STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION OF NEW CINGULAR WIRELESS PCS, LLC d/b/a AT&T and TARPON TOWERS II, LLC FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF A TELECOMMUNICATIONS FACILITY AT 92 GREEN FARMS ROAD, WESTPORT, CONNECTICUT

DOCKET NO. 510

September 14, 2022

APPLICANT NEW CINGULAR WIRELESS PCS LLC d/b/a AT&T
PRE-FILED TESTIMONY OF MARTIN LAVIN

Q1. Please summarize your experience designing commercial wireless networks.

A1. I have over 30 years' experience designing commercial wireless networks. I have done network design and management for, among others, Optus (Australia), Bell South New Zealand, MCI, Associated PCN, Omnipoint, Western Wireless, Lucent, Cellular One, Pacific Bell Mobile Services, Sprint, Nextel, and U.S. Cellular. This experience includes, but is not limited to, site selection, candidate site approvals, RF and backhaul site configurations/dimensioning, collection and analysis of drive test data, system optimization, acceptance testing, RF site capacity planning and implementation, cellular switch capacity optimization, E911 implementation, technology transitions, new feature specification and implementation, modeling networks using RF system planning tools such as ANET, CellCAD and deciBel Planner, optimization and verification of propagation models, and calculation of maximum permissible exposure.

Q2. Please describe why it is not always feasible for AT&T to locate/site needed infrastructure on non-residential properties from an RF perspective.

A2. AT&T's RF engineers analyze the existing network to identify gaps in reliable service and to address capacity, interference, and high-speed broadband issues. Based on this analysis, AT&T issues a search ring for locating a site that would remedy the identified gap or address the capacity, interference and/or broadband issues. These areas where network enhancements are needed are not based on existing land uses but rather the technical requirements of AT&T's network. In addition to satisfying AT&T's technical needs, a potential site must also have a property owner willing to lease space for a wireless facility. In some cases, the only feasible site is located in a residential area.

Q3. In response to the Town of Westport's consultant's claim that AT&T did not demonstrate a need for the facility proposed in this Docket, please summarize AT&T's need for the proposed facility.

A3. As demonstrated in the RF Report included in Attachment 2 of the Application, AT&T's existing sites in Westport do not provide sufficient coverage to portions of Westport, due in large part to the distances between the existing sites, the intervening topography, and volume of user traffic in the area. The RF maps for AT&T provided in this proceeding demonstrate that an existing gap in reliable wireless service exists in

the southern part of Westport and that the proposed facility is primarily needed to remedy a coverage gap. As stated in Response No. 33 of the Siting Council's interrogatories, high speed data service/capacity is now the key determinant of quality of service. This service is not available in areas where reliable wireless service is not available. There is no data capacity within a gap in reliable wireless service.

In addition to providing needed coverage, the proposed site will help offset traffic from AT&T's site CT2132 Alpha sector, which is already at capacity on 700, 1900, 2100, and 2300 MHz.

Mr. Maxson's statement that AT&T provided no "significant measure of substandard service" is not accurate. He misquoted AT&T's response and used it out of context. The statement "significant measures of substandard service" was used to explain why statistics on dropped calls and ineffective attempts are no longer effective metrics to understanding the network deficiencies. (See Response No. 33 to the Siting Council's interrogatories.) AT&T provided evidence of substandard/unreliable wireless service in this area in the RF Report and coverage maps. (See Attachment 2 of the Application.)

Mr. Maxson's statement that AT&T "rely on coverage maps to imply coverage benefits" is also incorrect. Mr. Maxson seems to think that the proposed facility can only achieve one objective – coverage or capacity. AT&T clearly shows that the primary objective of the proposed facility is coverage and it will also provide some capacity relief.

AT&T has also performed drive testing in this area. These field-obtained drive test data confirmed the gap in reliable coverage as depicted in the coverage analysis plots.

In summary, there is no inconsistency or confusion regarding AT&T's need – the proposed facility is needed to remedy a demonstrated gap in reliable wireless service to allow customer access to high speed data services as well as offload capacity from an adjacent existing site.

Q4. Please provide your opinion on the Town of Westport's consultant's statements regarding the use of small cells to remedy AT&T's gap in coverage in this area of Westport.

A4. *As demonstrated in the record in this proceeding, AT&T's objective for this facility is to provide primary coverage to this area of Westport where a gap in coverage exists in AT&T's network. Small cells on utility poles cannot provide the wide area coverage needed in this area. Small cells are primarily deployed for capacity relief in more densely populated areas, as the potential coverage from a small cell is very limited.*

Moreover, there is no battery backup on small cells, so the only coverage in this area would be lost in a power outage. Deploying generators to each small cell for emergency situations is not practical or feasible. Roads may be impassable due to icing or downed trees, possibly preventing the deployment of back-up generators. To equip each small cell with an emergency backup generator would require the deployment and nearly constant refueling of possibly dozens of generators in an emergency situation. This effort would have to be maintained without interruption for the duration of the emergency. Portable generators sitting unattended on the side of the road also make an extremely attractive target for pilferage during a power outage.

It should also be noted that not all existing utility poles are available for attachments. The placement of new utility poles where service is needed will not always occur in the public right-of-way. Thus, in some cases placing new utility poles as part of a small cell system would require property owner consent.

Q5. Please explain how the height analysis RF maps demonstrate that AT&T's proposed antenna centerline mounting height of 120 feet AGL is the minimum height needed by AT&T to meet the coverage objective.

A5. The 120 foot height strikes a balance between maximizing coverage and minimizing visual impact. We could achieve even more coverage by going even higher, but 120 feet represents a reasonable compromise between the two conflicting objectives.

At -83 dBm, we lose almost 10% of our population and area coverage by dropping from 120 feet to 110 feet AGL.

Q6: Please explain how the proposed facility will traffic from AT&T's site CT2132 Alpha sector in response to Mr. Maxson's pre-filed testimony response Q12:

"First, the location of CT2132 is to the northwest of the proposed site and there is another facility (CT5278) between the two. See Attachment 2.Moreover, an alpha sector is traditionally generally northerly facing, which is not in the direction of the coverage area of the proposed facility. (Markup on attachment 2) It is difficult to imagine how the proposed facility would provide any relief to the CT2132 Alpha sector.

Based on the foregoing, there is no urgent capacity crunch that the proposed facility would relieve."

In Attachment 2 to his pre-filed testimony, Mr. Maxson asserts that 0 degrees True North is the "CT2132 Alpha sector presumed direction". Mr. Maxson's presumption is incorrect. In fact, the Alpha sector of the CT2132 site is oriented at 116 degrees True North which places the proposed site ***almost dead center*** *within the main beam of CT2132 Alpha.*

It should also be noted that the antennas on CT2132 are 347 feet AGL whereas the antennas on CT5278 are only 102 feet AGL. The ground elevation at CT5278 is also roughly 50 feet ***lower*** *than CT2132. Based on this, it is not difficult to imagine how CT2132 is reaching past CT5278 and currently providing service to significant stretches of I-95. Specifically, CT2132 Alpha is currently the serving sector, albeit at less-than-reliable signal levels, in much of the area that will be served by the proposed site. By offloading this distant traffic from CT2132 Alpha, the proposed site will alleviate the "urgent capacity crunch" at CT2132. This will bring reliable service to the coverage gap and improve capacity in the remaining service area of CT2132 Alpha.*

I hereby affirm that the foregoing is true and accurate to the best of my knowledge.

_____

Martin J. Lavin

Senior RF Engineer

CERTIFICATE OF SERVICE

I hereby certify that on this day the foregoing was sent electronically and one (1) original and fifteen (15) hard copies were sent overnight mail to the Connecticut Siting Council and sent electronically to the parties on the service list as noted below.

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
kbaldwin@rc.com

David A. Ball, Esq.
Philip C. Pires, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604
dball@cohenandwolf.com
ppires@cohenandwolf.com

Ira W. Bloom, Esq.
Berchem Moses PC
1221 Post Road East
Westport, CT 06880
ibloom@berchemmoses.com

Nicholas R. Bamonte, Esq.
Berchem Moses PC
1221 Post Road East
Westport, CT 06880
nbamonte@berchemmoses.com

Donald L. Bergmann
32 Sherwood Drive
Westport, CT 06880
donlbergmann@sbcglobal.net

Dated: September 14, 2022

Lucia Chiocchio, Esq.
Kristen Motel, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, NY 10601
(914)-761-1300

cc: Tarpon Towers II, LLC
AT&T