HAMILTON PLANNING BOARD
APPLICATION FOR SPECIAL PERMIT

SPECIAL PERMIT APPLIED FOR:

___Cell Tower and Tower Antenna Facility Special Permit (Section VI.20.)
___Open Space and Farmland Preservation Development (Section V.A.12.)
___Senior Housing Special Permit (Section V.E.)
___Common Driveway Special Permit (Section VI.12.c.)
✔ Other (explain) Small Wireless Facility (Section 7.3 of Bylaw)

Check the appropriate category above, and outline basis for request for Special Permit:-

AT&T seeks approval to install a small wireless facility on a replacement utility pole in the public right of way near 18 Walnut Road (Pole # 943-84) consisting of a 24' canister antenna attached to the top and equipment on the side of pole.

Name of Applicant New Cingular Wireless PCS, LLC d/b/a AT&T Telephone Number 401.481.6574
(if acting as Agent, attach authorization signed by Owner)

492 Old Connecticut Path, Suite 210, Framingham, MA 01701
Address City State Zip Code

Name of Owner National Grid Telephone Number (508) 930-0531

40 Sylvan Road, Waltham, MA 02451
Address City State Zip Code

Name of Engineer/Representative Brown Rudnick, LLP Edward Pare Telephone Number 401.481.6574

One Financial Center, Boston, MA 02111
Address City State Zip Code

Location of Proposed Project

In public right of way near 18 Walnut Road Pole #943-84 N/A
Street Address Assessors Map & Lot #

N/A Near R-1A | N/A | N/A
Zoning District | Soils Classification | Overlay Districts

N/A
Registry of Deeds Book Page Plan Book Page

Special Permit recorded Book N/A Page ____ Date Recorded ____

Title of Plan/Submittal AT&T Site ID: CRAN_RCTB_00073_665

HAMILTON PLANNING BOARD
APPLICATION FOR SPECIAL PERMIT
Page Two

Date of Plan 12/11/24 Number of Plan Sheets 4

If a curbcut approval is required, have you obtained approval for curbcut(s) from the State Department of Public Works? N/A If so, please attach copy of approval.

List any other approvals or variances received, applied for, or required from other Town or State departments, boards, or agencies:

DEPARTMENT/AGENCY	APPROVAL REQUIRED	DATE RECEIVED
N/A		

I have read the Town of Hamilton Rules and Regulations Governing Special Permits, and agree to the terms and conditions specified. I am herewith applying for a Special Permit.

Signature of Owner _____ Date SEE LOA

Signature of Applicant _____ Date 2/24/25

Date Adopted: September 25, 2001
Amended: September 27, 2005
Amended: _____ ___, 2009

Edward D. Pare, Jr., Esq.
direct dial: 617.856.8551
epare@brownrudnick.com

January 6, 2025

Town of Hamilton
Planning Board
c/o Mark Connors
Planning Director
Patton Homestead
650 Asbury Street
Hamilton, MA 01982

Re: Application of New Cingular Wireless PCS, LLC d/b/a AT&T ("AT&T") for a Special Permit to Install a Small Wireless Facility to Replacement Pole # 943-84 (the "Pole") in the Public Right-of-Way Near 18 Walnut Road, South Hamilton, MA 01982 (the "Site") (CRAN_RCTB_00073_665) Pursuant to Section 7.3 of the Town of Hamilton Zoning Bylaws (the "Bylaws")

Dear Honorable Members of the Town of Hamilton Planning Board:

On behalf of AT&T, while reserving all rights, we are pleased to submit this correspondence to the Town of Hamilton Planning Board (the "Board") in support of AT&T's Special Permit application (the "Application") for a small cell wireless facility on a replacement utility pole within the public right-of-way near the Site. AT&T is licensed by the Federal Communications Commission (the "FCC") to provide wireless communications services in the Town of Hamilton and throughout the Commonwealth of Massachusetts. The following narrative provides background information regarding the small cell wireless facility and addresses each applicable section of the Bylaws.

BACKGROUND

The Site is located within the public right-of-way. AT&T proposes to effectively use an existing utility pole. National Grid owns the utility pole and requires a replacement pole as part of its make-ready work. AT&T will install a mounting bracket and one (1) small cell top-mounted wireless antenna to a total height of 37' AGL, together with related wires, conduit, fiber and other associated antenna equipment located on the Pole (the "Facility"), all as depicted on the plans submitted with the Application (the "Plans"). The Facility has no ground equipment. An equipment cabinet 48" long by 24" wide by 20" deep (13.33 cubic feet in volume) will be mounted on the Pole at approximately 11'6" AGL with a disconnect switch and electrical meter at approximately 8' AGL The antenna measures 24" in length with a 16" diameter (2.34 cubic feet in volume). A grounding rods will be installed in the ground at the base of the Pole. National Grid provided the attached letter of authorization to AT&T allowing AT&T to submit this Application. AT&T has a master license agreement with National Grid, which will provide electrical power to the Pole in order to operate the Facility.

The Application is filed pursuant to Section 7.3 of the Bylaws, the federal Telecommunications Act of 1996 (the "TCA"), the Declaratory Ruling and Third Report and Order 18-133 (the "Order") issued and adopted by the FCC in September 2018 https://docs.fcc.gov/public/attachments/FCC-18-133A1_Rcd.pdf and Massachusetts General Laws Chapter 166, Sections 21, 22 and 25A for telecommunication wires and wireless attachments and appurtenances attached to utility poles in the public right-of-way.

AT&T operates a nationwide wireless communications system that offers enhanced features such as caller ID, voice mail, e-mail, superior call clarity, and high-speed data services. AT&T is in the process of building out a national network as required and authorized by license issued by the FCC, including the FirstNet network for our first responders. AT&T's existing macro cell sites are not providing adequate coverage and capacity in this area of the Town of Hamilton. This Facility will provide coverage and allow for increased data capacity and speed within the immediate vicinity of the Site and will help offload traffic on AT&T's macro sites, allowing better coverage and speed to those areas as well. The use of these low power, low impact small cell facilities on existing infrastructure in the public rights-of-way minimizes the visual impact of wireless facilities on the Town of Hamilton while providing critical wireless coverage and capacity. The Facility will aid in reaching AT&T's goal of providing reliable wireless communications services in and around the Town of Hamilton and to all of Massachusetts.

A reliable communications system depends on a grid of antennas arranged in a geographical pattern, similar to a honeycomb. Each "cell" is created by an antenna and serves as a link between the customer and the network, while that customer is within proximity to the cell site. Each cell can handle a finite number of connections. As the number of customers increase, more cell sites must be added to handle the increased volume. If the additional offload of network traffic is not accomplished, calls and connections are dropped or blocked or the speed for the user is slower.

AT&T submits that the Site is well suited for the Facility and that the Facility satisfies the intent and purposes of the Bylaws, Massachusetts law, the TCA and the Order. As will be demonstrated through the Application materials and the evidence presented at the public hearing(s) in connection with the Application, the Facility meets with all applicable requirements of the Bylaws, Massachusetts law, the TCA and the Order. The Facility will not adversely impact adjacent properties and neighborhoods as the Facility will be located on a replacement wood utility Pole, thereby not introducing a new visual element for the necessary infrastructure to support the Facility. The location of the Facility will protect, to the extent practicable, the aesthetic qualities of the Town of Hamilton by effectively utilizing an existing utility pole that is especially suited for the proposed use and which minimizes impacts to the interests protected by the Bylaws. The installation of the Facility will not be a threat to public health, safety, and welfare. In fact, AT&T submits that the Facility will aid in public safety by continuing to provide and improve wireless communications services to the residents, businesses, commuters, and emergency personnel utilizing wireless communications in the immediate vicinity and along the

nearby roads. These services further the public interest of health and safety as they will maintain and enhance wireless 911 services to the community and communication services for the public. According to published reports, approximately eighty percent (80%) of calls received by the 911 centers nationwide are made annually from mobile devices in the United States. Today, wireless infrastructure is required to assist with public safety needs.

This Facility also aligns with the objectives of FirstNet's mission to create a nationwide broadband network for America's public safety first responders. AT&T's network provides dedicated and preemptive services on its network for first responders. 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 have relied 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 provides a solution to the decades-long interoperability and communications challenges first responders have experienced. These issues were highlighted in the 9/11 Commission's Final Report. Using a combination of new and existing wireless facilities, AT&T provides prioritized, preemptive wireless services for first responders across Massachusetts and nationwide. FirstNet requires a highly reliable network that offers priority to first responders with a trusted and resilient network.

The Facility will function as a wireless communications facility within a local, regional, and national communications system. This system operates under license from the FCC and AT&T is mandated and authorized to provide adequate communication services throughout the Town of Hamilton. The Facility will not generate any objectionable noise, odor, fumes, glare, smoke, or dust or require additional lighting or signage. The Facility will have no negative impact on property values in the area. No significant increase in traffic or hindrance to pedestrian movements will result from the Facility. This is an unmanned facility and will have minimal negative effect on the adjoining lots. This Facility does not require police or fire protection because the installation is monitored at AT&T's state-of-the-art Network Operation Center, twenty-four hours a day, 365 days a year which can detect malfunction and/or tampering. The Facility will comply with all required codes and regulations, including all applicable requirements of the FCC with respect to radio frequency emissions. As evidenced in the emissions report submitted as part of the Application, the worst-case level of emissions will be only 7.9% of the maximum limit allowed by the FCC. The small cell facility will be installed using standard, commercially accepted methods in accordance with all applicable federal, state and local laws, regulations and orders.

AT&T proposes this low-power small wireless facility in the Town of Hamilton in order to deal with the rapidly increasing demands on AT&T's wireless network. This small wireless facility will work in conjunction with the existing macro sites installed on rooftops, towers and other structures in and around the Town of Hamilton.

AT&T's radio frequency engineers targeted the proposed location due to the high traffic and data demands on AT&T's network in the area near the Site. Please see the enclosed

coverage maps submitted as part of the Application. AT&T's existing macro cell sites are not providing adequate data capacity in these areas due to population, network usage, vehicular and foot traffic, multiple wireless devices used by customers and other contributing factors. This small wireless facility will also work to offload the demands on AT&T's macro sites and allow for increased data capacity and speed within the immediate vicinity of those macro sites.

COMPLIANCE WITH THE HAMILTON ZONING BYLAWS

While reserving all rights under state and federal law, AT&T acknowledges the provisions of Section 7.3 of the Bylaws and to demonstrate compliance, hereby responds to the specific provisions of the Bylaws, including the Cover Sheet.

7.3 SMALL WIRELESS FACILITIES: A BYLAW RELATIVE TO SMALL WIRELESS FACILITIES IN PUBLIC RIGHTS-OF-WAY, PRIVATE RIGHTS OF WAY, PUBLIC PROPERTY AND PRIVATE PROPERTY

7.3.1 Purpose and Intent. The Town finds that it is necessary and beneficial for the health, safety, and welfare of the community to regulate the development of small wireless facilities (SWF) while accommodating the communication needs of residents and businesses. SWF's shall be so designed and installed so as to minimize adverse visual effects through careful design and siting with an intent to preserve property values and the aesthetic character of Hamilton. To that end, this Bylaw section seeks to maximize the use of existing towers, poles, and buildings to accommodate new SWF. This section applies to the placement and operation of small wireless facilities within the public rights-of-way, private rights of way, public and private property without regard to the type or owner of any structure to which they are affixed or attached. The requirements of this section 7.3 are in addition to all other applicable federal, state, and local laws.

AT&T has designed the small wireless facility to minimize any adverse visual effects. AT&T's Facility effectively uses an existing utility pole which National Grid will replace as part of its make-ready work to support the Facility. The Facility will not adversely impact adjacent properties and neighborhoods as the Facility will be located on a replacement wood utility Pole in approximately the same location, thereby not introducing a new visual element for the necessary infrastructure to support the Facility. The Pole is not directly in front of a residence and is screened to a great extent. The location of the Facility will protect, to the extent practicable, the aesthetic qualities of the Town of Hamilton by effectively utilizing an existing utility pole that is especially suited for the proposed use and which minimizes impacts to the interests protected by the Bylaws. The installation of the Facility will not be a threat to public health, safety, and welfare. In fact, AT&T submits that the Facility will aid in public safety by continuing to provide and improve wireless communications services to the residents, businesses, commuters, and emergency personnel utilizing wireless communications in the immediate vicinity and along the nearby roads. The Facility will not generate any objectionable noise, odor, fumes, glare, smoke, or dust or require additional lighting or signage. The Facility

will have no negative impact on property values in the area. No significant increase in traffic or hindrance to pedestrian movements will result from the Facility. This is an unmanned facility and will have minimal negative effect on the adjoining lots. This Facility does not require police or fire protection because the installation is monitored at AT&T's state-of-the-art Network Operation Center, twenty-four hours a day, 365 days a year which can detect malfunction and/or tampering. The Facility will comply with all required codes and regulations, including all applicable requirements of the FCC with respect to radio frequency emissions. As evidenced in the emissions report submitted as part of the Application, the worst-case level of emissions will be only 7.9% of the maximum limit allowed by the FCC. The small cell facility will be installed using standard, commercially accepted methods in accordance with all applicable federal, state and local laws, regulations and orders.

7.3.1(a) Definitions

No response by AT&T required.

7.3.1(b) Development Standards

1. Only small wireless facilities are permitted to be installed within a State or Town right-of-way on new or existing utility poles or wireless support structures. All small wireless facilities eligible for a Special Permit under this section shall not exceed the size dimensions of the small wireless facility definitions and shall be designed as concealed facilities and shall be subject to applicable development standards and procedures as required by local, state and federal laws.

The Pole is located in the public right-of-way and satisfies the FCC definitions of a small cell facility under the Order (see the Plans).

2. New utility poles or wireless support structures shall be designed to match the design parameters established by the SPGA by regulation or in the absence of such design guidance, match the size, girth and design of any existing utility poles or other vertical structures located in the surrounding area.

The existing utility pole will be replaced by National Grid as part of its make-ready work for the Facility. The new Pole will be slightly taller 34' than the existing utility pole 25'8".

3. The applicant shall include with its application sufficient evidence, consistent with industry standards, to justify its requested placement.

Please see the Plans, Coverage Maps, Emissions Report and Site Selection Analysis/Pole Feasibility Assessment submitted with the Application.

4. Small wireless facilities must be placed in a right-of-way with residential or commercial uses on the opposite side of the right-of-way from such uses whenever possible.

All small wireless facilities shall be located in such a way that they do not interfere with views from residential structures.

AT&T's Facility effectively uses an existing utility pole which requires replacement by National Grid. The Facility will not adversely impact adjacent properties and neighborhoods as the Facility will be located on a replacement wood utility Pole in approximately the same location, thereby not introducing a new visual element for the necessary infrastructure to support the Facility. The Pole is not directly in front of a residence and is screened to a great extent. The location of the Facility will protect, to the extent practicable, the aesthetic qualities of the Town of Hamilton by effectively utilizing an existing utility pole that is especially suited for the proposed use and which minimizes impacts to the interests protected by the Bylaws.

5. All small wireless facilities shall be located so as to minimize adverse visual effects on the landscape.

AT&T's Facility effectively uses an existing utility pole which requires replacement by National Grid. The Facility will not adversely impact adjacent properties and neighborhoods as the Facility will be located on a replacement wood utility Pole in approximately the same location, thereby not introducing a new visual element for the necessary infrastructure to support the Facility. The Pole is not directly in front of a residence and is screened to a great extent. The location of the Facility will protect, to the extent practicable, the aesthetic qualities of the Town of Hamilton by effectively utilizing an existing utility pole that is especially suited for the proposed use and which minimizes impacts to the interests protected by the Bylaws.

6. All small wireless facilities either independently sited or mounted on or to existing buildings and structures shall be camouflaged.

AT&T is effectively using an existing utility pole. AT&T will work cooperatively with the Board to determine the best color of the Facility, understanding the utility poles will fade over time. AT&T generally recommends a light gray color but brown and black are also available.

7. When a small wireless facility extends above the roof height of a building on which it is mounted every effort shall be made to conceal every component within or behind existing architectural features to limit its visibility from public view.

AT&T's Facility will be attached to a replacement utility pole, not on the roof of a building. The cannister antenna is only 24" in length and AT&T will work cooperatively with the Board on the best color for the antenna and equipment cabinet.

8. All small wireless facility components mounted on a roof shall be stepped back from the front façade in order to limit its impact on the building silhouette and the public view.

AT&T's Facility will be attached to a replacement utility pole, not on the roof of a building.

9. The Planning Board shall determine if sufficient area exists immediate to the proposed small wireless facility so that landscape improvements would be aesthetically beneficial it shall request a landscape plan from the applicant. Said plan will seek to screen or buffer the public view of the proposed small wireless facility.

The Facility does not include any ground equipment.

10. Any small wireless facility shall be painted so as to visually blend into nearby vegetation or a light gray or light blue hue that blends with sky and clouds.

AT&T will work cooperatively with the Board to determine the best color of the Facility, understanding the utility poles will fade over time. AT&T generally recommends a light gray color but brown and black are also available.

11. The Planning Board may adopt other and further objective aesthetic and location criteria applicable to all applications submitted under this Section 7.3.

To the extent not preempted by the TCA or the Order, no response is required from AT&T.

7.3.1(c) Contents of Application and Application Process

1. Each application must include the following:

a. The application fee.

The $500 application fee is submitted with this Application.

b. A completed application cover sheet on the form available from the Hamilton Planning Department.

The completed application cover sheet will be submitted upon receipt of the form.

c. Applicant's name, address, telephone number and email address.

New Cingular Wireless PCS, LLC (d/b/a "AT&T"), 550 Cochituate Road, Suites 13 & 14, Framingham, MA 01701; 508-596-9245; RD1090@att.com (Rich Detch)

d. Names, addresses, telephone numbers, and email addresses of anyone acting on behalf of the Applicant with respect to the application.

Vincent Paquette, 750 West Center Street, Suite 301, West Bridgewater, MA 02379; 617-905-8575; vpaquette@clinellc.com

Edward D. Pare, Jr., Brown Rudnick LLP, One Financial Center, Boston, MA 02111; 401.481.6574; epare@brownrudnick.com

e. Detailed construction drawings and descriptions of the equipment to be installed, whether mounted on poles or on the ground, or otherwise, including:

i. Type of equipment
Please see the attached Plans submitted with this Application and narrative above for details.

ii. Specifications of equipment (including but not limited to dimensions and weight)
Please see the attached Plans submitted with this Application and narrative above for details.

iii. Equipment mount type and material
Please see the attached Plans submitted with this Application for details.

iv. Power source or sources for equipment, including necessary wires, cables, and conduit
Please see the attached Plans submitted with this Application for details. AT&T anticipates electrical power and fiber to be brought to the Pole overhead which is to be coordinated with the utility providers if the Facility is approved.

v. Expected life of equipment
The expected life of the proposed equipment is estimated at approximately 15-20 years.

vi. Coverage area of equipment, including:
Please see the Coverage Maps submitted with this Application.

1. Amount of antennas
One (1) canister antenna as depicted on the enclosed Plans.
2. Antenna model
Galtronics Model GQ24180-B6941 (or equal).
3. Antenna length
Antenna length is 24".
4. RRU count and power
Two (2) RRUs operating on standard electrical power.
5. Antenna height

The top height of the antenna is approximately 37' above ground level; please see the Plans submitted with the Application for details.

6. **Typical coverage area radius**
Coverage varies depending on terrain, obstructions and usage but generally ¼ to 1/3 of a mile radius. Also, please see enclosed coverage plots prepared by AT&T.

vii. Call capacity of equipment, including:

1. **Total RRUs**
One (1) 4490 RRU and one (1) 4890 RRU for a total of two (2) RRUs.
2. **Max bandwidth per RRU**
The 4490 RRU is capable of three (3) 20 MHz channels with a theoretical throughput of 600 megabits per second (Mbps). The 4890 RRU is capable of one (1) 20 MHz channel with theoretical throughput of 390 Mbps.
3. **MIMO per RRU**
The 4490 RRU is 2x2 MIMO and the 4890 RRU is 4x4 MIMO.
4. **Backhaul rate per RRU**
10 gigabits per second.

viii. Hardening, including:
No hardening is proposed.

1. **If there is battery backup**
No battery backup is proposed.

2. **If there is generator backup**
No generator backup is proposed.

3. **If there are multiple fiber paths to switch**
AT&T will likely maintain more than one fiber path to its network switch.

ix. Rendering and elevation of equipment
Please see enclosed Plans and Photosimulations.

f. Detailed map with locations of the poles or other facility on which equipment is to be located, including specific pole identification number, if applicable, and the areas it will service.
Please see the Plans submitted with this Application.

g. Detailed map showing existing and proposed small cell installations within 500 feet of the application site.
AT&T has no existing or proposed small cell installations within 500 feet of the Site.

h. Certification by a registered professional engineer that the pole/or location will safely support the proposed equipment.
Please see the Structural Analysis Report submitted with this Application.

i. Written consent of the pole or facility owner to the installation.
Please see the Letter of Authorization from National Grid. AT&T has a master license agreement with National Grid to use their infrastructure in the public rights-of-way.

j. Affidavit from a Radio Frequency Engineer outlining the network/network service requirements in Hamilton and how the installations address that need. Such affidavit should characterize the current level of coverage and how the desired installations will change the current level of coverage, through or with coverage maps, including current and proposed coverage, including a breakdown of "excellent" "good and "poor" reception areas.
Please see the Report of Radio Frequency Engineer and associated Coverage Maps Submitted with this Application.

k. Insurance certificate.
If the Facility is approved, AT&T will provide the required insurance certificate.

l. Description as to why the desired location is superior to other similar locations, from a community perspective, including:

i. Visual aspects

ii. Proximity to single family residences.

Please see the Site Selection Analysis/Pole Feasibility Assessment submitted with this Application. This is the only suitable utility pole in the area which will address AT&T coverage and capacity needs.

m. Description of efforts to co-locate the equipment on existing structures, poles, or towers which currently exist or are under construction. A good faith effort to co-locate is required and evidence of such efforts must be included within the application.

AT&T is using an existing utility pole in the public right-of-way.

n. An affidavit from the applicant which certifies that it will maintain the installations in good repair and according to FCC standards and will remove any installation not in such good repair, or not in use, within 60 days of being no longer in good repair or no longer in use.

Please see enclosed commitment signed by AT&T.

2. No applications will be accepted by email. Applications delivered other than by hand will be deemed filed when they are received by the Planning Department.

AT&T acknowledges this provision of this section of the Bylaws.

3. All submitted drawings require a wet stamp or wet signature from the design professional.

Please see the attached Plans submitted with this Application.

4. The applicant must pay for legal notices of the Public Hearing to local newspapers and abutters, as applicable. The applicant is responsible for submitting the abutters list for each location with the application.

AT&T acknowledges this provision of this section of the Bylaws and has requested the certified abutters list from the Hamilton Assessors Office.

5. Twelve (12) hard copies of the application and 1 (one) electronic copy of the application must be submitted to the Planning Department.

AT&T acknowledges this provision of this section of the Bylaws.

6. Upon receipt, the Planning Director shall:

No response from AT&T is necessary.

7. The Planning Department shall circulate a copy of the application to the following departments for comment and review: Building; DPW; Health; and any other department the Planning Director, in his, or her, sole discretion, determines.

No response from AT&T is necessary.

8. Written comments from the departments shall be submitted to the Planning Department within 20 days of circulation of the application.

No response from AT&T is necessary.

9. Once the application is deemed complete, and all comments have been received, the Planning Board will schedule and hold a Public Hearing to consider the application.

No response from AT&T is necessary.

10. Any material changes to an application, as determined by the SPGA in its sole discretion, shall constitute a new application for the purposes of the time standards. Where a changed or new application is submitted, the prior application shall be deemed withdrawn.

No response from AT&T is necessary.

7.3.1(d) Approval Process

No response from AT&T is necessary.

7.3.1(e) Application Submittal Requirements. Applicants for small wireless facilities shall submit all information and material as detailed within this Bylaw as part of a Special Permit Application.

AT&T acknowledges this provision of this section of the Bylaws and has submitted all information and materials detailed in the Bylaws to the extent possible.

7.3.1(f) Small Wireless Facilities in the Historic District.

AT&T's Facility is not located in the Historic District.

7.3.1(g) Interference with Public Safety Communications.

AT&T's Facility will comply with all applicable requirement so of the FCC and will not cause interference with frequency used by the Town, Commonwealth or any other public safety agency as noted in the Report of Radio Frequency Engineer. In the event any interference is caused by the Facility, AT&T will resolve such interference in accordance with applicable FCC rules and regulations. AT&T utilizes 700, 850, 1900, 2100, 2300 and 3800 MHz and 39 GHz frequencies. As noted above, the proposed Facility is monitored at AT&T's state-of-the-art Network Operations Center, twenty-four hours a day, 365 days a year and information for contacting AT&T's Network Operation Center will be at the Site and will be provided to the Town of Hamilton, including the Fire Chief.

7.3.1(h) Application Fees; Supplemental Review. An application for small wireless facilities shall be accompanied by the following fees payable to the Town:

The fee of $500 for the Application was submitted with this Application in accordance with the Bylaw and the Order. In light of the Order, AT&T respectfully asserts that a fee for a third-party review is not required in this instance.

7.3.1(i) Rates for Small Wireless Facilities within the Right-of-Way. An applicant who places a small wireless facility on a Town utility pole or any other structure within a right-

of-way or upon any Town property in accordance with this section shall (a) execute a license agreement with the Town and (b) pay to the Town an annual recurring rate of $270.00 per year per facility, or any such higher rate permitted under FCC rules or federal law and as set forth in the license agreement, for the use of such utility pole, right-of-way, or structure.

AT&T acknowledges this provision of this section of the Bylaws.

7.3.1(j) Required Permit Provisions. Each permit issued by the Planning Board and each license agreement for small wireless facilities shall be made upon the condition that the applicant agrees to the following conditions:

1. Indemnification. To the fullest extent allowed by law, both the wireless infrastructure provider and wireless services provider (for this paragraph, collectively referred to as "provider") constructing, installing, operating, repairing, maintaining and using a small wireless facility shall indemnify, defend and hold harmless the city, and its officials, agents, and employees from and against all suits, actions or claims of any character brought because of any injury or damage received or sustained by any person, persons or property arising out of, or resulting from, said provider's breach of any provision of law, or any asserted negligent act, error or omission of the provider, or its agents or employees, arising from or relating to its small wireless facility. The indemnifications required hereunder shall not be limited by reason of the specification of any particular insurance coverage for any permit. The provider's obligations under this provision shall not terminate with the expiration or termination of its permit but shall survive it.

2. Dispute Resolution. A court of competent jurisdiction located in Essex County; Massachusetts shall have exclusive jurisdiction to resolve all disputes arising under this section applying the laws of the Commonwealth of Massachusetts. Pending resolution of a dispute concerning rates for collocation of small wireless facilities on municipal utility poles within the right-of-way or upon Town property, the Town shall allow the collocating party to collocate on its poles at annual rates of no more than $270.00 per year per facility, with rates to be determined upon final resolution of the dispute.

To the extent not preempted by federal or Massachusetts state law, AT&T acknowledges this provision of this section of the Bylaws.

7.3.1(k) Exceptions to Applicability. Nothing in this section authorizes a party to locate small wireless facilities on: property owned by a private party, property that is not located within the rights-of-way, or a privately owned utility pole or wireless support structure within a right-of-way without the consent of the property owner;

1. property owned, leased, or controlled by any department or agency of the Town used for public park, recreation or conservation purposes without the consent of the affected department or agency, excluding the placement of facilities on rights-of-way located in an affected department or agency's property; or

2. property owned by a rail carrier registered under federal law, MBTA Commuter Rail or any other public commuter rail service, or a utility, without the consent of the rail carrier, public commuter rail service, or utility. For the purposes of this subsection, "utility" has the meaning given to that term in M.G.L. c. 166, § 25A. Nothing in this section shall be construed to relieve any person from any requirement (a) to obtain a franchise or a commonwealth-issued authorization to offer cable service or video service or (b) to obtain any required permission to install, place, maintain, or operate communications facilities, other than small wireless facilities subject to this section.

AT&T acknowledges this provision of this section of the Bylaws.

7.3.1(j) Duration of Special Permit.

(a) Special Permits issued under this Section 7.3 expire within one (1) year of issuance unless the Planning Board issues a certificate of renewal of the Special Permit. The certificate shall be issued after the equipment owner submits an affidavit which shall list, by location, all SWFs it owns within the Town of Hamilton and shall certify:

(1) each such installation remains in use;

(2) each such installation remains covered by insurance; and

(3) each such installation remains unchanged in dimension and RF frequency from the year before.

(b) The equipment owner shall pay an annual re-certification fee of $100 per facility for each facility that remains in use.

(c) Any SWF that is abandoned shall be removed by the owner within sixty (60) days of abandonment at owner's expense. Failure to do so will cause the Planning Board to refuse to issue a certificate of renewal to the equipment owner.

To the extent not preempted by federal law, AT&T acknowledges this provision of this section of the Bylaws.

THE TELECOMMUNICATIONS ACT OF 1996

Without the installation, AT&T would be unable to provide specifically established coverage and capacity objectives. The Site is located within the limited geographic area whereby AT&T's radio frequency engineers determined that a wireless facility is required. The TCA imposes substantial restrictions affecting the standard for granting the requested relief. The TCA provides that: no laws or actions by any local government or planning or zoning board may prohibit, or have the effect of prohibiting, the placement, construction, or modification of communications towers, antennas, or other wireless facilities in any particular geographic area, see 47 U.S.C. §332(c)(7)(B)(i)(II); local government or planning or zoning boards may not unreasonably discriminate among providers of functionally equivalent services, see 47 U.S.C. §332(c)(7)(B)(i)(I); health concerns may not be considered so long as the emissions comply with the applicable standards of the FCC, see 47 U.S.C. §332(c)(7)(B)(iv); and, decisions must be rendered within a reasonable period of time, see 47 U.S.C. §332(c)(7)(B)(ii) and the Order

commonly referred to as the applicable "shot clocks". In this instance, the shot clock is arguably ninety (90) days from the date of the filing of the Application.

We also note that the Order redefined "effective prohibition" to mean that state and local governments cannot impose requirements that materially limit or inhibit a provider's ability to engage in activities related to the provision of service. This standard applies to efforts to introduce new or enhance coverage, capacity or service capabilities and notes that regulations that cause a financial burden or competitive disparity can be an effective prohibition. Additionally, these services mean any covered service a provider wishes to provide incorporating the abilities and performance characteristics it wishes to employ, such as providing services more robustly or at a higher level of quality by filling coverage gaps, improving network densification or other improvements.

CONCLUSION

As evidenced by the materials submitted with the Application and as will be further demonstrated by AT&T through evidence submitted to the Board at the public hearing(s) in connection herewith, in light of the TCA, Massachusetts law and the Order, the Facility satisfies the intent and objectives of the Bylaws. AT&T respectfully requests that the Board grant all necessary relief to install, operate and maintain the Facility. For the foregoing reasons, as well as to satisfy the mandate of the Federal Government to facilitate competition in the telecommunications industry as set forth in the TCA, AT&T respectfully requests that the Board grant the foregoing Special Permit.

We respectfully submit that the standards for relief as set forth in the Bylaws as well as Massachusetts law relating to zoning must be interpreted and applied such that the decision issued by the Board is in conformance with the TCA and the Order. Accordingly, a denial of the foregoing petition would effectively prohibit AT&T from providing adequate service to the Town of Hamilton and thus would be contrary to the purpose and intent of the TCA.

We respectfully assert that AT&T's proposed Facility is reasonable and reasonably complies with the requirements of the Town of Hamilton and the Bylaws in light of the TCA, Massachusetts law and the Order. AT&T is willing to work cooperatively with the Town of Hamilton with respect to the deployment of its small wireless facilities and we look forward to presenting the Application to the Board.

If you have any questions, please do not hesitate to contact me.

Sincerely,

BROWN RUDNICK LLP

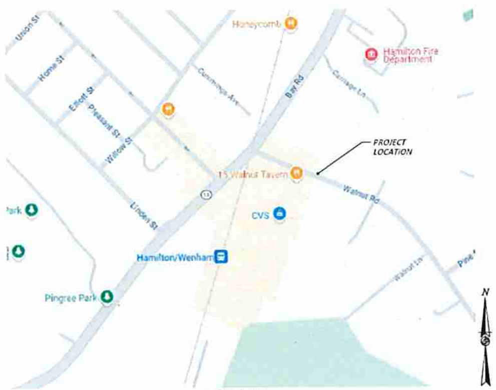
/s/Edward D. Pare, Jr.
Edward D. Pare, Jr., Esq.

ATTACHMENTS

Cover Sheet – Will be Submitted Upon Receipt
Plans
FCC Licenses
Letter of Authorization from National Grid
Photo Simulations
Site Selection Analysis/Pole Feasibility Assessment
Emissions Report Demonstrating Compliance
Report of Radio Frequency Engineer
Coverage Maps
Structural Analysis Report
Maintenance and Removal Commitment

AT&T

AT&T SITE ID: CRAN_RCTB_00073_665
18 WALNUT ROAD
SOUTH HAMILTON, MA 01982



VICINITY MAP
NOT TO SCALE

PROJECT INFORMATION

AT&T SITE ID:	CRAN_RCTB_00073_665
SITE ADDRESS:	18 WALNUT ROAD SOUTH HAMILTON, MA 01982
LATITUDE:	42.610444
LONGITUDE:	-70.872798
COUNTY:	ESSEX
FAID#:	16278664
USID#:	330492
PTN:	2101A19EQJ, 2101A1FWJ5, 2101A1GN4W
IWM JOB#:	WSCTB0026332, WSCTB0026334, WSCTB0029503
STRUCTURE TYPE:	UTILITY POLE
POLE OWNER:	NATIONAL GRID

DESCRIPTION OF WORK:

1. INSTALLATION OF ANTENNA AND ASSOCIATED EQUIPMENT ON A REPLACEMENT UTILITY POLE.
2. THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT SITE AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF IMPROVING CELLULAR AND WIRELESS INTERNET SERVICE.
3. AT&T MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

SCOPE OF WORK:

PROPOSED
(1) CQ2418-B5941 ANTENNA
(1) 4490 RRU
(1) 4890 RRU
(1) ERICSSON 48" SHROUD
(1) PSU 6308
(1) PTS90121-6E AC DISTRIBUTION PANEL
(1) METER

PROJECT DIRECTORY

A&E / PROJECT MANAGER:
CENTERLINE COMMUNICATIONS
750 WEST CENTER ST. SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE 781.713.4725

APPLICANT:
AT&T MOBILITY CORP.
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSE OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DRAWING INDEX

NO.	DESCRIPTION	REV.	DATE
T-1	TITLE SHEET	0	12/11/24
C-1	PLOT PLAN	0	12/11/24
A-1	ELEVATION & KEY PLAN	0	12/11/24
A-2	EQUIPMENT DETAILS	0	12/11/24

AT&T
AT&T MOBILITY CORP.
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

CENTERLINE
ENGINEERING SERVICES, PA
750 W CENTER ST. SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS

NO.	DATE	DESCRIPTION
0	12/11/24	S&S FOR PERMITTING

DESIGNED BY:	APPROVED BY:
TG	DC

COMMONWEALTH OF MASSACHUSETTS
DEREK J.
CREASER
CIVIL
No. 49195
REGISTERED
PROFESSIONAL ENGINEER

811 DigSafe MA-ME-NH-RI-VT

CLUSTER & NODE #:	TBD
AT&T SITE ID:	CRAN_RCTB_00073_665
SITE ADDRESS:	18 WALNUT ROAD SOUTH HAMILTON, MA 01982 ESSEX COUNTY
PROJECT TYPE:	UTILITY POLE
SHEET TITLE:	TITLE SHEET
DRAWING #: T-1	REVISION: 0

NOTE:

SITE PLAN IS NOT THE RESULT OF A SURVEY. IT IS BASED ON SCALED ASSESSORS MAPS AVAILABLE ONLINE, ALL INFORMATION SHOWN IS APPROXIMATE ONLY AND IS SUBJECT TO ANY CONDITION THAT A SURVEY MAY REVEAL

IMMEDIATE ADJOINING PROPERTY OWNER INFORMATION

PARCEL	OWNER	PHYSICAL ADDRESS	MAILING ADDRESS
1762	KASSABIAN STEPHANIE LEE	18 WALNUT RD SOUTH HAMILTON, MA 01982	18 WALNUT RD SOUTH HAMILTON, MA 01982
1763	DWYER SHAUN W, ONDINE M TE	24 WALNUT RD SOUTH HAMILTON, MA 01982	24 WALNUT RD SOUTH HAMILTON, MA 01982
2745	HAMILTON/WENHAM LLC C/O SSG COMMERCIAL LLC	15 WALNUT RD SOUTH HAMILTON, MA 01982	204 N HOWARD AVE TAMPA, FL 33606

PLOT PLAN

SCALE: 1"=50' (22"X34")
1"=150' (11"X17")

GRAPHIC SCALE

50 0 25 50 100 200
(IN FEET)

AT&T MOBILITY CORP.
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

CENTERLINE ENGINEERING SERVICES, PA
753 W CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS		
0	12/11/24	S&S FOR PERMITTING
NO.	DATE	DESCRIPTION

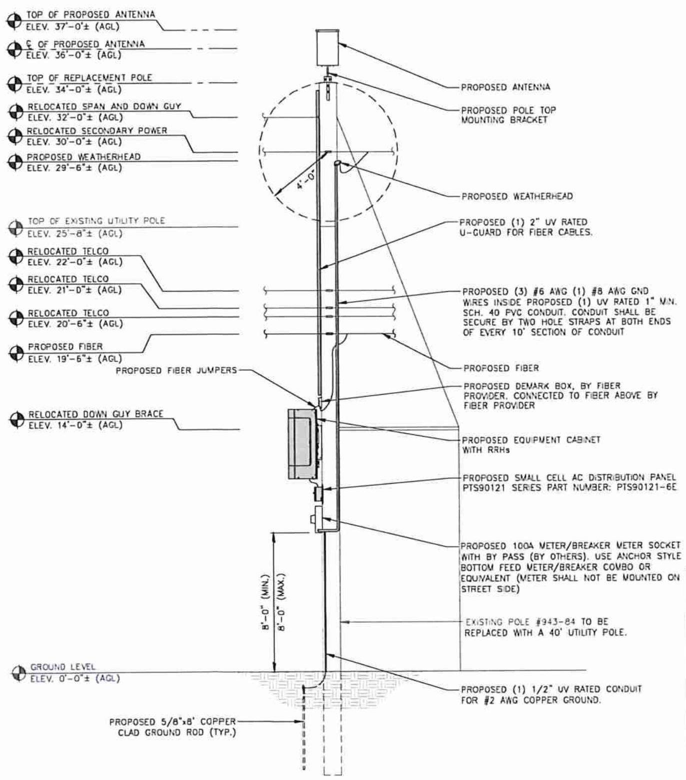
DESIGNED BY:	APPROVED BY:
TG	DC

COMMONWEALTH OF MASSACHUSETTS
DEREK J. CREASER
CIVIL
12/13/24
REGISTERED PROFESSIONAL ENGINEER

811 DigSafe
MA ME NH RI VT

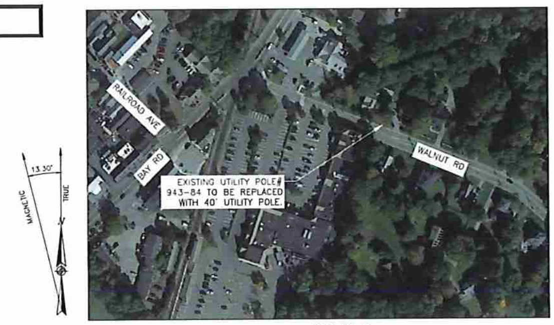
CLUSTER & NODE #:	TBD
AT&T SITE ID:	CRAN_RCTB_00073_665
SITE ADDRESS:	18 WALNUT ROAD SOUTH HAMILTON, MA 01982 ESSEX COUNTY
PROJECT TYPE:	UTILITY POLE
SHEET TITLE:	PLOT PLAN
DRAWING #:	C-1
REVISION:	0

APPROXIMATE COORDINATES:	LAT: 42.610444° N LONG: -70.872798° W

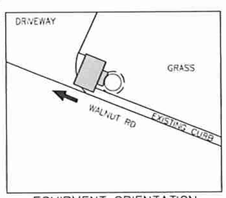


SOUTH ELEVATION
SCALE: 3/8" = 1'-0" (22"X34")
3/16" = 1'-0" (11"X17")

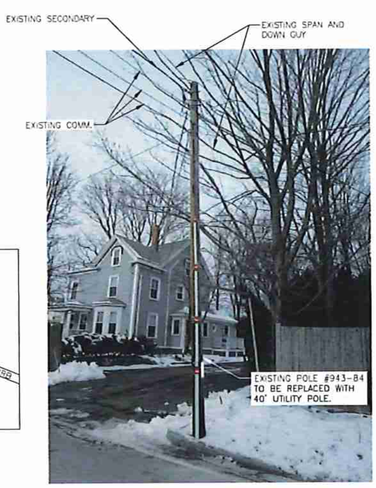
GRAPHIC SCALE (IN FEET)



KEY PLAN
N.T.S.



EQUIPMENT ORIENTATION
N.T.S.



EXISTING PHOTO
N.T.S.

AT&T
AT&T MOBILITY CORP.
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

CENTERLINE ENGINEERING SERVICES, PA
750 W CENTER ST. SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS

NO.	DATE	DESCRIPTION
0	12/11/24	S&S FOR PERMITTING

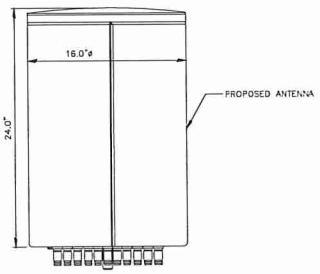
DESIGNED BY:	APPROVED BY:
TG	DC

COMMONWEALTH OF MASSACHUSETTS
DEREK J. CREASER
CIVIL
No. 49195
REGISTERED PROFESSIONAL ENGINEER

CLUSTER & NODE #:	TBD
AT&T SITE ID:	CRAN_RCTB_00073_665
SITE ADDRESS:	18 WALNUT ROAD SOUTH HAMILTON, MA 01982 ESSEX COUNTY
PROJECT TYPE:	UTILITY POLE
SHEET TITLE:	ELEVATION & KEY PLAN
DRAWING #: A-1	REVISION: 0

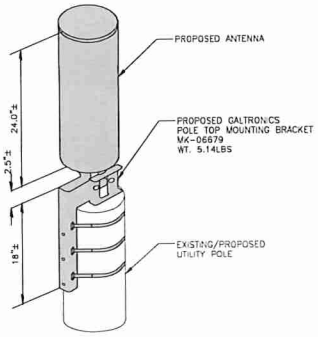
ANTENNA CHART					
MFG	MODEL	H	D	WEIGHT	VOLUME
GALTRONICS	CQ2418-B6941 (OR EQUAL)	24.0"	16.0"	25.6 LBS.	2.34CU. FT.

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.



ANTENNA DETAIL
N.T.S.

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.



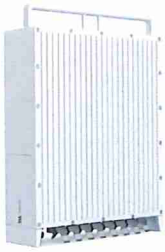
ANTENNA MOUNT DETAIL
N.T.S.

RRU CHART					
QUANTITY	MODEL	L	W	D	WEIGHT
1(P)	4490	17.5"	15.1"	6.8"	68 LBS.
1(P)	4890	17.5"	15.2"	6.9"	68 LBS.

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

RRH DETAIL
N.T.S.

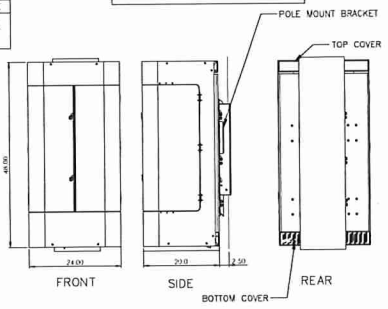
POWER SUPPLY UNIT							
QUANTITY	MFG	MODEL	H	W	D	WEIGHT	VOLUME
1 (P)	ERICSSON	6308	15.2"	13.5"	4.3"	33 LBS.	.69 CU. FT.



POWER SUPPLY UNIT DETAIL
N.T.S.

EQUIPMENT CABINET						
MFG	MODEL	H	W	D	WEIGHT	VOLUME
ERICSSON	BFL901770	48.0"	24.0"	20.0"	100 LBS.	13.33 CU. FT.

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.



EQUIPMENT CABINET DETAIL
N.T.S.

AC DISTRIBUTION PANEL					
MFG	MODEL	H	W	D	WEIGHT
PTS	PTS90121-6E	10.2"	6.1"	5.3"	7 LBS.

DISTRIBUTION PANEL DETAIL
N.T.S.

METER SOCKET						
MFG	MODEL	H	W	D	WEIGHT	VOLUME
MILBANK	U2272-RL-5T9-BL	18.5"	10.0"	4.8"	16.25 LBS.	.51 CU. FT.

METER SOCKET DETAIL
N.T.S.

AT&T
AT&T MOBILITY CORP.
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

CENTERLINE
ENGINEERING SERVICES, PA
750 W CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS		
0	12/11/24	SAS FOR PERMITTING
NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
TG	DC

COMMONWEALTH OF MASSACHUSETTS
DEREK J. CREASER
CIVIL
No. 49165
REGISTERED PROFESSIONAL ENGINEER

811 DigSafe MA ME NH RI VT

CLUSTER & NODE #:	TBD
AT&T SITE ID:	CRAN_RCTB_00073_665
SITE ADDRESS:	18 WALNUT ROAD SOUTH HAMILTON, MA 01982 ESSEX COUNTY
PROJECT TYPE:	UTILITY POLE
SHEET TITLE:	EQUIPMENT DETAILS
DRAWING #:	A-2
REVISION:	0

ULS License

700 MHz Lower Band (Blocks A, B & E) License - WQIZ616 - New Cingular Wireless PCS, LLC

Call Sign	WQIZ616	Radio Service	WY - 700 MHz Lower Band (Blocks A, B & E)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	BEA003 - Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH-RI-VT	Channel Block	E
Submarket	0	Associated Frequencies (MHz)	000722.00000000-000728.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	02/09/2021	Expiration	03/07/2031
Effective	01/23/2024	Cancellation	

Buildout Deadlines

1st	03/07/2017	2nd	03/07/2021

Discontinuance Dates

1st		2nd	

Notification Dates

1st	03/16/2017	2nd	06/17/2020

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN	0003291192	Type	Limited Liability Company

Licensee

New Cingular Wireless PCS, LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory Compliance

P:(855)699-7073
E:FCCMW@att.com

Contact

AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRC

P:(855)699-7073
E:FCCMW@att.com

Ownership and Qualifications

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier, Non-Common Carrier	Interconnected	No

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

ULS License

700 MHz Lower Band (Blocks A, B & E) License - WQJU427 - AT&T Mobility Spectrum, LLC

PA This license has pending applications: 0010538588

Call Sign	WQJU427	Radio Service	WY - 700 MHz Lower Band (Blocks A, B & E)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	CMA006 - Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH	Channel Block	B
Submarket	0	Associated Frequencies (MHz)	000704.00000000-000710.00000000 000734.00000000-000740.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	07/24/2019	Expiration	06/13/2029
Effective	01/24/2024	Cancellation	

Buildout Deadlines

1st	12/13/2016	2nd	06/13/2019

Discontinuance Dates

1st		2nd	

Notification Dates

1st	10/30/2012	2nd	10/30/2012

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN 0014980726 Type Limited Liability Company

Licensee

AT&T Mobility Spectrum, LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory Compliance

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRC

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Ownership and Qualifications

Radio Service Type Mobile

Regulatory Status Common Carrier Interconnected Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity Gender

ULS License

700 MHz Lower Band (Blocks C, D) License - WPWU950 - AT&T Mobility Spectrum, LLC

This license has pending applications: 0010538588

Call Sign	WPWU950	Radio Service	WZ - 700 MHz Lower Band (Blocks C, D)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	CMA006 - Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH	Channel Block	C
Submarket	0	Associated Frequencies (MHz)	000710.00000000-000716.00000000 000740.00000000-000746.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	07/23/2019	Expiration	06/13/2029
Effective	01/24/2024	Cancellation	

Buildout Deadlines

1st	06/13/2019	2nd	

Discontinuance Dates

1st		2nd	

Notification Dates

1st	04/06/2018	2nd	04/06/2018

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN 0014980726 Type Limited Liability Company

Licensee

AT&T Mobility Spectrum, LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory Compliance

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRC

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Ownership and Qualifications

Radio Service Type	Fixed, Mobile, Radio Location		
Regulatory Status	Common Carrier, Non-Common Carrier, Private Comm	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity Gender

ULS License

700 MHz Lower Band (Blocks C, D) License - WPZA235 - New Cingular Wireless PCS, LLC

Call Sign	WPZA235	Radio Service	WZ - 700 MHz Lower Band (Blocks C, D)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	EAG701 - Northeast	Channel Block	D
Submarket	0	Associated Frequencies (MHz)	000716.00000000-000722.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	11/05/2019	Expiration	06/13/2029
Effective	01/23/2024	Cancellation	

Buildout Deadlines

1st	06/13/2019	2nd	

Discontinuance Dates

1st		2nd	

Notification Dates

1st	06/10/2019	2nd	06/10/2019

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN	0003291192	Type	Limited Liability Company

Licensee

New Cingular Wireless PCS, LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory Compliance

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRC

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Ownership and Qualifications

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier, Non-Common Carrier	Interconnected	No

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

ULS License

AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz) License - WQVN675 - AT&T Wireless Services 3 LLC

Call Sign	WQVN675	Radio Service	AT - AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	BEA003 - Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH-RI-VT	Channel Block	J
Submarket	0	Associated Frequencies (MHz)	001770.00000000-001780.00000000 002170.00000000-002180.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	04/08/2015	Expiration	04/08/2027
Effective	01/19/2024	Cancellation	

Buildout Deadlines

1st	04/08/2021	2nd	04/08/2027

Discontinuance Dates

1st	2nd

Notification Dates

1st	12/08/2020	2nd	

ECIP Information

ECIP Flag

Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN	0023910920	Type	Limited Liability Company

Licensee

AT&T Wireless Services 3 LLC
208 S. Akard Street, 20F
Dallas, TX 75202
ATTN National Regulatory Compliance

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Services, Inc.
Jessica J Dunk
208 S. Akard Street, 20F
Dallas, TX 75202
ATTN NRC

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier, Non-Common Carrier	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

ULS License

PCS Broadband License - KNLF216 - New Cingular Wireless PCS, LLC

Call Sign	KNLF216	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	MTA008 - Boston-Providence	Channel Block	A
Submarket	27	Associated Frequencies (MHz)	001850.00000000-001865.00000000 001930.00000000-001945.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	06/02/2015	Expiration	06/23/2025
Effective	01/24/2024	Cancellation	

Buildout Deadlines

1st	06/23/2000	2nd	06/23/2005

Discontinuance Dates

1st		2nd	

Notification Dates

1st	06/28/2000	2nd	03/08/2005

ECIP Information

ECIP Flag			
Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN	0003291192	Type	Limited Liability Company

Licensee

New Cingular Wireless PCS, LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory Compliance

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRC

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

ULS License

PCS Broadband License - KNLF954 - AT&T Mobility Spectrum, LLC

Call Sign	KNLF954	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	BTA051 - Boston, MA	Channel Block	D
Submarket	0	Associated Frequencies (MHz)	001865.00000000-001870.00000000 001945.00000000-001950.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	06/29/2017	Expiration	06/27/2027
Effective	01/24/2024	Cancellation	

Buildout Deadlines

1st	06/27/2002	2nd	

Discontinuance Dates

1st		2nd	

Notification Dates

1st	04/01/1999	2nd	

ECIP Information

ECIP Flag			
Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	

ECIP Dates

5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date

Licensee

FRN	0014980726	Type	Limited Liability Company

Licensee

AT&T Mobility Spectrum, LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory Compliance

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRC

P:(855)699-7073
F:(214)746-6410
E:FCCMW@ATT.COM

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

nationalgrid
40 Sylvan Road
Waltham MA 02451

November 11, 2024

Attention: State and Municipal Permitting Authorities

RE: Evidence of Pole Attachment Agreement and Consent to File for Permits Granted to AT&T Wireless

To Whom It May Concern:

The undersigned jointly owns and controls certain utility poles in public rights-of-way throughout the geographic areas where it operates.

Please be advised that the undersigned has entered into a Pole Attachment Agreement ("Agreement") authorizing AT&T Wireless ("Applicant") to install, attach, maintain, repair, upgrade and use wireless communications equipment and appurtenances on certain utility poles pursuant to the terms and conditions of the Agreement. Permission is hereby granted to Applicant, or its agents, to make application for any Land Use, Access, Building, Electrical or Regulatory Permit(s) required to effectuate the initial installation, on-going maintenance and upgrades or replacements of said equipment for the locations below.

Site Name	Pole	Lat	Long	Address
CRAN_RCTB_00073_665	943-84	42.6104440	-70.8727980	18 Walnut Rd

Please contact me at (508) 930-0531 if you have any questions.

Sincerely,

Keith Amelin
Lead Account Program Manager
Third Party Attachments

Existing Conditions

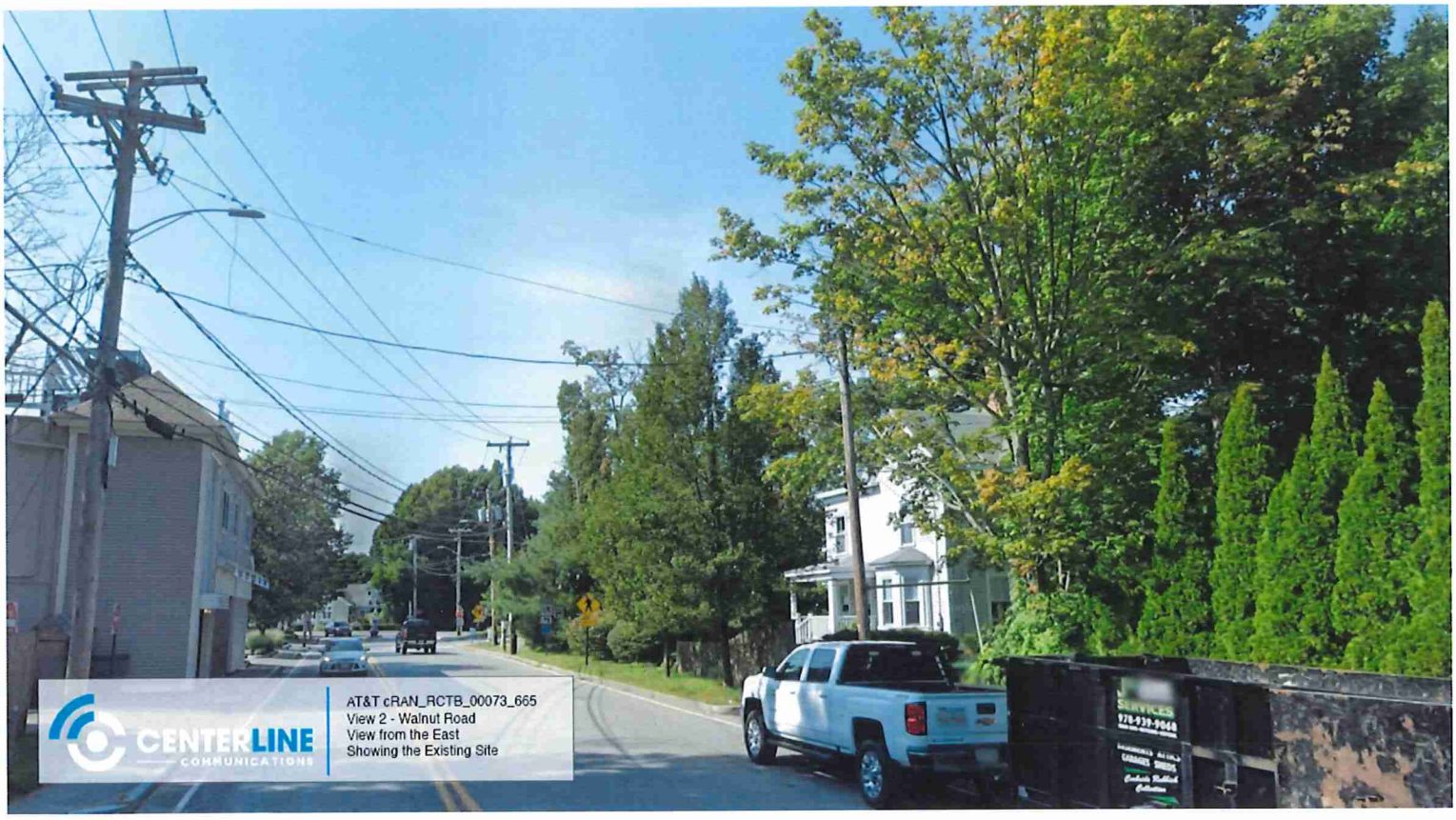
Location 1

Proposed Conditions

Location 1

Existing Conditions

Location 2



Proposed Conditions

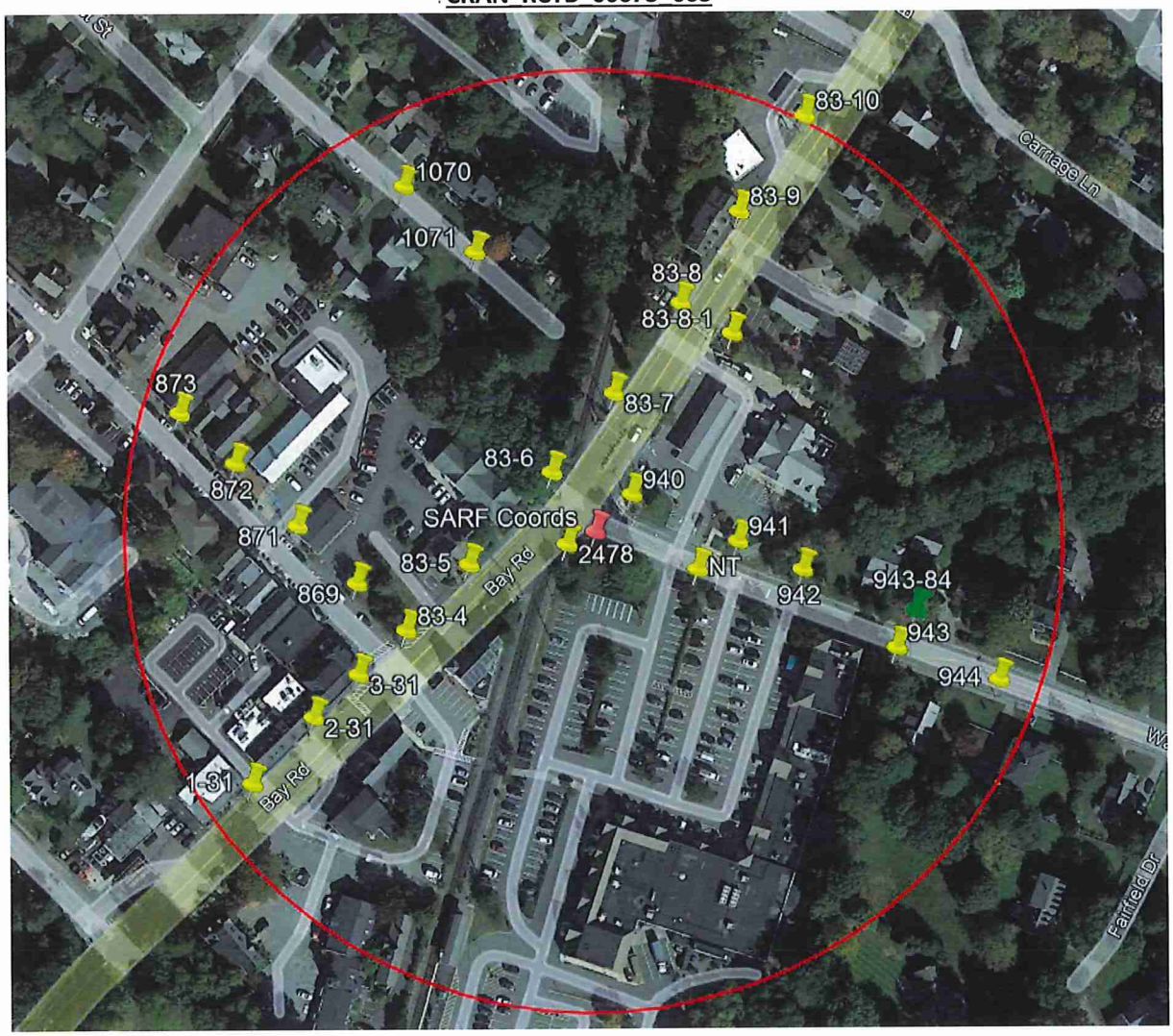
Location 2

AT&T Small Cell Facility

Near 18 Walnut Road, South Hamilton, MA

Site Selection Analysis/Pole Feasibility Assessment

CRAN_RCTB_00073_665



The image above shows a 500' radius from the issued Search Area Request Form ("SARF") coordinates with all existing utility poles.

Pole 943- Near 84 Walnut Road - this is AT&T's proposed location.

Pole 1-31 – The pole owner does not allow the use due to an existing riser on the pole.

Pole 2-31 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 3-31 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 873 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 872 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 871 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 869 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 83-4 – The pole owner does not allow the use because the pole is a junction pole.

Pole 83-5 – The pole owner does not allow the use due to existing major electrical equipment on the pole.

Pole 2478 – Using this pole would provide less coverage to address the capacity needs and objectives as the proposed pole will provide.

Pole 83-6 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 940 – The pole owner does not allow the use because the pole is a junction pole.

Pole NT – Using this pole would provide less coverage to address the capacity needs and objectives as the proposed pole will provide.

Pole 941 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 942 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 943 – The pole owner does not allow the use because the pole is a junction pole.

Pole 944 – The pole owner does not allow the use due to existing major electrical equipment on the pole.

Pole 83-7 – The pole owner does not allow the use because the pole is a junction pole.

Pole 83-8-1 – The pole owner does not allow the use due to existing major electrical equipment on the pole.

Pole 83-8 – The pole owner does not allow the use because the pole is a junction pole.

Pole 83-9 – The pole owner does not allow the use due to an existing riser on the pole.

Pole 83-10 – The pole owner does not allow the use due to an existing transformer on the pole.

Pole 1071 – Using this pole would provide less coverage to address the capacity needs and objectives as the proposed pole will provide.

Pole 1070 – Using this pole would provide less coverage to address the capacity needs and objectives as the proposed pole will provide.

DONALD L. HAES, JR., CHP

Radiation Safety Specialist

PO Box 198, Hampstead, NH 03841 617-680-6262 Email: donald_haes_chp@comcast.net

October 31, 2024

RE: Installation of an AT&T Mobility omnidirectional cannister antenna and associated equipment, comprising a "Small Cell" (SC) PWS facility, to be mounted on a replacement utility pole in South Hamilton, MA.

PURPOSE

I have reviewed the information pertinent to the proposed installation. To determine regulatory compliance, theoretical calculations of maximal radio-frequency (RF) fields have been prepared for the proposed site. The physical conditions are that AT&T Mobility proposes to install an antenna along with remote radio head units on a replacement utility pole in South Hamilton, MA (See Figure 2 map for location).

This report considers the contributions of the proposed AT&T Mobility PWS transmitters operating at their proposed FCC licensed capacities. The calculated values of RF fields are presented as a percent of current Maximum Permissible Exposures (%MPE) as adopted by the Federal Communications Commission (FCC),[i,ii] and those established by the Massachusetts Department of Public Health (MDPH).[iii]

SUMMARY

Theoretical RF field calculations data indicate the summation of the proposed AT&T Mobility PWS contributions at the proposed Small Cell facility in South Hamilton, MA, would be within the established RF exposure guidelines; see Figure 4. This includes all publicly accessible areas, and the surrounding neighborhood in general. The results support compliance with the pertinent sections of the Massachusetts Department of Public Health regulations regarding PWS facilities, and the FCC's guidelines for RF exposure.

Based on the results of the theoretical RF fields I have calculated; it is my expert opinion that the proposed Small Cell facility would comply with all regulatory guidelines for RF exposure with the proposed AT&T Mobility antenna and transmitter installations.

Note: The analyses, conclusions and professional opinions are based upon the precise parameters and conditions of this particular site; **AT&T SC PWS facility mounted on a replacement utility pole in South Hamilton, MA**. Utilization of these analyses, conclusions, and professional opinions for any personal wireless services installation, existing or proposed, other than the aforementioned has not been sanctioned by the author, and therefore should not be accepted as evidence of regulatory compliance.

EXPOSURE LIMITS AND GUIDELINES

RF exposure guidelines enforced by the FCC were established by the Institute of Electrical and Electronics Engineers (IEEE)[iv] and the National Council on Radiation Protection and Measurement (NCRP).[v] The RF exposure guidelines are listed for RF workers and members of the public. The applicable FCC RF exposure guidelines for the public are listed in Table 1 and depicted in Figure 1. All listed values are intended to be averaged over any contiguous 30-minute period. NOTE: The values for the public assume 24 hours/day exposure, seven days a week. Also note the values for "workers" are five times the values for members of the public, albeit averaged over six minutes.

Table 1: Maximum Permissible Exposure (MPE) Values in Public Areas

Frequency Bands	Electric Fields	Magnetic Fields	Equivalent Power Density
0.3 – 1.34 MHz	614 (V/m)	1.63 (A/m)	(100) mW/cm^2
1.34 - 30 MHz	824/f (V/m)	2.19/f (A/m)	(100) mW/cm^2
30 - 300 MHz	27.5 (V/m)	0.073 (A/m)	0.2 mW/cm^2
300 - 1500 MHz	--	--	f/ 1500 mW/cm^2
1500 - 100,000 MHz	--	--	1.0 mW/cm^2

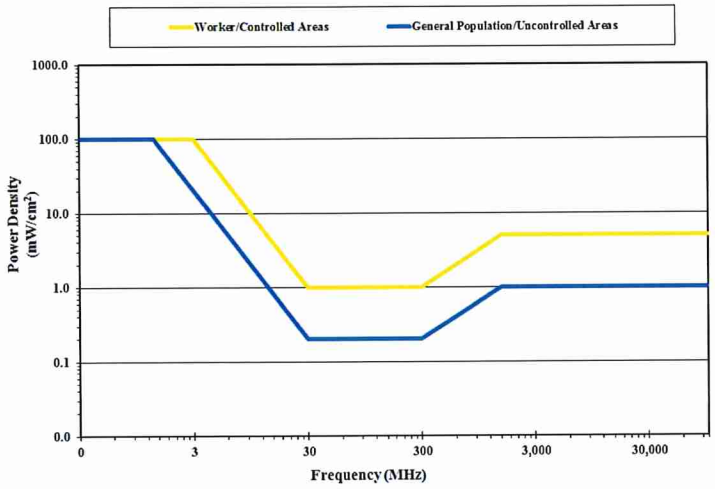


Figure 1: FCC Limits for Maximum Permissible Exposure (MPE)

NOTE: FCC "5% Rule" – When the exposure limits are exceeded in an accessible area due to the emissions from multiple fixed RF sources, actions necessary to bring the area into compliance are the shared responsibility of all licensees whose RF sources produce, at the area in question, levels that exceed 5% of the applicable exposure limit proportional to power. [vi]

ANTENNA INSTALLATION LOCATION

The location of the proposed utility pole (to be replaced) which would host an AT&T Mobility SC PWS facility is shown below in Figure 2. See Figure 3a for a picture of the proposed utility pole to be replaced.

Figure 2: Location of Proposed Utility Pole (to be replaced) and Host An AT&T Mobility SC PWS facility within South Hamilton, MA
(Picture courtesy Google Earth©2024 and may not represent current conditions)

OBSERVATIONS IN CONSIDERATION WITH FCC RULES §1.1307(B) & §1.1310

Will it be physically possible to stand next to or touch any omnidirectional antenna and/or stand in front of a directional antenna?
NO; access to the utility poles is restricted, and the sites will adhere to established RF safety guidelines regarding the transmitting antennas, including the appropriate signage.

PROPOSED SITE TOPOGRAPHICAL CONDITIONS

A topographical mapping tool was used to exam the elevation profiles in the North to South and East to West azimuths at the utility pole location (See Figures 3b and 3c, respectively). Any deviation in height along the azimuth from the ground elevation was factored mathematically into any calculations involving height above ground.

Figure 3a: Proposed Utility Pole to be Replaced in South Hamilton, MA
AT&T Site CRAN_RCTB_00073_665
(Picture courtesy Google Earth©2024 and may not represent current conditions)

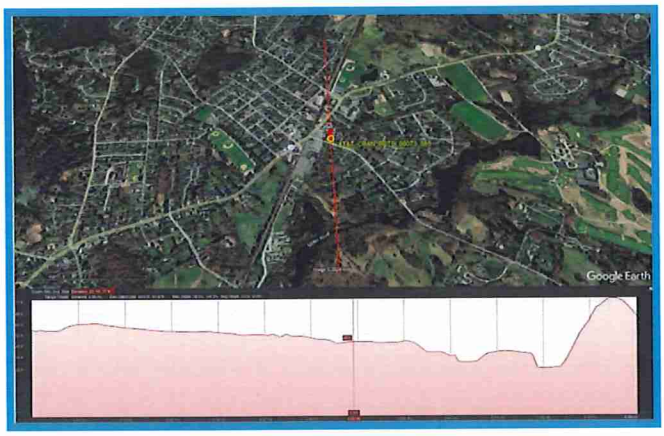


Figure 3b: USGS Elevation Profile Along the North to South Azimuth
AT&T Site CRAN_RCTB_00073_665
(Picture courtesy Google Earth©2024 and may not represent current conditions)

Figure 3c: USGS Elevation Profile Along the East to West Azimuth
AT&T Site CRAN_RCTB_00073_665
(Picture courtesy Google Earth©2024 and may not represent current conditions)

ANTENNA & TRANSMITTER PARAMETERS

The transmitter and antenna data and supporting parameters for the proposed AT&T "Small Cell" Site (See Figure 2) in South Hamilton, MA are contained in Table 2. See **Appendix A** for Remote Radio Head Unit (RRH or RRU) specifications and **Appendix B** for specifications & patterns of energy for the proposed omni-directional cannister antenna.

Table 2: Transmitter and Antenna Data and Supporting Parameters for
Proposed AT&T "Small Cell" Site in South Hamilton, MA

Remote Radio Head Unit (RRH or RRU)			**Antenna Specifications**			
Model FCC Band	Frequency (MHz)†/ Technology	# Tx X Output Power (watts)‡	Number Manufacturer/ Model	Gain (dBi)	**ERP** (watts)⁂	Centerline Height ('AGL)
CRAN_RCTB_00073_665						
RRUS-4490 B12A	729-745 LTE / PCS	4 X 60	Galtronics / GQ2418-06941	3.0	292	36'0"
RRUS-4890 B2	1930-1945 LTE / PCS	4 X 60		8.9	1136	
RRUS-4890 B25	2100-2200 AWS	4 X 60		8.9	1136	

Table Notes

† Transmitter (Tx) Frequency: Central transmit frequency used to account for multiple channels.

‡ Maximum rated output power (per channel).

⁂ **ERP**: ERP It is equal to the input power to the antenna multiplied by the gain of the antenna.

THEORETICAL RF FIELD CALCULATIONS METHODOLOGY- GROUND LEVELS

These calculations are based on what are called "worst-case" estimates. That is, the estimates assume 100% use of all transmitters simultaneously. Any deviation in height along the azimuths from the ground elevation was factored mathematically into calculations involving height above ground. However, the curvature of the Earth was neglected.

The calculations are based on the following information:

1. Effective Radiated Power (ERP) (See Table 2 and Appendix A data).
2. Antenna height (centerline, above ground level (AGL)).
   Trigonometry was used to determine the resultant "RANGE," and the antenna depression angle.
3. Antenna vertical energy patterns; the source of the negative gain (G) values. See Appendix B.
   Most antennas, even so-called "omni-directional" antennas, are designed to focus the RF signal, resulting in "patterns" of signal loss and gain. Antenna vertical energy patterns display the loss of signal strength relative to the direction of propagation due to elevation angle changes.

The magnitude of the RF field (the power density (S)) from an isotropic RF source is calculated making use of the power density formula as outlined in FCC's OET Bulletin 65, Edition 97-01: [vii]

$$S = \frac{P \cdot G}{4 \cdot \pi \cdot R^2}$$

Where:
- $P \rightarrow$ Power to antenna (watts)
- $G \rightarrow$ Gain of antenna
- $R \rightarrow$ Distance (range) from antenna source to point of intersection with the ground (feet)
- $R^2 = (\text{Height})^2 + (\text{Horizontal distance})^2$

Since: $P \cdot G = EIRP$ (Effective Isotropic Radiated Power), and for the situation of off-axis power density calculations, apply the negative elevation gain (G^E) value from the vertical energy patterns with the following formula:

$$S = \frac{EIRP \cdot G^E}{4 \cdot \pi \cdot R^2}$$

Ground reflections may add in-phase with the direct wave, and essentially double the electric field intensity. Because power density is proportional to the *square* of the electric field, the power density may quadruple, that is, increase by a factor of four (4). Since ERP is routinely used, convert ERP into EIRP by multiplying by the factor of 1.64 (the gain of a ½-wave dipole relative to an isotropic radiator).

$$S = \frac{4 \cdot (ERP \cdot 1.64) \cdot G^E}{4 \cdot \pi \cdot R^2} = \frac{ERP \cdot 1.64 \cdot G^E}{\pi \cdot R^2} = \frac{0.522 \cdot ERP \cdot G^E}{R^2}$$

To calculate the % MPE, use the formula:

$$\%\ MPE = \frac{S}{MPE} \cdot 100$$

Note that any loss along the horizontal direction was neglected, which means the results would be the maximum values in any direction. The resultant values are thus conservative in that they over predict actual resultant power densities. The data used to prepare the theoretical RF field calculations are outlined in Table 2.

RESULTS

The results of the %MPE calculations for the summation of the proposed AT&T Mobility RF emissions are depicted in Figure 4 as plotted against linear distance from the base of the proposed utility pole in South Hamilton, MA. The values have been calculated for a height of six feet above ground level in accordance with regulatory rationale. Any deviation from ground level height along the azimuth representing the "worst case" ground height differential was considered, and plotted.

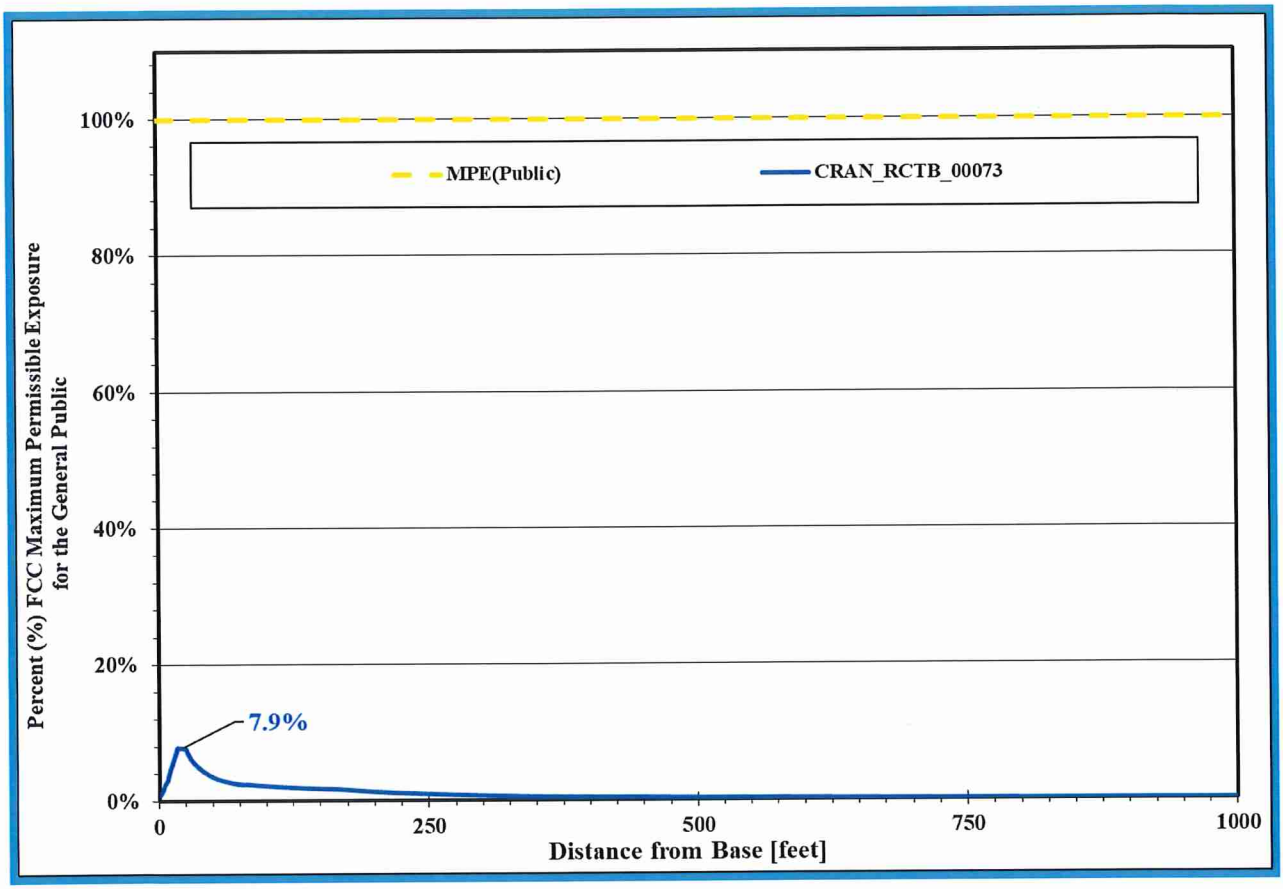


Figure 4: Theoretical Cumulative Percent MPE - vs. - Distance
Maximum PWS RF Emissions in ANY Direction
AT&T Mobility Site # CRAN_RCTB_00073_665 in South Hamilton, MA

CONCLUSION

Theoretical RF field calculations data indicate the summation of the proposed AT&T Mobility PWS contributions at the proposed Small Cell facility in South Hamilton, MA, would be within the established RF exposure guidelines; see Figure 4. This includes all publicly accessible areas, and the surrounding neighborhood in general. The results support compliance with the pertinent sections of the Massachusetts Department of Public Health regulations regarding PWS facilities, and the FCC's guidelines for RF exposure.

The number and duration of calls passing through PWS facilities cannot be accurately predicted. Thus, to estimate the highest RF fields possible from operation of these installations, the maximal amount of usage was considered. Even in this so-called "worst-case," the resultant increase in RF field levels is far below established levels considered safe.

Based on the results of the theoretical RF fields I have calculated; it is my expert opinion that the proposed Small Cell facility would comply with all regulatory guidelines for RF exposure with the proposed AT&T Mobility antenna and transmitter installations.

Feel free to contact me if you have any questions.

Sincerely,

Donald L. Haes, Jr.
Certified Health Physicist

Note: The analyses, conclusions and professional opinions are based upon the precise parameters and conditions of this particular site; **AT&T SC PWS facility mounted on a replacement utility pole in South Hamilton, MA**. Utilization of these analyses, conclusions, and professional opinions for any personal wireless services installation, existing or proposed, other than the aforementioned has not been sanctioned by the author, and therefore should not be accepted as evidence of regulatory compliance.

DONALD L. HAES, JR., CHP
Radiation Safety Specialist
PO Box 198, Hampstead, NH 03841 617-680-6262 Email: donald_haes_chp@comcast.net

STATEMENT OF CERTIFICATION

1. I certify to the best of my knowledge and belief, the statements of fact contained in this report are true and correct.

2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are personal, unbiased professional analyses, opinions, and conclusions.

3. I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

4. My compensation is not contingent upon the reporting of a predetermined energy level or direction in energy level that favors the cause of the client, the amount of energy level estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.

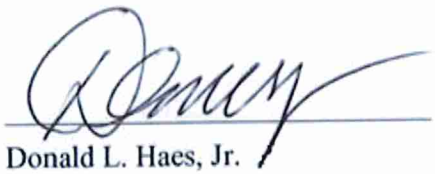
5. This assignment was not based on a requested minimum environmental energy level or specific power density.

6. My compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

7. The consultant has accepted this assessment assignment having the knowledge and experience necessary to complete the assignment competently.

8. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the *American Board of Health Physics* (ABHP) statements of standards of professional responsibility for Certified Health Physicists.

Date: October 31, 2024



Donald L. Haes, Jr.
Certified Health Physicist

DONALD L. HAES, JR., CHP

Radiation Safety Specialist

PO Box 198, Hampstead, NH 03841 617-680-6262 Email: donald_haes_chp@comcast.net

SUMMARY OF QUALIFICATIONS

- **Academic Training -**
  - Graduated from Chelmsford High School, Chelmsford, MA; June 1973.
  - Completed Naval Nuclear Power School, 6-12/1976.
  - Completed Naval Nuclear Reactor Plant Mechanical Operator and Engineering Laboratory Technician (ELT) schools and qualifications, Prototype Training Unit, Knolls Atomic Power Laboratory, Windsor, Connecticut, 1-9/1977.
  - Graduated Magna Cum Laude from University of Lowell with a Bachelor of Science Degree in *Radiological Health Physics*; 5/1987.
  - Graduated from University of Lowell with a Master of Science Degree in *Radiological Sciences and Protection*; 5/1988.

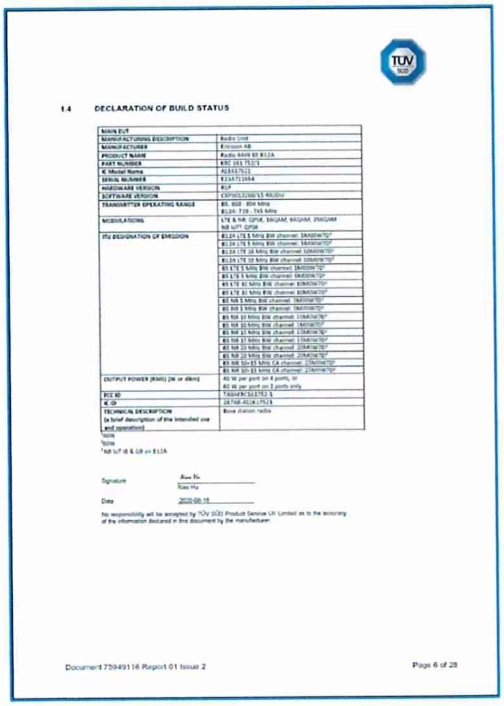
- **Certification -**
  - Board Certified by the American Board of Health Physics 1994; renewed 1998, 2002, 2006, 2010, 2014, 2018, and 2022. Expiration 12/31/2026.
  - Board Certified by the Board of Laser Safety 2008; renewed 2011, 2014, 2017, 2020, 2023. Expiration 12/31/2026.

- **Employment History -**
  - Consulting Health Physicist; Ionizing/Nonionizing Radiation, 1988 - present.
  - Radiation, RF and Laser Safety Officer; BAE Systems, 2005–2018 (retired).
  - Assistant Radiation Safety Officer; MIT, 1988 – 2005 (retired).
  - Radiopharmaceutical Production Supervisor - DuPont/NEN, 1981 – 1988 (retired).
  - United States Navy; Nuclear Power Qualifications, 1975 – 1981 (Honorably Discharged).

- **Professional Societies -**
  - Health Physics Society [HPS].
  - American Academy of Health Physics [AAHP]
  - Institute of Electrical and Electronics Engineers [IEEE];
  - International Committee on Electromagnetic Safety [ICES] (ANSI C95 series).
  - Laser Institute of America [LIA].
  - Board of Laser Safety [BLS].
  - American National Standards Institute Accredited Standards Committee [ASC Z136].
  - Committee on Man and Radiation [COMAR].

APPENDIX A

SPECIFIC REMOTE RADIO HEAD UNITS



1.4 DECLARATION OF BUILD STATUS

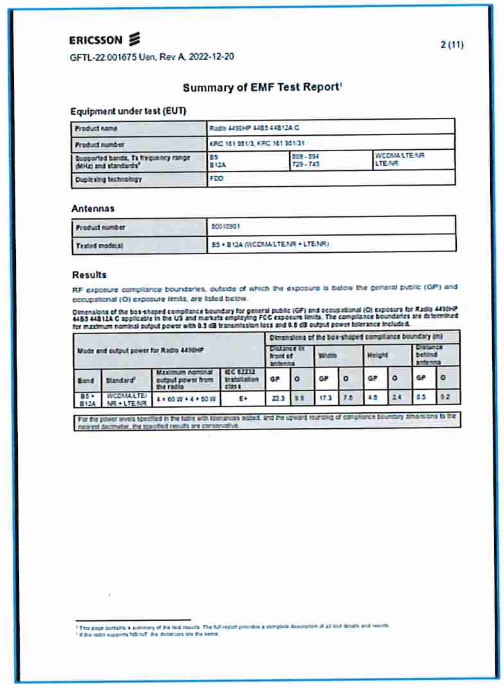
MAIN EUT	
MANUFACTURING DESCRIPTION	Radio Unit
MANUFACTURER	Ericsson AB
PRODUCT NAME	Radio 4449 B5 B12A
PART NUMBER	KRC 161 752/1
TRANSMITTER OPERATING RANGE	B5: 869 - 894 MHz B12A: 729 - 745 MHz
MODULATIONS	LTE & NR: QPSK, 16QAM, 64QAM, 256QAM NB IoT: QPSK
OUTPUT POWER (RMS) (W or dBm)	40 W per port on 4 ports, or 60 W per port on 2 ports only
TECHNICAL DESCRIPTION (a brief description of the intended use and operation)	Base station radio

Signature Xiao Hu

No responsibility will be accepted by TÜV SÜD Product Service UK Limited as to the accuracy of the information declared in this document by the manufacturer.

Document 75949116 Report 01 Issue 2 Page 6 of 28

Ericsson Model 4449 RRH B5 & B12



ERICSSON

GFTL-22:001675 Uen, Rev A, 2022-12-20 2 (11)

Summary of EMF Test Report[1]

Equipment under test (EUT)

Product name	Radio 4490HP 44B5 44B12A C		
Product number	KRC 161 981/3, KRC 161 981/31		
Supported bands, Tx frequency range (MHz) and standards[2]	B5 B12A	869 - 894 729 - 745	WCDMA/LTE/NR LTE/NR
Duplexing technology	FDD		

Antennas

Product number	80010991
Tested mode(s)	B5 + B12A (WCDMA/LTE/NR + LTE/NR)

Results

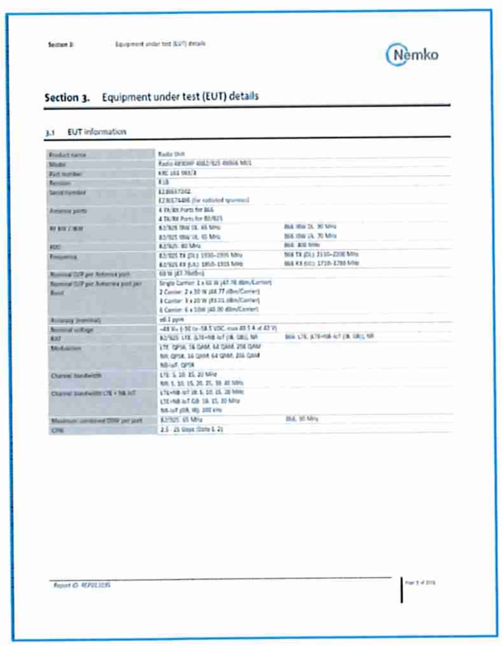
RF exposure compliance boundaries, outside of which the exposure is below the general public (GP) and occupational (O) exposure limits, are listed below.

Dimensions of the box-shaped compliance boundary for general public (GP) and occupational (O) exposure for Radio 4490HP 44B5 44B12A C applicable in the US and markets employing FCC exposure limits. The compliance boundaries are determined for maximum nominal output power with 0.5 dB transmission loss and 0.8 dB output power tolerance included.

Mode and output power for Radio 4490HP				Dimensions of the box-shaped compliance boundary (m)							
				Distance in front of antenna		Width		Height		Distance behind antenna	
Band	Standard[2]	Maximum nominal output power from the radio	IEC 62232 installation class	GP	O	GP	O	GP	O	GP	O
B5 + B12A	WCDMA/LTE/NR + LTE/NR	4 × 60 W + 4 × 60 W	E+	22.3	9.9	17.3	7.8	4.8	2.4	0.5	0.2

For the power levels specified in the table with tolerances added, and the upward rounding of compliance boundary dimensions to the nearest decimeter, the specified results are conservative.

Ericsson Model 4490 RRH B5 & B12A



Section 3. Equipment under test (EUT) details

Nemko

Section 3. Equipment under test (EUT) details

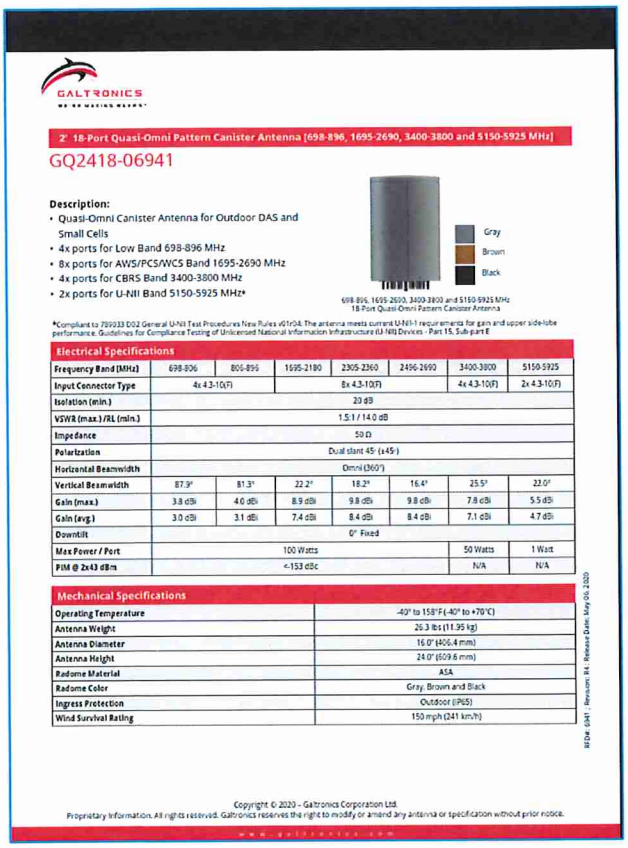
3.1 EUT information

Product name	Radio Unit

Ericsson Model 4890 RRH B25 & B66

APPENDIX B
ANTENNA SPECIFICATIONS & ENERGY PATTERNS

GALTRONICS / GQ2418-06941



GALTRONICS

2' 18-Port Quasi-Omni Pattern Canister Antenna [698-896, 1695-2690, 3400-3800 and 5150-5925 MHz]

GQ2418-06941

Description:

- Quasi-Omni Canister Antenna for Outdoor DAS and Small Cells
- 4x ports for Low Band 698-896 MHz
- 8x ports for AWS/PCS/WCS Band 1695-2690 MHz
- 4x ports for CBRS Band 3400-3800 MHz
- 2x ports for U-NII Band 5150-5925 MHz*

Gray
Brown
Black

698-896, 1695-2690, 3400-3800 and 5150-5925 MHz
18-Port Quasi-Omni Pattern Canister Antenna

*Compliant to 789033 D02 General U-NII Test Procedures New Rules v01r04. The antenna meets current U-NII-1 requirements for gain and upper side-lobe performance. Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Sub-part E

Electrical Specifications

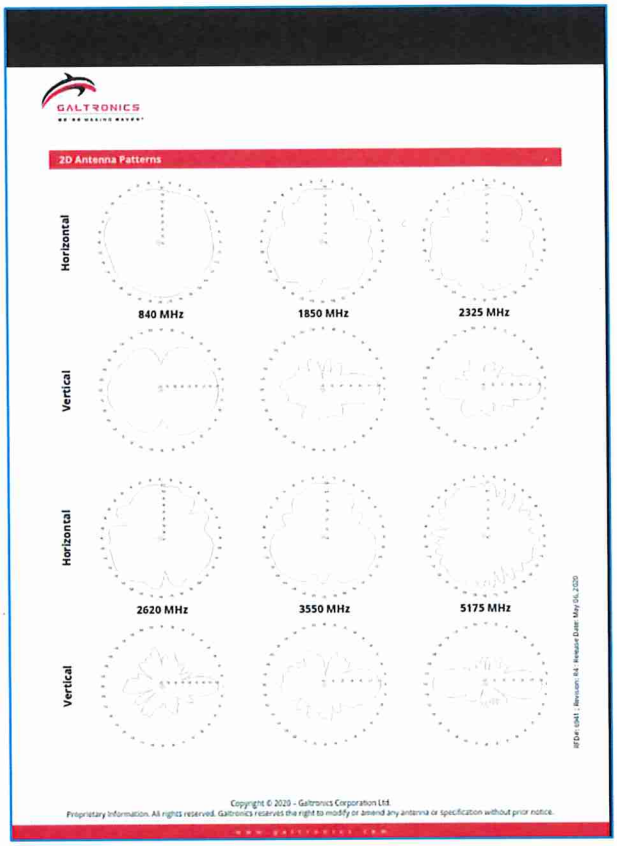
Frequency Band (MHz)	698-806	806-896	1695-2180	2305-2360	2496-2690	3400-3800	5150-5925
Input Connector Type	4x 4.3-10(F)		8x 4.3-10(F)			4x 4.3-10(F)	2x 4.3-10(F)
Isolation (min.)	20 dB						
VSWR (max.)/RL (min.)	1.5:1 / 14.0 dB						
Impedance	50 Ω						
Polarization	Dual slant 45° (±45°)						
Horizontal Beamwidth	Omni (360°)						
Vertical Beamwidth	87.9°	81.3°	22.2°	18.2°	16.4°	25.5°	23.0°
Gain (max.)	3.8 dBi	4.0 dBi	8.9 dBi	9.8 dBi	9.8 dBi	7.8 dBi	5.5 dBi
Gain (avg.)	3.0 dBi	3.1 dBi	7.4 dBi	8.4 dBi	8.4 dBi	7.1 dBi	4.7 dBi
Downtilt	0° Fixed						
Max Power / Port	100 Watts					50 Watts	1 Watt
PIM @ 2x43 dBm	<-153 dBc					N/A	N/A

Mechanical Specifications

Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	26.3 lbs (11.95 kg)
Antenna Diameter	16.0" (406.4 mm)
Antenna Height	24.0" (609.6 mm)
Radome Material	ASA
Radome Color	Gray, Brown and Black
Ingress Protection	Outdoor (IP65)
Wind Survival Rating	150 mph (241 km/h)

RFDoc: 6941 - Revision: R4 - Release Date: May 06, 2020

www.galtronics.com



GALTRONICS

2D Antenna Patterns

Horizontal
840 MHz
1850 MHz
2325 MHz
Vertical
Horizontal
2620 MHz
3550 MHz
5175 MHz
Vertical

RFDoc: 6941 - Revision: R4 - Release Date: May 06, 2020

www.galtronics.com

REFERENCES

[i]. Federal Register, Federal Communications Commission Rules; *Radiofrequency radiation; environmental effects evaluation guidelines* Volume 1, No. 153, 41006-41199, August 7, 1996. (47 CFR Part 1; Federal Communications Commission).

[ii]. Telecommunications Act of 1996, 47 USC; Second Session of the 104th Congress of the United States of America, January 3, 1996.

[iii]. 105 CMR 122.000: Massachusetts Department of Public Health, *Non-Ionizing Radiation Limits for: The General Public from Non-Occupational Exposure to Electromagnetic Fields, Employees from Occupational Exposure to Electromagnetic Fields, and Exposure from Microwave Ovens*.

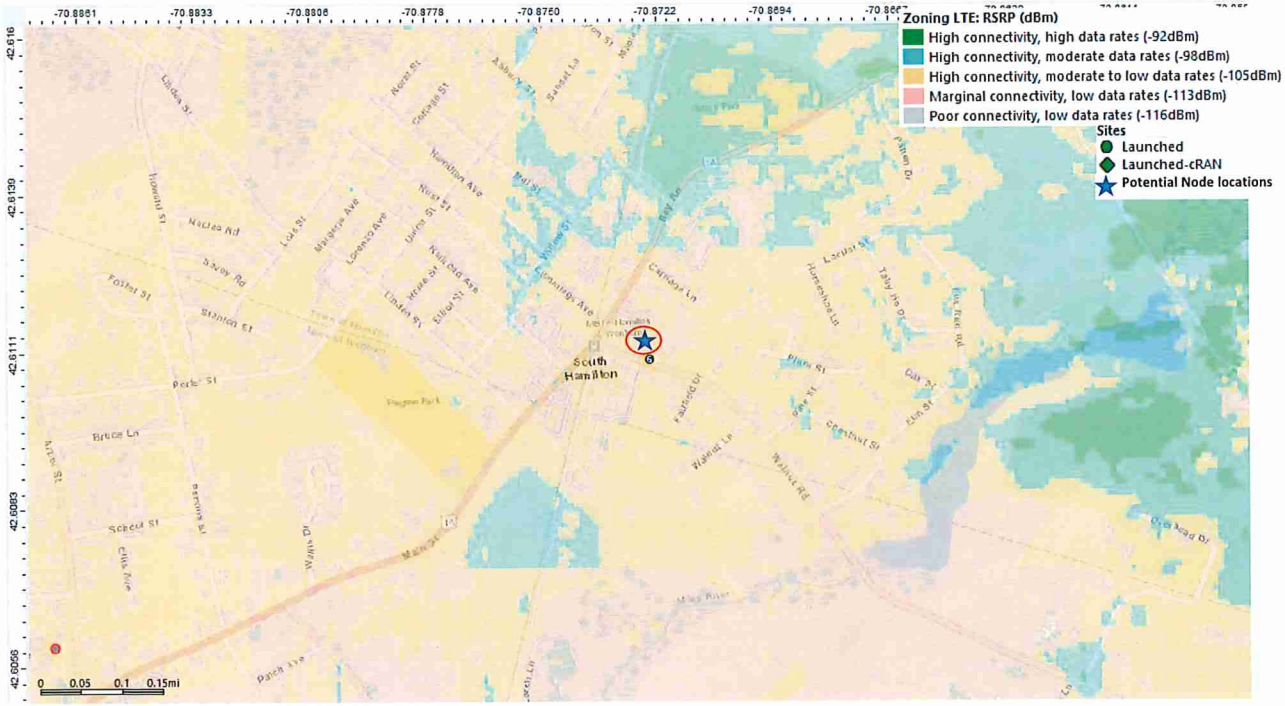
[iv]. IEEE C95.1-1999: Institute of Electrical and Electronics Engineers (IEEE), *Safety levels with respect to human exposure to radio frequency electromagnetic fields, from 3 kHz to 300 GHz* (Updated in 2020 as C95.1-2019/Cor 2-2020™ *Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz, Corrigenda 2*).

[v]. National Council on Radiation Protection and Measurements (NCRP); *Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields*, NCRP Report 86, 1986.

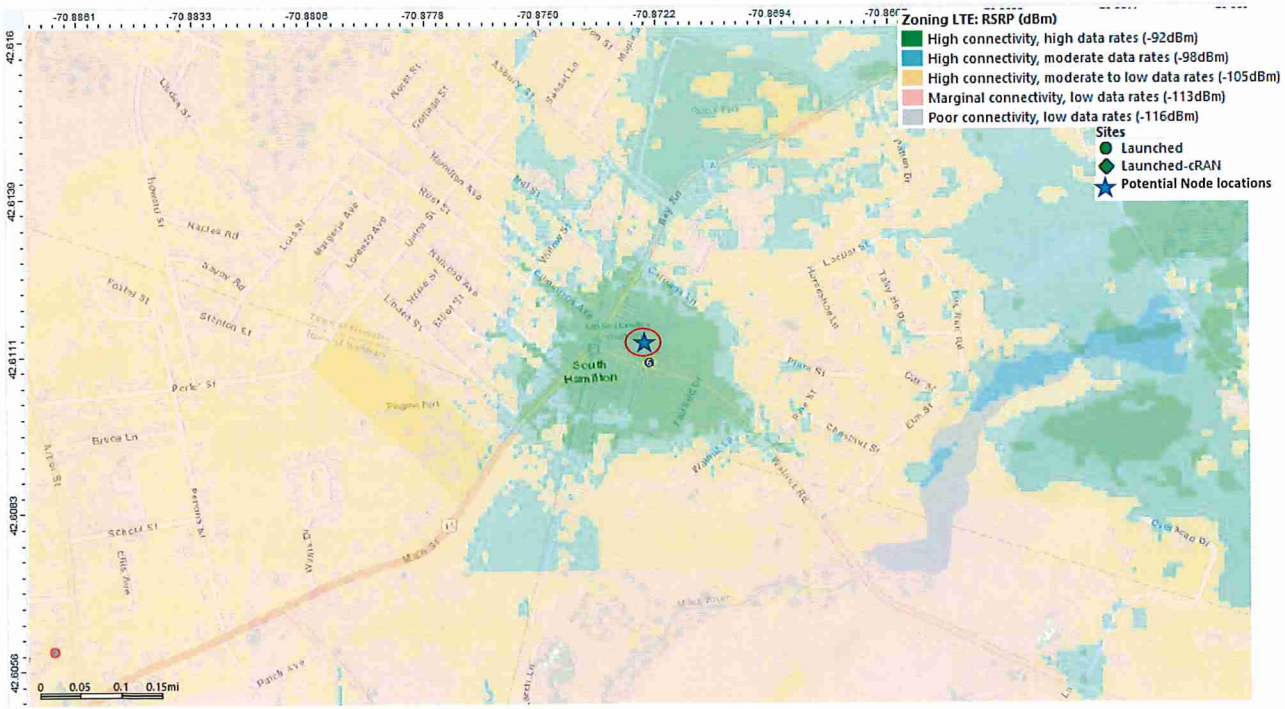
[vi]. Federal Register, Federal Communications Commission Rules; Vol. 85, No. 63 / Wednesday, April 1, 2020 / Rules and Regulations 18145.

[vii]. OET Bulletin 65: Federal Communications Commission Office of Engineering and Technology, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*; Edition 97-01, August 1999.

Current AT&T Coverage around South Hamilton



Proposed AT&T Coverage around South Hamilton



CENTERLINE

October 3, 2024

at&t

AT&T Mobility Corp.
550 Cochituate Road
Framingham, MA 01701

Subject: Structural Analysis Report
AT&T Site ID: CRAN_RCTB_00073_665
Node FA #: 16278664
USID: 330492
Site Address: 18 Walnut Road
South Hamilton, MA 01982

To Whom It May Concern:

Centerline Communications completed a structural analysis to determine the structural integrity of the utility pole at the site referenced above.

Based on our analysis, Centerline Communications has determined the proposed pole stress level to be *adequate* to support the existing and proposed equipment. This analysis assumes wire type and estimates wire diameter using photos of the existing pole.

Proposed Equipment:

(1) Galtronics GQ2418-B6941 Antenna (Weight= 25.6 lbs.)
(1) Power Meter (Weight= 16.3 lbs.)
(1) Fiber Demarc (Weight= 2.0 lbs.)
(1) Ericsson BFL901770 (Weight= 75.0 lbs.)
(1) 4478 B14 RRU (Weight= 59.4 lbs.)
(1) 4890 (Weight= 68.0 lbs.)
(1) PTS90121 (Weight= 7.0 lbs.)
(3) PSU (Weight= 33.0 lbs.)
(1) Fiber Line

Analysis Results:	%	Result	Comments
Pole Stress Level with Existing and Proposed Equipment:	**78.2**	**Pass**	-

750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

CENTERLINE

Analysis Results Based Upon the Following Pole Conditions:

Existing Pole Height Above Grade	Existing Pole Length/Class	New Pole Length/Class	New Pole Embedment	New Pole Height Above Grade	New Guy Wires Required
25.7'	30/5	40/2	6.0'	34.0'	No

This evaluation was conducted in accordance with the 2017 National Electric Safety Code (NESC) construction standards and the Massachusetts State Building Code, 9th Edition (Amendments to the IBC 2015).

Assumptions and Limitations:

- The utility pole and associated accessories are constructed in conformance with all applicable state and local building codes.
- The utility pole has been maintained in accordance with the manufacturer's specifications.
- The foundation/soil is acceptable.

Recommendations:

Centerline Communications recommends the following changes to the existing conditions in order for this analysis to be considered valid:

- Replace the existing pole with a new 40', Class 2, Southern Pine Pole with a 6.0' Embedment.
- Relocate existing guy lines at the location shown in the latest drawings.

All Equipment proposed in this report shall be installed in accordance with the latest Centerline Communications Drawings.

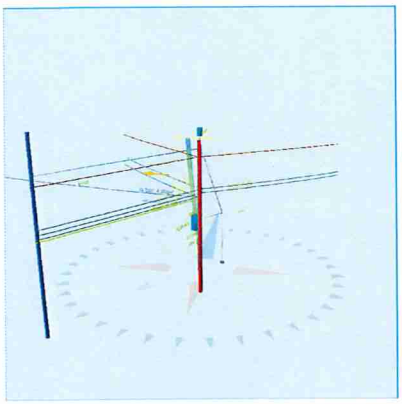
Should you have any questions, please do not hesitate to contact us.

Sincerely,

Derek Creaser, PE
Director - A&E Services

750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

Pole Num:	**943-84**	Pole Length / Class:	**40 / 2**	Code:	**NESC**	Structure Type:	**Guyed Tangent**
By	**AP**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Checked By	**DC**	Setting Depth (ft):	**6.0**	Construction Grade:	**C**	Pole Strength Factor:	**0.85**
Aux Data 3	**Unset**	G/L Circumference (in):	**38.50**	Loading District:	**Heavy**	Transverse Wind LF:	**1.75**
Aux Data 4	**Unset**	G/L Fiber Stress (psi):	**8,000**	Ice Thickness (in):	**0.50**	Wire Tension LF:	**1.30**
Aux Data 5	**Unset**	Allowable Stress (psi):	**6,800**	Wind Speed (mph):	**39.53**	Vertical LF:	**1.90**
Aux Data 6	**Unset**	Fiber Stress Ht. Reduc:	**No**	Wind Pressure (psf):	**4.00**		
Latitude:		**0**	Longitude:		**0**	Elevation:	**0M**



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Pole Capacity Utilization (%)		Height (ft)	Wind Angle (deg)
Maximum	**78.2**	0.0	282.0
Groundline	**78.2**	0.0	282.7
Vertical	**5.0**	27.0	308.0

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	**78,822**	263.1	282.0
Groundline	**78,822**	263.1	282.7
GL Allowable	**102,391**		

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load With Overload Applied	
Description	**Lead Length (ft)**	**Lead Angle (deg)**	**Height (ft)**	**Nominal Capacity (%)**	**Wind Angle (deg)**	**Max* Load Capacity (%)**	**Wind Angle (deg)**
▸ Anchor	44.0	216.0		**0.0**	282.0	**0.0**	0.0
• EHS 3/8 (Span/Head)			32.0	**0.0**	282.0	**0.0**	0.0
▸ Expanding - 10" 8-Way - Soil Class 4	8.0	40.0		**22.6**	282.0	**26.6**	220.0
• EHS 3/8 (Sidewalk)			32.0	**29.4**	282.0	**34.5**	220.0
○ Sidewalk Strut	8.0	40.0	14.0	**66.2**	282.0	**70.6**	220.0
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 263.1°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	179	3.4	**5,086**	6.5	**5.0**	**360**	104	1	**361**	**5.3**
Comms	4,500	86.0	**84,904**	107.7	**82.9**	**6,012**	753	6	**6,019**	**88.5**
GuyBraces	146	2.8	**-18,142**	-23.0	**-17.7**	**-1,904**	5,642	48	**-1,857**	**-27.3**
GenericEquipments	124	2.4	**2,358**	3.0	**2.3**	**167**	591	5	**172**	**2.5**
Pole	190	3.6	**3,086**	3.9	**3.0**	**219**	2,192	19	**237**	**3.5**
Crossarms	92	1.8	**1,529**	1.9	**1.5**	**108**	81	1	**109**	**1.6**
Insulators	0	0.0	**2**	0.0	**0.0**	**0**	57	0	**1**	**0.0**
Pole Load	5,230	100.0	**78,822**	100.0	**77.0**	**4,962**	9,420	80	**5,042**	**74.1**
Pole Reserve Capacity			**23,569**		**23.0**	**1,838**			**1,758**	**25.9**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 263.1°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Existing	4,099	78.4	**58,552**	74.3	**57.2**	**3,527**	6,485	55	**3,582**	**52.7**
AT&T	942	18.0	**17,184**	21.8	**16.8**	**1,217**	744	6	**1,223**	**18.0**
Pole	190	3.6	**3,086**	3.9	**3.0**	**219**	2,192	19	**237**	**3.5**
Totals:	5,230	100.0	**78,822**	100.0	**77.0**	**4,962**	9,420	80	**5,042**	**74.1**

Detailed Load Components:

Power		Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Secondary	TRIPLEX 6 AWG	Existing	30.00	6.73	0.5800	0.51	0.113	44.0	216.0	44.0	357	7,230	9	310	7,550
Secondary	TRIPLEX 6 AWG	Existing	30.00	6.73	0.5800	0.52	0.113	45.0	55.0	45.0	333	-8,737	10	163	-8,564
Secondary	TRIPLEX 6 AWG	Existing	30.00	6.73	0.5800	0.63	0.113	53.0	324.0	53.0	333	4,810	11	327	5,149
											Totals:	**3,304**	**30**	**800**	**4,134**

Comm		Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Telco	TELE 1.0	Existing	22.00	7.24	1.0000	0.64	0.400	44.0	216.0	44.0	800	11,881	-22	288	12,148
Telco	TELE 1.0	Existing	22.00	7.24	1.0000	0.65	0.400	45.0	55.0	45.0	333	-6,407	-22	151	-6,278

Telco	TELE 1.0	Existing	22.00	7.24	1.0000	0.78	0.400	53.0	324.0	53.0	333	3,527	-26	304	3,805
Telco	TELE 1.0	Existing	21.00	7.30	1.0000	0.64	0.400	44.0	216.0	44.0	800	11,341	-22	275	11,594
Telco	TELE 1.0	Existing	21.00	7.30	1.0000	0.65	0.400	45.0	55.0	45.0	333	-6,116	-22	145	-5,994
Telco	TELE 1.0	Existing	19.75	7.38	1.0000	2.34	0.400	135.0	290.0	135.0	800	13,960	71	75	14,106
Telco	TELE 1.0	Existing	19.75	7.38	1.0000	0.64	0.400	44.0	216.0	44.0	800	10,666	23	258	10,947
Telco	TELE 1.0	Existing	19.75	7.38	1.0000	0.64	0.400	44.0	216.0	44.0	800	10,666	23	258	10,947
Telco	TELE 1.0	Existing	19.75	7.38	1.0000	0.78	0.400	53.0	324.0	53.0	333	3,167	28	272	3,467
Telco	TELE 1.0	Existing	19.75	7.38	1.0000	0.78	0.400	53.0	324.0	53.0	333	3,167	28	272	3,467
Overlashed Bundle	1/4" EHS	AT&T	19.50	7.40	0.2500	0.30	0.121	44.0	216.0	44.0	800	10,531	8	194	10,733
Telco	BELOPTIX DT144 - 144 FIBERS - DIELECTRIC (0.756)	AT&T	19.46	7.40	0.7560		0.208	44.0	216.0	44.0			9	66	76
												Totals:	**66,384**	**75**	**2,560**	**69,018**

GenericEquipment		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Box	Demarc	AT&T	16.00	6.47	290.0	0.0	2.00	9.60	2.70	--	7.00	1	58	59
Cylinder	GQ2418-B6941	AT&T	36.00	0.44	0.0	0.0	25.60	24.00	--	16.00	--	-1	465	463
Box	Meter	AT&T	8.00	8.02	290.0	0.0	16.25	18.50	4.80	--	10.00	14	80	94
Box	AC Panel	AT&T	10.00	8.15	290.0	0.0	7.00	10.20	5.30	--	6.10	6	35	41
Box	Cabinet w/ RRU	AT&T	13.00	15.31	290.0	0.0	260.00	48.00	20.00	--	24.00	428	831	1,259
											Totals:	**448**	**1,468**	**1,916**

Crossarm		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Normal	Riser	AT&T	17.00	6.55	270.0	270.0	37.40	408.00	3.00	3.00	29	1,167	1,197
Normal	MK-06679 Mounting Bracket	AT&T	34.50	-0.02	0.0	0.0	5.14	12.00	2.00	2.04	0	46	46
										Totals:	**29**	**1,214**	**1,243**

Insulator		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Bolt	Single Bolt	Existing	30.00	0.00	216.0	216.0	5.00	3.00	0.10	0	0	0
J-Hook	J-Hook	Existing	22.00	0.00	114.0	114.0	5.00	3.00	0.10	0	0	0
J-Hook	J-Hook	Existing	21.00	0.00	114.0	114.0	5.00	3.00	0.10	0	0	0
J-Hook	J-Hook	Existing	19.75	0.00	290.0	290.0	5.00	3.00	0.10	0	0	0
Extension	Single Bolt	AT&T	35.00	3.34	93.5	0.0	5.00	3.00	0.10	0	0	0
Bolt	Single Bolt	AT&T	19.50	0.00	216.0	216.0	5.00	3.00	0.10	0	0	0
									Totals:	**0**	**2**	**2**

Guy Wire and Brace		Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)
EHS 3/8	Span/Head	Existing	32.00	32.00	44.00	0.375	75.00	216.0	0.0	0.273	41.57	0.00
EHS 3/8	Sidewalk	Existing	32.00	0.00	8.00	0.375	75.00	40.0	65.6	0.273	39.06	0.97

Guy Wire and Brace (Loads and Reactions)		Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension*[2] (lbs)	Maximum Tension[2] (lbs)	Applied Tension[3] (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Proportional Moment at GL[3] (ft-lb)
EHS 3/8	Span/Head	2.30e+7	15,400	0.90	13,860	700	0	0	0	0	0	0	377
EHS 3/8	Sidewalk	2.30e+7	15,400	0.90	13,860	700	4,779	4,345	4,075	3,710	1,684	-1,230	-18,519
									Totals:	**3,710**	**1,684**	**-1,230**	**-18,142**

Anchor/Rod Load Summary	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load[2] (lbs)	Load at Pole MCU[3] (lbs)	Max Required Capacity[2] (%)
Anchor	Existing	30.00	44.00	216.0	20,000	1.00	20,000	0	0	0.0
Expanding - 10" 8-Way - Soil Class 4	Existing	6.00	8.00	40.0	18,000	1.00	18,000	4,779	4,075	26.6

Pole Buckling

Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	26.98	34.17	11.09	5.78	7.96	12.26	1.60e+6	60.00	56.00	34.00	190,212	**1884.07**	**20.00**

AT&T Mobility
492 Old Connecticut Path
Suite 210
Framingham, MA 01701

December 27, 2024

Town of Hamilton
Planning Board
c/o Mark Connors
Planning Director
Patton Homestead
650 Asbury Street
Hamilton, MA 01982

Re: Application of New Cingular Wireless PCS, LLC d/b/a AT&T ("AT&T) for a Special Permit for a Small Wireless Facility in the Public Right-of-Way Attached to a Replacement Utility Pole # 943-84 Near 18 Walnut Road, South Hamilton, MA 01982 (the "Site") (CRAN_RCTB_00073_665)

AT&T is proposing a small wireless communications facility near the Site in order to deal with coverage and capacity issues on AT&T's network.

AT&T hereby certifies that it will maintain the installation in good repair and according to FCC standards, and will remove any installation not in such good repair, or not in use, within 60 days of being no longer in good repair or no longer in use.

Sincerely,

Richard Detch

65507682 v2-WorkSiteUS-024519/1850