Radio Frequency Report
Proposed AT&T Small Wireless Facility
Near 15 Walnut Road
Hamilton, MA

August 29, 2025

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1. Overview

New Cingular Wireless PCS, LLC ("AT&T") is providing the following information in support of its application to the Town of Hamilton Planning Board to construct, operate and maintain a small cell wireless communication facility ("Facility") in Hamilton, MA to provide personal communication services. The proposed Facility is to be located on an existing utility pole near 15 Walnut Road, Hamilton, MA (the "Site"). The Facility is needed to provide coverage and to address capacity issues that exist in this area of the Town of Hamilton as discussed in this report.

Included in this report is a brief summary of the proposed Facility's Objectives with radio frequency ("RF") coverage plots depicting the predicted wireless coverage of the proposed Facility based on the antenna mounting height necessary to achieve AT&T's goals.

2. AT&T's Proposed Facility

As shown on the plans submitted with the application, AT&T proposes to construct, operate, and maintain the Facility near the Site consisting principally of the following elements:

- One (1) antenna mounted to the top of an existing utility pole.
- Two (2) remote radio heads (RRHs) inside an equipment shroud mounted to the utility pole.
- Fiber optic and DC power cables running from the RRHs to the antennas and electric meter.
- Electrical service and fiber connection for communications.

3. Coverage and Capacity Objectives

AT&T provides digital cellular communications service as well as high speed data services commonly referred to as "long term evolution" ("LTE") operating in the 700, 850, 1900, 2100, 2300 and 3800 MHz and 39 GHz frequencies, all as allocated by the Federal Communications Commission ("FCC"). AT&T is experiencing substantial demand growth in wireless data and in efforts to meet current and future demand is bolstering and densifying its network using small cells facilities to provide high quality services covered under license from the FCC.

Wireless communication services are no longer limited to providing mobility for voice services. The communication services have evolved to offer a wider range of advanced services to include wide-area voice, data, internet, video, and broadband wireless data, among others, all in a mobile environment. To offer these competitive services to local

residents and businesses and commuters traveling in and through the targeted coverage areas, especially inside buildings, AT&T needs to improve the quality of its coverage by filling in as many of the existing gaps with adequate capacity, quality and signal strengths conducive to in-building and in-vehicle usage, and to provide the same bandwidth requirements in order to meet the increasing demand on the network.

AT&T proposes this small cell facility in the Town of Hamilton to deal with the rapidly increasing demand on AT&T's wireless network. This small cell facility will work in conjunction with existing wireless facilities including 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 coverage and capacity needs in the areas near the Site. Please see the enclosed coverage maps submitted as part of this report. AT&T's existing macro cell sites are not providing adequate coverage in this area due to distance and terrain issues. This small cell facility will also work to offload the demands on AT&T's macro sites and allow for increased coverage, data capacity and speed within the immediate vicinity of the Site and in the areas surrounding those macro sites.

4. Site Search and Selection Process

To find a site location that provides acceptable levels of service and fills the gaps in coverage and addresses capacity issues, computer modeling is used to define a search ring. The search ring is designed such that a site located within the ring would have a high probability of completing coverage and capacity in the targeted coverage area (assuming sufficient height is achieved).

Once the search ring is determined, AT&T's real estate consultants search within the defined area for existing structures with sufficient height that would fill coverage gaps and capacity deficiencies within the network in accordance with applicable FCC rules and orders. As more fully explained below, AT&T does not have an existing wireless facility capable of providing the required services to the targeted areas near the Site. From radio frequency coverage, quality, capacity and permitting perspectives, the proposed Facility addresses those needs.

5. Site Selection

The existing utility pole selected is the best available and feasible structure that will meet AT&T's coverage objectives while complying with the Town of Hamilton wireless zoning bylaw and siting policies. The Facility will provide the coverage and capacity that AT&T is looking to achieve in this area of the Town of Hamilton. Without a wireless facility at or near this Site, AT&T would be effectively prohibited from providing adequate coverage.

6. Coverage Maps

To demonstrate why the proposed Facility is necessary, we have developed the

attached radio frequency coverage maps. These coverage maps were generated using Forsk Atoll, an RF Propagation computer modeling program. This software takes into account the geographical features of an area, antenna models, antenna heights and RF transmitting power. With the proposed Facility, represented on the coverage maps as the blue star, the Facility will provide much needed coverage along Main Street and surrounding areas near the Site, including emergency 911 connectivity. The map showing coverage without the proposed Facility indicates that AT&T cannot achieve its coverage and capacity objectives with existing wireless facilities. Accordingly, the proposed Facility is necessary to fill coverage gaps, address capacity issues and upgrade AT&T's wireless service in and around the Site.

7. Interference

AT&T's Facility will not cause interference with frequencies used by the Town or the Commonwealth of Massachusetts or any other public safety agency. In the event any such interference occurs, AT&T will address such interference in accordance with applicable FCC regulations and requirements.

8. Summary

The location and the small cell configuration were chosen to achieve an optimal balance between meeting coverage and capacity objectives and minimizing the impact on the Town of Hamilton while complying with all applicable laws and regulations. The low power Facility will comply with all applicable FCC regulations regarding exposure to RF emissions and other matters. The proposed Facility is feasible, appropriate and will improve wireless communication services in the area.

8. Statement of Certification

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

8/29/2025

Kevin Breuer, RF Engineer
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