500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7730
Fax: (860) 513-7614

Peter W. van Wilgen
Director – Real Estate Operations

March 2, 2001

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

Re: Notice of Exempt Modification – Existing SpectraSite Wireless Telecommunications Tower Facility, 104 Bunker Hill Road, Andover, Connecticut.

Dear Mr. Gelston:

SNET Cellular, LLC ("SNET") and **VoiceStream Wireless** ("VoiceStream") intend to install telecommunications antennas and associated equipment at an existing multicarrier telecommunications tower facility at 104 Bunker Hill Road, Andover, Connecticut. VoiceStream has authorized SNET to act on its behalf before the Connecticut Siting Council ("Council") with regard to this matter. (See attachment.)

Please accept this letter as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter is being sent to the First Selectman of the Town of Andover.

The Bunker Hill Road facility is owned and operated by SpectraSite Communications, Inc., with offices at 100 Regency Forest Drive, Suite 400, Cary, NC 27511. SpectraSite leases the land from Leon Price and Deborah Green of Hebron, CT. The Bunker Hill Road site has been the subject of previous Council action in TS-BAM-001-000418 and EM-Sprint-001-000626.

SNET is licensed by the Federal Communications Commission ("FCC") to provide cellular mobile telephone service in the Hartford, CT Metropolitan Statistical Area, which includes the area to be served by SNET's proposed installation. VoiceStream is licensed by the FCC to provide "Wideband PCS" service for the Greater New York City area, including the entire state of Connecticut. The public need for cellular and PCS service has been predetermined by the FCC.

SpectraSite has agreed to plans put forth by SNET and VoiceStream pursuant to mutually acceptable terms and conditions and has also authorized the applicants herein to obtain all necessary government approvals.

Attached to this notice are a location map, the proposed site plan, the proposed tower profile, and a structural analysis report. The structural report shows that the existing monopole is capable of supporting the SNET and VoiceStream antennas in addition to previously installed and/or approved antennas.

The existing facility consists of an approximately 180 foot monopole tower located at 104 Bunker Hill Road, with tower coordinates of N41° 44' 17.1" and W 72° 21' 01" (NAD 83).

SpectraSite has entered into prior lease agreements with Nextel Communications, Inc. ("Nextel"), Verizon Wireless ("Verizon"), and Sprint Spectrum L.P. ("Sprint") for use of the Bunker Hill Road facility. Nextel has installed panel antennas at a centerline elevation of 181 feet above ground level (AGL) and an equipment shelter. Sprint has installed panel antennas on the tower at 169 feet AGL as well as equipment cabinets on a concrete pad. Verizon has not yet deployed its antennas or equipment, but has leased space at 158 feet AGL. The existing 50 foot x 50 foot compound is surrounded by a 7-foot high chain link fence topped with barbed wire.

As shown on the attached drawings and as further described below, SNET proposes to install up to twelve (12) Decibel Products Model DB846H80 antennas, approximately 72 inches in height, on a triangular antenna platform with the center of radiation at the 137 foot level of the tower. SNET also proposes to construct an 11' 6" x 20' equipment shelter on a concrete pad adjacent to the existing tower within the fenced compound.

Additionally, VoiceStream proposes to place six (6) EMS RR90-17-02DP antennas, approximately 56 inches in height, on a triangular platform at the 148-foot level of the tower and equipment cabinets on a 9' x 16' concrete pad at the tower base within the existing fenced compound.

The changes to the Andover tower facility do not constitute a modification as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2) because they will not result in any substantial adverse environmental effect.

1. The height of the overall structure will be unaffected.

2. The proposed changes will not affect the property boundaries. All new construction will take place within the existing fenced compound.

3. The proposed additions will not increase the noise level at the existing facility by six decibels or more. Except for noise resulting from construction, the only additional sound will be from equipment cooling systems.

4. Operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at the tower base, to or above the standard adopted by the State of Connecticut and the FCC. The "worst-case" exposure calculation in

accordance with FCC OET Bulletin No. 65 (1997) for a point of interest at the base of the tower in relation to the operation of the currently proposed antenna array is as follows:

Company	Centerline Height (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density † (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Nextel *	181	851	9	100	0.0102	0.5673	1.8
Sprint *	169	1962.5	*	*	0.0577	1.0000	5.8
Verizon *	158	874.5	19	100	0.0274	0.5830	4.7
VoiceStream**	148	1930-1945	4	**	0.0185	1.0000	1.9
SNET	137	880-894	19	100	0.0364	0.5867	6.2
Total							**20.4%**

* Power density taken from Sprint's notice to the Council in EM-Sprint-001-000626.
** Power density provided by VoiceStream. (See attachment.)
† Please note that the standard power density equation provided by the Council in its memo of January 22, 2001 incorporates a ground reflection factor of 2.56 as described in FCC OET Bulletin No. 65.

As the table demonstrates, the cumulative "worst-case" exposure would be 20.4 % of the ANSI/IEEE standard, as calculated for mixed frequency sites. Total power density levels from SNET's and VoiceStream's use of the tower facility would thus be well within applicable standards.

For the foregoing reasons, SNET and VoiceStream respectfully submit that proposed changes to implement expanded shared use at the Andover site constitute an exempt modification under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7730 or Sherry Sukow of VoiceStream at (860) 692-7123 with questions concerning this application. Thank you for your consideration in this matter.

Respectfully yours,

Peter W. van Wilgen
Director – Real Estate Operations

Enclosures

cc: Honorable Edward F. Turn, Sr., First Selectman, Town of Andover
Sherry Sukow, VoiceStream Wireless

Andover Cell Site

Authorization of VoiceStream Wireless for SNET Cellular to Act on its Behalf before the Connecticut Siting Council

COPPINS, KEITH (SNEMOB)

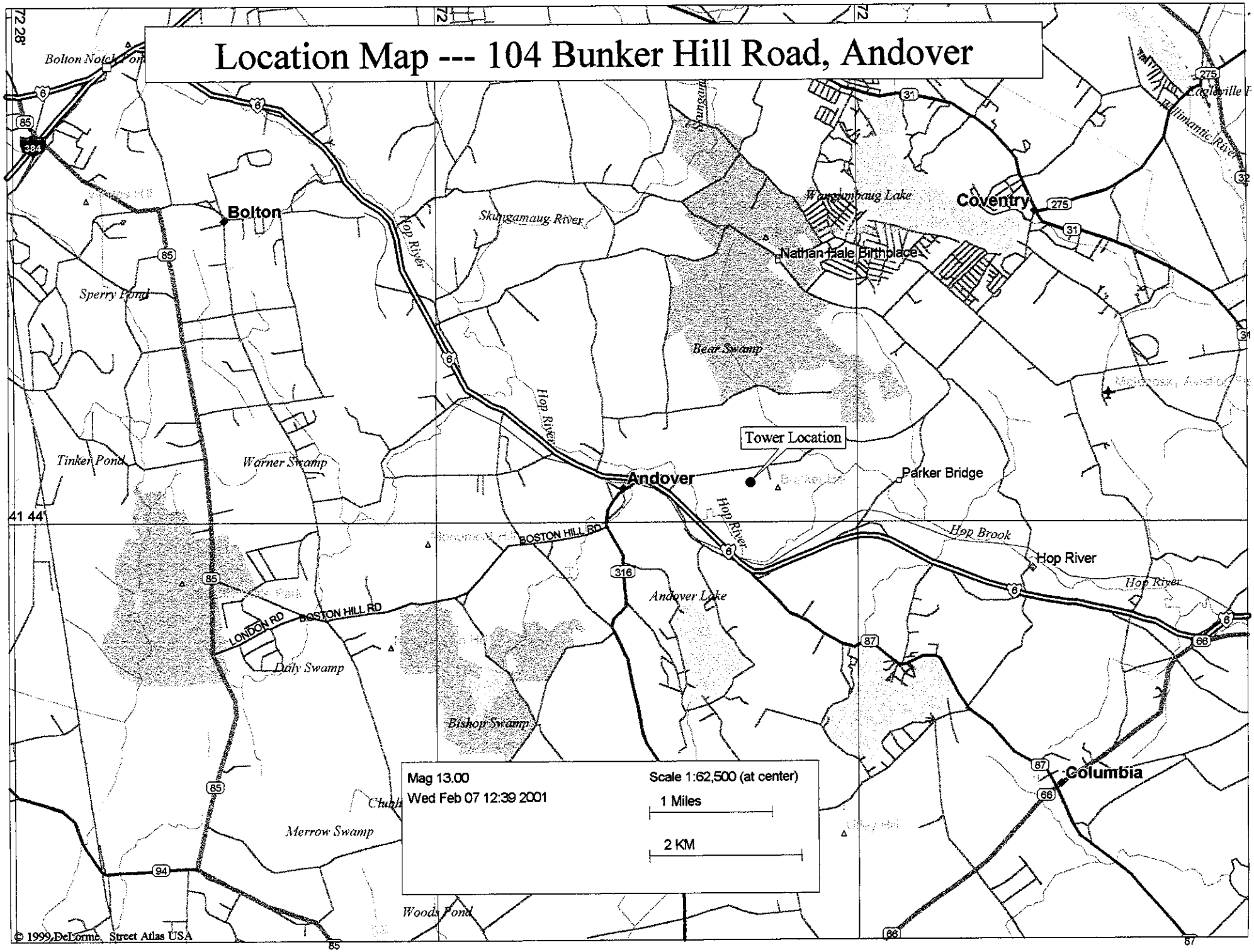
From: Sukow, Sherry [Sherry.Sukow@voicestream.com]
Sent: Wednesday, February 14, 2001 2:21 PM
To: kcop10@aol.com; keith.coppins@swmail.cingular.com

Keith,

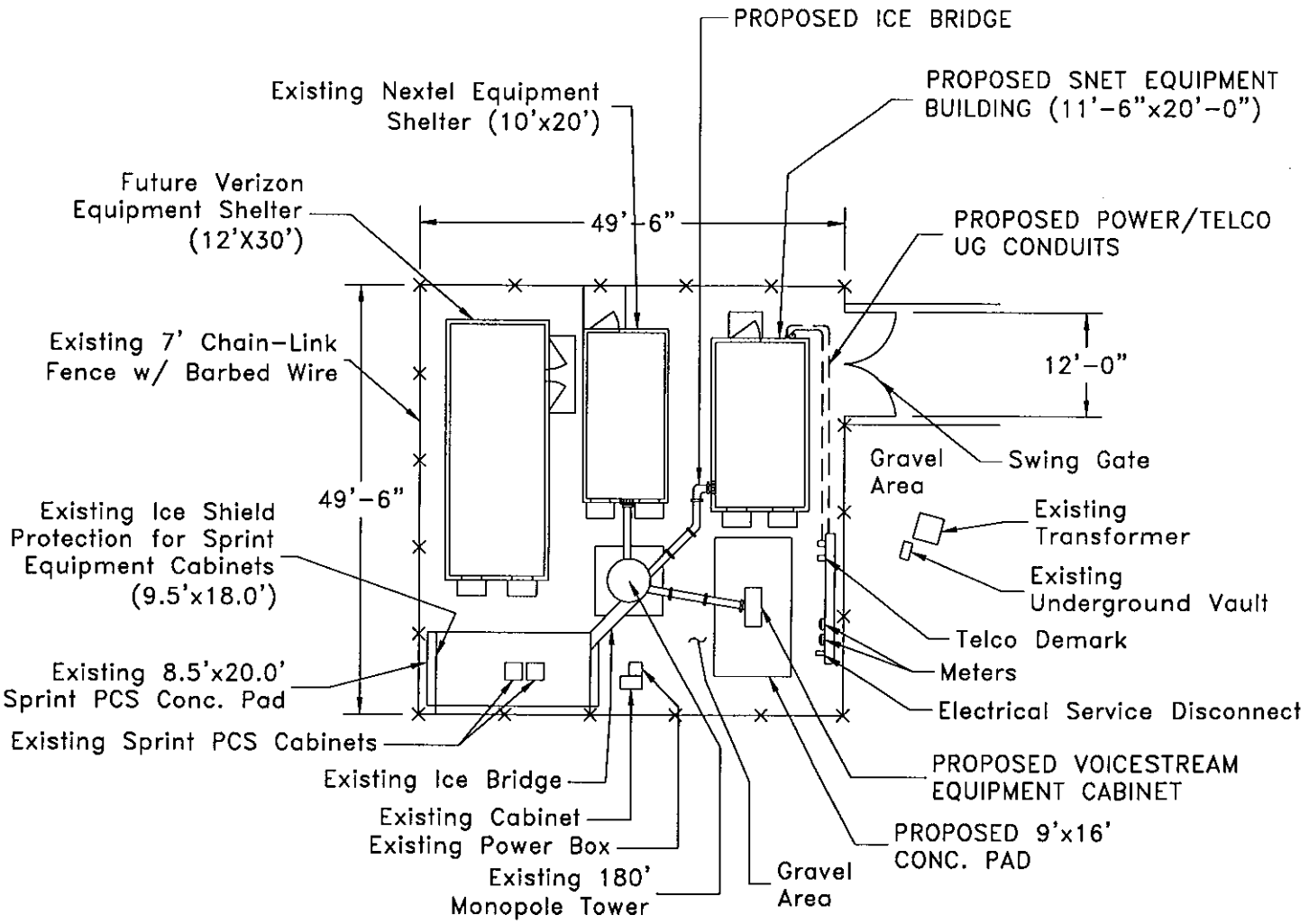
With consideration that our drawings and structural analysis have been done concurrently with eachothers equipement design and loading in mind, please add our information onto your Connecticut Siting Council application. We would like to achieve an approval at the same time as your approval, for the SpectraSite collocation located at 104 Bunker Hill Road in Andover, Connecticut.

Thank You,
Sherry Sukow
VoiceStream Wireless
860.692.7123 Desk
860.692.7159 Fax

Location Map --- 104 Bunker Hill Road, Andover



RAD. CENTER: _____FT. (AGL)

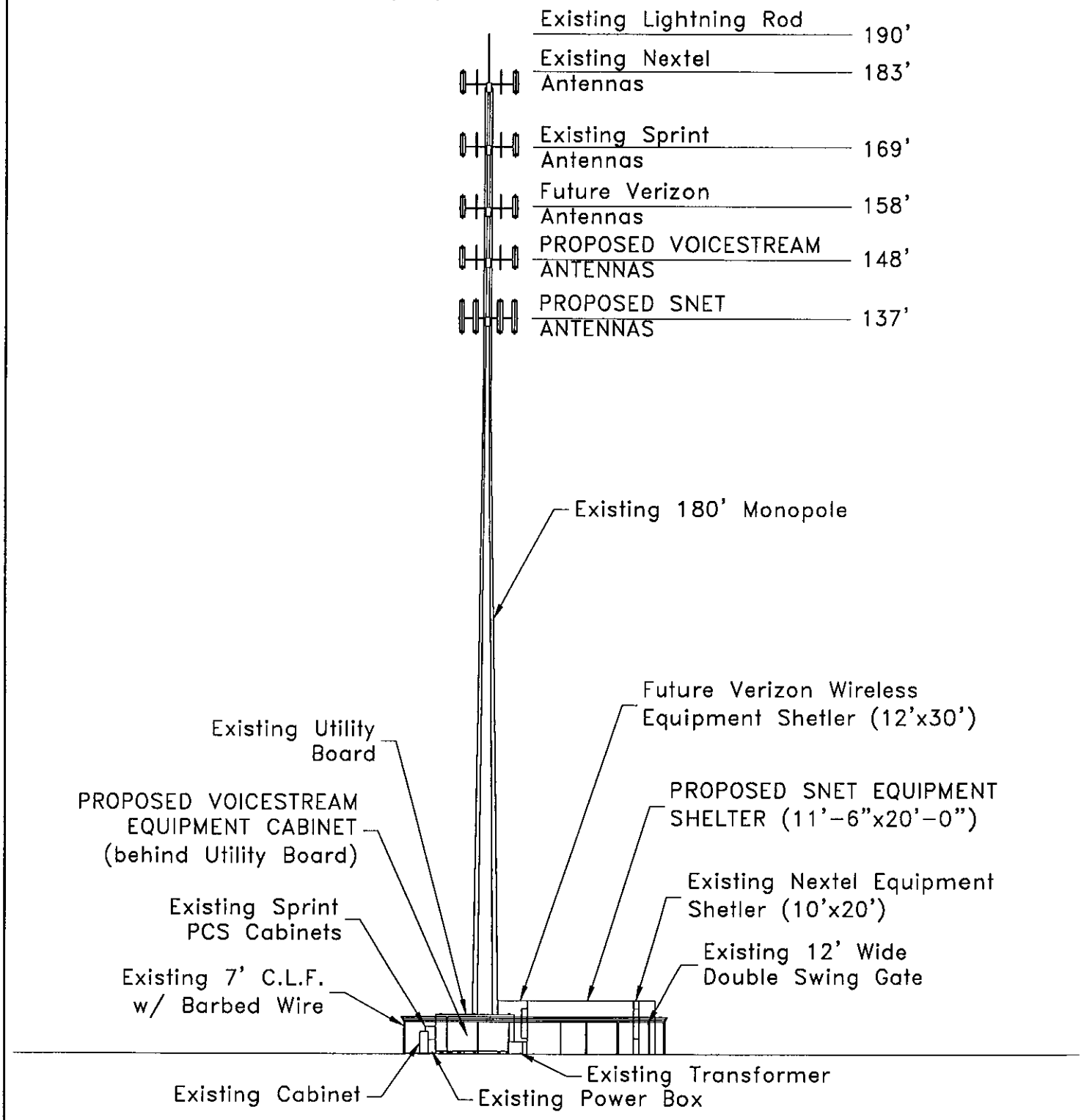


SITE PLAN

SNET MOBILITY PRELIMINARY DESIGN EXHIBIT	NORTH	SITE NAME: SBA ANDOVER	SNET #:
		ADDRESS: BUNKER HILL ROAD ANDOVER, CT	MGI #: 15364
			TASK #: 1186
		DRAWN: JCJ | CHECKED:GMP | SCALE: 1"=20'	DATE: 02/09/01

Maguire Group Inc.
Architects · Engineers · Planners
One Court Street
New Britain, Connecticut 06051

RAD. CENTER: 137± FT. (AGL)



EAST ELEVATION

SNET MOBILITY PRELIMINARY DESIGN EXHIBIT	NORTH	SITE NAME: SBA ANDOVER	SNET #:
		ADDRESS: BUNKER HILL ROAD ANDOVER, CT	MGI #: 15364
			TASK #: 1186
		DRAWN: JCJ | CHECKED:GMP | SCALE: N.T.S.	DATE: 02/09/01

Maguire Group Inc.
Architects·Engineers·Planners
One Court Street
New Britain, Connecticut 06051

VoiceStream WIRELESS

OMNIPOINT COMMUNICATIONS
100 Filley St
Bloomfield, CT 06002
Phone: (860) 692-7131
Fax: (860) 692 - 7159

Technical Memo

From: Samson Bockrai (Radio Engineering Consultant)
Subject: Power Density Report for CT11502
Date: 2/01/2001

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 SpectraSite's 183ft Monopole at 104 Bunker Hill Road, Andover, CT. This study incorporates the most conservative considerations for determining the practical combined worst case power density level 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, with 2 antenna per sector. The model number for each sector is EMS RR90-17-02DP.
3) The antenna height is 148' Center Line.
4) The maximum transmit power from each sector is 1851.36 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 are on the order of **1,000** to **10,000** times less than the FCC/ANSI/IEEE C95.1-1991 standard of 1000 microwatts per square centimeter ($\mu w/cm^2$). Details are shown in the attachment. Furthermore, the proposed antenna location for Omnipoint Communications at SpectraSite's 183ft Monopole @ 104 Bunker Hill Road., Andover, 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 Calculation for installation on SpectraSite's Monopole @ 104 Bunker Hill Road., CT

Region 11 - Connecticut Power Density Calculation - Worst Case			
Base Station TX output	20 W	43.01	
Number of channels	4		
Antenna Model	EMS: RR-90-17/ RV-90-17		
Antanna Gain	16.5 dBi		
Cable Size	1 5/8"		
Cable Length	160 ft		
Jumper & Connector loss	1 dB		
Cable Loss per foot	0.0116		
Total Cable Loss	1.856 dB		
Total Attenuation	2.856 dB		
Total EIRP per channel	56.65 dB	462.84	W
Total EIRP per sector	62.67 dB	1851.36	W
Ground Reflection	1.6		
Frequency	1930 MHz		
Antenna Height	148 ft	4511.04	cm
nsg	13.644		
Power Density (S) =	**0.018543 mW / cm^2**		
% MPE =	**1.8543%**		

Percentage of standard

Verizon:	4.69%
Nextel:	1.78%
Voicestream:	1.8543%
Total:	8.3243%

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

MORRISON HERSHFIELD / WALKER ENGINEERING
5895 Shiloh Road, Suite 112, Alpharetta, GA 30005
Tel. (678) 937-0004 Fax. (678) 947-0603
TOWER ENGINEERS MHWE

Mr. **Glenn Conway**
SpectraSite Communications, Inc.
100 Regency Forest
Suite 200
Cary, N.C. 27511 RM

02/21/01
CT-0008

Andover

Sub: Structural Analysis of 178 ft Summit Monopole
104 Bunker Hill road, Andover, CT 06232

Dear Mr. Conway:

MHWE has performed a structural analysis of SpectraSite's above noted tower in accordance with our agreement of December 1, 1999, for the addition of ***Springwich's*** proposed antennas outlined below.

The subject monopole is a 178 ft, 18-sided, four section, tapered monopole, designed and manufactured by Summit, in 2000. The monopole geometry, section sizes and monopole base design loads were obtained from the manufacturer's drawings for this monopole and are assumed to be accurate (Summit Manufacturing, Job No.: 29200-028, Dated 01/14/00). The monopole has also been assumed to be in good condition and capable of supporting its full design capacity. Existing, future, and proposed loads were provided by your office[1].

Our analysis was performed in accordance with TIA/EIA-222-**F** for an 85 mph[2] base windload, and 75% of the base windload with ½" radial ice, as specified by SpectraSite. The loading used for our analysis was as follows:

Existing, future, and proposed loads consists of the following:

at 181 ft Nextel: Twelve Allgon 7120.16 panel antennas on a low-profile platform mount, fed by twelve runs of 1-1/4"∅ coax cables. The analysis assumes the existing antennas will be replaced by twelve Swedcom ALP 9212-N antennas on the existing low-profile platform mount, fed by a total of twelve 1-5/8"∅ coax cables assumed to be running inside the pole. Total future equipment not to exceed the **E**quivalent flat **P**late **A**rea (**EPA=CaAa**) that the tower was originally designed to support.[3]

[1] Kimley-Horn Report CT-0008, Dated 10/4/00.
[2] The minimum windspeed specified by EIA-222-F for Tolland County is 85 mph.
[3] SpectraSite Tower Inventory Sheet CT-0008, Date: 01/10/01

at 169 ft — Sprint: Six Decibel DB980H90 panel antennas on a low-profile platform mount, fed by six 1-5/8"∅ coax cables assumed to be running inside the pole.

at 158 ft — Verizon: Twelve Decibel DB844H80 panel antennas on a low-profile platform mount, fed by twelve 1-5/8"∅ conduit assumed to be running inside the monopole.

at 148 ft — Voicestream: Six EMS RR901702 panel antennas on a low-profile platform mount, fed by twelve 1-5/8"∅ coax cables assumed to be running inside the pole.

at 138 ft — ***Springwich*** **(Proposed)**: Twelve Decibel DB864H80 panel antennas on a low-profile platform mount, fed by twelve 1-1/4"∅ coax cables assumed to be running inside the pole.

Monopole Summary:

This analysis shows that the subject monopole **is adequate** to support the existing, future, and proposed loads.

The full analysis is very lengthy and is not included in this letter for brevity. A summary of the controlling load cases are provided below:

Monopole Section	Combined Stress Index[4]
0 ft to 49 ft	0.85
49 ft to 92 ft	0.93
92 ft to 136 ft	0.87
136 ft to 181 ft	0.73

Foundation Summary:

Shear and axial forces are greater than the original design loads, but are less than the capacities of the monopole pier foundation. The existing tower base and foundation **is adequate** to support the existing and proposed loads.

[4] Ratio of calculated loads versus total allowable loads; should be less than, or equal to, 1.00.

Foundation Loads

	Original[5]	Existing/Proposed[6]	% Original Loads[7]
O.T. Moment	4675 k-ft	4615.9 k-ft	**99%**
Axial Load	39.0 k	46.9 k	**120%**
Base Shear	35.5 k	38.7 k	**109%**

Other Considerations:

This analysis is based on the assumption that low-profile platform mounts are used for all antennas. This assumption is critical and the actual mount types should be verified prior to implementation of the proposed installation.

As future loads are installed, the monopole should be re-evaluated on a case-by-case basis.

The analysis is based on information provided to this office by SpectraSite Communications, Inc. If the existing conditions are different than the information in this report, MHWE should be contacted for resolution of any issues.

MHWE appreciates the opportunity to be of service in this matter. Please do not hesitate to give me a call if you have any questions or comments.

Very truly yours,

Denis Hum, P.E.
Senior Project Engineer
Morrison Hershfield Corp.

encl.

[5] Original foundation loads were taken from Summit Job #29200-028, Design No. 6027-00, dated 1/14/00.
[6] Governing load case (bare)
[7] The increase over the original design loading has been evaluated and found to be acceptable.

SpectraSite

SpectraSite Communications, Inc.
100 Regency Forest Drive, Suite 400
Cary, NC 27511
ATTN: Collocation Management
Collocation@spectrasite.com
Office: 919-851-0320
Fax: 919-859-6789

Date of Last Update: 01-10-01

Tower Antenna Inventory for Site # CT-0008 Site Name Andover

Carrier	EXISTING						MAX ALLOWABLE						Microwave/ Other
	Antenna Info			Coax Info		Mount Type	Antenna Info			Coax Info		Mount Type	
	#	Type	Ht	#	Size/Distr		#	Type	Ht	#	Size/Distr		
Nextel	12	Allgon 7120.16	181	12	1 ¼	Platform	12	ALP-9212-N	top	12	1 5/8	Platform	
Sprint	6	Decibel DB980H90EM	169	6	1 5/8	Platform							
Verizon	12	DB844H80	158	12	1 5/8	Platform							
Voicestream	6	(2)EMS RR901702DP (4)Allgon 7250.02	148'	12	1 5/8'	Platform							
SNET-Proposed	12	Decibel DB846H80	137'	12	1 ¼"	Platform							

Key:

Antenna Types:
- Panel
- TTA
- OMNI
- WHIP

Coax Info (Size/Distr):
- Cable size
- Distribution
  - Leg/face

Mount Types:
- Tophat
- Side arm
- T-arm
- Low profile platform

Nextel's max allowable:
- Twelve Sector Antennas, 8' panels, Twelve 1-5/8" coax
- One TTA per sector (3 total), One 7/8" coax per TTA (3 total)