



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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

October 23, 2000

Kenneth C. Baldwin
Robinson & Cole
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VOICESTREAM-064-001004** - VoiceStream Wireless notice of intent to modify an existing telecommunications facility located at 439-455 Homestead Avenue, Hartford, Connecticut. (Docket No. 126)

Dear Attorney Baldwin:

At a public meeting held on October 19, 2000, 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 October 4, 2000. 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/RKE/laf

c: Honorable Michael P. Peters, Mayor, City of Hartford
Ms. Sandra Kee-Borges, City Manager, City of Hartford
J. Brendan Sharkey, VoiceStream Wireless
Sandy M. Carter, Verizon Wireless
Julie M. Cashin, Esq., Hurwitz & Sagarin LLC
Christopher B. Fisher, Esq., Cuddy & Feder & Worby LLP



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

October 12, 2000

Honorable Michael P. Peters
Mayor
City of Hartford
Municipal Building
550 Main Street
Hartford, CT 06103

RE: **EM-VOICESTREAM-064-001004** - VoiceStream Wireless notice of intent to modify an existing telecommunications facility located at 439-455 Homestead Avenue, Hartford, Connecticut. (Docket No. 126)

Dear Mayor Peters:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for October 19, 2000, at 2:00 p.m. in Hearing Room Two, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Joel M. Rinebold', written over a horizontal line.

Joel M. Rinebold
Executive Director

JMR/grg

Enclosure: Notice of Intent

c: Ms. Sandra Kee-Borges, City Manager

ROBINSON & COLE LLP

HARTFORD • STAMFORD • GREENWICH • NEW YORK • BOSTON

LAW OFFICES

280 Trumbull Street
Hartford, CT 06103-3597
860-275-8200
Fax 860-275-8299

Kenneth C. Baldwin
860-275-8345
Internet: kbaldwin@rc.com

EM-VOICESTREAM-064-001004

October 4, 2000

Via Hand Delivery

Mr. Joel M. Rinebold
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RECEIVED

OCT - 4 2000

CONNECTICUT
SITING COUNCIL

**Re: Notice of Exempt Modification
Siting Council Docket No. 126
Hartford, Connecticut**

Dear Mr. Rinebold:

Crown Atlantic Company LLC ("Crown") holds the Siting Council certificate for the existing telecommunications tower and related facility in Hartford, Connecticut (Docket No. 126). VoiceStream Communications, Inc. (formerly Omnipoint Communications, Inc.) ("VoiceStream") currently maintains six panel antennas and associated equipment at the Hartford facility. VoiceStream now intends to install six additional panel antennas and related equipment at the Hartford facility. Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction which 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 Hartford Mayor, Michael P. Peters.

The existing facility consists of a 140-foot monopole tower and related equipment at 439-455 Homestead Avenue in Hartford. This facility was approved by the Connecticut Siting Council on April 9, 1990 (Docket No. 126). This tower currently supports antennas of Cellco Partnership d/b/a Verizon Wireless ("Cellco"), VoiceStream, AT&T Wireless, Inc. ("AT&T") and Sprint Spectrum L.P. ("Sprint").

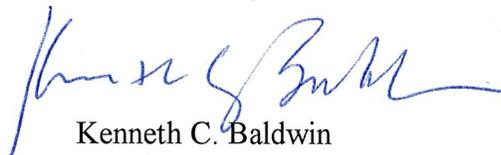
VoiceStream plans to add six (6) panel-type antennas, EMS Dual-Pol, Model No. RR90-17-02DP, to the six existing antennas at the 124-foot level on the tower. VoiceStream will also install two additional equipment cabinets near the base of the tower. (See tower profile, site plan and equipment specifications attached hereto as Exhibit A).

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

1. The proposed modifications will not increase the height of the tower. VoiceStream's antennas will be installed with a centerline of approximately 124 feet AGL. The enclosed tower drawing confirms that the planned changes will not increase the overall height of the tower.
2. The installation of VoiceStream equipment near the base of the tower, as reflected on the attached site plan, will not require an extension of the site boundaries. VoiceStream's proposed equipment cabinets will be located entirely within the existing fenced compound area.
3. The proposed modification to the facility will not increase the noise levels at the existing facility by six decibels or more. VoiceStream'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. In Crown's March 13, 2000 notice of exempt modification filing, the "worst-case" RF power density calculation for the combined operations of Cellco, VoiceStream, AT&T and Sprint antennas was 22.3% of the FCC Standard. The additional six VoiceStream antennas and associated channels at the Hartford facility will result in an increase in the RF power density levels at the site of 1.377% of the FCC Standard. (See Exhibit B.) Therefore, the calculated "worst case" power density for the planned combined operation at the site including all existing uses and the additional VoiceStream antennas would be 23.677% of the FCC Standard as calculated for a mixed frequency site.

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

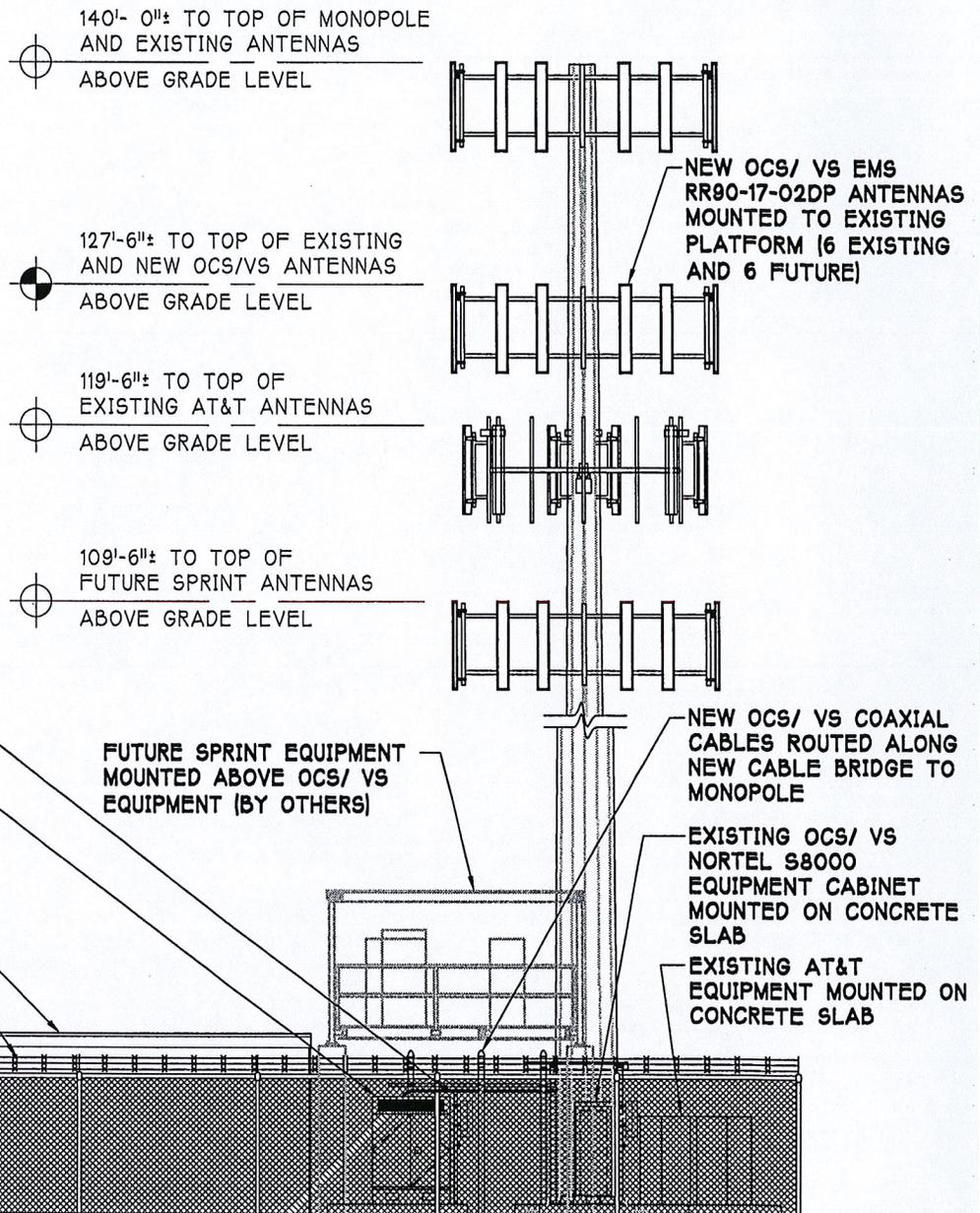
Sincerely,



Kenneth C. Baldwin

KCB/amk
Attachments

cc: Michael P. Peters, Hartford Mayor
J. Brendan Sharkey, Esq., VoiceStream
Tara K. Rand, Crown Castle



ROBERT P. JUENGERT

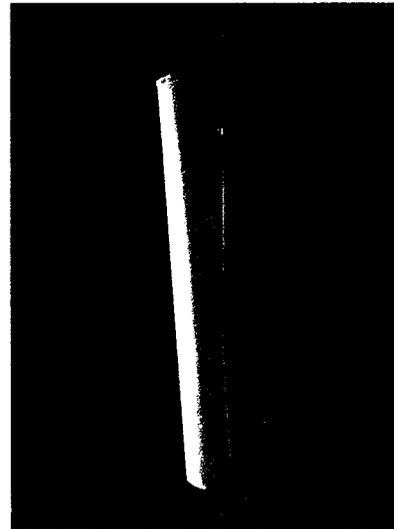
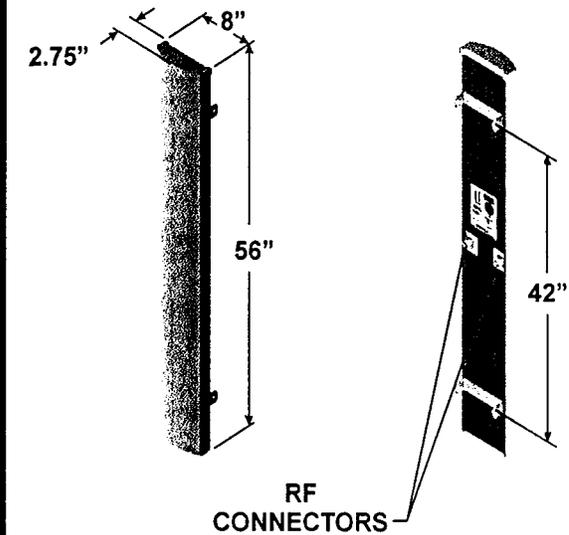
CT # 4208

1 WEST ELEVATION
A-2 SCALE: 3/32"=1'-0"

ANTENNA / EQUIPMENT UPGRADE

 670 North Beers Street, Building 2, Holmdel, NJ 07733 Tel: 732.739.3200 Fax: 732.739.0440	Drawing Title: ELEVATION		Project: CROWN MONOPOLE Address: 439 HOMESTEAD AVE. HARTFORD, CT		
	Client: OCS <small>Omnipoint Communications Inc. is a subsidiary of VoiceStream Wireless Corporation</small>		Search Area: BAM HARTFORD Site ID No.: CT-11-161D		Revision No. Date:
	P.C.: JDi	P.C. Chkd:	Chkd by:	ARCNET Project No. A99-506-654A	Drawn: MKo Date: 7/12/00
Approved By: _____ DATE: _____				Drawing No. <h1>A-2</h1>	

1850 MHz - 1990 MHz (P)



90° beamwidth

16.5 dBi gain

**±45°
DualPol™**

56 inch

SPECIFICATIONS

Electrical

Azimuth Beamwidth	90°
Elevation Beamwidth	6°
Gain	16.5 dBi (14.4 dBd)
Polarization	Slant, ±45°
Port-to-Port Isolation	≥ 30 dB
Front-to-Back Ratio	≥ 25 dB (≥ 30 dB Typ.)
Electrical Downtilt Options	0°, 2°, 4°, 6°
VSWR	1.35:1 Max
Connectors	2; Type N or 7-16 DIN (female)
Power Handling	250 Watts CW
Passive Intermodulation	< -147 dBc (2 tone @ +43 dBm (20W) ea.)
Lightning Protection	Chassis Ground

Mechanical

Dimensions (L x W x D)	56in x 8in x 2.75in (142 cm x 20.3 cm x 7.0 cm)
Rated Wind Velocity	150 mph (241 km/hr)
Equivalent Flat Plate Area	3.1ft ² (.29 m ²)
Front Wind Load @ 100 mph (161 kph)	90 lbs (400 N)
Side Wind Load @ 100 mph (161 kph)	31 lbs (139 N)
Weight	18 lbs (8.2 kg)

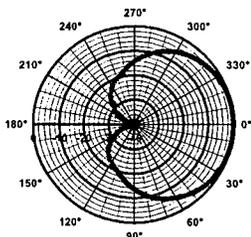
Note: Patent Pending and US Patent number 5, 757, 246.

Values and patterns are representative and variations may occur. Specifications may change without notice due to continuous product enhancements. Digitized pattern data is available from the factory or via the web site www.emswireless.com and reflect all updates.

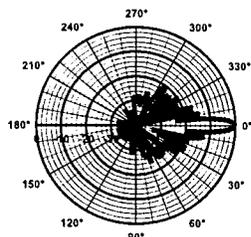
MOUNTING OPTIONS

Model Number	Description	Comments
MTG-P00-10	Standard Mount (Supplied with antenna)	Mounts to Wall or 1.5 inch to 5.0 inch O.D. Pole. (3.8 cm to 12.7 cm)
MTG-S02-10	Swivel Mount	Mounting kit providing azimuth adjustment.
MTG-DXX-20*	Mechanical Downtilt Kits	0° - 10° or 0° - 15° Mechanical Downtilt
MTG-CXX-10*	Cluster Mount Kits	3 antennas 120° apart or 2 antennas 180° apart
MTG-C02-10	U-Bolt Cluster Mount Kit	3 antennas 120° apart, 4.5" O.D. pole.
MTG-TXX-10*	Steel Band Mount	Pole diameters 7.5" - 45"

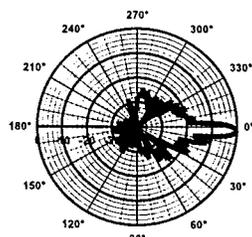
* Model number shown represents a series of products. See mounting options section for specific model number.



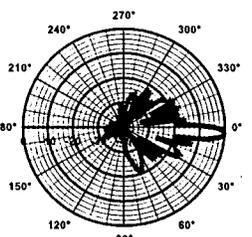
Azimuth



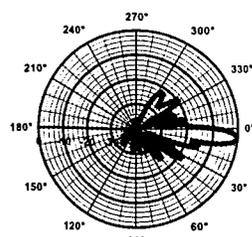
Elevation
0° Downtilt



Elevation
2° Downtilt



Elevation
4° Downtilt

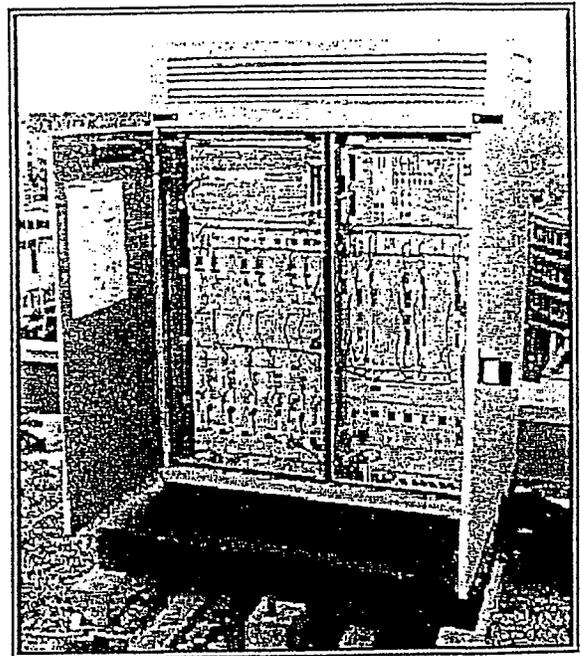
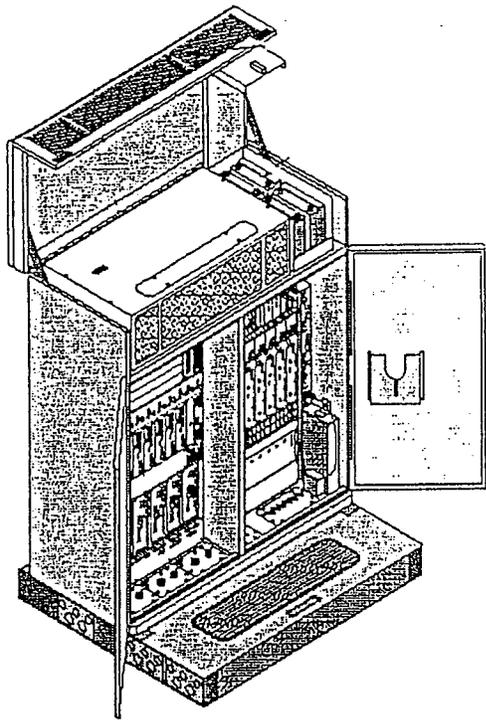


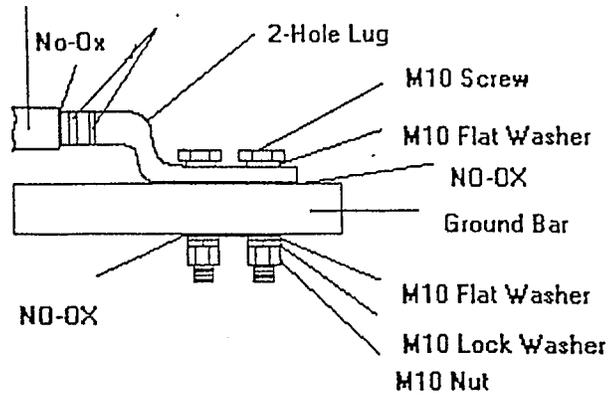
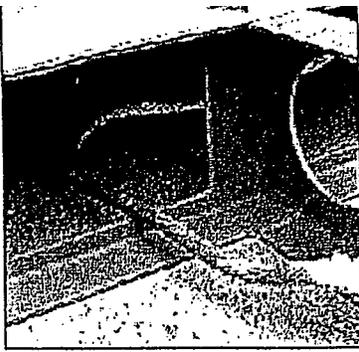
Elevation
6° Downtilt

NORTEL
NETWORKS™

S8000 BTS

Site Specifications





Apply a light coating of No Oxidation (NO-OX) to the ground bar area.

Dimensions, Weights & Clearances

BTS

Weight: 915 pounds
 Dimensions: 53.2"W x 26"D x 63"H

Clearances while transporting in building:

Door Access:

Height: 6.6 feet
 Width 3 feet

Corridor Access:

Height: 6.6 feet
 Width: 3.6 feet (straight), 6.6 feet (right angle)

Clearances when installed:

Above: 28 inches for opening of hood
 Rear: 8 inches for installation of outer skin
 Sides: 8 inches for adjustment of door hinges
 Front: 54 inches to open door and technician access

Plinth

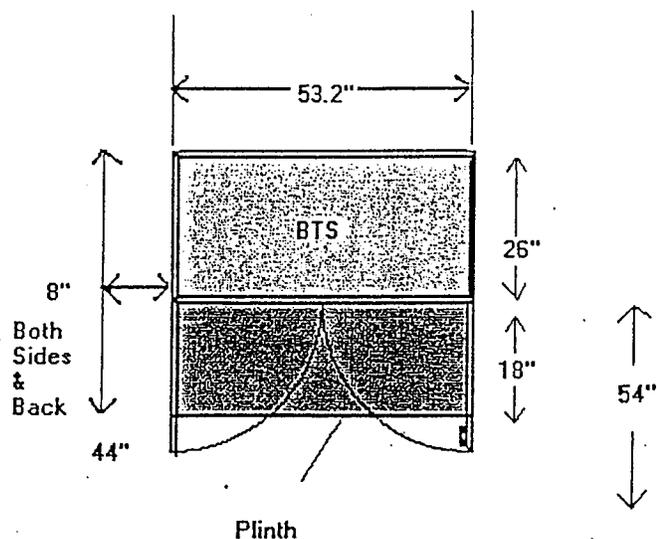
Weight:
 87 pounds

Dimensions:
 53.2"W x 44"D x 10.2"H

Floor Characteristics

Minimum Floor Resistance:
 123 pounds/foot²

Flatness:
 ¼ inch over 78 inches



Electrical Specifications

Split Single-Phase

3 wires plus ground

L1: Black 6 gauge

L2: Red 6 gauge

Neutral: White 6 gauge

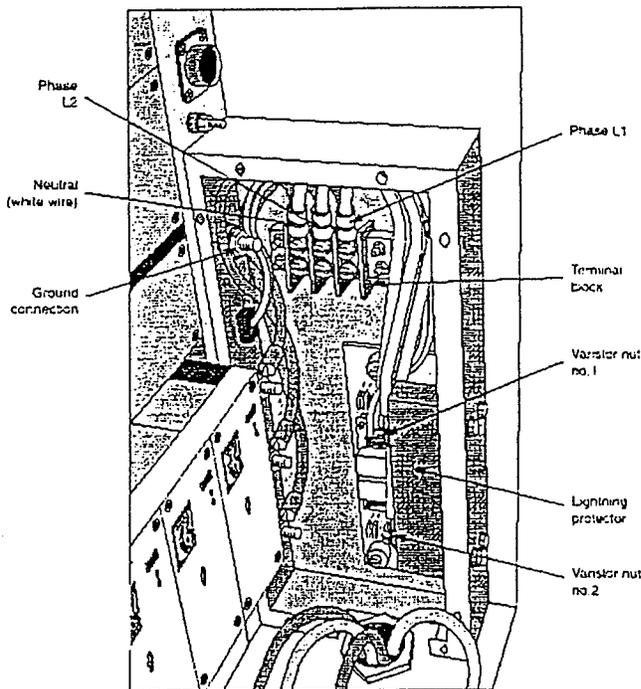
Ground: Yellow/Green 6 gauge

Maximum distance between AC box and BTS: 105 feet

187 ~ 254 VAC between L1 and L2

99 ~ 127 VAC between Neutral and L1 or L2

45 ~ 65 Hertz



AC connection to BTS located at the front, lower, right-hand side of BTS

Circuit Breaker in AC Box

Up to 4 transmitters

30 A, bipolar, C curve

5 or more transmitters

40A, bipolar, C curve

BTS to Ground connection

Minimum 2 AWG, run in most direct route as possible towards true earth, minimizing bends. No bend shall be less than 90 degrees.

Worst Case Power Density for installation on BAM Tower @ 439 Homestead Ave, Hartford, CT

Region 11 - Connecticut Power Density Calculation - Worst Case	
Base Station TX output	20 W
Number of channels	6
Antenna Model	EMS: RR-90-17/ RV-90-17
Antenna Gain	16.5 dBi
Cable Size	1 5/8"
Cable Length	145 ft
Jumper & Connector loss	1.5 dB
Cable Loss per foot	0.0116
Total Cable Loss	1.682 dB
Total Attenuation	3.182 dB
Total EIRP per channel	56.33 dB
Total EIRP per sector	64.11 dB
Ground Reflection	1.6
Frequency	1930 MHz
Antenna Height	125 ft
msg	13.318
Power Density (S) =	0.0361727578087149 mW / cm ²
% MPE =	3.6173%

Current combined %MPE = 10.7%
 *Additional %MPE contribution from Omnipoint = 1.377%
 Total MPE = 12.077%

*10.7% represents the power density level at the site prior to the addition of Sprint antennas.

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

* 2.24 % submitted previously