

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@po.state.ct.us

Web Site: www.state.ct.us/csc/index.htm

June 28, 2002

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

RE: **EM-AT&T-032-020531** - AT&T Wireless notice of intent to modify an existing telecommunications facility located at 400 Riley Mountain Road, Coventry, Connecticut.

Dear Attorney Fisher:

At a public meeting held on June 25, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice received May 31, 2002. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,


Mortimer A. Gelston
Chairman

MAG/laf

c: Honorable Joan A. Lewis, Chairman Town Council, Town of Coventry
Eric M. Trott, Director of Planning & Development, Town of Coventry
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC
Sandy M. Carter, Verizon Wireless
Michele G. Briggs, SNET Mobility LLC
Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene & MacRae

**NOTICE OF INTENT TO MODIFY AN
EXISTING TELECOMMUNICATIONS FACILITY AT
400 RILEY MOUNTAIN ROAD, COVENTRY, CONNECTICUT**

Pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes § 16-50g et. seq. ("PUESA"), and Sections 16-50j-72(b) of the Regulations of Connecticut State Agencies adopted pursuant to the PUESA, AT&T Wireless PCS, LLC d/b/a AT&T Wireless ("AT&T Wireless") hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 400 Riley Mountain Road, Coventry, Connecticut (the "Riley Mountain Road Facility"), owned by Sprint Nextel USA ("Sprint"). AT&T Wireless and Sprint have agreed to share the use of the Riley Mountain Road Facility, as detailed below.

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The Riley Mountain Road Facility

The Riley Mountain Road Facility consists of an approximately one hundred fifty (150) foot monopole (the "Tower") and associated equipment currently being used or leased for wireless communications use by Verizon, Sprint, Cingular and VoiceStream. A chain link fence surrounds the Tower compound. The current surrounding land uses are rural residential.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by URS Corporation, including a site plan and tower elevation of the Riley Mountain Road Facility, AT&T Wireless proposes shared use of the Facility by placing antennas on the Tower and equipment cabinets needed to provide personal communications services ("PCS") within the existing fenced compound. AT&T Wireless will install 6 panel antennas at approximately the 107 foot level of the Tower and associated equipment cabinets (2 proposed, 2 future, each 76"H x 30" W x 30" D) on a concrete pad. As evidenced in the letter of structural integrity prepared by URS Corporation, annexed hereto as Exhibit A, AT&T has confirmed that the tower is structurally capable of supporting the addition of AT&T Wireless' antennas.

AT&T Wireless' Facility Constitutes An Exempt Modification

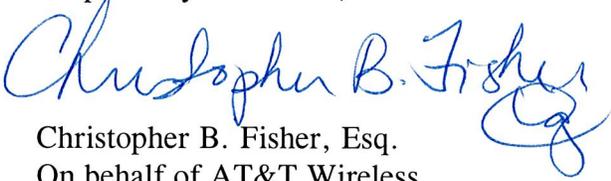
The proposed addition of AT&T Wireless' antennas and equipment to the Riley Mountain Road Facility constitutes an exempt "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and Council regulations promulgated pursuant thereto. Addition of AT&T Wireless' antennas and equipment to the Tower will not result in an increase of the Tower's height nor extend the site boundaries. Further, there will be no increase in noise levels by six (6) decibels or more at the Tower site's boundary. As set forth in an Emissions Report prepared by Nader Soliman, Radio Frequency Engineer, annexed hereto as Exhibit B, the total radio frequency electromagnetic radiation power density at the Tower site's boundary will not

be increased to or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. For all the foregoing reasons, addition of AT&T Wireless' facility to the Tower constitutes an exempt modification which will not have a substantially adverse environmental effect.

Conclusion

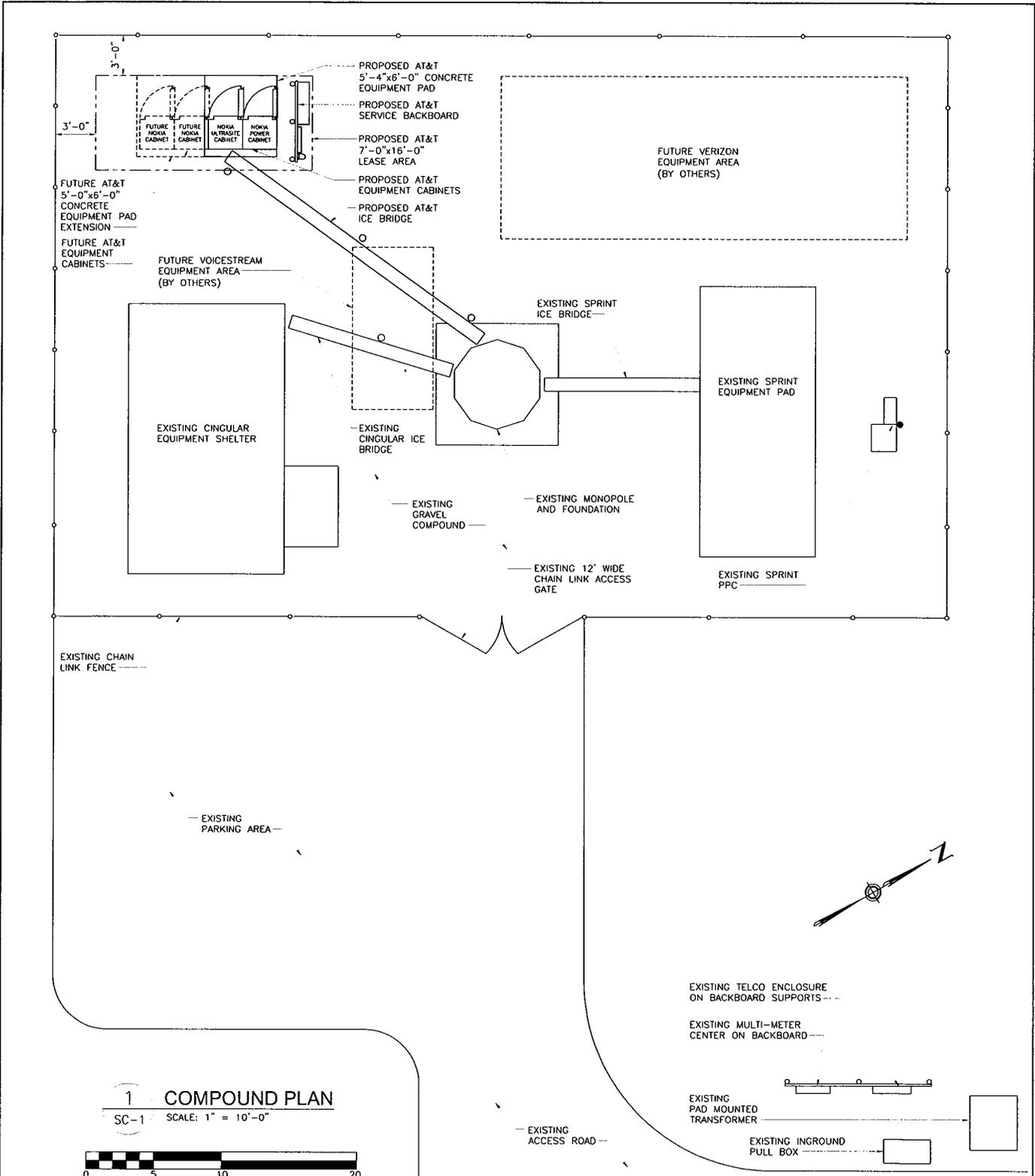
Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Riley Mountain Road Facility meets the Council's exemption criteria.

Respectfully Submitted,

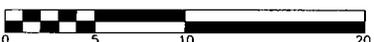
A handwritten signature in blue ink that reads "Christopher B. Fisher". The signature is written in a cursive style with a large, stylized initial "C".

Christopher B. Fisher, Esq.
On behalf of AT&T Wireless

cc: Town Manager, Town of Coventry
Joanne Desjardins, Pinnacle



1 COMPOUND PLAN
SC-1 SCALE: 1" = 10'-0"



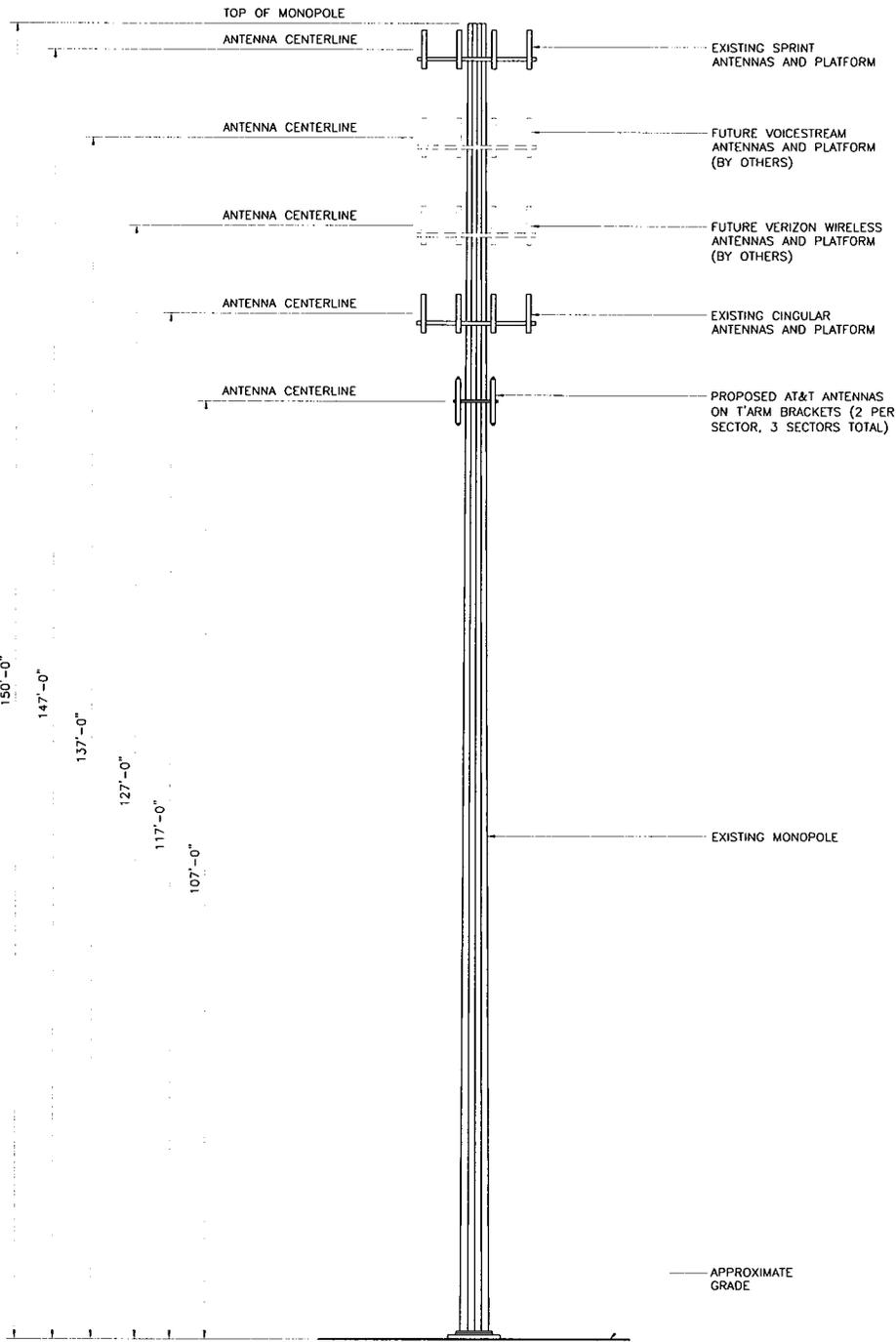
ISSUED FOR SITING COUNCIL

LATITUDE: 41.7988 (NAD 83)	
LONGITUDE: 72.3322 (NAD 83)	
DRAWING TITLE: 907-007-820A-SC1	
REVISION NO. 0	DRAWN BY: RB
DATE ISSUED: 05/17/02	CHECKED BY: JCF
SCALE: AS NOTED	APPROVED BY:
SHEET NO. 1 OF 2	
URS JOB NO.: F302224.35	

URS
 URS CORPORATION-AES
 795 BROOK STREET, BLDG 5
 ROCKY HILL, CT. 06067
 1-(860)-529-8882
 1-(860)-529-5566 (FAX)

 **AT&T**
 AT&T WIRELESS PCS LLC
 12 OMEGA DRIVE
 STAMFORD, CONNECTICUT 06902

DRAWING TITLE: COMPOUND PLAN
 PROJECT INFORMATION:
 COVENTRY - RICHMOND
 CT-820
 400 RILEY MOUNTAIN ROAD
 COVENTRY, CT
 PROPERTY OWNER:
 SPRINT SITES USA
 535 CRESCENT AVENUE
 RAMSEY, NY 07746



1 TOWER ELEVATION
 SC-2 SCALE: 1" = 20'-0"



ISSUED FOR SITING COUNCIL

LATITUDE: 41.7988 (NAD 83)
 LONGITUDE: 72.3322 (NAD 83)

URS
 URS CORPORATION-AES
 795 BROOK STREET, BLDG 5
 ROCKY HILL, CT. 06067
 1-(860)-529-8882
 1-(860)-529-5566 (FAX)

 **AT&T**
 AT&T WIRELESS PCS LLC
 12 OMEGA DRIVE
 STAMFORD, CONNECTICUT 06902

DRAWING TITLE: TOWER ELEVATION
PROJECT INFORMATION: COVENTRY - RICHMOND CT-820
 400 RILEY MOUNTAIN ROAD
 COVENTRY, CT
PROPERTY OWNER: SPRINT SITES USA
 535 CRESCENT AVENUE
 RAMSEY, NY 07746

DRAWING TITLE: 907-007-820A-SC2	
REVISION NO. 0	DRAWN BY: RB
DATE ISSUED: 05/17/02	CHECKED BY: JCF
SCALE: AS NOTED	APPROVED BY:
	SHEET NO. 2 OF 2
URS JOB NO.: F302224.35	



May 22, 2002

Mr. Mortimer A. Gelston
Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

**Reference: Proposed Telecommunications Facility
AT&T Site No. CT-820
400 Riley Mountain Road
Coventry, Connecticut
F300002224.35**

Dear Mr. Gelston:

URS Corporation AES (URS) conducted a review and evaluated the existing 152' monopole structure (extendable to 193') located on 400 Riley Mountain Road in Coventry, Connecticut. The purpose of this review was to evaluate the affect of the proposed AT&T Wireless antennas and mount on the existing monopole structure. The monopole and its foundation were designed by Engineered Endeavors job no. 7831 approved September 25, 2000. The monpole and its foundation were originally designed to support ten telecommunications carriers between the elevations of 100' - 193'. The monopole currently is supporting four carriers between elevations 117' - 147'. The proposed AT&T Wireless antennas and mount considered in this review are as listed below:

Antenna and Mount	Carrier	Antenna Center Elevation
(6) Allgon 7250.03 with (3) T-Frame mounts and (12) 1-5/8" coax cables within the monopole	AT&T	107'

It is our determination that the existing monopole and its foundation have sufficient structural capacity to support the presently installed four carriers including the AT&T Wireless installation as specified above. This evaluation is based on requirements of the TIA/EIA-222-F dated March 1996 and the Connecticut State Building Code dated 1999 and the latest supplement and amendments.

If you should have any questions, please call.

Sincerely,

URS Corporation AES

Mohsen Sahirad, P.E.
Senior Structural Engineer



MS/rmn

cc: Don Huntley – Bechtel
Naish Artaz – URS
Doug Roberts – URS
Alitz Abadjian – URS
CF/Book

URS Corporation
500 Enterprise Drive, Suite 3B
Rocky Hill, CT 06067
Tel: 860.529.8882
Fax: 860.529.3991



RF Exposure Analysis for Proposed AT&T Wireless Antenna Facility

SITE ID: 907-007-820

May 29, 2002

**Prepared by AT&T Wireless Services, Inc.
Nader Soliman RF Engineer**

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1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at 400 Riley Mountain Road, Coventry, CT 06238. This analysis uses site-specific engineering data to determine the predicted levels of radio frequency (RF) electromagnetic energy in the vicinity of the proposed facility and compares those levels with the Maximum Permissible Exposure (MPE) limits established by the Federal Communications Commission.

2. Site Data

Site Name: Coventry	
Number of simultaneously operating channels	16
Type of antenna	Allgon 7250.03
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	107.00 feet
Antenna Aperture Length	5 feet

3. RF Exposure Prediction

The following equations established by the FCC, in conjunction with the site data, were used to determine the levels of RF electromagnetic energy present in the vicinity of the proposed facility¹:

$$PowerDensity = \frac{0.64 * N * EIRP(\theta)}{\pi * R^2} (mW/cm^2) \quad Eq. 1-Far-field$$

Where, N = Number of channels, R = distance in cm from the RC (Radiation Center) of antenna, and $EIRP(\theta)$ = The isotropic power expressed in milliwatts in the direction of prediction point. This is the correct equation for antennas which have their gain expressed in dBi, which is the usual case for the PCS bands.

$$PowerDensity = \frac{P_{in} / ch * N * 10^3}{2 * \pi * R * h * \alpha / 360} (mW/cm^2) \quad Eq. 2-Near-field$$

Where P_{in}/ch = Input power to antenna terminals in watts/ch, R = distance to center of radiation, h = aperture height in meters, α = 3 dB beam-width of horizontal pattern.

¹ RF exposure is measured and predicted in terms of power density in units of milliwatts (mW), a thousandth of a watt, or microwatts (μW), a millionth of a watt, per square centimeter (cm^2). Data comparing predictive analysis with on site measurements has demonstrated that power density can be effectively predicted at given locations in the vicinity of a wireless antenna facility.

4. FCC Guidelines for Evaluating the Environmental Effects of RF Radiation

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 a Second Memorandum Opinion and Order. These new rules represent a consensus of the federal agencies responsible for the protection of public health and the environment, including the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institute for Occupational Health and Safety (NIOSH), and the Occupational Safety and Health Administration (OSHA).

Under the laws that govern the delivery of wireless communications services in the United States, as amended by the Telecommunications Act of 1996, the FCC has exclusive jurisdiction over RF emissions from personal wireless antenna facilities, which include cellular, PCS, messaging and aviation sites.² Pursuant to its authority under federal law, the FCC has established rules to regulate the safety of emissions from these facilities.

5. Comparison with Standards

Exhibit A shows the levels of RF electromagnetic energy as one moves away from the antenna facility. As shown in Exhibit A, the maximum power density is 0.002406 mW/cm² which occurs at 120 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000170 mW/cm² at a distance of 4 feet. Table 1 below shows the Maximum Permissible Exposure (MPE) limits established by the FCC. There are different MPE limits for public/uncontrolled and occupational/controlled environments.

Table 1: Maximum Permissible Exposure limits for RF radiation

<i>Frequency</i>	<i>Public/Uncontrolled</i>	<i>Occupational/controlled</i>	<i>Maximum power density at Accessible location</i>
Cellular	.580 mW/cm ²	2.9 mW/cm ²	0.002406 mW/cm ²
PCS	1 mW/cm ²	5 mW/cm ²	

The maximum power density at the proposed facility represents only 0.37% of the public MPE limit for PCS frequencies.

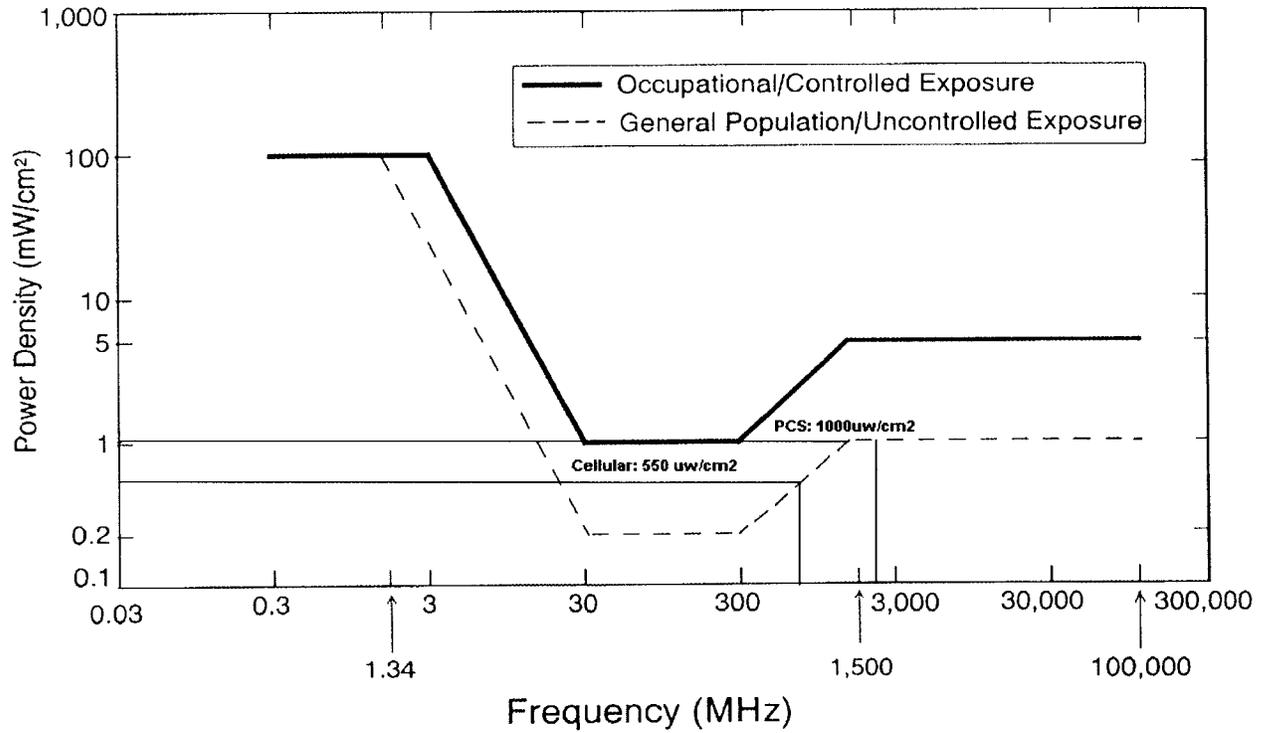
6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 0.002406 mW/cm², a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

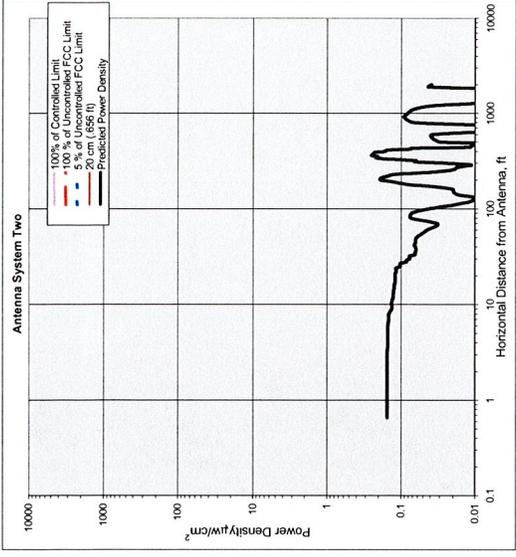
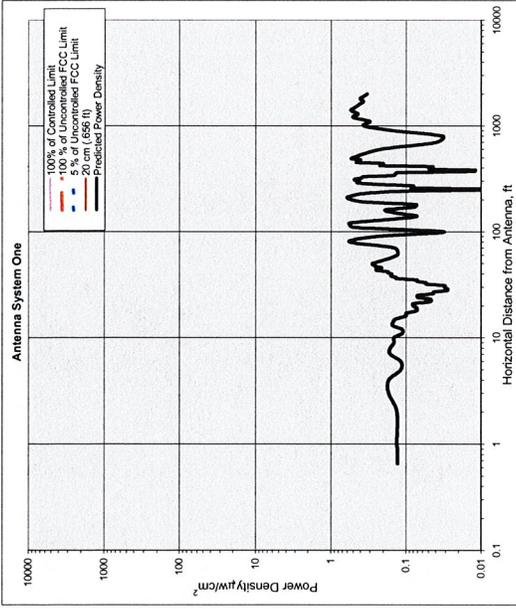
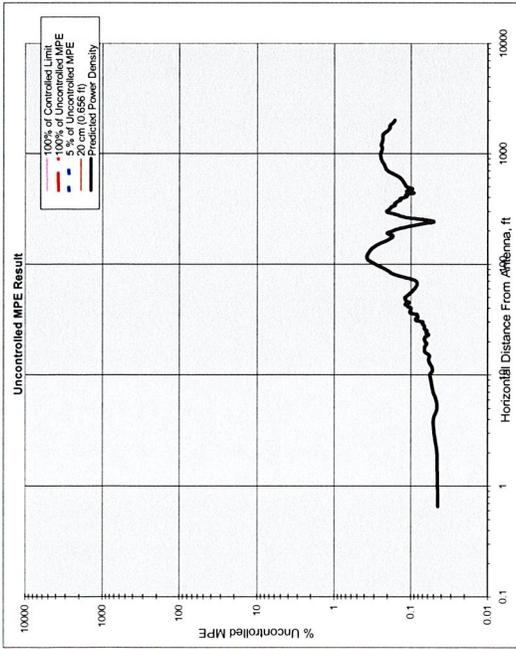
² 47 U.S. C. Section 332 (c) (7)(B)(iv) states that “[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission’s regulations concerning such emissions.”

7. FCC Limits for Maximum Permissible Exposure

FCC Limits for Maximum Permissible Exposure (MPE)
Plane-wave Equivalent Power Density



8. Exhibit A



Number of Antenna Systems: 5
Meets FCC Controlled Limits for The Antennas Systems.

Meets FCC Uncontrolled Limits for The Antenna Systems.

Meets 5% of FCC Uncontrolled Limits for The Antenna Systems.

No Further Maximum Permissible Exposure (MPE) Analysis Required.

Power Density	@Horiz. Dist.
mW/cm²	feet
Maximum Power Density = 0.002406	% of limit 120.00
270.61 times lower than the MPE limit for uncontrolled environment	
Composite Power (ERP) = 24,000.00	Watts

Site ID: 907-007-820
Site Name: Coventry
Site Location: 400 Riley Mountain Road
 Coventry, CT 06238

Ant System ONE Owner: AT&T
Sector: 3
Azimuth: 0/110/250

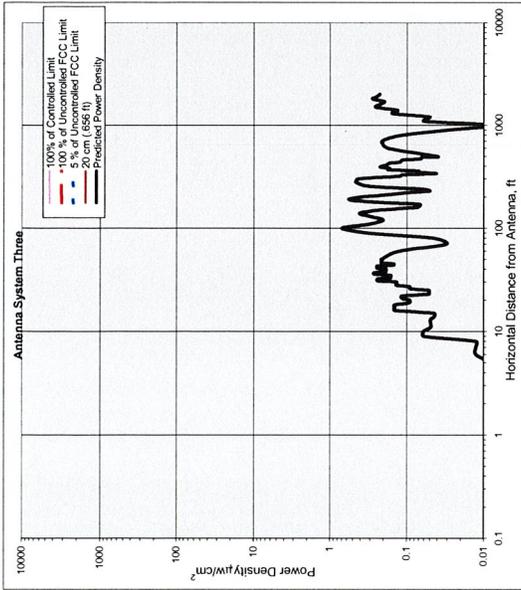
Ant System TWO Owner: Sprint
Sector: 3
Azimuth: 0/130/270

Antenna System One

Frequency	units	Value
1945.00	MHz	1945.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	5.86
(Center of Radiator)	feet	107.00
Calculation Point	feet	0.00
(above ground or roof surface)	feet	0.00
Antenna Model No.		Aligon 7250.03
Max Ant Gain	dBd	16.30
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.11
Ant HBW	degrees	65.00
Distance to Ant _{horizon}	feet	104.45
WOST?	Y/N/?	n

Antenna System Two

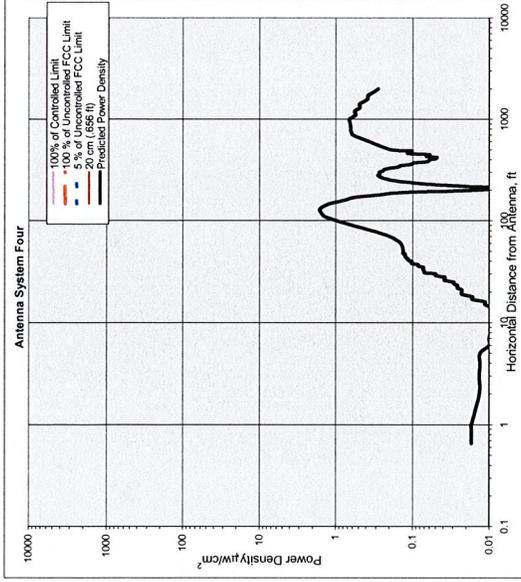
Frequency	units	Value
1950.00	MHz	1950.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	7.73
(Center of Radiator)	feet	147.00
Calculation Point	feet	0.00
(above ground or roof surface)	feet	0.00
Antenna Model No.		DB980690E-M
Max Ant Gain	dBd	15.10
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.00
Ant HBW	degrees	90.00
Distance to Ant _{horizon}	feet	144.50
WOST?	Y/N/?	n



Antenna System Three

	units	Value
Frequency	MHz	1930.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	9.08
(Center of Radiator)	feet	137.00
Calculation Point	feet	0.00
(above ground or roof surface)	feet	0.00
Antenna Model No.		88901702
Max Ant Gain	dBd	14.40
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	4.66
Ant. HBW	degrees	90.00
Distance to Ant _{horiz}	feet	134.67
WOS?	Y/N?	n

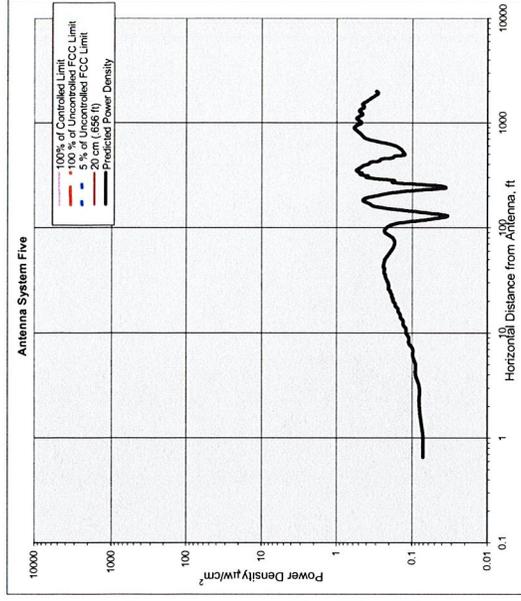
Ant System Three Owner: Voicestream
Sector: 3
Azimuth: 0/180/300



Antenna System Four

	units	Value
Frequency	MHz	835.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	15.77
(Center of Radiator)	feet	127.00
Calculation Point	feet	0.00
(above ground or roof surface)	feet	0.00
Antenna Model No.		08844H90-XY
Max Ant Gain	dBd	12.00
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	4.00
Ant. HBW	degrees	90.00
Distance to Ant _{horiz}	feet	125.00
WOS?	Y/N?	n

Ant System Four Owner: Verizon
Sector: 3
Azimuth: 23/143/263



Antenna System Five

	units	Value
Frequency	MHz	850.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	9.95
(Center of Radiator)	feet	117.00
Calculation Point	feet	0.00
(above ground or roof surface)	feet	0.00
Antenna Model No.		08846-H80-SX
Max Ant Gain	dBd	14.00
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	14.00
Ant. HBW	degrees	80.00
Distance to Ant _{horiz}	feet	110.00
WOS?	Y/N?	n

Ant System Five Owner: SNET
Sector: 3
Azimuth: 23/143/263

9. For Further Information

Additional information about the environmental impact of RF energy from personal wireless antenna facilities can be obtained from the Federal Communications Commission:

Dr. Robert Cleveland
Federal Communications Commission
Office of Engineering and Technology
Washington, DC 20554

RF Safety Program: 202-418-2464
Internet address: rfsafety@fcc.gov
RF Safety Web Site: www.fcc.gov/oet/rfsafety

10. References

- [1] The Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. Section 332 (c)(7)(B)(iv).
- [2] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Notice of Proposed Rulemaking, ET Docket 93-62, 8 FCC Rcd 2849 (1993).
- [3] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Report and Order, ET Docket 93-62, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).
- [4] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Second Memorandum Opinion and Order, ET Docket 93-62, adopted August 25, 1997.
- [5] *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields*, OET Bulletin 65, August, 1997.