

-ELEVATION -

DESIGNATION:

-ACREAGE:

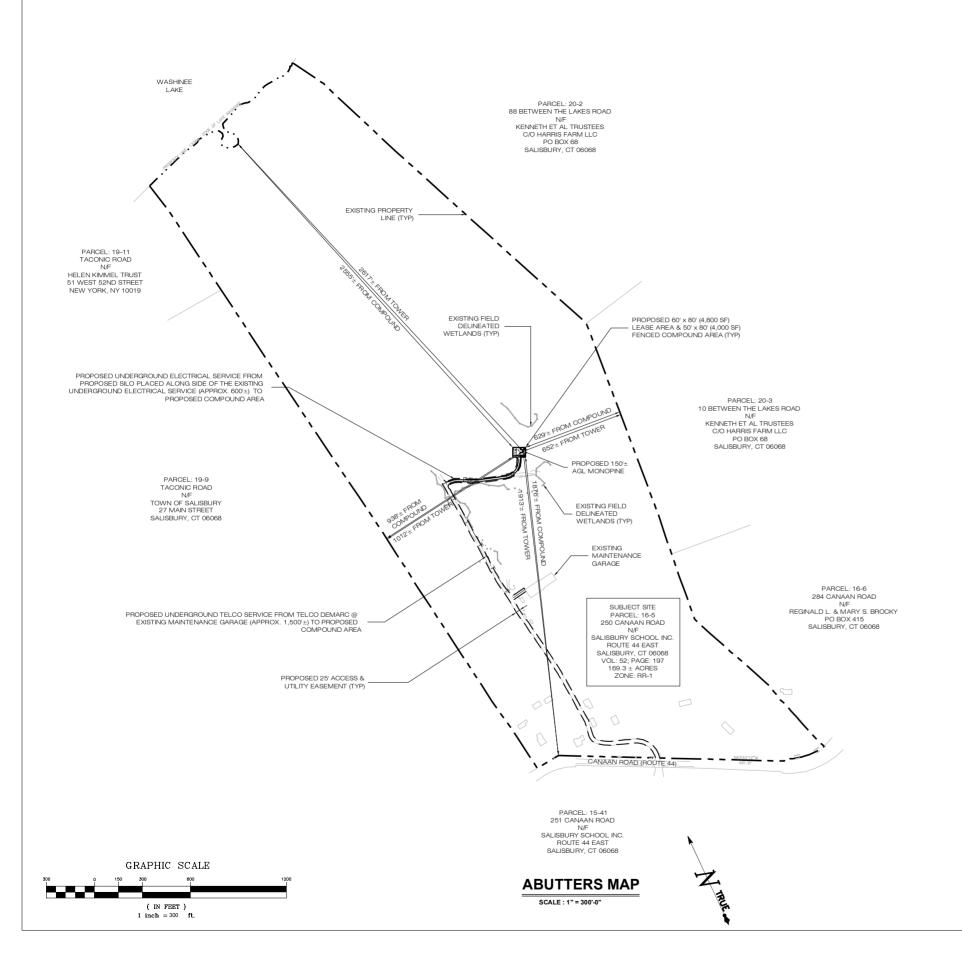
SP-3 SEDIMENTATION & EROSION CONTROL DETAILS

42° 00' 22.54" N

PANEL #0900520008B - ZONE X

169.3± Ac (VOL. 52, PAGE 197)

897'± AMSI



## **SURVEY NOTES**

THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THRU 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENOIES - MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPT. 26, 1996. IT IS A IMPROVEMENT LOCATION SURVEY AND IS BASED UPON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND A VERTICAL ACCURACY OF CLASS T-2 AND IS INTENDED TO BE USED FOR THE PURPOSE OF SHOWING EXISTING CONDITIONS AND PROPERTY LINE INFORMATION

#### MAP REFERENCES

1) MAP PREPARE FOR SALISBURY SCHOOL, INCORPORATED, CANAAN ROAD-ROUTE 44 SALISBURY, CONNECTICUT, SCALE 1°=100°, DATED JUNE 25, 2008, PREPARED BY LAMB KEIFER LAND SURVEYORS LLC.

NORTH ORIENTATION AND COORDINATES REFER TO CONNECTICUT GRID SYSTEM NAD 83.

ELEVATIONS BASED ON NAVD 1988 DATUM.

PARCEL ADDRESS: 250 CANAAN ROAD, SALISBURY, CT 06068.

PARCEL OWNER OF RECORD: SALISBURY SCHOOL, MAP 16 LOT 5 SALISBURY ASSESSORS MAP.

PARCEL AREA = 169.3± ACRES.

AREA OF SURVEY IS NOT IN A FLOOD HAZARD ZONE ON THE FLOOD INSURANCE RATE MAP, TOWN OF SALISBURY, LITCHFIELD COUNTY, CONNECTICUT, PANEL 8 OF 30, MAP NUMBER 0900520008B, EFFECTIVE DATE JANUARY 5, 1989, BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

NOTE: DUE TO THE EXCESSIVE SNOW COVER AND ICE, THERE MAY SOME FEATURES SUCH AS ELECTRIC MANHOLES, CULVERTS AND INVERTS, ETC. THAT WERE NOT ACCESSIBLE IN ORDER TO FIELD LOCATE.

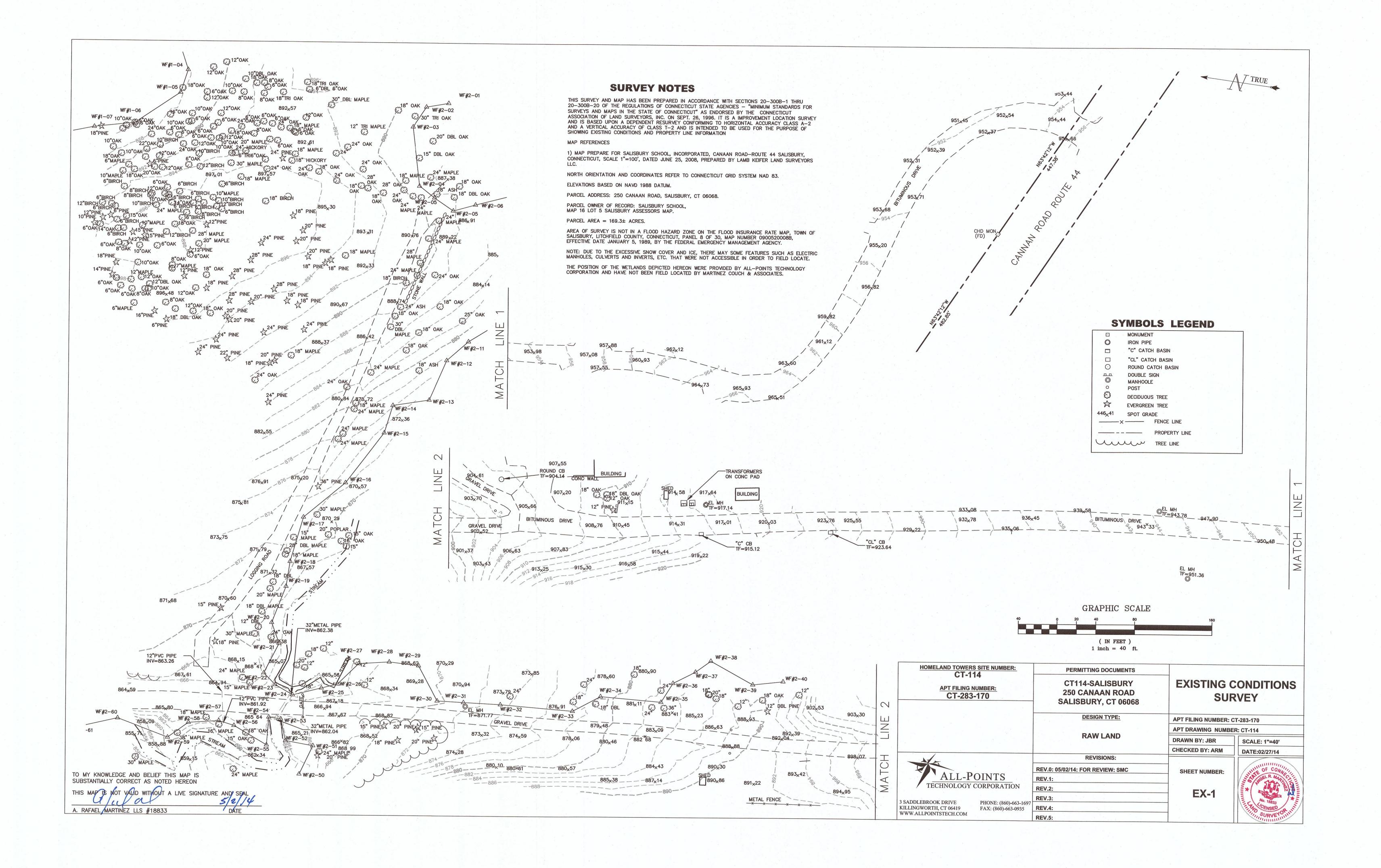
THE POSITION OF THE WETLANDS DEPICTED HEREON WERE PROVIDED BY ALL-POINTS TECHNOLOGY CORPORATION AND HAVE NOT BEEN FIELD LOCATED BY MARTINEZ COUCH & ASSOCIATES.

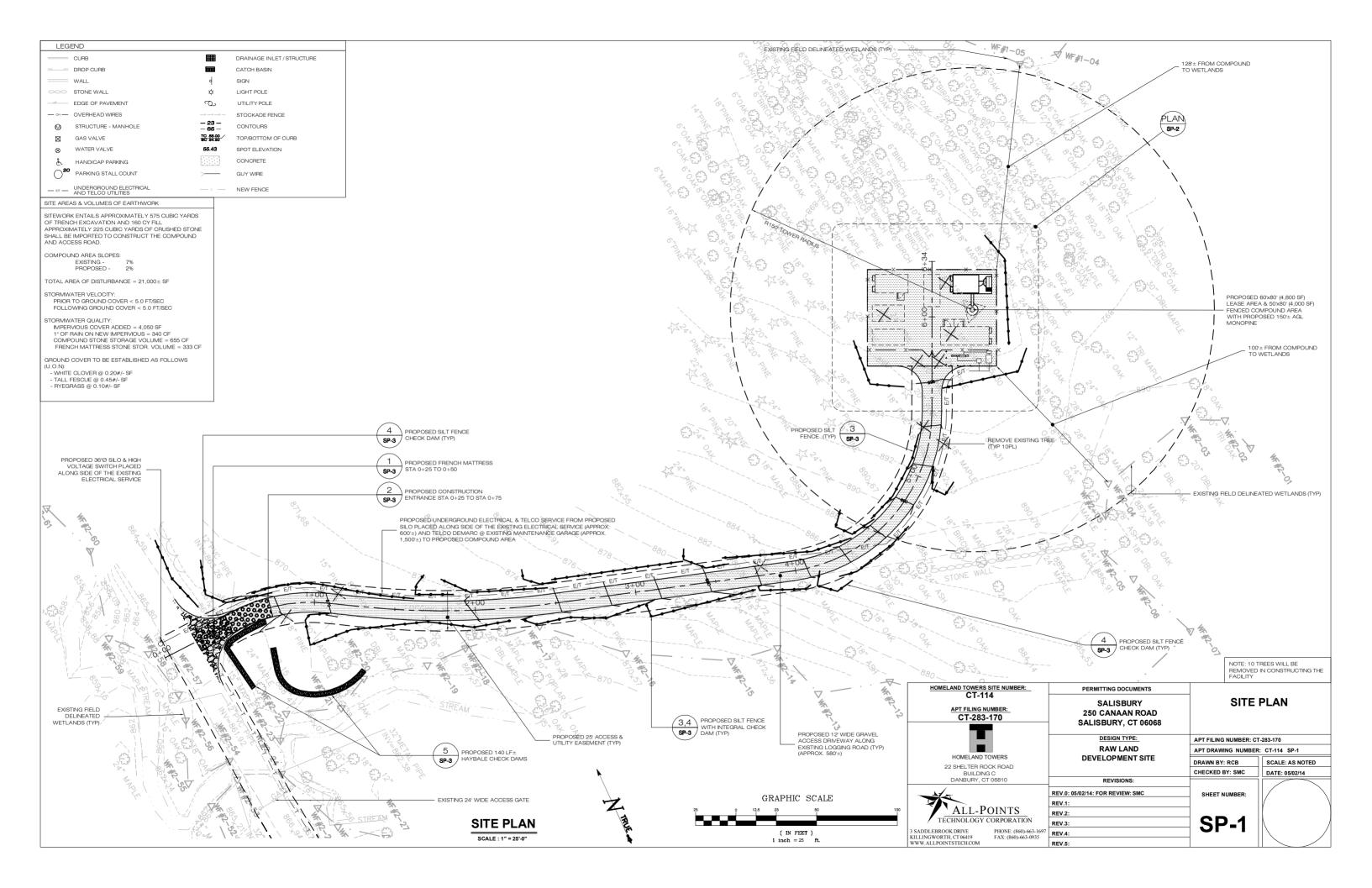
BASE MAPPING FOR SHEETS A-1, SP-1 AND SP-2 FROM:

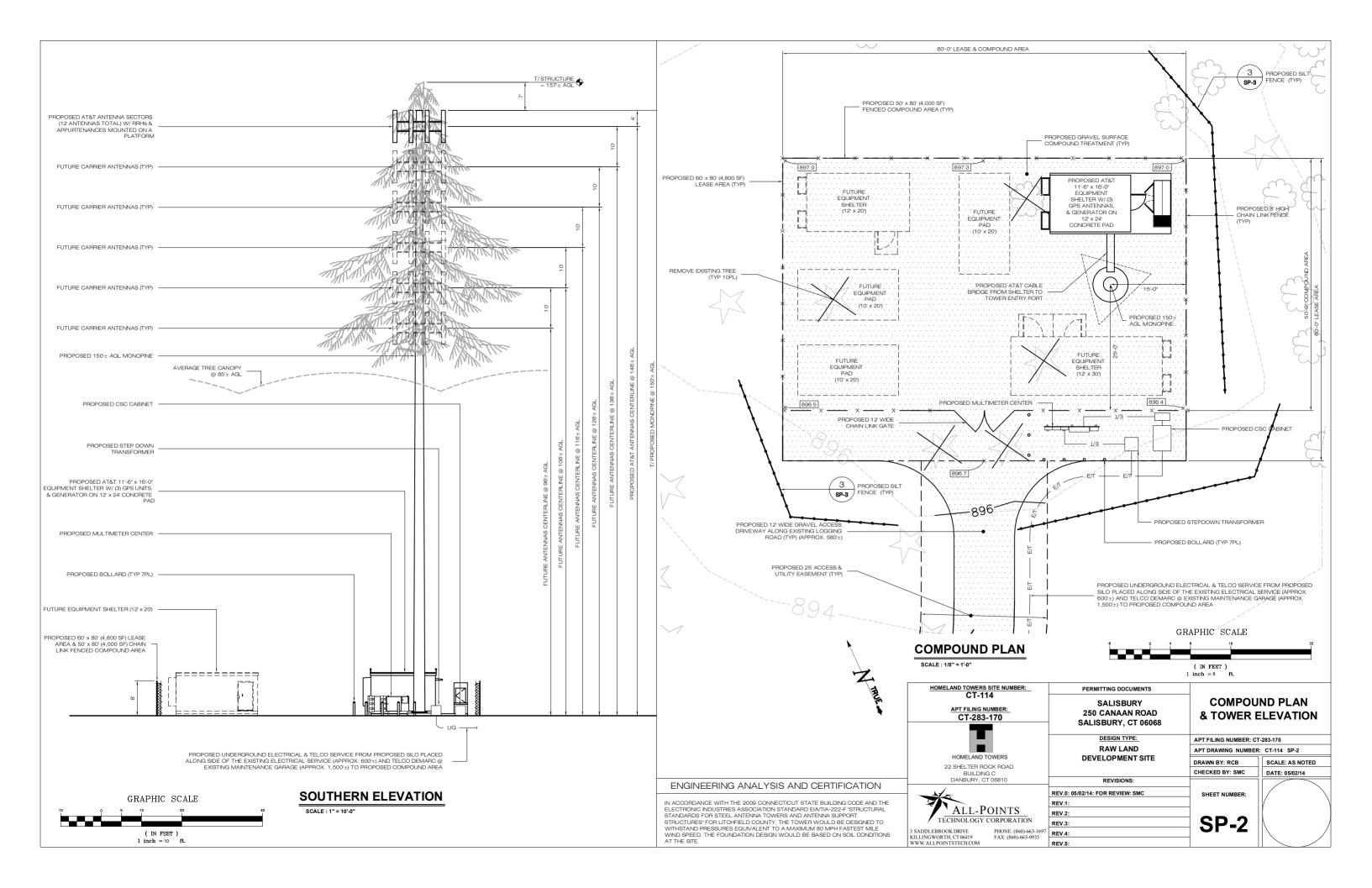
1. PLAN ENTITLED 'EXISTING CONDITIONS SURVEY - 250 CANAAN ROAD SALISBURY, CONNECTICUT 'PREPARED BY MARTINEZ COUCH & ASSOCIATES, LLC 1084 CROMWELL AVENUE ROCKY HILL, CT DATED FEBRUARY 27, 2014 WITH A REVISION DATE OF APRIL 22, 2014.

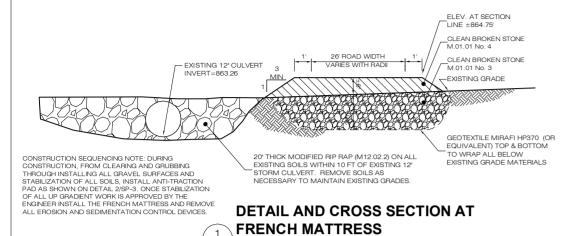
- 2. TOWN OF SALISBURY ASSESSOR'S MAPS 15, 16, 19, & 20.
- . TOWN OF SALISBURY "ZONING MAP"
- 4. DIGITAL GLOBAL 2012 DIGITAL ORTHOPHOGRAPHS.

HOMELAND TOWERS SITE NUMBER:	PERMITTING DOCUMENTS			
CT-114  APT FILING NUMBER:  CT-283-170	SALISBURY 250 CANAAN ROAD SALISBURY, CT 06068	ABUTTERS MAP		
	DESIGN TYPE:	APT FILING NUMBER: CT-283-170 APT DRAWING NUMBER: CT-114 A-1		
	RAW LAND			
HOMELAND TOWERS	DEVELOPMENT SITE	DRAWN BY: RCB	SCALE: AS NOTED	
22 SHELTER ROCK ROAD BUILDING C		CHECKED BY: SMC	DATE: 05/02/14	
DANBURY, CT 06810	REVISIONS:			
1	REV.0: 05/02/14: FOR REVIEW: SMC	SHEET NUMBER:		
A Panyma	REV.1:		`	
ALL-POINTS	REV.2:			
/ TECHNOLOGY CORPORATION	REV.3:	– A-1	\	
3 SADDLEBROOK DRIVE PHONE: (860)-663-1697 KILLINGWORTH, CT 06419 FAX: (860)-663-0935	REV.4:	^ '		
WWW.ALLPOINTSTECH.COM	REV.5:			

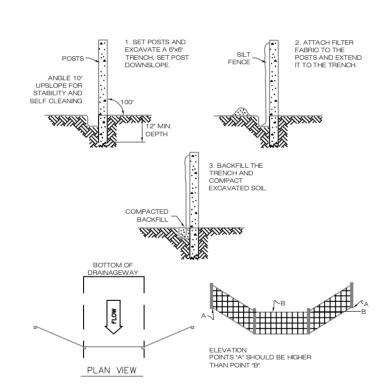




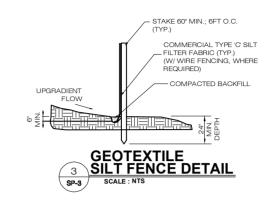


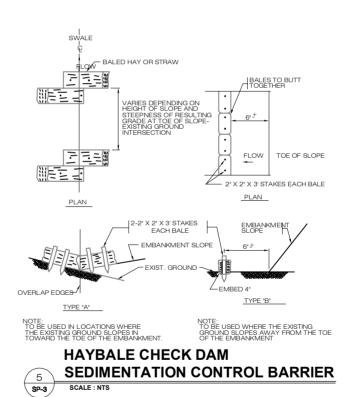


SCALE : NTS





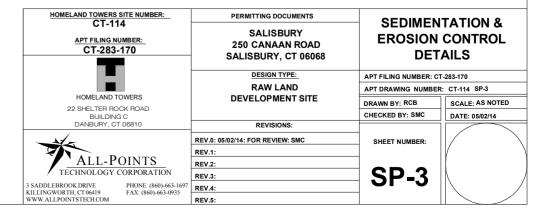




(CE) CONSTRUCTION ENTRANCE DETAIL

SCALE : NTS

SP-3



# FAA 2C SURVEY CERTIFICATION

Applicant:

Homeland Towers
22 Shelter Rock Road
Building C
Danbury, CT 06810

Site Name:

CT114-SALISBURY

Address
250 Canaan Road

Salisbury, Connecticut 06068

Horizontal Datum: NAD 83

Vertical Datum: N.A.V.D. 88

Structure Type: Proposed Monopine

**Latitude:** 42°- 00'-22.543"N NAD 83 **Longitude:** 73°- 23'-27.820"W NAD 83

**Existing Ground Elevation:** 897.3'± feet N.A.V.D. 88

**Proposed Top of Monopine:** 157.0'± feet A.G.L. (1,054.3'± N.A.V.D. 88)

Certification: I certify that the Latitude and Longitude noted hereon are accurate to within

 $\pm$  50 feet horizontally and that the site elevation is accurate to within  $\pm$  20 feet vertically. With a proposed top of monopine of 157.0' $\pm$  AGL, the overall height will be 1,054.3 ' $\pm$  N.A.V.D. 88. The horizontal datum (coordinates) are in terms of the North American Datum of 1983 (NAD 83) and are expressed in degrees minutes and seconds to the nearest thousandth of a second. The vertical datum (heights) are in terms of the North American Vertical Datum of 1988 and

expressed to the nearest foot.

Company: Martinez Couch and Associates L.C.

Surveyor/seal: Angel R. Martinez L. S. 18833

**Date:** March 11, 2014

Signature:

**Revision:** April 25, 2014 Monopine position revised.



# **FAA Aeronautical Evaluation**

# Salisbury CT114

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For more information contact: faa@sitesafe.com 770.532.3255 phone 703.276.1169 fax



#### SITE SPECIFIC EVALUATION FOR

Client Site Name: Salisbury Client Site Number: CT114 Client Site Location: Salisbury, CT.

Client/Requestor Name: Eileen Tavolacci Date: 5/13/14

Company Name: Homeland Towers Address: 22 Shelter Rock Lane Address: Danbury Ct. 06810

This is an evaluation based on application of surfaces identified in Federal Aviation Regulation (FAR) Part 77 and Federal Communication Commission (FCC) Rules Part 17.

#### **EXECUTIVE SUMMARY OF FINDINGS**

- The maximum height that can be built at this site without notice to the FAA is 200 feet AGL or 1093 feet AMSL.
- Maximum No Extended Study height at this site is 499 AGL, or 1392 AMSL.
- Maximum No Hazard height at this site is 499 AGL, or 1392 AMSL.
- Maximum no marking and lighting height at this site is 200 AGL, or 1093 AMSL.

#### SITE DATA SUBMITTED FOR STUDY

Type of Structure: Antenna

Coordinates of site: Lat: 42° 0' 22.54"

Long: 73° 23' 27.82"

Datum: NAD 83

Site Ground Elevation: 898
Total Height above the ground of the entire structure (AGL): 157
Overall height of structure above mean sea level (AMSL): 1055

**Note**: This report is for planning purposes only. If notification to the FAA or FCC is submitted on a site (whether it is, or is not required), a determination of no hazard or an approval letter should be received prior to any actions taken at this site.

#### **AIRPORT AND HELIPAD INFORMATION**

Nearest public use or Government Use (DOD) facility is Walter J. Koladza.

This structure would be located 10.6 NM or 65008 FT from the airport on a bearing of 357 degrees true to the airport.

Nearest private use facility is North Canaan Aviation.

This structure would be located 3.3 NM from the airport on a bearing of 44 degrees true to the airport.

#### **FINDINGS**

#### **AM Facilities:**

(The FCC protects AM transmission stations from possible electro magnetic interference for a distance of 3.0 km for directional facilities, and 1.0 km for non-directional facilities. Any antenna structures within these distances will most likely require a detuning evaluation of the site) (Sitesafe offers a full range of detuning services)

For a free analysis of this site against the most current FCC data, go to our AM evaluation web site at http://sitesafe.com. A negative certificate can be generated, (online) if no conflict is found. If a conflict is found, our AM Detune department will contact you to review the findings.

This site was evaluated against the FCC's AM database, and is not within an AM transmission area.

#### **FCC Notice Requirements:**

(FCC Rules, Part 17)

This structure does not require notification to the FAA or FCC based on these rules.

#### **FAA EMI:**

(The FAA protects certain air navigational aids and radio transmitters from possible electro-magnetic interference. The distance and direction are dependent on the type of facility be evaluated. Most of these transmission and receiver facilities are listed in the National Flight Data Center (NFDC) database.)

This site would not affect any FAA air navigational aids or transmitters listed in the NFDC database.

#### Military Airspace:

This structure will not affect this airspace.

**Note**: This report is for planning purposes only. If notification to the FAA or FCC is submitted on a site (whether it is, or is not required), a determination of no hazard or an approval letter should be received prior to any actions taken at this site.

#### **FAA Evaluation:**

FAR Part 77 paragraph 9 (FAR 77.9). Construction or Alteration requiring notice: (These are the imaginary surfaces that the FAA has implemented to provide general criteria for notification purposes only.)

This structure does not require notification to the FAA.

FAR Part 77 paragraph 17 (FAR 77.17). Standards for Determining Obstructions: (These are the imaginary surfaces that the FAA has implemented to protect aircraft safety. If any of these surfaces are penetrated, the structure may pose a Hazard to Air Navigation.)

This structure does not exceed these surfaces.

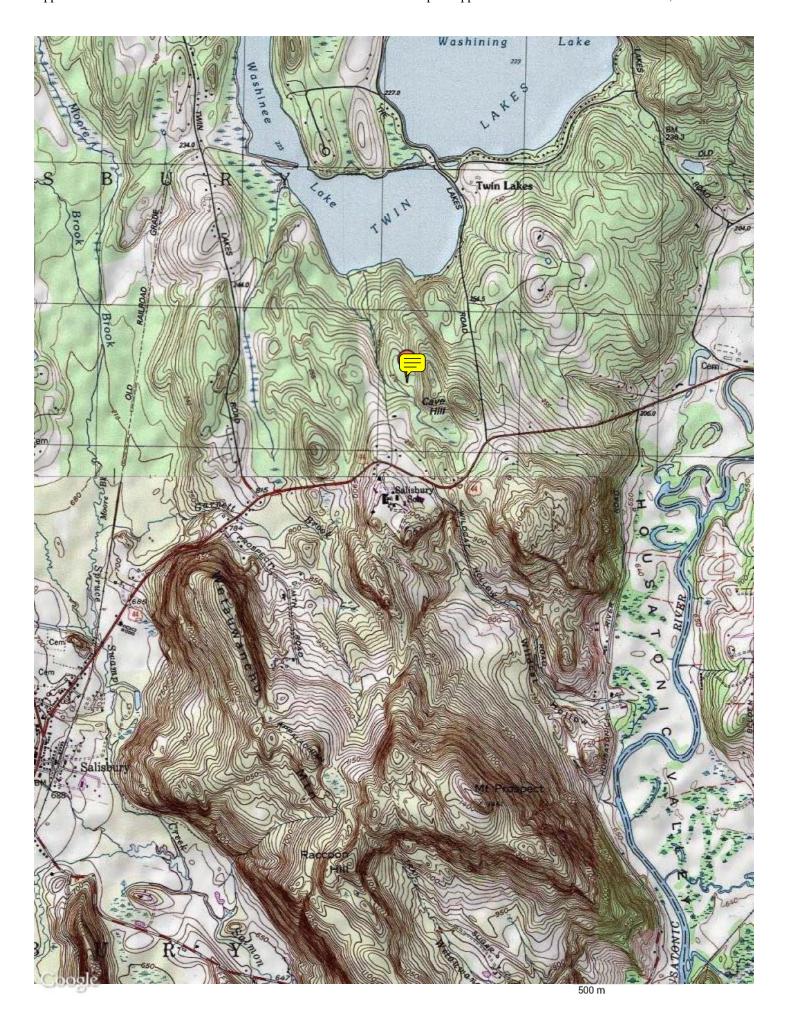
#### **MARKING AND LIGHTING**

FAA Advisory Circular 70/7460-1

Marking and lighting is not required for this structure.

#### **RECOMMENDATIONS OR ACTIONS**

Sitesafe does not consider this site to be a hazard to air navigation as specified in FAR part 77.



1 of 1 3/18/2014 10:00 AM

### ATTACHMENT 5

#### **ENVIRONMENTAL ASSESSMENT STATEMENT**

#### I. PHYSICAL IMPACT

#### A. WATER FLOW AND QUALITY

The site and surrounding terrain are sloped from the north to the south with areas of the parcel and adjacent Town open space constituting steep slopes. Delineated wetlands are on site adjacent to the existing access drive, proposed access drive and approximately 100' from the proposed compound. No direct impact to any wetlands or watercourses are anticipated as a result of the tower site construction. While an alternate access location further from the wetlands available. construction of an alternate access drive would require significantly more grading and larger area of disturbance than the proposed access drive. Therefore, the Applicants submit that the proposed access drive, along the existing access, is more prudent than construction of an alternate The overall amount of impervious surface is low in comparison access. to residential development or development already on site and storm water will be managed with Best Management Practices to be implemented during construction.

A proposed French Mattress is shown at the beginning of the new access drive. Silt fence and hay bale check dams are proposed during construction. The design is sensitive to the existing site and surfaces and will be designed in accordance with the DEEP Sedimentation and Erosion Control manual 2002 and the ConnDot Drainage Manual.

#### B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at the proposed facility would emit no air pollutants of any kind. An emergency diesel fuel generator with secondary containment systems will comply with Connecticut Department of Energy and Environmental Protection ("CTDEEP") air standards for such facilities.

#### C. LAND

Tree removal, clearing, grading and cut and fill will be required for the facility. The remaining land of the lessor would remain undisturbed by the construction and operation of the facility and serve as a buffer to adjoining properties.

#### D. NOISE

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks. Temporary power outages could involve sound from the emergency generator.

#### E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the facility would be 2.41% of the MPE standard. Attached is a copy of a Power Density Report for the facility.

#### F. VISIBILITY

The attached Visibility Analysis includes an evaluation of the anticipated potential visual impact of the proposed monopine, photographs of existing views and simulations of the proposed facility. Potential visibility was assessed within an approximately two (2) mile radius using a computer-

based, predictive view shed model that was field verified. Areas from where the proposed Facility would be visible above the tree canopy year-round comprise a total of approximately 138 acres. When the leaves are off the trees, seasonal views through intervening tree trunks and branches are anticipated to occur over ±343 additional acres within the 8,042 acre study area. No schools or licensed child day care centers are located within 250' of the site.

#### II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

Representatives of the Applicants submitted requests for review from federal and state entities including the Connecticut Department of Energy and Environmental Protection (CTDEEP) and the Connecticut State Historic Preservation Officer (SHPO). CTDEEP indicated that there is a potential for the presence of the State-listed bat species recommended that construction activities take place during the hibernation period from November 1 through March 30. Homeland will comply with this recommendation. In addition, the CTDEEP advised that the site may be a suitable habitat for the long-eared bat, which is slated for Federallisting. Homeland asked its consultants to assume the presence of such species and develop a protection plan. SHPO review is pending and research by the project consultants to date indicates no potential adverse effect on any historic resources eligible for or listed on the National Register of Historic Places. The site was also evaluated in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969 ("NEPA") and no known impacts to federally recognized environmental resources are expected.

### ATTACHMENT 6



#### **WETLAND INVESTIGATION**

May 27, 2014

Homeland Towers 22 Shelter Rock Road, Bld. C Danbury, CT 06810 APT Project No.: CT283114

Re: Proposed Salisbury Facility CT-114

250 Canaan Road Salisbury, Connecticut

All-Points Technology Corporation, P.C. ("APT") understands that a wireless telecommunications facility ("Facility") is proposed by Homeland Towers at 250 Canaan Road in Salisbury, Connecticut ("Subject Property"). At your request, Dean Gustafson, a Connecticut registered Professional Soil Scientist with APT conducted an inspection of the Subject Property on April 13, 2014 to determine the presence or absence of wetlands and watercourses within approximately 200 feet of proposed development activities ("Study Area"). The delineation methodology followed was consistent with both the Connecticut Inland Wetlands and Watercourses Act (IWWA) and the *Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Version 2.0 (January 2012). The results of this wetland investigation are provided below.

#### **Site and Project Description:**

The Subject Property, identified as the Salisbury School in Salisbury, Connecticut, consists of an approximately 169-acre parcel. The area proposed for the wireless communications Facility is located in an undeveloped upland forest area on the school property just north of the maintenance building and east of athletic fields. Access to the Facility is proposed to follow an existing paved and gravel road, which travels to the far north end of the school's property ending at the south shore of Washinee Lake at the Dick Curtis Boathouse. A 580± foot extension from this existing drive, in the form of a new 12-foot wide gravel access that generally follows an existing woods road, would provide access to the proposed Facility. The Study Area is dominated by undeveloped mixed deciduous and conifer forested uplands and wetland areas, and Salisbury School maintenance building and athletic fields. The surrounding land-use consists of residential development, Washinee Lake and undeveloped forested areas.

Two wetland areas were delineated within the Study Area consisting of a hillside seep forested wetland system associated with intermittent watercourse that flows to the north and an unnamed perennial watercourse with bordering forest wetland that generally flows to the west near the proposed access. Please refer to the enclosed Wetland Delineation Map for the approximate locations of the identified wetland resource areas. Wetlands were marked with pink and blue plastic flagging tape numbered with the following sequence: WF 1-01 to 1-09, WF 2-01 to 2-40, and, WF 2-50 to 2-61. General weather conditions encountered during the above-referenced inspection included mid 50° F temperatures with partly sunny skies.

#### ALL-POINTS TECHNOLOGY CORPORATION, P.C.

☑ 3 SADDLEBROOK DRIVE · KILLINGWORTH, CT 06419 · PHONE 860-663-1697 · FAX 860-663-0935

#### **Regulation of Wetlands:**

Wetlands and watercourses are regulated by local, state and federal regulations, with each regulatory agency differing slightly in their definition and regulatory authority of resource areas, as discussed below. The proposed Facility is under the exclusive jurisdiction of the State of Connecticut Siting Council ("Council") and therefore exempt from local regulation, although local wetland regulations are considered by the Council. If wetlands are identified on the Subject Property and direct impact is proposed, those wetlands may be considered Waters of the United States and therefore the activity may also be subject to jurisdiction by the U.S. Army Corps of Engineers ("ACOE") New England District.

Town of Salisbury:

The Town of Salisbury regulates activities within wetlands and watercourses and within 75 feet of wetlands and watercourses through administration of the Connecticut Inland Wetlands and Watercourses Act (IWWA).

**State of Connecticut:** 

Freshwater Wetlands: The IWWA requires the regulation of activities affecting or having the potential to affect wetlands under Sec. 22a-36 through 22a-45 of the Connecticut General Statutes. The IWWA is administered through local municipalities. The IWWA defines wetlands as areas of poorly drained, very poorly drained, floodplain, and alluvial soils, as delineated by a soil scientist. Watercourses are defined as bogs, swamps, or marshes, as well as lakes, ponds, rivers, streams, etc., whether natural or man-made, permanent or intermittent. Intermittent watercourse determinations are based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus; (2) the presence of standing or flowing water for a duration longer than a particular storm incident; and (3) the presence of hydrophytic vegetation.

ACOE:

The U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act. Waters of the United States are navigable waters, tributaries to navigable waters, wetlands adjacent to those waters, and/or isolated wetlands that have a demonstrated interstate commerce connection. The ACOE Wetlands Delineation Manual defines wetlands as "[t]hose areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. This section provides that the construction of any structure in or over any navigable water of the United States, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless the work has been approved by the ACOE.

#### **Soil Description:**

Soil types encountered throughout the Study Area were generally consistent with digitally available soil survey information obtained from the Natural Resources Conservation Service ("NRCS")<sup>1</sup>. Wetland soils field identified consist of Mudgepond and Alden soils. The non-wetland soils were examined along the wetland boundary and more distant upland areas during the delineation, including the proposed Facility location. They are dominated by Stockbridge loam, Georgia and Amenia silt loams, and Udorthents. Detailed descriptions of wetland and upland soil types are provided below.

#### **Wetland Soils:**

The **Alden** series consists of very deep, very poorly drained soils in depressions and low areas on upland till Plains. They formed in a silty local depositional mantle overlying till from limestone-influenced parent material. Slope ranges from 0 to 8 percent. Saturated hydraulic conductivity is moderately high or high in the surface layer and low to moderately high in the subsoil and substratum.

The **Mudgepond** series consists of very deep, poorly drained soils in depressions and drainageways on till plains. They are nearly level to strongly sloping soils that formed in glacial till parent material derived from siliceous rocks with some limestone. Slope ranges from 0 to 8 percent. Permeability is moderate or moderately rapid in the solum and moderate in the substratum.

#### **Upland Soils:**

The **Amenia** series consists of very deep, moderately well drained soils formed in limestone influenced till. They are on uplands of till plains. Slope ranges from 0 to 25 percent. Saturated hydraulic conductivity is moderately high to high in the mineral surface layer and subsoil and low to moderately high in the substratum.

The **Georgia** series consists of very deep, moderately well drained soils on glaciated uplands. They formed in loamy till derived from limestone parent material. Permeability is moderate in the solum and slow in the substratum. Saturated hydraulic conductivity is moderately high or high in the solum and moderately low or moderately high in the substratum.

The **Stockbridge** series consists of very deep, well drained soils formed in loamy calcareous (limestone) till. They are nearly level to very steep soils on till plains, smooth hills, low ridges and drumloidal landforms. Slope ranges from 0 to 60 percent. Permeability is moderate in the surface layer and subsoil and moderately slow or slow in the substratum.

**Udorthents** is a miscellaneous land type used to denote moderately well to excessively drained earthen material which has been so disturbed by cutting, filling, or grading that the original soil profile can no longer be discerned.

<sup>&</sup>lt;sup>1</sup> NRCS Web Soil Survey, <a href="http://websoilsurvey.nrcs.usda.gov/app/">http://websoilsurvey.nrcs.usda.gov/app/</a>, accessed on April 9, 2014.

#### **Wetlands Discussion:**

#### **Wetland 1 Classification Summary:**

Wetland 1 <sup>2</sup>	System	Subsystem	Class	Subclass	Water Regime	Special Modifier
(WF 1-01 to 1-09)	Palustrine		Forested Broad-leaved Deciduous	Seasonally Flooded		
Watercourse Type	Perennial	Intermittent	Tidal	Special Aquatic Habitat (None)	Vernal Pool □	Other

#### Wetland 1 Description:

Wetland 1 is a hillside seep headwater wetland system located northeast of the proposed Facility. A seasonal diffuse intermittent watercourse is centrally located with this wetland system, starting at a seasonal spring near wetland flag WF 1-03, with shallow flows to the north.

#### **Wetland 1 Dominant Vegetation:**

Dominant Wetland Species	Dominant Adjacent Upland Species		
Common Name (Latin Name)	Common Name (Latin Name)		
Red Maple (Acer rubrum)	Eastern White Pine (Pinus strobus)		
Ironwood (Carpinus caroliniana)	Black Cherry (Prunus serotina)		
Eastern Hemlock (Tsuga canadensis)	White Ash (Fraxinus americana)		
Japanese Barberry* (Berberis thunbergii)	Sugar Maple (Acer saccharum)		
Green Ash (Fraxinus pennsylvanica)	Black Birch (Betula lenta)		
Skunk Cabbage (Symplocarpus foetidus)	Japanese Barberry* (Berberis thunbergii)		
	Gray Birch (Betula populifolia)		
	Christmas Fern (Polystichum acrostichoides)		

<sup>\*</sup> denotes Connecticut Invasive Plants Council invasive species

#### Wetland 2 Classification Summary:

Wetland 2  (WF 2-01 to 2-40 and WF 2-50 to 2-61)	<b>System</b> Palustrine	Subsystem	<b>Class</b> Forested	<b>Subclass</b> Broad-leaved Deciduous	Water Regime  Seasonally Flooded	Special Modifier
Watercourse Type (unnamed)	Perennial 🖂	Intermittent	Tidal	Special Aquatic Habitat (None)	Vernal Pool	Other

#### Wetland 2 Description:

Wetland 2 is a forested wetland system associated with an unnamed perennial watercourse that flows to the west, then turns north at an existing culvert crossing associated with the Salisbury School's gravel road that leads to the Dick Curtis Boathouse on Washinee Lake. Washinee Lake is ±0.5 mile north of the stream culvert crossing.

<sup>&</sup>lt;sup>2</sup> Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <a href="http://www.npwrc.usgs.gov/resource/wetlands/classwet/index.htm">http://www.npwrc.usgs.gov/resource/wetlands/classwet/index.htm</a> - contents.

Portions of the stream are steeply incised and show signs of bank erosion. The watershed for this stream includes portions of Route 44 and the Salisbury School campus. Relatively wide bordering wetlands are associated with the stream system east of the existing culvert crossing while the west side has relatively narrow bordering wetlands as the stream gradient increases.

#### **Wetland 2 Dominant Vegetation:**

Dominant Wetland Species	Dominant Adjacent Upland Species		
Common Name (Latin Name)	Common Name (Latin Name)		
Red Maple (Acer rubrum)	Eastern White Pine (Pinus strobus)		
Silky Dogwood (Cornus amomum)	Black Cherry (Prunus serotina)		
Eastern Hemlock (Tsuga canadensis)	White Ash (Fraxinus americana)		
Japanese Barberry* (Berberis thunbergii)	Sugar Maple (Acer saccharum)		
Green Ash (Fraxinus pennsylvanica)	Black Birch (Betula lenta)		
Skunk Cabbage (Symplocarpus foetidus)	Japanese Barberry* (Berberis thunbergii)		
Sensitive Fern (Onoclea sensibilis)	Gray Birch (Betula populifolia)		
	Christmas Fern (Polystichum acrostichoides)		

<sup>\*</sup> denotes Connecticut Invasive Plants Council invasive species

#### **Summary:**

Based on APT's understanding of the proposed Homeland Towers development and a review of the Site Plan prepared by APT (Sheet No. SP-1, latest revision date 05/02/14), no direct impact to wetlands or watercourses are associated with the proposed development. The proposed Homeland Towers Facility's compound is located 128± feet southwest of Wetland 1 (northeast compound corner to wetland flag WF 1-05) and 100± feet north of Wetland 2 (southeast compound corner to wetland flag WF 2-04). Due to the close proximity of portions of Wetland 2 to the existing woods road that will be upgraded to a 12-foot wide gravel access, the nearest location of wetlands to the proposed gravel drive is 8± feet at wetland flag WF 2-17. Although an alternate access could potentially be proposed to access the Facility further to the north of the existing woods road (placing it further from Wetland 2), such an alternative would be associated with a greater disturbance to forested uplands. The steeper slope in the possible alternate access route would require significantly more grading with an associated larger area of disturbance and significantly greater tree removal. This larger area of disturbance would also represent a greater potential for erosion during construction and a larger area to treat stormwater, resulting in greater long-term potential for impact to the nearby wetland and stream system (Wetland 2). Therefore, use of the existing woods road was determined to be a more prudent and feasible alternative despite its closer proximity to Wetland 2.

No temporary impacts associated with Homeland Towers' construction activities to nearby wetlands and watercourses are anticipated provided sedimentation and erosion controls are designed, installed and maintained during construction activities in accordance with the 2002 Connecticut Guidelines For Soil Erosion and Sediment Control. Long term secondary impacts to wetland resources possibly associated with the operation of this Facility are minimized by the fact the development is unmanned, it minimizes the creation of impervious surfaces with the use of a gravel access drive and gravel compound, and it creates minimal traffic. APT recommends that stormwater generated by the proposed development be properly handled and treated in accordance with the 2004 Connecticut Stormwater Quality Manual, with an emphasis on utilizing Green Infrastructure/Low Impact Development techniques<sup>3</sup> where appropriate. APT understands that details of the erosion control and stormwater management plans would be developed during the Council's Development and Management ("D&M") Plan, should the Facility be approved by the Council. Provided these recommendations are implemented, it is APT's opinion that the proposed Homeland Towers development will not result in a likely adverse impact to wetland resources.

<sup>&</sup>lt;sup>3</sup> Connecticut Department of Energy & Environmental Protection. *Low Impact Development Appendix to the Connecticut Stormwater Quality Manual.* June 2011.

In addition, as no direct impact to federal wetlands is anticipated with Homeland Towers' development activities, **NO significant change in surface features** (e.g., wetland fill, deforestation or water diversion) would result in accordance with National Environmental Policy Act Categorical Exclusion checklist item 7.

If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 663-1697 ext. 201 or via email at dgustafson@allpointstech.com.

Sincerely,

All-Points Technology Corporation, P.C.

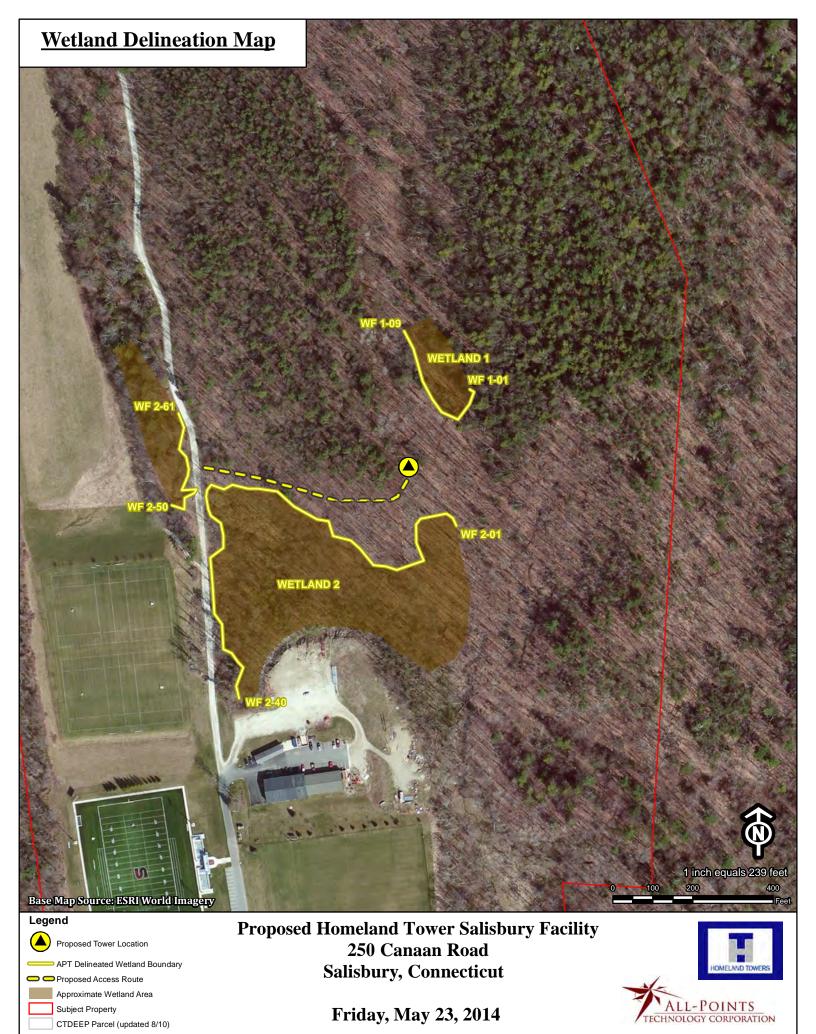
Dean Gustafson

**Professional Soil Scientist** 

Den Lastapa

Enclosure

# Wetland Delineation Map



### ATTACHMENT 7

Daniel L. Goulet C Squared Systems, LLC 65 Dartmouth Drive Auburn, NH 03032 603-644-2800 Dan.Goulet@csquaredsystems.com



May 19, 2014

Connecticut Siting Council

Subject: New Cingular Wireless PCS, LLC ("AT&T") – S4073D – 250 Canaan Rd, Salisbury, CT

Dear Connecticut Siting Council:

C Squared Systems has been retained by New Cingular Wireless PCS, LLC ("AT&T") to investigate RF Power Density levels for the AT&T antenna arrays, to be installed on the proposed monopole tower, to be located at 250 Canaan Rd in Salisbury, CT.

Calculations were done in accordance with FCC OET Bulletin 65. These worst-case calculations assume that all transmitters are simultaneously operating at full power and that there is 0 dB of cable loss. The calculation point is 6 feet above ground level to model the RF power density at the head of a person standing at the base of the tower.

Due to the directional nature of the proposed AT&T antennas, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to the Attachment for the vertical patterns of the proposed AT&T antennas. The calculated results below include a nominal 10 dB off-beam pattern loss to account for the lower relative gain directly below the antennas.

Location	Carrier	Vertical Distance to Antenna (Ft.)	Operating Frequency (MHz)	Number of	Effective Radiated Power (ERP) Per Transmitter (Watts)	Power Density (mw/cm²)	Limit	%МРЕ
	AT&T UMTS	146	880	1	1028	0.0019	0.5867	0.32%
	AT&T UMTS	146	1900	1	1265	0.0023	1.0000	0.23%
Ground	AT&T LTE	146	710	2	1254	0.0046	0.4733	0.97%
Level	AT&T LTE	146	880	1	1543	0.0028	0.5867	0.48%
	AT&T LTE	146	2300	1	2179	0.0040	1.0000	0.40%
							Total	2.41%

**Summary**: Under worst-case assumptions, RF Power Density levels for the proposed AT&T antenna arrays will not exceed **2.41%**<sup>1</sup> of the FCC MPE limit for General Public/Uncontrolled Environments.

Sincerely,

Daniel L. Goulet

C Squared Systems, LLC

<sup>&</sup>lt;sup>1</sup> The total %MPE is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

#### Attachment: AT&T's Antenna Data Sheets and Electrical Patterns

#### 750 MHz

Manufacturer: CCI Products

Model #: HPA-65R-BUU-H8

Frequency Band: 698-806 MHz

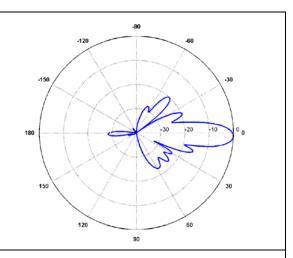
Gain: 13.2 dBd

Vertical Beamwidth: 10.1°

Horizontal Beamwidth: 65°

Polarization: Dual Pol  $\pm 45^{\circ}$ 

Size L x W x D: 92.4" x 14.8" x 7.4"



#### 850 MHz

Manufacturer: CCI Products

Model #: HPA-65R-BUU-H8

Frequency Band: 824-894 MHz

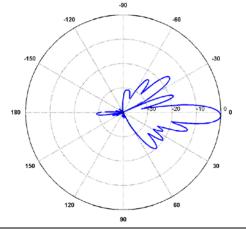
Gain: 14.1 dBd

Vertical Beamwidth: 8.4°

Horizontal Beamwidth: 61°

Polarization: Dual Pol  $\pm 45^{\circ}$ 

Size L x W x D: 92.4" x 14.8" x 7.4"



#### $1900\,\mathrm{MHz}$

Manufacturer: CCI Products

Model #: HPA-65R-BUU-H8

Frequency Band: 1850-1990 MHz

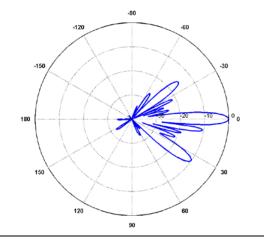
Gain: 15.0 dBd

Vertical Beamwidth: 5.6°

Horizontal Beamwidth: 62°

Polarization: Dual Pol  $\pm 45^{\circ}$ 

Size L x W x D: 92.4" x 14.8" x 7.4"



#### 2300 MHz

Manufacturer: CCI Products

Model #: HPA-65R-BUU-H8

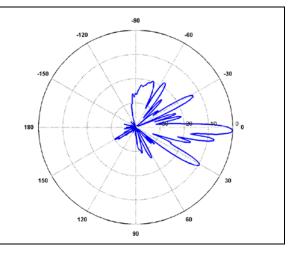
Frequency Band: 2305-2360 MHz

Gain: 15.6 dBd

Vertical Beamwidth:  $4.5^{\circ}$  Horizontal Beamwidth:  $60^{\circ}$ 

Polarization: Dual Pol  $\pm 45^{\circ}$ 

Size L x W x D: 92.4" x 14.8" x 7.4"



### ATTACHMENT 8



## VISIBILITY ANALYSIS

SALISBURY
250 CANAAN ROAD
SALISBURY, CT 06068



### **Prepared for:**

Homeland Towers LLC 22 Shelter Rock Lane, Building C Danbury, CT 06810

#### **Prepared by:**

All-Points Technology Corporation, P.C. 3 Saddlebrook Drive Killingworth, CT 06419

### **Project Introduction**

Homeland Towers is pursuing a Certificate of Environmental Compatibility and Public Need from the Connecticut Siting Council ("Council") for the construction, maintenance and operation of a wireless communications facility ("Facility") on property located at 250 Canaan Road (Route 44) in Salisbury, Connecticut ("Host Property"). At the request of Homeland Towers, All-Points Technology Corporation, P.C. ("APT") prepared this Visibility Analysis to evaluate the potential visual impacts associated with the proposed Facility from within a two-mile radius ("Study Area"). In addition to the Town of Salisbury, small portions of the neighboring Towns of North Canaan and Canaan are also included within the eastern portion of the Study Area.

#### **Site Description and Setting**

The 59-acre Host Property is located at 251 Canaan Road in Salisbury, Litchfield County, Connecticut. The Salisbury Assessor's Office identifies the Host Property on Map 16 as Lot 5. The Host Property is developed with the northern campus of the Salisbury School and multiple institutional buildings, maintenance garage, playing fields (soccer, baseball), wooded areas and a boat house fronting Washnee Lake.

The proposed Facility would be located in the central portion of the Host Property ("Site"), at a ground elevation of approximately 897 feet above mean sea level ("AMSL"). The Facility would include a 150-foot tall monopole designed to resemble a pine tree (referred to as a "monopine") to conceal antennas and supporting apparatus. New Cingular Wireless PCS, LLC ("AT&T") would place its antenna array at a centerline height of 146 feet above ground level ("AGL"); an additional 7-foot extension would be added to the top of the monopole to assist in camouflaging the antenna array and create a tapered tree-top shape. The Facility would be surrounded by an 8-foot tall, 60-foot wide by 80-foot long fence-enclosed compound area. The 4,800± square foot, gravel-base compound would allow sufficient room for multiple equipment shelters and supporting equipment. Access to the Facility would be gained initially over the existing driveway that extends north from Canaan Road and serves the maintenance garage before turning east over a new, 600± foot long spur.

The Host Property is surrounded on two sides (east and west) by woods, Washnee Lake to the north; and the Salisbury School main campus to the south across Canaan Road. Land use within the general vicinity is primarily a mix of wooded land, agricultural fields and rural residential development. The two-mile Study Area includes a total of approximately 8,042 acres. The tree canopy within the Study Area consists mainly of mixed deciduous hardwood species interspersed with scattered stands of conifers, and occupies approximately 5,445 acres (representing about 68% of the Study Area). Topography within the Study Area ranges in ground elevations from approximately 630 feet AMSL to 1,470 feet AMSL.

1

### Methodology

APT used the combination of a predictive computer model and in-field analysis to evaluate the visibility associated with the proposed Facility on both a quantitative and qualitative basis. The predictive model provides a measurable assessment of potential visibility throughout the entire Study Area including private properties and other areas inaccessible for direct observations. The in-field analyses included a reconnaissance of the Study Area to record existing conditions, verify results of the model, inventory visible and nonvisible locations, and provide photographic documentation from publicly accessible areas. A description of the procedures used in the analysis is provided below.

#### **Preliminary Computer Modeling**

Two computer modeling tools are used to calculate those areas from which at least the top of the proposed Facility is estimated to be visible: IDRISI image analysis program (developed by Clark Labs, Clark University) and ArcGIS®, developed by Environmental Systems Research Institute, Inc. Project- and Study Area-specific data were incorporated into the computer model, including the Facility's location, height, and ground elevation, as well as the surrounding topography and existing vegetation which are two primary features that can block direct lines of sight. Information used in the model included LiDAR1-based digital elevation data and customized land use data layers developed specifically for this analysis. The LiDARbased Digital Elevation Model ("DEM") represents topographic information for the state of Connecticut that was derived through the spatial interpolation of airborne LiDAR-based data collected in the year 2000 and has a horizontal resolution of ten (10) feet. In addition, multiple land use data layers were created from National Agricultural Imagery Program (USDA) aerial photography (1-foot resolution, flown in 2011) using IDRISI image processing tools. The IDRISI tools develop light reflective classes defined by statistical analysis of individual pixels, which are then grouped based on common reflective values such that distinctions can be made automatically between deciduous and coniferous tree species, as well as grassland, impervious surface areas, water and other distinct land use features. This information is manually cross-checked with the recent USGS topographic land characteristics to quality assure the imaging analysis.

Once the data layers were entered, image processing tools were applied and overlaid onto USGS topographic base maps and aerial photographs to achieve an estimate of locations where the Facility might be visible. First, only the topography data layer (DEM) was incorporated to evaluate potential visibility with no intervening vegetative screening. The model is queried to determine where the top of the Facility can be seen from any point(s) within the Study Area, given the intervening existing topography. The initial omission of the forest cover data layer results in an excessive over-prediction, but provides an opportunity to identify and evaluate those areas with potentially direct sight lines toward the Facility.

2

<sup>&</sup>lt;sup>1</sup> LiDAR is an acronym for Light Detection and Ranging. It is a technology that utilized lasers to determine the distance to an object or surface. LiDAR is similar to radar, but incorporates laser pulses rather than sound waves. It measures the time delay between transmission and reflection of the laser pulse.

Eliminating the tree canopy altogether, as performed in the preliminary analysis exaggerates areas of visibility because it assumes unobstructed sight lines everywhere but in those locations where intervening topography rises above the height of the proposed Facility. However, using this technique not only allows for an initial identification of direct sight lines, but also to gain some insight regarding seasonal views when the leaves are not on the trees. This preliminary mapping is especially useful during the in-field activities (described below) to further evaluate "leaf-off" scenarios.

Visibility varies through the year as the leaves drop from deciduous trees. During "leaf on" conditions, individual trees that are grouped proximate to one another form a near opaque wall of vegetation that, once beyond a certain distance, cannot be seen through. Conversely, visibility increases seasonally with obstructed, views occurring during "leaf-off" conditions. Thus two forest data layers are created to represent both year-round ("leaf-on") and seasonal (leafless or "leaf-off") conditions. These data layers are incorporated into the model, analyzed separately and then merged to produce the visibility maps. Calculations resulting from the leaf-on forest data layer depict areas where at least the top of the Facility may be present above the intervening tree canopy. Similarly, computations from the "leaf-off" data layer also depict areas where the top of the Facility is predicted to be visible but it accounts for the increased transparency due to lack of vegetative screening. The Study Area includes mature vegetation with a unique composition and density of woodlands, with mast or pole timber and branching providing the majority of screening in leafless conditions. Beyond the density of woodlands found within the Study Area, each individual tree has its own unique trunk, pole timber and branching pattern characteristics that provide varying degrees of screening in leafless conditions which cannot be precisely modeled. Because tree spacing, dimensions and branching patterns as well as the understory differ greatly over even small areas, the Study Area has its own discrete forest characteristics. To approximate seasonal visibility, a conservative set of values was incorporated into the model, including the assumptions that each deciduous tree is simply a vertical pole with no distinct branching pattern. Given these conservative assumptions, the resultant modeling still over-predicts visibility in "leaf-off" conditions but does provide a better representation than the initial map using topography only.

A purposely low average tree canopy height of 50 feet was then incorporated into the forest data layers and added to the DEM for a second iteration of the visibility map. The model was queried again to determine where the top of the Facility may be seen from any point(s) within the Study Area, given both the intervening existing topography and forest data layers. The results of the preliminary analysis provide a representation of those areas where portions of the Facility could potentially be visible to the human eye without the aid of magnification, based on a viewer eye-height of 5 feet above the ground and the combination of intervening topography and tree canopy (year-round) and tree trunks (seasonally, when the leaves are off the deciduous trees) using an average tree height of 50 feet. This iteration provides a conservative assessment of intervening vegetation for use during the in-field activities to compare the outcomes of the initial computer modeling with direct observations of the balloon float.

As a final step, the forested areas were extracted from the areas of visibility, using a conservative assumption that a person standing within the forest will not be able to view the proposed Facility beyond a distance of approximately 500 feet. Depending on the density of the intervening tree canopy and understory of the surrounding woodlands, it is assumed that some locations within this distance could provide visibility of at least portions of the proposed Facility at any time of the year. In "leaf-on" conditions, this distance may be overly conservative for most locations. However, for purposes of this analysis, it was reasoned that forested land beyond 500 feet of the proposed Facility would consist of light-impenetrable trees of a uniform height.

Additional data was reviewed and incorporated into the viewshed maps, including protected private and public open space, parks, trails schools and historic districts. The Edith Scoville Memorial Sanctuary is

located immediately west of the Host Property and includes a network of walking trails available to the public. The Appalachian Trail extends generally in an east to west direction through the southern portion of the Study Area. Based on a review of publicly-available information, Routes 44 (Canaan Road) and 41 are State designated scenic roadways.

#### **In-Field Activities**

To supplement and fine tune the results of the computer modeling efforts, APT completed in-field verification activities consisting of a balloon float, vehicular and pedestrian reconnaissance, and photodocumentation.

#### **Balloon Float and Field Reconnaissance**

Balloon floats and field reconnaissance were conducted on April 18 and 25, 2014 to obtain photographs for use in this report. The balloon floats consisted of raising approximately four-foot diameter, red helium-filled balloons tethered to string heights of 157 feet above ground level ("AGL") at the proposed Site. Weather conditions on both days were favorable for the in-field activities, with calm winds (less than 4 miles per hour) and partly cloudy skies. Once the balloon was secured, APT conducted a Study Area reconnaissance by driving along the local and State roads and other publicly accessible locations to document and inventory where the balloon could be seen above/through the tree canopy. In addition to surveying the roads, APT personnel also hiked a stretch of the Appalachian Trail (from Housatonic River Road to the Limestone Shelter blue spur trail) over the highest elevations within the Study Area, including Prospect Mountain to evaluate potential views from this resource. Visual observations from the reconnaissance were also used to evaluate the results of the preliminary visibility mapping and identify any discrepancies in the initial modeling.

During the balloon float and in-field activities, several trees were randomly surveyed using a hand-held infrared laser range finder and a Suunto Tandem clinometer to ascertain their heights. The heights of trees adjacent to the site were field measured to document the surrounding canopy elevation. Numerous off-site locations were also selected to obtain tree canopy heights, including along roadways, wooded lots, and high- and low-lying areas to provide for the irregularities associated with different land characteristics and uses found within the Study Area. The average canopy height was developed based on measurements and comparative observations, in this case approximately 65 feet AGL. Throughout Connecticut, the tree canopy height varies from about 55 feet to in excess of 80 feet (where eastern white pine becomes a dominant component of the forest type, average tree heights may be even slightly higher). This general uniformity is most likely the result of historic state-wide clear cutting of forests for charcoal production in the late 1800s and early 1900s. Approximately 69% of Connecticut's forests are characterized as mature<sup>2</sup>.

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<sup>&</sup>lt;sup>2</sup> USDA Resource Bulletin NE-160, 2004.

#### **Photographic Documentation**

During the balloon float and field reconnaissance, APT drove the public roads within the Study Area and recorded observations, including photo-documentation, of those areas where the balloon was and was not visible. Photographs were obtained from several vantage points to document the views of a proposed Facility. The geographic coordinates of the camera's position at each photo location were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D digital camera body and Canon EF 24 to 105 millimeter ("mm") zoom lens, with lens set to 50 mm.

"The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm.<sup>3</sup>"

#### **Final Visibility Mapping**

Information obtained during the field reconnaissance was incorporated into the mapping data layers, including observations of the balloon float, the photo locations, areas that experienced recent land use changes and those places where the initial model was found to over-predict visibility. The revised average tree canopy height data (65 feet AGL) was merged with the DEM and added to the base ground elevations of the forested areas data layer. Once the additional data was integrated into the model, APT re-calculated the visibility of the proposed Facility from within the Study Area to assist in producing the final viewshed map.

### **Photographic Simulations**

Photographic simulations were generated to portray scaled renderings of the proposed Facility from 10 representative locations where the proposed Facility would be visible either on a year-round or seasonal basis. Using field data, site plan information and 3-dimension (3D) modeling software, spatially referenced models of the site area and Facility were generated and merged. The geographic coordinates obtained in the field for the photograph locations were incorporated into the model to produce virtual camera positions within the spatial 3D model. Photo simulations were then created using a combination of renderings generated in the 3D model and photo-rendering software programs<sup>4</sup>.

For presentation purposes in this report, the photographs were taken with a 50 mm focal length and produced in an approximate 7-inch by 10.5-inch format. When viewing in this format size, we believe it is important to provide the largest representational image while maintaining an accurate relation of sizes between objects within the frame of the photograph.

Photo-documentation of the balloon float and photo-simulations of the proposed Facility are presented in the attachment at the end of this report. The balloon float photos provide visual reference points for the approximate height and location of the proposed Facility relative to the scene. The photo-simulations

<sup>&</sup>lt;sup>3</sup> Warren, Bruce. Photography, West Publishing Company, Eagan, MN, c. 1993, (page 70).

<sup>&</sup>lt;sup>4</sup> As a final step, the accuracy and scale of select simulations are tested against photographs of similar existing facilities with recorded camera position, focal length, photo location, and tower location.

are intended to provide the reader with a general understanding of the different views that might be achieved of the Facility. It is important to consider that the publicly-accessible locations selected are typically representative of a "worst case" scenario. They were chosen to present unobstructed view lines (wherever possible), are static in nature and do not necessarily fairly characterize the prevailing views from all locations within a given area. From several locations, moving a few feet in any direction will result in a far different perspective of the Facility than what is presented in the photographs. In several cases, a view of the Facility may be limited to the immediate area of the specific photo location.

#### **Photograph Locations**

The table below summarizes characteristics of the photographs and simulations presented in the attachment to this report including a description of each location, view orientation, the distance from where the photo was taken relative to the proposed Facility and the general characteristics of that view. The photo locations are depicted on the photolog and viewshed maps provided as attachments to this report.

View	Location	Orientation	Distance to Site	View Characteristics
1	Twin Lakes Road	Southwest	±1.98 Miles	Year-round
2	Between the Lakes Road	South	±1.58 Miles	Seasonal
3	Taconic Road	Southeast	±1.49 Miles	Seasonal
4	Edith Scoville Memorial Sanctuary	East	±0.31 Mile	Seasonal
5	Edith Scoville Memorial Sanctuary	East	±0.18 Mile	Year-round
6	Host Property	Northeast	±0.16 Mile	Year-round
7	Host Property	Northeast	±0.24 Mile	Year-round
8	Host Property	North	±0.37 Mile	Year-round
9	Host Property	North	±0.42 Mile	Year-round
10	Host Property	North	±0.42 Mile	Seasonal
11	Appalachian Trail	North	±0.86 Miles	Not visible
12	Appalachian Trail	North	±1.62 Miles	Not visible
13	Appalachian Trail	Northwest	±1.83 Miles	Not visible

### **Visibility Analysis Results**

Results of this analysis are graphically displayed on the viewshed maps provided in the attachment at the end of this report. Areas from where the proposed Facility would be visible above the tree canopy year-round comprise a total of approximately 138 acres. When the leaves are off the trees, seasonal views through intervening tree trunks and branches are anticipated to occur over some locations within an area of 343± acres.

In general, year-round views of large portions of the Facility appear primarily limited to the Host Property as can be seen in photos 5<sup>5</sup> through 9, for example. With the exception of lower portions of Washnee Lake, and a few isolated elevated areas, year-round views beyond the Host Property northward diminish quickly. In the limited areas where the Facility would be visible to the north, the distances exceed one mile and views restricted to the top of the monopine (see photo 1). The relatively restricted areas of year-round visibility are a result of the Host Property's setting within a heavily wooded valley.

Seasonal views, when the leaves are off the deciduous trees, may extend out to select locations at distances of one mile or more northward and are primarily limited to heights of land where the top of the Facility may be seen at. In most cases, the Facility would be seen with rising hills as a backdrop (photos 2 and 3). To the south, views off the Host Property would be restricted to a few higher elevations within approximately 0.75 mile or less of the Site. Please note that seasonal visibility over all non-accessible areas for field confirmation (i.e., private properties) is reliant on computer modeling and, as introduced above results in an over-prediction of the seasonal viewshed. The Facility would not be visible from all locations within the shaded areas depicted on the maps. Beyond the limitations previously discussed, the computer model cannot account for mass density, the height, diameter and branching variability of the trees, or the degradation of views that occur with distance. In addition, each point – or pixel - represents about one square meter in area, and thus is not predicting visibility from all viewpoints through all possible obstacles. Although large portions of the predicted viewshed may theoretically offer visibility of the Facility, because of these unavoidable limitations the quality of those views may not be sufficient for the human eye to recognize the tower or discriminate it from other surrounding objects, particularly given its design as a monopine.

A small portion of Canaan Road (a State scenic road) as it passes between the Salisbury School properties would have intermittent views of the Facility (photos 9 and 10). Limited seasonal views may be achieved from some locations on the eastern-most trails within the Edith Scoville Memorial Sanctuary (photo 4). No views would be achieved from portions of the Appalachian Trail, which lies over 1.5 miles away, is heavily wooded throughout its length in this area and does not offer unobstructed views towards the Site (photos 11, 12 and 13).

#### **Proximity to Schools And Commercial Child Day Care Centers**

The Host Property is developed with the Salisbury School, a boarding school for boys (high school level). No occupied school structures are located within 250 feet of the Facility Site. In addition, no commercial child day care centers are located within 250 feet of the Host Property. The nearest commercial child day care center is Puddle Jumpers Day Care Center, located at 19 Park Avenue in North Canaan, approximately 2.15 miles to the east. The nearest commercial child day care center within the Town of Salisbury (Housatonic Day Care) is located at 30B Salmon Kill Road, approximately 2.5 miles to the southwest. No views of the Facility are anticipated from either of these locations.

7

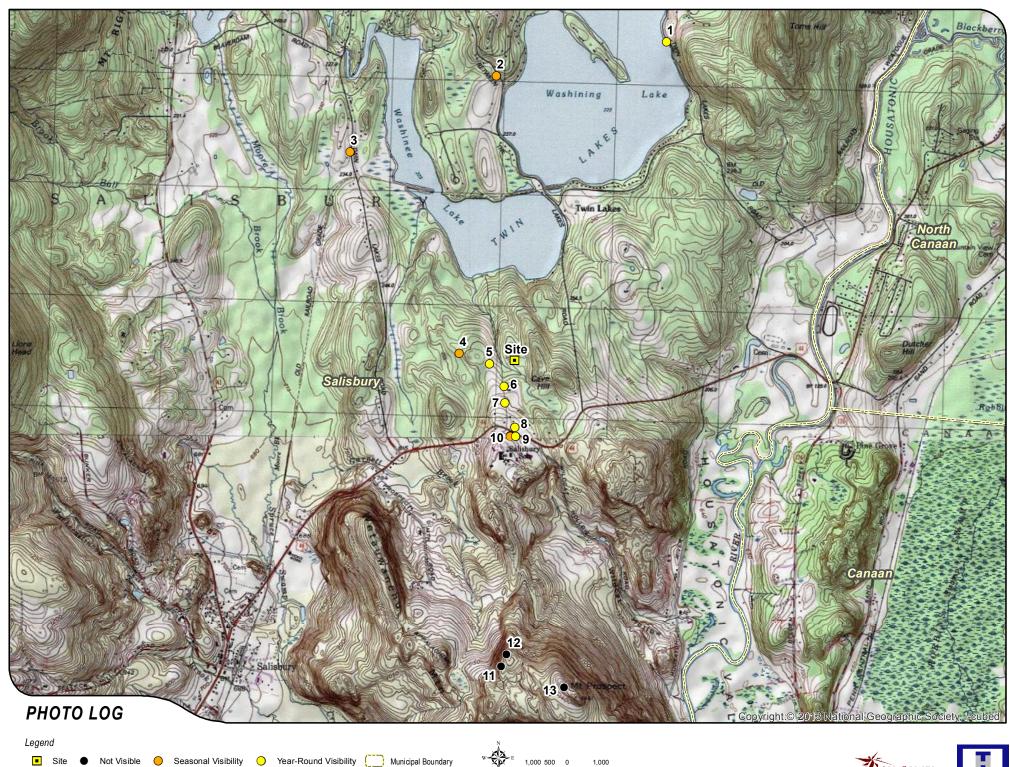
<sup>&</sup>lt;sup>5</sup> Photo location 5 was on taken from just at the eastern end of the adjoining property, Edith Scoville Memorial Sanctuary

#### **LIMITATIONS**

The viewshed maps presented in the attachment to this report depict areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eyeheight of 5 feet above the ground and intervening topography and an assumed tree canopy height of 65 feet. This analysis may not necessarily account for all visible locations, as it is based on the combination of computer modeling, incorporating 2012 aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

The simulations provide a representation of the Facility under similar settings as those encountered during the balloon floats and reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the balloon floats included partly cloudy skies and, combined with the leaf-off conditions, the photo-simulations presented in this report provide an accurate portrayal of the Facility during comparable conditions.

### **ATTACHMENTS**



ALL-POINTS TECHNOLOGY CORPORATE







































4	EDITH SCOVILLE MEMORIAL SANCTUARY	EAST	+/- 0.31 MILE	SEASONAL
PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY







4	EDITH SCOVILLE MEMORIAL SANCTUARY	EAST	+/- 0.31 MILE	SEASONAL
PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY







PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	EDITH SCOVILLE MEMORIAL SANCTUARY AT EDGE OF PLAYING FIELDS	EAST	+/- 0.18 MILE	YEAR ROUND







PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	EDITH SCOVILLE MEMORIAL SANCTUARY AT EDGE OF PLAYING FIELDS	EAST	+/- 0.18 MILE	YEAR ROUND











































































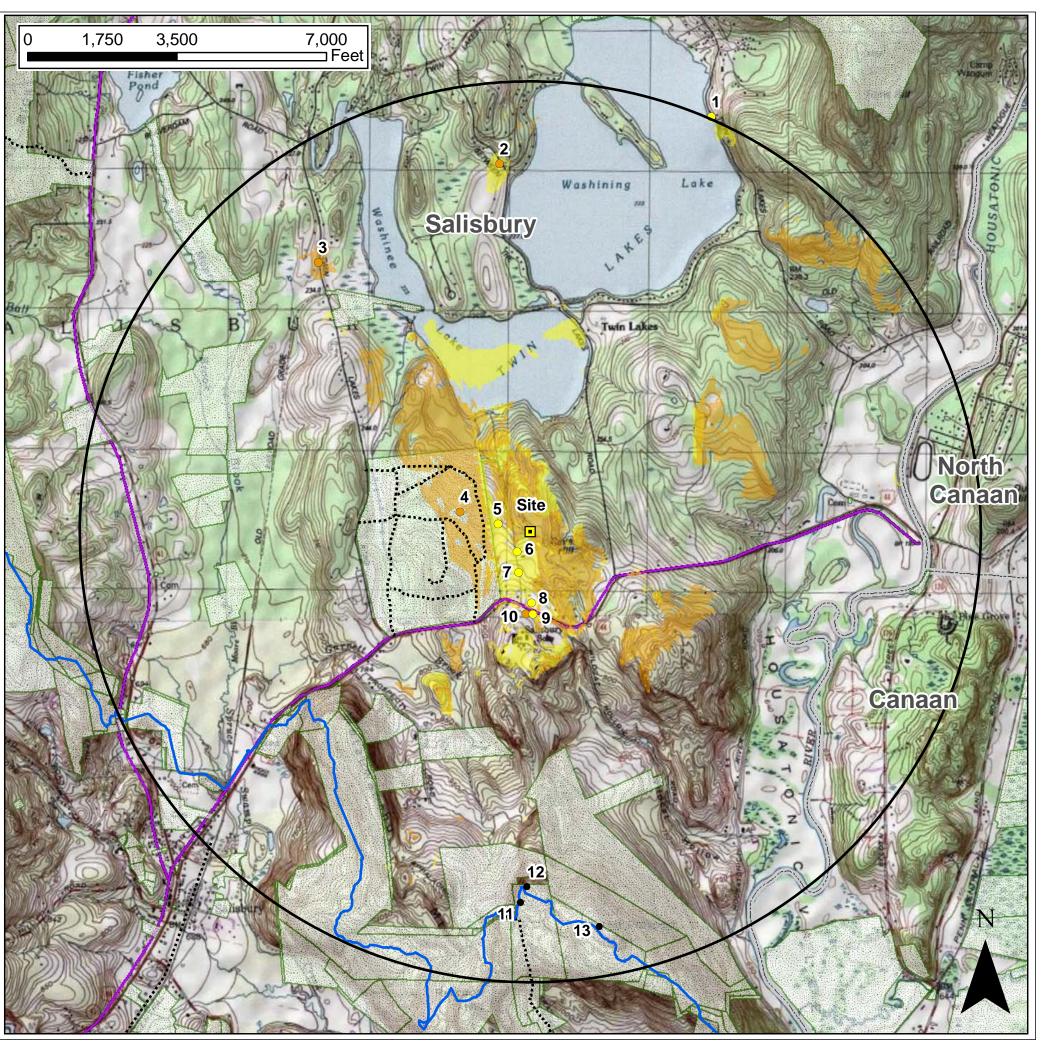


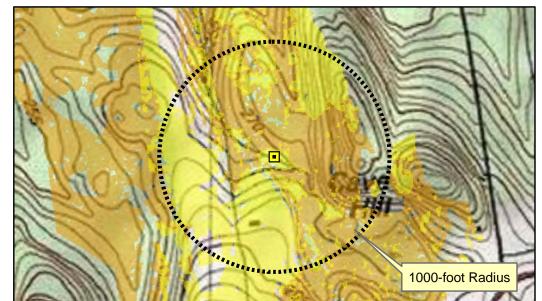












### Viewshed Map - Topo Base

Proposed Wireless Telecommunications Facility CT283173 - CT114 - Salisbury 250 Canaan Road, Salisbury, CT

Proposed facility height is 157 feet AGL.
Existing tree canopy height estimated as 65 feet.
Study area encompasses a two-mile radius and includes 8,042 acres of land.

Map compiled 5/14/2014

Map information field verified by APT on 4/18 & 4/25/2014.

Only those resources located within the extent of the map are depicted. For a complete list of data sources consulted for this analysis, please refer to the Documentation Page.

### Legend

Proposed Tower

#### **Photo Locations**

- Not Visible
- Seasonal Views
- Year-round Views

····· Trails

- Appalachian Trail

Predicted Seasonal Visibility (343 Acres)

Predicted Year-Round Visibility (138 Acres)

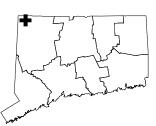
Towns

2-Mile Study Area

Open Space

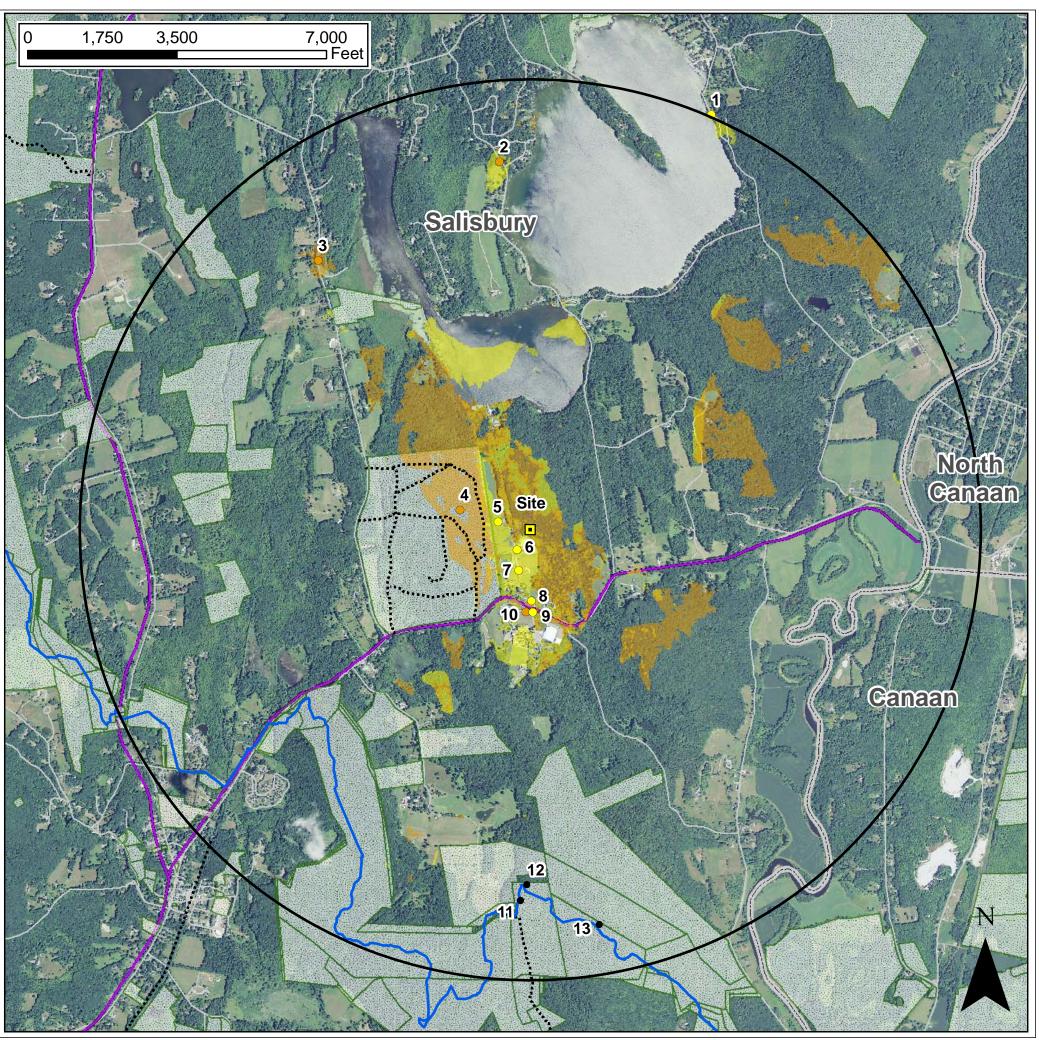
Scenic Highways (CT)

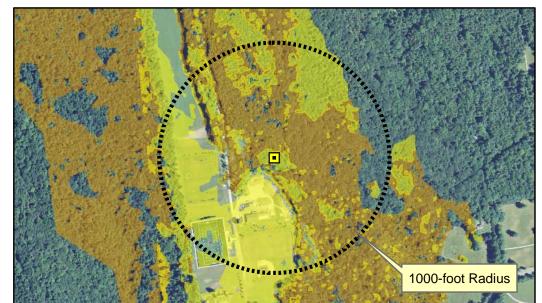












### **Viewshed Map – Aerial Base**

Proposed Wireless Telecommunications Facility CT283173 - CT114 - Salisbury 250 Canaan Road, Salisbury, CT

Proposed facility height is 157 feet AGL.
Existing tree canopy height estimated as 65 feet.
Study area encompasses a two-mile radius and includes 8,042 acres of land.

Map compiled 5/14/2014

Map information field verified by APT on 4/18 & 4/25/2014.

Only those resources located within the extent of the map are depicted. For a complete list of data sources consulted for this analysis, please refer to the Documentation Page.

## Legend

Proposed Tower

#### **Photo Locations**

- Not Visible
- Seasonal Views
- Year-round Views

····· Trails

Appalachian Trail

Predicted Seasonal Visibility (343 Acres)

Predicted Year-Round Visibility (138 Acres)

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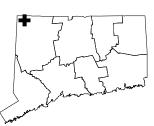
Towns

2-Mile Study Area

Open Space

Scenic Highways (CT)

#### Location







#### DOCUMENTATION

#### SOURCES CONSULTED FOR VISBILITY ANALYSIS MAPS 251 Canaan Road Salisbury, Connecticut

#### Physical Geography / Background Data

Center for Land Use Education and Research, University of Connecticut (http://clear.uconn.edu)

\*Land Use / Land Cover (2006)

\*Coniferous and Deciduous Forest (2006)

\*LiDAR data – topography (2000)

United States Geological Survey

\*USGS topographic quadrangle maps – Sharon, South Canaan, Bashbish Falls, Ashley Falls (1984)

National Resource Conservation Service

\*NAIP aerial photography (2012)

Department of Transportation data

^State Scenic Highways (updated monthly)

Heritage Consultants

^Municipal Scenic Roads

#### Cultural Resources

Heritage Consultants

^National Register

^ Local Survey Data

#### Dedicated Open Space & Recreation Areas

Connecticut Department of Energy and Environmental Protection (DEEP)

\*DEEP Property (May 2007)

\*Federal Open Space (1997)

\*Municipal and Private Open Space (1997)

\*DEEP Boat Launches (1994)

Connecticut Forest & Parks Association

^Connecticut Walk Book West – The Guide to the Blue-Blazed Hiking Trails of Western Connecticut, 19th Edition, 2006.

#### Other

^ConnDOT Scenic Strips (based on Department of Transportation data)

- \*Available to the public in GIS-compatible format (some require fees).
- ^ Data not available to general public in GIS format. Reviewed independently and, where applicable, GIS data later prepared specifically for this Study Area.

#### LIMITATIONS

The visibility analysis map(s) presented in this report depict areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet above the ground and intervening topography and an assumed tree canopy height of 65 feet. This analysis may not necessarily account for all visible locations, as it is based on the combination of computer modeling, incorporating 2012 aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties beyond the host Property was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

The photo-simulations in this report are provided for visual representation only. Actual visibility depends on various environmental conditions, including (but not necessarily limited to) weather, season, time of day, and viewer location.



August 10, 2014

Dean Gustafson All-Points Technology Corporation 3 Saddlebrook Drive Killingworth, CT 06419

Re: Homeland Towers Site No. CT114 in Salisbury, Connecticut NDDB 201405636

#### Dear Mr. Gustafson:

Materials pertaining to the above project were forwarded to me for review by the DEEP Natural Diversity Database (NDDB). Their records indicate that State-listed bat species occur in the vicinity of this proposed telecommunications tower.

Given the known concentrated seasonal use of this area by bats, we recommend that tree cutting and other land-clearing activities be conducted during the hibernation period of these animals. Tree cutting should be conducted from November 1 through March 30 to ensure that bats are safely situated in their hibernacula. Retaining larger diameter trees (12-inch DBH and larger) wherever possible on-site, may additionally minimize the potential for negative impacts to bats. Trees with loose, rough bark such as maples, hickories, and oaks are more desirable than other tree species due to the increased cover that the loose bark provides. Large trees with cavities are also utilized by different bat species.

Since the northern long-eared bat (*Myotis septentrionalis*) is slated for Federal-listing in the next year, we recommend that you consult Ms. Susi von Oettingen of the U. S. Fish and Wildlife Service (70 Commercial Street, Suite 300, Concord, NH 03301-5087, 603-223-2541) for her input on this proposed project. If suitable habitat will be impacted by the project, a consultation may be required per the Endangered Species Act.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Database should not be substituted 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 Database as it becomes available.

This is a preliminary site review and is not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to the DEEP for the proposed site. Please be advised that should state permits be required or should state

involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEEP Wildlife Division should be requested and species-specific surveys may be required. If the proposed project has not been initiated within one year of this Wildlife Division review, you should contact the NDDB for an updated review.

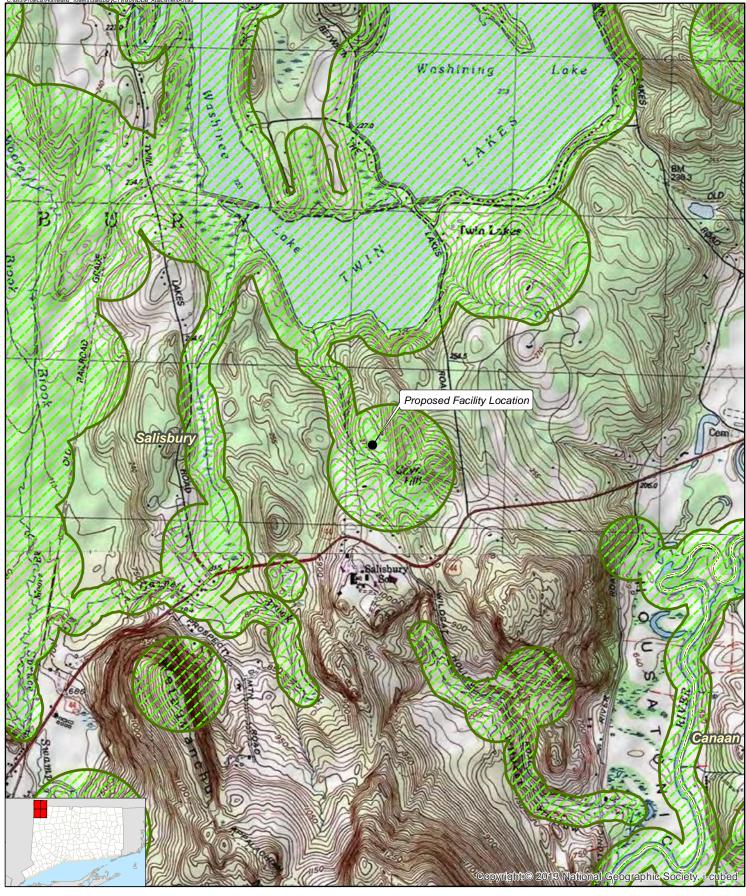
If you have any additional questions, please feel free to contact me at <a href="mailto:Laura.Saucier@ct.gov">Laura.Saucier@ct.gov</a>, please reference the NDDB number in the subject line of this letter when you e-mail or write.

Sincerely,

Laura Saucier Wildlife Biologist

cc. S. von Oettingen-USFWS

Laur Su



#### Legend





Natural Diversity Database (updated Dec. 2013)

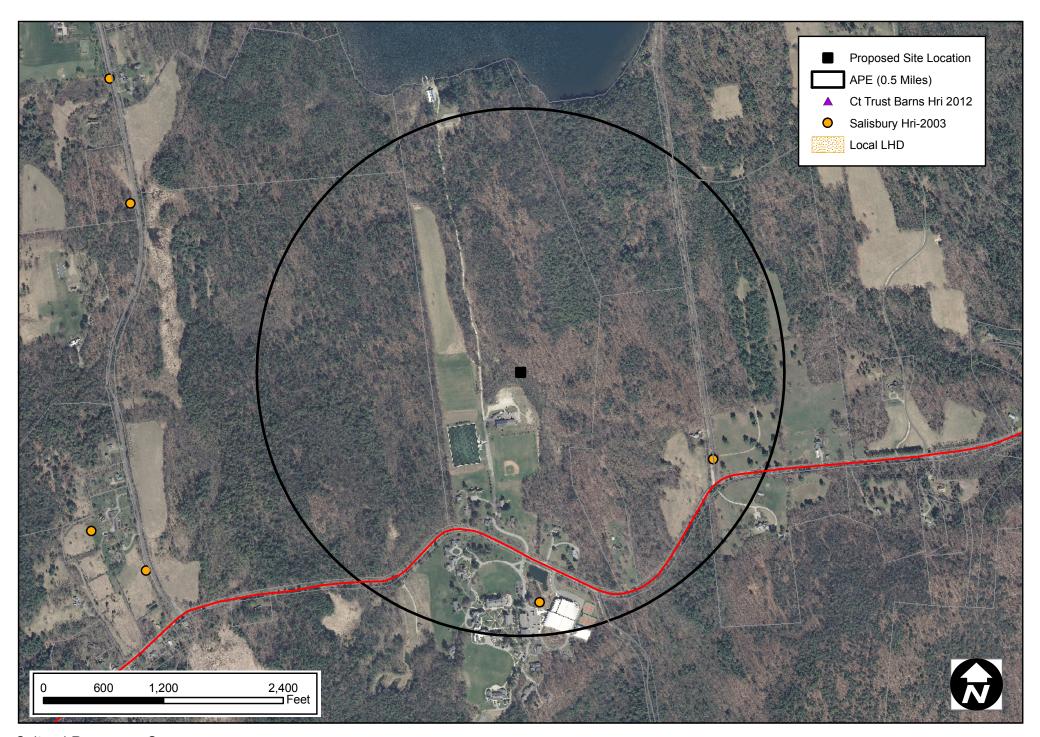
Municipal Boundary

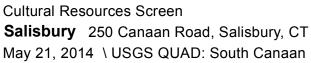


# Attachment A: Overview Map

Proposed Wireless Telecommunications Facility Salisbury 250 Canaan Road Salisbury, Connecticut

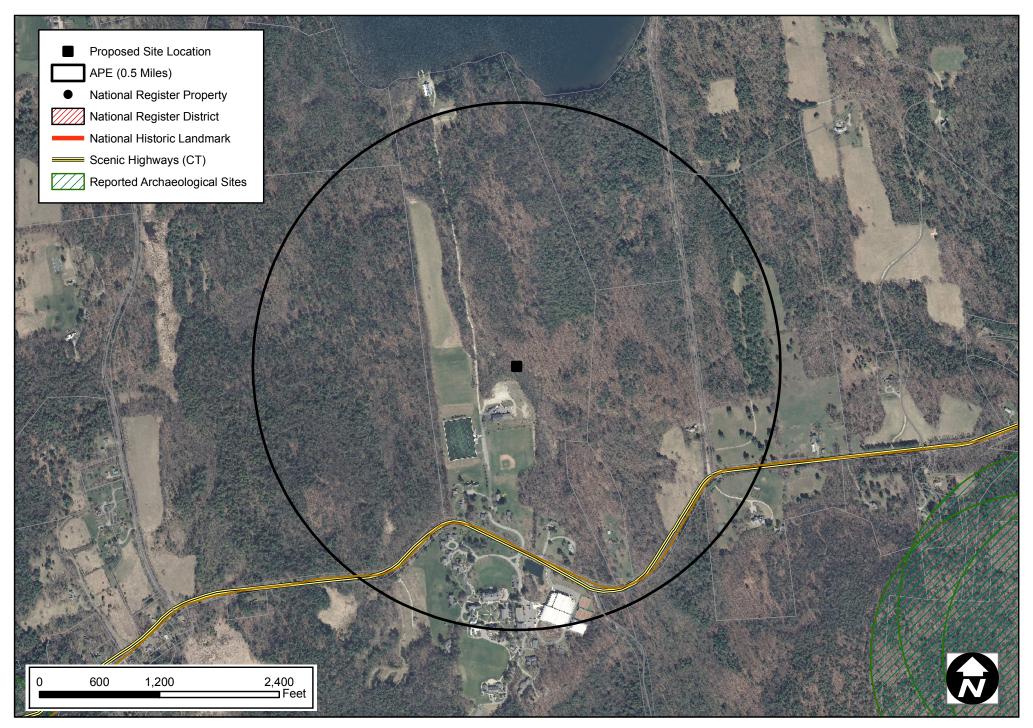


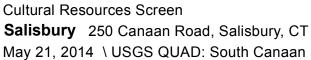


















445 Hamilton Avenue, 14th Floor White Plains, New York 10601 Tel 914.761.1300 Fax 914.761.5372 www.cuddyfeder.com

May 30, 2014

#### VIA FEDEX

First Selectman Curtis Rand Town of Salisbury Town Hall 27 Main Street Salisbury, CT 06068

Re:

Homeland Towers LLC ("Homeland")

Proposed Wireless Telecommunications Tower Facility

250 Canaan Road, Salisbury, Connecticut

#### Dear First Selectman Rand:

This letter is being submitted to you on behalf of Homeland Towers with respect to the above captioned matter involving a proposed wireless telecommunications tower facility to be located at 250 Canaan Road in the Town of Salisbury (the "parcel"). The purpose of our letter is to commence a formal consultation process with you and other Town officials prior to any application being filed by Homeland with the State Siting Council. Enclosed you will find a detailed Technical Report for the proposed facility which includes information on the need for the proposed tower and the environmental effects of the project as identified at this time.

### Community Need for a Tower in Eastern Salisbury

As you probably know through your own experience, reliable wireless services have proven essential to the public's health, safety and welfare. The exponential growth in mobile data traffic over the past few years reveals that more and more people are relying on the ability to connect in a mobile environment for their personal and professional lives. Forecasts of mobile data demands indicate that this dependence on reliable wireless services will continue to grow at a compounded rate. With respect to public safety, over 70% of all 911 calls in the U.S. are made from a wireless phone.

As shown in the Technical Report materials AT&T's data shows that wireless signal levels are not reliable for use in homes, vehicles and around the eastern portion of the Town around the Salisbury School. These gaps in reliable service are notable and this proposed facility is one of AT&T's planned new wireless facility sites in Salisbury (including an AT&T search area near the Lakeville area) seeking to address coverage deficiencies and capacity constraints in its network and provide high speed 4G service. As such, AT&T is working with Homeland on this project.

#### Proposed Homeland Towers Facility at 250 Canaan Road

The parcel is approximately 169.3 acres in size and is improved with a maintenance garage, campus houses, athletic fields and wooded areas associated with the Salisbury School. The project as currently proposed would consist of a 150' monopole structure within a 50' x 80' fenced compound. As shown in the drawings included in the enclosed Technical Report, the site is designed to support the antennas and equipment of AT&T and other major FCC licensed



wireless carriers. Vehicle access to the facility would be provided from Canaan Road (Route 44) over the existing 24' wide access drive on site, to a proposed upgraded gravel access drive and extension a distance of approximately 580' to the proposed tower compound. The facility will be unmanned with no sanitary or water facilities and generates on average 1 vehicle trip per month by each wireless carrier consisting of a service technician in a light duty van or truck.

#### State Considerations - Balance Need for a Tower with Environmental Effects

Connecticut State policy generally recognizes the need for new wireless facilities to serve the public and has designated the State Siting Council as the state agency with responsibility for reviewing specific tower proposals. The Siting Council's focus is on balancing the need for a tower on a case by case basis with any significant adverse environmental effects. While jurisdiction over any proposed cellular tower facility rests exclusively with the Siting Council and would be in lieu of local zoning, wetlands and other types of municipal land use review and approvals, consultation does afford both a municipality and a prospective applicant with the opportunity to discuss recommendations, alternatives or preferences prior to the filing of an application with the Siting Council. On this project, Homeland and AT&T are seeking Salisbury's feedback and would like to discuss any possible siting or design alternatives the Town may prefer. As such, a goal of Homeland's is to identify any Town comments for siting in this area of Salisbury prior to any application the companies may make to the Siting Council.

We look forward to meeting with you further on this project and learning more about Salisbury's interests, concerns and any recommendations prior to any filing of an application with the State Siting Council.

Very truly yours,

Daniel M. Laub

#### Enclosures

cc:

Planning & Zoning Commission, Town of Salisbury Conservation Commission, Town of Salisbury Manuel Vicente, Homeland Towers Raymond Vergati, Homeland Towers Harry Carey, AT&T Michele Briggs, AT&T Jessica Rincon, AT&T

Christopher Fisher, Esq. Project Consultant Team



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

August 1, 2014

#### VIA FEDEX

First Selectman Curtis Rand Town of Salisbury Town Hall 27 Main Street Salisbury, CT 06068

Re:

Homeland Towers LLC ("Homeland")

Proposed Wireless Telecommunications Tower Facility

250 Canaan Road - Salisbury School

Salisbury, Connecticut

#### Dear First Selectman Rand:

We are writing to you on behalf of our client Homeland Towers LLC ("Homeland") with respect to the above referenced technical report which was provided to Salisbury on May 30, 2014. This specific project involves a proposed wireless telecommunications tower facility at the Salisbury School in the Town of Salisbury. Mr. Vergati from Homeland has advised us that he has had follow up discussions with you regarding this project and that you have referred this matter to other Town agencies for their review and comment. We are following up in this regard and to discuss the Town's preferred consultation process moving forward. In particular, whether the Town wants Homeland to attend any meetings scheduled by the Town. Our client looks forward to receiving any comments or recommendations Town agencies may have prior to any filing of an application with the State Siting Council.

very truly yours

-Daniel M. Laub

cc:

Planning & Zoning Commission, Town of Salisbury

Conservation Commission, Town of Salisbury

Manuel Vicente, Homeland Towers Raymond Vergati, Homeland Towers

Harry Carey, AT&T Michele Briggs, AT&T Jessica Rincon, AT&T Christopher Fisher, Esq. Project Consultant Team

#### NOTICE

Notice is hereby given, pursuant to Section 16-50*l*(b) of the Connecticut General Statutes and Section 16-50*l*-1(e) of the Regulations of Connecticut State Agencies of an Application to be filed with the Connecticut Siting Council ("Siting Council") on or after October 6, 2014 by Homeland Towers, LLC ("Homeland") and New Cingular Wireless PCS, LLC ("AT&T") (together the "Applicants") for a certificate of environmental compatibility and public need for the construction and maintenance of a wireless telecommunications facility in Salisbury, Connecticut.

The proposed facility is located on a parcel of land owned by Salisbury School Inc. with an address of 250 Canaan Road with access from Canaan Road (Route 44) in the Town of Salisbury and identified on the Town of Salisbury Assessor's Map as Map 16 Lot 5 (the "Property"). The proposed facility is located in the central portion of the Property and is proposed at a height of 150' above grade ("AGL"), designed as a monopine, with faux branches extending to an overall height of 157' AGL. The Property is an approximately 169.3 acre parcel which is currently improved with a maintenance garage, campus houses, athletic fields and undisturbed wooded areas. The Facility is proposed to allow commercial wireless services in Eastern Salisbury. The tower, antennas and ground equipment will be located within a 50' by 80' fenced equipment compound area. Vehicle and utility access to the facility would be from Canaan Road over an existing access drive, then along an existing gravel drive that will be upgraded and then along an existing logging road extension that will be upgraded with a gravel surface a distance of approximately 580' to the tower compound.

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

The Application explains the need, purpose and benefits of the facility and also describes the environmental impacts of the proposed facility. The facility will be available for co-location by other wireless carriers.

A balloon, representative of the proposed height of the facility, 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 the Town of Salisbury, or such other date specified by the Siting Council and a time to be determined by the Siting Council, but anticipated to be between the hours of 12pm and 5pm.

Interested parties and residents of Salisbury, Connecticut are invited to review the Application during normal business hours after October 6, 2014, when the application is anticipated to be filed, at the following offices:

Connecticut Siting Council 10 Franklin Square New Britain, CT 06051 Patricia Williams Town Clerk Salisbury Town Hall P.O. Box 548, 27 Main Street Salisbury, CT 06068

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

Christopher B. Fisher, Esq. Lucia Chiocchio, Esq. Cuddy & Feder LLP 445 Hamilton Ave, 14<sup>th</sup> Floor White Plains, New York 10601 (914) 761-1300 Attorneys for the Applicants

### **VIA CERTIFIED MAIL**

Re:	Homeland Towers, LLC and New Cingular Wireless PCS, LLC Proposed Telecommunications Tower Facility 250 Canaan Road, Connecticut
Dear _	;
Cingul clients	writing to you on behalf of our clients Homeland Towers, LLC ("Homeland") and New ar Wireless PCS, LLC ("AT&T") with respect to the above referenced matter and our intent to file an application with the State of Connecticut Siting Council for approval of a ed wireless communications tower facility (the "Facility") within the Town of Salisbury.
propos The Fa	aw requires that record owners of property abutting a parcel on which a facility is ed be sent notice of an applicant's intent to file an application with the Siting Council. cility candidate is located at 250 Canaan Road in Salisbury. Additional details are ed in the notice included with this letter.
	cation, height and other features of the Facility are subject to review and potential change Connecticut Siting Council under the provisions of Connecticut General Statutes §16-50g
	have any questions concerning this application, please contact the Connecticut Siting il or the undersigned after October 6, 2014, the date which the application is expected to ile.
Very ti	ruly yours,
Lucia	Chiocchio
Enclos	ure

#### **CERTIFICATION OF SERVICE**

I hereby certify that on the 2014, a copy of the foregoing letter and notice were mailed by certified mail, return receipt requested to each of the abutting properties owners on the accompanying list.

Date

Lucia Chiocchio
Cuddy & Feder LLP

445 Hamilton Avenue, 14<sup>th</sup> Floor White Plains, New York 10601

Attorneys for: Homeland Towers LLC ("Homeland") New Cingular Wireless PCS, LLC ("AT&T")

#### ADJACENT PROPERTY OWNERS 250 Canaan Road

Helen Kimmel Trust	Reginald L. and Mary S. Brocky	
51 West 52 <sup>nd</sup> Street	P.O. Box 415	
New York, NY 10019	Salisbury, CT 06068	
Town of Salisbury	Kenneth Et Al Trustees	
27 Main Street	c/o Harris Farm LLC	
Salisbury, CT 06068	P.O. Box 68	
	Salisbury, CT 06068	
Salisbury School Inc.		
Route 44 East		
Salisbury, CT 06068		

# ATTACHMENT 13

#### **CERTIFICATION OF SERVICE**

I hereby certify that on the	day of October 2014, copies of this Application for
a Certificate of Environmental Comp	atibility and Public Need for the Construction,
Maintenance and Operation of a Wi	reless telecommunications Facility in Salisbury were
sent by certified mail, return receipt	requested, to the following:
Dated:	
	Cuddy & Feder LLP
	445 Hamilton Avenue, 14th Floor
	White Plains, N.Y. 10601
	Attorneys for:
	New Cingular Wireless PCS LLC ("AT&T")

## State and Regional

The Honorable George Jepsen	Department of Economic and
Attorney General	Community Development
Office of the Attorney General	Catherine Smith
55 Elm Street	505 Hudson Street
Hartford, CT 06106	Hartford, CT 06106-7106
Department of Public Health	Department of Transportation
Dr. Jewel Mullen, Commissioner	James P. Redeker, Commissioner
410 Capitol Avenue	2800 Berlin Turnpike
PO Box 340308	Newington, CT 06111
Hartford, CT 06134	
Council on Environmental Quality	Department of Agriculture
Susan D. Merrow, Chair	Steven K. Reviczky, Commissioner
79 Elm Street	165 Capitol Avenue
Hartford, CT 06106	Hartford, CT 06106
Department of Energy & Environmental	State House Representative-64 <sup>th</sup> District
Protection	Roberta Willis
Rob Klee, Commissioner	PO Box 1733
79 Elm Street	30 Upland Meadow Road
Hartford, CT 06106	Lakeville, CT 06039

Office of Policy and Management	State Senator-District 30
Benjamin Barnes, Secretary	Clark Chapin
450 Capitol Avenue	Legislative Office Building
Hartford, CT 06106-1379	Room 3400
	Hartford, CT 06106
Department of Energy & Environmental	Northwest Hills Council of
Protection-Public Utilities Regulatory	Governments
Authority	Richard Lynn, Executive Director
Chairman Arthur House	42D North Street
Ten Franklin Square	Goshen, CT 06756
New Britain, CT 06051	
Connecticut Department of Emergency	Department of Economic and
Services and Public Protection	Community Development
Department of Emergency Management	Offices of Culture and Tourism
and Homeland Security	Daniel T. Forrest, State Historic
Dora B. Schriro, Commissioner	Preservation Officer
1111 Country Club Road	One Constitution Plaza, 2 <sup>nd</sup> Floor
Middletown, CT 06457	Hartford, CT 06103

#### Federal

Federal Communications Commission	Federal Aviation Administration
445 12 <sup>th</sup> Street SW	800 Independence Avenue, SW
Washington, D.C. 20554	Washington, DC 20591
U.S. Congresswoman Elizabeth Esty	U.S. Senator Richard Blumenthal
Fifth District	90 State House Square, 10th Floor
114 West Main Street	Hartford, CT 06103
Old Post Office Plaza, LLC	
New Britain, CT 06051	
U.S. Senator Christopher Murphy	
One Constitution Plaza, 7 <sup>th</sup> Floor	
Hartford, CT 06103	

## Town of Salisbury

Town of Salisbury Town Hall	Town of Salisbury Town Hall
First Selectman Curtis Rand	Planning & Zoning Commission
PO Box 548, 27 Main Street	Michael Klemens, Chairman
Salisbury, CT 06068	PO Box 548, 27 Main Street
	Salisbury, CT 06068
Town of Salisbury Town Hall	Town of Salisbury Town Hall
Town Clerk Patricia Williams	Inland Wetlands/Conservation
PO Box 548, 27 Main Street	Commission
Salisbury, CT 06068	Peter Oliver, Administrator
	PO Box 548, 27 Main Street
	Salisbury, CT 06068
Town of Salisbury Town Hall	Town of Salisbury Town Hall
Nancy Bruise, P&Z Administrator	Michael Fitting, Chief Building Official
PO Box 548, 27 Main Street	PO Box 548, 27 Main Street
Salisbury, CT 06068	Salisbury, CT 06068

# ATTACHMENT 14

Application Guideline	Location in Application
(A) An Executive Summary on the first page of the application	I.B: Executive Summary, page 1
with the address, proposed height, and type of tower being	, page 1
proposed. A map showing the location of the proposed site	Attachment 4: Aerial Map; Topographic Map
should accompany the description;	The state of the s
(B) A brief description of the proposed facility, including the	I.B: Executive Summary, page 1-2
proposed locations and heights of each of the various	, , , , , , , , , , , , , , , , , , ,
proposed sites of the facility, including all candidates referred	V: Facility Design: page 12
to in the application;	Tradinty Designi page 12
(C) A statement of the purpose for which the application is	I.A: Purpose and Authority, page 1
made;	in it as pool and reading region 2
(D) A statement describing the statutory authority for such	I.A: Purpose and Authority, page 1
application;	ти и пресе ина гламент, раде в
(E) The exact legal name of each person seeking the	I.C: The Applicants, page 2-3
authorization or relief and the address or principle place of	The tries approximately page 2 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;	
<b>(F)</b> The name, title, address, and telephone number of the	I.C: The Applicants, page 2-3
attorney or other person to whom correspondence or	71 0
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;	
(G) A statement of the need for the proposed facility with as	III.A: Statement of Need, page 4
much specific information as is practicable to demonstrate	
the need including a description of the proposed system and	Attachment 1: AT&T RF Report
how the proposed facility would eliminate or alleviate any	
existing deficiency or limitation;	
(H) A statement of the benefits expected from the proposed	III.B: Statement of Benefits, page 9
facility with as much specific information as is practicable;	
(I) A description of the proposed facility at the proposed	I.B. Executive Summary, page 1
prime and alternative sites including:	
(1) Height of the tower and its associated antennas	V: Facility Design, page 12
including a maximum "not to exceed height" for the	
facility, which may be higher than the height proposed	Attachments 3 & 4: Details of Proposed
by the Applicant;	Facility
(2) Access roads and utility services;	
(3) Special design features;	Attachments 5, 6, 7, 8, 9 & 10: Environmental
(4) Type, size, and number of transmitters and	Assessment Information
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,	VI.C: Power Density, page 15
August 1997) at the base of the tower base, site compound	Attachment 7: Power Density
boundary where persons are likely to be exposed to	

Application Guideline	Location in Application
maximum power densities from the facility;	Attachment 1: AT&T RF Report
(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.	
(J) A description of the named sites, including:	Attachments 3 & 4: Details of Proposed
(1) The most recent U.S.G.S. topographic quadrangle map	Facility
(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	Attachment 8: Visibility Analysis
or tract on which the facility is proposed to be located	
showing the acreage and dimensions of such site, the name	
and location of adjoining public roads or the nearest public	
road, and the names of abutting owners and the portions of	
their lands abutting the site;	
(3) A site plan (scale not less than 1 inch = 40 feet) showing	
the proposed facility, set back radius, 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.	
(K) A statement explaining mitigation measures for the	Attachments 3 & 4: Description and Design
proposed facility including:	of Proposed Facility
(1) Construction techniques designed to specifically minimize	,
adverse effects on natural areas and sensitive areas;	Attachments 5, 6, 7, 8, 9 & 10: Environmental
(2)Special design features made specifically to avoid or	Assessment
minimize adverse effects on natural areas and sensitive areas,	
including but not limited to a yield point, if applicable;	
(3) Establishment of vegetation proposed near residential,	
recreation, and scenic areas; and	VI: Environmental Compatibility, page 13
(4) Methods for preservation of vegetation for wildlife habitat	-771-0-
and screening; and	Attachment 8: Visibility Analysis
and screening; and	Attachment 8: Visibility Analysis

Application Guideline	Location in Application
(5) Other environmental concerns identified by the applicant,	
the Council, or any public agency, including but not limit to,	
where applicable: Coastal Consistency Analysis, Connecticut	
Heritage Areas, Ridgeline Protection Zones, DOT Scenic Lands,	
State Parks and Forests, Agricultural Lands, Wild and Scenic	
Rivers, Protected Rivers, Endangered, Threatened or Special	
Concern Species	
(L) A description of the proposed site and any alternative	VII: Consistency with the Town of Salisbury's
sites, including the zoning classification, planned land uses	Land Use Regulations, page 16
and surrounding areas;	71 0
(M) A description of the scenic, natural, historic, and	VI: Environmental Compatibility, page 13
recreational characteristics of the proposed sites and any	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
alternative sites and surrounding areas including but not	Attachment 8: Visibility Analysis
limited to officially designated nearby hiking trails, nature	
preserves and scenic roads;	
(N) Visibility Analyses of the proposed site area and any	Attachment 9: Visibility Analysis
alternative site areas including, but not limited to:	7
(1) A viewshed analysis consisting of a two-mile radius	VI.A. Visual Assessment, page 14
from visually impacted areas such as residential	Time vioual / topesonient) page 11
developments, recreational areas, and historic sites;	
(2) Photographic documentation;	
(3) Balloon float photographs;	
(4) Photographic simulations in "leaf-on" and "leaf-off"	
conditions, where possible, and;	
(5) If proposed in close proximity to a shoreline,	
including lakes and rivers, photographic documentation from	
open waters, where possible.	
open waters, where possible.	
(N-a) An affidavit for each balloon float conducted at the	
proposed site and any alternative sites including the date,	
time and demonstrated height.	
(O) A list describing the type and height of all existing and	
proposed towers and facilities within a four mile radius within	Attachment 2: Existing Facilities List
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;	
(P) A description of efforts to share existing towers, including	I.B: Executive Summary, page 1
but not limited to installations on electric transmission poles,	7,1 0
or to consolidate telecommunications antennas of public and	IV.A: Site Selection, page 11
private services onto the proposed facility including efforts to	
offer tower space, where feasible, at no charge for space for	IV.B: Tower Sharing, page 12
municipal antennas;	5,1 5
, ,	V: Facility Design, page 12
	, 0,1:-0-
	Attachment 2: Site Search Summary

Application Guideline	Location in Application
(Q) A description of the technological alternatives and a statement containing justification for the proposed facility;	III.C: Technological Alternatives, page 10  Attachment 1: AT&T RF Report
(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;  (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 12  Attachment 3: Site Search Summary  IV.A: Site Selection, page 11  Attachment 2: Site Search Summary
<ul> <li>(T) A statement describing hazards to human health, if any, with such supporting data including signal frequency, power density and references to regulatory standards;</li> <li>(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</li> </ul>	VI: Environmental Compatibility, page 13  IX.A: Overall Estimated Cost, page 20
to in the application;  (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 21
(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; An affidavit of the balloon float conducted on the day of the first hearing session including the date, time, demonstrated height and weather condition shall be filed with the Council as soon as is practicable; and	VI. A: Visual Assessment, page 14
<ul> <li>(X) Such information as any department or agency of the state exercising environmental controls may, by regulation, require including:         <ol> <li>A listing of any Federal, State, regional, district, and municipal agencies, including but not limited to the Federal</li> </ol> </li> </ul>	VI: Environmental Compatibility, page 13  Attachment 9: CTDEEP Correspondence Attachment 10: Cultural Resources Maps

Application Guideline	Location in Application
Aviation Administration; Federal Communications	VII: Consistency with Town of Salisbury Land
Commission; State Historic Preservation Officer; State	Use Regulations, page 16
Department of Environmental Protection; and local	
conservation, inland wetland, and planning and zoning	
commissions with which reviews were conducted concerning	Bulk Filing
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.	
(Y) Description of proposed site clearing for access road and	V: Facility Design, page 12
compound including type of vegetation scheduled for removal	
and quantity of trees greater than six inches diameter at	Attachment 3: Tree Inventory
breast height and involvement with wetlands;	
<b>(Z)</b> Such information as the applicant may consider relevant.	