



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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

August 8, 2002

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

RE: **EM-AT&T-132-020701** - AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify an existing telecommunications facility located at 300 Governor's Highway, South Windsor, Connecticut.

Dear Attorney Fisher:

At a public meeting held on August 1, 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 in our office on July 1, 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 William Aman, Mayor, Town of South Windsor
Marcia Banach, Director of Planning, Town of South Windsor
Matthew B. Galligan, Town Manager, Town of South Windsor
Stephen Humes, Esq., LeBoeuf, Lamb, Greene & MacRae

CUDDY & FEDER & WORBY I.L.P.

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DAVID E. WORBY

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HARRY E. LONG

July 9, 2002

VIA FACSIMILE (860) 827-2950

David Martin

Siting Analyst I

Connecticut Siting Council

10 Franklin Square

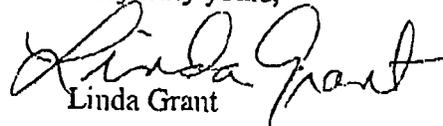
New Britain, Connecticut 06051

Re: AT&T Wireless EM-A/T&T-132-020701
300 Governor's Highway, South Windsor, Connecticut

Dear Mr. Martin:

In response to your request, the latitude and longitude for the above referenced site is 41.83, -72.60. Please do not hesitate to contact us should you require any additional information.

Very truly yours,


Linda Grant

RECEIVED
SITING COUNCIL

**NOTICE OF INTENT TO MODIFY AN
EXISTING TELECOMMUNICATIONS FACILITY AT
300 GOVERNOR'S HIGHWAY, SOUTH WINDSOR, 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 300 Governor's Highway, South Windsor, Connecticut (the "Governor's Highway Facility"), owned by VoiceStream Communications ("VoiceStream"). AT&T Wireless and VoiceStream have agreed to share the use of the Governor's Highway Facility, as detailed below.

The Governor's Highway Facility

The Governor's Highway Facility consists of an approximately one hundred seventy-five (175) foot monopole (the "Tower") and associated equipment currently being used for wireless communications by VoiceStream. A chain link fence surrounds the Tower compound. The current surrounding 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 Governor's Highway 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 152 foot level of the Tower and associated equipment cabinets (2 proposed, 2 future, each 76"H x 30" W x 30" D) located on a concrete pad within the fenced compound. As evidenced in the structural report prepared by Semaan Engineering Solutions, 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 Governor's Highway 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 Governor's Highway Facility meets the Council's exemption criteria.

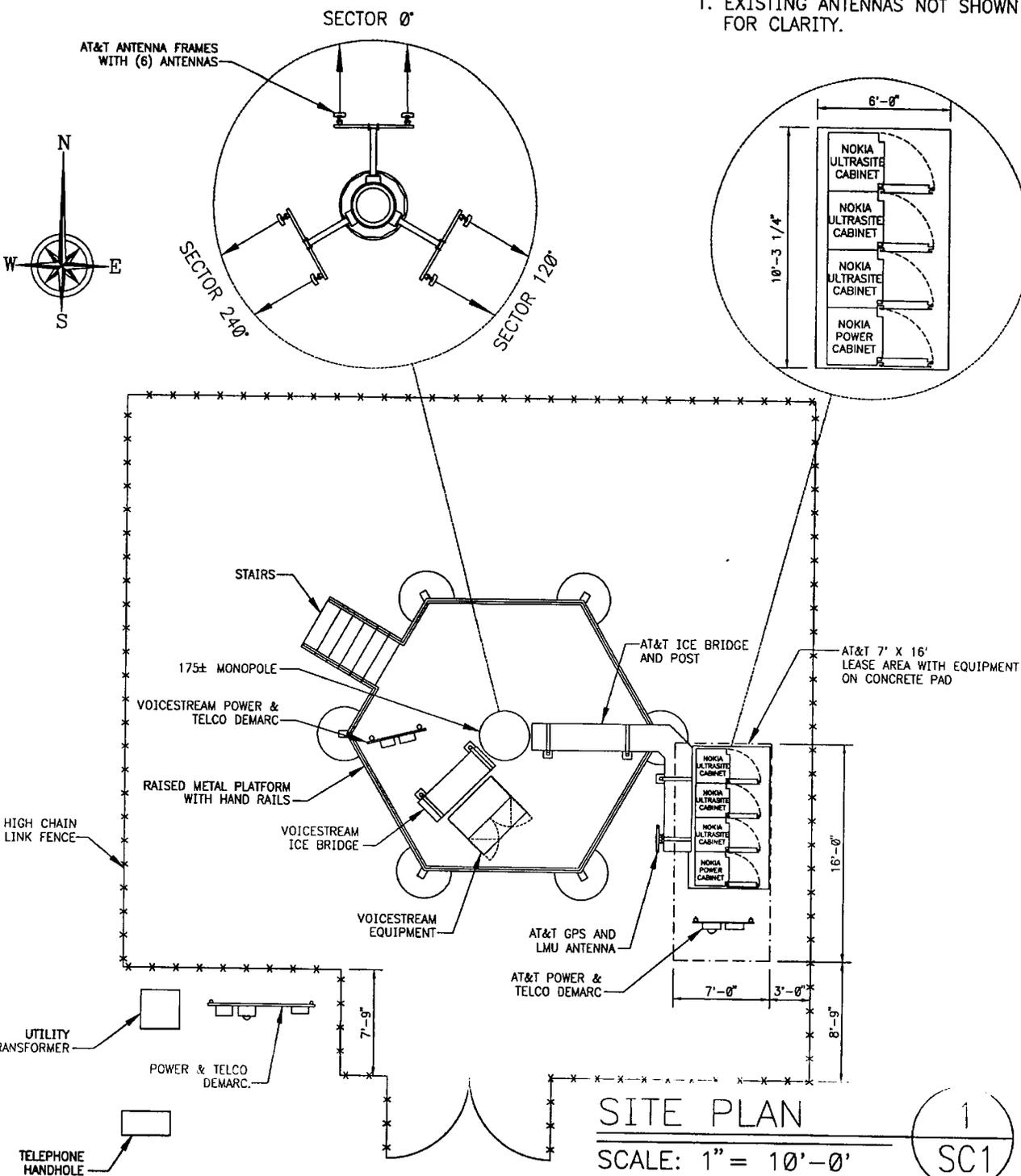
Respectfully Submitted,



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

cc: Town Manager, South Windsor
RJ Wetzel, Bechtel

NOTE:
1. EXISTING ANTENNAS NOT SHOWN FOR CLARITY.



SITE PLAN

SCALE: 1" = 10'-0"

1
SC1

SCIENTEL
THE BLEACHERY
143 WEST STREET
NEW MILFORD, CT. 06776
Tel: (860) 218-3828
Fax: (860) 218-3847

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

DRAWING TITLE: SITING COUNCIL
PROJECT INFORMATION: SOUTH WINDSOR WEST CT-304.1
300 GOVERNOR'S HIGHWAY SOUTH WINDSOR, CT.
PROPERTY OWNER: VOICESTREAM
11 HIGHPOINT DRIVE WAYNE, NJ. 07470

DRAWING NO.	
SC1	
REVISION NO. A	DRAWN BY: JT
DATE ISSUED: 03/20/02	CHECKED BY: RP
SCALE: 1" = 10'-0"	APPROVED BY: SC
	SHEET NO. 1 OF 2
A/E PROJECT NO:	17188-0008

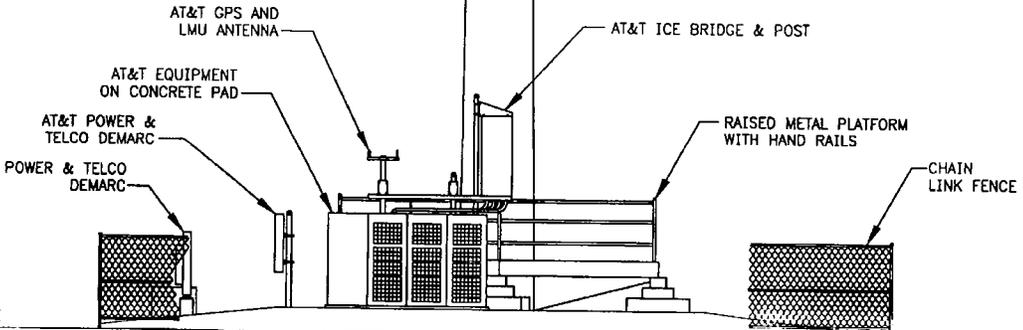
VOICESTREAM ANTENNAS
EL= 175'-0"±

AT&T ANTENNAS
EL= 152'-0"

175'-0"± MONOPOLE

175'-0"±

GRADE
EL= 2'-0"



EAST ELEVATION

SCALE: 3/32" = 1'-0"

1
SC2

SCIENTEL
THE BLEACHERY
143 WEST STREET
NEW MILFORD, CT. 06776
Tel: (860) 218-3829
Fax: (860) 218-3847

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

DRAWING TITLE:
SITING COUNCIL
PROJECT INFORMATION:
SOUTH WINDSOR
CT-304.1
300 GOVERNOR'S HIGHWAY
SOUTH WINDSOR, CT.
PROPERTY OWNER:
VOICESTREAM
11 HIGHPOINT DRIVE
WAYNE, NJ. 07470

DRAWING NO.	
SC2	
REVISION NO. A	DRAWN BY: JT
DATE ISSUED: 03/20/02	CHECKED BY: RP
SCALE: 3/32" = 1'-0"	APPROVED BY: SC
SHEET NO. 2 OF 2	
A/E PROJECT NO: 17188-0008	

1047 N. 204th Avenue
Elkhorn, NE 68022
Ph:402-289-1888
Fax:402-289-1861

SEMAAN ENGINEERING SOLUTIONS

APPROVED
APPROVED
VoiceStream Site Marketing
Madeline Somers
6/18/02

**175 ft EEI Monopole
Structural Analysis**

**Prepared for:
VoiceStream Wireless
1500 N.E. Irving, Suite 530
Portland, OR 97232**

**Site: CT11279D/ South Windsor / AT&T
South Windsor, CT**

April 26, 2002

Ms. Jennifer Jones
VoiceStream Wireless
1500 N.E. Irving, Suite 530
Portland, OR 97232

Re: Site Number CT11279D – South Windsor - AT&T South Windsor, CT.

Dear Ms. Jones:

We have completed the structural analysis for the existing monopole, located at the above referenced site. The purpose of this analysis is to determine that the existing monopole design is in conformance with the EIA/TIA-222-F standard for the proposed antennae loads installation. Refer to the Review and Recommendations section at the end of this report for the analysis results.

Description of Structure:

The structure is a 169 ft EEI Monopole mounted on a 4 ft steel frame.

Refer to EEI job #99-1371 Rev. 1 dated January 31, 2000 for a detailed description of the structure.

Method of analysis:

The tower was analyzed using Semaan Engineering Solutions' software suite for communication structures. The structural analysis is performed using the SAPS finite element engine. The method is 3D, non-linear, which accounts for the second order geometric effects due to the displacements. It also treats guys as exact cable elements and therefore is ideal for guyed towers. The analysis was performed in conformance with **EIA/TIA-222-F for 80 mph with 1/2" radial ice.** Wind is applied to the structure, accessories and antennas.

Structure loading:

Per the loading sheet supplied, the analysis was performed using the following loading: (Proposed loading in bold)

Elev. (ft)	Qty.	Antennas and Mounts	Coax	Owner
175.0	12	RR65-19-00XP w/Airtech LNA's Mounted On a EEI Low Profile platform	(24) 1-5/8	Voicestream
160.0	12	ALP 9011 Mounted On a EEI Low Profile platform	(12) 1-5/8	Verizon
152.0	12	Allgon 7250.03 Mounted On a Low Profile platform	(12) 1-1/4	AT&T
132.0	1	HP MW Dish, 4' Dia.	(1) 1-5/8	Voicestream

All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.

All VoiceStream transmission lines are assumed running inside of pole shaft with all other lines strapped tightly to the outside of the pole shaft.

Results of Analysis:

Refer to the attached Computer Summary sheets for detailed analysis results.

Structure:

The existing monopole is structurally capable of supporting the existing and proposed antennas. The maximum structure usage is: 99.0%.

Foundation:

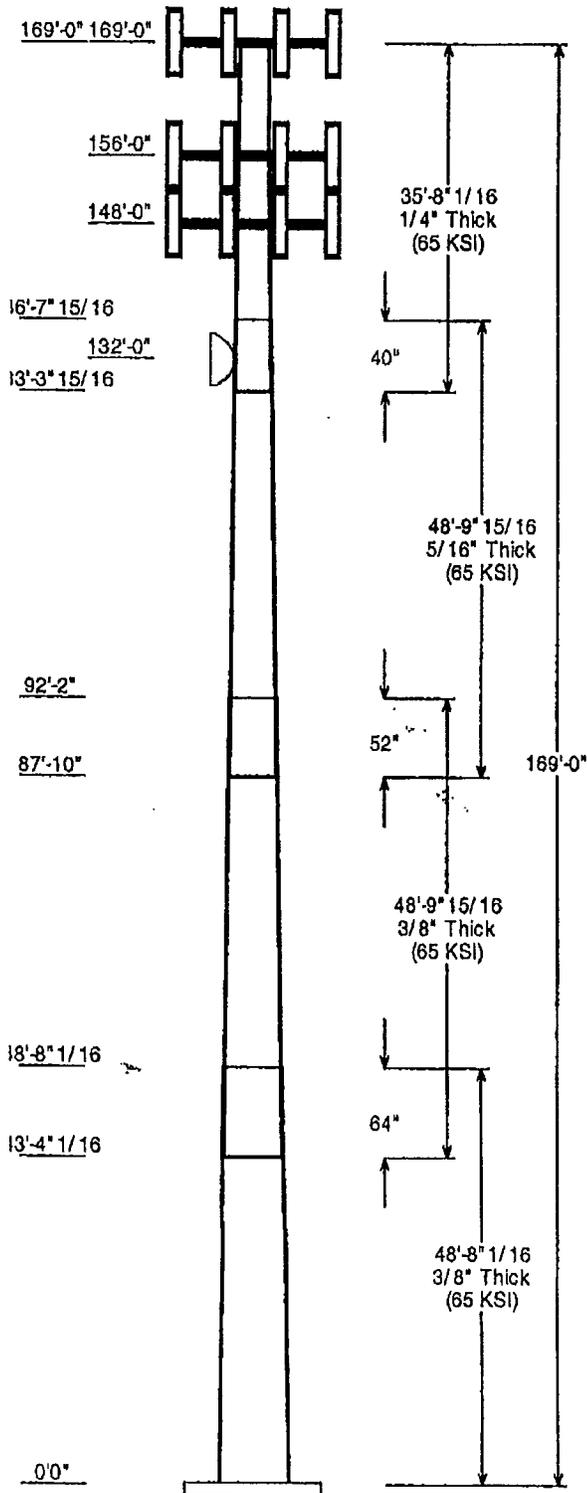
Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	2,577.60	2,537.49	98.4

The reactions calculated from the analysis do not exceed the ones indicated on the original structural design.

Review and Recommendations:

Based on the analysis results, the existing structure meets the requirements per the EIA/TIA-222-F standards for a basic wind speed of 80 mph with 1/2" radial ice.

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Job Information	
Pole :	CT11279D
Description :	Client : VoiceStream Wireless-OR
Location :	South Windsor - AT&T South Windsor, CT
Type :	18 Sides Slip Joints
Height (ft) :	169.000 Taper: 0.156 (in/ft)

Sections Properties							
Shaft Section	Section Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade (ksi)
		Across Top	Flats Bottom				
1	48.670	36.32	45.50	0.375		0.000	65
2	48.830	28.86	38.07	0.375	Slip Joint	64.000	65
3	48.830	21.09	30.30	0.313	Slip Joint	52.000	65
4	35.670	15.50	22.22	0.250	Slip Joint	40.000	65

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Type	Qty	Description
169.000	169.000	Panel	12	RR65-19-00XP w/Airtech LNA's
169.000	169.000	Platform	1	EEL Low Profile platform
156.000	156.000	Panel	12	ALP 9011
156.000	156.000	Platform	1	EEL Low Profile platform
148.000	148.000	Platform	1	Low Profile platform
148.000	148.000	Panel	12	Allgon 7250.03
132.000	132.000	Dish	1	HP MW Dish, 4' Dia.

Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
0.000	148.0	(12) 1 1/4" Coax	No
0.000	156.0	(12) 1 5/8" Coax	Yes

Load Cases / Deflections			
Load Case	Attach Elev (ft)	Translation (in)	Rotation (deg)
No Ice <u>No Ice Wind Speed = 80.00 mph w/ No Ice</u>			
	169.000	177.38	-9.506
	156.000	151.78	-9.333
	148.000	136.41	-9.067
	132.000	107.49	-8.204
Ice <u>Ice Wind Speed = 69.28 mph w/ Ice 0.50 In Thick</u>			
	169.000	160.00	-8.625
	156.000	136.75	-8.464
	148.000	122.80	-8.218
	132.000	96.60	-7.421

Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	2,537.485	21.074	-28.687
Ice	2,246.083	17.933	-38.897



5-2-02



**RF Exposure Analysis for Proposed
AT&T Wireless Antenna Facility**

SITE ID: 907-007-304

June 26, 2002

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

Table of Contents

1. INTRODUCTION.....	3
2. SITE DATA.....	3
3. RF EXPOSURE PREDICTION	3
4. FCC GUIDELINES FOR EVALUATING THE ENVIRONMENTAL EFFECTS OF RF RADIATION.....	4
5. COMPARISON WITH STANDARDS	4
6. CONCLUSION	4
7. FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE.....	5
8. EXHIBIT A.....	6
9. FOR FURTHER INFORMATION.....	7
10. REFERENCES.....	7

1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at 300 Governors Highway, South Windsor, CT. 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: <i>South Windsor</i>	
Number of simultaneously operating channels	12
Type of antenna	Allgon 7250.03
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	152.00 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:

$$PowerDensity = \frac{0.64 * 1.64 * N * ERP(\theta)}{\pi * R^2} (mW/cm^2) \quad Eq. 1-Far-field$$

Where, N = Number of channels, R = distance in cm from the RC (Radiation Center) of antenna, and $ERP(\theta)$ = The power of a half wave dipole expressed in milliwatts in the direction of prediction point. This is the correct equation for antennas which have their gain expressed in dBd.

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

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 (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 0.000341 mW/cm² which occurs at 170 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000067 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	0.000341 mW/cm ²
PCS	1 mW/cm ²	5 mW/cm ²	

The maximum power density at the proposed facility represents only 0.03% of the public MPE limit for PCS frequencies.

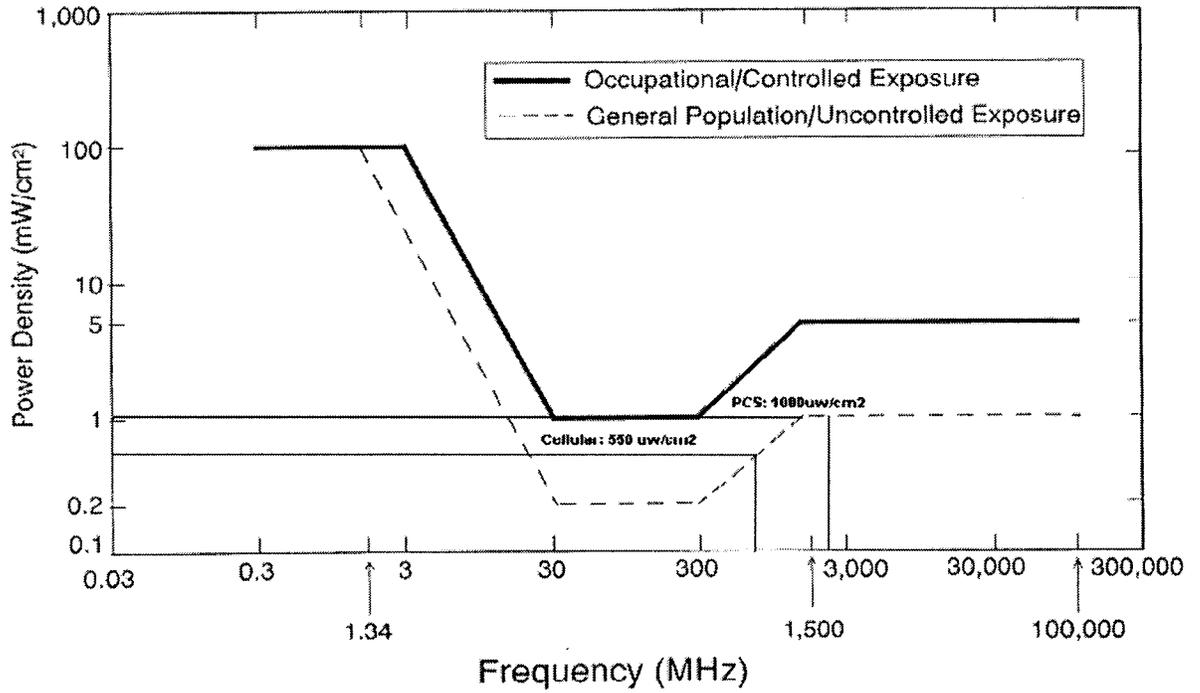
6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 0.000341 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.”

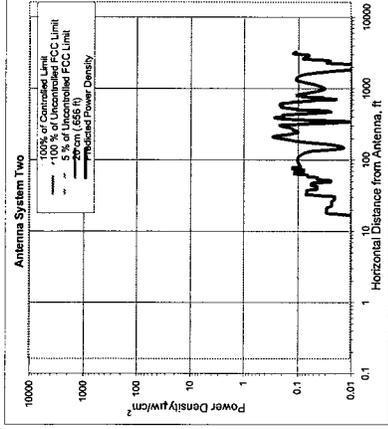
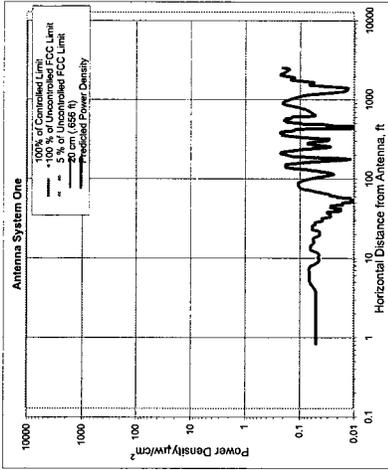
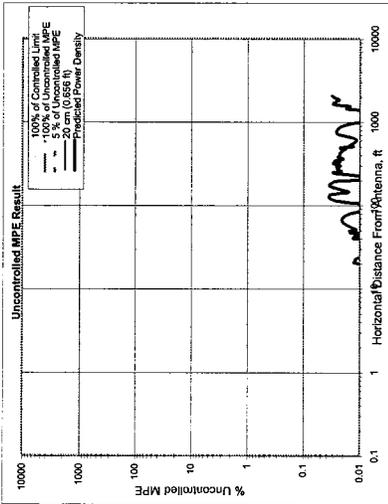
7. FCC Limits for Maximum Permissible Exposure

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



AT&T Wireless Services, Inc.

8. Exhibit A



Number of Antenna Systems: 2

Meets FCC Controlled Limits for The Antennas Systems.

Meets FCC Uncontrolled Limits for The Antennas Systems.

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

No Further Maximum Permissible Exposure (MPE) Analysis Required.

Power Density	@Horiz. Dist.
mW/cm²	feet
Maximum Power Density = 0.000341	0.03
2,935.99 times lower than the MPE limit for uncontrolled environment	170.00
Composite Power (ERP) = 6,000.00 Watts	

Site ID: 907-007-304
 Site Name: South Windsor
 Site Location: 300 Governors Highway
 South Windsor, CT

Performed By: Nader Soliman
 Date: 6/26/2002

Antenna System One

units	Value
Frequency	1345.00
# of Channels	12
Max ERP/Ch	250.00
Max Pwr/Ch Into Ant.	5.98
(Center of Radiation)	152.00
Calculation Point	0.00
(above ground or roof surface)	0.00
Antenna Model No.	Align: 2250.03
Max Ant Gain	15.35
Down tilt	0.00
Miscellaneous Att.	0.00
Height of aperture	5.11
Ant HBW	65.00
Distance to Ant _{system}	149.45
WQS?	Y/N?
	n

Ant System ONE Owner: AT&T
 Sector: 3
 Azimuth: 0/120/240

Antenna System Two

units	Value
Frequency	1530.00
# of Channels	12
Max ERP/Ch	250.00
Max Pwr/Ch Into Ant.	5.05
(Center of Radiation)	175.00
Calculation Point	0.00
(above ground or roof surface)	0.00
Antenna Model No.	FR367792
Max Ant Gain	14.49
Down tilt	0.00
Miscellaneous Att.	0.00
Height of aperture	4.65
Ant HBW	60.00
Distance to Ant _{system}	172.87
WQS?	Y/N?
	n

Ant System TWO Owner: VoiceStream
 Sector: 3
 Azimuth: 0/120/140

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.