Nextel Communications
100 Corporate Place, 1st Floor, Rocky Hill, CT 06067
860 513-5400 FAX 860 513-5444

NEXTEL

December 2, 2002

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

Dear Chairman Gelston:

Please find enclosed and respectfully submitted, a request from Nextel Communications Inc. ("Nextel") to Modify an Exempt Tower and Associated Equipment at an existing telecommunications facility located on 99 Meadow Street, Hartford, Connecticut. This facility is located on property owned by Nuccia Amente and. The facility is owned and operated by Nextel Communications to provide a site for wireless telecommunications coverage.

Nextel wishes to modify its use of this facility in order to improve/expand wireless its system coverage and to avoid the possibility of constructing another telecommunications tower in the general area.

The attached information details how the addition of the proposed antennas and associated equipment at the tower site meet the criteria set forth in Section 16-50j-72(b)(2) of the Regulations of Connecticut State Agencies and therefore is an Exempt Modification pursuant to Section 16-50j-73 of the Regulation.

Thank you for your consideration in this matter.

Respectfully,

Thomas F. Flynn III
Zoning Manager
Nextel Communications

Enclosure
Cc:
City of Hartford

EXEMPT MODIFICATION
99 MEADOW STREET
HARTFORD, CONNECTICUT

Pursuant to Section 16-50i(a)(5) of the Connecticut General Statutes and Section 16-50j-72(b)(2), as amended, of the Regulations of Connecticut State Agencies, Nextel Communications Inc., ("Nextel") hereby notifies the Connecticut Siting Council of its intent to modify an existing telecommunications facility located at 99 Meadow Street in Hartford, Connecticut.

BACKGROUND

This existing facility, located at 99 Meadow Street in Hartford, Connecticut consists of a 150-foot tall monopole that is owned by Nextel Communications on property owned Nuccia Amente. The tower is currently used by several wireless carriers to provide wireless services to this section of the City. This site provides coverage and along Route I-91 and the vicinity of the south end of Hartford

Nextel desires to modify its use of this facility and thus avoid the potential need to construct an additional tower in the general area.

DISCUSSION

Nextel plans to install twelve (12) panel antennas center-lined at the 150 foot level of the tower (see Attachment A) and replace and update its equipment in the existing shelter (see Attachment B). The tower has been structurally analyzed and found to be fully capable of supporting Nextel's antennas and its tower mounted hardware (Attachment C).

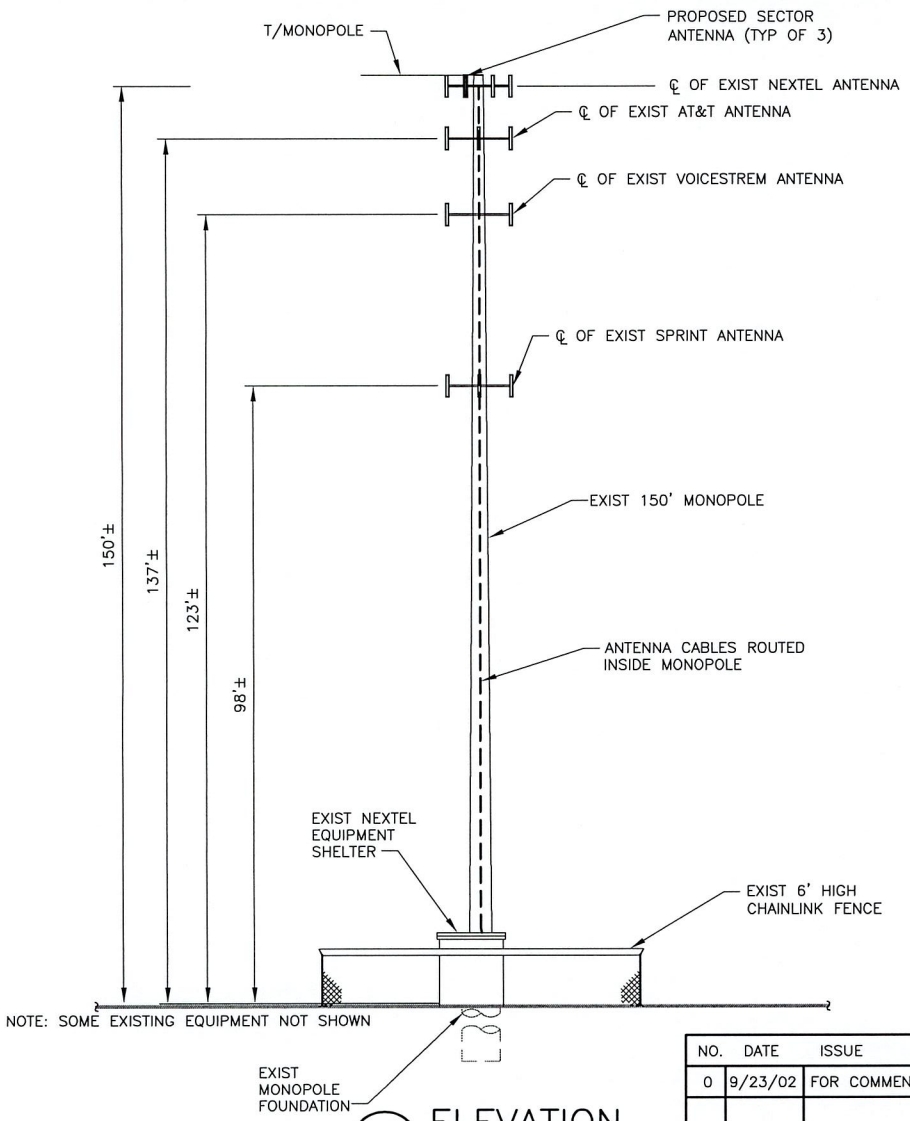
POWER DENSITY INFORMATION

The operation of Nextel's antennas will not increase the total radio frequency electromagnetic power density level to a level at (or even near) existing State and Federal Standards. "Worst case" calculations, measured to a point at the base of the tower, show the combined power levels for the existing Sprint and proposed Nextel antennas reach just 29.13% of the State/Federal standard in an uncontrolled access environment. (See Attachment D).

CONCLUSION

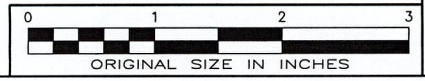
The proposed additions do not constitute a "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and are consistent with the exception criteria found in Section 16-50j-72(b)(2) of the Regulations of Connecticut State Agencies in that the addition of Nextel's antennas and equipment will not increase the existing tower height or extend the boundaries of the site; will not increase noise levels by six (6) decibels or more at the site's boundaries; and will not increase the total radio frequency electromagnetic radiation above the Standard set forth in Section 22(a)–162 of the Connecticut General Statutes. In summary, this proposed addition would not have a substantial adverse environmental effect.

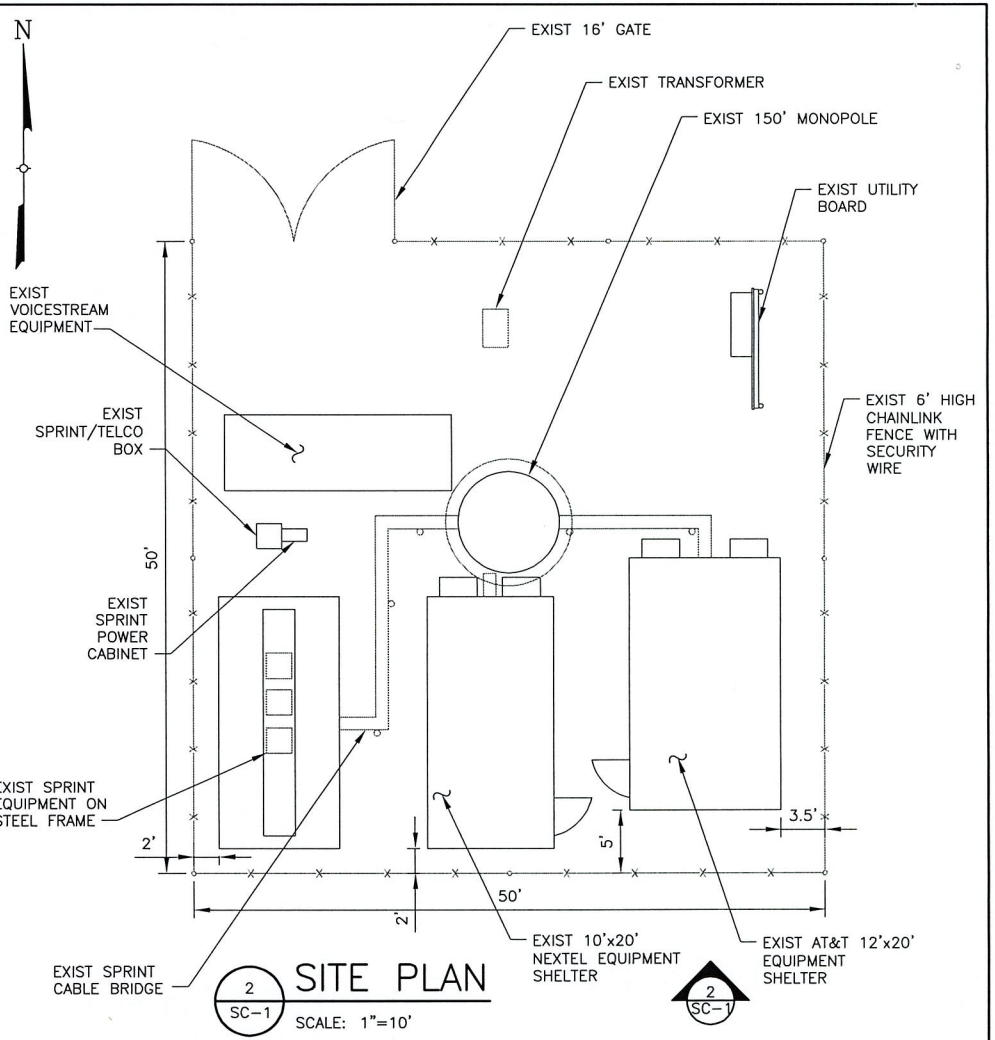
For the reasons discussed above, Nextel respectfully requests that the Council acknowledge that this Notice of Modification meets the Council's exemption criteria, and permit Nextel to modify its use of this facility.



1 SC-1 ELEVATION

SCALE: 1"=10'





2 SC-1 SITE PLAN

SCALE: 1"=10'

NO.	DATE	ISSUE
0	9/23/02	FOR COMMENT

OWNER APPROVAL: _____ DATE: _____

TECTONIC / KEYES ASSOCIATES

1344 SILAS DEANE HIGHWAY, SUITE 500
ROCKY HILL, CT 06067
(860) 563-2341 FAX(860) 257-4882

NEXTEL

HARTFORD CT-0768
99 MEADOW STREET
HARTFORD, CT

ISSUED BY:	W.O. 3276.0768	SITING COUNSEL	SC-1

ATTACHMENT A

ATTACHMENT B

ATTACHMENT C

Worst Case Power Density for Antenna installation on Tower at 99 Meadow Street, Hartford 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	135 ft		
Jumper & Connector loss	1 dB		
Cable Loss per foot	0.0116		
Total Cable Loss	1.566 dB		
Total Attenuation	2.566 dB		
Total EIRP per channel	56.94 dB	494.80	W
Total EIRP per sector	62.96 dB	1979.20	W
Ground Reflection	1.6		
Frequency	1930 MHz		
Antenna Height	123 ft	3749.04	cm
nsg	13.934		
Power Density (S) =	**0.028701 mW / cm^2**		
% MPE =	**2.8701%**		

% MPE Existing = 29.13 %

** Additional % MPE contribution Omnipoint = 2.87 %*

Total % MPE with carriers = 29.1587%

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

* 0.46 % submitted previously

CT-11-661

1

RISON HERSHFIELD / WALKER ENGINEERING
95 Shiloh Road, Suite 112, Alpharetta, GA 30005
el. (678) 937-0004 Fax. (678) 947-0603

TOWER ENGINEERS MHWE

Mr. **Eric Rabon**
SpectraSite Communications, Inc.
100 Regency Forest, Suite 200
Cary, N.C. 27511

10/18/00
CT-0004
Petro Lock

Sub: Structural Analysis of 147 ft. FWT Monopole
99 Meadow Street, Hartford, CT

Dear Mr. Rabon:

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

The subject monopole is a 147 ft, 18-sided, three section, tapered monopole, designed and manufactured by FWT in 1998. 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 (FWT Job No.: 21719000, Dated 09/10/98, rev. dated 07/18/00). 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 80 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 Top — Nextel: Nine ALP 9011 panel antennas on an existing platform mount, fed by nine 1-1/4"∅ coax cables. The analysis assumes the existing antennas will be replaced by twelve ALP 9212 antennas on the existing 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]

at 135 ft — AT&T: Nine Allgon 7184.14 panel antennas on an existing platform mount, fed by twelve 1-1/4"∅ coax cables running inside the pole.

[1] Kimley-Horn Report CT-0004, Dated: 06/12/00.
[2] The minimum windspeed specified by EIA-222-F for Hartford County, CT is 80 mph.
[3] SpectraSite Tower Inventory Sheet CT-0004, Dated: 07/19/00 (0.87).

at 123 ft. **VoiceStream *(proposed)***: Six EMS RR9017-02DP panel antennas on a platform mount (copy attached), fed by twelve 1-5/8"Ø coax cables assumed to be placed inside the monopole.

at 98 ft. Sprint: Nine DB980 panel antennas on three T-arm mounts, fed by eighteen 1-1/4"Ø coax cables running inside the monopole.

Monopole Summary:

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

A summary of the controlling load cases are provided below:

Monopole Section	Combined Stress Index[4]
0 ft to 50 ft	0.64
50 ft to 97 ft	0.52
97 ft to 147 ft	0.38

Foundation Summary:

The forces at the base of the monopole are less than the original design loads. The existing monopole base and foundation **is adequate** to support the existing, future, and proposed loads.

Foundation Loads	Original[5]	Existing/Proposed	% of Design
O.T. Moment	2,489 k-ft	2,529.9 k-ft	102 %[6]
Axial Load	36 k	32.6 k	91 %
Base Shear	24 k	23.7 k	99 %

Other Considerations:

Installation of access ports ("Handholes") for the proposed equipment may be required. The Kimley-Horn report and FWT drawing does not indicate access ports at the proposed elevation of 123 feet. MHWE has designed an access port per your request (see attached). Use extreme caution during the installation of

[4] Ratio of calculated loads verses total allowable loads; should be less than, or equal to, 1.00
[5] Original foundation loads were taken from FWT Job No. 21719000, dated 09/10/98, rev. dated 07/18/00.
[6] O.T. Moment is slightly greater than the original design load (increase by 2%). This is considered acceptable.

MHWE

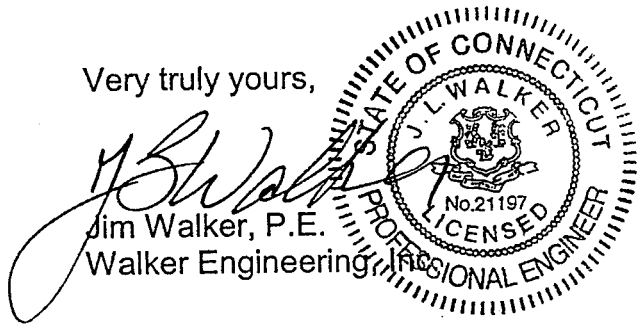
the access ports to insure temporary bracing of the pole, and prevention of fires inside the pole during cutting and welding operations.

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,



Jim Walker, P.E.
Walker Engineering, Inc.

encl.