



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

April 9, 2002

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

RE: **EM-AT&T-155-020314** – AT&T Wireless notice of intent to modify an existing telecommunications facility located at 1030 New Britain Avenue, West Hartford, Connecticut.

Dear Atty. Fisher:

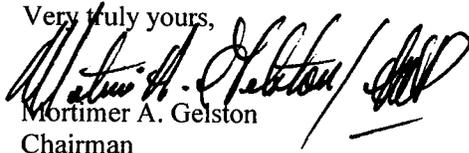
At a public meeting held on April 3, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice[s] dated March 14, 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: Barry M. Feldman, Town Manager, Town of West Hartford
Mila Limson, Senior Planner, Town of West Hartford
Stephen J. Humes, LeBoeuf, Lamb, Greene & MacRae
Ronald C. Clark, Nextel Communications
Jeffrey A. Hirschfeld, Ten Thirty Tower Co.

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DANIEL F. LEVY (also CT)
BARBARA L. LEVY

April 4, 2002

By Fax 860-827-2950

David Martin

Connecticut Siting Council

10 Franklin Square

New Britain, Connecticut 06051

Re: AT&T - Recent Filings

Dear David:

In furtherance of our conversation yesterday with respect to various sites, please be advised of the following:

Madison

LAT 41.27.50.72 & LONG 72.32.31.18

Hamden

We are expanding the tower site boundaries (i.e. ground lease parcel) to accommodate the revised fence line and equipment location. This information was included in our filing which was made as a petition/tower sharing request versus an exempt modification because of the site boundary issue. See page 3 of the filing at point 2.

CUDDY & FEDER & WORBY LLP

April 4, 2002

Page 2

Southington

I received your voice mail message regarding the site visit scheduled for tomorrow at 3pm. Representatives of URS and Bechtel will be there to answer any questions you or the Council members may have and to escort you around the facility. Also, I am advised that the pipe to which the antennas will be affixed is 10" in diameter.

Granby

I have inquired with the radio-frequency engineers regarding the MPE calculations and will get you additional information as soon as it is available.

West Hartford

I have inquired with the radio-frequency engineers regarding the MPE calculations and will get you additional information as soon as it is available.

Also, if you would'nt mind telling Bob Mercier, I am in the process of getting him the LAT & LONG's for the Old Saybrook and Vernon sites which were approved yesterday. Thank you for your assistance in this regard.

Very truly yours,


Christopher B. Fisher

cc: Linda Grant

CUDDY & FEDER & WORBY LLP

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DAVID E. LEVY (also CT)
DANIEL E. LONG

March 20, 2002

By Fax 860-827-2950

David Martin

Connecticut Siting Council

10 Franklin Square

New Britain, Connecticut 06051

Re: AT&T - Willington & West Hartford Filings

Dear David:

In furtherance of your fax of today with respect to the above referenced sites, please be advised of the following:

Willington

LAT 41.8902 & LONG 72.2902 (Note, this information is in the lower right corner of the compound plan provided by URS--We are starting to put this information on the drawings and will probably show up in future filings as well)

AT&T has designed for two proposed and two future cabinets at this and most of its sites with each cabinet measuring 76"H x 30"W x 30" D.

West Hartford

AT&T has designed for two proposed and two future cabinets at this and most of its sites with each cabinet measuring 76"H x 30"W x 30" D.

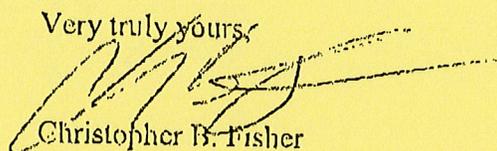
CUDDY & FEDER & WORBY LLP

March 20, 2002

Page 2

Should you have any further questions or concerns regarding these filings, please do not hesitate to contact me.

Very truly yours,



Christopher B. Fisher



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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March 20, 2002

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

Dear Atty. Fisher:

This is to request additional information related to your recent notices to modify existing telecommunications facilities in Willington and West Hartford.

For Willington, the Council has no record of the tower at 111 Trask Road. Accordingly, please provide the latitude and longitude coordinates for this facility. Also, what will be the size of the equipment cabinets to be installed by AT&T?

For West Hartford, what will be the size of equipment cabinets to be added by AT&T?

If you have any questions about these requests, please call me at the above phone number. Thank you for your assistance in this matter

Sincerely,

David Martin
Siting Analyst I

cc: Robert Mercier

RECEIVED

**NOTICE OF INTENT TO MODIFY
EXISTING TELECOMMUNICATIONS FACILITY
1030 NEW BRITAIN AVENUE, WEST HARTFORD, CONNECTICUT**

MAR 14 2002

**CONNECTICUT
SITING COUNCIL**

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 1030 New Britain Avenue, West Hartford, Connecticut (the "New Britain Avenue Facility"). AT&T Wireless has agreed to share the use of the New Britain Avenue Facility with the tower owner, as detailed below.

The New Britain Avenue Facility

The New Britain Avenue Facility consists of an approximately one hundred eighty (180) foot lattice tower (the "Tower") and associated equipment currently being used for wireless communications by VoiceStream and Nextel. A chain link fence surrounds the Tower compound. The current adjacent land uses are predominantly commercial.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by URS Corporation, including a site plan and tower elevation of the New Britain Avenue Facility, AT&T Wireless proposes shared use of the Facility by placing antennas on the Tower and equipment cabinets within the existing fenced compound needed to provide personal communications services ("PCS"). AT&T Wireless will install panel antennas at approximately the 180 foot level of the Tower and associated equipment cabinets on a concrete pad. As evidenced in the structural report 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 New Britain Avenue 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

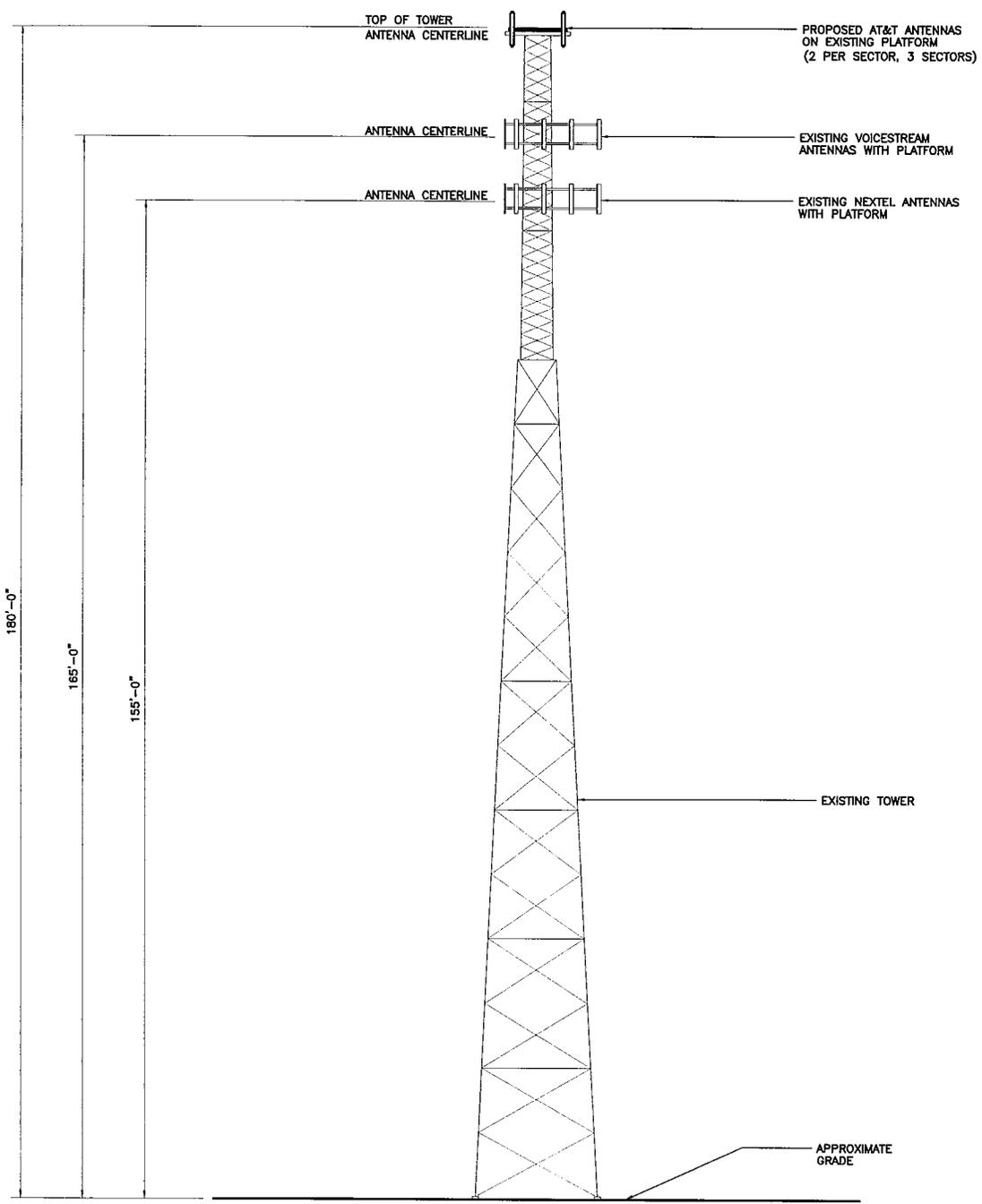
Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the New Britain Avenue Facility meets the Council's exemption criteria.

Respectfully Submitted,



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

cc: Town Manager, Town of West Hartford
Harold Hewett, Bechtel



1 TOWER ELEVATION
 SC-2 SCALE: 1" = 25'-0"



LATITUDE: 41.73083 (NAD 83)
 LONGITUDE: 72.72388 (NAD 83)

SCALE: AS NOTED	DRAWN BY: RB
DATE ISSUED: 03-12-02	CHECKED BY: ICA
APPROVED BY:	

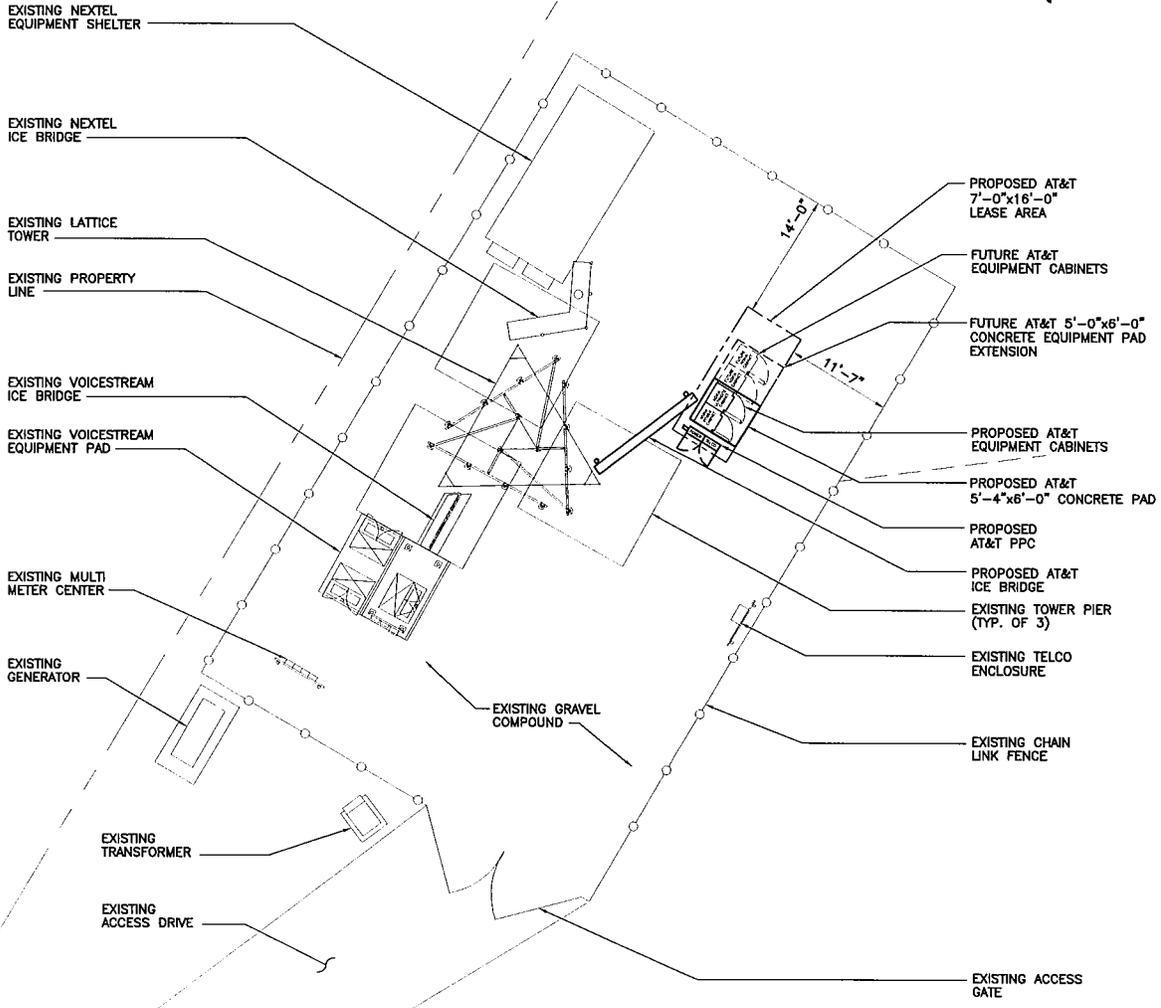
ISSUED FOR SITING COUNCIL

JOB NO. 24445	SITE NO. 300-259	DRAWING NUMBER SC-2	REV. 0
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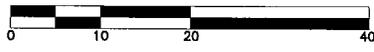
URS
 URS CORPORATION-AES
 795 BROOK STREET, BLDG 5
 ROCKY HILL, CT. 06067
 1-(800)-529-8882
 URS JOB NO.: F301924.46

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

DRAWING TITLE: TOWER ELEVATION
PROJECT INFORMATION: WEST HARTFORD-ELMWOOD
 24445-300-259-SC2-0
 1030 NEW BRITAIN AVE.
 WEST HARTFORD, CONNECTICUT
PROPERTY OWNER: TEN THIRTY BUILDING COMPANY, LLC.
 1030 NEW BRITAIN AVE.
 WEST HARTFORD, CT 06110



1 COMPOUND PLAN
 SC-1 SCALE: 1" = 20'-0"



LATITUDE:	41.73083 (NAD 83)
LONGITUDE:	72.72388 (NAD 83)

SCALE:	AS NOTED	DRAWN BY:	RB
DATE ISSUED:	03-12-02	CHECKED BY:	ICA
APPROVED BY:			

ISSUED FOR SITING COUNCIL			
JOB NO.	SITE NO.	DRAWING NUMBER	REV.
24445	3C0-259	SC-1	0

URS
 URS CORPORATION-AES
 795 BROOK STREET, BLDG 5
 ROCKY HILL, CT. 06067
 1-(860)-529-8882
 URS JOB NO.: F301924.46

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

DRAWING TITLE: COMPOUND PLAN
PROJECT INFORMATION:
 WEST HARTFORD-ELMWOOD
 24445-3C0-259-SC1-0
 1030 NEW BRITAIN AVE.
 WEST HARTFORD, CONNECTICUT
PROPERTY OWNER:
 TEN THIRTY BUILDING COMPANY, LLC.
 1030 NEW BRITAIN AVE.
 WEST HARTFORD, CT 06110

DETAILED STRUCTURAL ANALYSIS AND EVALUATION OF 180' EXISTING LATTICE TOWER FOR NEW ANTENNA ARRANGEMENT

1030 New Britain Avenue
West Hartford, Connecticut
AT&T Site No.:CT-259

prepared for



AT&T WIRELESS PCS
12 OMEGA DRIVE, 2ND FLOOR
STAMFORD, CT 06902
TEL. 203-602-7029



URS

prepared by

URS CORPORATION AES
795 BROOK STREET, BLDG 5
ROCKY HILL, CT 06067
TEL 860-529-8882

F300001924.46 / F12
March 11, 2002

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- 6. DRAWINGS AND DATA**
 - **ERI TOWER OUTPUT DATA FOR EXISTING & PROPOSED ANTENNA LOADING**
 - **ANCHOR BOLT EVALUATION**

1. **EXECUTIVE SUMMARY**

This report summarizes the structural analysis of the existing 180' lattice tower located in West Hartford, Connecticut. The analysis was conducted in accordance with the TIA/EIA-222-F standard for wind velocity of 80 mph and 80 mph concurrent with ½" ice with reduction. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined in the Analysis Methodology and Loading Condition Section of this report.

The results of the analysis indicate the structure to be in compliance with the loading conditions and the material and member sizes for the tower and foundation. The tower is considered feasible with the TIA/EIA-222-F wind load classification specified above and all the existing and proposed antenna loading.

This analysis is based on:

- 1) Tower and Foundation reports prepared by Pirod, Inc. Engineering File A-114804 approved July 21, 1998.
- 2) Antenna inventory as specified in sections 2 of this report.
- 3) Soils report prepared by Dr. Clarence Welti, P.E., P.C. dated February 1998.
- 4) TIA/EIA-222-F wind load classification.

This report is only valid as per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables.

If you should have any questions, please call.

Sincerely,
URS Corporation AES



Mohsen Sahirad, P.E.
Senior Structural Engineer

MS/rmn

cc: Don Huntley, P.E. – Bechtel
Ignacio C. Artaiz, AIA – URS
CF/Book

2. INTRODUCTION

A structural analysis of this existing 180' communication lattice tower was performed by URS Corporation AES (URS) for AT&T antenna installation. The purpose of this analysis was to investigate the structural integrity of the existing tower with its existing and proposed antenna loads. This analysis was conducted to evaluate twist (rotation), sway (deflection) and stress on the tower as well as the effect of forces to the foundation resulting from the existing and proposed antenna arrangements. The tower was manufactured by Pirod, Inc.

The tower is constructed of legs ranging from trusses or solid rods, diagonal braces, and horizontal angle braces. The tower sections are bolted together. The width of the face of the tower is 4'-0" at the top and 18'-0" at the bottom. The geometry and structural member sizes for the tower was taken from Pirod, Inc. Engineering File A-114804 approved July 21, 1998.

The existing structure supports several communication antennas. The antenna arrangements as specified below:

Antenna Type	Condition	Associated Mount	Carrier	Elevation	Quantity	Cable Type & Quantity
Allgon 7250.03	Proposed	Existing Platform	AT&T	180.00	6.00	(12) 1 5/8"
RR-90-17-02DP	Existing	T-Frame	Voicestream	165.00	12.00	(24) 1 5/8"
DBB44H90	Existing	T-Frame	Nextel	155.00	12.00	(12) 1 5/8"

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

Methodology:

The tower analysis was done in accordance with TIA/EIA-222-F June 1996, Structural Standard for Steel Antenna Towers and Antenna Supporting Structure; The American Institute of Steel Construction (AISC), Manual of Steel Construction; Allowable Stress Design (ASD).

Loading Conditions:

The analysis was conducted by the conditions listed below.

Inner tower: Condition 1 = Wind Load 80 mph + Tower Dead Load
 Condition 2 = Wind Load 70 mph (with ½" radial ice) + Tower Dead Load

The TIA/EIA standard permits one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For purposes of this analysis, allowable stresses of tower members were increased by one-third in computing the load capacity; in addition, the appropriate "k" factors were assigned to each member.

4. FINDINGS AND EVALUATION

The combined axial and bending stresses on the tower structures were evaluated to compare with the allowable stress in accordance with AISC. The analysis indicates that the tower legs, diagonals and horizontal members have sufficient capacity to carry the loads applied.

No further analysis was conducted on the tower foundation since the forces calculated with the proposed antenna arrangements were below the original design.

5. CONCLUSIONS AND RECOMMENDATIONS

The results of the analysis indicate the structures are in compliance with the applicable code requirements under loading conditions, material and member sizes and criteria specified in this report.

Limitations/Assumptions:

This report is based on the following:

- A. Tower is properly installed and maintained.
- B. All members were as specified in the original Construction Documents and are in good condition.
- C. All required members are in place.
- D. All bolts are in place and are properly tightened.
- E. Tower is in plumb condition.
- F. Protective coating on members is in good condition.
- G. All tower members were properly designed, detailed, fabricated, installed, and have been properly maintained since erection.
- H. Foundations were properly constructed to support original design loads as specified in the original Construction Documents.
- I. The TIA/EIA-222-F wind load classification.

URS is not responsible for any modifications completed prior to or hereafter in which URS is not or was not directly involved. Modifications include but are not limited to:

- A. Adding antennas
- B. Installing antenna mounting

URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.



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

907-007-259

02/21/02

**Prepared by AT&T Wireless Services, Inc.
Frank Wentink 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 1030 New Britain Ave. 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>West Hartford - Elmwood</i>	
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)	180 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.

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

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 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 (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 $1.29 \mu\text{W}/\text{cm}^2$ which occurs at 160 feet from the antenna facility. The chart in exhibit A also shows that the power density is only $0.02 \mu\text{W}/\text{cm}^2$ 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

<i>Frequency</i>	<i>Public/Uncontrolled</i>	<i>Occupational/controlled</i>	<i>Maximum power density at Accessible location</i>
Cellular	$580 \mu\text{W}/\text{cm}^2$	$2,900 \mu\text{W}/\text{cm}^2$	$1.29 \mu\text{W}/\text{cm}^2$
PCS	$1000 \mu\text{W}/\text{cm}^2$	$5,000 \mu\text{W}/\text{cm}^2$	

The maximum power density at the proposed facility represents only 0.24% of the public MPE limit.

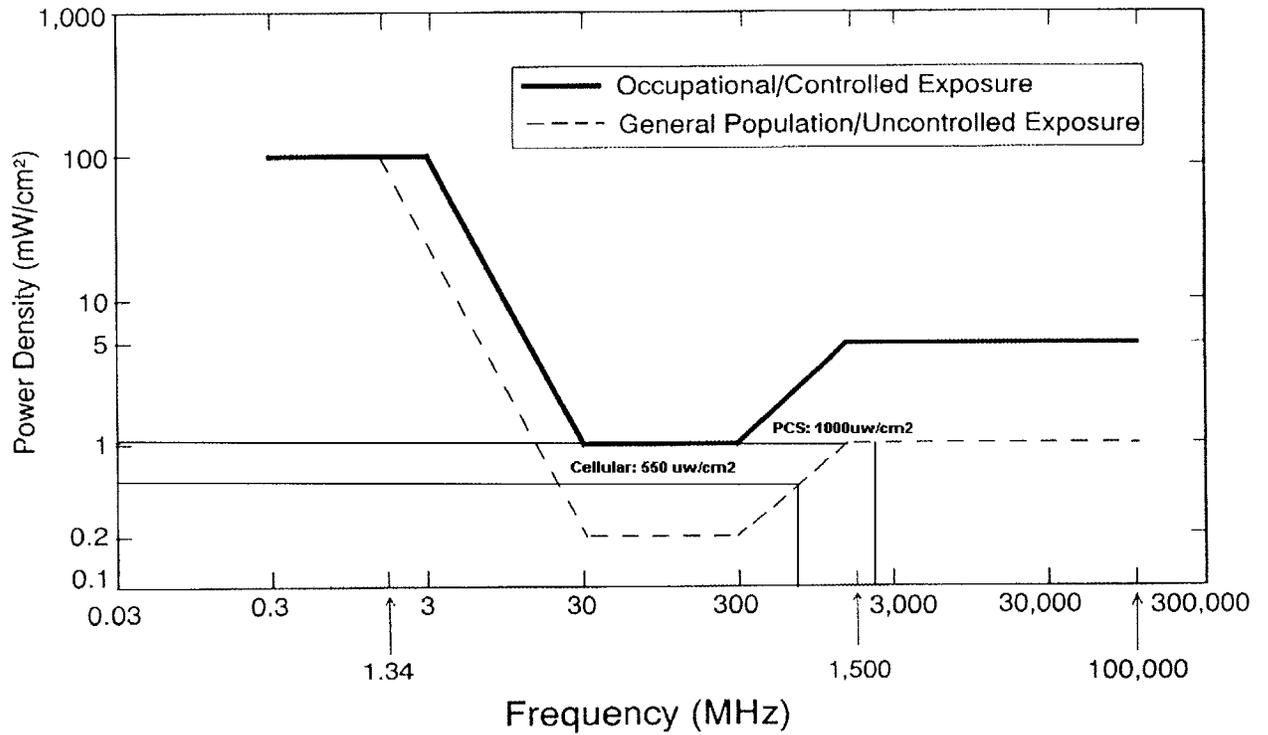
6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is $1.29 \mu\text{W}/\text{cm}^2$, 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

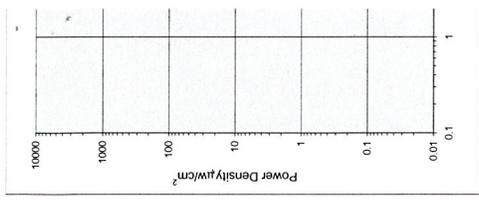
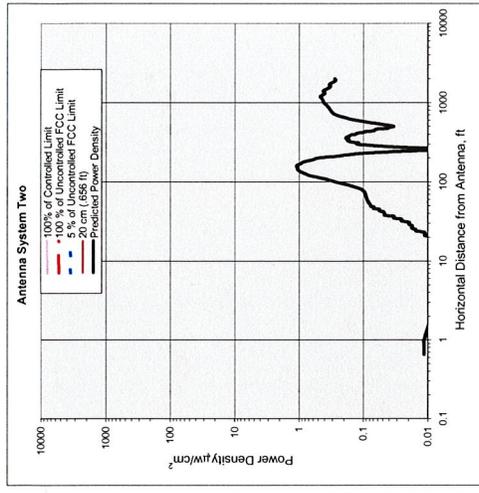
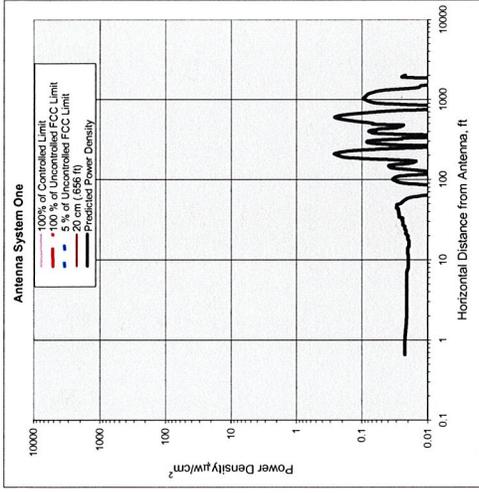
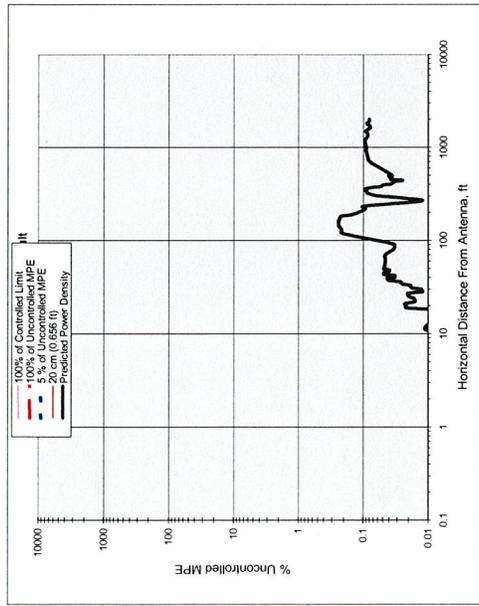
FCC Limits for Maximum Permissible Exposure (MPE)
Plane-wave Equivalent Power Density



AT&T Wireless Services, Inc.

8. Exhibit A

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.
$\mu\text{W}/\text{cm}^2$	feet
Maximum Power Density = 1.29	% of limit 0.24
419.91 times lower than the MPE limit for uncontrolled environment	160.00
Composite Power (ERP) = 12,000.00	Watts

Site ID: 907-007-259
 Site Name: West Hartford - Elmwood
 Site Location: 1030 New Britain Ave.

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

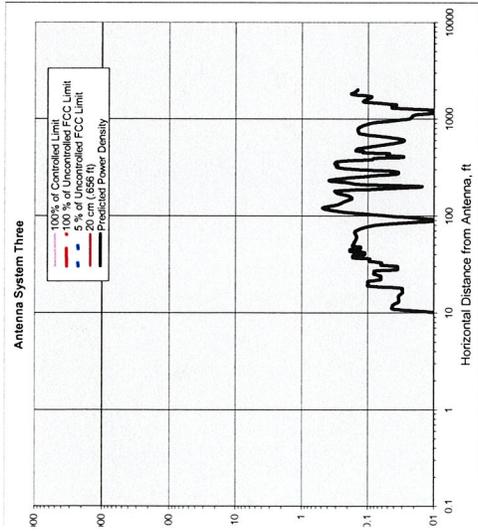
Ant System TWO Owner: Nextel
 Sector: 1
 Azimuth: 0

Antenna System One

Frequency	units	Value
1945	MHz	1945
# of Channels	#	16
Max ERP/Ch	Watts	250
Max Pwr/Ch into Ant.	Watts	5,596,802,85
(Center of	feet	180
Calculation Point	feet	0
or	feet	0
roof surface)	feet	0
No.		Alligon 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 Antileak	feet	177,445
WCS?	Y/N?	n

Antenna System Two

Frequency	units	Value
806	MHz	806
# of Channels	#	16
Max ERP/Ch	Watts	250
Max Pwr/Ch into Ant.	Watts	15,773,933,61
(Center of	feet	155
Point	feet	0
ground or	feet	0
roof surface)	feet	0
No.		DB844H90-XY
Max Ant Gain	dBd	12
Down tilt	degrees	0
Miscellaneous Att.	dB	0
Height of aperture	feet	4
Ant HBW	degrees	90
Distance to Antileak	feet	153
WCS?	Y/N?	n



Antenna System Three

	units	Value
Frequency	MHz	1945
# of Channels	#	16
Max ERP/Ch	Watts	250
Max Pwr/Ch into Ant.	Watts	9.076951369
(Center of Radiator)	feet	165
Calculation Point	feet	0
(above ground or roof surface)	feet	0
Antenna Model No.		RR901702
Max Ant Gain	dBd	14.4
Down tilt	degrees	0
Miscellaneous Att.	dB	0
Height of aperture	feet	4.66
Ant HBW	degrees	90
Distance to Alt _{Reg} stem	feet	162.67
WOS?	Y/N?	n

Ant System Three Owner: Omnipoint

Sector: 1

Azimuth 0

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.