

February 2, 2023

Ms. Melanie A. Bachman Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Notice of Exempt Modification New Cingular Wireless PCS LLC ("AT&T") Site CT5013 Off Rowayton Avenue, Norwalk, CT 06853 (the "Property") Latitude: 41-4-38.97 N Longitude: 73-26-32.99 W

Dear Ms. Bachman:

AT&T currently maintains (3) antennas at the 103' level on the existing 95' transmission tower ("Tower") off Rowayton Avenue, at the Rowayton Railroad Station in Norwalk, CT. The tower is owned by Connecticut Light & Power. ("Eversource"). The property is owned by the CT Department of Transportation, however, no property card is available. AT&T intends to modify its Facility by replacing (3) remote radio units ("RRUs") with (3) 4449 B5/B12 RRUs, replacing (18) surge arrestors with (24) TSXDC-4310FM surge arrestors and replacing (12) Pentaplexers with (6) CBC61923T-DS Triplexers, inside the shelter, at ground level. There are no proposed changes to the tower loading with this modification, therefore, no mount analysis or structural analysis reports are included with this filing. However, an RF Emissions Report is included due to AT&T's additional frequencies in use.

This modification may include B2, B5, B17, B14, B29, B30, B66 & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

The AT&T Facility was approved by the CT Siting Council ("Council") under Petition 473 on August 10, 2000. AT&Ts modification complies with the above-mentioned approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies ("R.C.S.A") §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2). In accordance with to R.C.S.A §16-50j-73, a copy of this letter is being sent to the Honorable Harry Rilling, Mayor, City of Norwalk, Mr. Steven Kleppin, Director, Planning & Zoning, City of Norwalk, Eversource, the tower owner & the CT Department of Transportation, the property owner.

The planned modification of the facility falls squarely within those activities explicitly provided for in R.C.S.A §16-50j-72(b)(2). Specifically:

- 1. The proposed modifications will not result in an increase in the height of the existing structure.
- 2. The proposed modifications will not require an extension of the site boundary.
- 3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
- 4. The operation of the modified facility will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
- 5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
- 6. The existing structure and foundation can support the proposed loading.

For the foregoing reasons, AT&T respectfully submits the proposed modifications to the above referenced telecommunication facility constitute an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2).

Sincerely,

Hollís M. Reddíng

Hollis M. Redding SAI Communications, LLC 12 Industrial Way Salem, NH 03079 Mobile: 860-834-6964 <u>hredding@saigrp.com</u>

Enclosures

Cc: Hon. Harry Rilling, Mayor, City of Norwalk
 Mr. Steven Kleppin, Director, Planning & Zoning, City of Norwalk
 Connecticut Light & Power (Eversource), the tower owner
 CT Department of Transportation, the property owner



C Squared Systems, LLC 65 Dartmouth Drive Auburn, NH 03032 (603) 644-2800 support@csquaredsystems.com

Calculated Radio Frequency Emissions Report



CT5013 Rowayton 310 Rowayton Avenue, Norwalk, CT

February 1, 2023

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of AT&T antenna arrays to be mounted at 103' AGL on an existing utility tower located at 310 Rowayton Avenue in Norwalk, CT. The coordinates of the tower are 41° 04' 38.97" N, 73° 26' 32.99" W.

AT&T is proposing the following:

1) Install three (3) multi-band antennas (one per sector) to support its commercial LTE network and the FirstNet National Public Safety Broadband Network ("NPSBN").

This report considers the planned antenna configuration for $AT\&T^1$ to derive the resulting % MPE of its proposed installation.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm²). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment C of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment C contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

¹ As referenced to AT&T's Radio Frequency Design Sheet updated 08/29/2022.



3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

PowerDensity=
$$\left(\frac{EIRP}{\pi \times R^2}\right)$$
 × Off BeamLoss

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance =
$$\sqrt{(H^2 + V^2)}$$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.



4. Antenna Inventory

Table 1 below outlines AT&T's proposed antenna configuration for the site. The associated data sheets and antenna patterns for these specific antenna models are included in Attachments C.

Operator	Sector / Call Sign	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech. Tilt	Length (ft)	Antenna Centerline Height (ft)
	A1 1 /	763	160	10.0	1600		65			
	Alpha / 30°	850	160	10.5	1795	HPA-65F-BUU-H2	62	0	1.78	103
		1900	160	12.8	3049		64			
	Beta / 150°	763	160	10.0	1600	HPA-65F-BUU-H2	65	0	1.78	103
AT&T		850	160	10.5	1795		62			
		1900	160	12.8	3049		64			
		763	160	10.0	1600	HPA-65F-BUU-H2	65	0	1.78	
	Gamma / 270°	850	160	10.5	1795		62			103
	270	1900	160	12.8	3049		64			

Table 1: Proposed Antenna Inventory^{2 3}

² Antenna heights are in reference to the Hudson Design Group LLC. Construction Drawings, dated 09/09/2022.

³ Transmit power assumes 0 dB of cable loss.



5. Calculation Results

The calculated power density results are shown in Figure 1 below. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3,000 feet horizontal distance from the site. In addition to the other worst-case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas was completed using a local maximum off beam antenna gain (within \pm 5 degrees of the true mathematical angle) to incorporate a realistic worst-case scenario.





The highest percent of MPE (1.55% of the General Population limit) is calculated to occur at a horizontal distance of 252 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 1500 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.



Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. The highest percent of MPE value was calculated to occur at a horizontal distance of 252 feet from the site (reference Figure 1).

As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, a six-foot height offset was considered in this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the final configuration. The results presented in Figure 1 and Table 2 assume level ground elevation from the base of the tower out to the horizontal distances calculated.

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm ²)	Limit (mW/cm ²)	% MPE
AT&T LTE 1900 MHz	1	160.0	103.0	252	0.001753	1.000	0.18%
AT&T LTE 763 MHz	1	160.0	103.0	252	0.003683	0.509	0.72%
AT&T LTE 885 MHz	1	160.0	103.0	252	0.003832	0.590	0.65%
						Total	1.55%

 Table 2: Maximum Percent of General Population Exposure Values



6. Conclusion

The above analysis verifies that RF exposure levels from the site with AT&T's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **1.55% of the FCC limit (General Population/Uncontrolled)**. This maximum cumulative percent of MPE value is calculated to occur 252 feet away from the site.

7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.

Report Prepared By:

Ram Acharya RF Engineer C Squared Systems, LLC January 30, 2023 Date

Mait & Fand

Reviewed/Approved By:

Martin J. Lavin Senior RF Engineer C Squared Systems, LLC February 1, 2023 Date



Attachment A: References

<u>OET Bulletin 65 - Edition 97-01 - August 1997</u> Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2005, IEEE Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2002 (R2008), IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz-300 GHz IEEE-SA Standards Board



Frequency	Electric Field	Magnetic Field	Dower Dongity (S)	Averaging Time
Range	Strength (E)	Strength (E)	$\frac{1}{(mW/cm^2)}$	$ \mathbf{F} ^2 \mathbf{H} ^2$ or S (minutes)
(MHz)	(V/m)	(A/m)		$ \mathbf{E} $, $ \mathbf{H} $ of S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	$(900/f^2)$ *	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
500-100,000	-	-	5	6

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure⁵

Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time $ E ^2$, $ H ^2$ or S (minutes)
614	1.63	(100)*	30
824/f	2.19/f	$(180/f^2)^*$	30
27.5	0.073	0.2	30
-	-	f/1500	30
-	-	1.0	30
_	Strength (E) (V/m) 614 824/f 27.5 -	Strength (E) Strength (E) (V/m) (A/m) 614 1.63 824/f 2.19/f 27.5 0.073 - - - -	$\begin{array}{c ccccc} \text{Strength} (E) & \text{Strength} (E) & \text{Fower Density} (5) \\ \hline (V/m) & (A/m) & (mW/cm^2) \\ \hline 614 & 1.63 & (100)* \\ 824/f & 2.19/f & (180/f^2)* \\ 27.5 & 0.073 & 0.2 \\ - & - & f/1500 \\ - & - & 1.0 \\ \hline \end{array}$

Table 3: FCC Limits for Maximum Permissible Exposure

⁴ Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

⁵ General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.





Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)



Attachment C: AT&T Mobility Antenna Model Data Sheets and Electrical Patterns

763 MHz		-90
Manufacturer: Model #: Frequency Band: Gain: Vertical Beamwidth: Horizontal Beamwidth: Polarization: Dimensions (L x W x D):	CCI HPA-65F-BUU-H2 698-806 MHz 10.0 dBi 40° 65° Dual Pol ±45° 21.4" x 14.4" x 7.3"	
885 MHz Manufacturer: Model #: Frequency Band: Gain: Vertical Beamwidth: Horizontal Beamwidth: Polarization: Dimensions (L x W x D):	CCI HPA-65F-BUU-H2 824-894 MHz 10.5 dBi 35.8° 62° Dual Pol ±45° 21.4" x 14.4" x 7.3"	-90 -120 -150 -150 -150 -150 -150 -150 -150 -1000 -1000 -1000 -1000 -1000 -1000 -1000 -1000 -1000
1900 MHz Manufacturer: Model #: Frequency Band: Gain: Vertical Beamwidth: Horizontal Beamwidth: Polarization: Dimensions (L x W x D):	CCI HPA-65F-BUU-H2 1850-1990 MHz 12.8 dBi 17.5° 64° Dual Pol ±45° 21.4" x 14.4" x 7.3"	-90 -120 -150 -150 -150 -150 -150 -150 -150 -100 $-1000-1000-1000-1000-1000-1000-1000-1000-$

		PROJECT INFORMATION					
SCOPE OF W	VORK: <u>ITEMS TO</u> NONE <u>ITEMS TO</u> • NEW AT WITH NEW • NEW AT	BE MOUNTED ON THE EXISTING UTILITY TOWER: BE MOUNTED AT EQUIPMENT LOCATION: &T RRUS 4449 B5/B12 (700/850) (TYP. OF 1 PER S V SURGE ARRESTORS TSXDC-4310FM (TYP. OF 8 PER 3 &T TRIPLEXERS CBC61923T-DS (TYP. OF 2 PER SECTO	ECTOR, TOTAL OF 3) SECTOR, TOTAL OF 24) R, TOTAL OF 6)				at&
	ITEMS TO • DECOMM • EXISTING WITH SUF • EXISTING	<u>BE REMOVED:</u> 4 UMTS & LINE COMPONENTS. 3 AT&T RRUS-11 B12 (TYP. OF 1 PER SECTOR, TOTAL RGE ARRESTORS APTOC-BDFDM-DBW (TYP. OF 6 PER S A T&T DENIADLEYEDS EDV. 0706 0 (TYP. OF 6 PER S	OF 3) EECTOR, TOTAL OF 18)			SITE NUM	BER: CT50
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LONGITUDE:	73.44249	189° W, 73° 26' 32.99" W					
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RAD CENTER:	: 103'-0"±			FOX RUN RD. FOX RUN RD BECOM FLAX HILL RD. STAY STRAIGHT ONTO AVENUE, NORWALK, CT 06853.	ES FILLOW ST. TURN LEFT ONTO RICHARDS D ROWAYTON AVE. DESTINATION IS ON THE I	AVE. TURN LEFT ONTO RIGHT. 310 ROWAYTON	ACCESSED BY TRAINE NOT REQUIRE ANY W REGULATIONS REQUIR
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GENERAL NOTES

THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY E WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION RNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY ATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY IED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES VATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY RING PUBLIC ACCESS PER ADA REQUIREMENTS.

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

/INGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND ATE LISTED HEREIN.



GROUNDING NOTES

- 1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
- 2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- 3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- 5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
- 6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- 7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- 8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
- 9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- 10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- 11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- 12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY: CONTRACTOR - SAI

SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION) OWNER - AT&T MOBILITY

- 2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
- 3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS
- 4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE
- 5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR
- 7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR
- 9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES. GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- 10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- 11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- 12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- 13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

- AFTER MIDNIGHT
- EXPOSURE LEVELS
- 20. APPLICABLE BUILDING CODES:

STANDARDS

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION:

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

AGL	ABOVE GRADE LE
AWG	AMERICAN WIRE G
BBU	BATTERY BACKUP
BTCW	BARE TINNED SOL COPPER WIRE
BGR	BURIED GROUND
BTS	BASE TRANSCEIVE
E	EXISTING
EGB	EQUIPMENT GROU
EGR	EQUIPMENT GROU

HDG	HUD Desig	SON In Group LLC
45 BEECHWOOD DRIVE NORTH ANDOVER, MA	01845	TEL: (978) 557-5553 FAX: (978) 336-5586



SITE NUMBER: CT5013 SITE NAME: ROWAYTON

> ROWAYTON AVENUE NORWALK, CT 06853 FAIRFIELD COUNTY



				ABBREVIATIONS			
	AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED	
	AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY	
	BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED	
	BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED	
	BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED	
	BTS	BASE TRANSCEIVER STATION	Ρ	PROPOSED	TYP	TYPICAL	
	Е	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND	
	EGB	EQUIPMENT GROUND BAR	RADII	RADIATION CENTER LINE	VIF	VERIFY IN FIELD	
	EGR	EQUIPMENT GROUND RING		REFERENCE C			
			*	2 miles		AT&T	
1 01/11/22 ISSUE	D FOR CO		DPH	Kolanza E	GEI	NERAL NOTES	
A 09/09/22 ISSUE	D FOR RE		Den X	KIMMA	- 5G NR	RADIO UPGRADE	
NO. DATE		REVISIONS BY CHK	APP D A	CENST NUMBER		DRAWING NUMBER	REV
SCALE: AS SHOWN	DE	SIGNED BY: HC DRAWN BY: -	Th	STONAL END CT5013		GN-1	1

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCH UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.

16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."

17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS

19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS

SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE: IBC 2021 WITH 2022 CT STATE BUILDING CODE AMENDMENTS ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE (NFPA 70-2020)

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL



NOTE:

REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.







NOTES: "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED. 1. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATION.
 CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB



EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

CABLE ENTRY PORTS (HATCH PLATES) (#2 AWG) GENERATOR FRAMEWORK (IF AVAILABLE) "(#2 AWG) TELCO GROUND BAR COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2 AWG)

+24V POWER SUPPLY RETURN BAR (#2 AWG) -48V POWER SUPPLY RETURN BAR (#2 AWG) RECTIFIER FRAMES.

SECTION "A" - SURGE ABSORBERS

INTERIOR GROUND RING (#2 AWG) EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG) METALLIC COLD WATER PIPE (IF AVAILABLE) (#2 AWG) BUILDING STEEL (IF AVAILABLE) (#2 AWG)



1 01/11/22 ISSUED FOR CONSTRUCTION A 09/09/22 ISSUED FOR REVIEW DATE NO. REVISIONS SCALE: AS SHOWN DESIGNED BY: HC

TWO HOLE COPPER COMPRESSION TERMINAL

-EXPOSED BARE COPPER TO BE KEPT TO ABSOLUTE MINIMUM, NO INSULATION ALLOWED WITHIN THE COMPRESSION TERMINAL (TYPICAL)

3





45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 INCRITH ANDOVER, MA 01845



SITE NUMBER: CT5013 SITE NAME: ROWAYTON

> ROWAYTON AVENUE NORWALK, CT 06853 FAIRFIELD COUNTY



 1
 01/11/22
 ISSUED FOR CONSTRUCTION

 A
 09/09/22
 ISSUED FOR REVIEW

 NO.
 DATE
 REVISIONS

 SCALE:
 AS SHOWN
 DESIGNED BY: HC
 DRA

NOTE:

REV: 4 DATED: 08/29/2022 RFDS ID: 5108848

					NOTE: 1. CC 2. INS MA 3. RF	NTRACTOR TO CONFIRM ALL PARTS STALL ALL EQUIPMENT TO NUFACTURER'S RECOMMENDATIONS. DS USED FOR REFERENCE.	
DIAGRAM (1 RF-1)					NOTE: REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.		
						AT&T	
	YH	нс	DPH		RF PLUMBING DIAGRAM		
_	YH BY	нс	DPH		5G NR RADIO UPGRADE		
AWN BY: -					CT5013	RF-1	1



56 Prospect Street, Hartford, CT 06103

P.O. Box 270 Hartford, CT 06141-0270 (860) 665-5000

January 25, 2023

Mr. Tim Burks SAI Communications 12 Industrial Way Salem, NH 03079

RE: AT&T Antenna Site CT5013, Rowayton Ave, Norwalk CT, Eversource Structure 489S

Dear Mr. Burks:

Based on our review of the equipment location drawings provided by the Hudson Design Group LLC, we accept the location of the proposed equipment. The work as shown is for ground construction only.

Construction activities within the Eversource system rights-of-way must adhere to the clearance requirements provided in Attachment 1, "Operation of Equipment on Eversource Rights-of-Way" (OTRM 222).

Please contact Christopher Gelinas of Eversource Real Estate regarding leasing modifications for this site (christopher.gelinas@eversource.com), or me (richard.badon@eversource.com) with any questions.

Sincerely,

Richard Badon

Richard Badon Transmission Line Engineering

Ref: CT5013_C-BAND_CD Rev1_01.11.23







STATE OF CONNECTICUT

loger (

CONNECTICUT SITING COUNCIL Ten Franklin Square

New Britain, Connecticut 06051 Phone: (860) 827-2935 Fax: (860) 827-2950

CERTIFIED MAIL RETURN RECEIPT REQUESTED

August 15, 2000

Christopher B. Fisher, Esq. Cuddy & Feder & Worby LLP 90 Maple Avenue White Plains, New York 10601-5196

Re: PETITION NO. 473 - AT&T Wireless PCS, LLC d/b/a AT&T Wireless Services petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the modification of an existing Connecticut Light and Power Company electric transmission facility located off Rowayton Avenue, Norwalk, Connecticut.

Dear Attorney Fisher:

At a public meeting held on August 10, 2000, the Connecticut Siting Council (Council) considered and ruled that this proposal would not have a substantial adverse environmental effect, and pursuant to General Statutes § 16-50k would not require a Certificate of Environmental Compatibility and Public Need.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition, dated July 21, and August 3, 2000.

Enclosed for your information is a copy of the staff report on this project.

Very truly yours,

Mortimer A. Gelston Chairman

MAG/FOC

Enclosure: Staff Report dated August 10, 2000

C: Honorable Frank J. Esposito, Mayor, City of Norwalk Dorian E. Hill, NU



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square New Britain, Connecticut 06051 Phone: (860) 827-2935 Fax: (860) 827-2950

Petition No. 473 AT&T Wireless PCS, Inc. Norwalk, Connecticut Staff Report August 10, 2000

On August 8, 2000, Connecticut Siting Council (Council) member Gerald J. Heffernan, and Fred Cunliffe of Council staff met AT&T Wireless PCS (AT&T) representatives Michael Austin for inspection of a Connecticut Light & Power Company (CL&P) electric transmission line structure (no. 489S) located off Rowayton Avenue at the Rowayton Railroad Station in Norwalk. AT&T, with the agreement of CL&P, proposes to modify the transmission structure for telecommunications use and is petitioning the Council for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the modification.

AT&T proposes to attach a 4.5-inch diameter by 5-foot high mast to an existing 95-foot tall monopole electric transmission structure. A total of three, four-foot high panel antennas affixed to the mast would extend five feet above the top of the tower. The total height of the structure with antennas would be 100 feet. A structural analysis concludes no additional reinforcement is necessary for this proposal. Also, AT&T has an agreement with the Connecticut Department of Transportation to construct a 12-foot by 20-foot equipment building near the base of the existing CL&P structure. ConnDOT recommended that AT&T construct a 20-foot high by 30-foot long cable bridge over an existing access road adjacent to the railroad. Vegetation and a fence would be removed adjacent to the parking area and end of the railroad station platform. The proposed site is southwest of the Rowayton Railroad Station and east of Rowayton Avenue. The site is zoned A Residential. The nearest residential properties are over 100 feet south across a CL&P ROW and Dean Court, and buffered by trees.

An existing parking lot off Belmont Place would be used by AT&T to access the structure. Utilities would be routed underground from an existing utility distribution pole on Belmont Place or Dean Court as determined by CL&P over ConnDOT property. No fencing or landscaping is proposed.

The worst case power density for the telecommunications operations at the site has been calculated to be less than 3% of the applicable standard for uncontrolled environments.

AT&T contends that the proposed installation will not cause a substantial adverse environmental effect, and for this reason would not require a Certificate.



Cut on dotted line.

~





Cut on dotted line.

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Hollis Redding

From:auto-reply@usps.comSent:Friday, February 3, 2023 2:52 PMTo:Hollis ReddingSubject:USPS® Expected Delivery by Saturday, February 4, 2023 arriving by 9:00pm 9405503699300470934507



Hello HOLLIS M REDDING,

USPS is now in possession of your item as of 2:26 pm on February 3, 2023 in MERIDEN, CT 06450.

Tracking Number: <u>9405503699300470934507</u>



Hollis Redding

From:auto-reply@usps.comSent:Friday, February 3, 2023 2:52 PMTo:Hollis ReddingSubject:USPS® Expected Delivery by Monday, February 6, 2023 arriving by 9:00pm 9405503699300470934514



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From:auto-reply@usps.comSent:Friday, February 3, 2023 3:02 PMTo:Hollis ReddingSubject:USPS® Expected Delivery by Saturday, February 4, 2023 arriving by 9:00pm 9405503699300470934521



Hello HOLLIS M REDDING,

USPS is now in possession of your item as of 2:26 pm on February 3, 2023 in MERIDEN, CT 06450.

Tracking Number: <u>9405503699300470934521</u>

