NEXTEL

April 5, 1999

RE: TS-NEXTEL-051-990219 - Nextel Communications request for an order to approve tower sharing at an existing telecommunications facility located at 46 Adams Street in Manchester, Connecticut

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

APR - 5 1999

CONNECTICUT SITING COUNCIL

Dear Mr. Gelston:

On March 2, 1999, Nextel filed a request with the Connecticut Siting Council to make shared use of an existing telecommunications facility located at 46 Adams Street in Manchester, Connecticut. In the submission, Nextel stated it intended to locate it's radio equipment on the 3rd floor of the existing building that sits on the site. The Council acted upon this filing on March 9, and "ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures."

Since then, the lessor has approached Nextel and asked the equipment location be changed from the 3rd floor, to a 10-foot by 20-foot room on the 1st floor in a section beneath the original location. Nextel engineers have investigated the new area and determined it to be perfectly acceptable.

As a result of the lessor's request and our subsequent investigation, Nextel respectfully submits this letter to notify the Siting Council of it's intention to place it's radio equipment on the 1st floor of the building at 46 Adams Street in Manchester, instead of the 3rd floor.

Thank you for your time and understanding.

Sincerely,

Ronald C. Clark

Manager Real Estate Operations



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

March 26, 1999

Thomas R. O'Marra Zoning Enforcement Officer Town of Manchester 41 Center Street, P.O. Box 191 Manchester, CT 06045-0191

RE:

TS-NEXTEL-051-990219 – Nextel Communications request for an order to approve tower sharing at an existing telecommunications facility located at 46 Adams Street in Manchester, Connecticut.

Dear Mr. O'Marra:

I have received your letter dated March 17, 1999, regarding the requested shared use of a roof mounted communications tower at 46 Adams Street in Manchester.

The application before the Council was to replace an existing tower with a new tower of the same dimensions, both height and width, and the same type, guyed lattice. This proposal was not filed as a facility under the exclusive jurisdiction of the Council as defined under Connecticut General Statutes § 16-50 (i)(a)(6) for a tower owned or operated by either the State or public service company or for use in a cellular system. This proposal was filed as a request for tower sharing to prevent the proliferation of towers in Connecticut under Connecticut General Statutes § 16-50aa. It appears that this proposed replacement is consistent with Town of Manchester Zoning Regulations, General Provisions, Section 19, wireless telecommunications facilities, effective November 11, 1997, as a tower proposed to replace an existing tower with the same dimensions, located on the roof of a three story manufacturing building situated adjacent to Interstate 84. However, I cannot make that determination for the Town of Manchester.

The Council did make a determination that this replacement is consistent with Connecticut State law to avoid the proliferation of towers. I have enclosed a copy of our decision. Before making this determination the Council reviewed the site, modeled the radio frequency power density, reviewed the technical specifications for the replacement tower, and considered the legal nature of the filing.

Please contact me if I can provide you any additional information regarding the nature of this proposal, or the Council's jurisdiction to consider this proposal.

Very truly yours,

Mortimer A. Gelston

Chairman

MAG:sg

Enclosure



Town of Manchester

41 Center Street • P.O. Box 191

Manchester, Connecticut 06045-0191

STEPHEN T. CASSANO, MAYOR JOSH M. HOWROYD, DEPUTY MAYOR JOSEPH D. NEGRI, SECRETARY

DIRECTORS
TIMOTHY H. BECKER
THOMAS P. CROCKETT
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JAMES E. MORANCEY
CLIFTON E. THOMPSON

RECEIVED

MAR 1 9 1999

CONNECTICUT SITING COUNCIL

March 17, 1999

The Honorable Mortimer A. Gelston, Chairman Connecticut Siting Council Ten Franklin Square New Britain, Connecticut 06051

RE:

Request of Nextel - 46 Adams Street, Manchester, Connecticut

Dear Mr. Gelston:

Richard J. Sartor, the General Manager of the Town of Manchester, has forwarded the notification of the subject application to me for a comment. The application appears to be for the construction of a *new* wireless communications tower. The information provided to Mr. Sartor does not include sufficient facts to determine whether this issue is properly before the Siting Council.

In the event it is found that the services provided do not fall within the definition of intrastate telecommunication services or a cellular system as set forth in Section 16-50(i)(a)(6) as a facility owned and operated by either the state or a public service company or used in a cellular system, please be advised the Town of Manchester has, through its Zoning Regulations, adopted minimum requirements to be met consistent with the provisions of the Federal Telecommunications Act. A copy of these regulations is attached for your convenience.

Further, we would comment that based on the description submitted, this application is not for the use of an existing tower but the construction of a "new, stronger tower" for the installation of panel antennas. See paragraph one "<u>BACKGROUND</u>" of the Nextel submission dated March 2, 1999.

If the Town of Manchester can provide additional information or be helpful in any other way please do not hesitate to get in touch with me at (860) 647-3057.

Very truly yours,

Thomas R. O'Marra

Zoning Enforcement Officer

TRO'M:cp

Att.

cc: Richard J. Sartor, General Manager

Mark Pellegrini, Director of Planning and Economic Development

Leo Belval, Chief Building Official

Lynne Pike DiSanto, Senior Planner (w/ att.)

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ARTICLE IV

Section 19

WIRELESS TELECOMMUNICATIONS FACILITIES1

The intent of this proposed regulation is to provide for the establishment and/or expansion of wireless telecommunication services within the Town of Manchester while protecting neighborhoods and minimizing the adverse visual and operational effects of wireless telecommunications facilities through careful design, siting and screening. More specifically this regulation has been developed in order to:

Maximize use of existing and approved towers and other structures to accommodate new antennas and transmitters in order to reduce the number of communication towers needed to serve the community;

Encourage providers to co-locate their facilities on a single facility;

Site facilities below visually prominent ridge lines;

Minimize the location of facilities in visually sensitive areas;

Encourage creative design measures to camouflage facilities;

Protect historic and residential areas from potential adverse impacts of communication towers;

Avoid potential damage to adjacent properties from tower failure through engineering and careful siting of tower structures.

Avoid interference with existing natural scenic vistas.

19.02 <u>DEFINITIONS</u>: For the purpose of applying the provisions of this section the terms below shall be defined as follows:

ANTENNA means a device used to receive or transmit electromagnetic waves. Examples include, but are not limited to whip antennas, panel antennas and dish antennas.

CO-LOCATION means locating wireless communication facilities of more than one provider on a single site.

WIRELESS TELECOMMUNICATION SERVICES means licensed communications including, but not necessarily limited to, personal communication services (PCS), specialized mobilized radio (SMR), enhanced specialized

¹ Rev. 10/20/97, effective 11/11/97

mobilized radio (ESMR), paging and similar services that are marketed to the general public.

WIRELESS TELECOMMUNICATION SITE means a facility operated by a licensed wireless telecommunication service provider which consists of the equipment and structures involved in receiving or transmitting electromagnetic waves associated with wireless telecommunication services.

HEIGHT OF TOWER means the vertical distance measured in feet from the average existing ground elevation surrounding the tower and within ten feet thereof to the topmost point of the tower including any antenna or other appurtenances. The existing elevation shall mean the actual or approved elevations of the property at the time of the application. The height of a tower mounted on a building shall be measured from the average level of the ground along all walls of the building to the tallest point on the tower including the antenna and all other appurtenances.

TOWER means a structure that is specifically intended to support equipment used to receive and/or transmit electromagnetic waves. Design examples of towers include (a) self-supporting lattice, (b) guyed and (c) monopole.

- 19.03 <u>Location Preferences</u>. The locations for siting the equipment involved in receiving or transmitting electromagnetic waves associated with wireless telecommunication services are listed in paragraphs 1 through 5 below, in order of preference.
 - 1. On existing structures such as buildings, water towers, utility poles, and existing or previously approved towers.
 - 2. On new towers less than 60 feet in height located in commercial or industrial zones or on municipal property.
 - 3. On new towers less than 60 feet in height located in residential zones or residential land use type areas in the CUD zone.
 - 4. On new towers 60 feet or greater in height located in commercial and industrial zones or on municipal property.
 - 5. On new towers 60 feet or greater in height located in residential zones or residential land use type areas in the CUD zone.

19.04 Permitted Uses.

1. In all zoning districts except off street parking wireless telecommunication antennas located on nonresidential buildings and camouflaged from view from all surrounding streets and driveways used by the general public together with associated equipment located within or on the roof of the existing principal or

accessory buildings are permitted subject to the requirements in Sections 19.06 and 19.07 and site plan review requirements of Section 19.08 and provided the following standards are met:

- a. No changes are made to the height of such structure.
- b. No panel antenna shall exceed 72 inches in height and 24 inches in width.
- c. No dish antenna shall exceed 48 inches in diameter.
- 2. In the Historic Zone, and in land use areas VII and VIII of the CUD zone, wireless communications sites where the antenna is mounted to an existing multi-family building are permitted subject to the requirements of Sections 19.06 and 19.07 and site plan review requirements of Section 19.08 and provided the following standards are met:
 - a. No changes are made to the height of such structure.
 - b. No panel antenna shall exceed 72 inches in height and 24 inches in width.
 - c. No dish antenna shall exceed 48 inches in diameter.
 - d. Equipment boxes shall be installed within buildings or roof mounted.
- 3. In all zoning districts except off street parking, wireless telecommunications sites where the antenna is mounted to existing towers, utility poles, water towers, light standards, bridges or other structures not classified as buildings provided the following standards are met:
 - a. No changes are made to the height of such structure.
 - b. No panel antenna shall exceed 72 inches in height and 24 inches in width.
 - c. No dish antenna shall exceed 48 inches in diameter.
- 19.05 <u>Special Exception Uses</u>. The following uses shall be permitted by special exception only subject to the requirements in Section 19.06 and 19.07 and the site plan review requirements of Section 19.08:

In all business zoning districts, except the Central Business District and in Industrial, Rural Residence, and CUD zone other than in land use types areas VII and VIII, wireless telecommunication sites not otherwise permitted in Section 19.04. Any proposed new construction of a tower shall be required to provide for co-location of telecommunication services. The applicant shall be required to submit to the Commission, in a form satisfactory to it, evidence that it is bound to

share antenna space with other telecommunications providers. This may take the form of an affidavit, caveat, declaration of covenants, etc. on the land records once approved by the Commission.

19.06 General Requirements

- 1. Applications for any commercial telecommunications service facility shall be made by a licensed carrier only.
- 2. No wireless telecommunication tower site shall be located within 200 feet of a residence.
- 3. No tower exceeding 60 feet in height shall be located within 1,000 feet of the boundary of an approved historic district.
- 4. No lights shall be mounted on proposed towers unless otherwise required by the Federal Aviation Administration (FAA). Strobe lighting shall be permitted only where required by applicable regulations.
- 5. Towers not requiring special FAA painting or markings shall be painted a non-contrasting blue, grey or black.
- 6. Towers, antennas and equipment boxes may not be used to exhibit advertising or any signage other than a public warning sign.
- 7. All towers shall be monopole design unless otherwise approved by the Commission.
- 8. Any proposed tower shall be designed in all respects to accommodate both the applicant's antennas and comparable antennas for at least two additional users if the tower is over 150 feet in height or for at least one additional comparable antenna if the tower is 150 feet in height or under. The Commission may require the tower to be of such design as to allow for future rearrangement of antennas upon the tower and to accommodate antennas mounted at varying heights.
- 9. The Commission may require that towers, antennas, antenna mounts, equipment buildings/boxes and telecommunication structures be of such design and material so that they are camouflaged.
- 10. Antennas or equipment buildings/boxes mounted to or on buildings or structures shall to the greatest degree possible blend with the color and design of such building.

- 11. Each telecommunications facility site shall be provided with a paved driveway and parking space for at least one vehicle in accordance with Article IV, Section 9.
- 12. No proposed wireless telecommunication site shall be designed, located or operated as to interfere with existing or proposed public safety communications.
- 13. The design of all wireless telecommunication sites shall comply with the standards promulgated by the Federal Communications Commission (FCC) for non-ionizing electromagnetic emissions. In the absence of such standards sites shall comply with standards set by the Institute of Electrical and Electronics Engineers for safe human exposure to radio frequency electromagnetic fields. Approved tower owners shall submit an annual report detailing the maximum current measurement and future projection of the measurement of radio frequency emissions.
- 14. All utilities proposed to serve a wireless telecommunication site shall be installed underground unless otherwise approved by the Commission.
- 15. All generators installed in conjunction with any wireless telecommunication site shall comply with all State and local noise regulations.
- 16. All towers shall be fenced and all accompanying equipment buildings or boxes shall be screened and fenced to minimize visual intrusion as approved by the Manchester Planning and Zoning Commission as part of the site plan review.

19.07 <u>Height and Area Requirements</u>

- 1. Lot Size. Wireless telecommunication sites containing a freestanding tower shall not be located on any lot less than 20,000 square feet in area. Where it is proposed that such a wireless telecommunication site occupy a lot as a principal use the minimum lot size shall be equal to that required for the underlying zone or 20,000 square feet, whichever is greater.
- 2. <u>Height</u>. The maximum height of a tower proposed under this regulation shall be 175 feet including the antenna and all other appurtenances.

The maximum height of any roof top mounted equipment building or box shall be 15 feet.

3. Setbacks

- a. All freestanding monopole or other towers shall comply with the minimum property line setbacks except that in no cases shall a monopole or tower be constructed so that it is set back from the property line less than a distance equal to the height of the tower.
- b. All equipment buildings/boxes or equipment areas, including areas devoted to parking, screening and equipment shall comply with the following minimum property line setbacks:

Front Yard or Side Yard Along a Street - Same as for a principal building in the underlying zone.

Rear and Side Yards - 20 feet.

c. All applications shall comply with any applicable requirements of Article II, Section 19 with respect to flood hazard areas.

19.08 <u>Site Plan Requirements</u>. For all proposals to develop a wireless telecommunication site as a permitted use or special exception the following information shall be submitted in accordance with each particular application where applicable.

1. Permitted Use:

- a. A plan showing where and how the proposed antenna will be affixed to a
 particular building or structure. Plans shall be at a scale of not less than 1"
 = 40'.
- b. Details of all proposed antenna and mounting equipment including size and color.
- c. Elevations of all proposed shielding and details of materials including color.
- d. An elevation of all proposed equipment buildings or boxes and details of proposed screening and enclosures including materials and colors.
- e. A design drawing including cross section and elevation of all proposed towers. A description of the tower's capacity including the number and type of antennas it can accommodate as well as the proposed location of all mounting positions for co-located antennas and the minimum separation distances between antennas. The design shall illustrate how the

tower will collapse upon itself without encroaching upon any adjoining property.

- f. A report from a licensed professional engineer registered in the State of Connecticut indicating that the proposed wireless telecommunication site will comply with the emission standards found in Section 19.06.13 of this regulation. Such report shall also certify that the installation of such site will not interfere with public safety communications. Such report shall include a description of the maximum power density with all channels operating at highest wattages for all existing and proposed emissions and ambient levels at the site. Modeling shall be performed at the fence line.
- g. An analysis of the fall zone for the proposed tower prepared by a licensed professional engineer registered in the State of Connecticut.
- h. All applications shall include proof that either the applicant or coapplicant holds bona fide license from the FCC to provide the telecommunication services that the proposed tower is designed to support.
- I. A map prepared by a licensed land surveyor depicting the extent of the provider's planned coverage within the Town of Manchester and the service area of the proposed wireless telecommunication site. A map indicating the search radius for the proposed wireless telecommunication site and all existing towers and structures over a height of 50 feet within the planned coverage area.
- j. The applicant shall demonstrate need for the network as proposed and shall describe feasibility of alternative facility locations including existing towers and structures and tower heights.
- k. For proposed tower installations, all plans shall be certified by a licensed professional engineer registered in the State of Connecticut that the site's soils are acceptable for this use and that the site can be adequately drained.

2. Special Exception Use:

- a. All of the plans and information required for Permitted Uses in the previous subsection.
- b. Upon request of the Commission the applicant shall provide a graphic representation of the proposed installation in relation to the site and its vicinity in order to help the Commission ascertain the visual impacts associated with such proposal. Such representation may include computer simulation, enhanced photographs or architectural drawings or renderings.

c. For towers located in or within 1,000 feet of an RR, RAA, RA, RB, RC, PRD or Historic zone or land use types VII or VIII in the CUD zone, the applicant shall provide an analysis showing all areas from which the tower would be visible.

19.09 <u>Factors Upon Which Special Exception Decisions of the Commission Shall Be</u> Based

In order to approve applications for wireless telecommunication sites, the Commission shall also find:

- 1. In the event a wireless telecommunication site is proposed to be located on, or within 1,000 feet of a property designated on the national Historic Register that such proposal will preserve the historic and/or architectural character of the landscape or any structure.
- 2. In the event where an application for the proposed location of a wireless telecommunication site is not a preference 1 or 2 location the applicant has adequately described the efforts and measures taken to pursue those preferences and why a higher preference location was not technologically, legally or economically feasible. The supplied documentation should evaluate the following factors:
 - a. The planned equipment would cause unacceptable interference with the operation of other existing or planned equipment on an existing or approved tower as documented by a qualified licensed professional engineer registered in the State of Connecticut and that the interference cannot be prevented or eliminated at a reasonable cost.
 - b. The planned equipment cannot be accommodated on existing or approved towers due to structural deficiencies as documented by a qualified licensed professional engineer registered in the State of Connecticut and that such deficiencies cannot be eliminated at a reasonable cost.
 - c. The existing or planned equipment on an existing or approved tower would cause unacceptable interference with the equipment proposed by the applicant as documented by a qualified licensed professional engineer registered in the State of Connecticut and that the interference cannot be prevented or eliminated at a reasonable cost.
 - d. Any restriction or limitation imposed by the FCC.
- 19.10 <u>Abandonment</u>. At such time that a licensed carrier plans to abandon or discontinue operation of a wireless facility, such carrier will notify the Commission by certified U.S. mail of the proposed date of abandonment or

discontinuation of operations. Such notice shall be given no less than 30 days prior to abandonment or discontinuation of operations.

In the event that a licensed carrier fails to give such notice, the facility shall be considered abandoned upon such discontinuation of operations. Upon abandonment or discontinuance of use, the carrier shall physically remove the facility within 90 days from the date of abandonment. A commercial wireless telecommunication site not in use for 12 consecutive months shall be removed by the service facility owner. Upon removal the site shall be restored to its previous appearance and where appropriate re-vegetated to blend with the surrounding area.

19.11 <u>Matrix of Type of Telecommunications Facilities as Permitted Uses or by Special Exception by Zoning District</u>

ZONE	ALLOWED AS PERMITTED USE	ALLOWED BY SPECIAL EXCEPTION
RR	A/B, A/S	NT
RAA	A/B, A/S	
RA	A/B, A/S	
RB	A/B, A/S	
RC	A/B, A/S	•
PRD	A/B, A/S	
CUD - land use types VII, VIII	A/B, A/MF, A/S	
CUD - all other land use types	A/B, A/S	NT
HIST	A/B, A/MF, A/S	
BI	A/B, A/S	NT
BII	A/B, A/S	NT
BIII	A/B, A/S	NT .
BIV	A/B, A/S	NT
BV	A/B, A/S	NT
CBD	A/B, A/S	
Off Street Parking	No	No
Industrial	A/B, A/S	NT

A/B = antennas located on existing nonresidential buildings together with associated equipment located within or on the roof of the principal or accessory building

A/MF = antennas mounted on an existing multi-family building together with associated equipment located within or on the roof of the principal or accessory building

A/S = antennas mounted on an existing structure other than a building

NT = new tower and associated equipment and facilities

No = no facilities permitted

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STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

March 10, 1999

Ronald C. Clark Nextel Communications 100 Corporate Park Rocky Hill, CT 06067

RE:

TS-NEXTEL-051-990219 – Nextel Communications request for an order to approve tower sharing at an existing telecommunications facility located at 46 Adams Street in Manchester, Connecticut.

Dear Mr. Clark:

At a public meeting held on March 9, 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 frequency now used on this tower. 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 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 March 2, 1999. Please notify the Council when all work is complete.

Very truly yours,

Mortiner A. Gelston

Chairman

MAG/sg

c: Honorable Stephen T. Cassano, Mayor, Town of Manchester

Ronald C. Clark Manager Real Estate Operations 7 S-Nextel-077-990302

Nextel Communications 100 Corporate Place, Rocky Hill, CT 06067 860 883-2112 FAX 860 513-5444



March 2, 1999

RECEIVED

MAR - 2 1999

CONNECTICUT
SITING COUNCIL

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

Dear Mr. Gelston,

Pursuant to Connecticut General Statutes (C.G.S.) § 16-50-aa, Nextel Communications Inc. (Nextel) hereby requests shared use of an existing roof mounted communications tower located at 46 Adams Street in Manchester. Nextel proposes to replace the existing tower, install directional antennas on the replacement and install radio equipment inside the building beneath.

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

Sincerely,

Ronald C. Clark

Manager Real Estate Operations

cc:

Mr. Richard J. Sartor, General Manager

Town of Manchester

BACKGROUND

Nextel Communications, Inc, is licensed by the Federal Communications Commission to provide wireless communications services in the State of Connecticut, including the Town of Manchester. Nextel proposes to make shared use of an existing communications facility located at 46 Adams Street in Manchester. The existing facility consists of a 60 foot Guyed lattice communications tower located on the roof of a three story manufacturing building situated just East of Interstate Highway 84. Nextel plans to replace the existing tower with a new, stronger tower of the same dimensions and install panel antennas on the new structure.

The existing antenna, which is part of a two-way radio system used by the building owner, will be re-installed on the new tower as well.

NEXTEL INSTALLATION

Nextel proposes to install twelve (12) ALP Model 9011 directional antennas at the 58-foot level of the new 60-foot tower and remount the existing 12-foot whip antenna at the top of the tower. In addition, Nextel plans to install 3 GPS receive-only antennas at the 20-foot level. (See Attachment A).

Nextel's radio equipment will be installed in a 10-foot by 20-foot equipment room located on the 3rd floor of the building (See Attachment B).

POWER DENSITY CALCULATIONS

The operation of Nextel's antennas will not increase the total radio frequency electromagnetic power density, measured at the base of the tower, to a level at (or even near) the State/Federal/ ANSI Standards. Attachment C summarizes the power density calculations, standard limits and actual exposure percentages for the both sets of antennas.

In summary, the data shown in Attachment C clearly shows the levels of exposure are well within allowable State/Federal/ANSI Standards and in compliance with the Federal Telecommunications Act of 1996.

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:

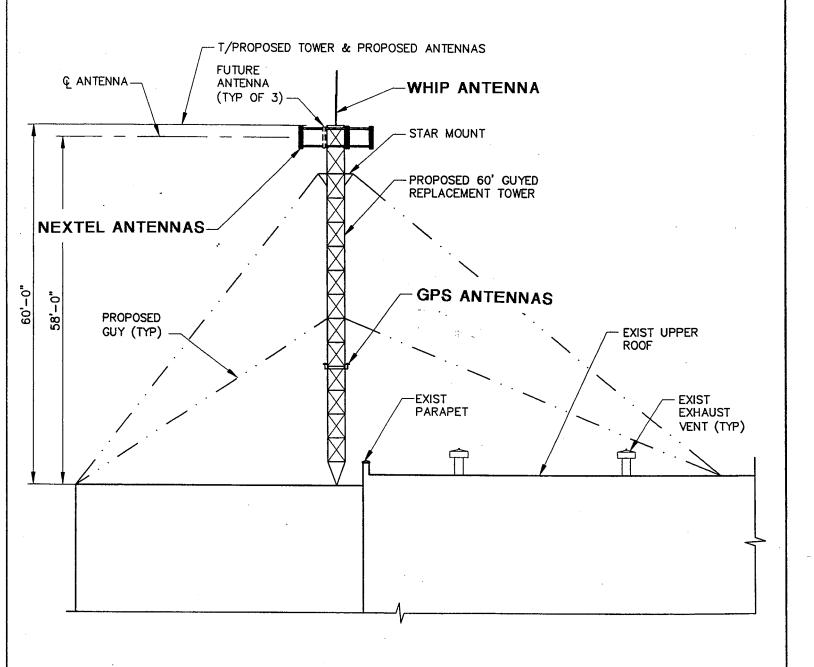
- A. <u>Technical Feasibility.</u> The new tower is engineered to support the proposed antenna configuration. The proposed-shared use of this tower therefore is technically feasible.
- B. <u>Legal Feasibility.</u> Under C.G.S. § 16-50-aa, the Council has been authorized to issue an order approving the 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 applicant to obtain a building permit for the proposed installations.
- C. <u>Environmental Feasibility</u>. The proposed shared use would have a minimal environmental effect, for the following reasons:
 - 1. The proposed installation would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics in or around the site. In particular, the new tower is the same dimensions (height and width) as the one being replaced and is of the same type (Guyed lattice).
 - 2. The proposed installation would not increase the noise levels at the existing facility by six decibels or more.
 - 3. Operations of antennas at this site would not exceed the total radio frequency electromagnetic radiation power density levels adopted by the State of Connecticut and the FCC. The "worst-case" exposure levels have been calculated for the roof level, which is a controlled environment since it is not generally accessible. The combined power density level for all antennas at the roof level is only 3.4% of both the ANSI and FCC standards for a controlled environment. The

- "worst-case" exposure levels have also been calculated for ground level, which is an uncontrolled environment since it is generally accessible. The combined power density levels at ground level is only 5.85% of both the ANSI and FCC standards for an uncontrolled environment. As such, the facility would operate in full and complete compliance with the Federal Telecommunications Act of 1996.
- 4. The proposed installation would not require any water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is completed (approximately four weeks), the proposed installation would not generate any traffic other than periodic maintenance visits. The proposed use of the facility would therefore have a minimal environment effect, and is environmentally feasible.
- A. <u>Economic Feasibility.</u> Nextel has entered into an agreement with the property owner to share use of the site on mutually agreed to terms. The proposed tower sharing is therefore economically feasible.
- B. Public Safety Concerns. As stated above, the replacement tower is structurally capable of supporting the proposed antennas. The Applicant is not aware of any other public safety issues relative to the proposed sharing of the new tower. In fact, the provision of new or improved wireless coverage in the area is expected to enhance the safety and welfare of area residents. The public safety benefits of wireless service are further illustrated by the recent decision of local authorities elsewhere in Connecticut and in other parts of the country to provide mobile phones to residents to improve local public safety and enhance emergency communications. The proposed-shared use of this facility would likewise improve public safety in Manchester.

Conclusion

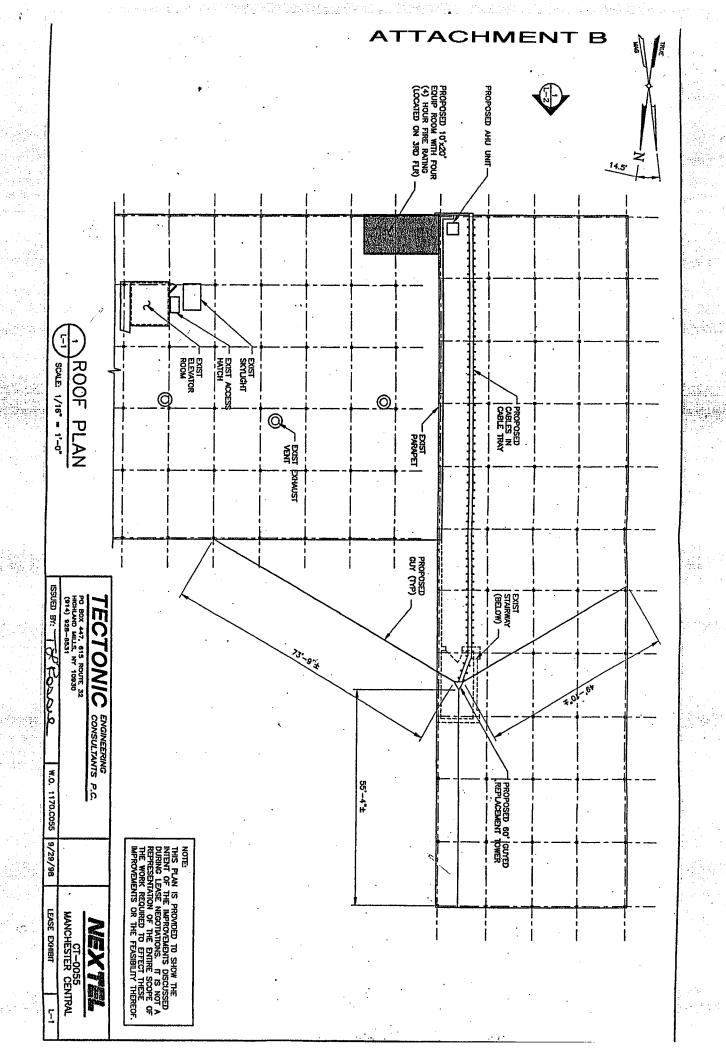
For the reasons discussed above, the proposed shared use of this existing tower facility satisfies the criteria stated in C.G.S. § 16-50-aa, and advances the General Assembly's and the Siting Council's goal of preventing to proliferation of towers in Connecticut. Nextel therefore respectfully requests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

ATTACHMENT A





TECTONIC ENGINEERING CONSULTANTS P.C.			CT-0055 MANCHESTER CENTRAL	
PO BOX 447, 615 ROUTE 32 HIGHLAND MILLS, NY 10930 (914) 928–6531				
ISSUED BY:	W.O. 1170.C055	9/29/98	LEASE EXHIBIT	L-2



Total % of CT Standard Nextel Directional ESMR Antennas

Nextel Directional Antennas - % of CT Standard Citizens Band Radio Omni Antenna Citizens Band Radio - % of CT Standard Nextel Directional Antennas ESMR - 851 Mhz at center line 58' ARL (Above Roof Level) - Proposed Citizens Band Radio omni antenna - 27 MHz at center line 66' ARL (Above Roof Level) - Existing Manchester, 46 Adams Street Transmitter: Attachment C - Power Density Calculations at Roof Level (Controlled Environment) Frequency (MHz) 85 1 27 Number of Channels ဖ Total ERP (Watts) 900 2.6 of antennas ARL (ft) Centerline 66 58 CT Standard mW/ cm² 2.83667 1.23457 Note: Power densities are in mW/ cm² Power density calculated at the tower base 0.0961533 **3.3897**% 0.0002145 **0.0174**% 3.4070%

Nextel Directional ESMR Antennas

Nextel Directional Antennas - % of CT Standard Citizens Band Radio Omni Antenna Citizens Band Radio - % of CT Standard Nextel Directional Antennas ESMR - 851 Mhz at center line 99' AGL (Above Ground Level) - Proposed Manchester, 46 Adams Street Total % of CT Standard Citizens Band Radio omni antenna - 27 MHz at center line 107' AGL (Above Ground Level) - Existing Transmitter: Attachment C - Power Density Calculations at Ground Level (Uncontrolled Environment) Frequency (MHz) 851 27 Number of Channels ဖ Total ERP (Watts) 900 2.6 Centerline of antennas AGL (ft) 107 99 CT Standard mW/ cm² 0.24691 0.56733 Note: Power densities are in mW/ cm² Power density calculated at ground level 0.033002 **5.8171**% 0.000082 **0.0332**% 5.8503%