STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION NEW CINGULAR WIRELESS PCS, LLC (AT&T) FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS TOWER FACILITY AT A STATE OF CONNECTICUT ARMORY SITE LOCATED AT 284 NEW CANAAN AVENUE (STATE ROUTE 123) NEAR THE MERRITT PARKWAY IN THE CITY OF NORWALK ALONG THE BORDER WITH THE TOWN OF NEW CANAAN

DOCKET NO. 442

November 26, 2013

NEW CINGULAR WIRELESS, PCS LLC (AT&T) RESPONSES TO CONNECTICUT SITING COUNCIL PRE-HEARING QUESTIONS SET I

Q1. Were the return receipts for each abutting landowner identified in the application? If not list the abutters that did not receive notice and describe any additional effort to serve notice. When was the abutter list compiled?

A1. The original list of surrounding property owners was developed in mid-2010 and was subsequently updated and reconfirmed in 2013 prior to application filing. Delivery confirmation was received for all but four (4) of the abutting property owners. They are:

1. Richard S. & Kelly Darling
2. Luis Alfredo & Reyna Vallejo
3. Gerin E. Santiago
4. Frank A. Serena

Follow up letters providing the original notice were sent to all four property owners by First Class mail on October 2, 2013. The follow up correspondence to Mr. Frank Serena was returned as undeliverable with the indication that Mr. Serena is unfortunately deceased and no additional contact information is available through the municipal assessor's office.

Q2. What is the fuel source and run time of AT&T's emergency generator? Would AT&T be willing to install a generator of sufficient size to accommodate three or more carriers?

A2. AT&T's proposed backup generator is a diesel generator to serve its facility. The estimated runtime is 48 hours assuming full load and 200 gallons of fuel available. AT&T's emergency back-up generators are tested for approximately 30 minutes on a weekly basis. During the weekly test, the 50kW generator operates at 30kW, or 60% of rated capacity. This weekly testing requires approximately 66 gallons of fuel annually. AT&T's goal is to maintain the generator fuel supply at 80% full. Thus, refueling of the 50kW emergency back-up generator occurs twice per year under routine operations. Re-fueling of generator fuel tanks is typically scheduled as part of the bi-annual facility maintenance visits.

With respect to a shared generator, the Applicant refers the Council to its Docket 432 Findings and Report and provides the following supplemental information regarding the impacts of a shared generator. AT&T typically deploys a 50kW emergency backup generator for a wireless tower facility such as the one proposed in this Docket. In order to accommodate AT&T and the three other wireless providers currently active in the Connecticut market, a 200kW generator would likely be required. No impacts to traffic impact will result even assessing the site on a cumulative basis assuming four 50kw generators and monthly facility visits and the biannual generator re-fueling visits for each carrier to maintain any such facilities and generators. The refueling truck that would visit the facility twice per year for each carrier for a 50kW generator is typically a pick-up model truck that is similar in size to package delivery trucks. A large shared generator would require a larger fuel delivery truck. Of note, total traffic trips for regular visits and generator maintenance and fueling even assuming emergency usage is less than that typically associated with 1 single family residence. As such, there is no traffic impact at all from the tower facility regardless of the number of carriers or generators ultimately deployed at the site. As noted by AT&T in Docket 440, the estimated noise level associated with the simultaneous operation of four individual 50kW generators during emergency operation is only slightly different than a shared generator. As such, assuming four carriers were all operating

50kw generators at the site at the same time, the noise would not be materially more than the noise associated with the operation of one large 200kw shared generator and not an impact for purposes of environmental review. It should also be noted that the only time all four generators for each carrier would be operating at the same time is during an emergency situation that results in a prolonged power outage.[1] However, a large shared generator would emit at a greater estimated noise level great than one 50kw generator during the weekly testing throughout the year.

As discussed in the Docket 440 proceeding, a shared generator can potentially adversely impact reliability as it is a single point of failure for all carriers. If the one shared generator fails, no carrier at the site would have emergency back-up power. Moreover, the ability to replace a failed large shared generator is very limited as typically very few portable 200kW generators are available. A large shared generator can also fail if only one of the carriers connected to the shared generator experiences a failure, thereby causing all carriers to lose back-up power.

Given the foregoing, the Applicant submits that there are no cumulative adverse impacts from multiple generators at a tower site. Additionally, even if a shared generator were deployed by AT&T, there is no way to guarantee that other carriers would use it and thereby address the significant incremental costs associated with a large shared generator (compared to a 50KW generator for one carrier) (i.e., the Council could not require other carriers to use a generator (shared or otherwise) and ensure that it was actually shared as intended). Given all of the above, AT&T is not prepared to construct a shared generator in this Application, but will consider it in other applications where a shared generator may be appropriate for space or other factors..

Q3. During construction, does AT&T anticipate the use of a mobile generator as a temporary power source until permanent electrical service is provided?

A3. No, AT&T does not anticipate the use of a mobile generator as a temporary power source until permanent electrical service is provided.

[1] Section 22a-69-1.8(f) provides an exemption from the State of Connecticut Noise Regulations for "Noise created as a result of, or relating to, an emergency.

Q4. Identify the nearest licensed day care facility and school to the proposed site.

A4. The nearest school is the Silvermine Elementary School (at 157 Perry Avenue) is located approximately 1.17 miles northeast of the site. The nearest day care facility is the Playland Nursery School (800-802 Ponus Ridge Road), located approximately 0.24 mile south of the site.

Q5. Would the proposed facility comply with recommended guidelines of the United States Fish and Wildlife Service for minimizing the potential for telecommunications towers to impact bird species? Please explain.

A5. Yes. Please see the attached Avian Resources Evaluation.

Q6. Identify the safety standards and/or codes by which equipment, machinery, or technology would be used or operated at the proposed facility.

A6. OSHA and ET docket 93-62 and 47 CFR parts 1,2,15,42 and 97 as well as OET Bulletin 65, Edition 97-01.

Q7. Identify the non-emergency operational equipment and associated noise levels produced by such equipment that would generate noise outside of the compound area. Would the operation of this equipment have a cumulative noise level that exceeds Connecticut or City of Norwalk noise control regulations?

A7. There are two HVAC units attached to AT&T's equipment shelter. They do not run simultaneously and AT&T will be incorporating an external low noise blower (see attached) and compression blanket into the HVAC unit which will dampen the sound emissions. The applicable City of Norwalk and the State of Connecticut allowable noise levels for a residential emitter's zone and a residential receptor's zone are: 55 dBa for day time and 45 dBa for night time. The noise emissions at the closest property line will be at or below 45 dBa and as such AT&T's facility will comply with both daytime and nighttime standards.

Q8. What is the existing signal strength within the proposed service area? How is service affected by this level of coverage?

A8. The existing signal strength in the areas that would be covered by the proposed Facility range from -82 dBm and down to less than -100 dBm. This results in

areas of spotty coverage within the proposed service area where it may be possible to make a call, but does not constitute reliable coverage for purposes of voice calls or data use.

Q9. Referring to Application Tab 2,

a) For Site 2, when was the lease rejected? What height was needed at the water tank?

b) For Site 3, what height was examined and rejected?

A9(a) In 1999, the Second Taxing District of Norwalk, which owns the water tank at 3 Flower Lane, did enter into a lease with AT&T for a wireless site to be located on top of the existing water tank at a height of approximately 110' AGL. The site required zoning amendments because the use was prohibited and was opposed before an application was ever filed. City planning and zoning officials identified the Armory site as a possible alternate location. The lease agreement subsequently lapsed and subsequent efforts to re-lease the location were unsuccessful. AT&T has not approached the Second Taxing District in several years instead focusing its efforts on the State and leasing the Armory site location.

A9(b) This location, 394 Main Street, New Canaan was rejected by RF engineers for purposes of serving the area of need identified in this Docket and identified by AT&T as search ring SR1038. In fact, the waste water treatment facility / transfer station is a viable candidate for a more recently issued search ring SR2653 and its location is included on the plots included in Attachment 1 to the Application. AT&T continues to consult with New Canaan officials regarding a lease at the transfer station.

Q10. Referring to the Site Plans in Application Tab 3, Sheet T-1 states six antennas will be located at both the 137 and 127-foot levels of the tower. Sheet S4a depicts AT&T antennas at the 137, 127 and 117-foot levels of the tower. Please clarify.

A10. The Sheet T1 reference to six (6) antennas is an error and a carryover from a previous radio frequency design which did not incorporate LTE configuration. The Sheet S4a elevation is correct.

Q11. How will the unipole design affect performance and maintenance of the cell site? What is the current trend in antenna design and given the current trend, would the unipole design be able to accommodate potential technological antenna advancements?

A11. Overall, the unipole configuration necessitates greater antenna height and hinders future technological upgrades and opportunities for co-location and impacts network performance which can be addressed in greater detail by Mr. Wells consistent with his prior testimony. In general, recent trends and advancements in wireless technology have necessitated additional equipment and antennas, such as remote radio head units, and or larger antennas on towers for speed and network reliability. As such, stealth flagpole /unipole and flush mount designs are more and more viewed as a structure or "last resort" by the wireless industry. As noted to the Council previously, AT&T generally reserves use of flush mounted or stealth unipole/flagpole configurations to situations where historic or documented scenic views may be impacted by a needed facility or where obtaining a real property interest requires same. This is one such situation due to the proximity of the Merritt Parkway and the SHPO's requirements for tower construction at the Armory Site. In this specific instance, the geographic location, underlying land use, otherwise residential nature of the surrounding area nevertheless make the site location one where such compromises can be made by AT&T as the network operator in providing services to the public. In keeping with State policy and statute, AT&T designed a two pole facility to accommodate future expansion of the tower site by additional carriers.

Q12. What is the minimum tower height AT&T would require if the site were designed as a traditional monopole with platform mounted antennas?

A12. AT&T would require antennas at 127' AGL.

Q13. Application page 17 states that the Connecticut SHPO must concur with any tower design change or if there was a change, the FCC would have to override SHPO. What specific legal authority does Connecticut SHPO have in determining the final design of a tower facility?

A13. A new tower requires compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) as a matter of federal law. As a cellular licensee, AT&T must meet the requirements of NEPA as proscribed by the Federal Communications Commission (FCC) under its regulations. The FCC's rules implementing NEPA are found at Title 47 of the Code of Federal Regulations, Part 1, Subpart I, rule sections 1.1301 to 1.1319. The FCC implements the NHPA in its "NEPA rules". Proposed facilities that may affect sites listed or eligible for listing in the National Register of Historic Places require compliance with NHPA procedures.

Under federal laws and FCC regulations, the relevant State Historic Preservation Officer (SHPO) has legal authority to consider whether a proposed facility may create an adverse effect on an eligible or listed historic property. In regards to SHPO, the licensee must make a reasonable and good faith effort to identify historic properties that may be affected and gather sufficient information in order to determine whether and how a historic place covered by section 1.1307(a)(4) may be affected. Specifically, a licensee must follow rules of the Advisory Council on Historic Preservation (Historic Council) set forth as 36 CFR part 800.[2] In consultation with the SHPO, a licensee must assess the effect of a project on the historic properties, and obtain the concurrence of the SHPO in any finding of no adverse effect. A SHPO may condition a specific tower design in finding no adverse effect on a historic resource covered by the NHPA and NEPA.

If SHPO finds an adverse effect, for a project to proceed the FCC's rules would require evaluation by the Historic Council. Under 36 CFR 800.7, the FCC would then have to afford the Advisory Council on Historic Preservation the opportunity to comment on the proposal. Ultimately, the FCC may override a SHPO adverse effect determination, but a FCC licensee cannot proceed with a project SHPO finds to have

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[2] Section 1.1307(a)(4) directs that:

> To ascertain whether a proposed action may affect properties that are listed or eligible for listing in the National Register of Historic Places, an applicant shall follow the procedures set forth in the rules of the Advisory Council on Historic Preservation, 36 CFR part 800, as modified and supplemented by the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas, Appendix B to Part 1 of this Chapter, and the Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process, Appendix C to Part 1 of this Chapter.

an adverse effect until such time.[3] This process is wholly separate and distinct from any state or local processes and in fact may take place even if a site has obtained another local or state approval. As such, tower applicants, will not typically pursue tower sites that the CT SHPO finds to have an adverse effect on national historic resources.

Q14. Is the tower site located in a 500-year flood zone?

A14. Per the Fairfield county FEMA Fir Map 09001C0389F, the site is in Zone X Unshaded which is outside of the 500-year flood area.

Q15. Application page 15 states five residences would have year-round views of the site whereas the visibility report in Tab 5 states four residences. Please clarify.

A15. Four residences would have year round views.

Q16. Estimate the length of year-round visibility of the site along the Merritt Parkway. Would visibility include one or both towers? Is the visibility of the tower(s) directly in front of viewer or off to the side?

A16. The entire length of the Merritt Parkway from which either of the towers would be visible year-round is less than 300 linear feet and limited to motorists travelling north bound. The view of the AT&T tower would begin just south of Interchange 38 and extend to the overpass above New Canaan Avenue, offering brief views off to the northeast side of the road. There would be no direct frontal views of the tower to users of the Merritt Parkway. The future tower would not be visible when the leaves are on the deciduous trees lining the Merritt Parkway in this area.

Q17. How was the location of each tower determined in the photo-simulations?

A17. The location was accomplished using a combination of field data and 3-dimension (3D) modeling software. A spatially referenced model of the Study Area and scaled models of the proposed towers were developed for this project incorporating site plan information and 3D modeling. The geographic coordinates of the AT&T tower and those of the proposed future tower location were entered into the digital elevation model as were the specific photo

[3] Matters involving wireless sites are typically handled by the Chief of the Commercial Wireless Division of the FCC's Wireless Telecommunications Bureau as delegated to that officer under 47 CFR 0.331.

locations via GPS. Using this information, virtual camera positions were generated within the spatial 3D model relative to the tower locations, providing an accurate understanding of locations and distance. The equipment bucket hanging from the boom arm of the crane depicted in the photographic documentation shots represents the top height and location of the proposed AT&T tower. This was used as an additional reference point for the simulation of the AT&T tower and to cross-check the location of the future tower.

CERTIFICATE OF SERVICE

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

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
(860) 275-8200

Dated: November 26, 2013

Daniel M. Laub

ATTACHMENT 1

AVIAN RESOURCES EVALUATION

Date: November 21, 2013

Mr. Tim Burks
Site Acquisitions, Inc.
500 Enterprise Drive, Suite 3A
Rocky Hill, CT 06067

APT Project No.: CT1931150

Re: Connecticut Siting Council Docket 442
Proposed Norwalk Armory Facility – CT1038
284 New Canaan Avenue
Norwalk, Connecticut

New Cingular Wireless PCS, LLC ("AT&T") proposes to construct a new wireless telecommunications Facility ("Facility") at the Norwalk Armory site located at 284 New Canaan Avenue in Norwalk, Connecticut (the "host Property"). The host Property consists of 11.22± acres and is currently developed by the State of Connecticut with the Norwalk Armory, which dominates the host Property with a 32,704± square foot armory building and 35,000± square feet of asphalt paved driveway and parking/storage areas. The proposed Facility is located in a generally cleared portion of the host Property along the north edge of the rear (north) paved parking area. AT&T proposes to install a 140-foot tall flagpole/unipole and ground equipment enclosure within a 50-foot by 80-foot gravel compound area surrounded with an 8-foot tall chain link fence. A second 140-foot tall flagpole/unipole has also been proposed within the compound to accommodate Cellco Partnership d/b/a Verizon Wireless, which was granted intervenor status by the Connecticut Siting Council (the "Council") in Docket No. 442 on November 14, 2013. Access to the proposed Facility will follow the existing paved driveway from New Canaan Avenue.

This evaluation is provided in response to *Pre-hearing Questions Set One* submitted by the Council for this Docket, specifically:

- Question #5 – *Would the proposed facility comply with recommended guidelines of the United States Fish and Wildlife Service for minimizing the potential for telecommunications towers to impact bird species?*

Given the recent addition of Verizon Wireless to this Docket, for purposes of this evaluation the Facility includes two, free-standing flagpole/unipole structures.

USFWS Communications Towers Compliance

The U.S Fish and Wildlife Service ("USFWS") prepared its *Interim Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers* (September 14, 2000), which recommends the 12 voluntary actions below be implemented in order to mitigate potential bird strikes that could result by the construction of telecommunications towers. With respect to the Council's Interrogatory Question 5, All-Points Technology Corporation, P.C. ("APT") offers the following responses to each of the recommended actions.

1. *Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to collocate the communications equipment on an existing communications tower or other structure (e.g., billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.*

   Collocation opportunities on existing towers, buildings or non-tower structures are not available in the area while achieving the required radio frequency ("RF") coverage objectives of wireless service providers.

2. *If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (e.g., use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Administration regulations permit.*

   The proposed Facility would consist of two 140-foot flag pole/unipole structures which require neither guy wires nor lighting.

3. *If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.*

   Two 140-foot flagpole/unipole towers are planned within the proposed compound, approximately 70 feet apart. Both the individual and cumulative impacts of these two flagpole/unipole towers have been with respect to migratory birds and threatened and endangered species.

4. *If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, or other known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.*

   There are no existing "antenna farms" in the area.

   The proposed Facility is located along the edge of the host Property's development footprint, being located just north of the rear paved parking area. The proposed Facility is not within wetlands, although it is located approximately 60 feet east of a forested wetland system associated with Silvermine Brook. Considering the existing disturbance to the host Property with the Norwalk

Armory development and the high level of human activity associated with both the host Property's usage and the surrounding development (e.g., surrounding residential developments, State Routes 15 and 123), the proposed Facility will not result in a significant adverse impact to the wildlife habitat function (including avian habitat) being supported by the Silvermine Brook riparian wetland system or its associated terrestrial areas. The proposed Facility is not sited in or near known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries). Also, as discussed in subsequent sections of this analysis, the proposed Facility is not sited in or near a migratory or daily movement flyway. According to a November 16, 2013 letter from the Connecticut Department of Energy and Environmental Protection ("CTDEEP") Natural Diversity Data Base, "…the proposed activities will not impact any extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur in the vicinity of this property."

In Connecticut, seasonal atmospheric conditions can occasionally produce fog, mist and/or low ceilings. However, high incidences of these meteorological conditions, relative to the region, are not known to exist in the vicinity of the host Property.

5. *If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used.*

   The proposed Facility heights (140 feet AGL) are less than 199 feet and would not require any aviation safety lighting.

6. *Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species.*

   The proposed Facility would include free-standing towers and would not require guy wires or visual marking.

7. *Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint." However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.*

   The proposed Facility is sited within the host Property's existing development footprint being located just north of the paved parking area. As a result, minimal clearing of mature vegetation will occur from the proposed development and additional fragmentation of the Silvermine Brook riparian corridor (which is highly fragmented by both the host Property and surrounding residential developments and State Route 15) will be avoided.

8. *If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site should be recommended. If this is not an option, seasonal; restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.*

   The proposed tower construction area is located within the host Property's existing development footprint and would result in minimal clearing of mature vegetation. Therefore, the proposed construction area is not anticipated to support a significant number of breeding, feeding, or roosting birds and seasonal restrictions on construction are not recommended.

9. *In order to reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.*

   Due to concerns expressed by the Connecticut State Historic Preservation Office ("SHPO") regarding the proposed Facility's proximity to the Merritt Parkway, a Scenic Road listed on the National Register of Historic Places, the proposed twin flagpole/unipole design was mutually determined by SHPO and AT&T to mitigate any potential effect on this historic resource. The flagpole/unipole design limits co-location opportunities due to technical and physical space requirements for antenna, cables and associated equipment. As a result of the design's co-location limitations, a second flagpole/unipole facility was included in the design to accommodate future expansion capabilities.

10. *Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.*

    Security lighting for on-ground facilities would be down-shielded using Dark Sky compliant fixtures set on motion sensor with timer.

11. *If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct, dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.*

    With prior notification to AT&T, USFWS personnel would be allowed access to the proposed Facility to conduct evaluations.

12. *Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.*

    If the proposed Facility was no longer in use or determined to be obsolete, it would be removed within 12 months of cessation of use.

To substantiate the responses above, APT reviewed several publicly-available sources of avian data for the state of Connecticut to provide the following information with respect to potential impacts on migratory birds associated with the proposed development. This desktop analysis and attached graphics identify avian resources and their proximities to the host Property. Information within an approximate 4-mile radius of the host Property is graphically depicted on the attached Avian Resources Map. Some of the avian data referenced herein are not located in proximity to the project area and are therefore not visible on the referenced map due to its scale. However, in those cases the distances separating the host Property from the resources are identified in the discussions below.

Proximity to Important Bird Areas

The National Audubon Society has identified 27 Important Bird Areas ("IBAs") in the state of Connecticut. IBAs are sites that provide essential habitat for breeding, wintering, and/or migrating birds. The IBA must support species of conservation concern, restricted-range species, species vulnerable due to concentration in one general habitat type or biome, or species vulnerable due to their occurrence at high densities as a result of their congregatory behavior[1]. The closest IBA to the host Property is Cove Island Park in Stamford located approximately 6 miles to the southwest. The 83-acre park, owned by the City of Stamford, contains a diversity of habitats that is rare in the Stamford area. The park provides important habitat for migratory birds along the Connecticut coastal migratory flyway, resulting in an exceptional concentration of migratory landbirds during the spring and fall migrations. Due to its distance from the host Property, this IBA would not experience an adverse impact resulting from the proposed development of the Facility.

Supporting Migratory Bird Data

Beyond Audubon's IBAs, the following analysis and attached graphics also identify several additional avian resources and their proximities to the host Property. Although these data sources may not represent habitat indicative of important bird areas, they may indicate possible bird concentrations[2] or migratory pathways.

Critical Habitat

Connecticut Critical Habitats depict the classification and distribution of 25 rare and specialized wildlife habitats in the state. It represents a compilation of ecological information collected over many years by state agencies, conservation organizations and individuals. Critical habitats range in size from areas less than one acre to areas that are tens of acres in extent. The Connecticut Critical Habitats information can serve to highlight ecologically significant areas and to target areas of species diversity for land conservation and protection but may not necessarily be indicative of habitat for bird species. The nearest Critical Habitat to the proposed Facility is a eustuarine intertidal marsh area, denoted as the Canfield Island Marsh located approximately 4.25 miles to the southeast in East Norwalk along the shoreline of Long Island Sound. Based on the distance separating this resource from the proposed Facility, no adverse impacts are anticipated.

[1] http://web4.audubon.org/bird/iba/iba_intro.html

[2] "bird concentrations" is related to the USFWS *Interim Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers* (September 14, 2000) analysis provided at the end of this document

Avian Survey Routes and Points

Breeding Bird Survey Route

The North American Breeding Bird Survey is a cooperative effort between various agencies and volunteer groups to monitor the status and trends of North American bird populations. Routes are randomly located to sample habitats that are representative of an entire region. Each year during the height of the avian breeding season (June for most of the United States) participants skilled in avian identification collect bird population data along roadside survey routes. Each survey route is approximately 24.5 miles long and contains 50 stops located at 0.5-mile intervals. At each stop, a three-minute count is conducted. During each count, every bird seen or heard within a 0.25-mile radius is recorded. The resulting data is used by conservation managers, scientists, and the general public to estimate population trends and relative abundances and to assess bird conservation priorities. The nearest survey route to the host Property is the Greenwich Breeding Bird Survey Route (Route #18010) located approximately 2.8 miles to the north. This ±23-mile long bird survey route begins on North Street in Greenwich and generally winds its way northeast through Stamford and New Canaan before terminating in Wilton. Since bird survey routes represent randomly selected data collection areas, they do not necessarily represent important avian habitat or a potential restriction to development projects, including the proposed Facility.

Hawk Watch Site

The Hawk Migration Association of North America ("HMANA") is a membership-based organization committed to the conservation of raptors through the scientific study, enjoyment and appreciation of raptor migration. HMANA collects hawk count data from almost 200 affiliated raptor monitoring sites throughout the United States, Canada and Mexico, identified as "Hawk Watch Sites." In Connecticut, Hawk Watch Sites are typically situated on prominent hills and mountains that tend to concentrate migrating raptors and may be an indicator of secondary migratory routes that connect to the Atlantic Flyway. The nearest Hawk Watch Site, Larson Sanctuary, is located in Fairfield, approximately 9.8 miles to the east of the proposed Facility. Based on the distance separating this possible raptor migratory route from the proposed Facility, no adverse impacts are anticipated.

Bald Eagle Site

Bald Eagle Sites consist of locations of midwinter Bald Eagle counts from 1986 to 2005 with an update provided in 2008. This survey was initiated in 1979 by the National Wildlife Federation. This database includes information on statewide, regional and national trends. Survey routes are included in the database only if they were surveyed consistently over a period of at least four years and where at least four eagles were counted in a single year. The nearest Bald Eagle Site survey route (Survey Site No. 2) is located approximately 22 miles northeast of the host Property, beginning in Brookfield at the State Route 133 Bridge spanning the Housatonic River and extending south along the river to the Stevenson Dam in Monroe. Based on the distance separating this Bald Eagle Site from the proposed Facility, no adverse impacts are anticipated.

Flyways

The host Property is located in Fairfield County, approximately 5 miles north of Long Island Sound. The Connecticut coast lies within the Atlantic Flyway, one of four generally recognized regional primary migratory bird flyways (Mississippi, Central and Pacific being the others). This regional flyway is used by migratory birds travelling to and from summering and wintering grounds. The Atlantic Flyway is particularly important for many species of migratory waterfowl and shorebirds, and Connecticut's coast serves as vital stopover habitat. Migratory land birds also stop along coastal habitats before making their way inland. Smaller inland migratory flyways ("secondary flyways") are often concentrated along major riparian areas as birds use these valuable stopover habitats to rest and refuel as they make their way further inland to their preferred breeding habitats. The Connecticut Migratory Bird Stopover Habitat Project (Stokowski, 2002)[3] identified potential flyways along the Housatonic, Naugatuck, Thames, and Connecticut Rivers. This study paralleled a similar earlier study conducted by the Silvio O. Conte National Fish & Wildlife Refuge (Neotropical Migrant Bird Stopover Habitat Survey[4]), which consisted of collection of migratory bird data along the Connecticut River and the following major Connecticut River tributaries: Farmington, Hockanum, Scantic, Park, Mattabesset, Salmon, and Eight Mile Rivers. Of these potential flyways, the nearest to the host Property is the Housatonic River, located approximately 18 miles to the east. The Norwalk River riparian corridor is located approximately 1.5 miles east of the host Property. Although the Norwalk River is not identified as a potential flyway, it potentially forms a secondary flyway as birds move northward from Long Island Sound corridor during the spring migration. These major riparian corridors may provide secondary flyways as they likely offer more food and protection than more exposed upland sites, particularly during the spring migration[5].

Siting of tower structures within flyways can be a concern, particularly for tall towers and even more particularly for tall towers with guy wires and lighting. The majority of studies on bird mortality due to towers focuses on very tall towers (greater than 1000 feet), illuminated with non-flashing lights, and guyed. These types of towers, particularly if sited in major migratory pathways, do result in significant bird mortality (Manville, 2005)[6]. The proposed Facility is not this type of tower, being unlit, unguyed monopole structures only 140 feet in height and with no horizontal appurtenances. More recent studies of short communication towers (<300 feet) reveal that they rarely kill migratory birds[7]. Studies of mean flight altitude of migrating birds reveal flight altitudes of 410 meters (1350 feet), with flight altitudes on nights with bad weather between 200 and 300 meters above ground level (656 to 984 feet)[8].

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[3] Stokowski, J.T. 2002. Migratory Bird Stopover Habitat Project Finishes First Year. Connecticut Wildlife, November/December 2002. P.4.

[4] The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey http://www.science.smith.edu/stopoverbirds/index.html

[5] The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey. http://www.science.smith.edu/stopoverbirds/Chapter5_Conclusions&Recommendations.html

[6] Manville, A.M. II. 2005. Bird strikes and electrocutions at power lines, communications towers, and wind turbines: state of the art and state of the science - next steps toward mitigation. Bird Conservation Implementation in the Americas: Proceedings 3rd International Partners in Flight Conference 2002. C.J. Ralph and T.D. Rich, editors. USDA Forest Service General Technical Report PSW-GTR-191. Pacific Southwest Research Station, Albany CA. pp. 1-51-1064.

[7] Kerlinger, P. 2000. Avian Mortality at Communication Towers: A Review of Recent Literature, Research, and Methodology. Prepared for U.S. Fish and Wildlife Service Office of Migratory Bird Management.

[8] Mabee, T.J., B.A. Cooper, J.H. Plissner, D.P. Young. 2006. Nocturnal bird migration over an Appalachian ridge at a proposed wind power project. Wildlife Society Bulletin 34:682-690.

Based on the distances separating the host Property from the Housatonic and Norwalk River corridors and the design consideration (140–foot high, unlit and unguyed towers), no adverse impacts to migrating bird species are anticipated with the proposed development of the Facility,

Waterfowl Focus Areas

The Atlantic Coast Joint Venture ("ACJV") is an affiliation of federal, state, regional and local partners working together to address bird conservation planning along the Atlantic Flyway. The ACJV has identified waterfowl focus areas recognizing the most important habitats for waterfowl along the Atlantic Flyway. Connecticut contains several of these waterfowl focus areas. The nearest waterfowl focus area to the host Property is the Norwalk Islands area, located approximately one mile to the east. Please refer to the attached Connecticut Waterfowl Focus Areas Map. Based on the distance of these resources to the host Property, no direct impacts would occur from development of the proposed Facility.

CTDEEP Migratory Waterfowl Data

The CTDEEP created a Geographic Information System ("GIS") data layer in 1999 identifying concentration areas of migratory waterfowl at specific locations in Connecticut. The intent of this data layer is to assist in the identification of migratory waterfowl resource areas in the event of an oil spill or other condition that might be a threat to waterfowl species. This data layer identifies conditions at a particular point in time and has not been updated since 1999.

The nearest migratory waterfowl area (Norwalk River Harbor in South Norwalk) is located approximately 3.3 miles to the southeast of the proposed Facility. The associated species are identified as American black duck, American brant, bufflehead, goldeneye and mallard. Based on its distance to this resource, no impacts to migratory waterfowl habitat are anticipated to result from development of the proposed Facility.

CTDEEP Natural Diversity Data Base

CTDEEP's Natural Diversity Data Base ("NDDB") program performs hundreds of environmental reviews each year to determine the impact of proposed development projects on state listed species and to help landowners conserve the state's biodiversity. State agencies are required to ensure that any activity authorized, funded or performed by a state agency does not threaten the continued existence of endangered or threatened species. Maps have been developed to serve as a pre-screening tool to help applicants determine if there is a potential impact to state listed species.

The NDDB maps represent approximate locations of endangered, threatened and special concern species and significant natural communities in Connecticut. The locations of species and natural communities depicted on the maps are based on data collected over the years by CTDEEP staff, scientists, conservation groups, and landowners. In some cases an occurrence represents a location derived from literature, museum records and/or specimens. These data are compiled and maintained in the NDDB. The general locations of species and communities are symbolized as shaded areas on the maps. Exact locations have been masked to protect sensitive species from collection and disturbance and to protect landowner's rights whenever species occur on private property.

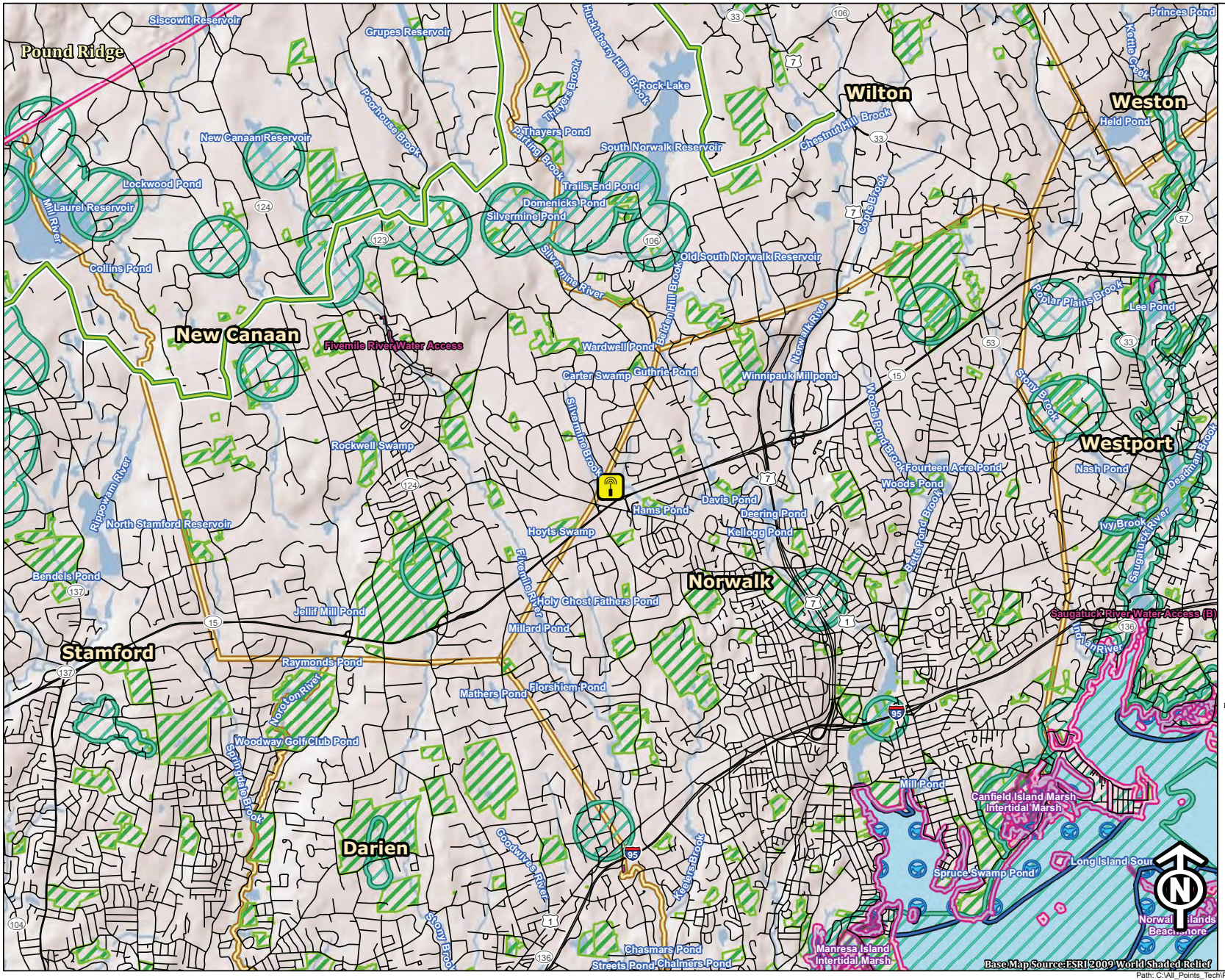
No shaded areas indicative of such species are located in close proximity to the host Property on the NDDB maps. According to a November 16, 2013 letter from the CTDEEP NDDB, "…the proposed activities will not impact any extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur in the vicinity of this property."

Summary and Conclusions

Based on the results of this desk-top evaluation, the proposed Facility would comply with the USFWS guidelines for minimizing the potential impacts to birds. The proposed Facility is not proximate to an Important Bird Area or other significant avian resource areas. As a result, no migratory bird species are anticipated to be impacted by AT&T's proposed development.

Figures

- Avian Resources Map
- Connecticut Waterfowl Focus Areas Map



Avian Resources Map

Proposed AT&T Wireless Communications Facility

284 New Canaan Avenue
Norwalk, Connecticut

Legend

- Proposed Tower Location
- Hawk Watch Site*
- Bald Eagle Watch Site*
- Important Bird Site*
- Bald Eagle Survey Route*
- Breeding Bird Survey Route
- Important Bird Area*
- Migratory Waterfowl (CT DEEP, 1999)
- Natural Diversity Database Area (CT DEEP, 6/2013)
- Critical Habitat (CT DEEP, 07/2009)
- Federal Property (CT DEEP, 2004)
- Municipal and Private Open Space (CT DEEP, 1997)

DEP Property (CT DEEP, 2010)*

- State Forest*
- State Park*
- State Park Scenic Reserve*
- State Park Trail*
- Natural Area Preserve*
- Wildlife Area*
- Wildlife Sanctuary*
- Historic Preserve*
- Flood Control*
- Fish Hatchery*
- DEP Owned Waterbody*
- Water Access
- Other*
- Waterbody
- Town Boundary
- State Boundary
- Road

*None within mapped extents

Last Updated Thursday, November 21, 2013

Avian Source Information:
Bald Eagle Sites: Midwinter Bald Eagle Count Survey website
http://ocid.nacse.org/nbii/eagles/state.php?php_screen=first&stateIn=Connecticut
Hawk Watch Sites: Hawk Migration Association of North America (HMANA), Hawk Count website:
http://hawkcount.org/sitesel.php?country=USA&stateprov=Connecticut
Migratory Waterfowl: CTDEP GIS, 1999
Important Bird Sites/Areas: National Audubon Society, Audbon Connecticut
http://ct.audubon.org/BirdSci_IBAs.html
Breeding Bird Survey Routes: Patuxent Wildlife Research Center of the U.S. Geological Survey and the Canadian Wildlife Service's National Wildlife Research Centre
http://www.nationalatlas.gov/mld/bbsrtsl.html

1 inch equals 4,167 feet

0 0.25 0.5 1 Miles

ALL-POINTS TECHNOLOGY CORPORATION

at&t

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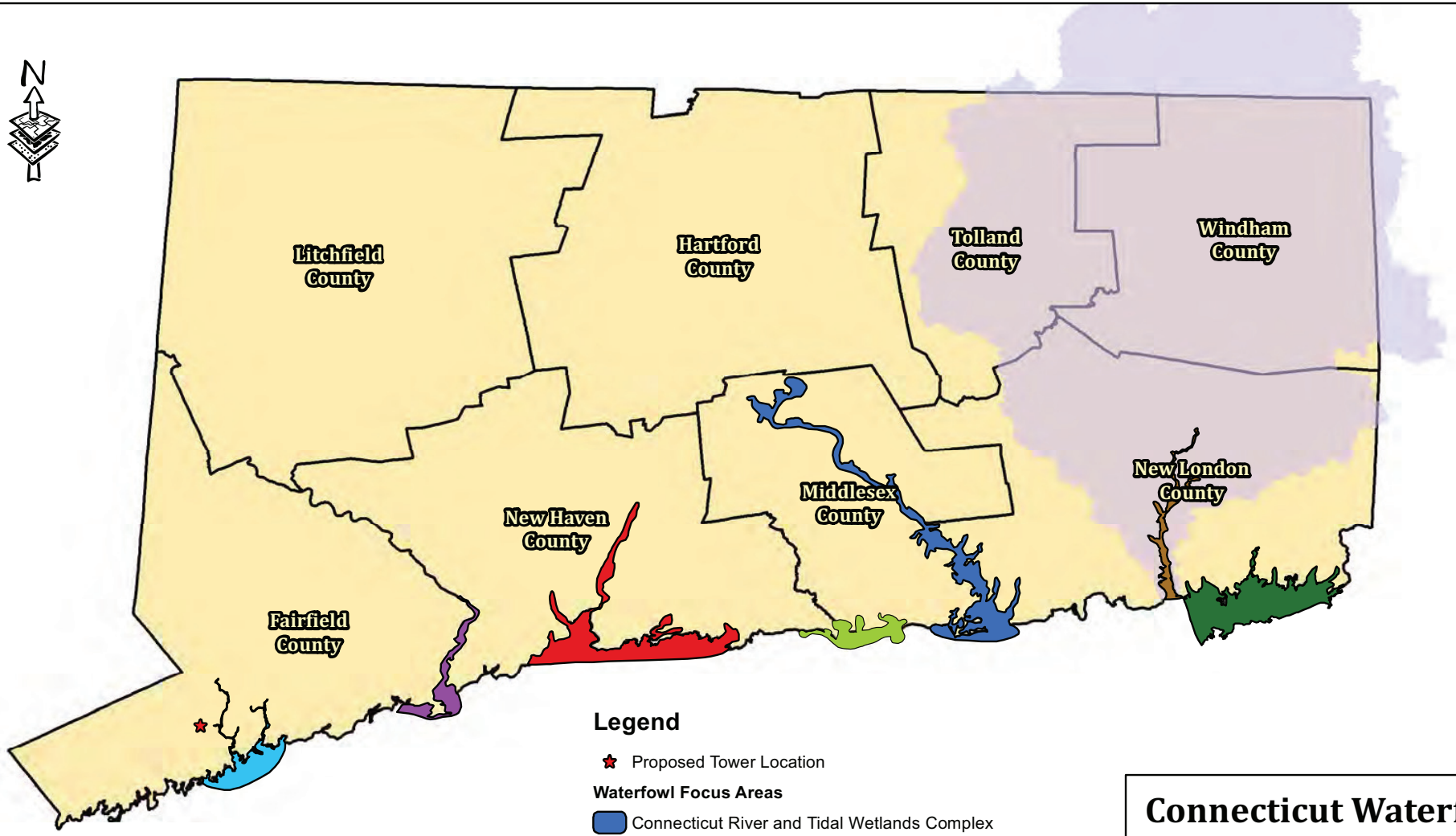


Connecticut Waterfowl Focus Areas Map

Proposed AT&T Wireless Communications Facility

284 New Canaan Avenue
Norwalk, Connecticut

ALL-POINTS TECHNOLOGY CORPORATION

at&t

Note: Distance from Propsoed Tower Location to Norwalk Islands Waterfowl Focus Area = +/- 5,000-feet

Waterforwl Focus Areas Developed by the Atlantic Coast Joint Venture Partnership

Path: C:\All_Points_Tech\Projects\Client\AT&T\Norwalk_Armory\GIS\Maps\ACJV_FocusArea_Map.mxd

ATTACHMENT 2

External Low Noise Blower

Model ELNB30-36 & ELNB42-60

General Description

ELNB30

The External Low Noise Blower (ELNB) kit consists of a field installed condenser air hood, controls, and compressor blanket that can reduce the sound levels of selected Marvair™ ComPac™ air conditioners. The ELNB kit is built in two sizes for use on Marvair air conditioners, models AVP30-60. The kit consists of a painted sheet metal hood that attaches at the front of the unit over the condensor coil. Inside the hood are slow speed, large diameter blowers and motors. These blowers and motors replace the original factory installed propeller fan. The speed of the blower motors is varied through a controller that senses refrigerant pressure. As outdoor temperatures decrease, the blowers slow down reducing the sound of the air movement. The interior of the hood is lined with acoustical insulation to further reduce sound levels.

The use of a compressor jacket dampens the sound of the compressor. Because the jacket is compressor specific, it must be ordered separately. A transformer upgrade is required for 460V units.

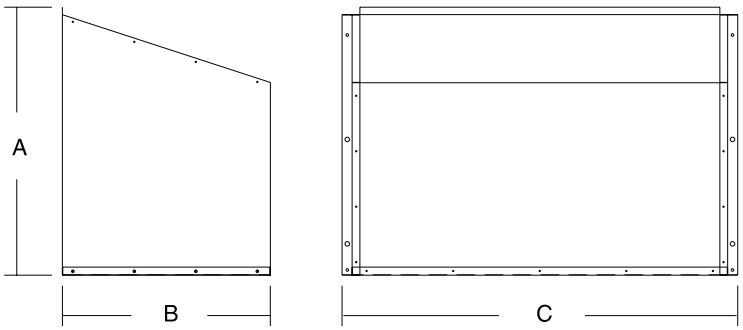
Features and Benefits

- G60 galvanized steel with a polyester color finish that matches Marvair beige.
- Designed to attach to existing units eliminating the need for buying additional air conditioners.
- Sound level reductions of up to 6 dbA.

Dimensional Data – ELNB30-60

MODEL	A	B	C
30/36	25-5/8″ (65cm)	19-7/8″ (50cm)	37-7/8″ (96cm)
42/60	29″ (74cm)	22-1/2″ (57cm)	40-5/8″ (103cm)

NOTE: Dimensional tolerance ± 1/16″



LEFT VIEW FRONT VIEW

Detailed dimensional data available upon request. As part of the Marvair™ continuous improvement program, specifications are subject to change without notice.

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Email: marvair@airxcel.com • Internet: www.marvair.com

ELNB PD 6/02-2
supersedes2/01-1