

May 17, 2005

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@po.state.ct.us

www.ct.gov/csc

Thomas F. Flynn III
Zoning Manager
Nextel Communications Inc.
100 Corporate Place
Rocky Hill, CT 06067

RE: **EM-NEXTEL-025-050427** - Nextel Communications, Inc. notice of intent to modify an existing telecommunications facility located at 500 Highland Avenue, Cheshire, Connecticut.

Dear Attorney Flynn:

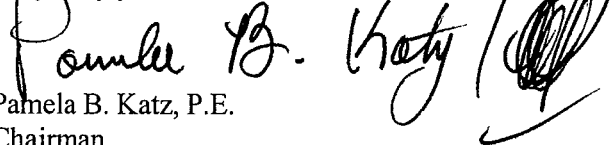
At a public meeting held on May 11, 2005, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated April 26, 2005 and additional information received May 3, 2005, including the placement of all necessary equipment and shelters within the tower compound. 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,


Pamela B. Katz, P.E.
Chairman

PBK/laf

- c: The Honorable Thomas Stretton, Council Chairman, Town of Cheshire
- Michael Milone, Town Manager, Town of Cheshire
- Richard A. Pfurr, Town Planner, Town of Cheshire
- Thomas J. Regan, Esq., Brown Rudnick Berlack Israels, LLP
- Stephen J. Humes, Esq., McCarter & English LLP
- Christopher B. Fisher, Esq., Cuddy & Feder LLP



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www.ct.gov/csc

April 27, 2005

The Honorable Thomas Stretton
Council Chairman
Town of Cheshire
84 South Main Street
Cheshire, CT 06410

RE: **EM-NEXTEL-025-050427** – Nextel Communications, Inc. notice of intent to modify an existing telecommunications facility located at 500 Highland Avenue, Cheshire, Connecticut.

Dear Mr. Stretton:

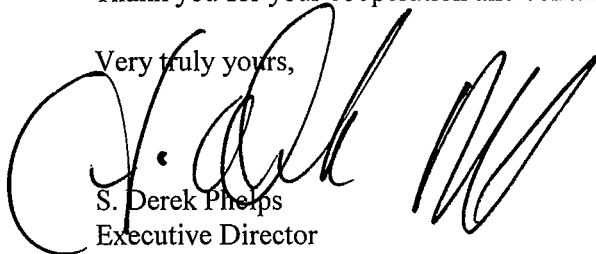
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for May 11, 2005 at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the council by May 10, 2005.

Thank you for your cooperation and consideration.

Very truly yours,



S. Derek Phelps
Executive Director

SDP/cm

Enclosure: Notice of Intent

c: Richard A. Pfurr, Town Planner, Town of Cheshire
Michael A. Milone, Town Manager, Town of Cheshire

April 26, 2005

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

RECEIVED
MAY - 3 2005
CONNECTICUT
SITING COUNCIL

Re: Nextel Tower Sharing Application 500 Highland Avenue Cheshire CT

Dear Chairman Katz:

Enclosed please find a corrected page 1 of the above noted tower sharing application

Thank you for your consideration.

Respectfully,



Thomas F. Flynn III
Zoning Manager
Nextel Communications Inc.

cc: Town Manager

TOWER SHARING

**500 Highland Avenue
Cheshire, Connecticut**

BACKGROUND

Nextel Communications, Inc. ("Nextel") is licensed by the Federal Communications Commission to provide wireless communication services in the State of Connecticut, including the Town of Cheshire.

Nextel proposes to install antennas on an existing 160-foot self-supporting monopole tower and placing an equipment shelter at the tower base. The facility is owned by the Town of Cheshire and is located at 500 Highland Avenue in Cheshire. Nextel requests to share use of this existing facility and potentially avoid the need to construct an additional telecommunications tower in the general area.

The site is situated at:

North Latitude: 41 30 40.3

West Longitude: 72 53 54.5

NEXTEL INSTALLATION

Nextel proposes to install twelve (12) panel antennas at the 107-foot 6 inch centerline level of the 160' foot tower (See Attachment A) and place a 12-foot by 20-foot pre-fabricated equipment shelter at the base of the tower (see Attachment B).

POWER DENSITY INFORMATION

The operation of Nextel's antennas will not increase the total radio frequency electromagnetic power density measured at the based of the tower, to a level at (or even near) the State and Federal Government standard. "Worst case" calculations (see Attachment C) for a point at the tower base indicate a Power Density level of 28.3221% of the allowable State/Federal Standard. Please see Attachment C.

OTHER RELEVANT INFORMATION

C.G.S. § 16-50-aa 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,

April 26, 2005

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

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APR 27 2005
CONNECTICUT
SITING COUNCIL

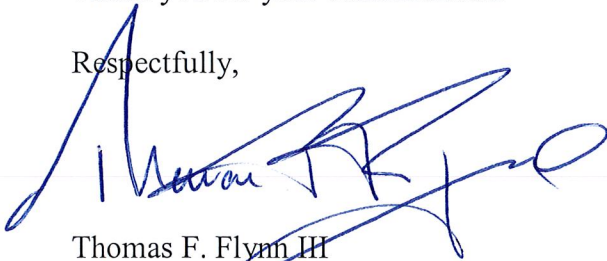
Dear Chairman Katz:

Pursuant to Connecticut General Statutes ("C.G.S.") § 16-50-aa, Nextel Communications, Inc., ("Nextel") respectfully requests Siting Council approval to install antennas on an existing communications tower located at 500 Highland Avenue, Cheshire, Connecticut and place a radio equipment shelter at the tower base. The facility is owned by the Town of Cheshire. Nextel desires to share use of this facility and thus avoid the potential need to construct an additional telecommunications tower in the area.

Nextel respectfully asks the Council find the proposed shared use of the facility satisfies the criteria stated in C.G.S. § 16-50-aa and issue an order approving the shared use of this facility by Nextel.

Thank you for your consideration.

Respectfully,



Thomas F. Flynn III
Zoning Manager
Nextel Communications Inc.

cc: Town Manager

TOWER SHARING

**500 Highland Avenue
Cheshire, Connecticut**

BACKGROUND

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The operation of Nextel's antennas will not increase the total radio frequency electromagnetic power density measured at the based of the tower, to a level at (or even near) the State and Federal Government standard. "Worst case" calculations (see Attachment C) for a point at the tower base indicate a Power Density level of 28.3221% of the allowable State/Federal Standard. Please see Attachment C.

OTHER RELEVANT INFORMATION

C.G.S. § 16-50-aa 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.” (C.G.S. § 16-50-aa(c)(1).)

The shared use of the tower satisfies the criteria stated in C.G.S. § 16-50-aa as follows:

- **Technical Feasibility.** A structural analysis of the monopole was performed to evaluate Nextel’s proposed installation. The analysis found the monopole is structurally capable of supporting Nextel’s antennas and associated tower mounted hardware (see Attachment D). The proposed-shared use of the pole is therefore technically feasible.
- **Legal Feasibility.** Under C.G.S. § 16-50-aa, the Council has been authorized to issue an order approving the proposed-shared use of an existing tower facility. (C.G.S. § 16-50-aa(c)(1).) 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) directs the Council to “give such consideration to other state laws and municipal regulations as it shall deem appropriate” on ruling of requests for the shared use of existing tower facilities. Under the authority vested in the Council by C.G.S. § 16-50-aa, an order by the Council approving the shared use would permit the Nextel to obtain a Building Permit for the proposed installation.
- **Environmental Feasibility.** The proposed shared use of the tower would have a minimal environmental effect, for the following reasons:
 1. The installation of Nextel’s antennas would have an insignificant incremental visual impact and would not cause a significant change or alteration in the physical or environmental characteristics of the area.
 2. The proposed installation would not increase the noise levels at the site boundary by six decibels or more.
 3. The combined operation of Nextel’s proposed antennas with the existing antennas would not exceed the total radio frequency electromagnetic radiation power density level standard adopted by the State of Connecticut and the Federal Government. As such, the facility will operate in compliance with the Telecommunications act of 1996.
 4. The proposed installation would not require water or sanitary facilities, generate any air emissions, or create discharges into any bodies of water. After construction is completed (approximately four weeks from start-to-finish), the installation would not generate any vehicular traffic, other than from a periodic maintenance visit by a Nextel service technician. The proposed use of the facility would therefore have a minimal environment effect and would be considered environmentally feasible.

- **Economic Feasibility.** Nextel has negotiated with the Town and entered into an agreement with the Town of Cheshire and its agent Tower Ventures LLC and its successor GRIDCOM to share use of the facility on mutually agreed upon terms. The proposed tower sharing is therefore economically feasible.
- **Public Safety Concerns.** As stated previously, the tower is structurally capable of supporting Nextel's proposed antennas and the combined radio emissions fall well below State/Federal Standards. Nextel is not aware of any other public safety issue(s) relative to the proposed sharing of this facility.

In reality, the provision of additional wireless system coverage should actually enhance the safety and security of local residents, as well as for those traveling through the area. The safety related benefits of wireless service are further illustrated by the decision of many local law enforcement authorities here, and in other parts of the country, to supply mobile phones to local resident groups, civic organizations, etc. to improve public safety by enhancing/expanding emergency communications reporting capabilities. The proposed-shared use of this facility would likewise improve public safety and security in this section of Wethersfield.

CONCLUSION

For the reasons discussed above, the proposed shared use of this existing tower facility satisfies the criteria stated in C.G.S. § 16-50-aa, and advances the Connecticut General Assembly's and the Siting Council's objective of minimizing the proliferation of towers in the State. Nextel therefore respectfully requests the Siting Council to issue an order approving the shared use of this facility.

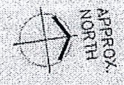
- NOTES:
1. PROPOSED INSTALLATION INCLUDES
 2. ANTENNAS (4 PER SECTOR) AND
 3. LINES OF COAXIAL CABLE.

HIGHLAND AVENUE → CONN ROUTE 10

1 SITE PLAN
LE-1
SCALE: N.T.S.



FINAL



NEXTEL

NEXTEL COMMUNICATIONS, INC.
10 HARTWELL AVENUE
LITCHFIELD, MA 02521
PHONE: (617) 839-8000
FAX: (617) 839-8011

GENERAL DYNAMICS

WIRELESS SERVICES
17 A STREET
NEEDHAM HEIGHTS,
MA 02494
PHONE: (617) 449-2000
FAX: (617) 455-2885

URS CORPORATION AES

500 ENTERPRISE DRIVE, SUITE 3B
ROCKY HILL, CONNECTICUT
1-(860)-529-9892

NO.	DATE	REVISIONS	BY	CHK/APP'D
1	03/20/05	FINAL	MM	MM
2	03/03/05	REVIEW	MM	MM

NOT TO SCALE DESIGNED BY: MM DRAWN BY: MMH

APPROVALS

OWNER: **MAPLE B** DATE: **3-31**
NEXTEL R.F. ENGINEER

NEXTEL CONSTRUCTION DATE: **4/8**
NEXTEL R.F. ACQUISITION

NEXTEL FIELD OPERATIONS DATE:
GENERAL DYNAMICS DATE: **4/4**
SITE ACQUISITION AGENT

CONSTRUCTION FIELD SUPERVISOR DATE:
CHESHIRE POLICE DEPT.
CT-3682A

LEASE EXHIBIT
NOT FOR CONSTRUCTION

SITE ADDRESS: **500 HIGHLAND AVE, CHESHIRE, CT.**
E911 ADDRESS: **500 HIGHLAND AV, CHESHIRE, CT.**

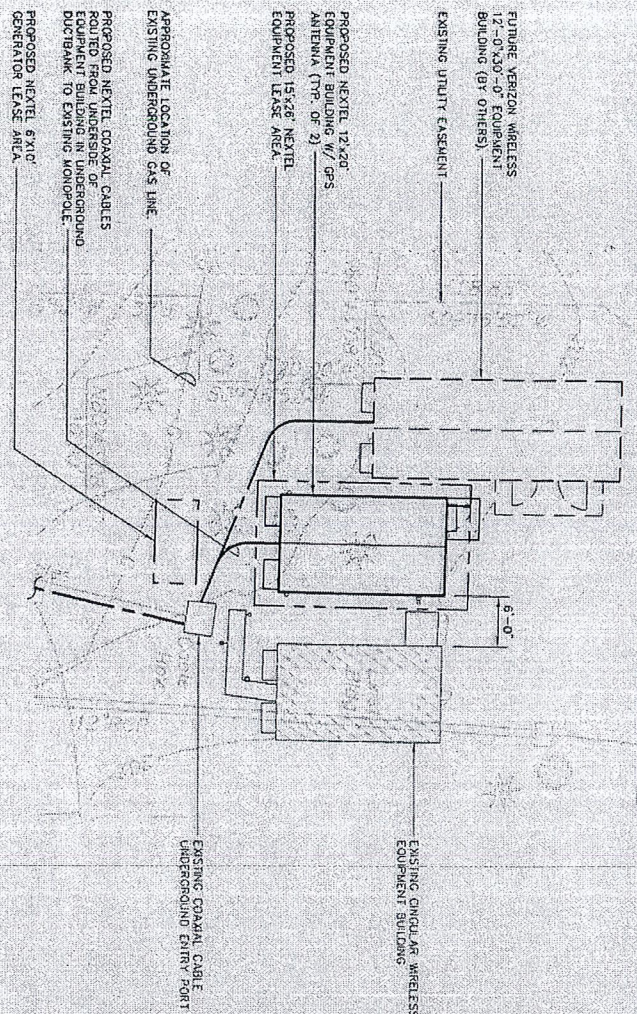
NEXTEL LEASE AREA

LEASE AREA: 13'-0" x 26'-0" = 390 S.F.
GENERATOR LEASE AREA: 6'x10' = 60 S.F.
TOTAL = 450 S.F.

PROJECT NO	DRAWING NAME	DATE	SHEET NO	TOTAL SHEETS
001-065	LE-1	03.03.05	1 OF 3	3

FINAL

NOTES:
 1. PROPOSED INSTALLATION INCLUDES
 12 ANTENNAS (4 PER SECTOR) AND
 15 LINES OF COAXIAL CABLE.



1 PARTIAL SITE PLAN
 SCALE: N.T.S.



NEXTEL

NEXTEL COMMUNICATIONS, INC.
 40 MARSHALL AVENUE
 BOSTON, MA 02202
 PHONE: (617) 432-2000
 FAX: (617) 432-2911

GENERAL DYNAMICS

WIRELESS SERVICES
 77 VA STREET
 NEEDHAM HILLS, MA
 PHONE: (781) 449-2000
 FAX: (781) 455-7885

UHS CORPORATION AES
 500 ENTERPRISE DRIVE, SUITE 3B
 ROCKY HILL, CONNECTICUT
 1-860-529-8882

NO.	DATE	REVISIONS	BY	CHKD	APP'D
1	03/28/05	FINAL	JRU	AA	DAE
2	03/03/05	REVIEW	RHH	AA	AA

NOT TO SCALE. DESIGNED BY: JRU DRAWN BY: RHH

OWNER: _____ DATE: _____
 NEXTEL R.F. ENGINEER: _____ DATE: _____

NEXTEL CONSTRUCTION: _____ DATE: _____
 NEXTEL SITE ACQUISITION: _____ DATE: _____

NEXTEL FIELD OPERATIONS: _____ DATE: _____
 GENERAL DYNAMICS: _____ DATE: _____

SITE ACQUISITION AGENT: _____ DATE: _____
 CONSTRUCTION FIELD SUPERVISOR: _____ DATE: _____

CHESHIRE POLICE DEPT.
CT-3682A

LEASE EXHIBIT
 NOT FOR CONSTRUCTION

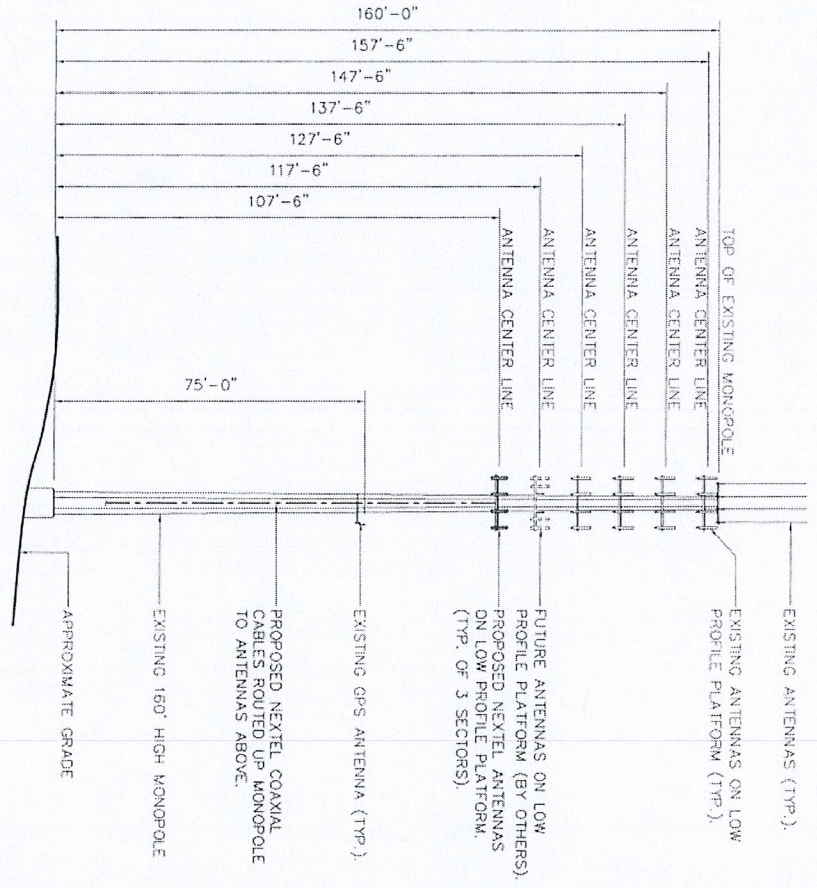
SITE ADDRESS: 500 HIGHLAND AVE.
 CHESHIRE, CT.

NEXTEL LEASE AREA

LEASE AREA: 15'-0" x 26'-0" = 390 S.F. ±
 GENERATOR LEASE AREA: 6' x 10' = 60 S.F. ±
 TOTAL: = 450 S.F. ±

PROJECT NO.	DRAWING NAME	DATE	SHEET NO.	REV
CON-065	LE-2	03.03.05	2	OF 3

FINAL



NOTES:
 1. PROPOSED INSTALLATION INCLUDES
 12 ANTENNAS (4 PER SECTOR) AND
 15 LINES OF COAXIAL CABLE.

1
 LE-3

PROPOSED MONOPOLE ELEVATION
 SCALE: RLTS

NEXTEL

NEXTEL COMMUNICATIONS, INC.
 10 MARKET AVENUE
 BOSTON, MA 02202
 PHONE: (617) 439-5911
 FAX: (617) 439-5911

GENERAL DYNAMICS

WIRELESS SERVICES
 77 A STREET
 NEWTON, MA 02459
 PHONE: (781) 449-2000
 FAX: (781) 455-2855

AGE FIRM

URS CORPORATION ASS

500 ENTERPRISE DRIVE, SUITE 3B
 ROCKY HILL, CONNECTICUT
 1-(860)-529-8882

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	03/20/05	FINAL	JRM	AA	DJR
2	03/20/05	REVIEW	RHM	AA	JAC
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OWNER _____ DATE _____
 NEXTEL R.F. ENGINEER _____ DATE _____
 NEXTEL CONSTRUCTION _____ DATE _____
 NEXTEL SITE ACQUISITION _____ DATE _____
 NEXTEL FIELD OPERATIONS _____ DATE _____
 GENERAL DYNAMICS _____ DATE _____
 SITE ACQUISITION AGENT _____ DATE _____
 CONSTRUCTION FIELD SUPERVISOR _____ DATE _____

CHESHIRE POLICE DEPT.
CT-3682A

LEASE EXHIBIT
 NOT FOR CONSTRUCTION

SITE ADDRESS E911 ADDRESS
 500 HIGHLAND AVE. 500 HIGHLAND AV
 CHESHIRE, CT. CHESHIRE, CT.

NEXTEL LEASE AREA
 LEASE AREA: 15'-0" x 26'-0" = 390 S.F. ±
 GENERATOR LEASE AREA 6' x 10' = 60 S.F. ±
 TOTAL = 450 S.F. ±

PROJECT NO	DRAWING NAME	DATE	SHEET NO	TOTAL
CON-065	LE-3	03.03.05	3 OF 3	3



April 15, 2005

Guyed and Self-Supporting Towers, Monopoles,
HF Antenna Systems and Turnkey Installations

Mr. Chris Ciolfi
GRIDCOM
374 South Street
Suite 202
Pittsfield, MA 01201

Ref.: 160' monopole at Cheshire Police, CT (Sabre #05-04141)

Dear Mr. Ciolfi,

As shown in our Structural Design Report #04-09077 dated September 12, 2003, the above referenced monopole and foundation were designed for a basic wind speed of 85 mph and 1/2" radial ice, in accordance with ANSI/TIA/EIA 222-F. They were designed to support the following equipment:

1. Nine (9) 20' whip antennas on three (3) 10' T-Arms at 160', with nine (9) 7/8" lines
2. Twelve (12) Allgon 58000 antennas on a 12' L.P. platform at 157.5', with twelve (12) 1-5/8" lines
3. Twelve (12) 5' x 1' panel antennas on a 12' L.P. platform at 147.5', with twelve (12) 1-5/8" lines
4. Twelve (12) 5' x 1' panel antennas on a 12' L.P. platform at 137.5', with twelve (12) 1-5/8" lines
5. Twelve (12) DB844H90 antennas on a 12' L.P. platform at 127.5', with twelve (12) 1-5/8" lines
6. Twelve (12) DB844H90 antennas on a 12' L.P. platform at 117.5', with twelve (12) 1-5/8" lines
7. Twelve (12) DB844H90 antennas on a 12' L.P. platform at 107.5', with twelve (12) 1-5/8" lines

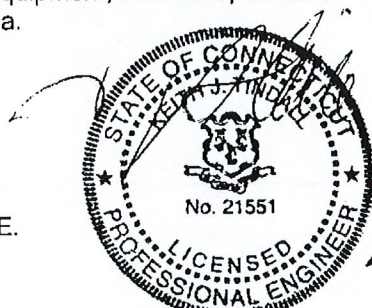
The current request is for the monopole and foundation to support **only** the following:

1. One (1) Decibel UHF antenna, one (1) VHF Station Master antenna, one (1) ground plane antenna, one (1) VHF dipole antenna and one (1) yagi antenna on three (3) 2' stand-off arms at 162', with two (2) 7/8" lines and three (3) 1/2" lines
2. Twelve (12) DB980F90 antennas on a 12' L.P. platform at 157.5', with twelve (12) 1-5/8" lines
3. Nine (9) RR90-18-xxDP antennas on a 12' L.P. platform at 147.5', with eighteen (18) 1-5/8" lines
4. Three (3) Allgon 7262.3 antennas on flush mounts at 137.5', with six (6) 1-5/8" lines
5. Twelve (12) DU04-8686 antennas and six (6) Cleargain DD1900 TMA's on a 12' L.P. platform at 127', with twelve (12) 1-5/8" lines
6. Six (6) LPA-80090/4cf antennas and six (6) LPA-185090/8cf antennas on a 12' L.P. platform at 117', with twelve (12) 1-5/8" lines
7. Twelve (12) 844G65VTZASX antennas on a 12' L.P. platform at 107', with twelve (12) 1/2" lines
8. Two (2) yagi antennas at 45', with two (2) 1/2" lines
9. One (1) yagi antenna at 40', with one (1) 1/2" line
10. One (1) yagi antenna at 20', with one (1) 1/2" line

With this revised equipment, the monopole and foundation are structurally adequate for the original design wind and ice criteria.

Sincerely,

Keith J. Tindall, P.E.
Chief Engineer



4/15/05

Cheshire, CT (500 Highland Ave.) CT3682 - CT Siting Council Power Density Calculations

Nextel Directional Antennas ESMR - 851 MHz at centerline 107' AGL

	Transmitters:	Frequency in MHz	CT Standard mW/cm ²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard
	Nextel Digital ESMR**	851	0.5673	12	100	101	0.042278208	7.4521%
	Emwegency services from prior filing	450			1200	167		5.5200%
	Sprint PCS from prior filing	1900			2750	157		4.3100%
	T-Mobile from prior filing	1900				147		3.2300%
	AT&T from prior filing	1900				137		6.2500%
	Cellular from prior filing	869				127		1.5600%
** lowest Nextel antenna centerline is 107' adjusted to 101' per OET 65 Bulletin for 6' average head height.								
	Total % of CT Standard							28.3221%

Note: Power densities are in mW/cm²