STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

December 23, 1999

J. Brendan Sharkey, Esq.
Omnipoint Communications, Inc.
100 Filley Street
Bloomfield, CT 06002

RE: TS-OCI-073-991210 - Omnipoint Communications request for an order to approve tower sharing at an existing telecommunications facility located at 26 Mell Road in Lisbon, Connecticut.

Dear Attorney Sharkey:

At a public meeting held December 20, 1999, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures.

This facility has 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. Any additional change to this facility will require an explicit request to this agency pursuant to § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated December 9, 1999, and in additional information dated December 20, 1999.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/SLL/sll
cc: Honorable Thomas W. Sparkman, First Selectman, Town of Lisbon
Peter W. van Wilgen, Director – Real Estate Operations, SNET Wireless, Inc.
Ronald C. Clark, Manager – Real Estate Operations, Nextel Communications, Inc.
Steve Kotfila, Site Development Manager, Sprint PCS

I:\siting\cm\omni\lisbon\dc122099.doc

OMNIPOINT
COMMUNICATIONS INC.

100 Filley Street, Bloomfield, CT 06002
(860) 692-7154 phone
(860) 692-7159 fax

By Facsimile
Original To Follow By Regular Mail

13 December, 1999

Steve Levine
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Tower Sharing Application
26 Mell Road, Lisbon

Dear Mr. Levine:

In response to our phone conversation this afternoon, please be advised of the following minor errors which are found in our recently filed tower sharing application:

1. Contrary to the narrative on Page 1, the existing tower is 198 feet. This height is accurately displayed on the design drawings and elsewhere in the application.

2. In section C.3. of the application, Omnipoint correctly cited the combined power density levels of the Omnipoint and Nextel installations as .0067 mW/cm2, or .87% of the ANSI standard. I failed to update this figure by including the calculations for the Sprint installation, which when combined is .05527 mW/cm2, or 5.73% of the ANSI standards. These corrected figures are accurately displayed in Exhibit D of the application.

I apologize for any confusion these errors may have created. If you have any additional questions, please don't hesitate to contact me.

Sincerely,

J. Brendan Sharkey, Esq.
for Omnipoint Communications, Inc.

Power Density Calculation for SBA Tower @ 26 Mell Road, Lisbon, CT

Inputted Parameters

Antenna Type: EMS_RR901702DP
Antenna Centerline Height (Feet): 195
Mechanical Downtilt (Degrees): 0
Base Station TX Power (dBm): 43.01
Coax and Connector Loss (dB): 3.994
Number of Channels per Sector (TXs): 2

Power per Sector (EiRP Watts)	Distance from Base to Location (ft)	Height at Location, Relative to Base (ft)	Number of Times Below Federal Safety Limit of 1.0 mW/cm²
712.30	1	5	917,800
712.30	10	5	145,900
712.30	100	5	630,700
712.30	500	5	126,500
712.30	1000	5	44,700
712.30	5000	5	80,200

Notes: Equations given in "FCC OET Bulletin 65, Edition 97-01", in conjunction with manufactures specific antenna data were used in the field strength calculations. The resultant values represent worst case levels for field strength intensity.

OMNIPOINT
COMMUNICATIONS INC.

100 Filley Street, Bloomfield, CT 06002
(860) 692-7154 phone
(860) 692-7159 fax

10 December, 1999

Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Request by Omnipoint Communications, Inc.
for an Order to Approve the Shared Use of a Tower Facility
26 Mell Road, Lisbon, Connecticut

Dear Chairman Gelston and Members of the Council:

Pursuant to Connecticut General Statutes §16-50aa, Omnipoint Communications, Inc. ("Omnipoint") hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared of an existing tower located at 26 Mell Road in Lisbon, Connecticut. The tower is owned and operated by SBA Towers, Inc. ("SBA"). Omnipoint proposes to install antennas on the existing tower located within SBA's leased compound area, and to install related equipment near the base of the tower within the existing compound (see "Exhibit A"). Omnipoint requests that the Council find that the proposed shared use of the tower satisfies the criteria stated in §16-50aa and issue an order approving the proposed use.

Background

Omnipoint both 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 installations.

The SBA tower at 26 Mell Road in Lisbon is a 150-foot monopole located on a 68.5'x 68.5', or approximately 4,700 sq. ft. compound. The coordinates for this location are 41-35-28 N and 72-01-06W. Nextel Communications currently has antennas mounted on the tower with centerlines at 183 feet above ground level ("AGL"). Sprint also has antennas mounted on the tower with centerlines at 173 feet AGL. Omnipoint and SBA have agreed to mutually acceptable terms and conditions for the proposed shared use of this tower, and SBA has authorized Omnipoint to act on its behalf to apply for all necessary local, state and federal permits, approvals, and authorizations which may be required for the proposed shared use of this facility.

As shown on the site plan drawings and tower elevations attached as Exhibit A, Omnipoint proposes to install three antennas on a platform at the top of the tower. The top of these antennas will be 197'4" AGL. The antennas are EMS Dual-Pol Model RR90-17-02DP. The radio transmission equipment associated with these antennas, a Nortel S8000 cabinet, would be mounted on a concrete slab at the base of the monopole.

C.G.S. §16-50aa (c) (1) provides that, upon written request for approval of a proposed shared use, "if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such shared use." The shared use of the tower satisfies those criteria as follows:

A. **Technical Feasibility** - The existing tower was designed to accommodate five carriers, and Omnipoint is the third carrier to propose co-location. As the structural analysis attached as Exhibit C indicates, the tower is structurally sound and capable of supporting the proposed antennas. The proposed shared use of this tower therefore is technically feasible.

B. **Legal Feasibility** - Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the proposed shared use of an existing tower facility such as the facility on Mell Road in Lisbon. (Public Acts 93-268, Section 2; and 94-242, Section 6 (c)). This authority complements the Council's prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. C.G.S. § 16-50x (a) vests exclusive jurisdiction over these facilities in the Council, which shall "give such consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing towers facilities. Under this statutory authority vested in the Council, an order by the Council approving the shared use would permit the applicant to obtain a building permit for the proposed installations.

C. **Environmental Feasibility** - The proposed shared use would have a minimal environmental effect, for the following reasons:

1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. In particular, the proposed installations would not increase the height of the existing tower, and would not extend the boundaries of the existing SBA compound area.

2. The proposed installations would not increase the noise levels at the existing facility by six decibels or more.

3. Operation of antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the American National Standards Institute ("ANSI"). The "worst-case" exposure calculated for operation of this facility (i.e., calculated at the base of the tower, which represents the closest publicly accessible point within the broadcast field of the antennas), with the Nextel and Omnipoint antennas, would be 0.0067 mW/cm2 (0.87% of the ANSI standard). These calculations are attached as Exhibit D.

4. The proposed installations would not require any water or sanitary facilities, or generate air emissions or discharges to water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is complete (approximately two weeks), the proposed installations would not generate any traffic other than for periodic maintenance visits.

The proposed use of this facility would therefore have a minimal environmental effect, and is environmentally feasible.

E. **Economic Feasibility** - As previously mentioned, Omnipoint has entered into an agreement with SBA to share the use of the existing tower on terms agreeable to the parties. The proposed tower sharing is therefore economically feasible.

F. **Public Safety Concerns** - As stated above, the existing tower is structurally capable of supporting the proposed Omnipoint antennas. The tower stands on a raw land compound at the top of a hill off Mell Road cul-de-sac. The size and location of the tower have also been approved by the Lisbon Planning and Zoning Commission which considered public health and safety in its review. Omnipoint is not aware of any other public safety concerns relative to the proposed sharing of the existing tower. In fact, the provision of new or improved phone service through shared use of the existing tower is expected to enhance the safety and welfare of area residents and travelers.

Conclusion

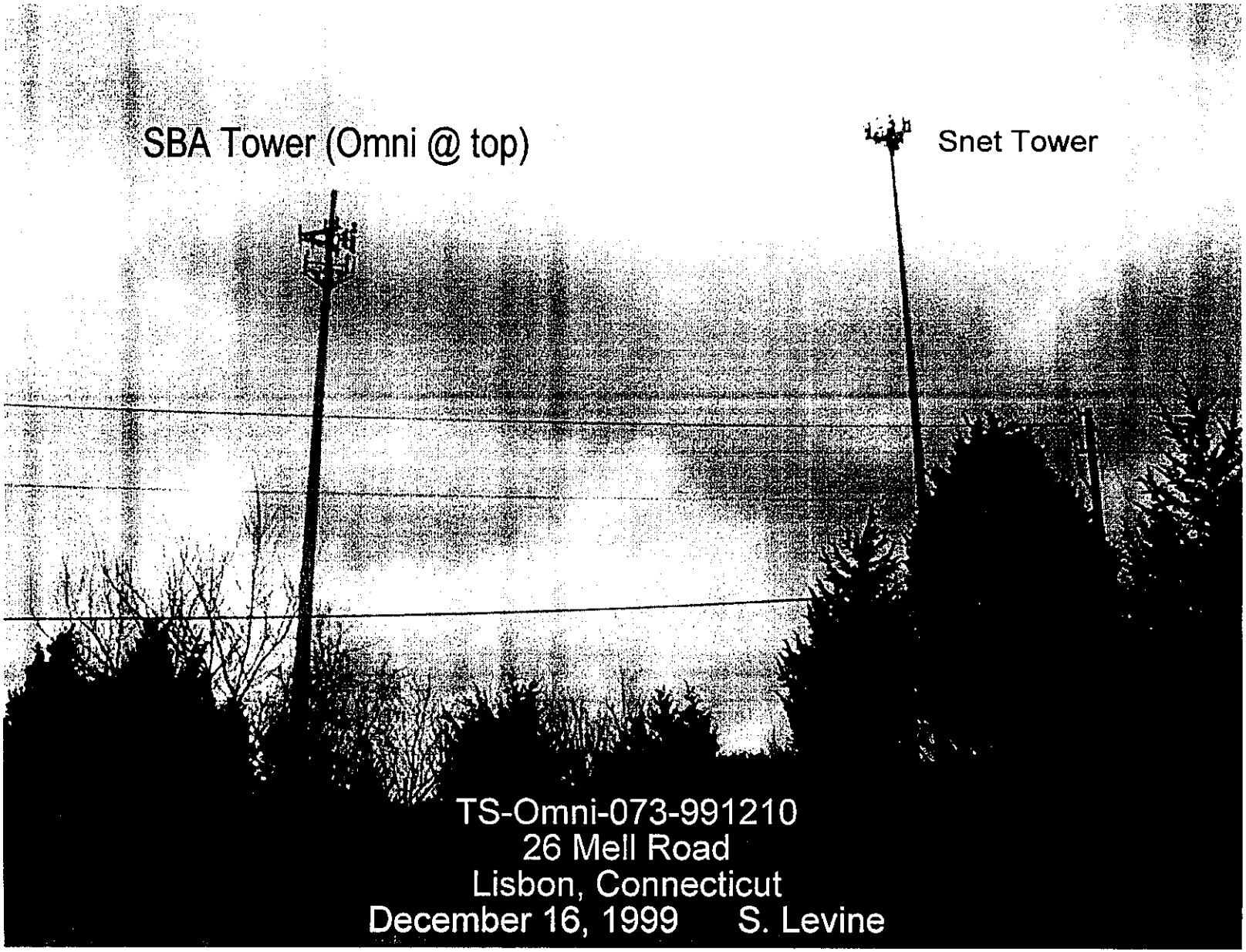
For the reasons discussed above, the proposed shared use of the existing tower facility at Mell Road in Lisbon, Connecticut satisfies the criteria stated in C.G.S. §16-50aa, and advances the General Assembly's and the Siting Council's goal of preventing the proliferation of towers in Connecticut. Omnipoint therefore request that the Siting Council issue an order approving the proposed shared use.

Thank you for your consideration of this matter.

Very truly yours,

J. Brendan Sharkey, Esq.
for Omnipoint Communications, Inc.

Attachments
cc: Thomas Sparkman, Lisbon First Selectman


SBA Tower (Omni @ top)
Snet Tower
TS-Omni-073-991210
26 Mell Road
Lisbon, Connecticut
December 16, 1999 S. Levine

OMNIPOINT

Fax Cover Sheet

OMNIPOINT COMMUNICATIONS
100 Filley Street
Bloomfield, CT 06002
Phone (860)692-7157
Fax (860)692-7159

To:	Department:	Phone #'s:	Fax #'s:
Steve Levine			(860)827-2950

Date: 12/13/99 **Pages:** 2

RECEIVED
DEC 13 1999
CONNECTICUT
SITING COUNCIL

Sender: Brenda Sharkey **Sender's Direct Dial:** (860) 692-7254

OMNIPOINT COMMUNICATIONS INC.

100 Filley Street, Bloomfield, CT 06002
(860) 692-7154 phone
(860) 692-7159 fax

By Facsimile
Original To Follow By Regular Mail

13 December, 1999

Steve Levine
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Tower Sharing Application
26 Mell Road, Lisbon

Dear Mr. Levine:

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Sincerely,

J. Brendan Sharkey, Esq.
for Omnipoint Communications, Inc.

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

December 14, 1999

Honorable Thomas W. Sparkman
First Selectman
Town of Lisbon
Town Office Building
1 Newent Road
Lisbon, CT 06351

RE: TS-OCI-073-991210 - Omnipoint Communications request for an order to approve tower sharing at an existing telecommunications facility located at 26 Mell Road in Lisbon, Connecticut.

Dear Mr. Sparkman:

The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting scheduled for Monday, December 20, 1999, at 1:30 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,

Joel M. Rinebold
Executive Director

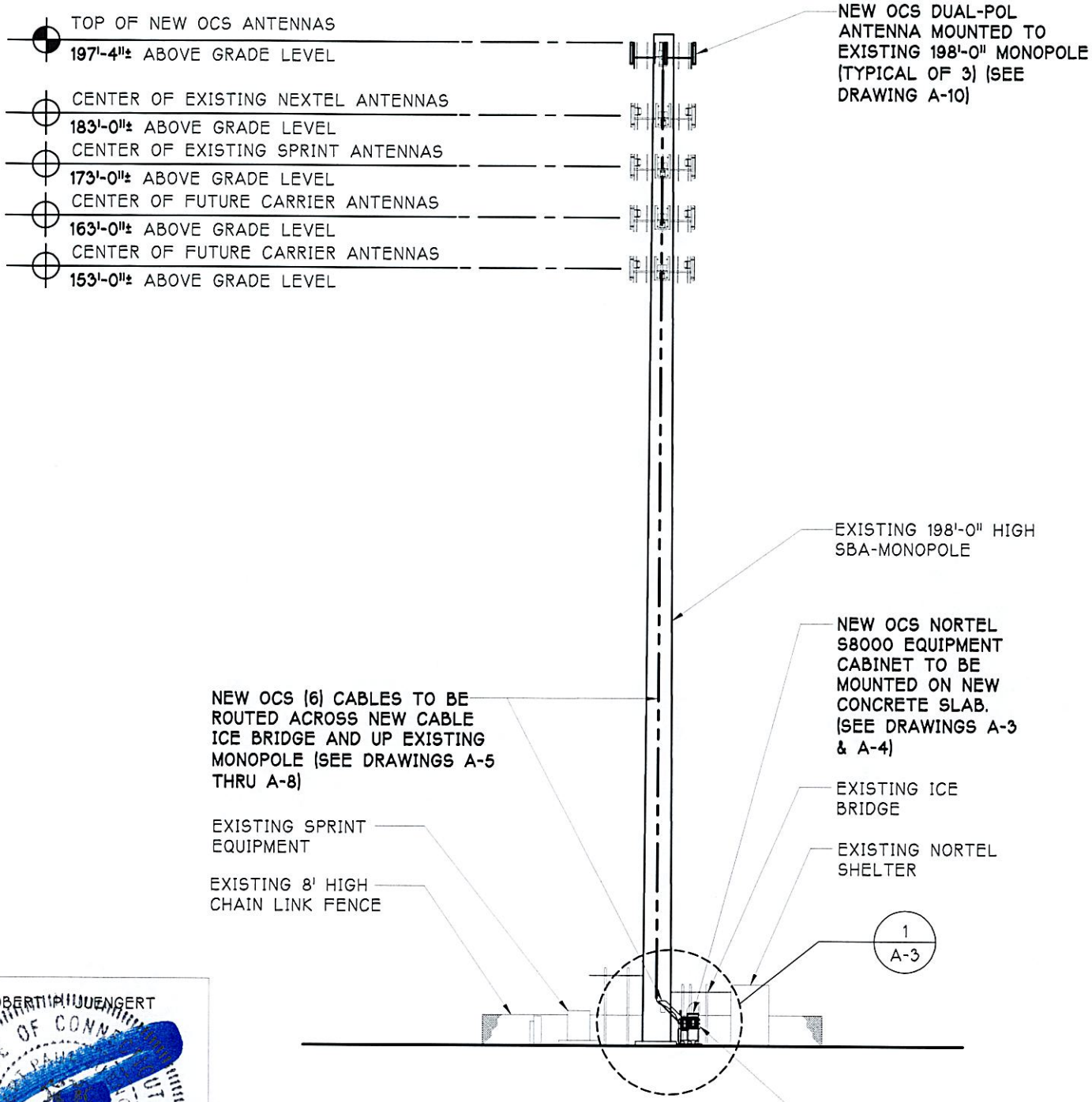
JMR/jlh

Enclosure: Notice of Tower Sharing

OMNIPOINT
COMMUNICATIONS INC.

Exhibit A

Design Drawings
26 Mell Road
Lisbon, CT



1/A-2 ELEVATION
SCALE: 1"=30'-0"

ROBERT P. LUENGERT
STATE OF CONNECTICUT
No. 4208
REGISTERED ARCHITECT

CT # 4208

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

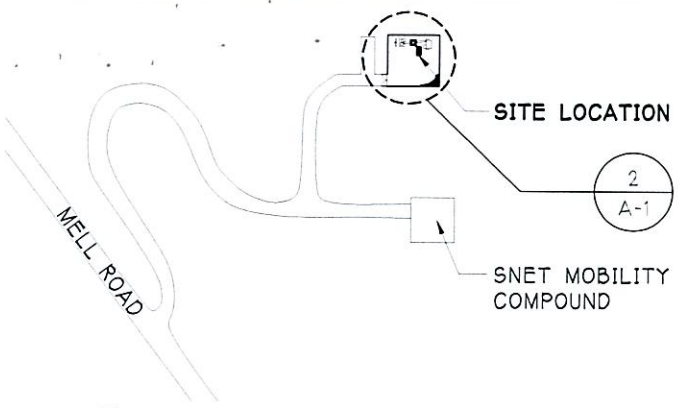
Drawing Title: ELEVATION
Client: OCS
Project: SBA-LISBON
Address: 26 MELL ROAD LISBON, CT.
Search Area: SBA-LISBON
Site ID No.: CT-11-150D

P.C.	P.C. Chkd.	Chkd. By	ARCNET Project No.	Drawn	Date
JDi			A99.506-284D	BCo	10/15/99

Approved By: CLIENT: _____ DATE: _____

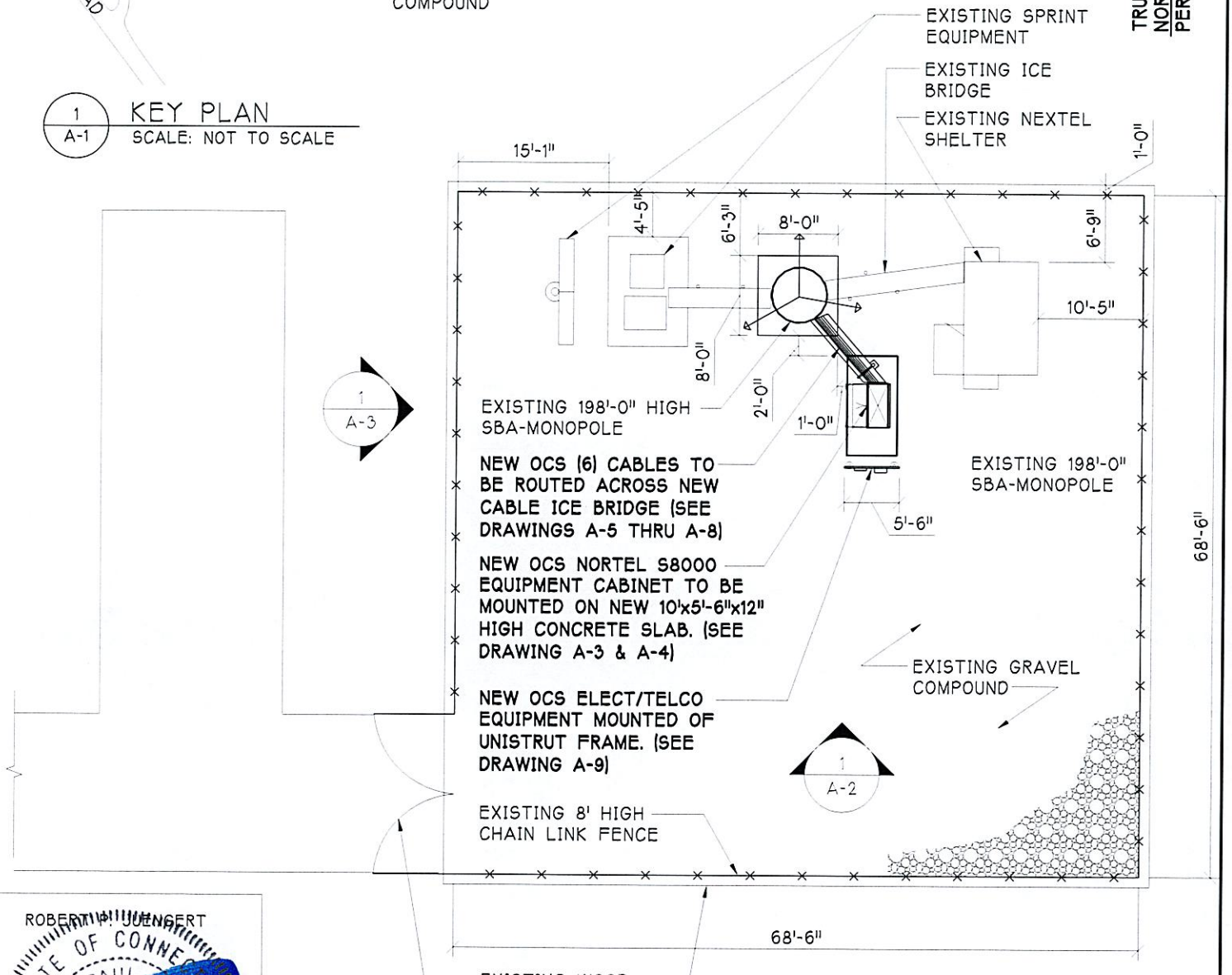
Revision No. | Date

Drawing No. A-2



1 / A-1 KEY PLAN
SCALE: NOT TO SCALE

TRUE NORTH
PER R.F. ENGINEER



2 / A-1 SITE LAYOUT
SCALE: 1/16"=1'-0"

ROBERT P. JUENGERT
STATE OF CONNECTICUT
ROBERT PAUL JUENGERT
No. 4208
REGISTERED ARCHITECT

CT # 4208

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

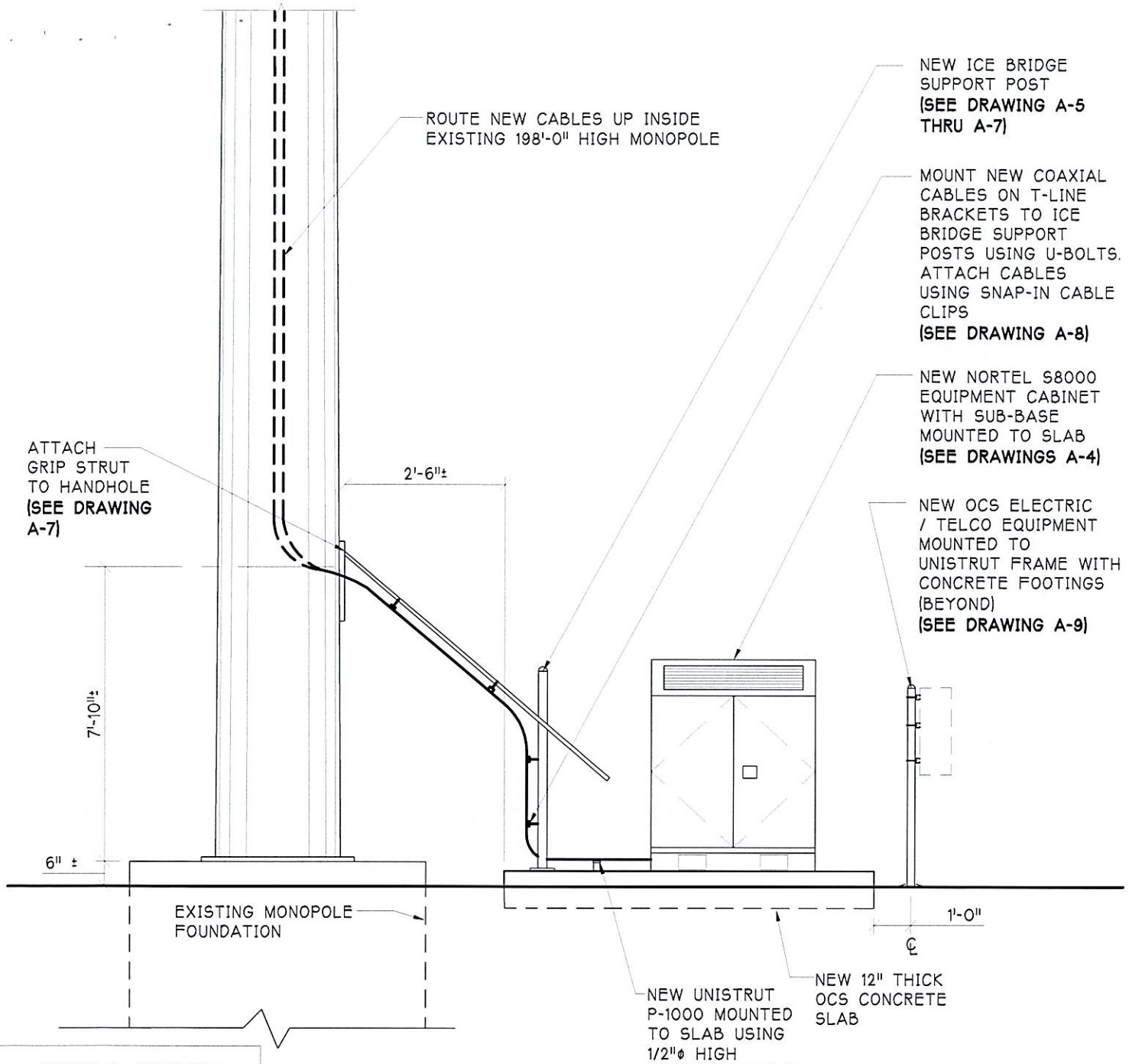
Drawing Title: KEY PLAN & SITE LAYOUT
Client: OCS
Project: SBA-LISBON
Address: 26 MELL ROAD LISBON, CT.
Search Area: SBA-LISBON
Site ID No.: CT-11-150D

P.C.	P.C. Chkd.	Chkd. by	ARCNET Project No.	Drawn	Date
JDi			A99.506-284D	BCo	10/15/99

Approved By: CLIENT: _____ DATE: _____

Revision No. | Date

Drawing No. A-1

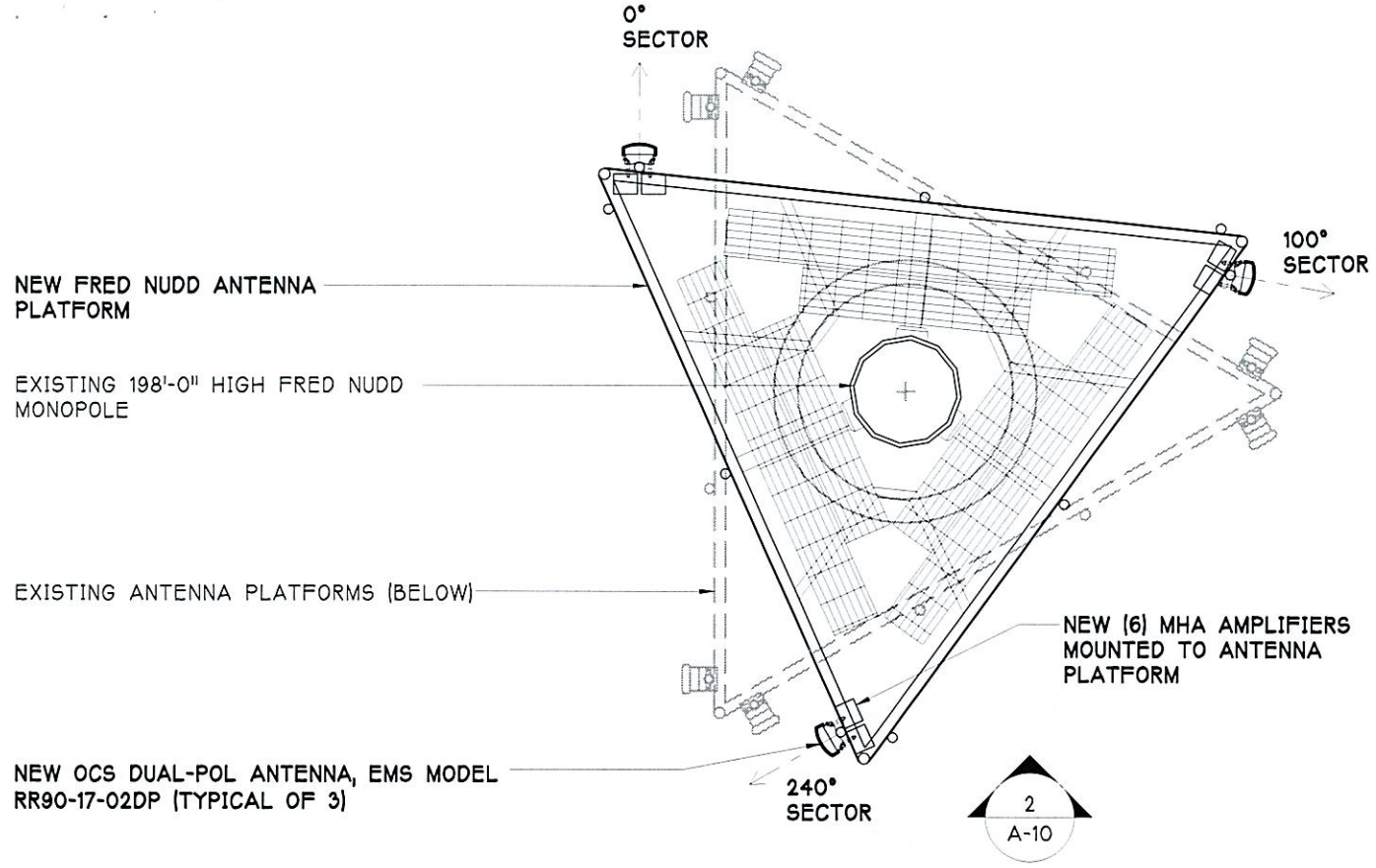


ROBERT P. JUENGERT
STATE OF CONNECTICUT
No. 4208
REGISTERED ARCHITECT
CT # 4208

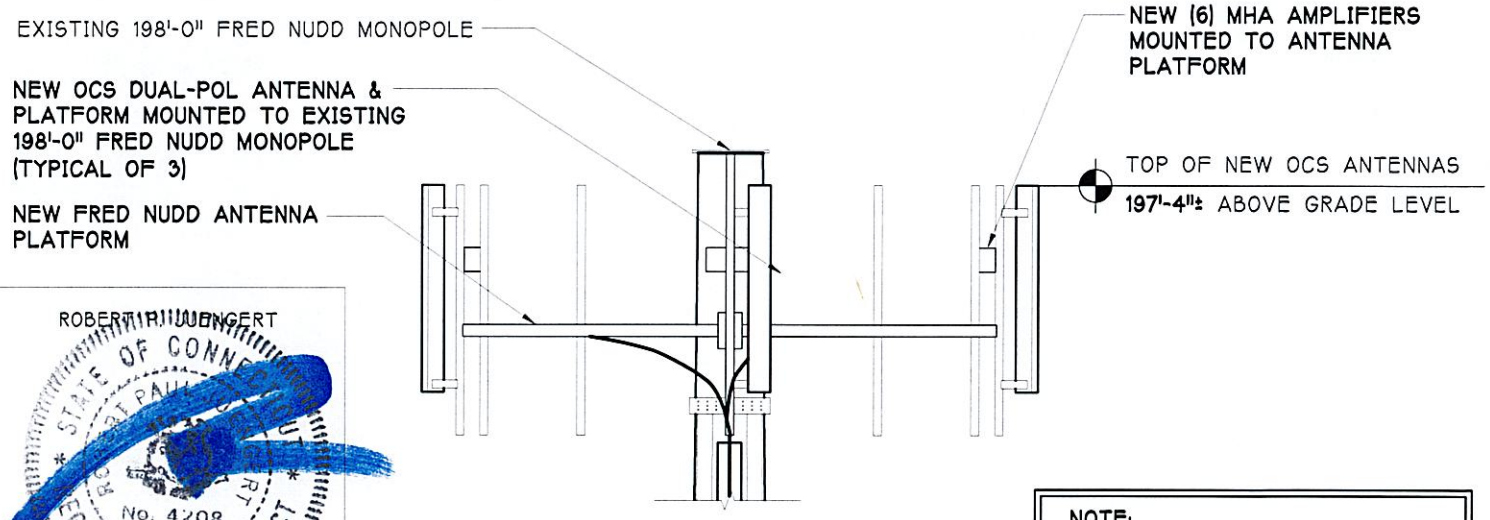
1 / A-3 PARTIAL EUIP.ELEV.
SCALE: 1/4"=1'-0"

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: PARTIAL EQUIP. ELEV.
Client: OCS
Project: SBA-LISBON
Address: 26 MELL ROAD LISBON, CT.
Search Area: SBA-LISBON
Site ID No.: CT-11-150D
P.C.: JDi
ARCNET Project No.: A99.506-284D
Drawn: BCo
Date: 10/15/99
Approved By: CLIENT: _____ DATE: _____
Revision No. | Date
Drawing No. A-3



1 / A-10 ANTENNA MOUNT (PLAN)
SCALE: 1/4'=1'-0"



2 / A-10 ANTENNA MOUNT (ELEVATION)
SCALE: 1/4'=1'-0"

NOTE:
ROUTE NEW OCS COAXIAL CABLE THROUGH EXISTING HAND-HOLES

ROBERT J. LUDGERT
STATE OF CONNECTICUT
No. 4208
REGISTERED ARCHITECT

CT # 4208

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

Drawing Title: ANTENNA MOUNT DETAILS
Client: OCS
Project: SBA-LISBON
Address: 26 MELL ROAD LISBON, CT.
Search Area: SBA-LISBON
Site ID No.: CT-11-1500

P.C.	P.C. Chkd.	Chkd. by	ARCNET Project No.	Drawn	Date
JDi			A99.506-284D	BCo	10/15/99

Approved By: CLIENT: _____ DATE: _____

Revision No. | Date

Drawing No. A-10

OMNIPOINT
COMMUNICATIONS INC.

Exhibit B

Equipment Specifications

26 Mell Road

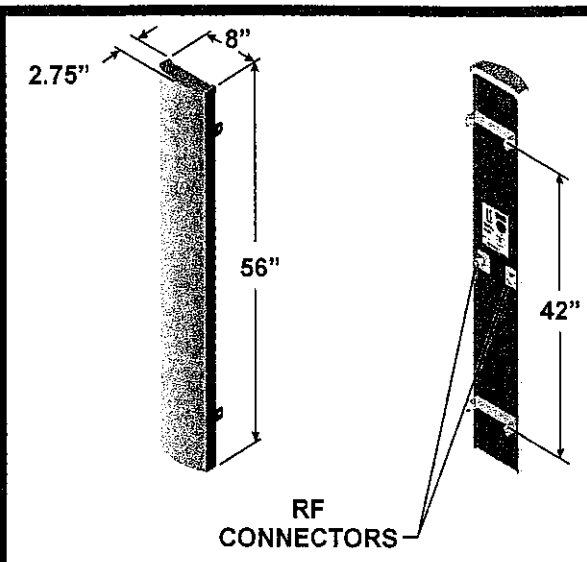
Lisbon, CT

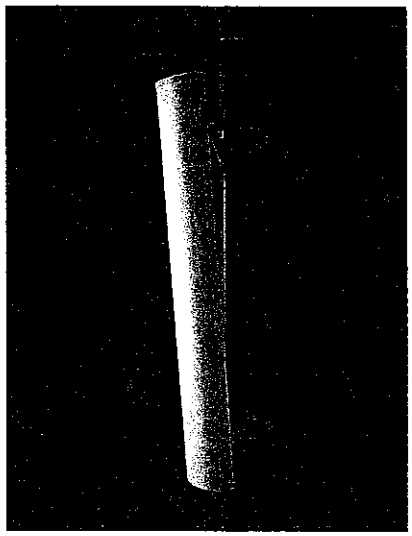
EMS WIRELESS

OptiRange™

RR90-17-XXXP

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	3.1ft² (.29 m²)
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)

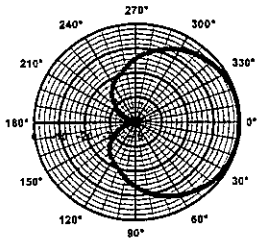
Note: Patent Pending and US Patent number 5, 757, 246.

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.

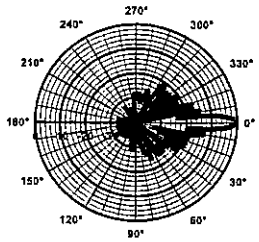
MOUNTING OPTIONS

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"

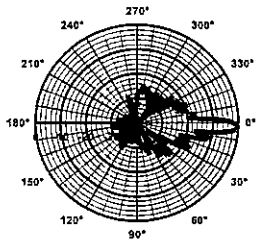
* Model number shown represents a series of products. See mounting options section for specific model number.



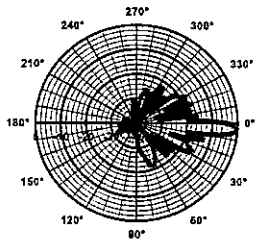
Azimuth



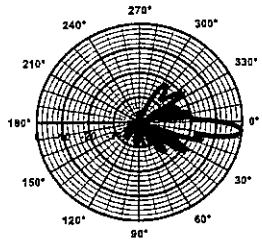
Elevation
0° Downtilt



Elevation
2° Downtilt



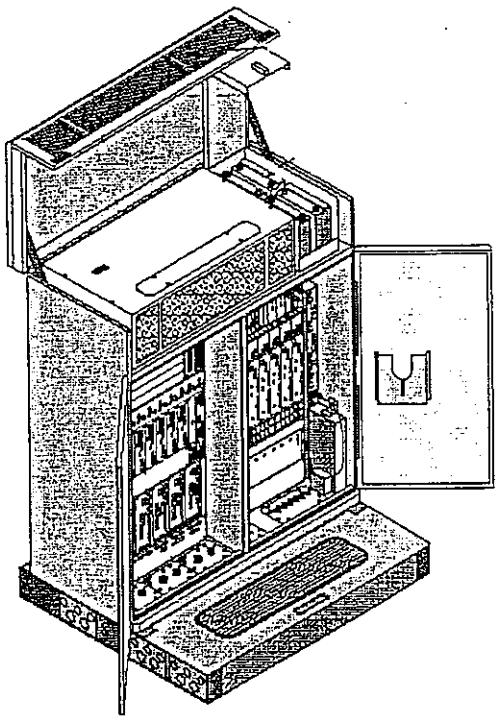
Elevation
4° Downtilt

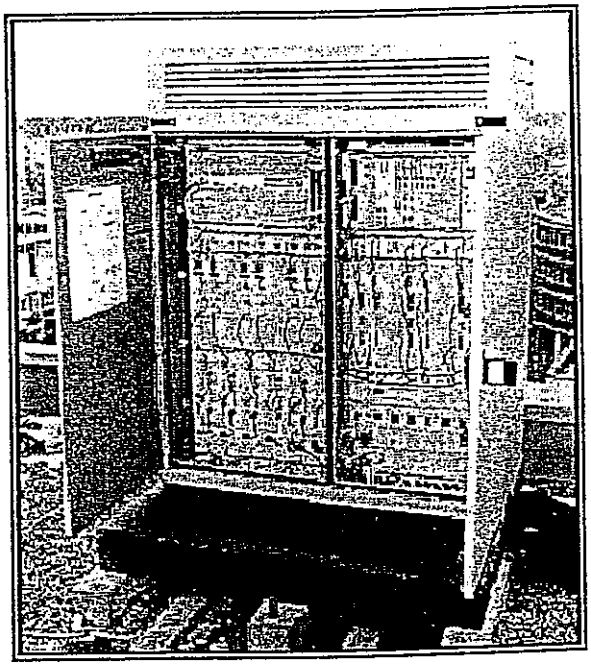


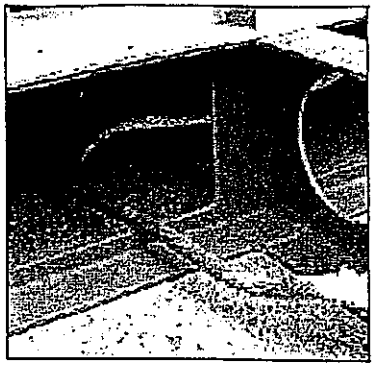
Elevation
6° Downtilt

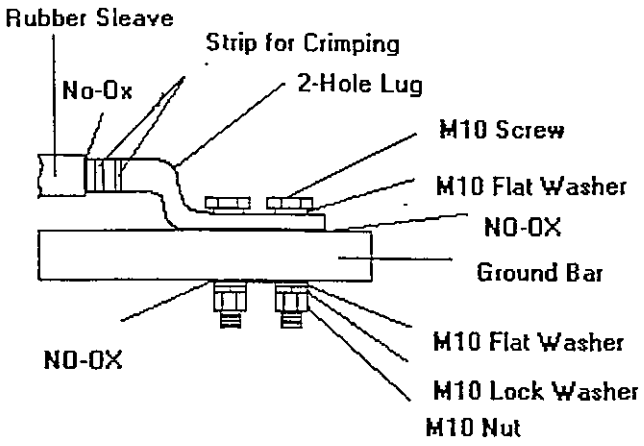
NORTEL NETWORKS™

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

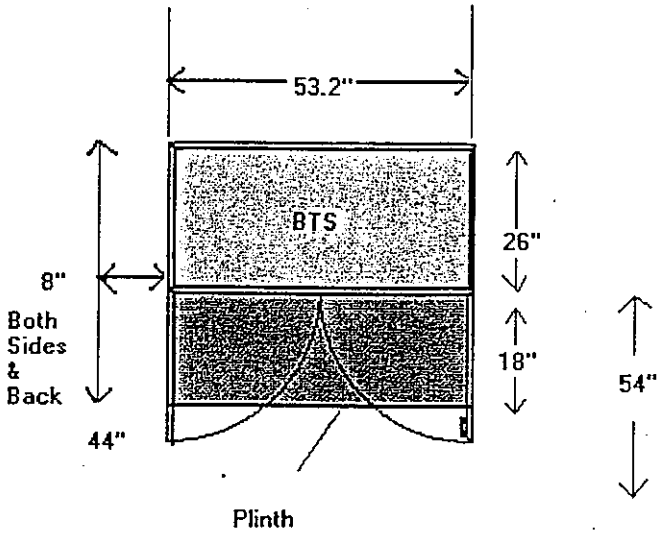
Clearances while transporting in building:
- Door Access:
  - Height: 6.6 feet
  - Width 3 feet
- Corridor Access:
  - Height: 6.6 feet
  - Width: 3.6 feet (straight), 6.6 feet (right angle)

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/foot^2

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

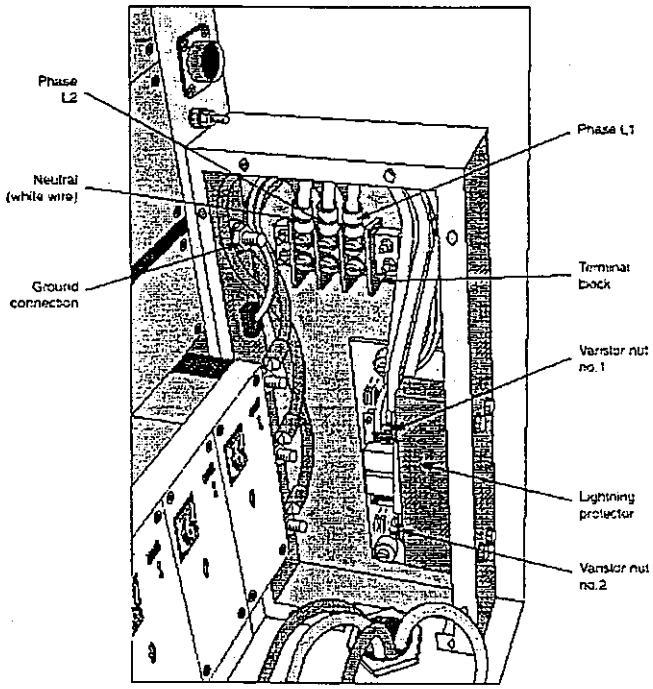
Ground: Yellow/Green 6 gauge

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.

OMNIPOINT
COMMUNICATIONS INC.

Exhibit C

Structural Analysis
26 Mell Road
Lisbon, CT

PAUL BECK ASSOCIATES, P.A.
Structural Engineers

October 26, 1999

Mr. Joe DiBernardo
ArcNet, Inc.
100 Filley Street
Bloomfield, Connecticut 06002

Re: 26 Mell Road, Lisbon, CT
Omnipoint I.D. No. CT-11-150-D
PBA Project No. A-793

Dear Mr. DiBernardo:

The 195 ft. monopole at the above referenced site was designed for (5) installations of (12) DB896 flat panel antennas on 14 foot Nudd Low-profile Platforms at elevations 155 ft., 165 ft., 175 ft., 185 ft., and 195 ft.

It was designed in accordance with the TIA/EIA-222-F Standard, utilizing a basic wind speed of 85 mph., which is the minimum design basic wind speed for New London County, where the monopole is located.

Omnipoint's proposed installation will consist of (3) Dual-Pol antennas and (6) MHA's. The wind surface area of Omnipoint's three antennas and six MHA's is smaller than that of the twelve antennas for which it was designed. Therefore, provided that other installations on the monopole do not exceed design parameters, it can be concluded that Omnipoint's proposed installation will not compromise the monopole's structural integrity.

If you have any questions or comments, please feel free to call.

Sincerely,

Robert A. Delery

Robert A. Delery, P.E.

Paul C. Beck, P.E.
President
Paul Beck Associates, P.A.

RD/tcs

A-793 Lisbon, CT.wpd

12 Kulick Road Fairfield, New Jersey 07004-3363
973-276-1700 • Fax: 973-276-9766 • E-mail: paulbeck@pbanj.com

OMNIPOINT
COMMUNICATIONS INC.

Exhibit D

Power Density Calculations
26 Mell Road
Lisbon, CT

OMNIPOINT

OMNIPOINT COMMUNICATIONS
100 Filley St
Bloomfield, CT 06002
Phone: (860) 692-7124
Fax: (860) 692 - 7159

Technical Memo

To: Brendan Sharkey
From: Michael Walker (Radio Engineering Consultant)
cc: Mike Fulton
Subject: Power Density Report for CT11150D
Date: 12/10/99

1. Introduction:
This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the proposed OMNIPOINT Communications Inc. PCS antenna installation on Power Density Calculation for SBA Tower @ 26 Mell Road, Lisbon, CT. This study incorporates the most conservative considerations for determining the practical combined worst case power density levels that would be theoretically encountered from several locations surrounding the transmitting location.

2. Discussion:
The following assumptions were used in the calculations:

1) The emissions from the OCI transmitters are in the 1930-1950 MHz frequency band.
2) The antenna cluster consists of three sectors. All three sectors consist with 1 antenna EMS RR-90-17-02DP per sector.
3) The antenna height is 195 feet centerline.
4) The maximum transmit power from each sector is 712.3 Watts Effective Isotropic Radiated Power (EiRP).
5) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
6) 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.
7) The average ground level of the studied area does not significantly change 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 worse case assumptions, the power density calculations from the proposed OMNIPOINT Communications Inc., PCS antenna installation at the tower is 0.00411 mw/cm^2. This value represents only 0.411% of the Maximum Permissible Emission (MPE) set forth in the FCC/ANSI/IEEE C95.1-1991 standard of 1000 microwatts per square centimeter (μw/cm^2). The combined power density for Omnipoint, Nextel & Sprint will remain well below the FCC Standard. Details are shown in the attachment. Furthermore, the proposed antenna location for Omnipoint Communications at Power Density Calculation for SBA Tower @ 26 Mell Road, Lisbon, CT will not interfere with existing public safety telecommunications, AM band and FM band radio broadcast, TV, Police Communication, HAM Radio communications and other signals in the area.

Worst Case Power Density for installation on SBA Tower @ 26 Mell Road, Lisbon, CT

Region 11 - Connecticut
Power Density Calculation - Worst Case

Base Station TX output	20 W	43.01	
Number of channels	2		
Antenna Model	EMS: RR-90-17/ RV-90-17		
Antanna Gain	16.5 dBi		
Cable Size	1 5/8"		
Cable Length	215 ft		
Jumper & Connector loss	1.5 dB		
Cable Loss per foot	0.0116		
Total Cable Loss	2.494 dB		
Total Attenuation	3.994 dB		
Total EIRP per channel	55.52 dB	356.15	W
Total EIRP per sector	58.53 dB	712.30	W
Ground Reflection	1.6		
Frequency	1930 MHz		
Antenna Height	195 ft	5943.6	cm
nsg	12.506		
Power Density (S) =	**0.004110 mW / cm^2**		
% MPE =	**0.4110%**		

Combined Power Density With Nextel & Sprint	*0.0552714 mW/cm^2*
Combined %MPE With Nextel & Sprint	*5.7259%*

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