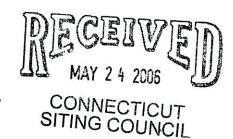
EM-NEXTEL-062-060524

# ORIGINAL



May 24, 2006

Ms. Pamela Katz, Chairman Connecticut Siting Council 10 Franklin Square New Britain, Connecticut 06051

Dear Chairman Katz:

Please find enclosed and respectfully submitted, a request from Sprint-Nextel to Modify an Exempt Tower and Associated Equipment at an existing telecommunications facility located at 1055 Wintergreen Avenue, Hamden, Connecticut. The tower is owned by Message Center Management.

Sprint-Nextel wishes to share 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 Coordinator

Sprint-Nextel Communications

Enclosure



# EXEMPT MODIFICATION 1055 WINTERGREEN AVENUE HAMDEN, CONNECTICUT 06514

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, Sprint-Nextel hereby notifies the Connecticut Siting Council of its intent to modify an existing telecommunications facility located at 1055 Wintergreen Avenue, Hamden, Connecticut.

#### BACKGROUND

This existing facility, located at 1055 Wintergreen Avenue, Hamden, Connecticut, consists of a 195-foot tall self supporting lattice that is owned by Message Center Management. The property is owned by the State of Connecticut. There are a number of telecommunications providers that are currently using the site. The site will provide wireless service coverage for Sprint-Nextel to this section of Routes 15 and a large section of Hamden, CT.

Nextel desires to share 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 place its equipment inside the existing compound eastern side of the tower (see Attachment B). The tower has been structurally analyzed and found to be fully capable of supporting Sprint-Nextel's antennas and its tower mounted hardware (Attachment C). The tower is located at latitude 41-20-58 and longitude 72-58-27.

#### **POWER DENSITY INFORMATION**

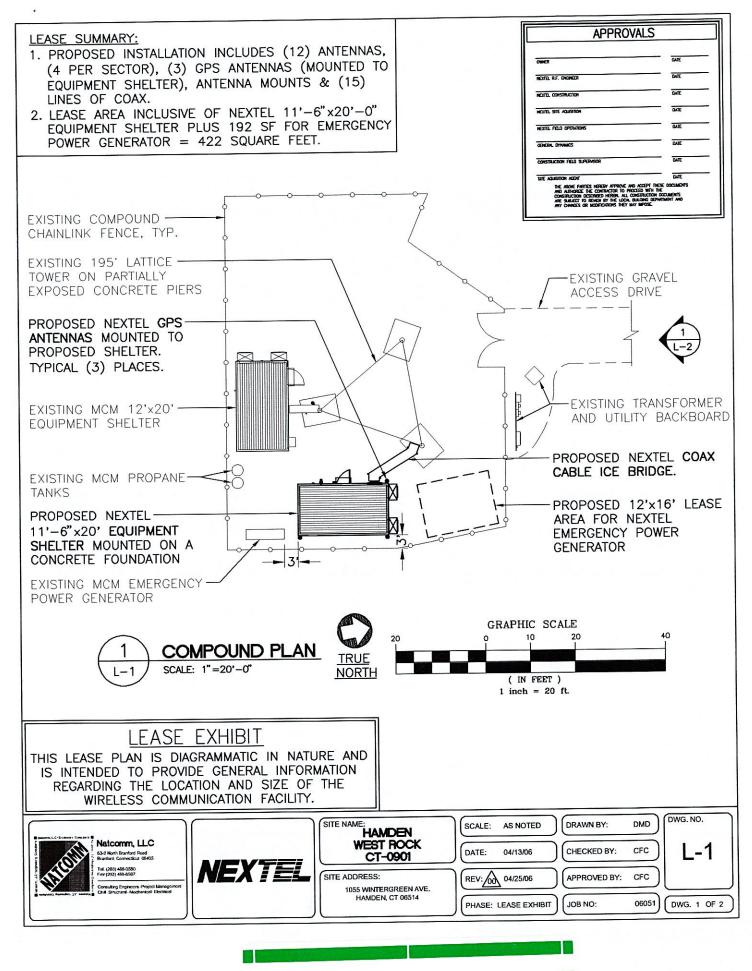
The operation of Sprint-Nextel's antennas will not increase the total radio frequency electromagnetic power density level to a level at (or even near) existing State and Federal Standards. "Worst case" calculations, measured to a point at the base of the

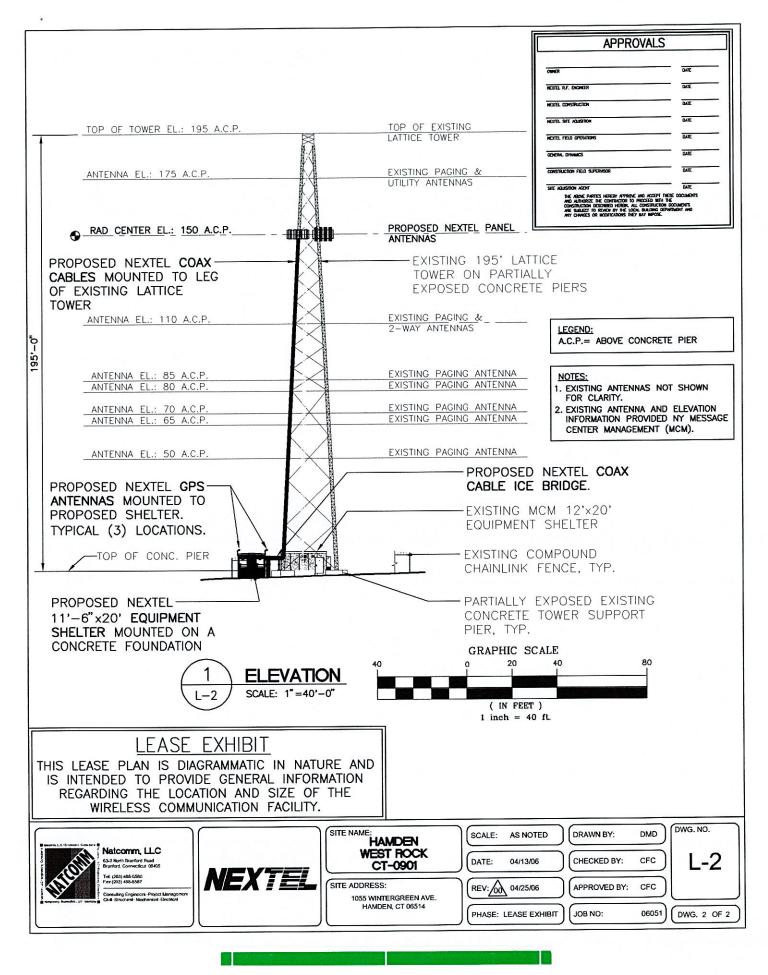
tower, show the power levels for the existing Verizon, Cingular, various other carriers and the proposed Sprint-Nextel antennas reach just 64.1821 % of the State/Federal standard in an uncontrolled access environment. (See Attachment D).

## **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, Sprint-Nextel respectfully requests that the Council acknowledge that this Notice of Modification meets the Council's exemption criteria, and permit Nextel to share use of this facility.





Hamden, CT0901 (Wintergreen Avenue) - CT Siting Council Power Density Calculations	ting Council P	ower Density Cal	culations				
Nextel Directional Antennas ESMR - 851 MHz at centerline 155' AGL	ne 155' AGL						
						Note: Power den	Note: Power densities are in mW/ cm <sup>2</sup>
					Centerline of	Power density	
Transmitters:	Frequency	CT Standard	Number of	ERP (W)	Tx antennas	calculated at	
	in MHz	mW/ cm²	Channels	per channel	AGL (ft.)	base of tower	% of CT Standard
Nextel Digital ESMR**	851	0.5673	12	100	149	0.019426152	3.4241%
** lowest Nextel antenna centerline is 155' adjusted to 149' per OET 65 Bulliten for 6' average head height.	er OET 65 Bulliter	n for 6' average head h	neight.				
Total % of CT Standard							3.4241%

	64.1821%				+			Total % of CT Standard
ERP (W)  ERP (W)  Tx antennas  per chainel  248  242  242  242  242  242  243  205  205  166  148  148  148  148  148  148  148					height.	for 6' average head h	r OET 65 Bulliter	G,
Centerline of ERP (W) Ta antennas neis per channel AGL (ft.) 248  242  242  242  242  242  243  203  203	3.4241%	0.019426152	149	100	12	0.5673	851	Nextel Digital ESMR**
Centerline of ERP (W) Tx antennas per chainel AGL (ft.)  242  242  242  242  242  242  243  205  203  203  203  203  203  448  148  148  149  149  166  166  166  166  166  166	0.0058%	0.000057952	61			1.000000000	25000	Teligent (from MCM file)
Centerline of ERP (W) Teamtennas Arx antennas Arx antenna	11.6025%	0.023205062	S			0.200000000	152	Airtouch (from MCM file)
Centerline of ERP (W) Tx antennas per channel AGL (ft.)  Per channel 248  242  242  242  242  242  303  203  203	6.5819%	0.040763705	115			0.61933333	929	Arch CT paging (from MCM file)
Centerline of ERP (W) Ta antennas AGL (ft.) Per channel AGL (ft.) 248 248 242 242 255 205 203 203 203 203 203 203 203 203 203 203	1.2980%	0.004006391	116			0.308666667	463	CT Emergency Medical (from MCM file)
Centerline of ERP (W) Tx antennas per channel AGL (ft.) 248  242 242 242 242 242 243 205 205 205 406 406 406 406 406 408 418 418 418 418 418	4.9125%	0.015097669	69			0.307333333	461	Utility Communications (from MCM file)
Ter of ERP (W) Centerline of ERP (W) Tx antennas AGL (ft.)  per channel AGL (ft.)  242  242  242  243  203  203  203  203	0.6732%	0.002037415	126			0.30266667	454	ProNET (from MCM file)
Centerline of ERP (W) Tx antennas nels per channel AGL (ft.) 248  242  242  242  242  242  242  243  203  20	0.8845%	0.005484009	128			0.620000000	930	Skytel (from MCM file)
Ter of ERP (W) Centerline of ERP (W) Tx antennas AGL (ft.)  per channel AGL (ft.)  248  242  242  242  203  203  203  203  448  448  445	3.1384%	0.009436043	138			0.300666667	451	United Illuminating (from MCM file)
Centerline of ERP (W) Tx antennas neis per channel AGL (ft.) 248  242  242  242  205  203  203  203  448  448	1.7726%	0.011002041	140			0.62066666	931	Tri State Radio (from MCM file)
Centerline of ERP (W) Tx antennas AGL (ft.) per channel AGL (ft.) 248 242 242 242 205 203 203 203 203 466	0.8280%	0.005128181	145			0,619333333	929	Tri State Radio (from MCM file)
Centerline of ERP (W) Tx antennas neis per channel AGL (ft.) 248 242 242 225 205 205 203 203 203 203 203 203 203 203 203 203	2.3565%	0.014767166	148			0.62666667	940	Pagenet (from MCM file)
Centerline of ERP (W) Tx antennas AGL (ft.) Per channel AGL (ft.) 248 242 242 242 205 203 203 203	3.8889%	0.007777874	152			0.200000000	49	United Illuminating (from MCM file)
Centerline of ERP (W) Tx antennas neis per channel AGL (ft.) 248 242 242 225 205 203 203 203 203	4.2481%	0.024780810	166			0.583333333	875	Bell Atlantic Mobile (verizon) (from MCM file)
er of ERP (W) Tx antennas AG1 (ft.) per channel AG1 (ft.) 248 242 242 242 242 205	1.2674%	0.007849256	203			0.61933333	929	Metrocall (from MCM file)
Centerline of ERP (W) Tx antennas neis per channel AGL (ft.) 248 242 242 225 205	13.0821%	0.026164187	203			0.200000000	158	Airtouch (from MCM file)
er of ERP (W) Tx antennas nels per channel AG1 (ft.)  248  242  242  242  242	1.3082%	0.002616419	203			0.200000000	35	MetroGali (from MCM file)
Centerline of ERP (W) Ta antennas neis per channel AGL (ft.) 246	0.2543%	0.000769685	205			0.302866667	454	Pronet (from MCM file)
er of ERP (W) Centerline of Tx antennas AGL (ft.) Per channel AGL (ft.) 246 242	1.1329%	0.007099259	225			0.626666667	940	Destineer (from MCM file)
Centerline of ERP (W) Tx antennas nels per channel AGL (ft.) 246	0.0295%	0,000184106	242			0.623333333	935	Bellsouth Wireless (from MCM file)
er of ERP (W) Centerline of Tx antennas nets per channel AGL (ft.)	0.2966%	0.001841063	242			0.062066667	931	Page America (from MCM file)
er of ERP (W) Tantennas per channel AG1 (ft.)	1,1961%	0.007423657	246			0.062066667	931	Mobile Comm (from MCM file)
	% of CT Standard	Power density calculated at base of tower	Centerline of Tx antennas AGL (ft.)	ERP (W)	Number of Channels	CT Standard	Frequency	
lamden, CT0901 (Wintergreen Avenue) - CT Siting Council Power Density Calculations extel Directional Antennas ESMR - 851 MHz at centerline 155' AGL	lties are in mW/ cm²	Note: Power densi						
lamden, CT0901 (Wintergreen Avenue) - CT Siting Council Power Density Calculations							155' AGL	lextel Directional Antennas ESMR - 851 MHz at centerline
					culations	wer Density Calc	ng Council Po	damden, CT0901 (Wintergreen Avenue) - CT Siti



Consulting Engineers

May 22, 2006

Mr. Jason D'Amico **General Dynamics** 100 Corporate Place 3<sup>rd</sup> Floor Rocky Hill, CT 06067

Re: Nextel ~ CT-0901 1055 Wintergreen Ave., Hamden, CT 06514

Natcomm Project No. 06051

### Dear Mr. D'Amico,

We have reviewed the proposed Nextel antenna installation at the above referenced site. The purpose of the review is to determine the adequacy of an existing 195-ft (expandable to 235-ft) lattice tower to support the proposed antennas. The review considered the effects of wind load, dead load, ice load and seismic forces in accordance with TIA/EIA-222-F and Connecticut State Building Code. Tower structural design documents prepared by Valmont Structures (eng. file no. A-120742-F-1006960) dated July 29, 2004 and a tower inventory of existing antennas were used as reference material.

# The existing antenna configuration is as follows:

- <u>Future:</u> Twelve (12) DB844H90 panel antennas on three (3) 12' t-frames at an elevation of 235' AGL.
- <u>Future:</u> Twelve (12) DB844H90 panel antennas on three (3) 12' t-frames at an elevation of 220' AGL.
- Future: One (1) 4' solid dish at an elevation of 175'.
- Existing: Four (4) PG1N0F-0093-610 whip antennas on standard sidearms at an elevation of 175' AGL.
- Existing: Two (2) PD220 whip antennas on standard sidearms at an elevation of 175' AGL.
- Existing: One (1) DB205 whip antenna on a standard sidearm at an elevation of 175' AGL.
- Future: Twelve (12) DB844H90 panel antennas on three (3) 12' t-frames at an elevation of 142' AGL.
- Existing: One (1) PD1142 whip antenna on a standard sidearm at an elevation of 110' AGL.
- Existing: One (1) DB499-K whip antenna on a standard sidearm at an elevation of 110' AGL.
- Future: Twelve (12) DB844H90 panel antennas on three (3) 12' t-frames at an elevation of 102' AGL.
- Existing: One (1) DB230 whip antenna on a standard sidearm at an elevation of 85' AGL.
- Future: Twelve (12) DB844H90 panel antennas on three (3) 12' t-frames at an elevation of 80' AGL.
- Existing: One (1) PD220 whip antenna on a standard sidearm at an elevation of 80' AGL.
- Existing: One (1) DB809 whip antenna on a standard sidearm at an elevation of 70' AGL.
- <u>Future:</u> One (1) 6' solid dish at an elevation of 65' AGL.
- Future: Two (2) PD156S whip antennas on standard sidearms at an elevation of 65' AGL.
- Existing: One (1) DB225 whip antenna on a standard sidearm at an elevation of 65' AGL.

Nextel ~ CT-0901 1055 Wintergreen Ave., Hamden, CT 06514 Page 2 of 2

Future: One (1) 4' solid dish at an elevation of 50' AGL.

Future: Three (3) DB436 whip antennas on standard sidearms at an elevation of 50' AGL.

Existing: One (1) PD220 whip antenna on a standard sidearm at an elevation of 50' AGL.

Future: One (1) DB212 whip antenna on a standard sidearm at an elevation of 40' AGL.

One (1) 6' solid dish at an elevation of 25' AGL. Future:

Future: One (1) 6' solid dish at an elevation of 15' AGL.

The proposed modified antenna loading is as follows:

Nextel: Eight (8) DB844G65VTZA-SX panel antennas on three (3) t-frames at an elevation of 150' AGL.

Four (4) DB846G90A-XY panel antennas on three (3) t-frames at an elevation of 150' AGL. Nextel:

Based on the information provided to us, the existing structure meets all the requirements of the TIA/EIA-222-F Standard considering the basic wind speed (fastest mile) of 85 mph for New Haven County.

Our recommendation is only valid for the data utilized in our analysis. Before future tower modifications are considered including, but not necessarily limited to, addition or replacement of antennas or other appurtenances, the tower must be re-evaluated on a case-by-case basis.

conclusion, uipment If there.

Carlo F. Centore, PE
Project Manager

No. 16594
CENSE In conclusion, the existing 195-ft lattice tower is adequate to support the proposed Nextel antennas and related equipment. If there are any questions regarding this matter, please feel free to call.