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

May 23, 2002

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

RE: **EM-AT&T-023-020503** - AT&T Wireless notice of intent to modify an existing telecommunications facility located at 196 Powder Mill Road, Canton, Connecticut.

Dear Attorney Fisher:

At a public meeting held on May 21, 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 3, 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/DM/laf

c: Honorable Mary B. Tomolonius, First Selectman, Town of Canton
Eric Barz, Town Planner, Town of Canton
Frederick E. Turkington, Jr., Chief Administrative Officer, Town of Canton
Sheila R. Becker, SBA, Inc.
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC
Sandy M. Carter, Verizon Wireless

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NOTICE OF INTENT TO MODIFY AN EXISTING TELECOMMUNICATIONS FACILITY AT 196 POWDER MILL ROAD, CANTON, 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, by and through its agent AT&T Wireless PCS, Inc., ("AT&T Wireless") hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 196 Powder Mill Road, Canton, Connecticut (the "Powder Mill Road Facility"), owned by SBA, Towers Inc., ("SBA"). AT&T Wireless and SBA have agreed to share the use of the Powder Mill Road Facility, as detailed below.

The Powder Mill Road Facility

The Powder Mill Road Facility consists of an approximately one hundred eighty (180) foot monopole (the "Tower") and associated equipment currently being used and/or approved for use for wireless communications by Sprint and Verizon. A chain link fence surrounds the Tower compound. The current adjacent land uses are predominantly industrial.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by Scientel, including a site plan and tower elevation of the Powder Mill 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 171 foot level of the Tower and associated equipment cabinets (2 proposed, 2 future, each 76" H x 30" W x 30" D) located on an existing concrete pad which will be expanded 6'-0" x 3'-0". As evidenced in the letter of structural integrity prepared by Scientel, 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

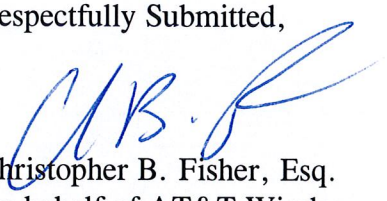
The proposed addition of AT&T Wireless' antennas and equipment to the Powder Mill Facility constitutes an exempt "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and Council regulations promulgated pursuant thereto. Addition of AT&T Wireless' antennas 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 Frank Wentink, 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

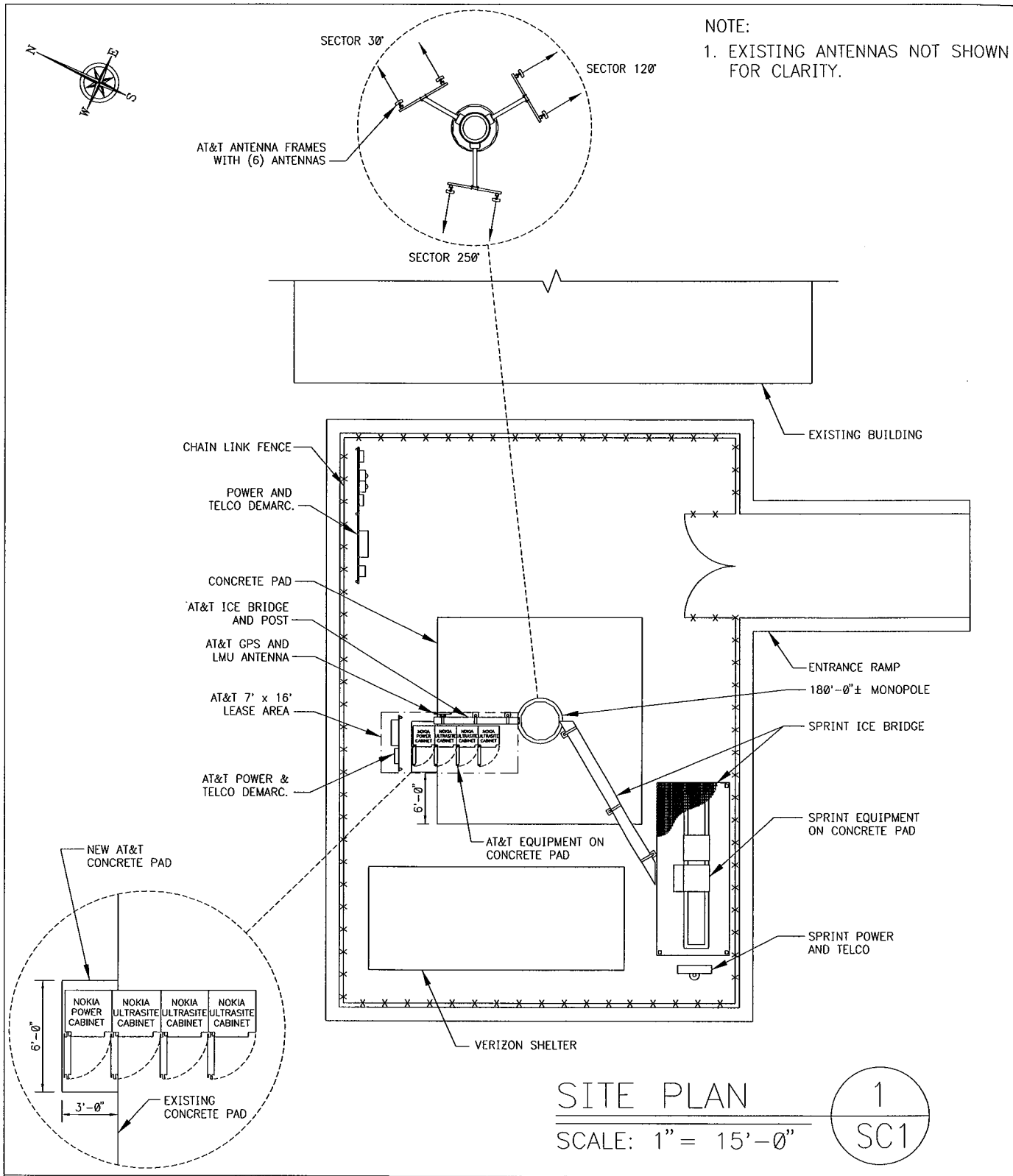
Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Powder Mill Road Facility meets the Council's exemption criteria.

Respectfully Submitted,



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

cc: First Selectman, Town of Canton
Harold Hewett, Bechtel
Mark Roberts, SBA



SITE PLAN

SCALE: 1" = 15'-0"

1 / SC1

SCIENTEL.
THE BLEACHERY
143 WEST STREET
NEW MILFORD, CT. 06776
Tel: (860) 210-3020
Fax: (860) 210-3047

AT&T
AT&T WIRELESS PCS, LLC
149 EAST WATER STREET
SOUTH NORWALK, CT. 06854

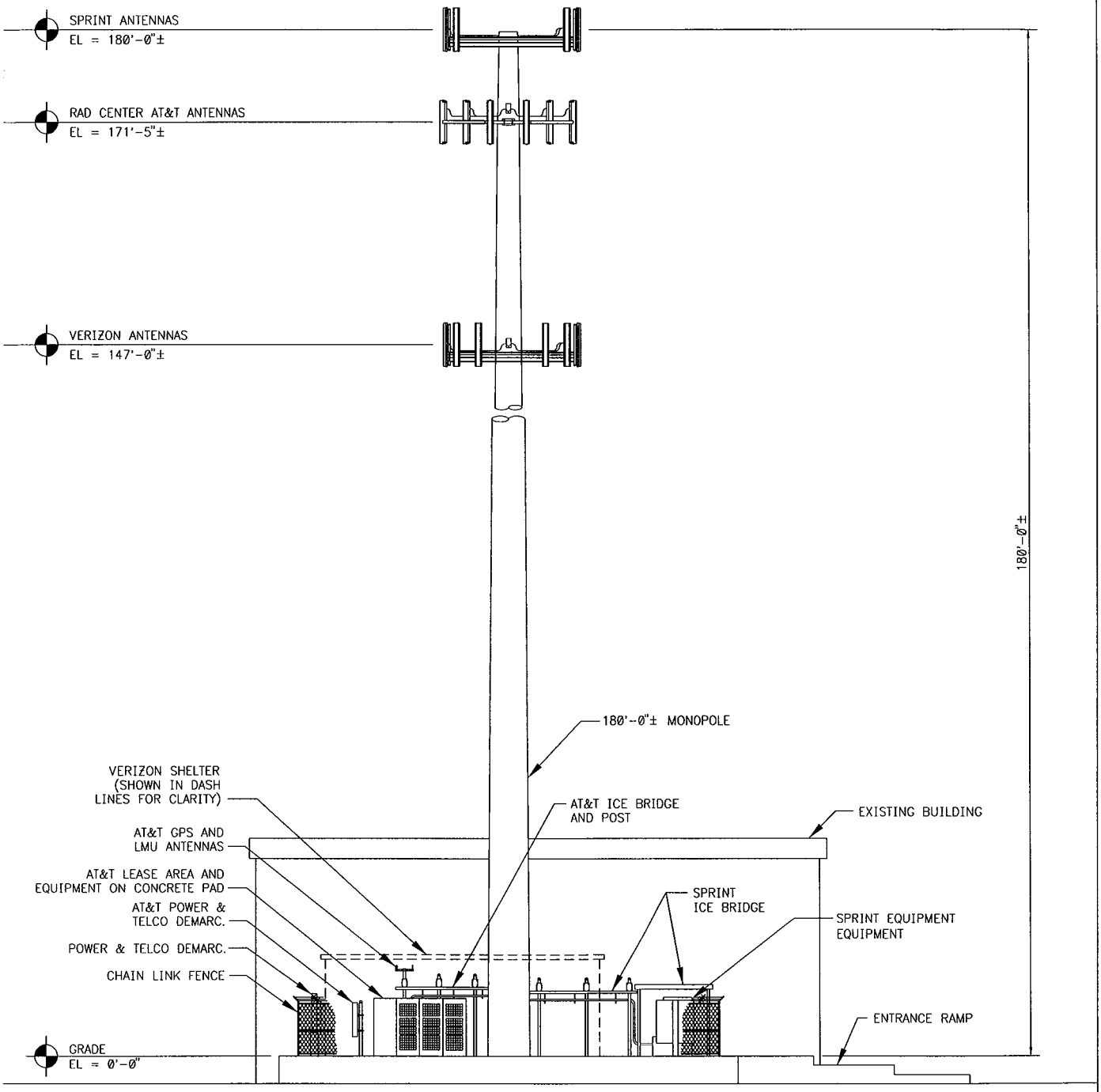
DRAWING TITLE:
SITING COUNCIL

PROJECT INFORMATION:
CT-371.1
CANTON WEST
96 POWDER MILL ROAD
CANTON, CT.

PROPERTY OWNER:
SBA INC.
80 EASTERN BLVD.
GLASTONBURY, CT. 06033

DRAWING NO.
SC1

REVISION NO. B	DRAWN BY: JT
DATE ISSUED: 04/30/02	CHECKED BY: KW
SCALE: 1" = 15'-0"	APPROVED BY: SC
	SHEET NO. 1 OF 2
A/E PROJECT NO: 17188-0009	



SOUTH WEST ELEVATION

1 / SC2

SCALE: 1" = 15'-0"

SCIENTEL.
THE BLEACHERY
143 WEST STREET
NEW MILFORD, CT. 06776
Tel: (860) 210-3020
Fax: (860) 210-3047

AT&T
AT&T WIRELESS PCS, LLC
149 EAST WATER STREET
SOUTH NORWALK, CT. 06854

DRAWING TITLE:
SOUTH WEST ELEVATION

PROJECT INFORMATION:
CT-371.1
CANTON WEST
96 POWDER MILL ROAD
CANTON, CT.

PROPERTY OWNER:
SBA INC.
80 EASTERN BLVD.
GLASTONBURY, CT. 06033

DRAWING NO.
SC2

REVISION NO. C	DRAWN BY: JT
DATE ISSUED: 04/30/02	CHECKED BY: KW
SCALE: 1" = 15'-0"	APPROVED BY: SC
	SHEET NO. 2 OF 2
A/E PROJECT NO: 17188-0009	

SCIENTEL
A SCIENTECH, Inc., Company

May 1, 2002

Mr. Doyle Wolfe
A&E Manager
Bechtel Project Liberty
210 Pomeroy Avenue, Suite 201
Meriden, CT 06450

SUBJECT:	Site Name:	Canton West SBA Monopole
	Street Address:	96 Powder Mill Road Canton, CT 06019
	AT & T Site Number:	CT-371.1
	Scientel Project Number:	17188-0009

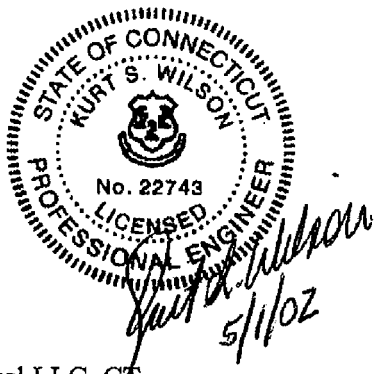
Dear Mr. Wolfe:

The structural design calculations for the Canton West site have been prepared by my hand or under my direct supervision and are in compliance with the governing Building Codes for these jurisdictions, and with accepted recognized engineering design principles.

This design provides for the installation of (6) antennas at a centerline height of 171'-5" on an existing 180' monopole structure. The monopole was analyzed with the current antenna loadings at centerline heights of 180' and 147'-0". Verison antenna information was not made available for this specific installation, and antenna specifications from a previously reviewed Verison installation were assumed.

Please feel free to call me if you have any further questions or comments. I can be reached directly at 630-652-3833.

Sincerely,
Scientel, LLC



Kurt S. Wilson, P.E.
Engineer

c: S. Cook – Scientel LLC, CT

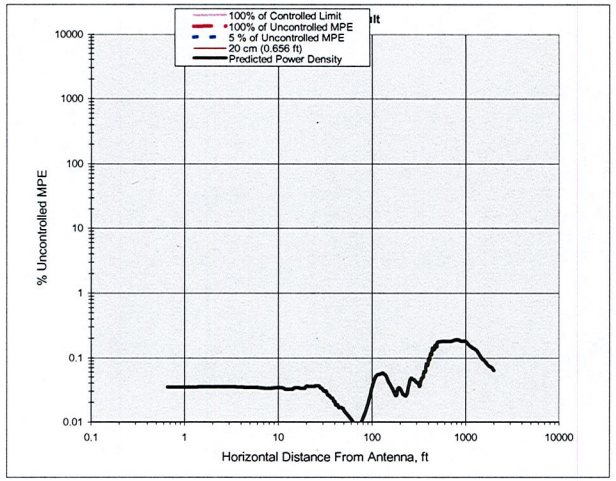
RF Exposure Analysis for Proposed AT&T Wireless Antenna Facility

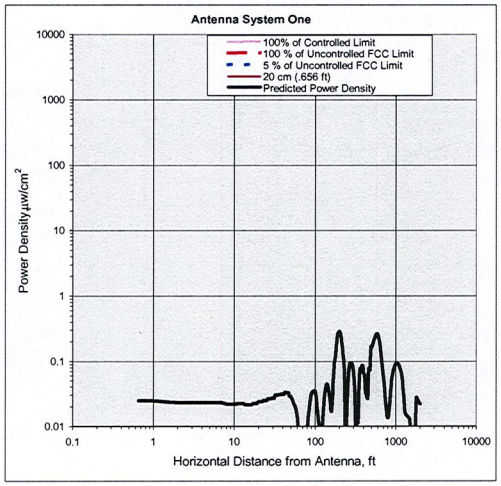
907-007-371

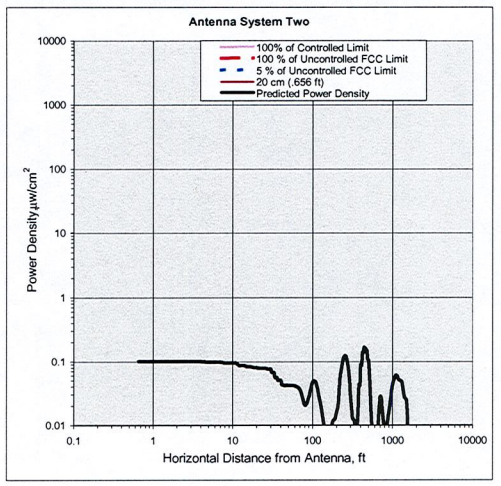
03/01/02

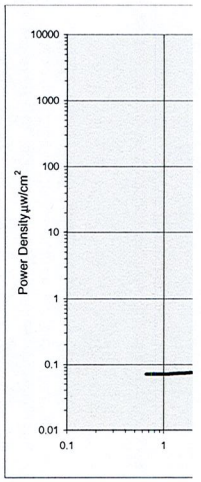
Prepared by AT&T Wireless Services, Inc.
Frank Wentink **RF Engineer**

Heading









Number of Antenna Systems: 3

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.
	µW/cm²	% of limit	feet
Maximum Power Density =	1.08	0.19	600.00
520.58 times lower than the MPE limit for uncontrolled environment			
Composite Power (ERP) =	12,000.00 Watts		

Site ID: 907-007-371
Site Name: Canton West
Site Location: 96 Powder Mill Road

Performed By: Frank Wentink
Date: 3/1/02

Antenna System One

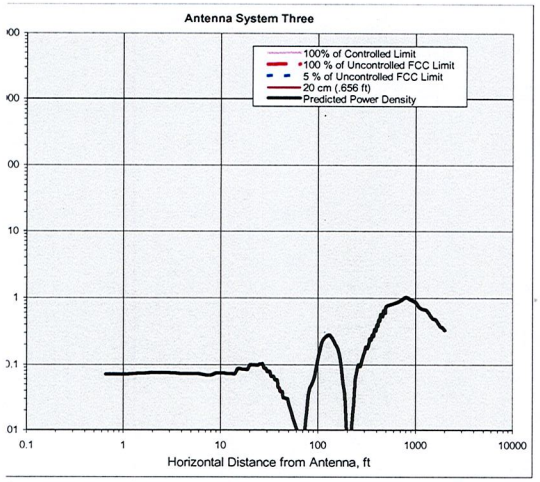
	units	Value
Frequency	MHz	1945
# of Channels	#	16
Max ERP/Ch	Watts	250
Max Pwr/Ch Into Ant.	Watts	5.59680285
(Center of	feet	171
Calculation Point	feet	0
or		0
roof surface)		0
No.		Allgon 7250.02
Max Ant Gain	dBd	16.5
Down tilt	degrees	0
Miscellaneous Att.	dB	0
Height of aperture	feet	5.11
Ant HBW	degrees	65
Distance to Ant_{bottom}	feet	168.445
WOS?	Y/N?	n

Ant System ONE Owner: AT&T
Sector: 1
Azimuth: 0

Antenna System Two

	units	Value
Frequency	MHz	806
# of Channels	#	16
Max ERP/Ch	Watts	250
Max Pwr/Ch Into Ant.	Watts	7.725738581
(Center of	feet	181
Point	feet	0
ground or		0
roof surface)		0
No.		DB980G90
Max Ant Gain	dBd	15.1
Down tilt	degrees	0
Miscellaneous Att.	dB	0
Height of aperture	feet	5
Ant HBW	degrees	90
Distance to Ant_{bottom}	feet	178.5
WOS?	Y/N?	n

Ant System TWO Owner: Sprint
Sector: 1
Azimuth 0



Antenna System Three

	units	Value
Frequency	MHz	835
# of Channels	#	16
Max ERP/Ch	Watts	250
Max Pwr/Ch Into Ant.	Watts	18.96443938
(Center of Radiator)	feet	147
Calculation Point	feet	0
(above ground or		0
roof surface)		0
Antenna Model No.		FS90-11-00_A
Max Ant Gain	dBd	11.2
Down tilt	degrees	0
Miscellaneous Att.	dB	0
Height of aperture	feet	8
Ant HBW	degrees	90
Distance to Ant_{bottom}	feet	143
WOS?	Y/N?	n

Ant System Three Owner: Verizon
Sector: 1
Azimuth 0

Table of Contents

1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at *96 Powder Mill Road; Canton, CT 06022.* 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: ***Canton West***	
Number of simultaneously operating channels	16
Type of antenna	Allgon 7250.02
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	171 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 facility[1]:

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

Where, ***N***= Number of channels, ***R***= distance in cm from the RC (Radiation Center) of antenna, and ***EIRP(θ)*** = The isotropic power expressed in milliwatts in the direction of prediction point.

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

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 band-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 (μ W), 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 1.08 μ W/cm^2 which occurs at 600 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.02 μ W/cm^2 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

Frequency	***Public/Uncontrolled***	***Occupational/controlled***	***Maximum power density at Accessible location***
Cellular	580 μ W/cm^2	2,900 μ W/cm^2	1.08 μ W/cm^2
PCS	1000 μ W/cm^2	5,000 μ W/cm^2	

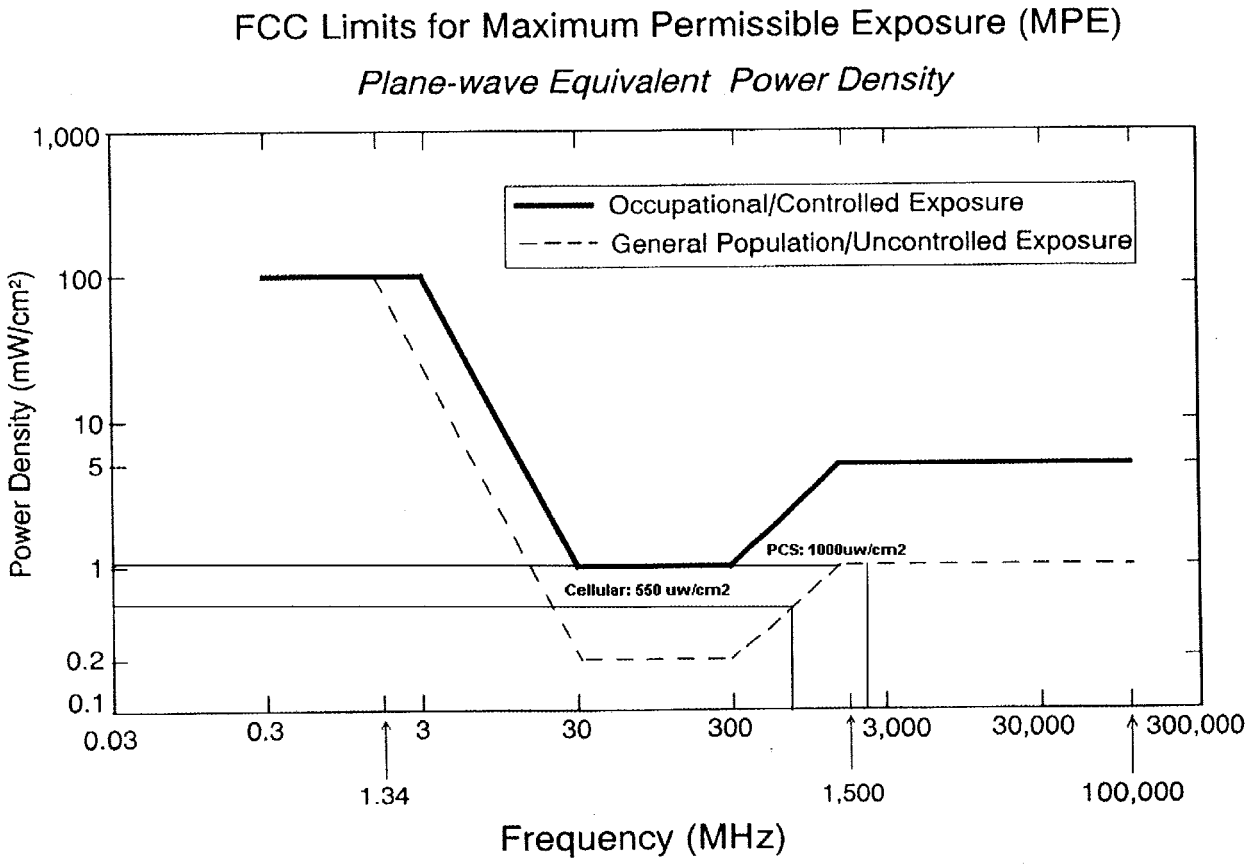
The maximum power density at the proposed facility represents only 0.19% of the public MPE limit.

6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 1.08 μ W/cm^2, 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



8. Exhibit A

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.

EM-AT&T-023-020503
96 Powder Mill Road
Canton 5/6/02