

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

IN RE:

APPLICATION BY ARX WIRELESS
INFRASTRUCTURE, LLC FOR A CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY AND PUBLIC
NEED FOR THE CONSTRUCTION, MAINTENANCE
AND OPERATION OF A WIRELESS
TELECOMMUNICATIONS FACILITY AT
43 OSGOOD AVENUE,
NEW BRITAIN, CONNECTICUT

DOCKET NO. 503

August 26, 2021

**SUPPLEMENTAL PRE-FILED TESTIMONY OF
MARTIN J. LAVIN ON BEHALF OF INTERVENOR
NEW CINGULAR WIRELESS PCS, LLC d/b/a AT&T**

Intervenor New Cingular Wireless PCS, LLC d/b/a AT&T hereby submits to the Connecticut Siting Council (the "Council") the following pre-filed testimony of Martin J. Lavin prior to the September 2, 2021 public hearing in this docket.

Q1. Mr. Lavin, please state your name and position?

A1. My name is Martin J. Lavin, and I am a radio frequency engineer employed by C Squared representing AT&T in this instance regarding the Application submitted in this docket.

Q2. Did you testify on behalf of AT&T, under oath, at the Council hearing on July 20, 2021?

A2. Yes.

Q3. Do you understand that you remain under oath when submitting this pre-filed testimony?

A3. Yes.

Q4. Did you prepare the Radio Frequency Analysis Report (the "Report") on behalf of AT&T submitted with the Application and is at Tab 3 of the Application?

A4. Yes.

Q5. During the public hearing held by the Council on July 20, 2021 (the "Hearing"), do you recall inquiries from a member of the Council regarding alternative site locations as potential replacements to the proposed wireless facility located at 43 Osgood Avenue, New Britain, CT (the "Site"), namely locations with GPS coordinates and street addresses of: 41.688394, -72.807143 – The DiLoreto School at 732 Slater Road, New Britain CT; and, 41.684791, -72.809790 – The CREC Academy of Science and Innovation on Alton Brooks Way, New Britain, CT?

A5. Yes.

Q6. Since the Hearing, have you reviewed and analyzed those alternative site locations and reached a conclusion whether a wireless facility at either of said alternative locations would replace the coverage from a wireless facility at the Site?

A6. Yes.

Q7. Would you provide a summary of your review, analysis and conclusions with respect to a wireless facility at each alternative site location as an alternative to the proposed wireless facility at the Site?

A7. *A wireless facility at either of the alternative locations would not replace the proposed coverage from a wireless facility at the Site. AT&T has an existing wireless facility at the DiLoreto School which is referenced as AT&T site CT5419 in the Report and on the associated coverage maps submitted with the Report. As evidenced in the Report, even with the existing wireless facility at the DiLoreto School, AT&T still has a significant gap in coverage near the Site. Similarly, a wireless facility along Alton Brooks Way would be too far from the existing significant coverage gap to provide the necessary coverage and would also be too close to the existing wireless facility at the*

DiLoreto School. AT&T needs a wireless facility at both the DiLoreto School location and the Site.

Q8. During the Hearing, questions were raised about the use of small cell facilities to address the significant gap in coverage in the area of the Site. In your expert opinion, would small cell facilities be an effective, efficient and feasible means to replace the proposed "macro" facility at the Site and provide the necessary coverage to fill the existing gap in coverage; and please provide a summary of your analysis and opinion.

A8. *Based on my review, knowledge of AT&T's small cell facility technology and overall experience with small cell facilities, small cell facilities would not be an effective, efficient or feasible replacement for the "macro" wireless facility proposed at the Site in this instance and would likely leave significant gaps in coverage. By "macro" wireless facilities, I refer to wireless facilities with a full deployment of antennas, equipment and backup power, typically attached to towers or other tall structures and designed to provide a large geographic footprint of coverage where significant gaps exist. Small cell facilities are useful to provide capacity and coverage to small, and discrete or difficult areas when "macro" wireless facilities are not needed or appropriate to provide the capacity and coverage. Small cell facilities are best deployed to densify a wireless network by offloading the network traffic from nearby macro sites onto the small cell facilities because the two technologies work in tandem. The ideal areas for the deployment of small cell facilities are highly concentrated population urban areas where the network requires capacity which can be addressed by these low power, lower height small cell facilities in the specific areas in need of capacity.*

Generally, macro wireless facilities need to be approximately one (1) mile apart before small cell facilities can effectively fill in capacity and coverage needs. Macro

wireless facilities are the most efficient and effective way to fill significant gaps in coverage by providing a footprint of coverage over a large geographic area. Small cell facilities do play a role in a wireless network but only have approximately one-sixth ($1/6^{\text{th}}$) to one-ninth ($1/9^{\text{th}}$) of the capacity of a macro wireless facility and the coverage footprint is typically, depending on terrain and vegetation, a radius of only one-tenth ($1/10^{\text{th}}$) to one-quarter ($1/4$) of a mile. While useful for providing capacity to AT&T's network, using small cell facilities to cover a wide geographic area is not effective or efficient and, in my opinion, not appropriate or feasible to provide coverage. I note that small cell facilities do not have backup power due to the limitations of using existing or proposed utility poles in the public rights of way. The low power output and lower height of small cell facilities combine to restrict the amount of coverage provided. Likewise, the availability of utility poles for small cell facilities are physically limited by existing wires, attachments, streetlights and transformers on the utility poles. Many utility poles cannot accommodate a small cell installation. Also, a minor shift in the location of any particular small cell facility impacts the entire design due to the small footprint in coverage, potentially leaving gaps in coverage.

AT&T highlights the importance of providing reliable wireless coverage, especially in light of the need to provide data and broadband speeds to the many residents working from home during the COVID emergency. As an FCC-licensed provider of wireless services, AT&T is in the best position to design and deploy the most feasible wireless technologies to provide the best network experience for its customers. AT&T certainly supports the use of small cell facilities and has proposed and deployed many small cell facilities in the State of Connecticut, and will continue to do so where appropriate. In fact, AT&T currently has two (2) small cell facilities installed in New

Britain and approximately 150 small cell facilities on air in the State of Connecticut, with more planned for deployment in the future.

With respect to the wireless facility at the Site, AT&T seeks to provide coverage to a large geographic area near the Site including 0.6 square miles of area, over 5,000 residents, businesses with over 400 employees and 4.2 miles of roadways. While the Site may be urban in nature, the large footprint of coverage required to address the significant gap in coverage cannot practicably and effectively be addressed with small cell facilities. The use of small cell facilities in this area would not be efficient, effective or feasible to provide the coverage comparable to the proposed macro wireless facility at the Site.

Q9. In your expert, professional opinion, are small cell facilities an effective, efficient or feasible alternative to the proposed wireless facility at the Site?

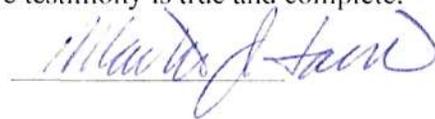
A9. No.

Q10. Does this conclude your testimony?

A10. Yes.

To the best of my knowledge, the above testimony is true and complete.

Date: August 26, 2021



Martin J. Lavin

Subscribed and sworn to me this 26th day of August 2021.

Notary Public



Commission Expires: 7-17-2024

CERTIFICATE OF SERVICE

I hereby certify that on this day, August 26, 2021, an electronic copy of the foregoing was sent to the Connecticut Siting Council and:

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