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

TECHNICAL REPORT TO THE TOWN OF NEW CANAAN
PROPOSED WIRELESS TELECOMMUNICATIONS FACILITY

1837 Ponus Ridge Road, New Canaan, Connecticut

NEW CINGULAR
WIRELESS PCS, LLC
84 DEER FIELD LANE
MERIDEN, CT 06450

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Introduction

Homeland Towers, LLC ("Homeland Towers") and New Cingular Wireless PCS, LLC ("AT&T") respectfully submit this Technical Report to the Town of New Canaan pursuant to Section 16-50*l* of the Connecticut General Statutes. AT&T has contracted with Homeland Towers to assist in the search and development of various facilities in Connecticut for infrastructure to provide reliable wireless services, including one search ring in northwestern New Canaan. Homeland Towers was the successful bidder of the Town's 2016 request for proposal to build wireless infrastructure within the Town. As part of its coordination with AT&T and the Town, Homeland Towers leased a portion of an approximately 5.16-acre parcel of land owned by 1837 LLC and located at 1837 Ponus Ridge Road (the "Parcel"). Homeland Towers has entered into a long-term ground lease with the property owner and would construct, own and operate a wireless telecommunications tower facility on the Parcel. AT&T's agreement with Homeland Towers includes a long-term lease obligation for AT&T's use of the proposed tower facility. Verizon also intends to use the proposed Facility.

The tower component as proposed is a 110' tall monopole designed to resemble a pine tree ("monopine") with faux branches extending an additional 5' above the top of the pole, for use by AT&T as well as other FCC licensed wireless carriers to provide reliable wireless services in northwest New Canaan and portions of northeast Stamford. Various Town departments will also use the proposed facility for emergency communication needs. The purpose of this Technical Report is to provide the Town with information concerning the need for a new tower in this area of the State (Section 1), the site search history and selection process (Section 2), the facility design (Section 3), and current status of environmental assessments for the project including various information (Section 4) and a Visibility Analysis (Section 5). This information is provided for purposes of technical consultation with the Town and as provided for in Section 16-50*l* of the Connecticut General Statutes.

SECTION 1

SECTION 1

Statement of Public Need

The proposed tower Facility will provide reliable wireless communications services to the northwestern portion of New Canaan and the northeastern part of Stamford. The facility is needed by AT&T in conjunction with other existing and proposed facilities, including the recently constructed monopine facility on Soundview Lane, to provide reliable services to the public that are not currently provided in these parts of New Canaan and Stamford. In addition to providing reliable wireless service to these areas, AT&T will also provide FirstNet services, which is the first broadband network dedicated to America's police, firefighters and emergency medical services (EMS). AT&T was selected by the First Responder Network Authority ("FirstNet") to build and manage the only broadband network dedicated to unify emergency communications to give first responders the technology they need to communicate and collaborate across agencies and jurisdictions. Thus, rather than relying on commercial networks that can become congested in an emergency, the FirstNet system will allow immediate and dedicated access to a communications network by first responders.[1] AT&T seeks to provide wireless service to key traffic corridors through residential areas of New Canaan and Stamford. The proposed tower facility will bring the required coverage to significant portions of Ponus Ridge Road, Dan's Highway, High Ridge Road (Route 137) as well as other roads and areas near the proposed tower location. 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 facility 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 Engineering Report.

Also attached are Verizon maps demonstrating Verizon's need to provide wireless service in this area. Verizon intends to intervene in the Siting Council proceeding for the proposed Facility.

The proposed Facility will be used by the Town of New Canaan for emergency communications. As noted in the attached letters, the Town of New Canaan Fire Department, the Town of New Canaan Office of Emergency Management and the Town of New Canaan Police Department all need the proposed Facility to provide reliable emergency communication services to the community. This need is supported by the Town of New Canaan Community Emergency Response Team.

Finally, the need for reliable wireless services in the northwest portion of New Canaan is confirmed in New Canaan's independent wireless market study commissioned in 2014[2], which determined that AT&T and other carriers experience gaps in service west of Route 124. Since

[1] *See* http://about.att.com/sites/first_net_powered_by_att for more information about FirstNet.
[2] Wireless Market Study for the Town of New Canaan, CT, prepared by Centerline Solutions, December 1, 2014.

that study was completed, no new telecommunications infrastructure was constructed in this part of the Town and as such, gaps in this area of New Canaan remain.

New Canaan's 2012 cell phone survey[3] also demonstrates that residents experience poor wireless service in the northern and western parts of Town and the majority of residents support the construction of tower facilities to provide reliable wireless service.

[3] New Canaan Cell Phone Survey, results through October 25, 2012.

Radio Frequency Analysis Report

CT1458
1837 Ponus Ridge Road, New Canaan, CT

November 18, 2021

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1. Overview

C Squared Systems was retained by New Cingular Wireless PCS, LLC ("AT&T") to evaluate the proposed wireless communications facility at 1837 Ponus Ridge Road, New Canaan, CT at 106 feet AGL.

AT&T is licensed by the FCC to provide wireless communications services throughout the State of Connecticut including the Town of New Canaan 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 available 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 northwest New Canaan, 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, terrain and network layout maps.

2. Technology Advances & Design Evolution

AT&T provides digital voice and data services using 3rd Generation (3G) UMTS technology in the 800 MHz and 1900 MHz frequency band, and advanced 4th Generation (4G) services over LTE technology in the 700 MHz and 1900 MHz frequency bands as allocated by the FCC. 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. 4G LTE services and devices have enabled AT&T customers to have even faster connections to people, information, and entertainment.

AT&T will also deploy FirstNet services from this facility. FirstNet is a federal agency with a mandate to create a nationwide, interoperable public safety broadband network for first responders. First responders across the country currently rely on more than 10,000 separate radio networks which oftentimes do not interoperate with one another. By deploying a nationwide broadband public safety network built specifically to meet the communications needs of first responders, the FirstNet network will provide a solution to the decades-long interoperability and communications challenges first responders have experienced, and which was highlighted by the 9/11 Commission's 2004 Final Report.

FirstNet selected AT&T to build, manage and operate the National Public Safety Broadband Network ("NPSBN") using FirstNet's Band 14 spectrum (Call Sign WQQE234, 20 MHz of the 700 MHz spectrum), together with AT&T's own wireless network. Using a combination of new and existing wireless facilities, AT&T provides prioritized, preemptive wireless services for first responders across Connecticut, New England and nationwide, while also improving 4G LTE coverage for AT&T customers.

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.[1] 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.

[1] The threshold range differences between the 700 MHz and 1900 MHz frequency bands directly correlates to the type of 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 Ponus Ridge Road, Dan's Highway, High Ridge Road (Route 137) as well as other roads in the area and in the vicinity of the proposed location, 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 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 New Canaan. 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 New Canaan 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 New Canaan, a new facility is needed in the area.

Included in this report are Attachments 1 through 5, which are explained below to help describe AT&T's 4G network deployment in and around New Canaan, and the need for the proposed facility.

- Attachment 1: "*CT1458 Area Terrain Map"* details the terrain features around the area of deficient service being targeted by the proposed site in New Canaan. 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 darker green, blue and purple shades correspond to lower elevations, whereas the orange, red and white shades indicate higher elevations.

- Attachment 2: "*CT1458 Neighbor Site Data"* provides site specific information of existing neighboring sites used to perform the coverage analysis provided in Attachments 1 and 4.

- Attachment 3: *" CT1458 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 Soundview Lane location.

- Attachment 4: *" CT1458 Existing 700 MHz LTE Coverage with Proposed Site"* shows how this proposed site would fill in the existing coverage gaps and improve AT&T's 700 MHz LTE network.

- Attachment 5: Connecticut DOT Average Annual Daily Traffic Data – New Canaan shows the available vehicular traffic volume data for the subject area from the Connecticut Department of Transportation. These data show as many as 1,200 vehicles per day passing through Ponus Ridge Road in the vicinity of the proposed facility.

Table 1 below lists the coverage statistics compiled for the AT&T's 700 MHz 4G LTE network with the deployment of the Proposed Site.

	Incremental Coverage from Proposed Site (700 MHz)	
Population:[2]	(≥ -83 dBm)	476
	(≥ -93 dBm)	1,690
Business Pops: [3]	(≥ -83 dBm)	48
	(≥ -93 dBm)	127
Area (mi²):	(≥ -83 dBm)	1.47
	(≥ -93 dBm)	3.72
Roadway (mi):	Main (-93 dBm):	1.9
	Secondary (-93 dBm):	16.3
	Total (-93 dBm):	**18.2**

Table 1: Coverage Statistics

[2] Population figures are based upon 2010 US Census Block Data
[3] Employee population counts are based upon the 2011 U.S. Census Bureau LEHD database.

4. Conclusion

AT&T has identified an area of deficient coverage affecting a significant portion of New Canaan CT, including key traffic corridors through the residential and business/retail areas of the Town. The proposed New Canaan facility will bring the needed fill-in coverage to significant portions of Ponus Ridge Road, Dan's Highway, High Ridge Road (Route 137) as well as other roads in the area and to the vicinity of the proposed location.

No existing structures were identified and available that would be able to satisfy the coverage requirements needed for this area.

As discussed in this report and depicted in the attached plots, the proposed interim AT&T site will provide a substantial portion of the coverage being lost to the "Targeted Area" while maintaining effective connectivity to the rest of AT&T's existing network and, facilitate the transparent migration from its 3G to 4G network.

5. Statement of Certification

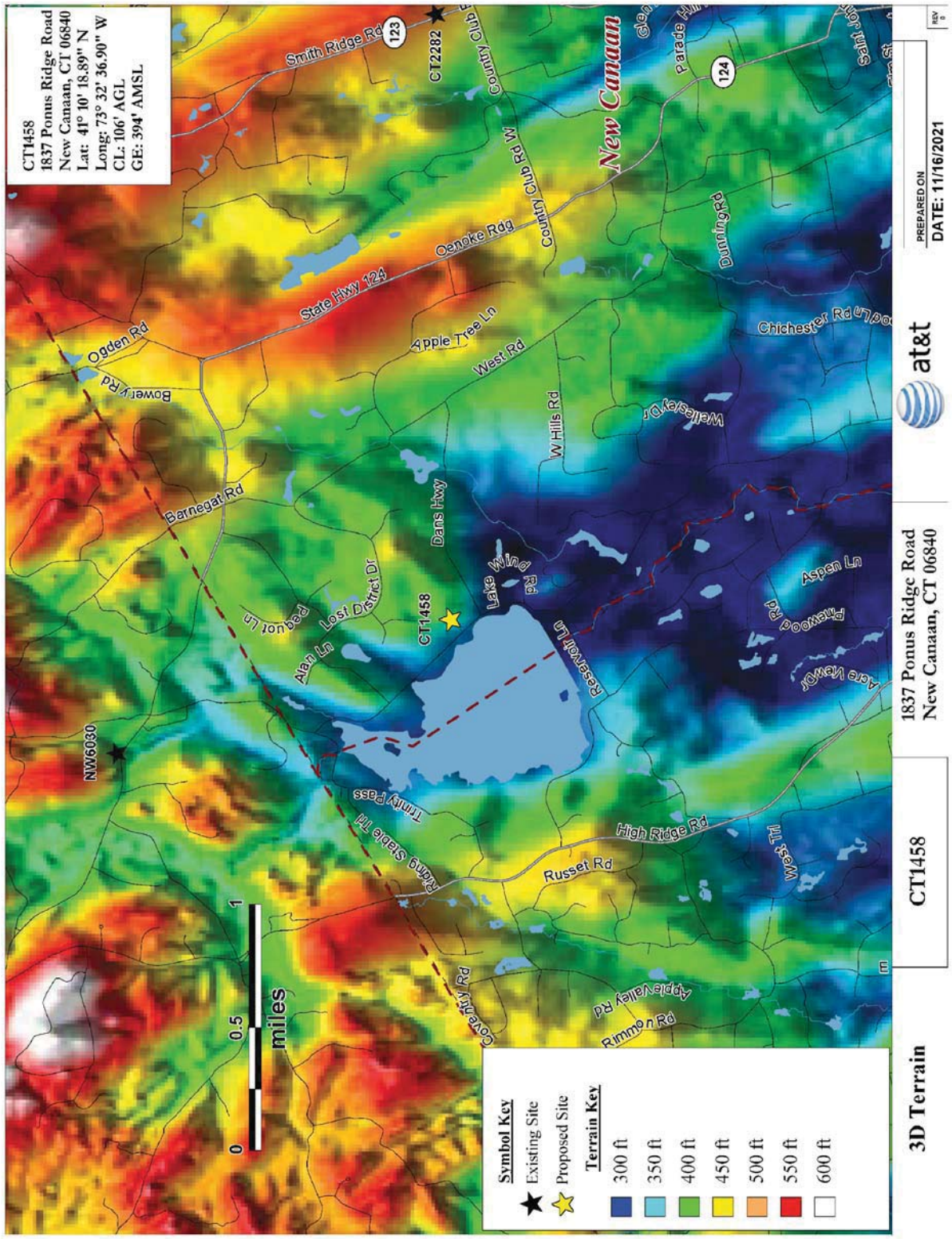
I certify to the best of my knowledge that the statements in this report are true and accurate.

November 18, 2021

Martin J. Lavin
C Squared Systems, LLC

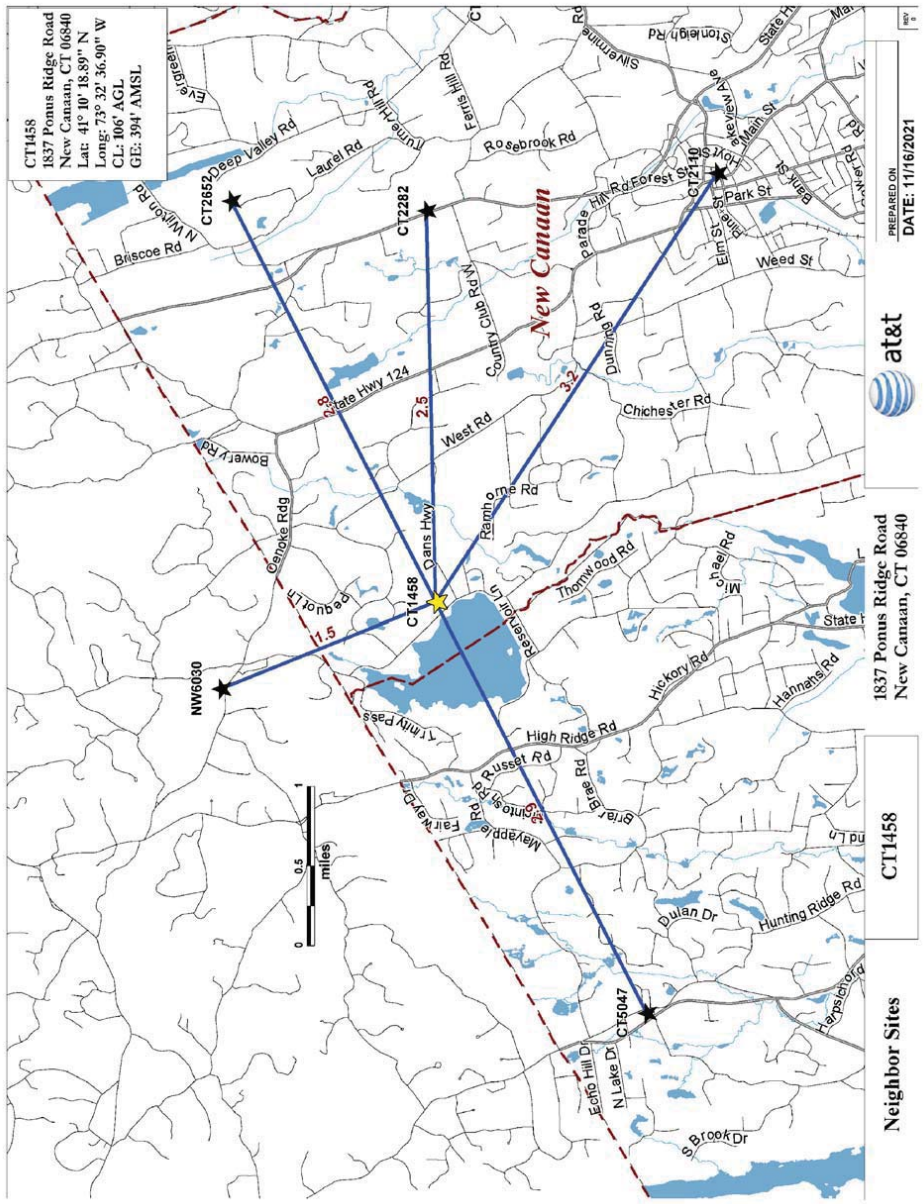
Date

6. Attachments

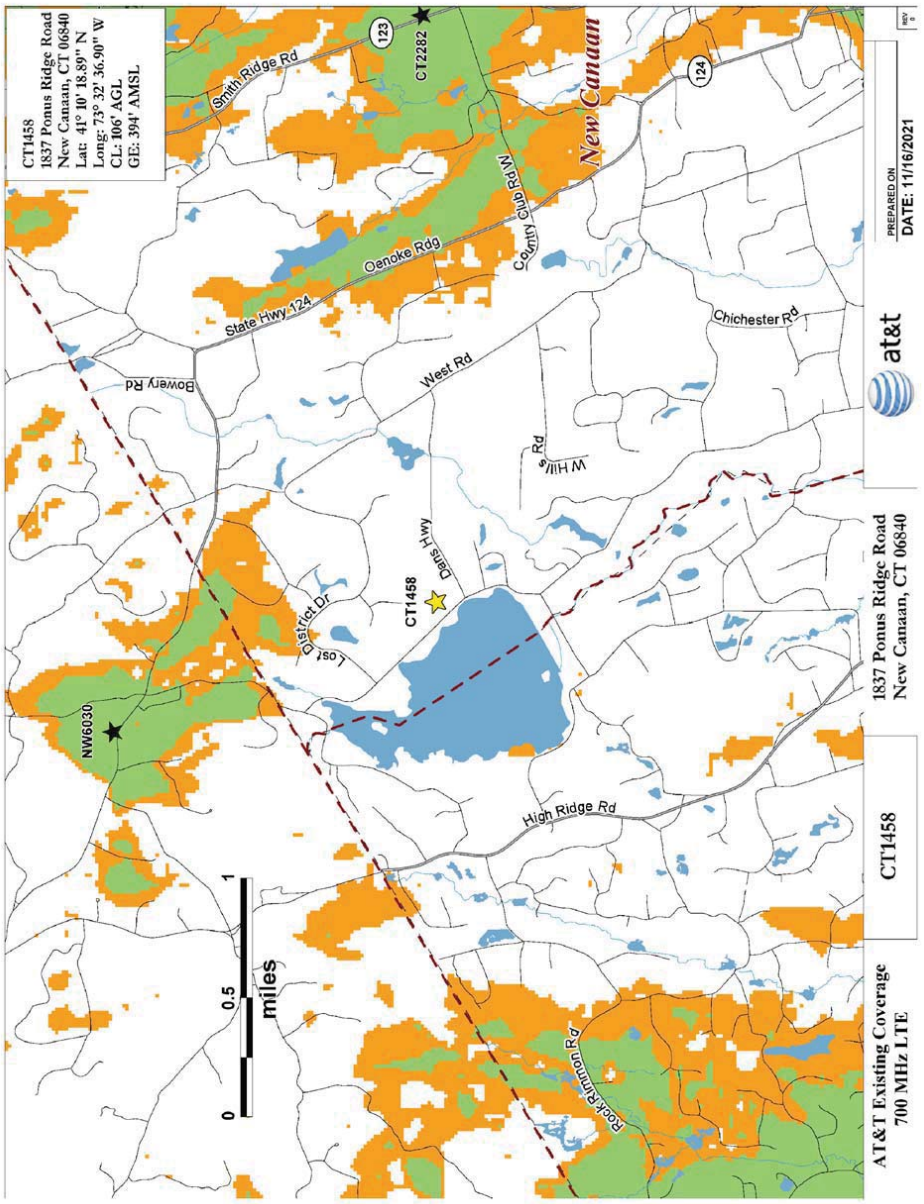


Attachment 1: CT1458 - Area Terrain Map

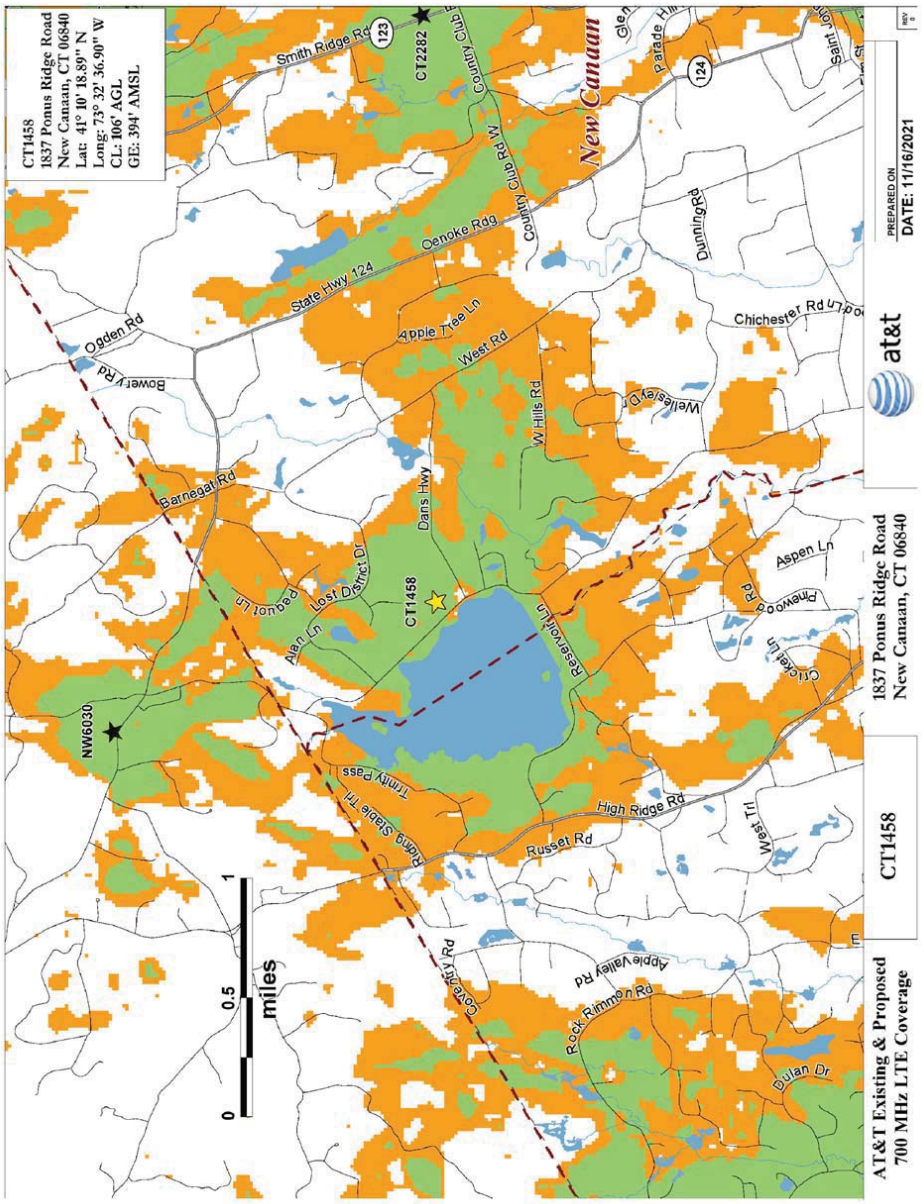
Site Name	Address	City/State	Latitude	Longitude	Antenna Height (ft AGL)	Ground Elevation	Distance (miles)
CT2282	95 Country Club Road	New Canaan	41.1729	-73.4963	89	495	2.5
CT2652	183 Soundview Lane	New Canaan	41.1907	-73.4952	81	502	2.8
NW6030	89 Westchester Ave	Pound Ridge	41.1916	-73.5540	85	394	1.5
CT5047	366 Old Long Ridge Road	Stamford	41.1528	-73.5931	148	423	2.9
CT2110	135 Main Street	New Canaan	41.1464	-73.4917	44	272	3.2



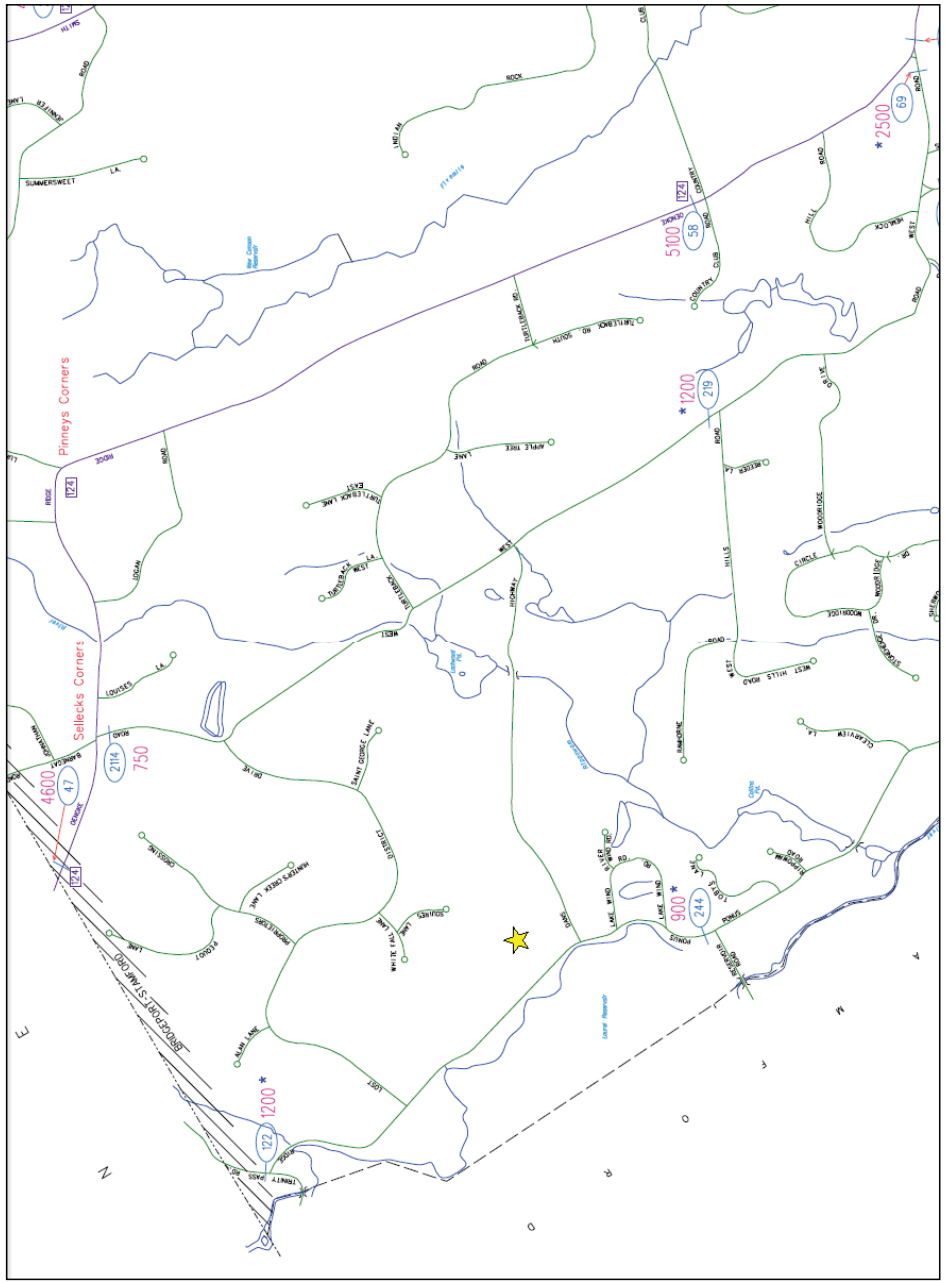
Attachment 2: CT1458 - Neighbor Site Data



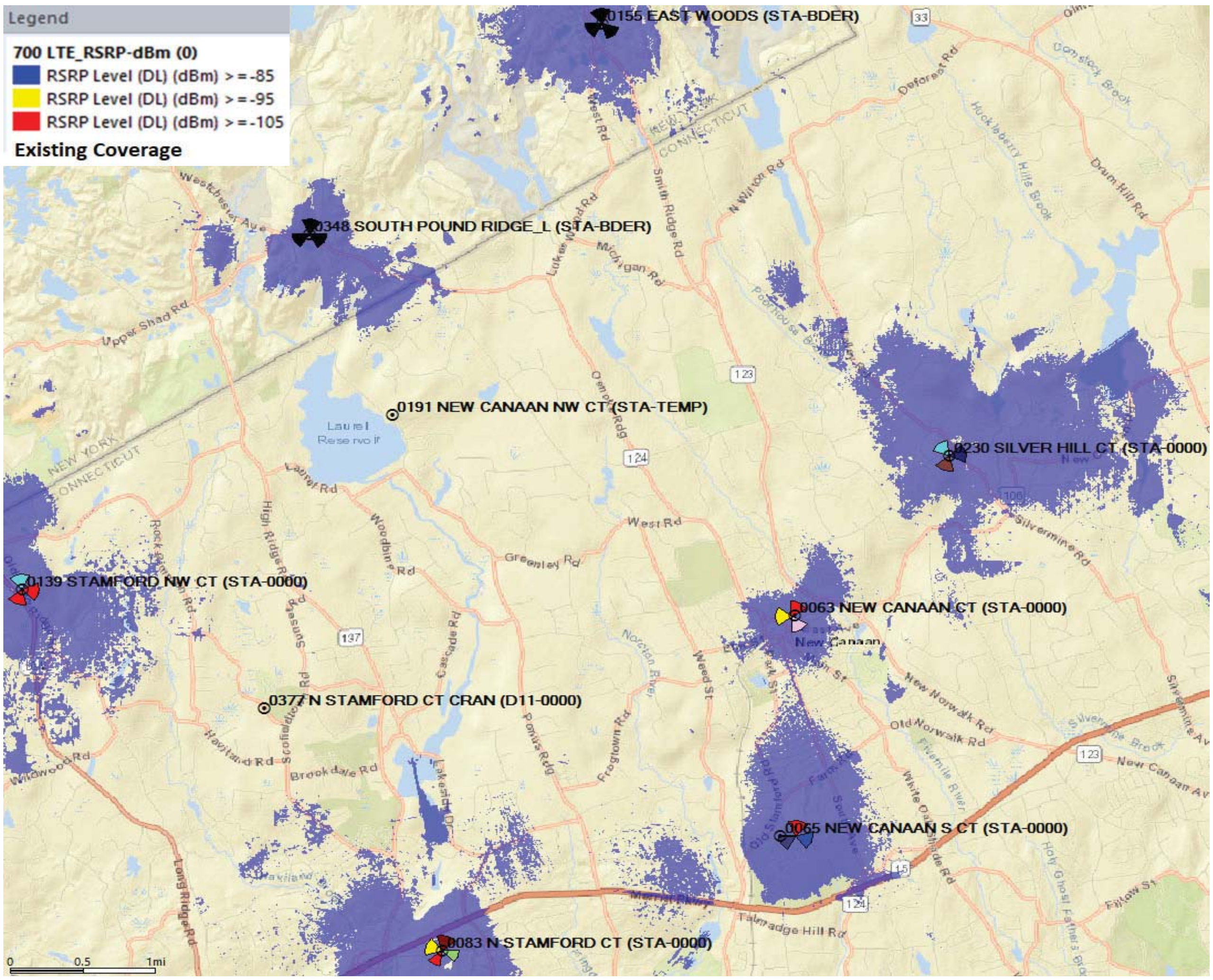
Attachment 3: CT1458 - Existing 700 MHz LTE Coverage" for the Current AT&T Network



Attachment 4: CT1458 - Existing 700 MHz LTE Coverage with Proposed Site" for the AT&T Network



Attachment 5: Connecticut DOT Average Annual Daily Traffic Data – New Canaan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Existing Coverage
0155 EAST WOODS (STA-BDER)
0348 SOUTH POUND RIDGE_L (STA-BDER)
0191 NEW CANAAN NW CT (STA-TEMP)
0230 SILVER HILL CT (STA-0000)
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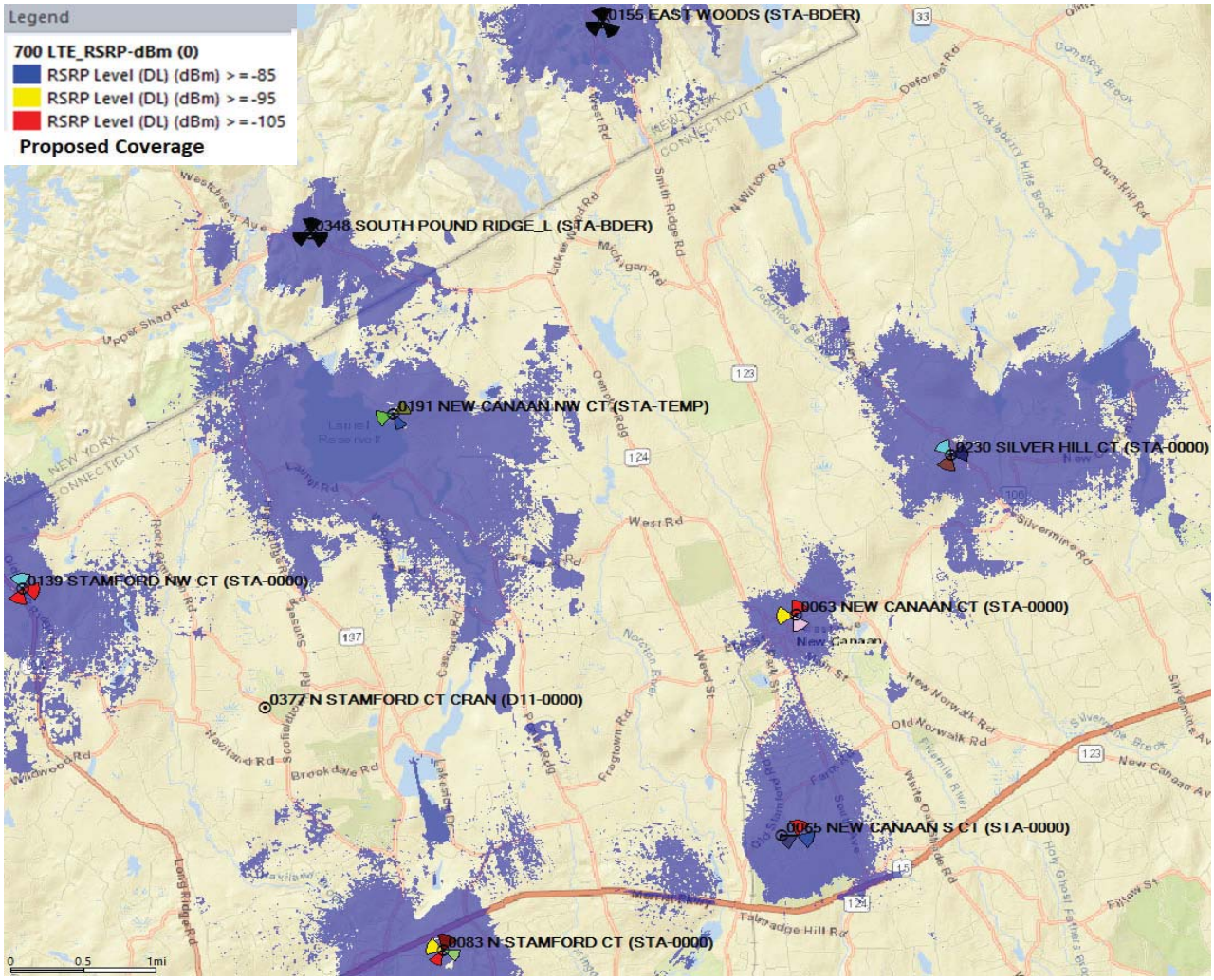
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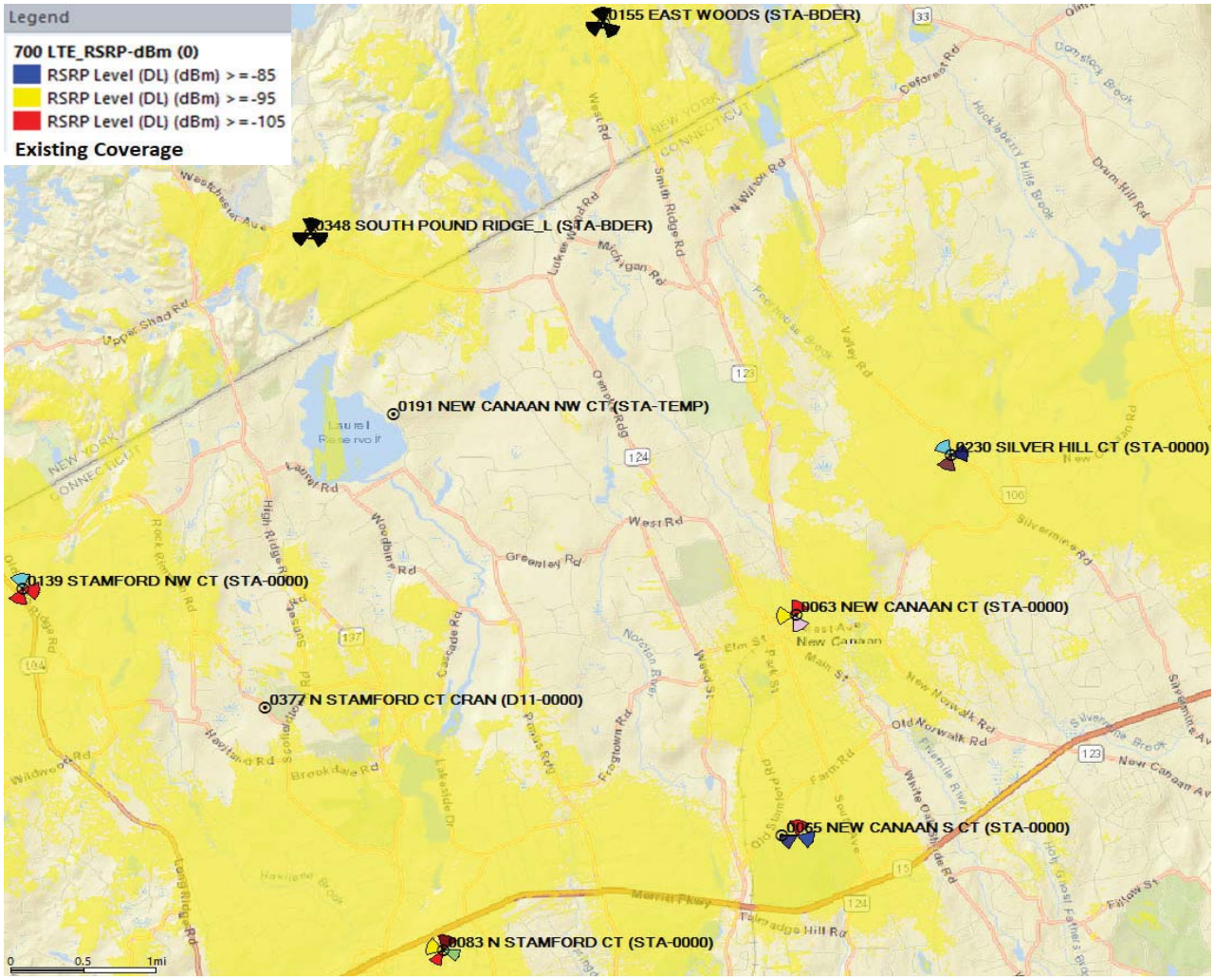
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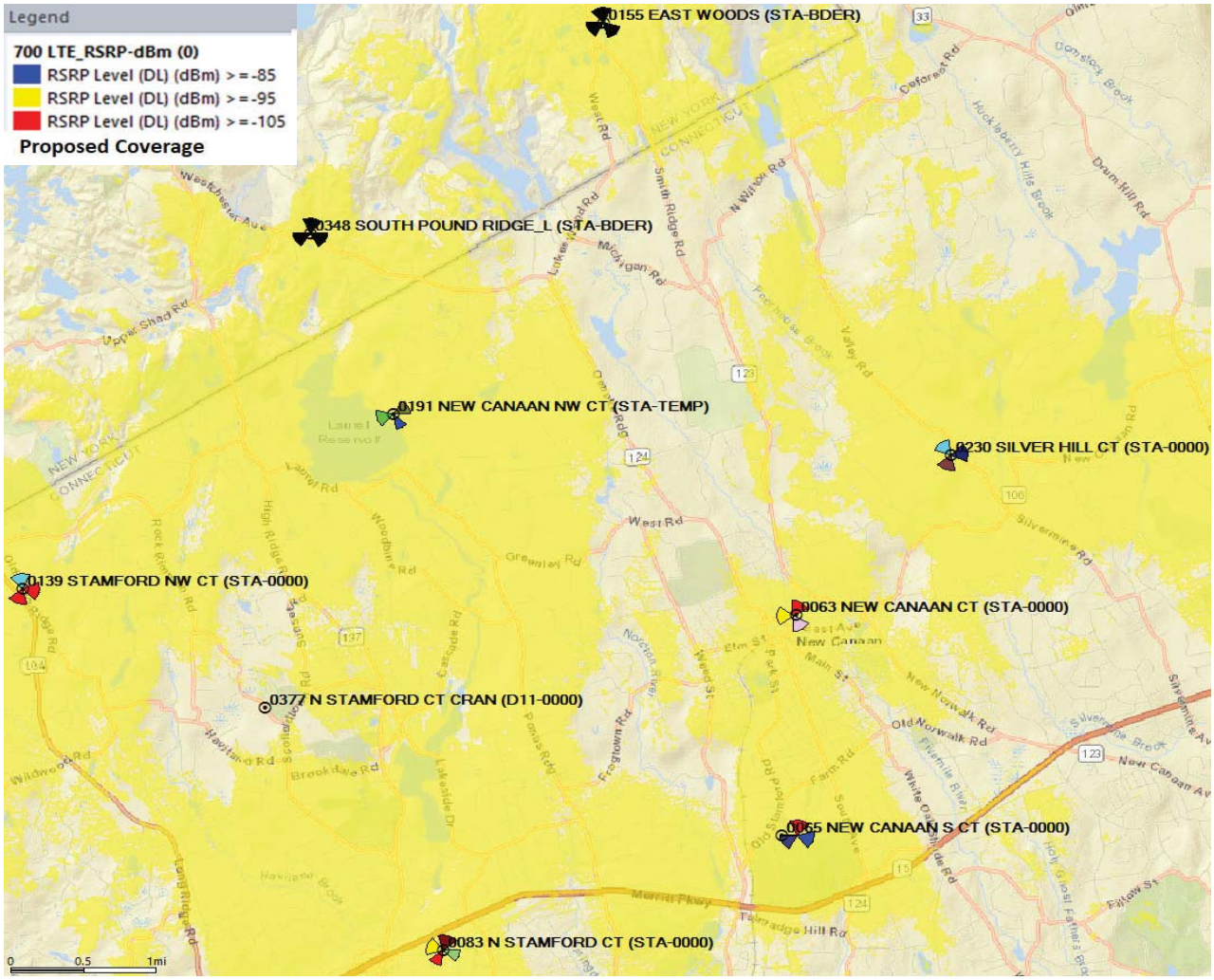
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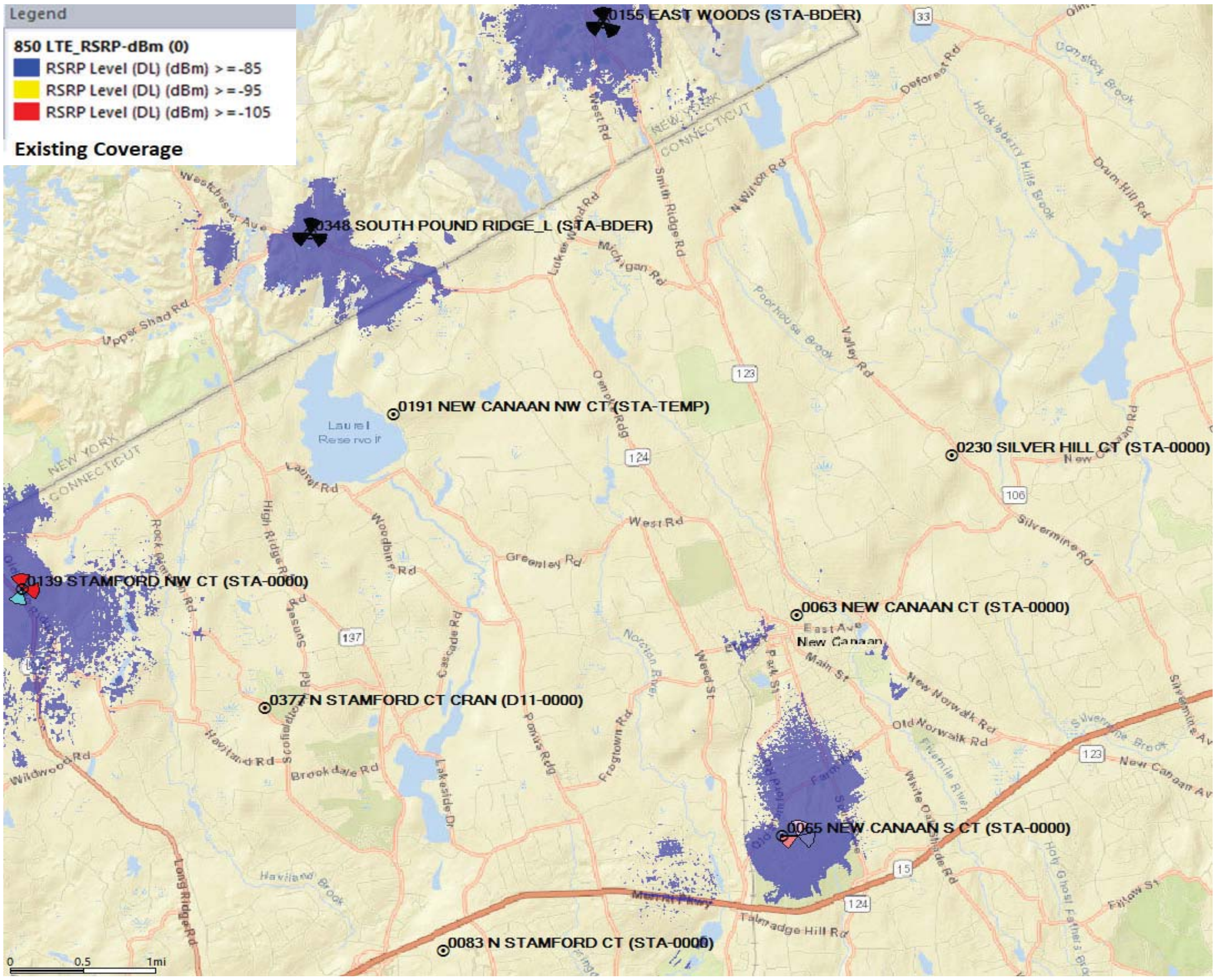
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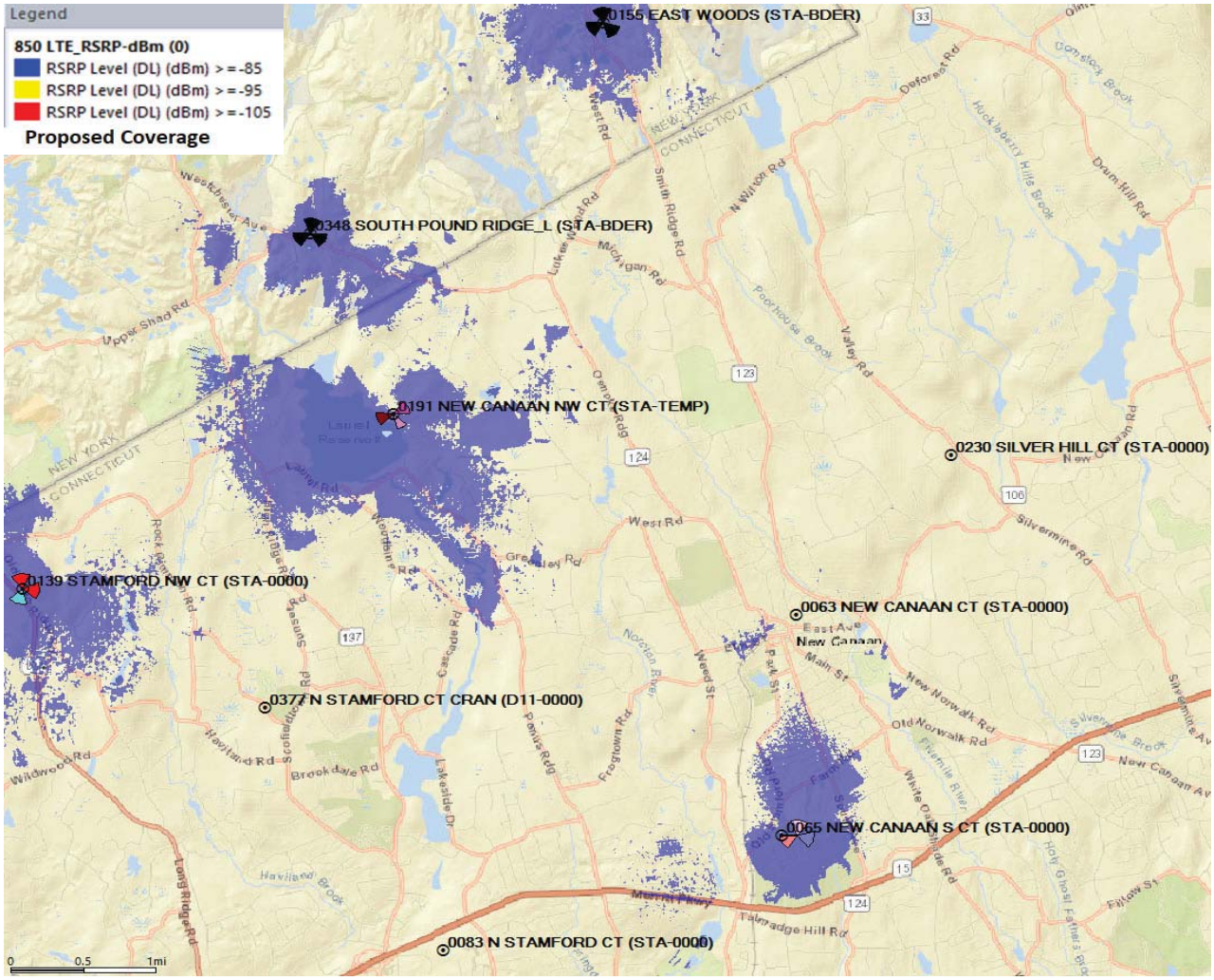
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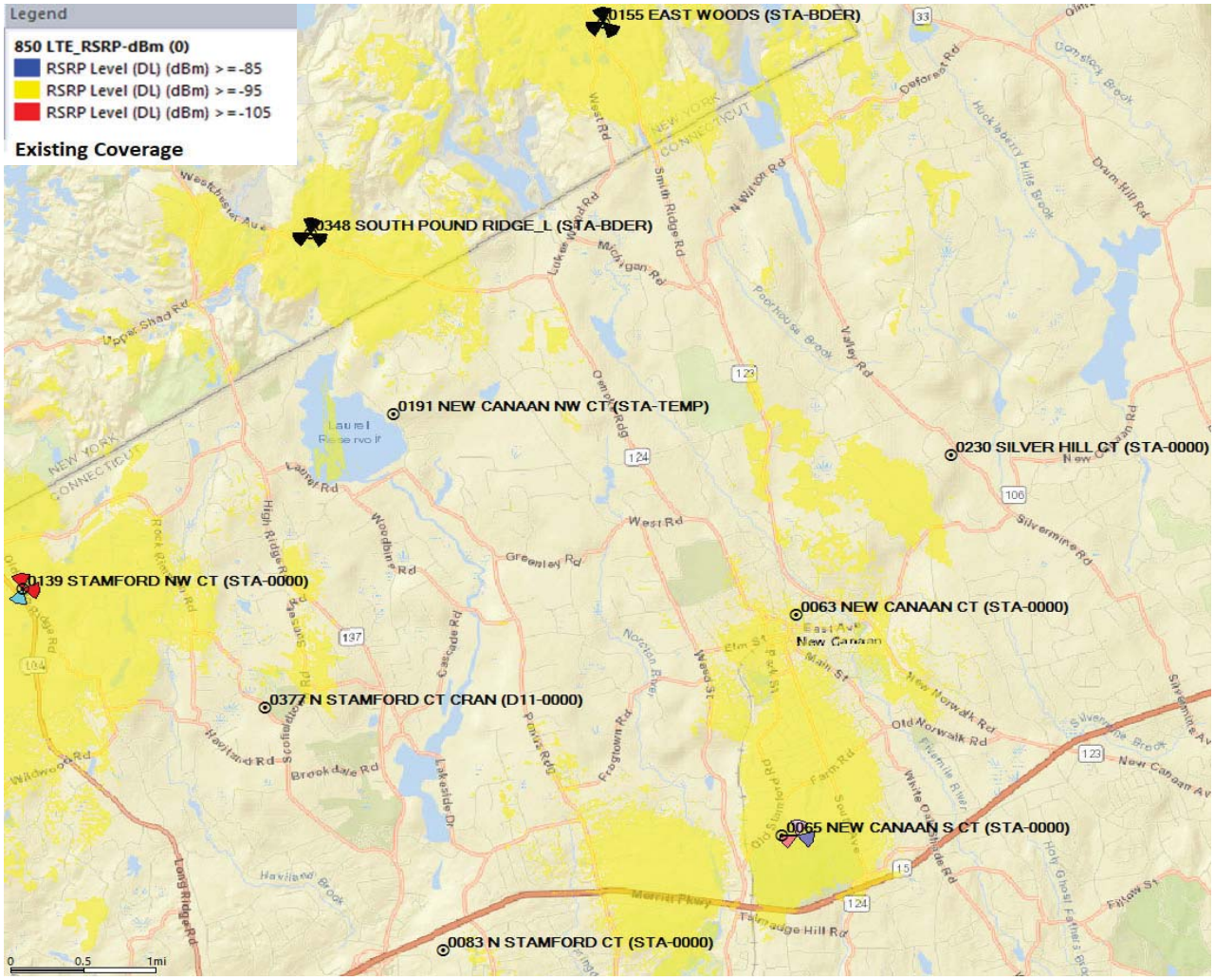
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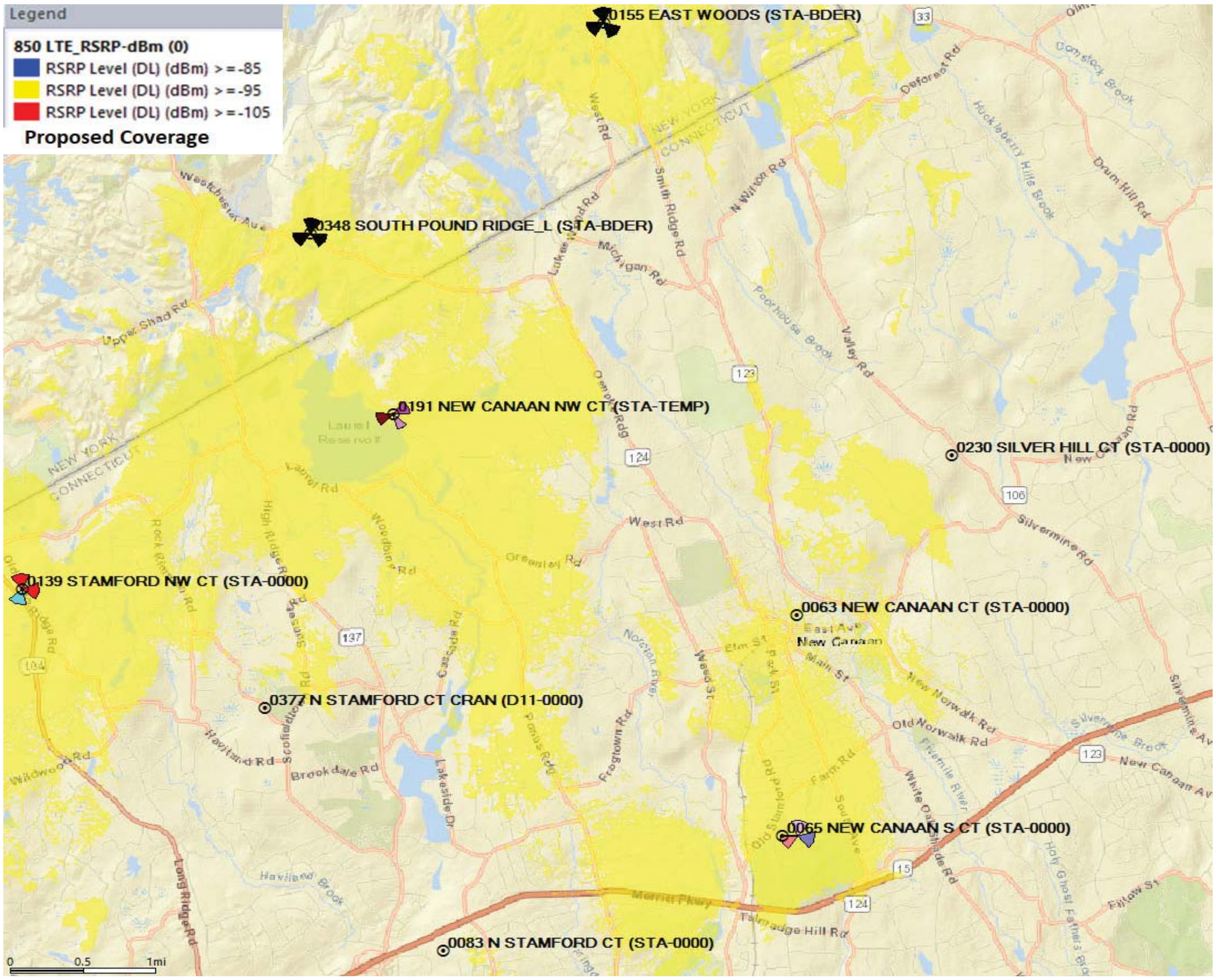
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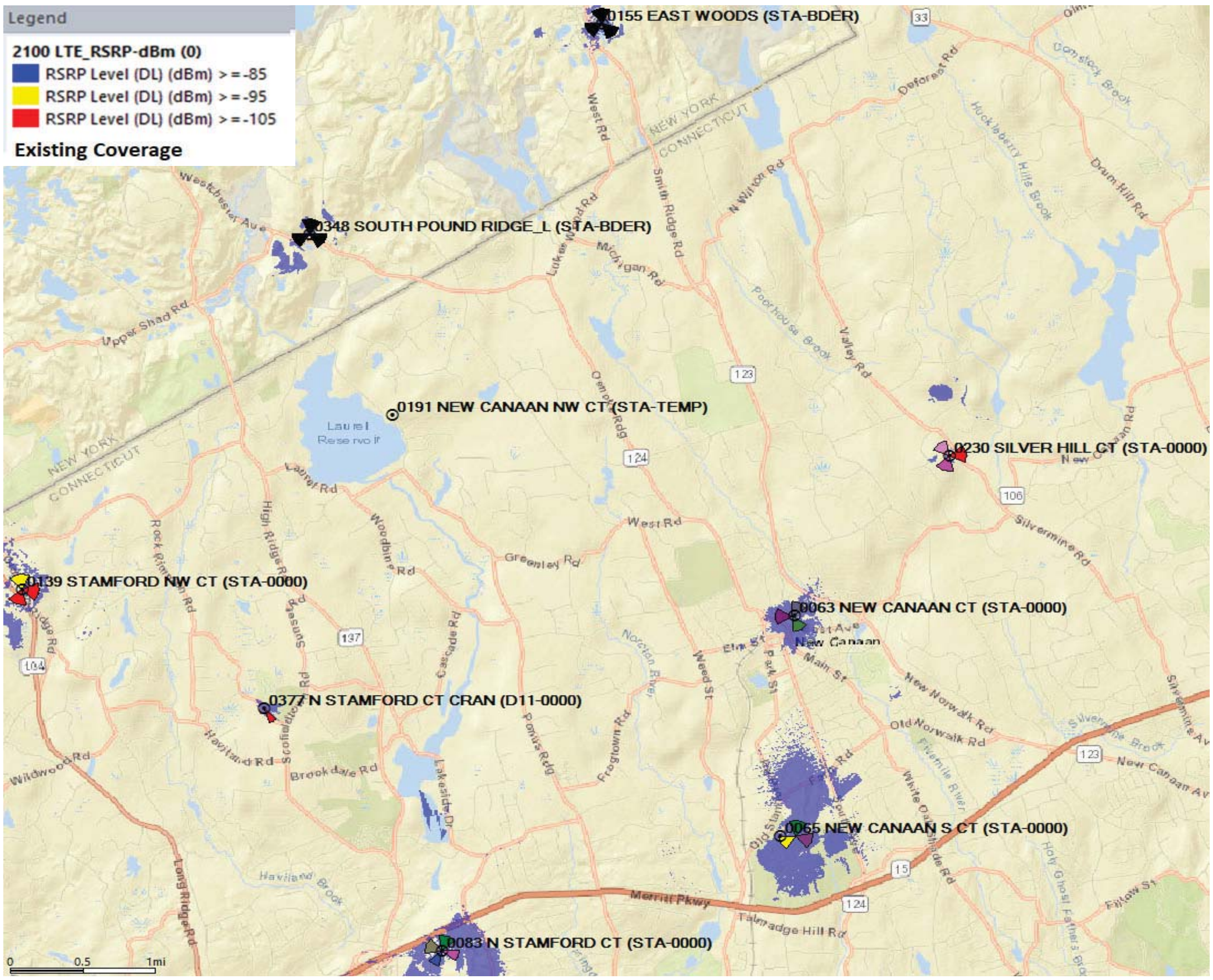
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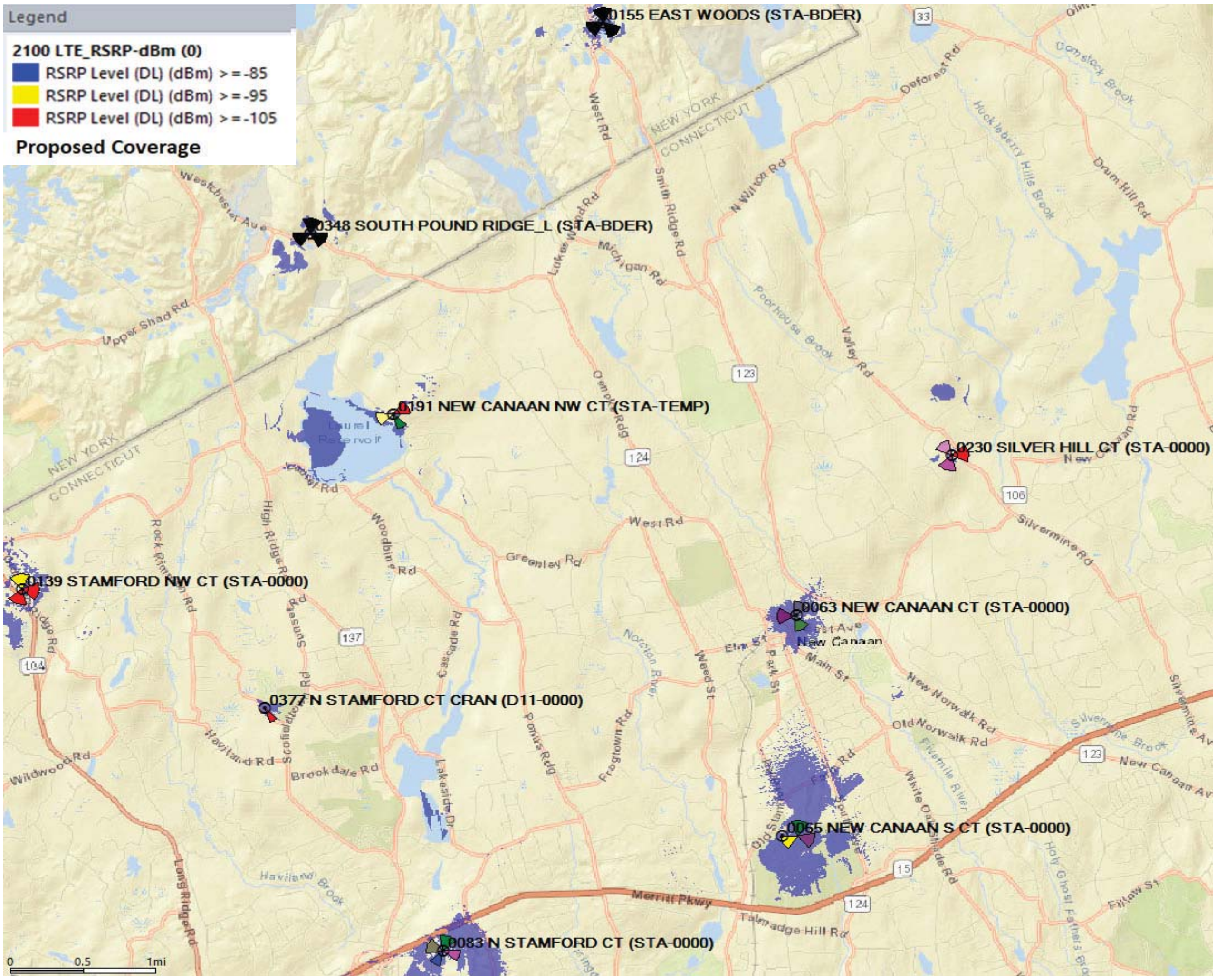
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Proposed Coverage
0155 EAST WOODS (STA-BDER)
0348 SOUTH POUND RIDGE_L (STA-BDER)
0191 NEW CANAAN NW CT (STA-TEMP)
0230 SILVER HILL CT (STA-0000)
0139 STAMFORD NW CT (STA-0000)
0063 NEW CANAAN CT (STA-0000)
0377 N STAMFORD CT CRAN (D11-0000)
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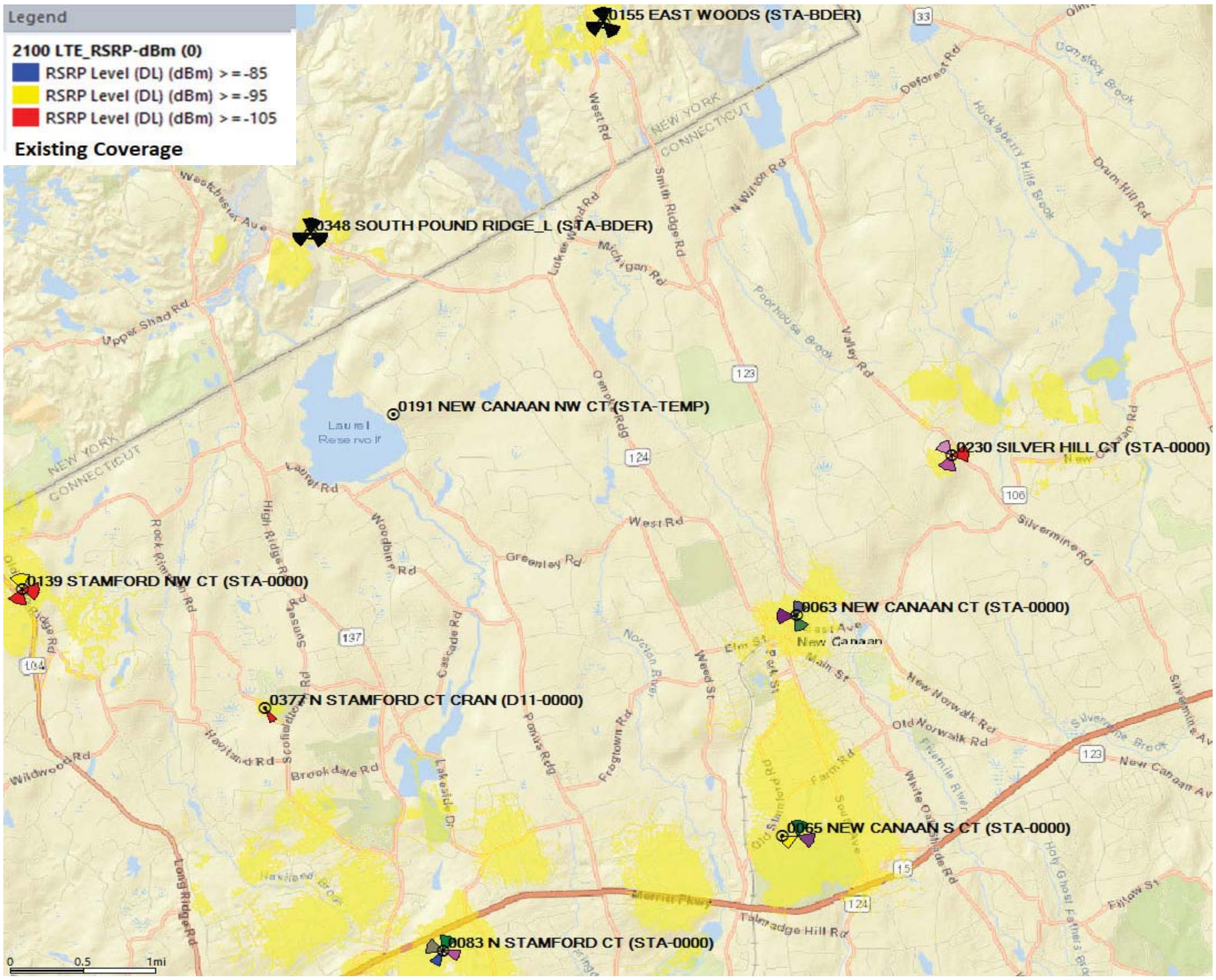
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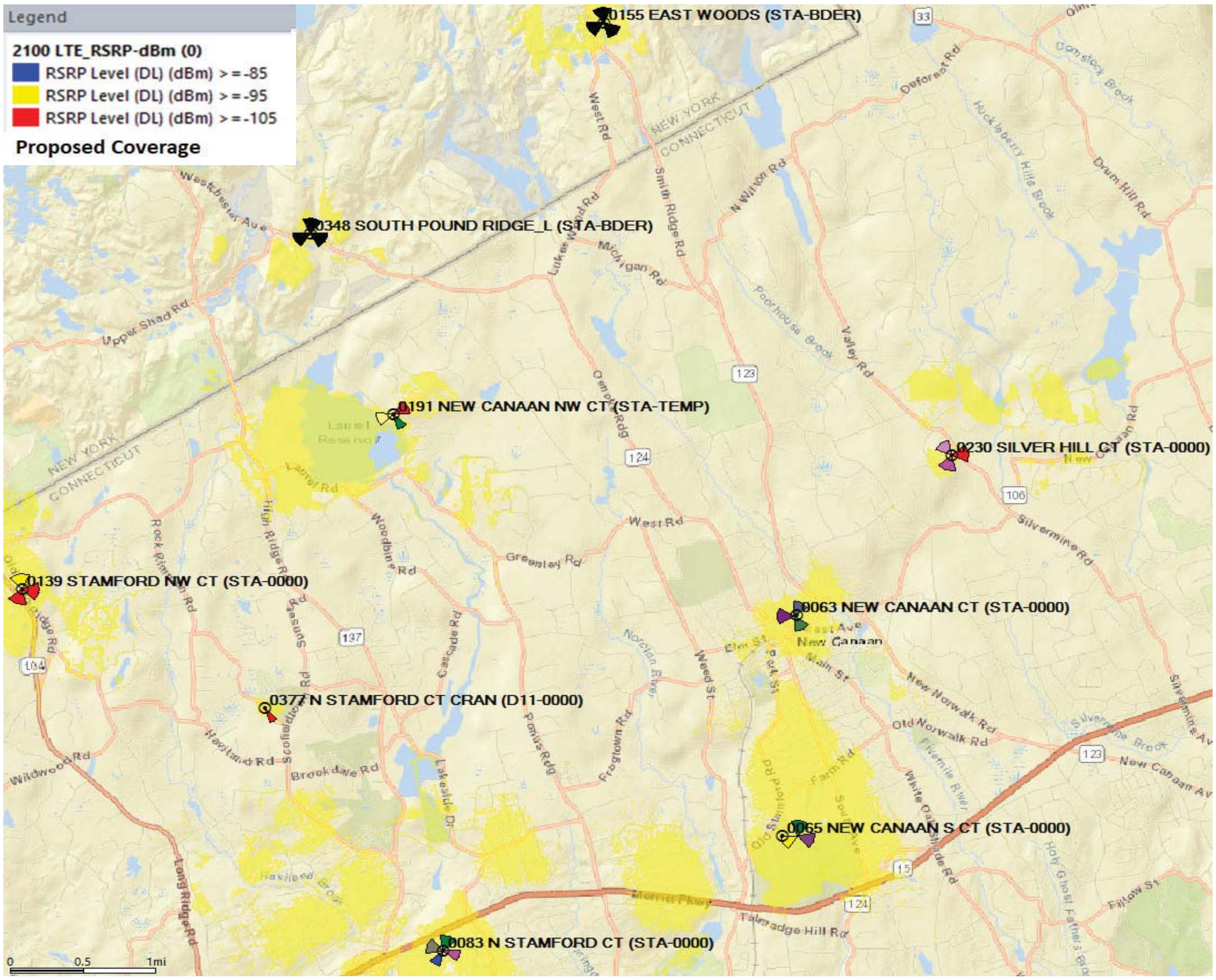
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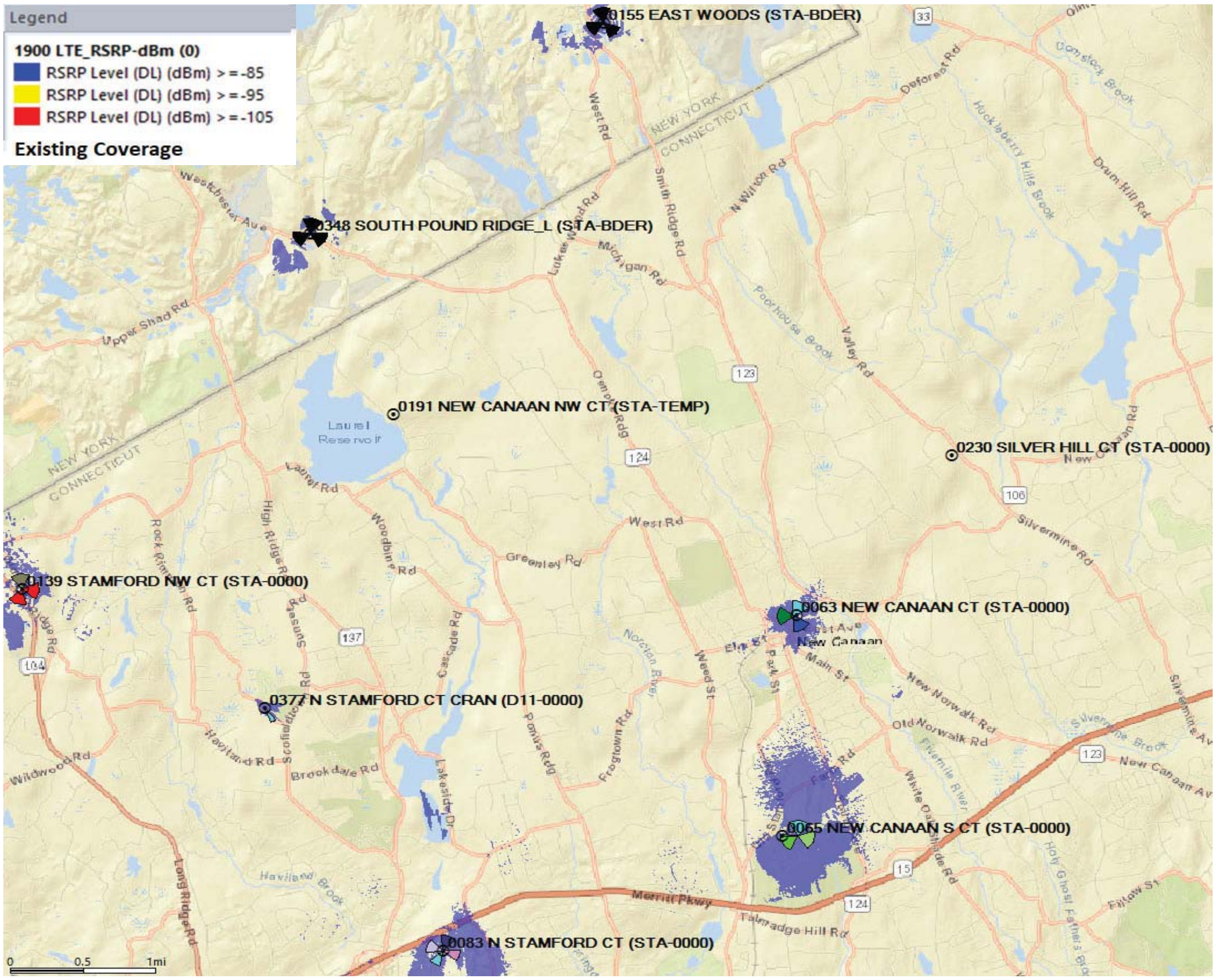
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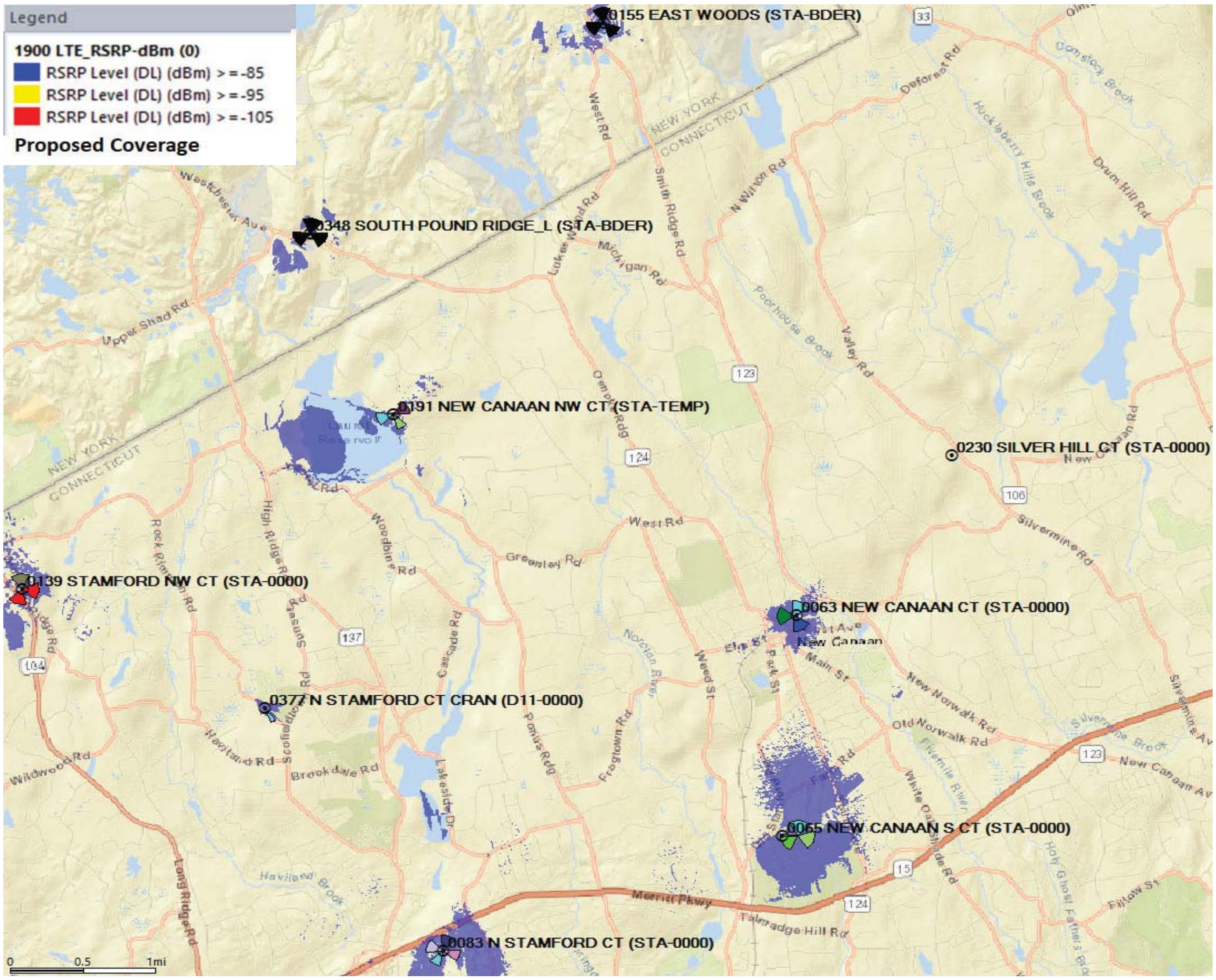
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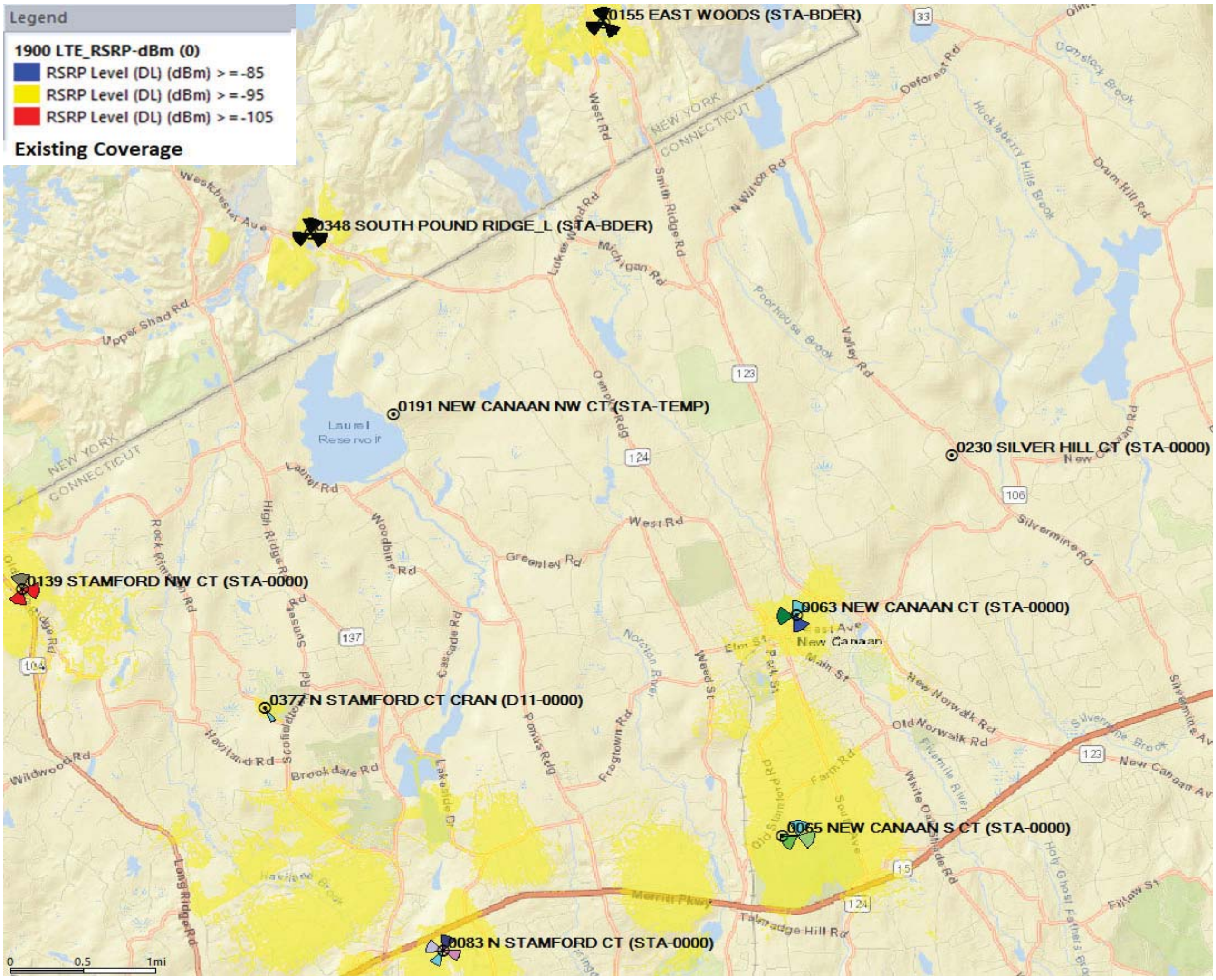
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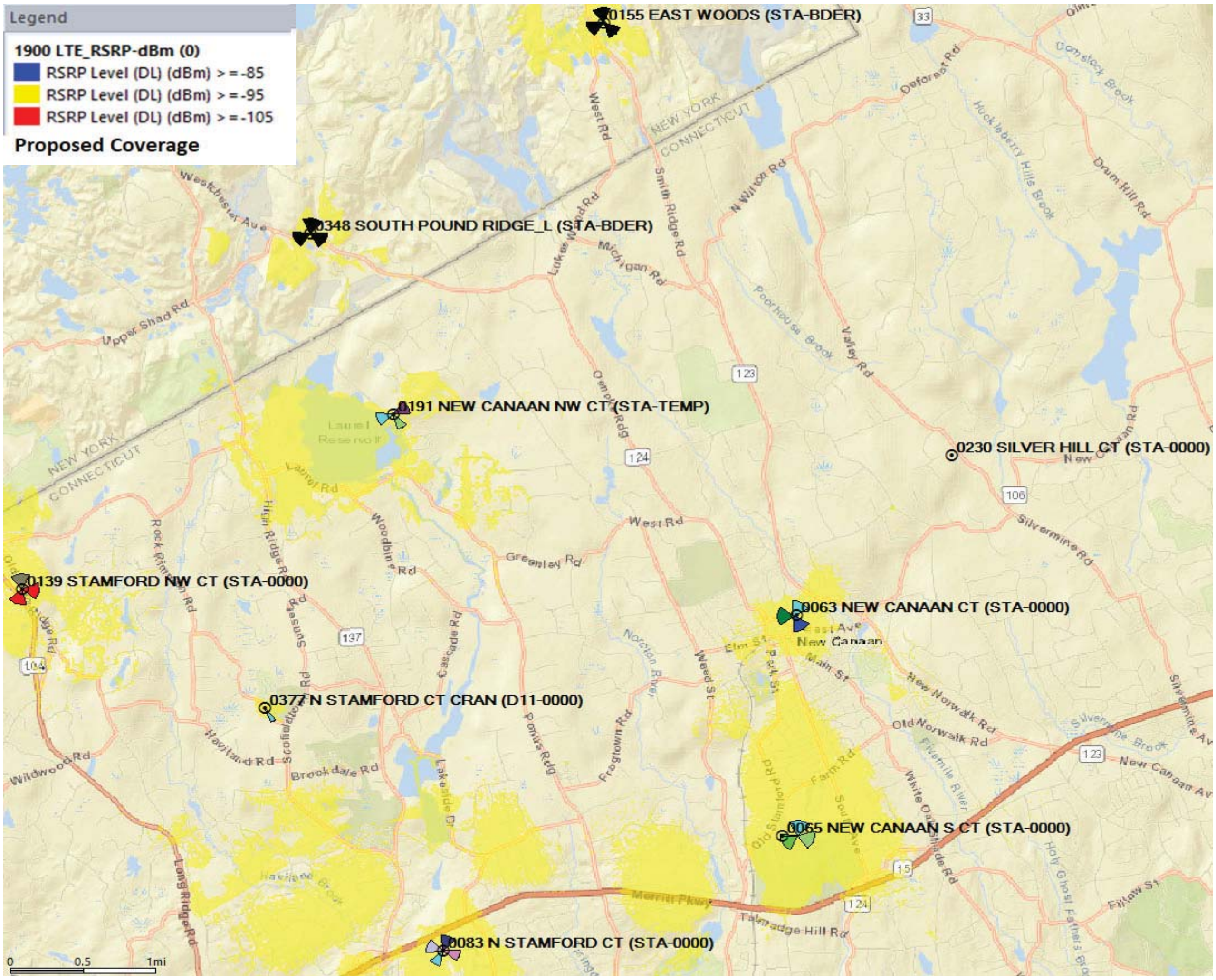
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Town of New Canaan
POLICE DEPARTMENT
174 SOUTH AVENUE
NEW CANAAN, CONNECTICUT 06840
TELEPHONE (203) 594-3500
FAX (203) 594-3553

CHIEF OF POLICE
LEON M. KROLIKOWSKI

DEPUTY CHIEF
JOHN DIFEDERICO

CAPTAIN
ANDREW WALSH

December 6, 2021

Mr. Raymond Vergati, Regional Manager
Homeland Towers, LLC
9 Harmony Street 2nd Floor
Danbury, CT 06810

Mr. Vergati,

On behalf of the New Canaan Police Department and the Board of Police Commissioners, I write this letter of support for the construction of a cellular tower at the proposed site address of 1837 Ponus Ridge Rd. New Canaan CT.

We are pleased that Homeland Towers will provide space on this proposed tower to the Town of New Canaan for radio equipment which supports our public safety radio network. The New Canaan Police Department is responsible for town wide public safety radio communications and is the Public Safety Answering Point (PSAP) for the Town of New Canaan, which fields all 911 calls and routine calls for service. The PSAP is responsible for radio dispatch of first responders, including Police, Fire, EMS and DPW.

The town has been struggling with the poor quality of the current radio system in the northwest area of town where there are significant gaps in radio coverage for first responder personnel. There have been attempts in the past to improve the radio coverage in certain areas of the town, including the northwest area of town that never provided a complete, long-term solution.

Additionally, the residents and first responders of New Canaan rely heavily on cellular service in times of an emergency. When seconds count and reliable communications are imperative, we desperately need dependable cellular service in all areas of town. I would like to thank you in advance for providing space on the proposed tower and your commitment to ensure first responders are provided with a safe reliable radio and cellular network.

Deputy Chief John DiFederico
New Canaan Police Department
Town of New Canaan, CT

New Canaan
Community Emergency Response Team
174 South Ave, New Canaan, CT 06840

December 6, 2021

Mr. Raymond Vergati, Regional Manager
Homeland Towers, LLC
9 Harmony Street, 2nd, Floor
Danbury, CT 06810

Dear Mr. Vergati,

On behalf of New Canaan's Community Emergency Response Team's (CERT's) Board of Directors, I write this letter supporting the construction of a cellular tower, which would include both cellular and public safety radio antennas, at 1837 Ponus Ridge Rd, New Canaan CT.

The Town has known about, and been unable to permanently correct, a severe radio "dead spot" in the northwest area of town, where portable radios are unable to be "heard" by 911 dispatch. The lack of cell towers in this area and the lack of radio coverage presents a major risk for emergency responders. The installation of at least one new receiver is crucial.

We therefore unequivocally support the installation of a cell tower supporting public service radio on Ponus Ridge Rd.

Sincerely,

Stuart Sawabini

Stuart Sawabini
Executive Director
New Canaan CERT
On behalf of the CERT Board of Directors

CERT Background:

The Community Emergency Response Team (CERT) program educates volunteers about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, search and rescue, team organization, traffic control, and disaster medical operations. CERT offers a consistent, nationwide approach to volunteer training and organization that professional responders can rely on during disaster situations.

CERT became a national program in 1993. There are now CERT programs in all 50 states and over 2,700 local CERT programs nationwide. More than 600,000 people have trained since CERT became a national program.

CERT reports to the Department of Homeland Security, Federal Emergency Management Agency (FEMA), and within FEMA, to the Citizen Corps.

Town of New Canaan
Office of Emergency Management
174 South Avenue, New Canaan, CT 06840
(203) 594-4100

December 1, 2021

Mr. Raymond Vergati, Regional Manager
Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

Dear Mr. Vergati,

As the Director of Emergency Management for the Town of New Canaan, Connecticut, I am writing this letter to support the construction of a telecommunications tower at 1837 Ponus Ridge Rd, New Canaan Connecticut.

The Town of New Canaan's Public Safety Radio systems (Fire, Police and EMS) are essential to protecting the lives and property of our Town Residents – and the efficacy of this system is largely determined by adequate coverage with antenna placement in town providing the maximum coverage for our first responder agencies. The site on Ponus and the addition of antennas for these public safety radios to this new tower will have a direct positive impact on this system and its coverage, improving life safety and the effectiveness of all our agencies in their responses to emergencies.

Additionally, the need for cellular service in all areas in town is now no longer a luxury, rather it is a requirement for the same reasons of life safety and communications in the event of emergencies. The ability to reach 911 via cell phone at any location in town serves as a lifeline for many of our residents as well as visitors.

Regards,

Russell Kimes, III
Director of Emergency Management
Town of New Canaan

New Canaan Fire Department

Assistant Chief Albe Bassett

60 Main St. New Canaan CT. 06840

(203) 594-3153

December 1, 2021, 2021

Mr. Raymond Vergati, Regional Manager
Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

Dear Mr. Vergati,

As the chair of the New Canaan Board of Fire Commissioners, I am writing this letter to support the construction of a telecommunications tower at 1837 Ponus Ridge Rd, New Canaan Connecticut. I fully understand that there may be concerns expressed by citizens toward such a project, but I must consider public safety as my priority in supporting this endeavor.

The fire department's radio system needs to transmit and receive vital information to and from our dispatch center to keep our community safe. We are responsible for the provisions of fire protection and delivering emergency medical services to our citizenry, our personnel must have reliable technology that includes radio and cellular communications. Based upon the topography of this town and our current system, communications between dispatch, apparatus and personnel is often less than adequate. This is a life safety issue. An industry standard in today's fire service also involves the use of mobile display terminals or tablets to receive incident information. These devices are cellular based and with the lack of connectivity in many parts of town, this vital resource becomes compromised.

More importantly, this project will greatly improve cellular service in town for all users. This means if a person has an emergency and dials or sends a text message to 911, they will reach a public safety answering point. Moreover, we support any project that is available at no cost to the town and supports our mission. It is critical that public safety communication antennas are permitted access to the highest point on any tower which will greatly enhance fire and EMS operations.

In closing, I appreciate the opportunity to submit this letter of support and look forward to a new and improved town-wide public safety communications system.

Respectfully Submitted,

Jack Horner

Board of Fire Commissioners
New Canaan, CT

New Canaan Fire Department

Assistant Chief Albe Bassett

60 Main St. New Canaan CT. 06840

(203) 594-3153

December 1, 2021, 2021

Mr. Raymond Vergati, Regional Manager
Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

Dear Mr. Vergati,

As the interim Fire Chief for the Town of New Canaan, CT., I am writing this letter to support the construction of a telecommunications tower at 1837 Ponus Ridge Rd, New Canaan Connecticut. I fully understand that there may be concerns expressed by citizens toward such a project, but I must consider public safety as my priority in supporting this endeavor.

The fire department's radio system currently utilizes a 3-point VHF simulcast system with 2 additional satellite receivers to transmit and receive vital information to and from our dispatch center. Responsible for the provisions of fire protection and delivering emergency medical services to our citizenry, our personnel must have reliable technology that includes radio and cellular communications. Based upon the topography of this town and our current system, communications between dispatch, apparatus and personnel is often less than adequate. This is a life safety issue. An industry standard in today's fire service also involves the use of mobile display terminals or tablets to receive incident information. These devices are cellular based and with the lack of connectivity in many parts of town, this vital resource becomes compromised.

As part of the NCFD mission, we have joined forces with the police and public works department to upgrade our public safety communications system. The construction of this supporting structure will allow the town to enhance its public safety communications infrastructure and elevate the level of safety provided to our first responders.

More importantly, this project will greatly improve cellular service in town for all users. This means if a person has an emergency and dials or sends a text message to 911, they will reach a public safety answering point. Moreover, we support any project that is available at no cost to the town and supports our mission. It is critical that public safety communication antennas are permitted access to the highest point on any tower which will greatly enhance fire and EMS operations.

New Canaan Fire Department

Assistant Chief Albe Bassett

60 Main St. New Canaan CT. 06840

(203) 594-3153

Finally, continuously faced with changes in technology, a new and reliable public safety communications, these towers provide redundancy for our communications.

In closing, I appreciate the opportunity to submit this letter of support and look forward to a new and improved town-wide public safety communications system.

Respectfully Submitted,

Albe Bassett

Interim Fire Chief
New Canaan, CT

SECTION 2

HOMELAND TOWERS

Site Search Summary

In general, a "site search area" is developed to initiate a site selection process in an area where a coverage need has been identified. The site search area is a general location where the installation of a wireless facility would address an identified coverage need problem while still allowing for orderly integration of the site into a network such as AT&T's, based on the engineering criteria hand-off, frequency reuse and interference. In any site search area, the Applicants seek to avoid the unnecessary proliferation of towers and to reduce the potential adverse environmental effects of a needed facility, while at the same time ensuring the quality of service provided by the site to users of its network.

The candidate identification process includes reviewing the applicable zoning ordinance to identify areas within which the proposed use is allowed. Viable candidates consist of existing structures of sufficient height from which an antenna installation can provide sufficient coverage, or lacking such a structure, parcels located within the narrowly defined search area upon which a tower may be constructed to a sufficient height. In order to be viable, a candidate must provide adequate coverage to the significant gap in AT&T's network. In addition, all viable candidates must have a willing landowner with whom commercially reasonable lease terms may be negotiated. Preference is given to locations that closely comply with local zoning ordinances, or in the event no viable candidates are determined to be located within such areas, to identify other potentially suitable locations. In the case of this particular site search area in New Canaan, no tall, non-tower structures were located within the identified area of need that were available for leasing. The area consists of mainly watershed, forested land, and residential properties with challenging topography.

As noted below, Homeland Towers, LLC investigated a number of different parcels of land within and near this area for construction of a new facility within the Town of New Canaan and Stamford. The Applicants found these sites to be adequate and available for the siting of a wireless facility or, for the reasons cited below, unavailable or inappropriate for the siting of a facility or technically inadequate to satisfy AT&T's coverage requirements in this area of need.

Properties Investigated by Homeland Towers

Homeland Towers identified and investigated twenty-three (23) sites in and around the New Canaan/Stamford site search area where the construction of a new tower might be feasible for radio frequency engineering purposes. Descriptions of Homeland's sites investigated are set forth below along as well as a map depicting the approximate location of the sites investigated.

1. **1837 Ponus Ridge Road, CT**
   Map Block Lot: 23 27 57
   Owner: 1837 LLC
   Zoning District: 4 Acre Residence Zone
   Parcel Size: 5.16 acres
   Lat/Long: 41°10'18.89"N/73°32'36.9"W
   Ground Elevation: 394' +/- AMSL
   This property is the Candidate Site where the tower is proposed.

HOMELAND TOWERS

2. **1845 Ponus Ridge Road, New Canaan, CT**
   Map Block Lot: 23 27 56
   Owner: Simone Demou
   Zoning District: 4 Acre Residence Zone
   Parcel Size: 6.59 acres
   Lat/Long: 41°10'22.61"N/73°32'40.46"W
   Ground Elevation: 387' +/- AMSL
   The owner responded to certified proposal and stated verbally that they were not interested in leasing to Homeland Towers.

3. **Ponus Ridge, New Canaan, CT**
   Map Block Lot: 23 26 2
   Owner: Aquarion Water Company of Connecticut
   Zoning District: 4 Acre Residence Zone
   Parcel Size: 153.44 acres
   Lat/Long: 41°10'20.81"N/73°32'47.48"W
   Ground Elevation: 347' +/- AMSL
   A proposal was sent by Homeland Towers via email to the owner. The owner responded back via email and verbally that they were not interested in leasing to Homeland Towers primarily due to wireless facilities not being permitted on Class I watershed land. In addition, Aquarion stated that there is a Conservation Easement to the State of Connecticut which precludes Aquarion from developing the property.

4. **197 Dans Highway, New Canaan, CT**
   Map Block Lot: 28 27 8
   Owner: Carolyn Halsey
   Zoning District: 4 Acre Residence Zone
   Parcel Size: 6.47 acres
   Lat/Long: 41°10'22.61"N/ 73°32'14.20"W
   Ground Elevation: 410' +/- AMSL
   The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

5. **195 Dans Highway, New Canaan, CT**
   Map Block Lot: 28 27 D14
   Owner: Carolyn Halsey
   Zoning District: 4 Acre Residence Zone
   Parcel Size: 9.02 acres
   Lat/Long: 41°10'27.49"N/73°32'5.30"W
   Ground Elevation: 420' +/- AMSL
   The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

6. **Proprietors Circle, New Canaan, CT**
   Map Block Lot: 28 14 71
   Owner: Susan Wirth
   Zoning District: 4 Acre Residence Zone
   Parcel Size: 4.06 acres
   Lat/Long: 41°10'55.76"N/73°32'25.95"W
   Ground Elevation: 416'+/- AMSL
   The owner responded to a proposal sent to them by certified mail and stated verbally that they would not be interested in leasing to Homeland Towers but would only be interested in selling the property to Homeland Towers.

HOMELAND TOWERS

7. **Wellesly Drive, New Canaan, CT**
   Map Block Lot: 27 208 115
   Owner: New Canaan Land Conservation Trust
   Zoning District: 2 acre Residence Zone
   Parcel Size: 40.1 acres
   Lat/Long: 41°9'29.19"N/ 73°31'23.18"W
   Ground Elevation: 349'+/- AMSL
   The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

8. **Reservoir Lane, Stamford, CT**
   Map Block Lot: 004 2759
   Owner: State of Connecticut
   Zoning District: RA-2
   Parcel Size: 44.58 acres
   Lat/Long: 41°9'44.03"N/73°32'42.55"W
   Ground Elevation: 282' +/- AMSL
   The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

9. **2975 High Ridge Road, Stamford, CT**
   Map Block Lot: 002 6800
   Owner: The Stamford Meeting Hall Inc.
   Zoning District: RA-2
   Parcel Size: 1.24 acres
   Lat/Long: 41°10'2.68"N/ 73°33'42.87"W
   Ground Elevation: 456' +/- AMSL
   The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

10. **Lot A High Ridge Road, Stamford, CT**
    Map Block Lot: 004 3503
    Owner: CBS Realty Inc
    Zoning District: RA-2
    Parcel Size: 53.24 acres
    Lat/Long: 41°9'5.06"N/73°33'4.25"W
    Ground Elevation: 338' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

11. **Laurel Road, Stamford, CT**
    Map Block Lot: 004 2788
    Owner: State of Connecticut
    Zoning District: RA-3
    Parcel Size: 21.81 acres
    Lat/Long: 41°10'15.57"N/73°33'28.44"W
    Ground Elevation: 392' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

HOMELAND TOWERS

12. **0 Ingleside Drive, Stamford, CT**
    Map Block Lot: 003 775
    Owner: Stamford Land Conservation Trust Inc.
    Zoning District: RA-2
    Parcel Size: 6.2 acres
    Lat/Long: 41°9'44.76"N/73°33'26.02"W
    Ground Elevation: 370' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

13. **Laurel Road, Stamford, CT**
    Map Block Lot: 004 2784
    Owner: State of Connecticut
    Zoning District: RA-2
    Parcel Size: 3.1 acres
    Lat/Long: 41°9'56.43"N/ 73°33'25.16"W
    Ground Elevation: 402' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

14. **Laurel Road, Stamford, CT**
    Map Block Lot: 004 2782
    Owner: Aquarion Water Company of Connecticut
    Zoning District: RA-2
    Parcel Size: 3.44 acres
    Lat/Long: 41°9'50.13"N/73°33'17.41"W
    Ground Elevation: 354' +/- AMSL
    A proposal was sent by Homeland Towers via email to the owner. The owner responded back via email and verbally that they were not interested in leasing to Homeland Towers primarily due to wireless facilities not being permitted on Class I watershed land. In addition, Aquarion stated that there is a Conservation Easement to the State of Connecticut which precludes Aquarion from developing the property.

15. **Reservoir Lane, Stamford, CT**
    Map Block Lot: 004 2786
    Owner: Aquarion Water Company of Connecticut
    Zoning District: RA-3
    Parcel Size: 13.08 acres
    Lat/Long: 41°9'52.29"N/ 73°32'45.11"W
    Ground Elevation: 282' +/- AMSL
    A proposal was sent by Homeland Towers via email to the owner. The owner responded back via email and verbally that they were not interested in leasing to Homeland Towers primarily due to wireless facilities not being permitted on Class I watershed land. In addition, Aquarion stated that there is a Conservation Easement to the State of Connecticut which precludes Aquarion from developing the property.

HOMELAND TOWERS

16. **Laurel Road, Stamford, CT**
    Map Block Lot: 004 2781
    Owner: State of Connecticut
    Zoning District: RA-2
    Parcel Size: 1.97 acres
    Lat/Long: 41°9'48.60"N/73°33'4.65"W
    Ground Elevation: 353' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

17. **312 Laurel Road, Stamford, CT**
    Map Block Lot: 004 2785
    Owner: Aquarion Water Company of Connecticut
    Zoning District: RA-3
    Parcel Size: 3 acres
    Lat/Long: 41°9'49.05"N/ 73°32'56.05"W
    Ground Elevation: 336' +/- AMSL
    A proposal was sent by Homeland Towers via email to the owner. The owner responded back via email and verbally that they were not interested in leasing to Homeland Towers primarily due to wireless facilities not being permitted on Class I watershed land. In addition, Aquarion stated that there is a Conservation Easement to the State of Connecticut which precludes Aquarion from developing the property.

18. **0 high Ridge Road, Stamford, CT**
    Map Block Lot: 002 6882
    Owner: High Ridge Cemetery
    Zoning District: RA-2
    Parcel Size: 2.52 acres
    Lat/Long: 41°9'59.19"N/73°33'43.33"W
    Ground Elevation: 477' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

19. **107 Hickory Road, Stamford, CT**
    Map Block Lot: 004 3502
    Owner: Cullman Land Company LLC
    Zoning District: RA-2
    Parcel Size: 9.49 acres
    Lat/Long: 41°9'7.54"N/ 73°33'12.64"W
    Ground Elevation: 375' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

20. **0 High Ridge Road, Stamford, CT**
    Map Block Lot: 004 0537
    Owner: Virginia de Lima
    Zoning District: RA-2
    Parcel Size: 9.49 acres
    Lat/Long: 41°10'3.75"N/ 73°33'35.97"W
    Ground Elevation: 417' +/- AMSL
    The owner responded to certified proposal and stated via email that they were not interested in leasing to Homeland Towers.

HOMELAND TOWERS

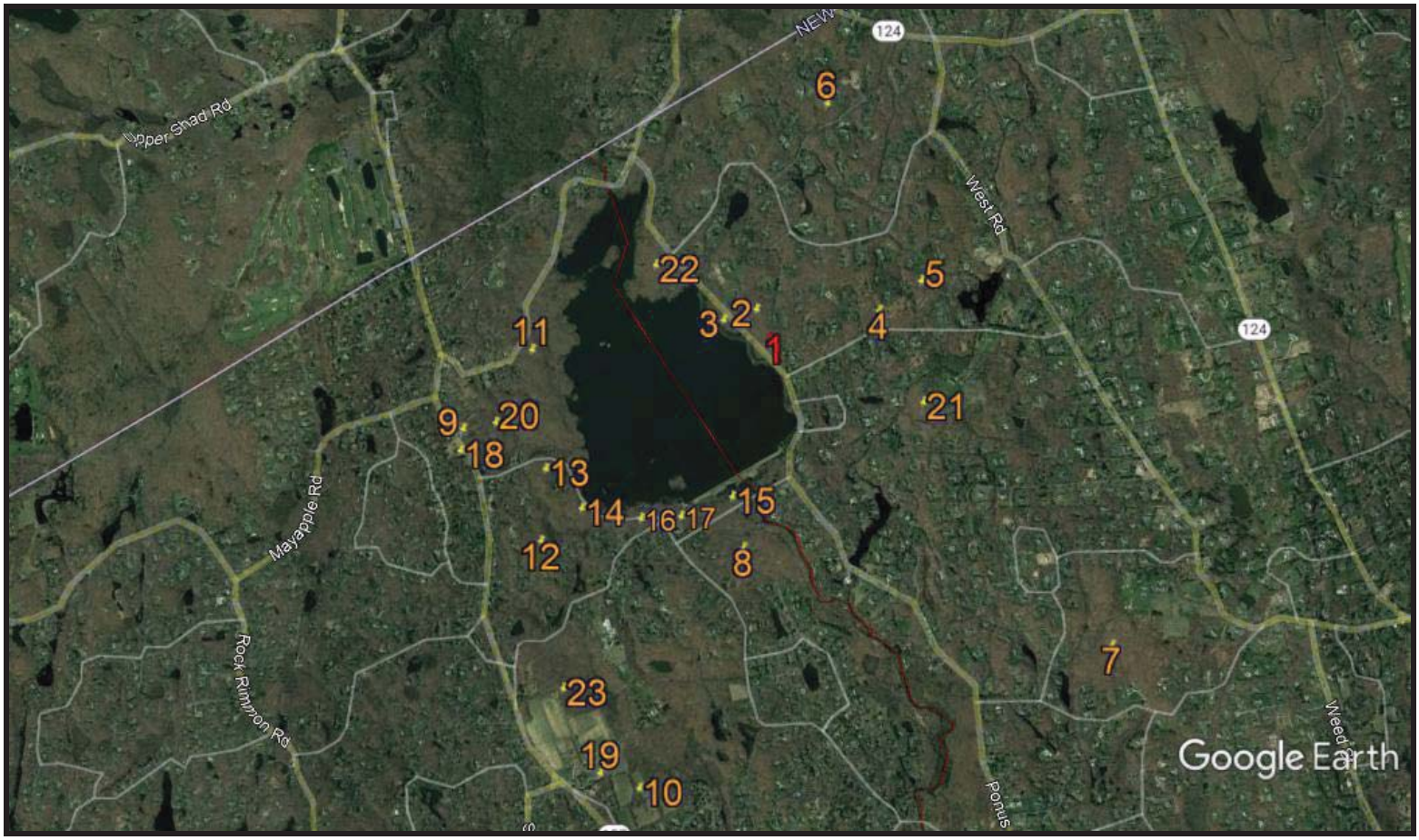
21. **104 Dans Highway, New Canaan, CT**
    Map Block Lot: 028 25 D10
    Owner: Reed and Delphine Krakoff
    Zoning District: 4 Acre Residence Zone
    Parcel Size: 51.93 acres
    Lat/Long: 41°10'7.99"N/ 73°32'4.22"W
    Ground Elevation: 308' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail and regular mail from Homeland Towers.

22. **Ponus Ridge Road, New Canaan, CT**
    Map Block Lot: 23 26 3
    Owner: State of Connecticut
    Zoning District: 4 Acre Residence Zone
    Parcel Size: 3.59 acres
    Lat/Long: 41°10'29.54"N/73°33'2.16"W
    Ground Elevation: 373' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

23. **Lot B Ingleside Drive, Stamford, CT**
    Map Block Lot: 004 3504
    Owner: CLF LLC
    Zoning District: RA-2
    Parcel Size: 59.3 acres
    Lat/Long: 41° 9'21.12"N/ 73°33'20.75"W
    Ground Elevation: 385' +/- AMSL
    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

HOMELAND TOWERS

Aerial Image of properties investigated by Homeland Towers



AT&T's Historical Site Search

For more than a decade, AT&T actively collaborated with Town officials to improve its network and address the recognized need to provide reliable wireless telecommunications services within the Town. As part of this engagement with the Town, AT&T funded several search rings in areas of the Town where new infrastructure was needed to provide reliable wireless services, including a search ring in the northwest portion of the Town. AT&T retained specialized real estate professionals to search for potential sites for the installation of AT&T's network infrastructure and coordinate with property owners and AT&T's radio frequency design engineers.

In the western area of Town, an exhaustive review by AT&T and its real estate professionals during the approximate period of 2010-2014 did not result in any possible wireless sites. This review included evaluation several sites including town-owned property and an existing water tank. At that time, the Town elected not to make its property available.

Earlier this year, AT&T reissued funding for a proposed facility to serve the northwestern part of Town in coordination with Homeland Towers on the proposed tower facility at 1837 Ponus Ridge Road.

HOMELAND TOWERS

EXISTING FACILITIES WITHIN 4 MILE RADIUS

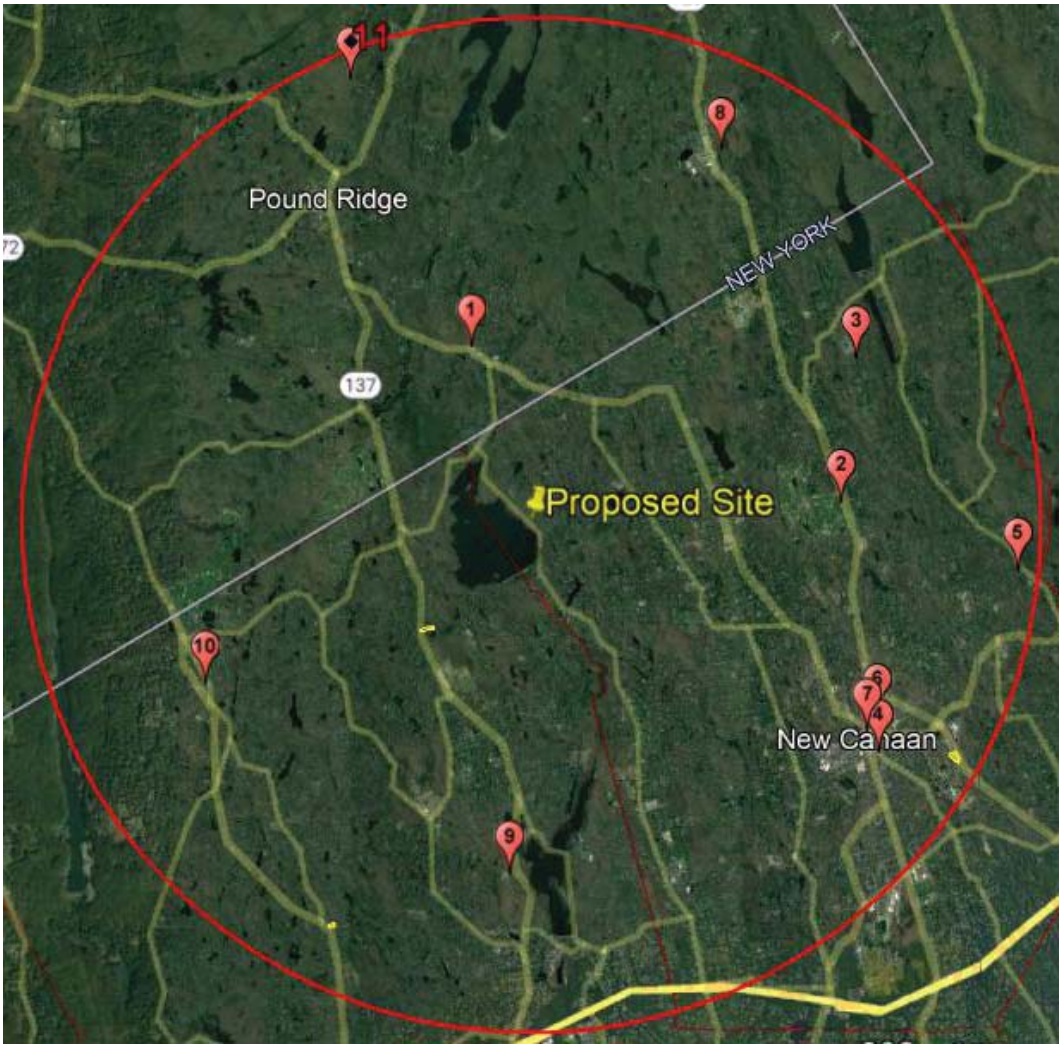
There are six (6) communication towers and four (4) rooftop installations located within approximately 4 miles of the proposed site in the northwest section of New Canaan. Each location is depicted on the following map, numbered in the order appearing on the list below. Not one of the existing facilities does currently, or could, provide adequate coverage to the area of northwest New Canaan or northeast Stamford. Indeed, most of the towers and facilities 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 northwest New Canaan Facility.

No.	OWNER/ OPERATOR	TOWER/CELL SITE LOCATION	HEIGHT/TYPE	AT&T OPERATING	COORDINATES
1.	American Tower	89 Westchester Ave, Pound Ridge, NY	134'/Monopole	YES	Lat.: 41.1916 Long.:-73.5540
2.	T-Mobile	95 Country Club Rd., New Canaan, CT	110'/Silhouette Monopole	YES	Lat.: 41.1729 Long.:-73.4963
3.	American Tower	183 Soundview Lane, New Canaan, CT	85'/Monopine	Pending – Q1 2022	Lat.: 41.1907 Long.:-73.4952
4.	AT&T	135 Main St., New Canaan, CT	44'/Building Mount	YES	Lat.: 41.1464 Long.:-73.4917
5.	American Tower	208 Valley Rd., New Canaan, CT	120'/Silhouette Monopole	YES	Lat.: 41.16625 Long.: -73.470472
6.	FJL Holdings LLC	39 Locust Ave., New Canaan, CT	45'/Rooftop	NO	Lat.:41.148728 Long.:-73.491722
7.	Town of New Canaan	77 Main St., New Canaan, CT	50'/Cupola	NO	Lat.:41.147850 Long.:-73.493236
8.	American Tower	377 Smith Ridge Road, Vista, NY	150'/Monopole	YES	Lat.:41.2144 Long.:-73.5150
9.	Church of Christ the Healer	20 Brookdale Road, Stamford, CT	55'/Steeple	Yes	Lat:41.132722 Long:-73.546667
10.	Long Ridge Fire Co.	366 Old Long Ridge Road, Stamford, CT	150'/ Lattice	Yes	Lat.:41.153111 Long.:-73.592694
11.	Verizon	29 Adams Lane, Pound Ridge, NY	150' Monopine	Yes	Lat.:41.22272 Long.:-73.57167

*CT site information obtained from CSC database

HOMELAND TOWERS

EXISTING SITE MAP- 4 Mile Radius



SECTION 3

SECTION 3

General Facility Description

1837 Ponus Ridge Road, New Canaan, Connecticut

Tax/PIN Identification: Map: 23 Block: 27 Lot: 57

5.16 Acre Parcel

The proposed tower site is located on an approximately 5.16-acre parcel owned by 1837 LLC and located at 1837 Ponus Ridge Road. It is classified in the 4-acre Residence Zoning District and is improved with a single-family residence. The proposed telecommunications facility includes an approximately 5,100 s.f. lease area located in the northeastern section of the Parcel.

The facility consists of a new self-supporting monopole designed to resemble a pine tree ("monopine") that is 110' in height with faux branches extending an additional 5' above the top of the pole, bringing the total height to approximately 115'. AT&T would install up to six (6) panel antennas and related equipment at a centerline height of 106' above grade level (AGL). The tower would be designed for future shared use of the structure by other FCC licensed wireless carriers. AT&T's walk-in equipment cabinet would be installed on a steel platform within the 3,000 s.f. fenced tower compound area at the base of the monopine. AT&T would also install a separate steel platform for an emergency backup power generator within the equipment compound.

Municipal antennas for the Town include a 12' long omni antenna located at the top of the monopine structure; a 12' long omni antenna located at approximately 60' AGL; and a 2' microwave dish at an elevation of 114' AGL.

Verizon intends to install its antennas at a centerline height of approximately 95' AGL on the proposed monopine structure.

The tower compound would consist of an approximately 3,000 s.f area to accommodate AT&T's equipment, Verizon's equipment as well as the Town's equipment and provide for future shared use of the facility by other carriers. The tower compound would be enclosed by an eight (8) foot high chain link fence with evergreen landscaping outside of the fence along the northern and eastern sides of the equipment compound. Vehicle access to the facility would be provided from Ponus Ridge Road over an existing paved driveway a distance of approximately 40' then along a proposed gravel access drive a distance of approximately 460' to the proposed compound. Utility connections would be routed underground along the access easement.

SITE EVALUATION REPORT
New Canaan NW CT050

I. LOCATION

A. COORDINATES: 41° 10' 18.89" N
73° 32' 36.90" W

B. GROUND ELEVATION: 394.00± AMSL

C. USGS MAP: USGS 7.5 quadrangle for Pound Ridge

D. SITE ADDRESS: 1837 Ponus Ridge Road
New Canaan, CT 06840

E. ZONING WITHIN ¼ MILE OF SITE: Abutting areas to the north and east of the property are zoned 4 Acre Residence Zone. Abutting areas to the south and west of the property are zoned 4 Acre Residence Zone and Floodplain Overlay Zone.

II. DESCRIPTION

A. SITE SIZE: 5.16 Ac (Vol 1023 - Page 0771)

LEASE AREA/COMPOUND AREA: 5,100 SF/3,000 SF

B. TOWER TYPE/HEIGHT: A 110' monopine.

C. SITE TOPOGRAPHY AND SURFACE: The facility is located in a wooded portion of a vacant residential property. Site slopes and decreases in elevation from east to west.

D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The proposed compound is located in the northern area of a 5.16± acre residential parcel that is wooded. Residential properties are located north and east of the subject site. Residential properties and the Laurel Reservoir (opposite side of Ponus Ridge Road) are located south and west of the subject site. Wetlands are located on property approximately 240'± west of the proposed compound and approximately 137'± west of the proposed gravel access driveway at its closest point.

E. LAND USE WITHIN ¼ MILE OF SITE: Residential properties to the north, south, east and west. In addition, the Laurel Reservoir is located south and west of the property.

III. FACILITIES

A. POWER COMPANY: Eversource

B. POWER PROXIMITY TO SITE: 585'±

C. TELEPHONE COMPANY: Frontier

D. PHONE SERVICE PROXIMITY: 585'±

E. VEHICLE ACCESS TO SITE: Access to the proposed telecommunication facility will be along existing paved driveway to a proposed gravel & paved access driveway (approx. 500'±)

F. OBSTRUCTION: Wetlands located onsite approximately 240'± west of the proposed compound and 137'± west of the proposed gravel access driveway at its closest point.

G. CLEARING AND FILL REQUIRED: Total area of disturbance is 40,000± sf. (.92± ac.); 118 trees will need to be removed. The site improvements shall entail approximately 5,170 CY of excavation and 65 CY of fill for the construction of the compound and access driveway. Approximately 250 CY of clean broken stone is needed for the compound and driveway construction. The utility trench from the demarc to the compound will excavate approximately 340 CY of material that will be used to backfill the trench.

IV. LEGAL

A. PURCHASE [ ] LEASE [X]

B. OWNER: 1837 LLC

C. ADDRESS: 19 Old Kings Highway South, Darien, CT 06820

D. DEED ON FILE AT: Volume 1023 - Page 0771

ALL-POINTS TECHNOLOGY CORPORATION

Site Impact Statement

Site: **New Canaan NW CT050**
Site Address: **1837 Ponus Ridge Rd.**
New Canaan, CT 06840

Access distances:
Existing paved driveway (approx. 40'±) to a proposed gravel & paved access driveway (approx. 460±) (total approximately 500').

Distance to Nearest Wetlands
Wetlands are located on property approximately 240'± west of the proposed compound and approximately 137'± west of the proposed gravel access driveway at its closest point.

Distance to Property Lines:
357'+/- to the western property boundary from the tower
144'+/- to the northern property boundary from the tower
130'+/- to the northeastern property boundary from the tower
110'+/- to the eastern property boundary from the tower
248'+/- to the southwestern property boundary from the tower

337'+/- to the western property boundary from the compound
122'+/- to the northern property boundary from the compound
72'+/- to the northeastern property boundary from the compound
45'+/- to the eastern property boundary from the compound
227'+/- to the southwestern property boundary from the compound

Residence Information:
There are 11 single family residences within 1,000' feet of the compound. The closest off site residence is approximately 273 feet to the north and is located at Parcel 28-27-64 (59 Squires Lane.)

Special Building Information:
Wetlands are located on property approximately 240'± west of the proposed compound and approximately 137'± west of the proposed gravel access driveway at its closest point.

Tree Removal Count:
118 trees need to be removed to construct the access driveway and the compound area.

6" - 10"dbh	40 trees
10" – 14"dbh	37 trees
14" or greater dbh	41 trees

Cut/Fill: The site improvements shall entail approximately 5,170 CY of excavation and 65 CY of fill for the construction of the compound and access driveway. Approximately 250 CY of clean broken stone is needed for the compound and driveway construction. The utility trench from the demarc to the compound will excavate approximately 340 CY of material that will be used to backfill the trench.

Clearing/Grading Necessary: Total area of disturbance = 40,000+/- SF

ALL-POINTS TECHNOLOGY CORPORATION

Tree Inventory

December 3, 2021

Cuddy & Feder, LLP
Attn: Lucia Chiocchio
445 Hamilton Avenue
14th Floor
White Plains, NY 10601

RE: Tree Inventory
Site: New Canaan Northwest CT050
1837 Ponus Ridge Road
New Canaaan, CT 06840

Dear Ms. Chiocchio:

A Tree Inventory was completed at the subject site during the month of April 2021 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 and access driveway improvements will require the removal of 118 trees.

6" - 10"dbh	40 trees
10" – 14"dbh	37 trees
14" or greater dbh	41 trees

The interior wooded area to be disturbed for construction of the compound area will be approximately 5,100 square feet. A new access driveway will be installed to provide access and utility corridor to the proposed compound. The total combined area of disturbance for compound, access drive, and utility improvements is 40,000 sf.

Sincerely,

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

Robert C. Burns, P.E.
Program Manager

Homeland Towers
1837 Ponus Ridge Rd New Canaan, CT
1000' RESIDENTIAL BUILDING LIST

PARCEL ID	STREET ADDRESS	BUILDING TYPE	DISTANCE FROM COMPOUND* (ft+/-)
28-27-64	59 Squires Lane	Single Family	273'
28-27-35	51 Squires Lane	Single Family	793'
28-27-65	60 Squires Lane	Single Family	538'
		Single Family	768'
28-25-113	1801 Ponus Ridge	Single Family	682'
23-27-39	1937 Ponus Ridge	Single Family	862'
28-25-21	322 Dan's Highway	Single Family	950'
28-27-61	329 Dan's Highway	Single Family	923'
28-27-9	331 Dan's Highway	Single Family	524'
28-25-133	346 Dan's Highway	Single Family	725'
28-29-6	359 Dan's Highway	Single Family	301'

*Information gathered from New Canaan Assessor's Database & CTECO Ortho Aerial Images

Facilities and Equipment Specification

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: To be determined

B. TYPE: Self-Supporting monopine tower

C. HEIGHT: 110' AGL (with 5' faux branches extending to 115')

DIMENSIONS: Tower structure tapered

D. TOWER LIGHTING: None required.

II. TOWER LOADING:

A. AT&T – up to 6 panel antennas
   a. Model – TBD
   b. Antenna Dimensions – approximately 96"H x 12"W x 9"D
   c. Position on Tower – 106' centerline AGL
   d. Transmission Lines – DC and Fiber lines internal to tower.
   e. (9) Remote Radio Units on proposed antenna mounts

B. Future Carriers – Verizon and others to be determined

C. Town emergency communications: (2) 12' omni antennas; (1) 2' microwave dish

III. ENGINEERING ANALYSIS AND CERTIFICATION:

The tower will be designed in accordance with American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2012 International Building Code with 2016 Building Code 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.

Legend

- Site
- Subject Property
- Approximate Parcel Boundary
- Municipal Boundary

N
W E
S

500 250 0 500
Feet

Site Location Map

Proposed Wireless
Telecommunications Facility
CT050 - New Canaan Northwest
1837 Ponus Ridge Road
New Canaan, Connecticut

Map Notes:
Base Map Source: CT ECO 2019 Imagery
Map Scale:1 inch = 500 feet
Map Date: December 2021

ALL-POINTS TECHNOLOGY CORPORATION

C:\Users\mkope\Dropbox (APT GIS)\APT GIS Team Folder\Projects\Homeland Towers\New Canaan NW\mxd\New Canaan NW CSC Site Location Map USGS.mxd

Legend

- Site
- Municipal Boundary
- State Boundary

<u>Map Notes</u>:
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, Pound Ridge, NY-CT (1971)
Map Scale: 1:24,000
Map Date: December 2021

1,000 500 0 1,000 Feet

Site Location Map

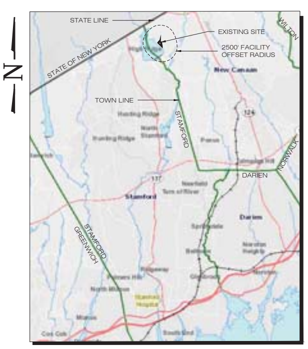
Proposed Wireless
Telecommunications Facility
CT050 - New Canaan Northwest
1837 Ponus Ridge Road
New Canaan, Connecticut

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS, LLC

WIRELESS TELECOMMUNICATIONS FACILITY

NEW CANAAN NORTHWEST
1837 PONUS RIDGE ROAD
NEW CANAAN, CT 06840



MUNICIPAL NOTIFICATION LIMIT MAP
SCALE : 1" = 1.5 Miles

VICINITY MAP
SCALE: 1" = 500'

DRAWING INDEX

T-1	TITLE SHEET
EX-1	SITE SURVEY
EX-2	TREE SURVEY TABLE
SP-1	SITE PLAN & ABUTTERS MAP
SP-2	PARTIAL SITE PLAN
CP-1	COMPOUND PLAN & TOWER ELEVATION
C-1	SITE DETAILS
C-2	SITE DETAILS
C-3	EROSION CONTROL DETAILS
C-4	AT&T EQUIPMENT PLAN & DETAILS

SITE INFORMATION

PROJECT LOCATION:	1837 PONUS RIDGE ROAD NEW CANAAN, CT 06840
PROJECT DESCRIPTION:	RAWLAND SITE W/ GROUND EQUIPMENT WITHIN 3,000± SF TELECOMMUNICATIONS EQUIPMENT COMPOUND W/ PROP. 110'± AGL MONOPINE.
PROPERTY DEVELOPER:	HOMELAND TOWERS, LLC 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810
DEVELOPER CONTACT:	RAY VERGATI (203) 297-6345
ENGINEER CONTACT:	ROBERT C. BURNS, P.E. (860) 552-2036
LATITUDE:	41° 10' 18.89"N (41.171914)
LONGITUDE:	73° 32' 36.90"W (-73.543583)
ELEVATION:	394'± AMSL
MAP:	23
BLOCK:	27
LOT:	57
ZONE:	4 ACRE RESIDENCE ZONE

OWNER:	APPLICANTS:		HOMELAND PROJECT ATTORNEY:	POWER PROVIDER:	TELCO PROVIDER:	CALL BEFORE YOU DIG:	GOVERNING CODES:
1837 LLC C/O RUCCI LAW GROUP 19 OLD KINGS HIGHWAY SOUTH DARIEN, CT 06820	HOMELAND TOWERS, LLC 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810 RAY VERGATI (203) 297-6345	AT&T 340 MOUNT KEMBLE AVE. MORRISTOWN, NJ 07960	CUDDY & FEDER, LLP 445 HAMILTON AVENUE 14 FLOOR WHITE PLAINS, NY 10601 (914) 761-1300	EVERSOURCE: (800) 286-2000	FRONTIER (800) 921-8102	(800) 922-4455	CONNECTICUT STATE BUILDING CODE, LATEST EDITION NATIONAL ELECTRIC CODE, LATEST EDITION TIA-222-H

HOMELAND TOWERS, LLC
9 HARMONY STREET
2nd FLOOR
DANBURY, CT 06810
(203) 297-6345

at&t
340 MOUNT KEMBLE AVENUE
MORRISTOWN, NEW JERSEY 07960

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PH: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

PERMITTING DOCUMENTS

NO	DATE	REVISION
0	12/07/21	FOR REVIEW: RCB
1	12/10/21	FOR REVIEW: RCB
2		
3		
4		
5		
6		
7		
8		

DESIGN PROFESSIONALS OF RECORD

PROF: ROBERT C. BURNS P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE311 WATERFORD, CT 06385

DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS NEW CANAAN NORTHWEST

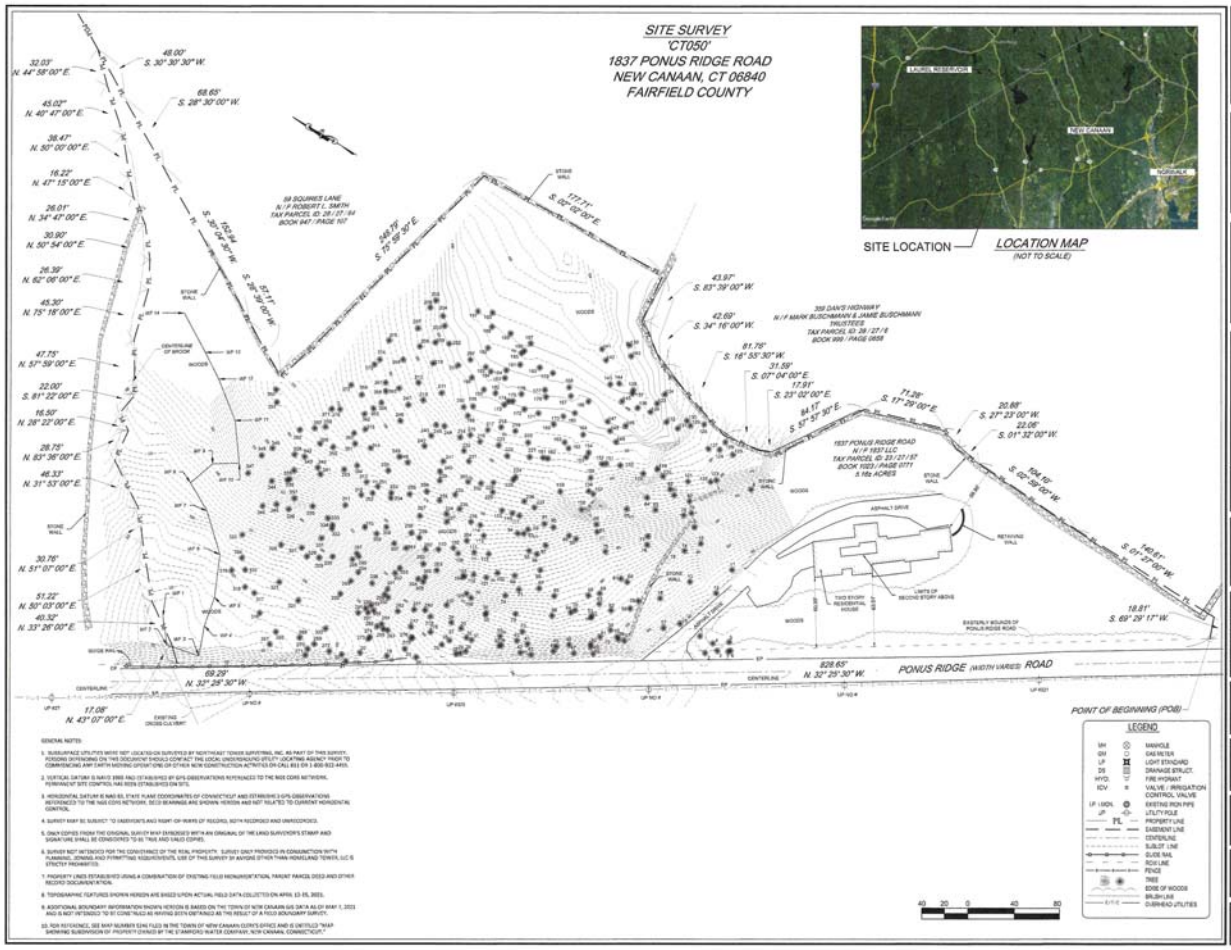
SITE ADDRESS: 1837 PONUS RIDGE ROAD NEW CANAAN, CT 06840

APT FILING NUMBER: CT283860

DATE: 12/07/21 DRAWN BY: CSH
CHECKED BY: RCB

SHEET TITLE: TITLE SHEET

SHEET NUMBER: T-1



PLANS PREPARED FOR:

HOMELAND TOWERS
9 Harmony Street
Danbury, Connecticut 06810

SURVEY LICENSE:

STATE OF CONNECTICUT
EARLE C. NEWMAN
No. 15016
LICENSED
LAND SURVEYOR

EARLE C. NEWMAN P.L.S.–NO. LEX15016

CONSULTANT:

Northeast Tower Surveying, Inc.
140 West Mastemore Road Williamsville, New York 14221
(716) 548-0884
Northeast Tower Surveying, Inc. Project #21-026

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF HOMELAND TOWERS AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF HOMELAND TOWERS

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FINAL	11/30/21	DSA	ECN
ISSUED DRAFT	09/07/21	DSA	ECN

SITE NAME:

NEW CANAAN NORTHWEST

SITE NUMBER:

CT050

SITE ADDRESS:

1837 PONUS RIDGE ROAD
NEW CANAAN, CT 06840
FAIRFIELD COUNTY

SHEET DESCRIPTION:

SITE SURVEY

SHEET NUMBER:

EX-1

REFERENCE	TREE SIZE / SPECIES	Note
1	36" Oak	
2	14" Unknown	
3	6" Unknown	
4	10" Oak	
5	20" Oak	
6	3" Unknown	
7	8" Unknown	
8	42" Oak	
9	12" Birch	
10	36"/30" Two Bole Oak	
11	34" Oak	
12	6" Birch	
13	28" Oak	
14	6" Beech	
15	30" Stump	
16	12" Oak	
17	12" Unknown	
18	6" Unknown	
19	12" Maple	
20	8" Unknown	
21	13" Maple	
22	24" Oak	
23	8" Maple	
24	12" Beech	
25	18" Oak	
26	8" Unknown	Dead
27	10" Unknown	Dead
28	Two Bole 6" 6" Beech	
29	10" Oak	
30	8" Unknown	
31	4" Unknown	
32	20" Oak	
33	16" Oak	
34	6" Beech	
35	12" Beech	
36	6" Maple	
37	Two Bole 11" & 4" Beech	
38	6" Oak	
39	12" Oak	
40	14" Oak	
41	16" Oak	
42	8" Unknown	
43	11" Oak	
44	10" Oak	
45	6" Unknown	
46	18" Beech	
47	8" Unknown	
48	14" Unknown	
49	10" Unknown	
50	4" Unknown	
51	8" Unknown	
52	Three Bole 4", 4" & 3" Beech	
53	24" Oak	
54	6" Unknown	
55	Three Bole 6", 3" & 4" Beech	
56	10" Beech	
57	20" Oak	
58	20" Oak	
59	14" Oak	
60	8" Unknown	Dead
61	22" Oak	
62	Two Bole 8" & 6" Beech	
63	14" Oak	
64	18" Oak	
65	16" Oak	
66	10" Birch	
67	10" Birch	
68	8" Birch	
69	24" Oak	
70	20" Oak	
71	6" Beech	
72	12" Unknown	
73	10" Beech	
74	Two Bole 20" & 18" Oak	
75	Two Bole 14" & 10" Oak	
76	22" Oak	
77	12" Maple	
78	18" Maple	
79	14" Maple	
80	6" Beech	
81	Two Bole 6" & 4" Maple	
82	28" Oak	
83	Two Bole 8" & 12" Maple	
84	8" Maple	
85	Two Bole 16" & 14" Maple	
86	12" Birch	
87	Two Bole 12" & 10" Maple	
88	8" Oak	
89	8" Oak	
90	6" Maple	
91	12" Oak	
92	24" Oak	
93	8" Oak	
94	6" Oak	
95	10" Birch	
96	14" Oak	
97	8" Unknown	Dead
98	10" Birch	
99	18" Oak	
100	6" Oak	
101	16" Oak	
102	8" Beech	
103	12" Maple	
104	3" Beech	
105	8" Beech	
106	24" Oak	
107	26" Oak	
108	6" Oak	
109	6" Oak	
110	12" Beech	
111	14" Oak	
112	Two Bole 12" & 6" Maple	
113	6" Unknown	
114	18" Oak	
115	24" Oak	
116	6" Birch	
117	Two Bole 6" & 6" Maple	
118	18" Oak	
119	4" Birch	
120	Two Bole 4" & 8" Maple	
121	6" Maple	
122	26" Oak	
123	16" Oak	
124	14" Oak	
125	16" Oak	
126	26" Oak	
127	30" Oak	
128	10" Unknown	
129	20" Oak	
130	10" Oak	
131	10" Maple	
132	8" Maple	
133	6" Maple	
134	6" Maple	
135	6" Maple	
136	6" Oak	
137	12" Maple	
138	6" Birch	
139	10" Maple	
140	10" Maple	
141	16" Maple	
142	8" Oak	
143	9" Oak	
144	6" Birch	
145	14" Oak	
146	12" Birch	
147	Two Bole 18" & 14" Oak	
148	8" Birch	
149	10" Maple	
150	Two Bole 8" & 4" Oak	
151	24" Hickory Stump	
152	20" Maple	
153	Two Bole 14" & 4" Maple	
154	8" Birch	
155	8" Oak	
156	18" Maple	
157	14" Oak	
158	21" Oak	
159	Three Bole 10", 6" & 4" Oak	
160	14" Oak	
161	Two Bole 8" & 6" Maple	
162	12" Birch	
163	16" Oak	
164	8" Birch	
165	10" Oak	
166	10" Maple	
167	20" Oak	
168	26" Oak	
169	8" Oak	
170	24" Maple	
171	Two Bole 6" & 8" Maple	
172	8" Birch	
173	3" Birch	
174	14" Oak	
175	6" Birch	
176	6" Birch	
177	10" Hemlock	
178	22" Oak	
179	10" Birch	
180	10" Oak	
181	6" Oak	
182	10" Oak	
183	10" Birch	
184	6" Oak	
185	14" Oak	
186	10" Oak	
187	40" Unknown	Dead
188	8" Beech	
189	16" Beech	
190	32 Beech	
191	10" Beech	
192	14" Oak	
193	12" Oak	
194	8" Hemlock	
195	30" Oak	Dead
196	8" Beech	
197	24" Hemlock	
198	6" Oak	
199	10" Unknown	Dead
200	24" Oak	
201	6" Maple	
202	Two Bole 14" & 6" Oak	
203	6" Maple	
204	24" Oak	
205	10" Oak	
206	6" Maple	
207	14" Oak	
208	14" Unknown	Dead
209	6" Beech	
210	12" Oak	
211	14" Birch	
212	22" Oak	
213	22" Oak	
214	18" Oak	
215	28" Oak	
216	18" Oak	
217	14" Beech	
218	10" Birch	
219	18" Oak	
220	8" Oak	
221	10 Oak	
222	6" Oak	
223	10" Birch	
224	20" Oak	
225	6" Oak	
226	28" Oak	
227	6" Maple	
228	14" Birch	
229	16" Maple	
230	14" Oak	
231	6" Birch	
232	6" Maple	
233	16" Oak	
234	32" Oak	
235	14" Oak	
236	14" Oak	
237	10" Oak	
238	10" Beech	
239	10" Oak	
240	18" Oak	
241	16" Birch	
242	10" Oak	
243	Two Bole 12" & 8" Beech	
244	14" Unknown	Dead
245	10" Oak	
246	30" Oak	
247	6" Oak	
248	14" Oak	
249	16" Beech	
250	26" Oak	
251	6" Birch	
252	20" Oak	
253	8" Oak	
254	10" Oak	
255	14" Beech	
256	6" Birch	
257	8" Maple	
258	16" Birch	
259	14" Birch	
260	10" Beech	
261	32" Oak	
262	12" Oak	
263	6" Beech	
264	8" Beech	
265	6" Maple	
266	3" Birch	
267	26" Oak	
268	16" Maple	
269	24" Oak	
270	10" Oak	
271	20" Oak	
272	8" Birch	
273	16" Oak	
274	8" Beech	
275	30" Oak	
276	20" Oak	
277	6" Beech	
278	Two Bole 4" & 4" Beech	
279	10" Beech	
280	18" Unknown	Dead
281	6" Beech	
282	20" Oak	
283	6" Beech	
284	10" Beech	
285	16" Beech	
286	14" Oak	
287	28 Beech	
288	12" Beech	
289	6" Beech	
290	6" Beech	
291	6" Beech	
292	38" Oak	
293	8" Beech	
294	24" Oak	
295	8" Oak	
296	3" Beech	
297	12" Birch	
298	3" Unknown	
299	30" Oak	
300	6" Beech	
301	3" Unknown	
302	10" Birch	
303	10" Beech	
304	6" Oak	
305	8" Beech	
306	8" Beech	
307	4" Beech	
308	3" Beech	
309	18" Beech	
310	18" Oak	
311	20" Oak	
312	Two Bole 15" & 6" Oak	
313	6" Oak	
314	14" Birch	
315	6" Maple	
316	22" Oak	
317	22" Oak	
318	16" Beech	
319	14" Oak	
320	12" Birch	
321	8" Beech	
322	16" Beech	
323	14" Unknown	
324	Two Bole 12" & 6" Oak	
325	18" Oak	
326	16" Maple	
327	20" Oak	
328	6" Birch	
329	16" Oak	
330	10" Beech	
331	12" Beech	
332	14" Oak	
333	16" Birch	
334	6" Maple	
335	14" Beech	
336	20" Oak	
337	12" Beech	
338	6" Beech	
339	6" Beech	
340	18" Beech	
341	6" Beech	
342	18" Beech	
343	8" Beech	
344	18" Beech	
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361	16" Beech	
362	6" Beech	
363	20" Beech	
364	12" Beech	
365	10" Beech	
366	24" Beech	
367	6" Beech	
368	6" Beech	
369	16" Beech	
370	Two Bole 14" & 8" Maple	
371	14" Beech	
372	6" Beech	
373	14" Beech	
374	18" Beech	
375	8" Beech	

PLANS PREPARED FOR:

HOMELAND TOWERS
9 Harmony Street
Danbury, Connecticut 06810

SURVEY LICENSE:

STATE OF CONNECTICUT
LICENSED LAND SURVEYOR
12/2/2021
EARLE C. NEWMAN

CONSULTANT:

Northeast Tower Surveying, Inc.
140 West Maplemere Road Williamsville, New York 14221
(716) 549-0894
Northeast Tower Surveying, Inc. Project #21-025

DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF HOMELAND TOWERS AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF HOMELAND TOWERS

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FINAL	11/30/21	DSA	ECN
ISSUED DRAFT	05/07/21	DSA	ECN

SITE NAME:

NEW CANAAN NORTHWEST

SITE NUMBER:

CT050

SITE ADDRESS:

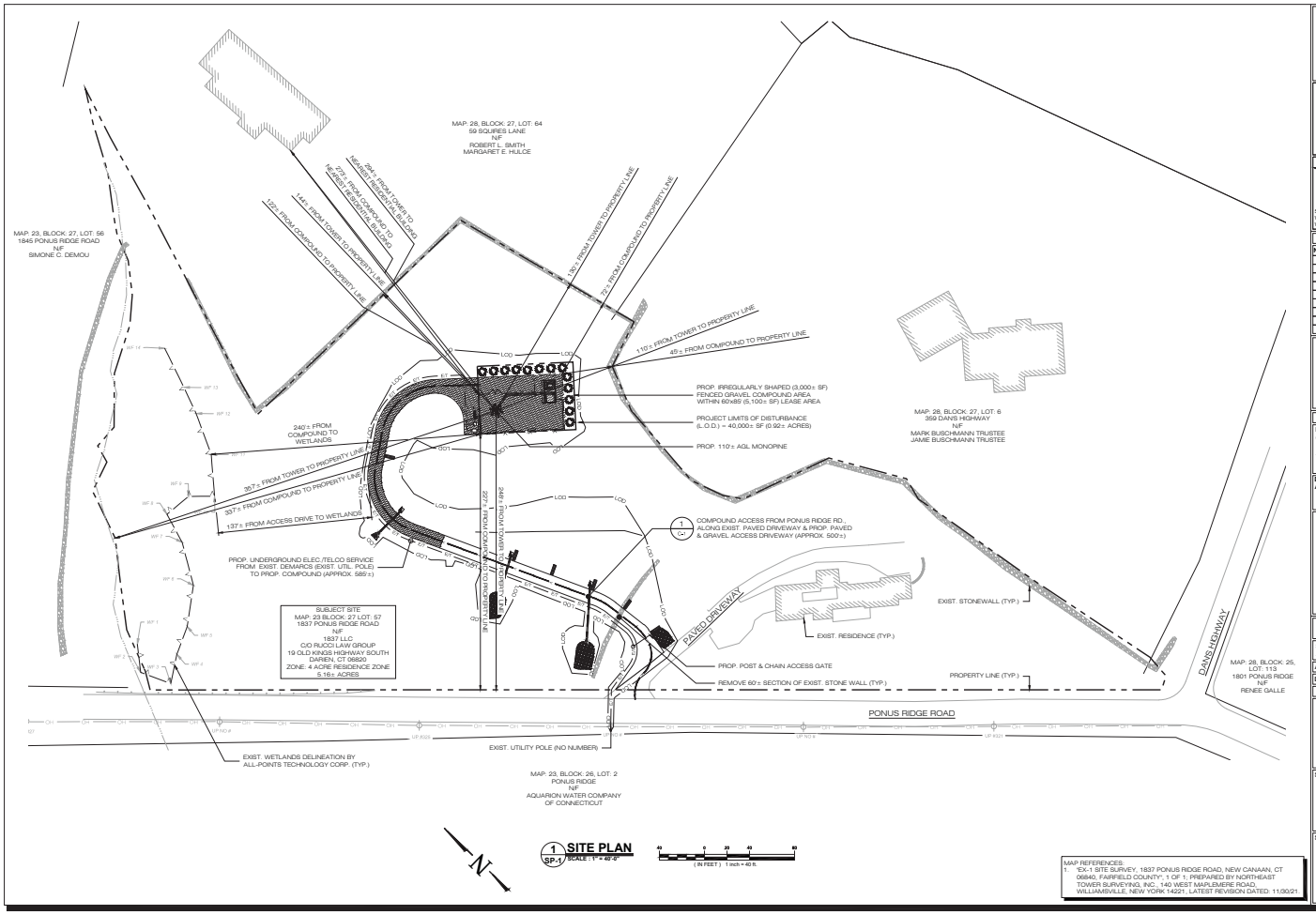
1837 PONUS RIDGE ROAD
NEW CANAAN, CT 06840
FAIRFIELD COUNTY

SHEET DESCRIPTION:

TREE SURVEY TABLE

SHEET NUMBER:

EX-2



MAP REFERENCES:
1. EX-1 SITE SURVEY, 1837 PONUS RIDGE ROAD, NEW CANAAN, CT 06840, FAIRFIELD COUNTY", 1 OF 1, PREPARED BY NORTHEAST TOWER SURVEYING, INC., 140 WEST MAPLEMERE ROAD, WILLIAMSVILLE, NEW YORK 14221, LATEST REVISION DATED: 11/30/21.

HOMELAND TOWERS, LLC
9 HARMONY STREET
2nd FLOOR
DANBURY, CT 06810
(203) 297-6345

at&t
340 MOUNT KEMBLE AVENUE
MORRISTOWN, NEW JERSEY 07960

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PH: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

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DESIGN PROFESSIONALS OF RECORD

PROF: ROBERT C. BURNS P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE311 WATERFORD, CT 06385

DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS
NEW CANAAN NORTHWEST

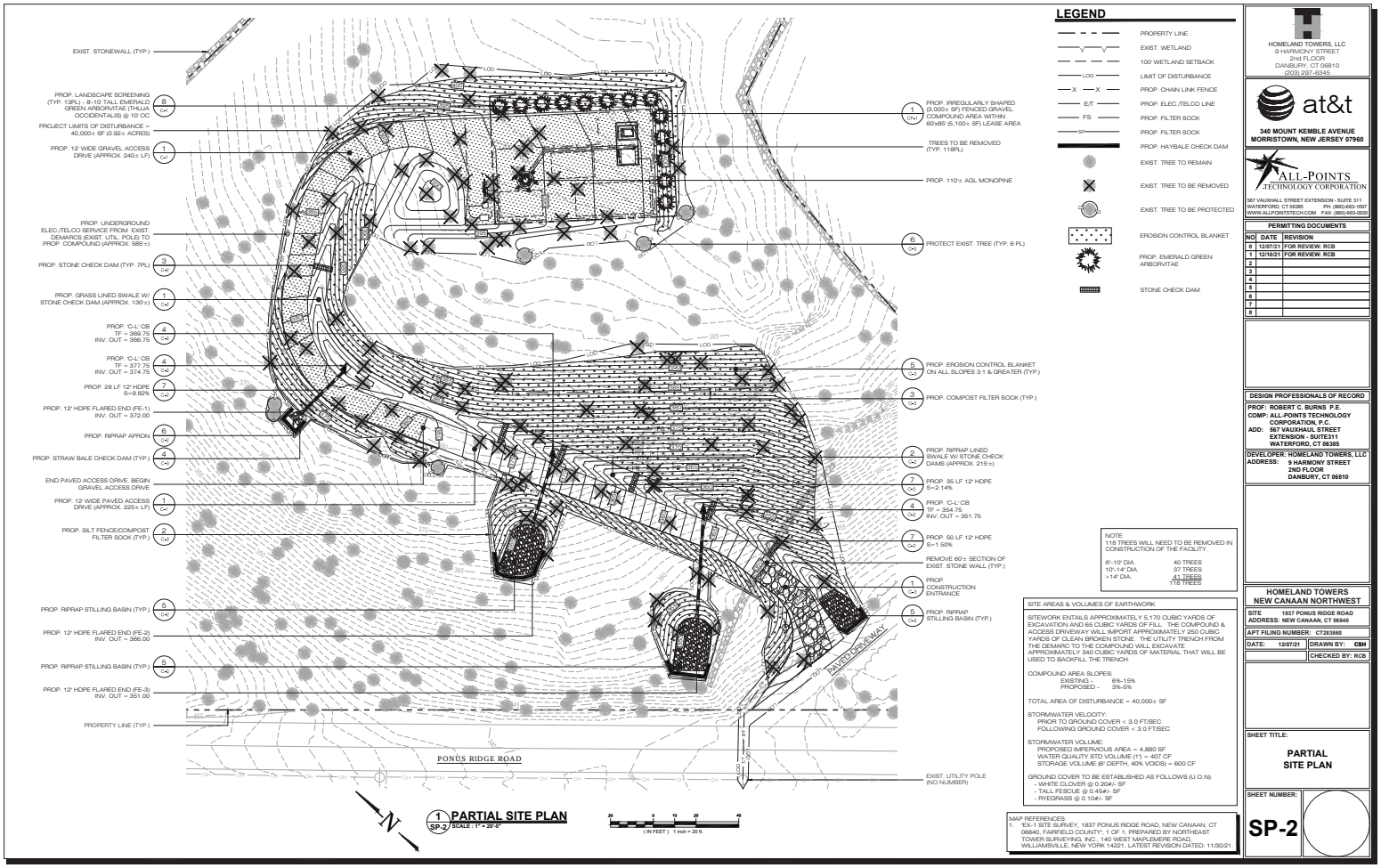
SITE ADDRESS: 1837 PONUS RIDGE ROAD
NEW CANAAN, CT 06840

APT FILING NUMBER: CT283880

DATE: 12/07/21 | DRAWN BY: CSH | CHECKED BY: RCB

SHEET TITLE:
SITE PLAN & ABUTTERS MAP

SHEET NUMBER:
SP-1



LEGEND

- PROPERTY LINE
- EXIST. WETLAND
- 100' WETLAND SETBACK
- LIMIT OF DISTURBANCE
- PROP. CHAIN LINK FENCE
- PROP. ELEC./TELCO LINE
- PROP. FILTER SOCK
- PROP. FILTER SOCK
- PROP. HAYBALE CHECK DAM
- EXIST. TREE TO REMAIN
- EXIST. TREE TO BE REMOVED
- EXIST. TREE TO BE PROTECTED
- EROSION CONTROL BLANKET
- PROP. EMERALD GREEN ARBORVITAE
- STONE CHECK DAM

NOTE:
118 TREES WILL NEED TO BE REMOVED IN CONSTRUCTION OF THE FACILITY.

6"-10" DIA.	40 TREES
10"-14" DIA.	37 TREES
>14" DIA.	41 TREES
	118 TREES

SITE AREAS & VOLUMES OF EARTHWORK

SITEWORK ENTAILS APPROXIMATELY 5,170 CUBIC YARDS OF EXCAVATION AND 65 CUBIC YARDS OF FILL. THE COMPOUND & ACCESS DRIVEWAY WILL IMPORT APPROXIMATELY 250 CUBIC YARDS OF CLEAN BROKEN STONE. THE UTILITY TRENCH FROM THE DEMARC TO THE COMPOUND WILL EXCAVATE APPROXIMATELY 340 CUBIC YARDS OF MATERIAL THAT WILL BE USED TO BACKFILL THE TRENCH.

COMPOUND AREA SLOPES:
EXISTING - 6%-15%
PROPOSED - 3%-5%

TOTAL AREA OF DISTURBANCE = 40,000± SF

STORMWATER VELOCITY:
PRIOR TO GROUND COVER < 3.0 FT/SEC
FOLLOWING GROUND COVER < 3.0 FT/SEC

STORMWATER VOLUME:
PROPOSED IMPERVIOUS AREA = 4,880 SF
WATER QUALITY STD VOLUME (1") = 407 CF
STORAGE VOLUME (6" DEPTH, 40% VOIDS) = 600 CF

GROUND COVER TO BE ESTABLISHED AS FOLLOWS (U.O.N):
- WHITE CLOVER @ 0.20#/- SF
- TALL FESCUE @ 0.45#/- SF
- RYEGRASS @ 0.10#/- SF

MAP REFERENCES:
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DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS
NEW CANAAN NORTHWEST

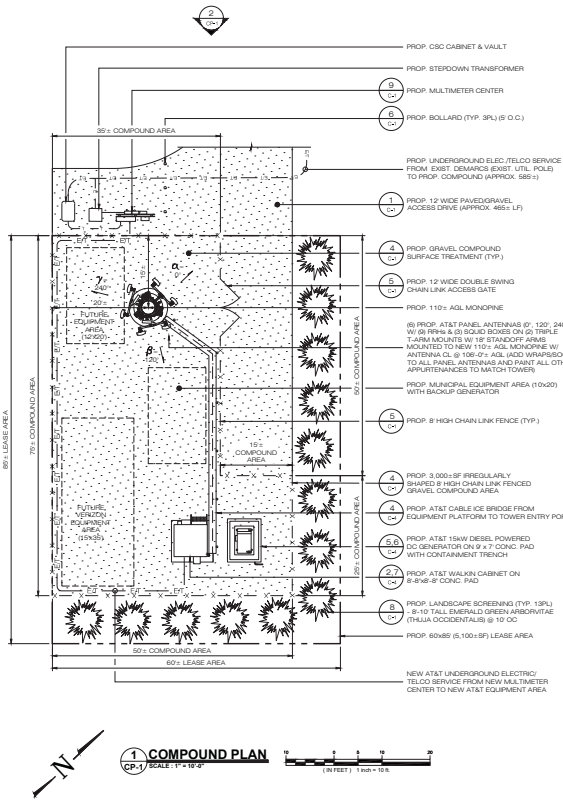
SITE ADDRESS: 1837 PONUS RIDGE ROAD NEW CANAAN, CT 06840

APT FILING NUMBER: CT283880

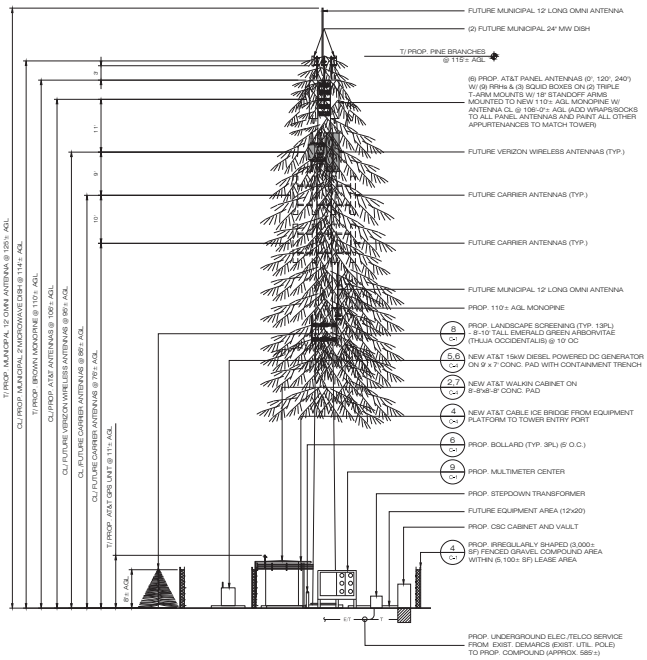
DATE: 12/07/21 DRAWN BY: CSH
CHECKED BY: RCB

SHEET TITLE:
PARTIAL SITE PLAN

SHEET NUMBER:
SP-2



1 COMPOUND PLAN CP-1 SCALE : 1" = 10'-0"



2 NORTHWEST ELEVATION CP-1 SCALE : 1" = 10'-0"

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HOMELAND TOWERS
NEW CANAAN NORTHWEST

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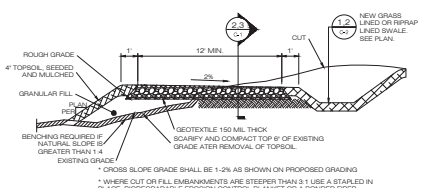
NEW CANAAN, CT 06840

APT FILING NUMBER: CT283880

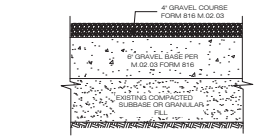
DATE: 12/07/21 | DRAWN BY: CSH
CHECKED BY: RCB

SHEET TITLE:
COMPOUND PLAN & TOWER ELEVATION

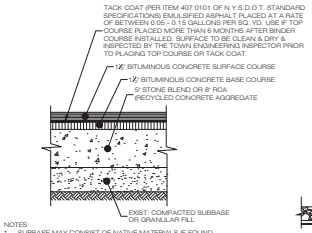
SHEET NUMBER:
CP-1



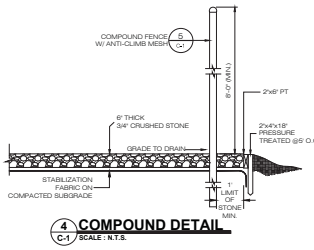
1 C-1 TYPICAL ROAD CROSS SECTION
SCALE : N.T.S.



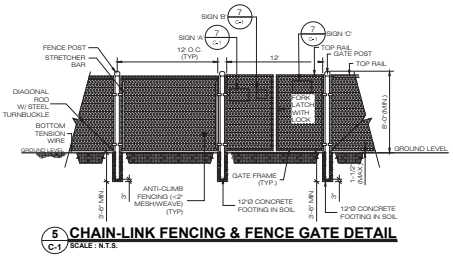
2 C-1 GRAVEL ROAD/PARKING SECTION
SCALE : N.T.S.



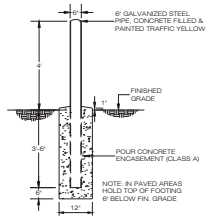
3 C-1 PAVED ROAD SECTION
SCALE : N.T.S.



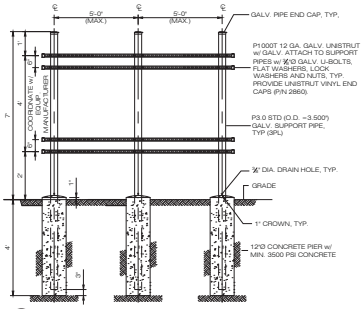
4 C-1 COMPOUND DETAIL
SCALE : N.T.S.



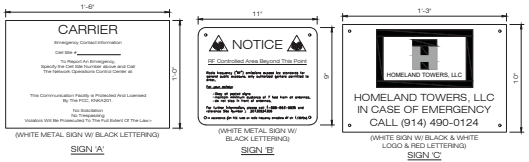
5 C-1 CHAIN-LINK FENCING & FENCE GATE DETAIL
SCALE : N.T.S.



6 C-1 BOLLARD DETAIL
SCALE : N.T.S.



9 C-1 UTILITY BACKBOARD FRAME DETAIL
SCALE : N.T.S.



7 C-1 TYPICAL SIGNAGE
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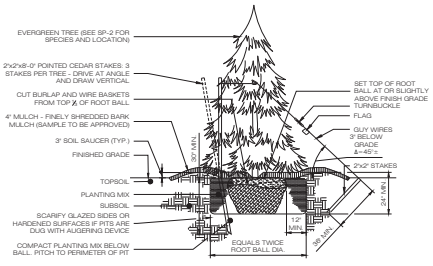

STAKING
STAKING FOR EVERGREEN TREES OVER 6' HIGH

8 C-1 EVERGREEN TREE PLANTING
SCALE : N.T.S.

HOMELAND TOWERS, LLC
9 HARMONY STREET
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DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS NEW CANAAN NORTHWEST

SITE ADDRESS: 1837 PONUS RIDGE ROAD, NEW CANAAN, CT 06840
APT FILING NUMBER: CT283880
DATE: 12/07/21 DRAWN BY: CSH
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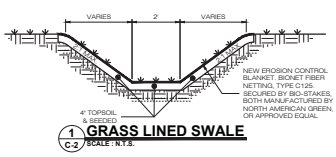
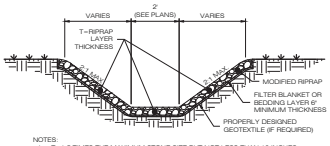
SHEET TITLE:
SITE DETAILS

SHEET NUMBER:
C-1

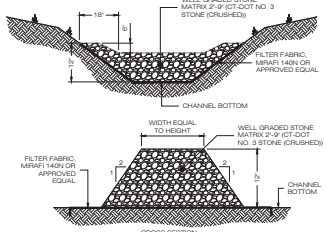


1 GRASS LINED SWALE
C-2 SCALE : N.T.S.

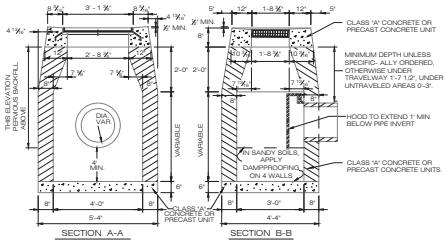


NOTES:
1. T=1.5 TIMES THE MAXIMUM STONE SIZE BUT NOT LESS THAN 12 INCHES.
2. THE TOTAL HEIGHT OF THE LINING IS DEPENDENT UPON THE DESIGN DEPTH OF FLOW PLUS RUNUP DUE TO CHANNEL CURVATURE, PLUS FREEBOARD
3. IN CHANNELS WITH SIGNIFICANT BOTTOM WIDTHS LOW FLOW CHANNELS MAY BE INCORPORATED
4. SIDE SLOPES STEEPER THAN 2:1 OR SLOPES WITH UNSUITABLE MATERIAL WILL REQUIRE ADDITIONAL ANALYSIS.
5. STONE CHECK DAMS SHALL BE INSTALLED IN ALL SWALES

2 RIPRAP LINED SWALE
C-2 SCALE : N.T.S.

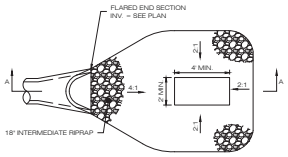


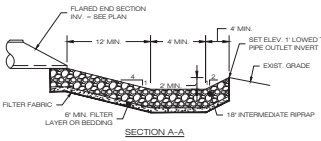
3 STONE CHECK DAM
C-2 SCALE : N.T.S.



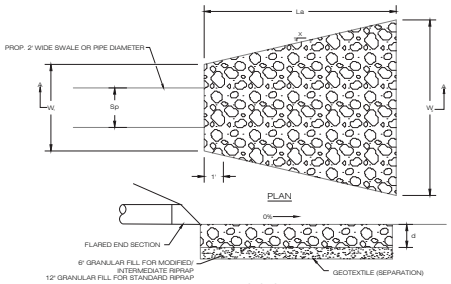
NOTES:
1. A THREE-INCH STRUCTURAL MASONRY BRICK CHIMNEY SHALL BE PLACED BENEATH EACH FRAME FOR FUTURE ADJUSTMENTS.
2. FRAMES SHALL BE SET ONE INCH BELOW FINISHED GRADE AS MEASURED AT A DISTANCE 18" IN EITHER DIRECTION ALONG THE GUTTER LINE.
3. THE CATCH BASINS SHALL BE PRECAST CONCRETE AS MANUFACTURED BY FORT MILLER CO., INC., OR APPROVED EQUAL. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF NYSDOT SPECIFICATIONS SECTION 555, STRUCTURAL CONCRETE.
4. PRECAST CONCRETE CATCH BASINS SHALL BE CAST WITH 4000 PSI CONCRETE (AT 28 DAYS). THE STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM a615-a497. AIR ENTRAINMENT SHALL BE A MINIMUM OF 5%. THE LOADING SHALL CONFORM TO AASHTO H-20 WITH 30% IMPACT & EQUIVALENT SOIL PRESSURE OF 130 POUNDS PER CUBIC FOOT.
5. ALL CATCH BASINS SHALL BE CONSTRUCTED WITH ALUMINUM STEPS AS MANUFACTURED BY ALCOA ALUMINUM, TYPE NO. 16207B OR APPROVED EQUAL. STEPS SHALL BE SET 12 INCHES ON CENTER.
6. ALL PIPE SHALL BE CUT FLUSH WITH THE INTERIOR WALLS OF THE CATCH BASINS.
7. ALL CATCH ASINS SHALL BE PLACED ON A 6' FOUNDATION OF ¾" WASHED CRUSHED STONE.
8. THE CATCH BASIN FRAMES & GRATES SHALL BE CAST-IRON TYPE 2541 CAMPBELL FOUNDRY OR APPROVED EQUAL.
9. THE CAST-IRON FRAMES SHALL BE SET IN A BED OF MORTAR.
10. CATCH BASINS SHALL HAVE AN 18" SUMP.

4 TYPE 'C-L' CATCH BASIN WITH HOOD
C-2 SCALE : N.T.S.





5 RIPRAP STILLING BASIN
C-2 SCALE : N.T.S.

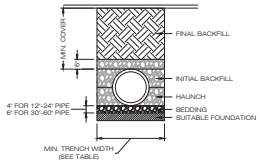


LEGEND
Sp= INSIDE PIPE DIAMETER
La= LENGTH OF RIPRAP APRON
d= 12" MODIFIED RIPRAP
18" INTERMEDIATE RIPRAP
36" STANDARD RIPRAP

	X	W_1	W_2
TYPE A RIPRAP APRON	3	3Sp	3Sp + 0.7 La
TYPE B RIPRAP APRON	5	3Sp	3Sp + 0.4 La

OUTLET	SWALE WIDTH/ PIPE DIAMETER Sp (FT)	APRON LENGTH La (FT)	APRON INITIAL WIDTH W1 (FT)	APRON TERMINAL WIDTH W2 (FT)	RIPRAP SPECIFICATION
FE-1	1	5	3	6.5	MODIFIED

6 RIPRAP APRON
C-2 SCALE : N.T.S.



RECOMMENDED MIN. TRENCH WIDTH	
PIPE DIA.	MIN. TRENCH WIDTH
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
48"	80"
60"	96"

NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321 , "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4'-24" (100mm-600mm), 6" (150mm) FOR 30'-60' (750mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6' ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

7 HDPE STORM DRAINAGE TRENCH DETAIL
C-2 SCALE : N.T.S.

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ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS
NEW CANAAN NORTHWEST

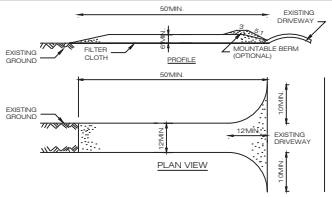
SITE ADDRESS: 1837 PONUS RIDGE ROAD, NEW CANAAN, CT 06840

APT FILING NUMBER: CT283880

DATE: 12/07/21 DRAWN BY: CSH
CHECKED BY: RCB

SHEET TITLE:
SITE DETAILS

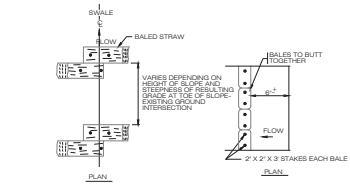
SHEET NUMBER:
C-2



CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

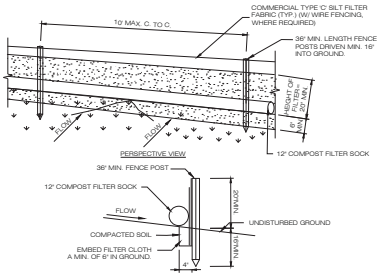
1 (CE) CONSTRUCTION ENTRANCE DETAIL
C-3 SCALE : N.T.S.



NOTE:
TO BE USED IN LOCATIONS WHERE RUNOFF WILL BE DIRECTED TOWARD THE TOE OF THE EMBANKMENT.

NOTE:
TO BE USED WHERE THE EXISTING GROUND SLOPES AWAY FROM THE TOE OF THE EMBANKMENT.

4 STRAW BALE CHECK DAM SEDIMENTATION CONTROL BARRIER
C-3 SCALE : N.T.S.



CONSTRUCTION SPECIFICATIONS

1. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

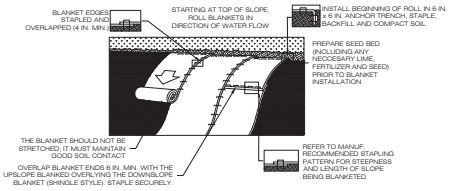
2 GEOTEXTILE SILT FENCE/FILTER SOCK DETAIL
C-3 SCALE : N.T.S.

SEQUENCE OF CONSTRUCTION

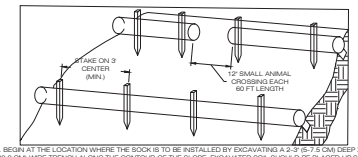
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPS IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECPS EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF RECPS BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPS OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPS.
3. ROLL THE RECPS DOWN HORIZONTALLY ACROSS THE SLOPE. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL RECPS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON THE RECPS TYPE.
5. CONSECUTIVE RECPS SPLICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECPS WIDTH.

NOTES:

1. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
2. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
3. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
4. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
5. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

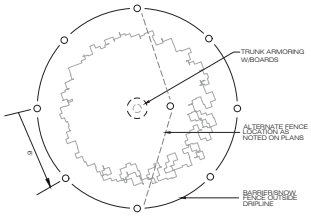


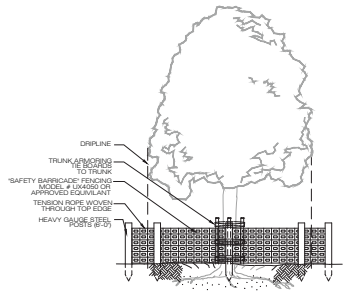
5 EROSION CONTROL BLANKET STEEP SLOPES
C-3 SCALE : N.T.S.



1. BEGIN AT THE LOCATION WHERE THE SOCK IS TO BE INSTALLED BY EXCAVATING A 2-3" (5-7.5 CM) DEEP X 9" (22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE SOCK IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE SOCK ON THE UPHILL SIDE. SOCKS SHALL BE INSTALLED IN 60 FT CONTINUOUS LENGTHS WITH ADJACENT SOCKS TIGHTLY ABUT. EVERY 60 FT THE SOCK ROW SHALL BE SPACED 12 INCHES CLEAR, END TO END, FOR AMPHIBIAN AND REPTILE TRAVEL. THE OPEN SPACES SHALL BE STAGGERED MID LENGTH OF THE NEXT DOWN GRADIENT SOCK.
3. SECURE THE SOCK WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4' (0.9 -1.2 M) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE SOCK LEAVING AT LEAST 2-3" (5-7.5 CM) OF STAKE EXTENDING ABOVE THE SOCK. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

3 COMPOST FILTER SOCK SEDIMENTATION CONTROL BARRIER
C-3 SCALE : N.T.S.





6 TREE PROTECTION
C-3 SCALE : N.T.S.

HOMELAND TOWERS, LLC
9 HARWICKY STREET
2nd FLOOR
DANBURY, CT 06810
(203) 297-6345

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MORRISTOWN, NEW JERSEY 07960

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WATERFORD, CT 06385 PH: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

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COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
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DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS
NEW CANAAN NORTHWEST

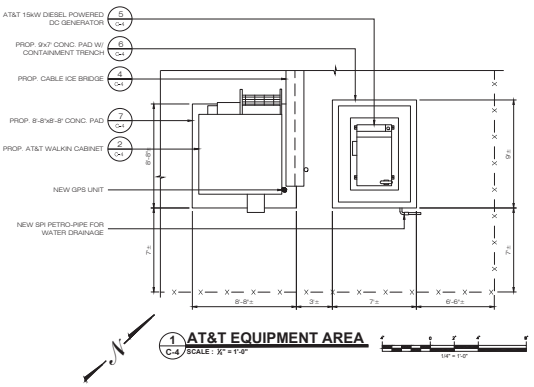
SITE: 1837 PONUS RIDGE ROAD
ADDRESS: NEW CANAAN, CT 06840

APT FILING NUMBER: CT283880

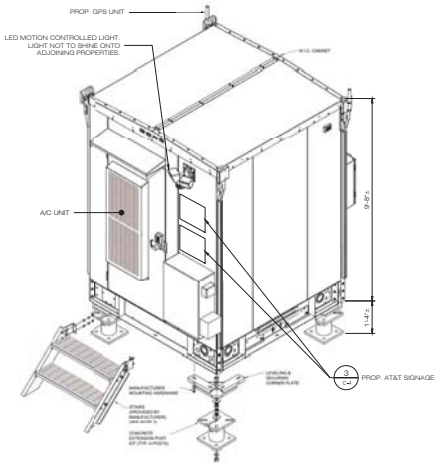
DATE: 12/07/21 | DRAWN BY: CSH | CHECKED BY: RCB

SHEET TITLE:
EROSION CONTROL DETAILS

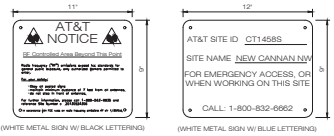
SHEET NUMBER:
C-3



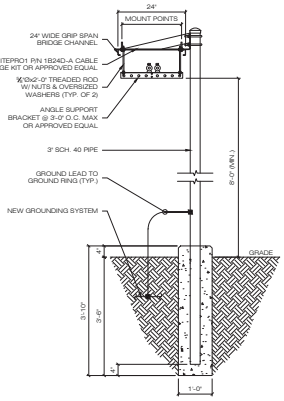
1 C-4 **AT&T EQUIPMENT AREA**
SCALE : 1/4" = 1'-0"



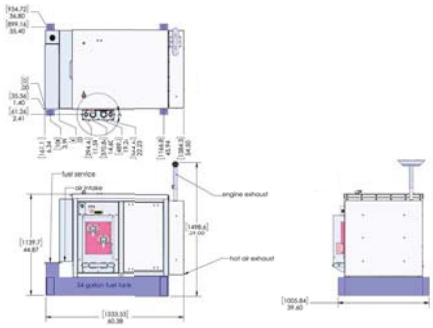
2 C-4 **AT&T SMARTMOD WALKIN CABINET**
SCALE : N.T.S.



3 C-4 **TYPICAL SIGNAGE**
SCALE : N.T.S.

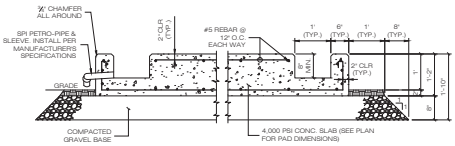


4 C-4 **CABLE BRIDGE DETAIL**
SCALE : N.T.S.

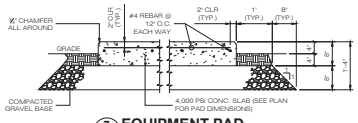


POLAR POWER, INC.
15KW 48V DC DIESEL POWERED GENERATOR
HORIZONTAL ALUMINUM ENCLOSURE
54 GAL. FUEL TANK

5 C-4 **GENERATOR**
SCALE : N.T.S.



6 C-4 **GENERATOR PAD**
SCALE : N.T.S.



7 C-4 **EQUIPMENT PAD**
SCALE : N.T.S.

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NEW CANAAN NORTHWEST

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APT FILING NUMBER: CT283880

DATE: 12/07/21 DRAWN BY: CSH
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SHEET TITLE:
AT&T EQUIPMENT PLAN & DETAILS

SHEET NUMBER:
C-4

Northeast Tower Surveying

140 West Maplemere Road
Williamsville, New York 14221
Northeasttowersurveyingt@aol.com
(716) 548-2894

FAA-1A SURVEY CERTIFICATION

Applicant: Homeland Towers
9 Harmony Street
Danbury, Connecticut 06810

Site Name: New Canaan Northwest
Site ID: CT050
FA Number:
Site Address: 1837 Ponus Ridge Road
New Canaan, Connecticut 06840

Horizontal Datum Source ***(select all that apply):***
☐ Ground Survey ☒ GPS Survey ☒ NAD 83
Vertical Datum Source ***(select all that apply):***
☐ Ground Survey ☒ GPS Survey ☒ NAVD 88
Structure Type ***(select one):***
☒ New Tower (Monopine) ☐ Existing Tower (_____) ☐ Building
☐ Water Tank ☐ Smokestack ☐ Other (describe): (_____)

Latitude: N 41°-10'-18.89" NAD83 / 41.171914 NAD83
Longitude: W 73°-32'-36.90" NAD83 / -73.543583 NAD83
Ground Elevation: 394.00 feet AMSL NAVD88

Structure Height: 504.00 feet AMSL 110.00 feet AGL (Proposed Top of Structure)
Overall Max. Height (with Appurtenances):
519.00 feet AMSL 125.00 feet AGL (Proposed Omni Antenna)

CERTIFICATION: I certify that the latitude and longitude are accurate to within +/- 20 feet horizontally and that the ground elevation is accurate to within +/- 3 feet vertically. The horizontal datum (coordinates) are expressed in terms of degrees, minutes, seconds and hundredths of seconds. The vertical datum (heights) are expressed in terms of feet.

Printed Name: Earle C. Newman, L.S.
Surveyor License No: 15616
Company: Northeast Tower Surveying, Inc.
Phone: (716) 548.2894
Date: September 21, 2021

Northeast Tower Surveying Project No.: 21-025

SECTION 4

SECTION 4

Environmental Assessment Statement

I. PHYSICAL IMPACT

A. WATER FLOW AND QUALITY

A wetland delineation was conducted at the site and there were no wetlands identified in or immediately adjacent to the proposed access drive or facility compound. The wetlands are located approximately 240' west of the proposed compound and 137' west of the proposed gravel access drive at its closest point. Proposed sedimentation and erosion controls will be designed, installed and maintained during construction activities in accordance with the 2002 Connecticut Guidelines For Soil Erosion and Sediment Control which will minimize temporary impacts. No wetlands or inland waterways will be impacted by the proposed Facility.

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 backup power diesel generator would be exercised once a week and comply with the CT DEEP "permit by rule" criteria pursuant to R.C.S.A. §22a-174-3b.

C. LAND

Approximately 118 trees will need to be removed in order to construct the compound and the new access drive. Of the 118 trees slated for removal, 41 are 14" or greater dbh. The total area of clearing and grading disturbance will be approximately 40,000 s.f. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

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 which is tested weekly.

E. POWER DENSITY

The worst-case calculation of power density from AT&T's operations at the facility would be 49.21% of the federal MPE standard. Attached is a copy of a Radio Frequency Emissions Analysis Report for the facility.

F. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

An evaluation of the proposed Facility's potential effects on historic resources was conducted and concluded that the proposed Facility will have no effect on historic properties listed or eligible for listing on the National Register of Historic Places. Attached is the Preliminary Historic Resources Determination. As noted therein, Homeland Towers will consult with the CT State Historic Preservation Office ("SHPO") to confirm this preliminary finding.

The proposed site is located within a Natural Diversity Data Base ("NDDB") buffer zone as shown in the attached map. As such, Homeland Towers will consult with the Department of Energy & Environmental Protection ("DEEP").

G. SCHOOLS/DAY CARE CENTERS

There are no schools or day care centers located within 250' of the proposed tower site.

C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
603-644-2800
support@csquaredsystems.com

Calculated Radio Frequency Exposure

CT1458

1837 Ponus Ridge Road, New Canaan, CT

December 13, 2021

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Attachment C: AT&T Antenna Data Sheets and Electrical Patterns....8

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of the AT&T antenna arrays on a new monopole tower located at 1837 Ponus Ridge Road in New Canaan, CT. The coordinates of the tower are 41° 10' 18.89" N, 73° 32' 36.90" W.

AT&T is proposing the following:

1) Install six (6) multi-band antennas (two per sector) to support its commercial LTE network and the FirstNet National Public Safety Broadband Network ("NPSBN").

This report considers the planned antenna configuration for AT&T[1] to derive the resulting % Maximum Permissible Exposure of its proposed installation.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

[1] As referenced to AT&T's Radio Frequency Design Sheet updated 12/14/2020.

3. RF Exposure Calculation Methods

The power density calculation results were generated using the following formula as outlined in FCC bulletin OET 65, and Connecticut Siting Council recommendations:

$$\text{Power Density} = \left(\frac{1.6^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2}\right) \text{X Off Beam Loss}$$

Where:

ERP = Effective Radiated Power

R = Radial Distance = $\sqrt{\left(H^2 + V^2\right)}$

H = Horizontal Distance from antenna

V = Vertical Distance from radiation center of antenna

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

These calculations assume that the antennas are operating at 100 percent capacity and power, and that all antenna channels are transmitting simultaneously. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not consider actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

4. Calculation Results

Table 1 below outlines the cumulative power density information for the AT&T equipment at the site. The proposed antennas are directional in nature; therefore, 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 Attachment C for the vertical pattern of the proposed AT&T antennas. The calculated results for AT&T in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	ERP Per Transmitter (Watts)	Power Density (mw/cm^2)	Limit	% MPE
AT&T	106	739	3156	0.0114	0.4927	2.30%
AT&T	106	763	3541	0.0127	0.5087	2.50%
AT&T	106	885	3883	0.0140	0.5900	2.37%
AT&T	106	1900	5877	0.0211	1.0000	2.11%
AT&T	106	1900	5877	0.0211	1.0000	2.11%
AT&T	106	1900	5877	0.0211	1.0000	2.11%
AT&T	106	2100	9890	0.0356	1.0000	3.56%
AT&T	106	2100	9890	0.0356	1.0000	3.56%
AT&T	106	3500	79433	0.2858	1.0000	28.58%
					Total	**49.21%**

Table 1: Carrier Information

5. Conclusion

The above analysis concludes that RF exposure at ground level from the proposed site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using conservative calculation methods, the highest expected percent of Maximum Permissible Exposure at ground level is **49.21% of the FCC General Population/Uncontrolled limit**.

As noted previously, the calculated % MPE levels are more conservative (higher) than the actual signal levels will be from the finished installation.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in FCC OET Bulletin 65 Edition 97-01, ANSI/IEEE Std. C95.1 and ANSI/IEEE Std. C95.3.

December 13, 2021
Date

Reviewed/Approved By: Martin J. Lavin
Senior RF Engineer
C Squared Systems, LLC

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2005, IEEE Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2002 (R2008), IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz-300 GHz IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure[2]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure[3]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 2: FCC Limits for Maximum Permissible Exposure (MPE)

[2] Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure

[3] General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure

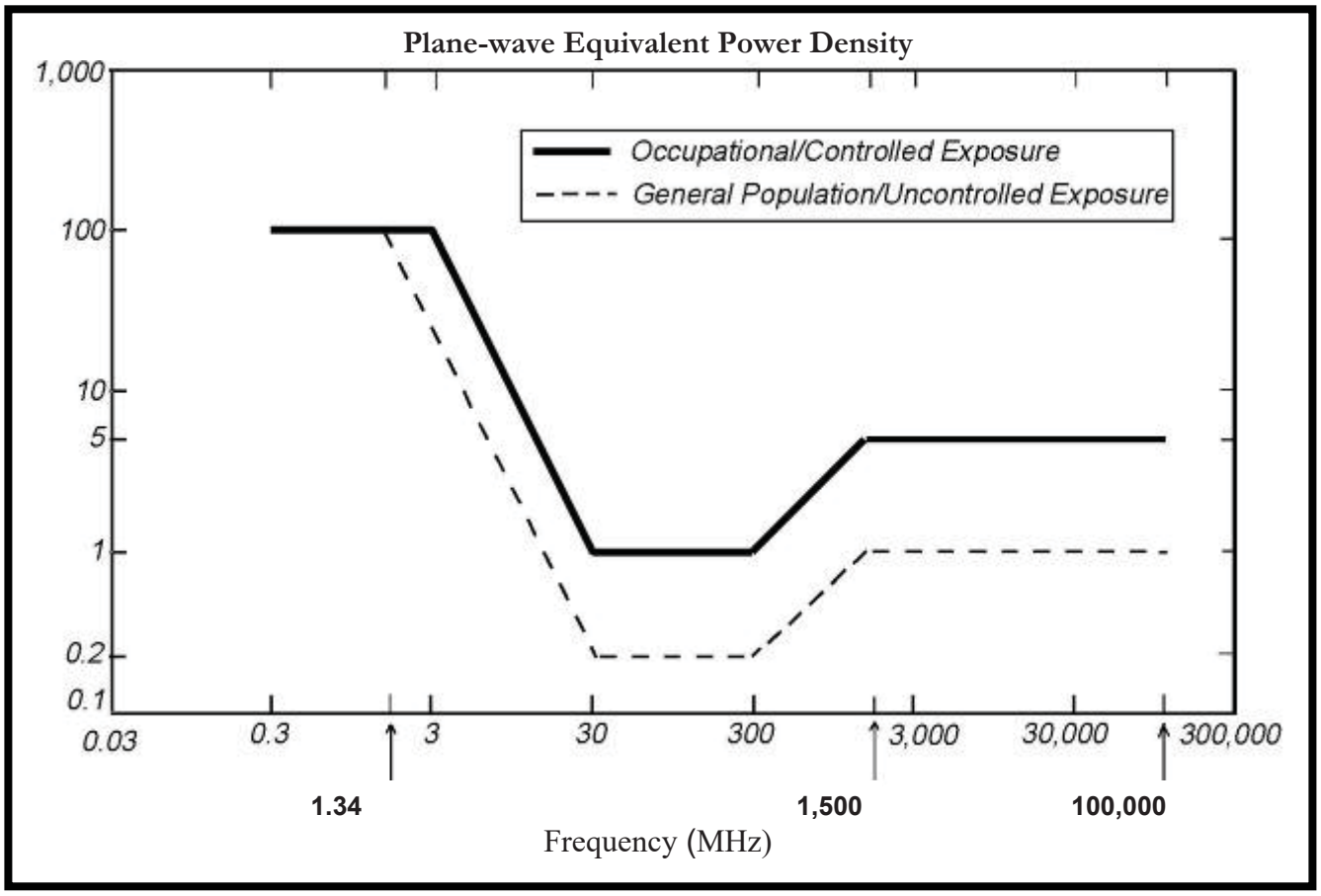
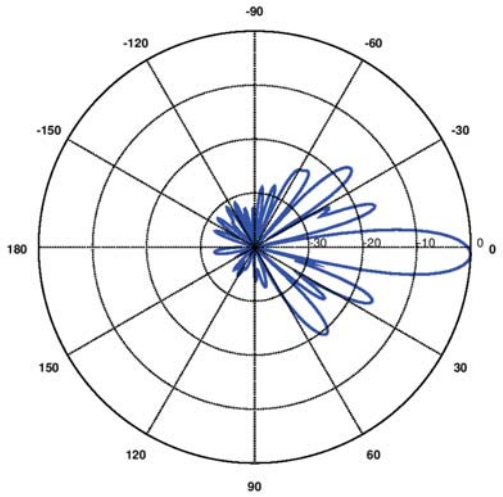
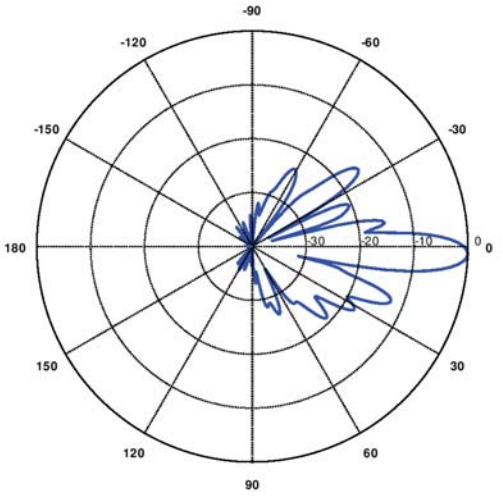


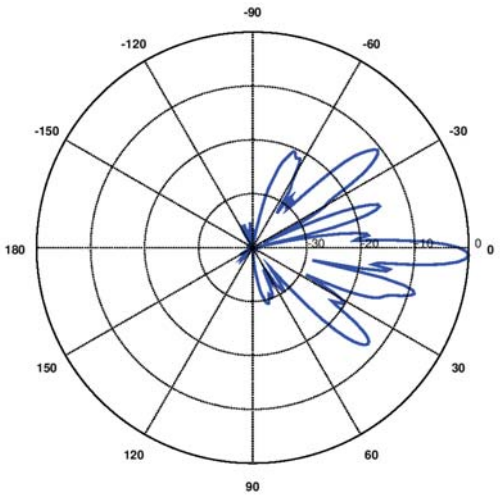
Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: AT&T Antenna Data Sheets and Electrical Patterns

739 / 763 MHz Manufacturer: CCI Products Model #: DMP65R-BU8D Frequency Band: 698-798 MHz Gain: 15.1 dBi Vertical Beamwidth: 9.5° Horizontal Beamwidth: 75° Polarization: Dual Linear 45° Size L x W x D: 96.0” x 20.7” x 7.7”	
885 MHz Manufacturer: CCI Products Model #: DMP65R-BU8D Frequency Band: 824 - 896 MHz Gain: 16.0 dBi Vertical Beamwidth: 8.0° Horizontal Beamwidth: 64° Polarization: Dual Linear 45° Size L x W x D: 96.0” x 20.7” x 7.7”	

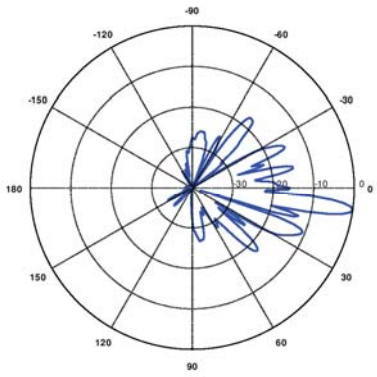
1900 MHz

Manufacturer:	CCI Products
Model #:	DMP65R-BU8D
Frequency Band:	1850-1990 MHz
Gain:	17.8 dBi
Vertical Beamwidth:	5.1°
Horizontal Beamwidth:	68°
Polarization:	Dual Linear 45°
Size L x W x D:	96.0” x 20.7” x 7.7”



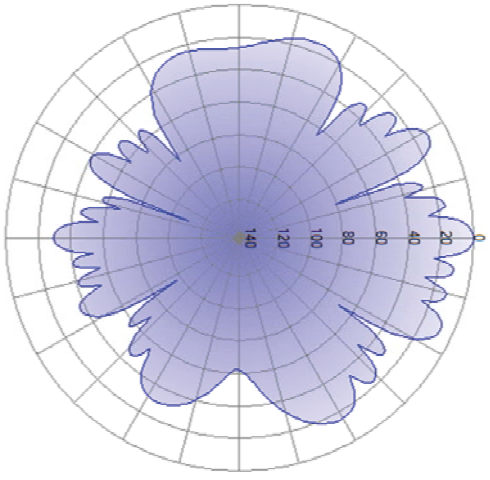
2100 MHz

Manufacturer:	CCI Products
Model #:	DMP65R-BU8D
Frequency Band:	1920-2180 MHz
Gain:	18.2 dBi
Vertical Beamwidth:	4.8°
Horizontal Beamwidth:	68°
Polarization:	Dual Linear 45°
Size L x W x D:	96.0” x 20.7” x 7.7”



3500 MHz

Manufacturer:	Ericsson
Model #:	AIR 6449
Frequency Band:	C-Band
Gain:	25.65 dBi
Vertical Beamwidth:	6.0°
Horizontal Beamwidth:	11°
Polarization:	±45°
Dimensions (L x W x D):	33.1” x 20.6” x 8.3”



PRELIMINARY HISTORIC RESOURCES DETERMINATION

December 6, 2021

Homeland Towers
9 Harmony Street
Danbury, Connecticut 06810

Re: Proposed Telecommunications Facility
1837 Ponus Ridge Road
New Canaan, Connecticut

On behalf of Homeland Towers, All-Points Technology Corporation, P.C. ("APT") performed an evaluation with respect to the proposed Facility's potential effects on historic resources proximate to the referenced project site.

APT completed an independent review of the National Register of Historic Places ("NRHP") and SHPO files to determine if any listed sites, or sites eligible for listing, are located proximate to the Site. The results of our review revealed that no such resources are located within one-half mile of the site.[1] Further, no state-registered sites are located proximate to the project site. A cultural resource screening map is provided as an attachment to this memorandum.

As part of its obligations for compliance with the National Environmental Policy Act ("NEPA"), Homeland Towers will be submitting required documentation to the State Historic Preservation Office ("SHPO") for that agency's review and determination. The SHPO submission will be prepared by a qualified architectural historian that meets criteria developed by the Secretary of the Interior. That process has not yet been initiated.

Based on our research, it is APT's opinion that the proposed Facility would have no effect on historic properties listed or eligible for listing on the NRHP.

Sincerely,

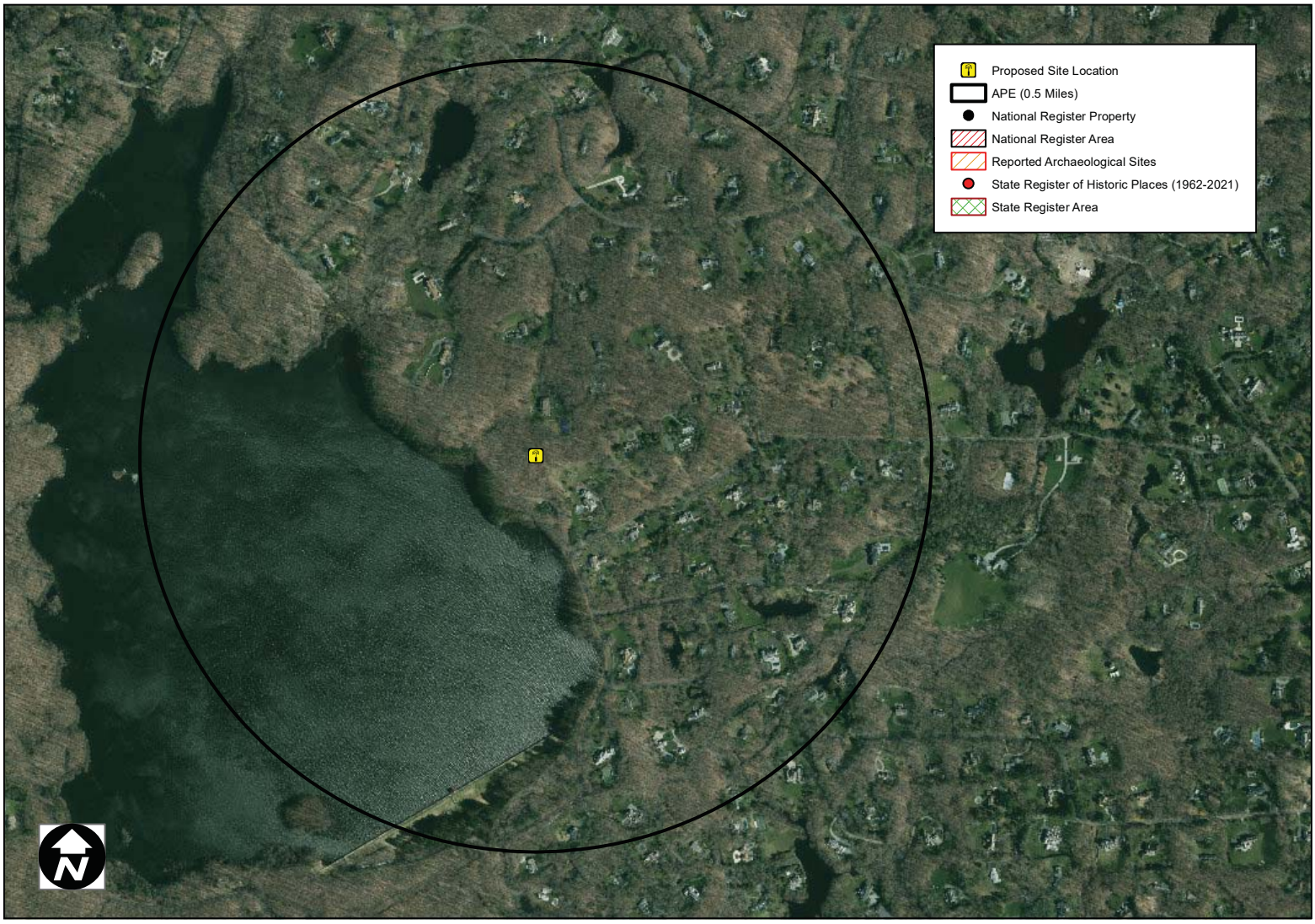
Brian Gaudet

Brian Gaudet
Project Manager

Attachment

[1] For towers under 200 feet tall, the Area of Potential Effect ("APE") has been established at 0.5 mile. This distance represents the APE established cooperatively by the Federal Communications Commission, Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers.

Cultural Resource Screening Map



Cultural Resources Screen

CT283860 New Cannan Nw 1837 Ponus Ridge Road, New Cannan CT

December 3, 2021 \ USGS QUAD: Pound Ridge

0 500 1,000 2,000 Feet

Prepared for All-Points Technology Corp. by Heritage Consultants, 2021

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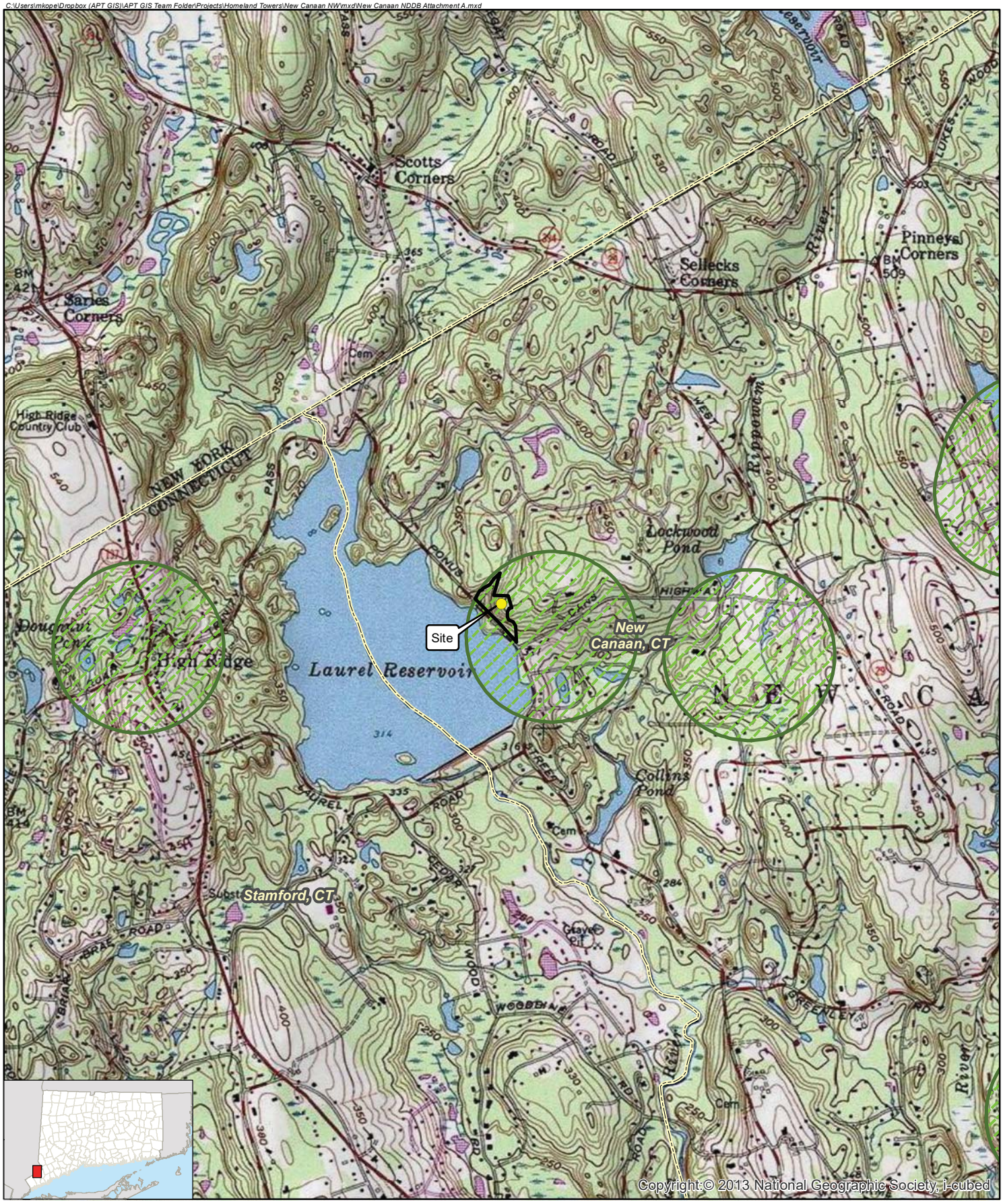

Legend

- Proposed Tower
- Subject Property
- Natural Diversity Database (updated June 2021)
- Municipal Boundary

Map Notes:
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Maps, Pound Ridge, NY-CT (1971)
Map Scale: 1:24,000
Map Date: October 2021

1,000 500 0 1,000 Feet

NDDB Map

Proposed Wireless
Telecommunications Facility
CT050 - New Canaan Northwest
1837 Ponus Ridge Road
New Canaan, Connecticut

ALL-POINTS TECHNOLOGY CORPORATION

SECTION 5

SECTION 5

Visibility Analysis

Enclosed is a preliminary evaluation of the visibility associated with the proposed Facility. As set forth in the enclosed Preliminary Visual Assessment, the results are intended to provide a representation of areas where portions of the Facility may be visible without the aid of magnification. However, it is important to note that the proposed Facility may not be visible from all locations identified in the preliminary viewshed analysis map due to predictive model limitations. The enclosed Preliminary Visual Assessment will be supplemented by a detailed Visual Assessment & Photo-Simulation Report.

Based on the enclosed Preliminary Visual Assessment, the proposed Facility could be visible from approximately 201 acres for year-round views and approximately 90 acres of season views (collectively less than 4% of the 8,042-acre visibility Study Area). As shown in the Preliminary Viewshed Analysis Map, the majority of year-round visibility occurs over open water on Laurel Reservoir. Seasonal visibility is predicted to occur from select locations within 0.17 mile from the site.

PRELIMINARY VISUAL ASSESSMENT

Date: December 3, 2021

To: Homeland Towers
9 Harmony Street
Danbury, CT 06810

From: Brian Gaudet

Re: Proposed Telecommunications Facility
1837 Ponus Ridge Road
New Canaan, Connecticut

Homeland Towers has identified a proposed location for development of a wireless telecommunications facility ("Facility") at 1837 Ponus Ridge Road in New Canaan, Connecticut (the "Host Property"). The proposed Facility would include a ±110-foot-tall monopole tower designed to resemble a pine tree ("monopine"). Faux branches would extend approximately five feet above the pole to provide a tapered top, bringing the total Facility height to ±115 feet above ground level ("AGL"). The monopine would be built within a new ±3,000 sq. ft. irregularly shaped gravel based fenced equipment compound. The Facility is generally centrally located on the irregularly shaped ±5.16-acre parcel.

At the request of Homeland Towers, All-Points Technology Corporation, P.C. ("APT") has prepared initial viewshed mapping to provide a preliminary evaluation of the visibility associated with the proposed Facility. To conduct this assessment, a predictive computer model was developed specifically for this project using ESRI's ArcMap Geographic Information System ("GIS")[1] software and available GIS data. The predictive model provides an initial estimate of potential visibility throughout a pre-defined "Study Area", in this case a two-mile radius surrounding the Site.

The predictive model incorporates project and Study Area-specific data, including the Facility location, its ground elevation and the proposed Facility height, as well as the surrounding topography, existing vegetation, and structures (the primary features that can block direct lines of sight).

A digital surface model ("DSM"), capturing both the natural and built features on the Earth's surface, was generated for the majority of the Study Area utilizing State of Connecticut 2016 LiDAR[2] LAS[3] data points. An additional DSM was generated utilizing the City of New York Department of Environmental Protection 2009 LiDAR LAS data points to fill in gaps of the study area that extend into Pound Ridge, New York to the north. LiDAR is a remote-sensing technology that develops elevation data by measuring the time it takes for laser

[1] ArcMap is a Geographic Information System desktop application developed by the Environmental Systems Research Institute for creating maps, performing spatial analysis, and managing geographic data.

[2] Light Detection and Ranging.

[3] An LAS file is an industry-standard binary format for storing airborne LiDAR data.

light to return from the surface to the instrument's sensors. The varying reflectivity of objects also means that the "returns" can be classified based on the characteristics of the reflected light, normally into categories such as "bare earth," "vegetation," "road," or "building". Derived from the 2016 and 2009 LiDAR data, the LAS datasets contain the corresponding elevation point data and return classification values. The Study Area DSM incorporates the first return LAS dataset values that are associated with the highest feature in the landscape, typically a treetop, top of a building, and/or the highest point of other tall structures.

Once the DSM was generated, ESRI's Viewshed Tool was utilized to identify locations within the Study Area where the proposed Facility may be visible. ESRI's Viewshed Tool predicts visibility by identifying those cells[4] within the DSM that can be seen from an observer location. Cells where visibility was indicated were extracted and converted from a raster dataset to a polygon feature which was then overlaid onto an aerial photograph and topographic base map. Since the DSM includes the highest relative feature in the landscape, isolated "visible" cells are often indicated within heavily forested areas (e.g., from the top of the highest tree) or on building rooftops during the initial processing. It is recognized that these areas do not represent typical viewer locations and overstate visibility. As such, the resulting polygon feature is further refined by extracting those areas. The viewshed results are also cross-checked against the most current aerial photographs to assess whether significant changes (a new housing development, for example) have occurred since the time the LiDAR-based LAS datasets were captured.

The results of the preliminary analysis are intended to provide a representation of those areas where portions of the Facility may potentially be visible to the human eye without the aid of magnification, based on a viewer eye-height of five (5) feet above the ground and the combination of intervening topography, trees and other vegetation, and structures. However, the Facility may not necessarily be visible from all locations within those areas identified by the predictive model, which has limitations. For instance, it is important to note that the computer model cannot account for mass density, tree diameters and branching variability of trees, or the degradation of views that occurs with distance. As a result, some areas depicted on the viewshed maps as theoretically offering potential visibility of the Facility may be over-predicted because the quality of those views is not sufficient for the human eye to recognize the Facility or discriminate it from other surrounding or intervening objects.

Visibility also varies seasonally with increased, albeit obstructed, views occurring during "leaf-off" conditions. Beyond the variabilities associated with density of woodland stands found within any given Study Area, each individual tree also has its own unique trunk, pole timber and branching patterns that provide varying degrees of screening in leafless conditions which, as introduced above, cannot be precisely modeled. Seasonal visibility is therefore estimated based on a combination of factors including the type, size, and density of trees within a given area; topographic constraints; and other visual obstructions that may be present. Taking into account these considerations, areas depicting seasonal visibility on the viewshed maps are intended to represent locations from where there is a potential for views through intervening trees, as opposed to indicating that leaf-off views will exist from within an entire seasonally-shaded area.

The preliminary viewshed mapping results indicate that predicted visibility associated with the proposed Facility could include up to approximately 201 acres of year-round views and approximately 90 acres of seasonal views (collectively less than 4% of the 8,042-acre Study Area). The majority of predicted year-round visibility occurs over open water on Laurel Reservoir to the west (±194 acres, representing ±96.5% of predicted year-round visibility). Seasonal visibility is predicted to occur from select surrounding locations,

[4] Each DSM cell size is 1 square meter.

primarily within ±0.17 mile from the site. Additional locations of visibility are predicted around the general areas of year-round visibility associated with Laurel Reservoir, and intermittently in select areas throughout the Study Area.

Attachments

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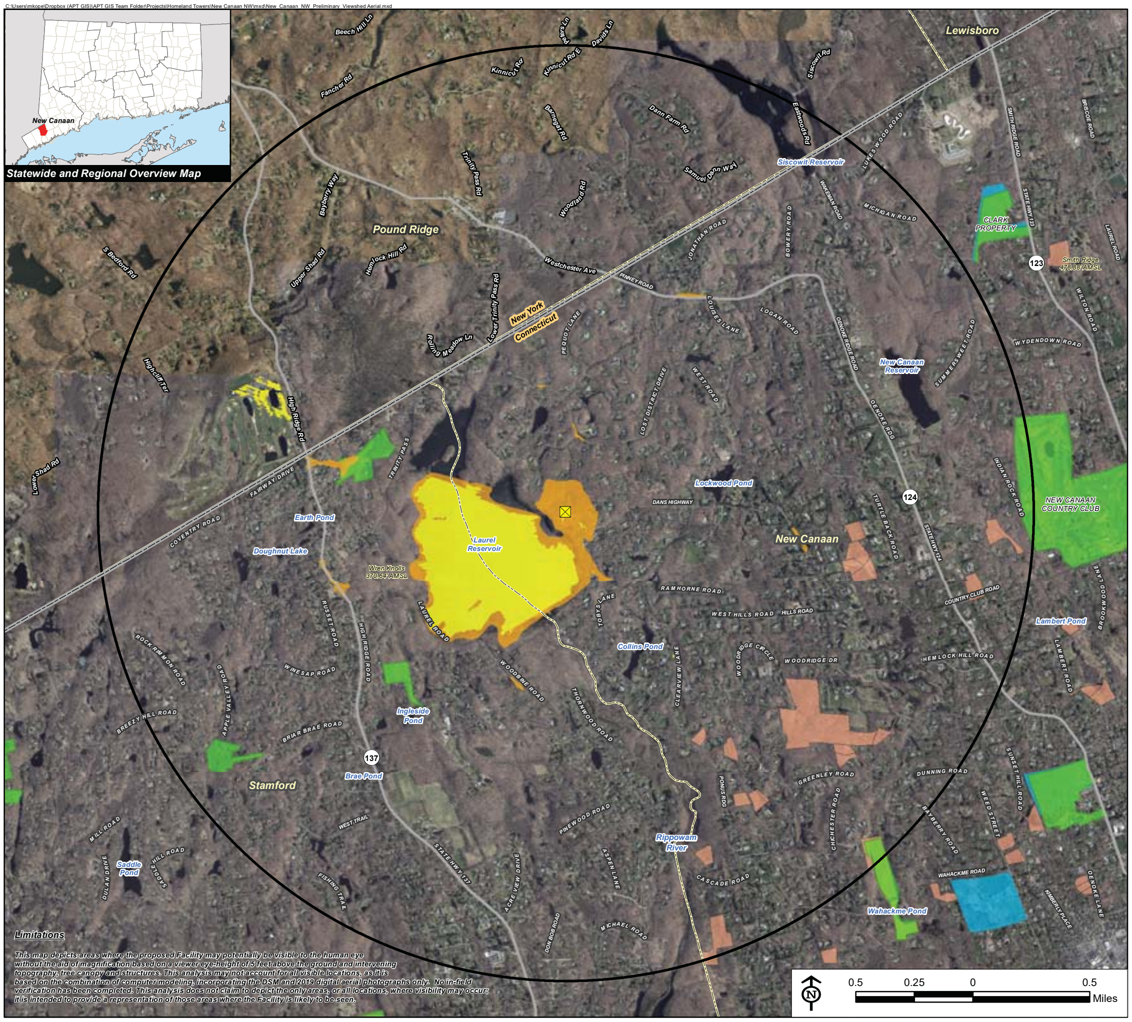

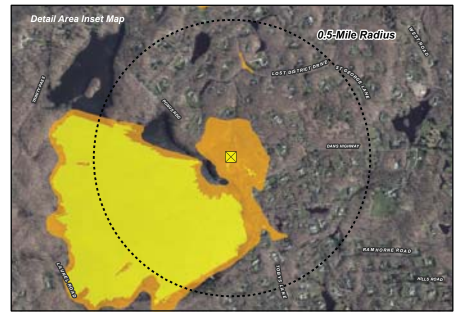

Preliminary Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
New Canaan Northwest
1837 Ponus Ridge Road
New Canaan, Connecticut

Proposed facility height is 115 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Information provided on this map has not been field verified
Base Map Source: 2019 Aerial Photograph (CTECO) and 2016
New York State GIS Clearinghouse Aerial Photograph
Map Date: December 2021

Legend

- Proposed Site
- Study Area (2-Mile Radius)
- Predicted Year-Round Visibility (201 Acres; +/- 194 acres occurs over Laurel Reservoir)
- Areas of Potential Seasonal Visibility (90 Acres)
- State Boundary
- Municipal Boundary
- Trail
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park

Protected Open Space Property

- Federal
- Land Trust
- Municipal
- Private
- State

Data Sources:

Physical Geography / Background Data

A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points and the City of New York Department of Environmental Protection 2009 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP.
Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

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 Books East & West

Other

CTDOT Scenic Strips (based on Department of Transportation data)

Notes

***Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.*

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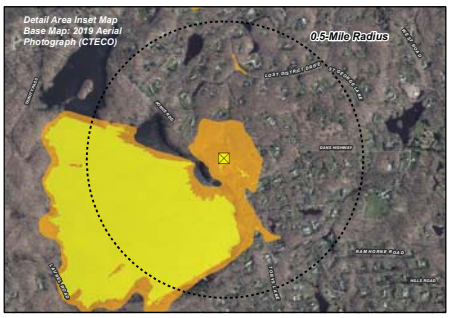
Statewide and Regional Overview Map

Limitations

This map depicts 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, land cover and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating the DSM and 2019 digital aerial photographs only. No ground verification has been completed. 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.

0.5 0.25 0 0.5 Miles



Preliminary Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
New Canaan Northwest
1837 Ponus Ridge Road
New Canaan, Connecticut

Proposed facility height is 115 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Information provided on this map has not been field verified
Base Map Source: USGS 7.5 Minute Topographic
Quadrangle Map, Pound Ridge, NY-CT (1971)
Map Date: December 2021

Legend

- Proposed Site
- Quads
- Study Area (2-Mile Radius)
- Predicted Year-Round Visibility (201 Acres; +/- 194 acres occurs over Laurel Reservoir)
- Areas of Potential Seasonal Visibility (90 Acres)
- State Boundary
- Trail
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park

Protected Open Space Property

- Federal
- Land Trust
- Municipal
- Private
- State

Data Sources:

Physical Geography / Background Data

A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points and the City of New York Department of Environmental Protection 2009 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

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Other

CTDOT Scenic Strips (based on Department of Transportation data)

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