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.ct.gov/csc

August 13, 2004

Stephen J. Humes, Esq.
LeBoeuf, Lamb, Greene & MacRae LLP
Goodwin Square
225 Asylum Street
Hartford, CT 06103

RE: **EM-T-MOBILE-164-040630** – Omnipoint Communications, Inc. notice of intent to modify an existing telecommunications facility located at 340 Bloomfield Avenue, Windsor, Connecticut.

Dear Attorney Humes:

At a public meeting held on August 12, 2004, 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 dated June 30, 2004, including the placement of all necessary equipment and shelters within the tower compound. 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,

Pamela B. Katz

Pamela B. Katz, P.E.
Chairman

PBK/cm

c: Honorable Donald Trinks, Mayor, Town of Windsor
Mario Zavarella, Town Planner, Town of Windsor
Christopher B. Fisher, Esq., Cuddy & Feder, LLP
Kenneth C. Baldwin, Esq., Robinson & Cole LLP
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels, LLP

Perrone, Michael

From: Humes, Stephen J. [shumes@llgm.com]
Sent: Wednesday, August 11, 2004 3:04 PM
To: Perrone, Michael
Cc: Cirella, Roger J.
Subject: EM-T-MOBILE 164-040630 340 Bloomfield Avenue, Windsor

Michael:

In response to your questions and after our discussion with our client, T-Mobile, we have come to the conclusion that AT&T Wireless, as the tower owner, will not be affected by the addition of six (6) antennas to the existing three (3) antennas at the 143' centerline level. Typically, the lessor protects themselves in a lease by including language that if interference occurs by the lessee's antennas then the lessee's antennas must be turned off. Afterall, the lessor is operating their own antennas on the same tower. It was this written lease that has authorized T-Mobile to be on the tower notwithstanding the antenna separation is less than the usual 10 feet.

As for the lease, I am sure you are aware of the Council's policy of not engaging in reviews or requiring filings of lease documents as leases are outside the scope of the CT Siting Council's jurisdiction.

Please let me know if you have any other questions.

Best Regards,

Stephen J. Humes

Stephen J. Humes, Esq.
LeBoeuf, Lamb, Greene & MacRae, L.L.P.
Goodwin Square, 225 Asylum Street
Hartford, CT 06103
Ph: 860-293-3744
Personal Fax: 860-241-1344
Mobile: 203-606-0306

LEBOEUF, LAMB, GREI
L.L.P.
A LIMITED LIABILITY PARTNERSHIP INCLUDING P

NEW YORK
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ALBANY
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JACKSONVILLE
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SALT LAKE CITY
SAN FRANCISCO

GOODWIN SQU.
225 ASYLUM STREET, 13TH FLOOR
HARTFORD, CT 06103
(860) 293-3500
FACSIMILE: (860) 293-3555
E-MAIL ADDRESS: STEPHEN.HUMES@LLGM.COM
WRITER'S DIRECT DIAL: (860) 293-3744
WRITER'S DIRECT FACSIMILE: (860) 241-1344

LONDON
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BEIJING

EM-T-MOBILE-164-040630

June 30, 2004

Pamela Katz, Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Notice of Exempt Modification
340 Bloomfield Avenue, Windsor, Connecticut

Dear Chairman Katz and Members of the Council:

Please be advised that LeBoeuf, Lamb, Greene & MacRae, L.L.P. represents Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc. (hereinafter T-Mobile) in the above-referenced matter. T-Mobile intends to add six (6) RR90-17-XXDP antennas to the existing three (3) antennas for a total of nine (9) RR90-17-XXDP antennas mounted on an existing platform on the existing monopole tower facility at 340 Bloomfield Avenue in Windsor. Also, two (2) S-8000 cabinets will be added to the exisiting S-8000 equipment cabinet for a total of (3) S-8000 equipment cabinets. Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Windsor Town Manager, R. Leon Churchill, Jr.

Background

T-Mobile holds the "A block" "Wideband PCS" license for the 2-GHz PCS frequencies for the greater New York City area, including the entire State of Connecticut. T-Mobile is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation.

Discussion

The existing facility consists of a one hundred forty-eight foot (148') monopole tower (see drawing attached as Exhibit B) and surrounding compound. The coordinates for the site are **Lat: 41°-51-9.35** and **Long: 72°-39-38.05**. The tower is in the northwest corner of Windsor. The tower is approximately four hundred ninety-four feet (494') northwest of Cookhill Road; roughly one thousand one hundred ten feet (1,110') east of Interstate 91; and one thousand nine hundred forty-five feet west of Mack Street. AT&T is the tower owner.

T-Mobile's proposal calls for the addition of six (6) antennas to its existing three (3) antennas, creating a total of nine (9) antennas. The proposed configuration is a cluster of (9) nine antennas at the one hundred forty-three foot (143') centerline above ground level ("AGL"). The model number for the new antennas are RR90-17-XXDP. A new structural analysis of the tower has been completed and is attached as Exhibit D. As stated in the structural analysis, the existing tower structure is capable of supporting the proposed T-Mobile installation. Two (2) new S8000 cabinets will be added to the existing S8000 equipment cabinet for a total of three (3) S8000 equipment cabinets. The new cabinets will be installed on a new 5'6" x 10' x 12" concrete pad. Utilities will be run via underground conduit from those currently in place.

The planned modifications to the Windsor facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modification will not increase the height of T-Mobile's approved antennas on the tower and will not extend the boundaries of the existing compound area. The enclosed tower drawings confirm that the planned changes will not increase the overall height of the tower.

2. The installation of T-Mobile equipment, as reflected on the attached site plan, will not require an extension of the site boundaries.

3. The proposed modification to the facility will not increase the noise levels at the existing facility by six decibels or more. T-Mobile's equipment is self-contained and requires no additional heating, ventilation or cooling equipment.

4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the applicable standard. The "worst-case" RF power density calculations, for a point at the site boundary, are attached hereto as Exhibit E.

For the foregoing reasons, T-Mobile respectfully submits that the proposed addition of antennas and equipment at the Windsor facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Thank you for your consideration of this matter.

Respectfully submitted,

OMNIPOINT COMMUNICATIONS, INC.

By: _____
Its Counsel
Stephen J. Humes

cc: Windsor Town Manager, R. Leon Churchill, Jr.

Exhibit A
Site Map

340 Bloomfield Avenue

Windsor, Connecticut

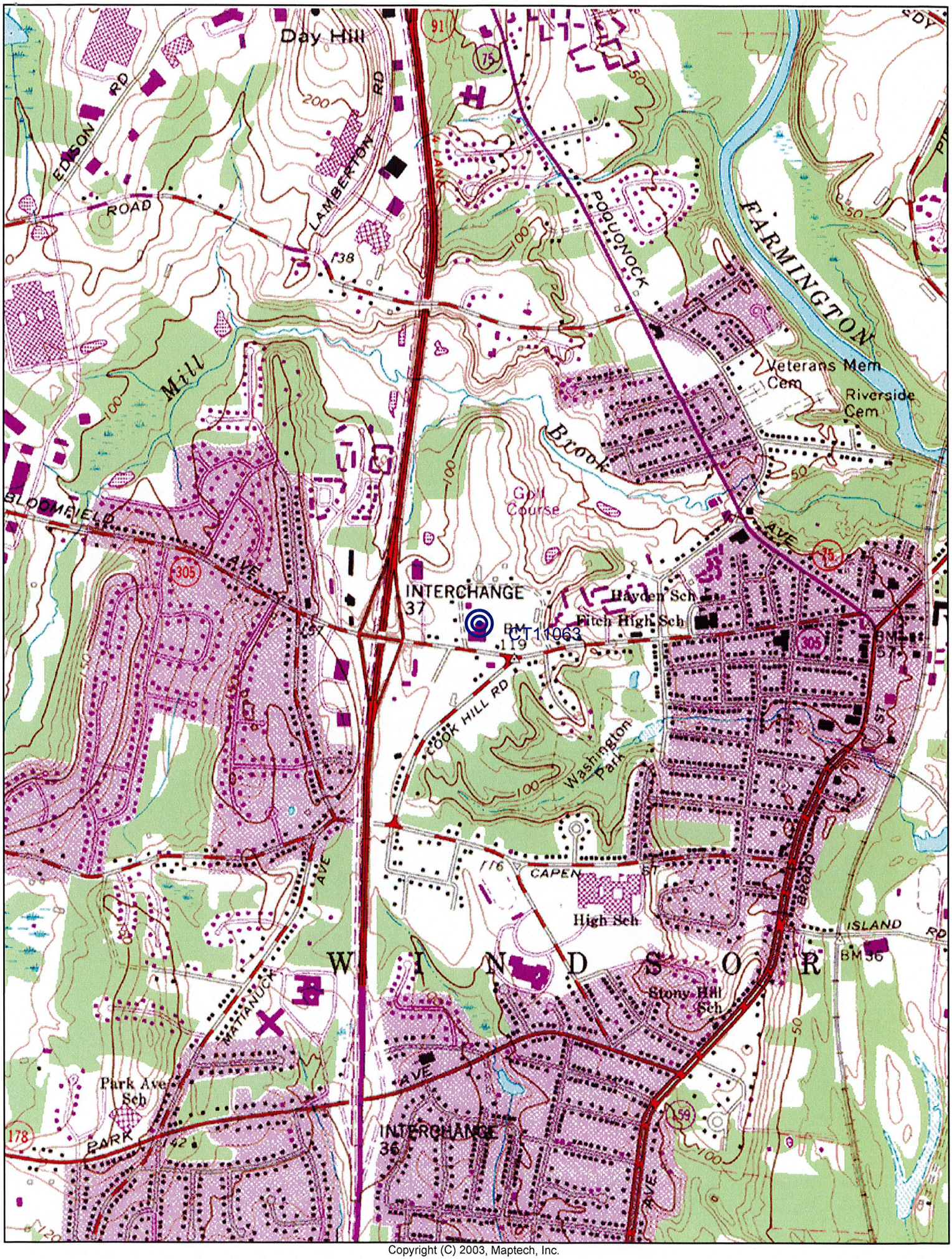
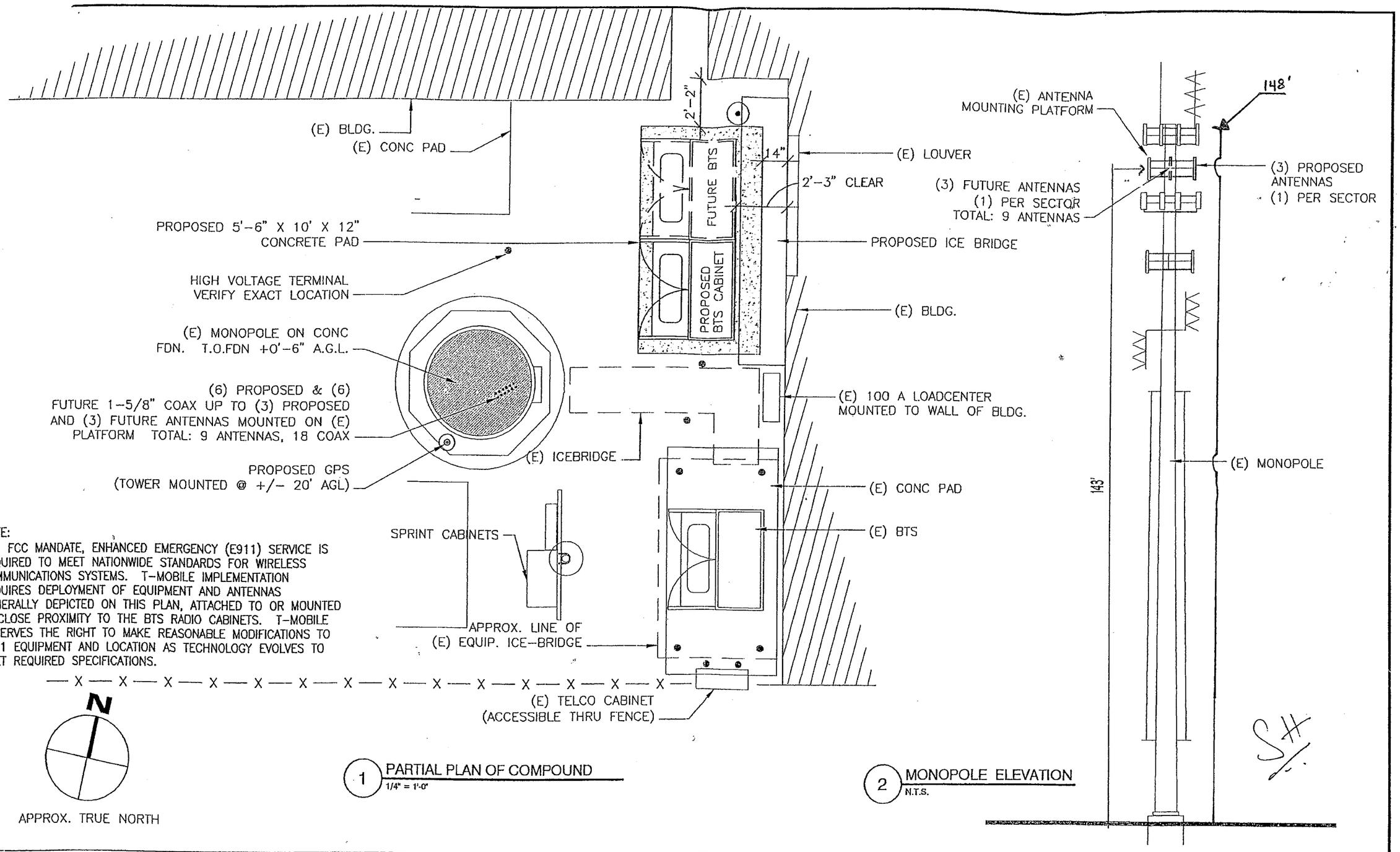


Exhibit B

Design Drawings

340 Bloomfield Avenue

Windsor, Connecticut



NOTE:
PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. T-MOBILE IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BTS RADIO CABINETS. T-MOBILE RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS.

1 PARTIAL PLAN OF COMPOUND
1/4" = 1'-0"

2 MONOPOLE ELEVATION
N.T.S.

T-Mobile
100 FILLEY STREET
BLOOMFIELD, CT. 06002

SITE NUMBER: CT-11-063B
SITE NAME: POLICE/FIRE DEPT.
ADDRESS: BLOOMFIELD AVE.
WINDSOR, CT 06095

LEASE EXHIBIT

REVISIONS	DESIGNED BY:	DATE: 2/20/03
	DRAWN BY: MW	SCALE: AS NOTED
	PM:	L-1
	FILE:	Sheet No.

Exhibit C

Equipment Specifications

340 Bloomfield Avenue

Windsor, Connecticut

EMS Wireless

RR90-17-XXDP

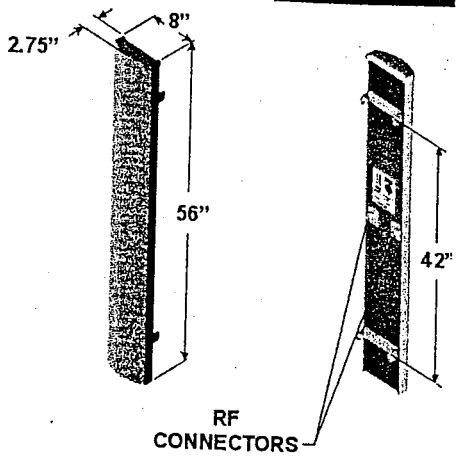
DualPol® Polarization

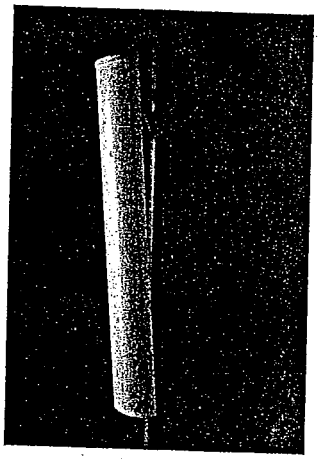
1850 MHz - 1990 MHz

OptiRange™

Electrical Specifications

Azimuth Beamwidth	90°
Elevation Beamwidth	6°
Gain	16.5 dBi (14.4 dBd)
Polarization	Dual Linear Slant (± 45°)
Port-to-Port Isolation	≥ 30 dB
Front-to-Back Ratio	≥ 28 dB (≥ 30 dB Typ.)
Electrical Downtilt Options	0°, 2°, 4°, 6°
VSWR	1.35:1 Max
Connectors	2; 7-16 DIN (female)
Power Handling	250 Watts CW
Passive Intermodulation	≤ -150 dBc [2 x 20 W (+ 43 dBm)]
Lightning Protection	Chassis Ground





Mechanical Specifications

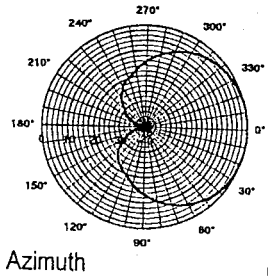
Dimensions (L x W x D)	56 in x 8 in x 2.75 in (142 cm x 20.3 cm x 7.0 cm)
Rated Wind Velocity	150 mph (241 km/hr)
Equivalent Flat Plate Area	3.1ft² (.29 m²)
Front Wind Load @ 100 mph (161 kph)	90 lbs (400 N)
Side Wind Load @ 100 mph (161 kph)	31lbs (139 N)
Weight	18 lbs (8.2 kg)

Mounting Options

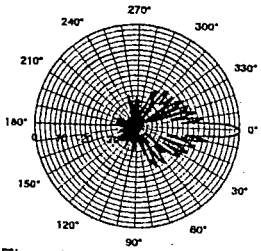
MTG-P00-10, MTG-S02-10, MTG-DXX-20*, MTG-CXX-10*, MTG-C02-10, MTG-TXX-10*

*Note: *Model number shown represents a series of products. See Mounting Options section for specific model number.*

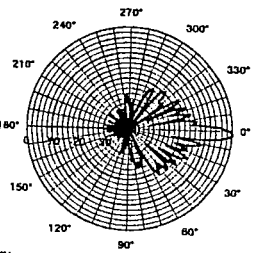
Patterns



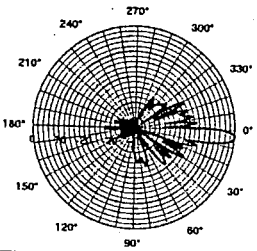
Azimuth



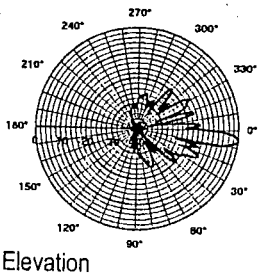
Elevation
0° Downtilt



Elevation
2° Downtilt



Elevation
4° Downtilt



Elevation
6° Downtilt

Revised 04/05/02

EMS Wireless

Mobile Wireless Introduction

Drawing from more than 30 years in the development of highly reliable systems, EMS *Wireless* has applied that knowledge and experience to the needs of commercial wireless communication service providers.

EMS *Wireless* offers a broad selection of innovative base station antennas offering superior performance for all wireless protocols including PCS, cellular, GSM, CDMA, TDMA and IDEN among others.

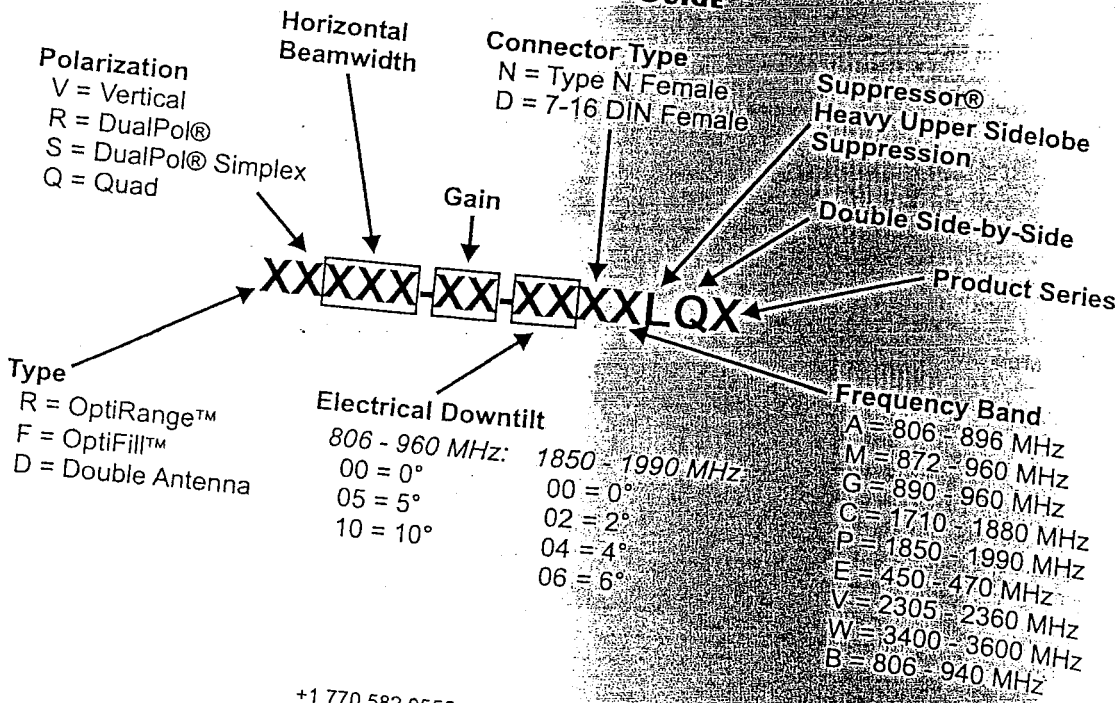
Mobile Wireless Products

Frequency Bands:
- PCS (1850-1990 MHz)
- Cellular (806-960 MHz)
- Dualband (806-896 and 1850-1900 MHz)
- CDMA 450 (450-470 MHz)
- GSM 900 (890-960 MHz)
- GSM 1800 (1710-1880 MHz)
- MMDS (2305-2360 MHz)

Micro AcCELLerator™ Series:
- MTRR75-17-XXXDPL (PCS)
- MTFR90-11-XXXDAL2-CMX (Cellular)

AcCELLerator™ Series:
- 16" AcCELLerator™
- 19" AcCELLerator™
- 30" AcCELLerator™
- 36" AcCELLerator™

Mobile Wireless Standard Model Number Guide

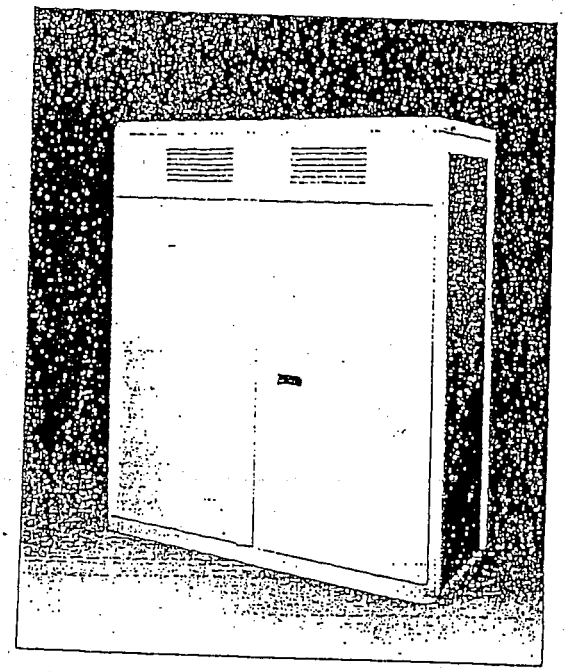


+1 770.582.0555 ext. 5310 • Fax +1 770.729.0036
www.emswireless.com

GSM 900 / DCS 1800 / PCS 1900

NORTEL
NORTHERN TELECOM

S8000 Outdoor Base Transceiver Station



Nortel's S8000 Outdoor Base Transceiver Station has been designed to meet the economic and performance requirements of network operators. Based on a highly integrated RF and digital design, the S8000 Outdoor Base Transceiver Station represents a major technology advancement and delivers all the benefits of a compact, modular, high quality and high performance product.

Nortel's S8000 Outdoor BTS: Radio Performance Leadership - Reduced Site Acquisition and Operating Costs

Installation

- The S8000 Outdoor Base Transceiver Station (BTS) offers compact packaging and requires minimal floor space, only .88 sq m (9.5 sq ft.). Front only access keeps total space required, including maintenance access, to only 1.8 sq m (19.4 sq ft) per cabinet.

Transmission

- Integrated drop and insert connection to the Base Station Controller (BSC) and signaling concentration on the A-bis interface provide significant transmission cost reduction.
- Optional integrated digital microwave radio.

Maintenance

- Highly reliable technology, redundant architecture and integrated battery backup ensure high availability service.
- Front access and interconnections, as well as powerful fault detection, help reduce lifetime maintenance costs.

Industry leading performance

- New RF technology and advanced digital processing techniques provide very high receive sensitivity (-108 dBm guaranteed) and improved diversity gain (up to 6 dB). This provides higher resistance to interference, as well as, improved speech quality and cell coverage.
- Nortel's proven experience in frequency hopping, 1*3 frequency reuse, sophisticated microcellular handover algorithms and support of half-rate vocoders enables the operator to maximize use of available spectrum and deploy fewer cell sites.

Fast network deployment

- The S8000 BTS can be shipped fully equipped and tested, which provides fast network roll out to meet operator time to market requirements.

Modular and flexible configuration

- The S8000 supports eight transceivers (TRX) per cabinet in Omni and sectored configurations. The typical one cabinet S222 configuration may be expanded up to S332 or S422 without an additional cabinet.

• Frequency range		900 MHz GSM
		900 MHz GSM extended
		1800 MHz DCS
		1900 MHz PCS
• Receive sensitivity (guaranteed)		-108 dBm
• Dimensions	Height	1600 mm / 5 ft. 3 in.
	Width	1350 mm / 4 ft. 5 in.
	Depth	650 mm / 2 ft. 1 in.
• Weight	Fully equipped	600 kg / 1300 lbs.
• Capacity		8 TRX per cabinet
		up to 3 cabinets
• Configuration	Trisectorial	up to S888
	Omnidirectional	up to O16
• Amplifier output power		30 W (± 1.5 dB)
• Power control	Static	6 steps of 2 dB
	Dynamic	15 steps of 2 dB
• Frequency hopping		RF synthesized
		baseband
• Supported vocoders		Full rate
		Enhanced full rate
		Half rate
• Encryption algorithms		A5/1 A5/2
• Power supply		230V AC 50/60 Hz
• Power back-up		Integrated battery back-up plus optional battery cabinet allows provisioning up to 8 hours back-up time.
• Operating temperature range		-40°C to +50°C
		-40°F to +122°F

For more information,
please contact your local Nortel account representative.

In the USA:
Northern Telecom
2221 Lakeside Boulevard
Richardson TX 75082
USA
Telephone: 1-800-4 NORTEL
1-800-466-7838 or (214) 684-5935
http://www.nortel.com/wireless

In Canada:
Northern Telecom
2920 Matheson Boulevard East
Mississauga ON L4W 4M7
Canada
Telephone: 1-800-4 NORTEL

In the Caribbean and Latin America:
Northern Telecom (CALA) Corporation
1500 Concord Terrace
Sunrise FL 33323
USA
Telephone: (305) 851-8400

In Asia:
Northern Telecom (Asia) Limited
151 Lorong Chuan
#02-01 New Tech Park
Singapore 1955
Telephone: (65) 287-2877

Nortel China Ltd.
34th Floor, Central Plaza
18 Harbour Road, Wanchai
Hong Kong
Telephone (852) 2585 2888

In Europe:
Nortel Limited
Stafferton Way
Maidenhead
Berkshire SL6 1AY
England
Telephone: (44) (1628) 812000

Nortel Matra Cellular
BP 50
1 place des Frères Montgolfier
78042 Guyancourt Cedex
France
Telephone (33) (1) 34 52 52 52

Nortel Europe
12-12bis rue Jean Jaurès
92807 Puteaux
France
Telephone (33) (1) 46 96 15 15

Publication Reference S80.INS.0696
Printed in France

NORTEL
NORTHERN TELECOM

Exhibit D

Structural Analysis

340 Bloomfield Avenue

Windsor, Connecticut

PAPAY ENGINEERING & CONSTRUCTION, INC.

100 HILLTOP ROAD, RAMSEY, NJ 07446
201-934-2828 FAX: 201-934-1181

April 26, 2004

Ms. Charmaine Simpson
Voicestream Wireless
100 Filley Street
Bloomfield, CT 06002

RE: 148' Monopole, Site CT-11-063B (AWS 340)
Windsor Public Safety Complex
Windsor, CT
WO 1635

Dear Ms. Simpson:

With respect to the above site, we have completed our structural assessment of the existing monopole as it relates to the addition of Voicestream antennas and appurtenances at 143.0' (AGL).

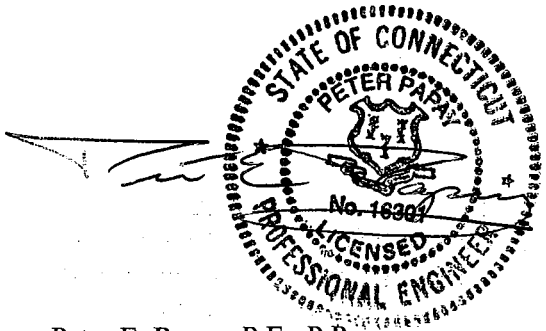
The pole was designed by Paul J. Ford & Company, Columbus, Ohio for Summit Manufacturing, LLC, West Hazelton, PA. The pole was erected by AT&T Wireless Services. It is designed to support 6 arrays of 12 antennas on low-profile platforms. These arrays are proposed to be at elevation 83.0' (AGL), 98.0' (AGL), 113.0' (AGL), 128.0' (AGL) 143.0' (AGL) and 148.0' (AGL).

At present only three of these locations are occupied as proposed. There are 12 antennas at 148.0' (AGL), 12 at 128.0' (AGL) and 6 at 113.0' (AGL). In addition, one whip and one yagi antenna are mounted at the top of the pole. Two additional yagis are mounted at 98.0' (AGL).

Upon review of the Paul J. Ford and Co. plans, it is our conclusion that the monopole can safely support the additional 9 antennas and associated cables as proposed by Voicestream Wireless.

Should you have any questions, please contact the office.

Prepared by:



Peter E. Papay, P.E., P.P.
CT Professional Engineer #16301

CC: John Speer/AWS

Exhibit E

Power Density Calculations

340 Bloomfield Avenue

Windsor, Connecticut

T-Mobile USA Inc.
100 Filley St, Bloomfield, CT 06002-1853
Phone: (860) 692-7100
Fax: (860) 692-7159

Technical Memo

To: Marie Burbanks
From: Hassan Syed - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CT11063
Date: April 19, 2004

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile PCS antenna installation on a Monopole at 340 Bloomfield Ave.,, Windsor Fire Department, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

1) The emissions from T-Mobile transmitters are in the 1935-1945 MHz frequency band.
2) The antenna array consists of three sectors, with 3 antennas per sector.
3) The model number for each antenna is EMS RR90-17-02DP.
4) The antenna center line height is 143 ft.
5) The maximum transmit power from any sector is 1778.77 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
7) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
8) The average ground level of the studied area does not change significantly with respect to the transmitting location

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile PCS antenna installation on a Monopole at 340 Bloomfield Ave.,, Windsor Fire Department, CT, is 0.02079 mW/cm^2. This value represents 2.079% of the Maximum Permissible Emission (MPE) standard of 1 milliwatt per square centimeter (mW/cm^2) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area.
The combined Power Density from other carriers is 28.25%. The combined Power Density for the site is 30.329% of the M.P.E. standard.

New England Market

Connecticut

Worst Case Power Density

T-Mobile

Site:	**CT11063**
Site Address:	**340 Bloomfield Ave.,**
Town:	**Windsor Fire Department**
Tower Height:	**148 ft.**
Tower Style:	**Monopole**
Base Station TX output	20 W
Number of channels	8
Antenna Model	EMS RR90-17-02DP
Cable Size	1 1/4 in.
Cable Length	160 ft.
Antenna Height	143.0 ft.
Ground Reflection	1.6
Frequency	1935.0 MHz
Jumper & Connector loss	4.50 dB
Antenna Gain	16.5 dBi
Cable Loss per foot	0.0154 dB
Total Cable Loss	2.4640 dB
Total Attenuation	6.9640 dB
Total EIRP per Channel	52.55 dBm
(In Watts)	179.73 W
Total EIRP per Sector	61.58 dBm
(In Watts)	1437.87 W
nsg	9.5360
Power Density (S) =	**0.016807 mW/cm^2**
Voicestream Worst Case % MPE =	**1.6807%**

Equation Used :

$$S = \frac{(1000)(grf)^2 (Power) * 10^{(nsg/10)}}{4\pi (R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total

Carrier	% of Standard
Verizon	6.7300 %
Cingular	
Sprint PCS	11.4100 %
AT&T Wireless	1.2800 %
Nextel	
Town	8.8300 %
Total Excluding Voicestream	**28.2500 %**
Voicestream	1.6807
Total % MPE for Site	**29.9307%**