# **NEXTEL**

October 21, 1999

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

OCT 2 1 1999

CONNECTICUT SITING COUNCIL

Dear Mr. Gelston:

Pursuant to Connecticut General Statutes (C.G.S.) § 16-50-aa, Nextel Communications Inc. ("Nextel") and AT&T Wireless Services, Inc. ("AT&T") respectfully request to make shared use of an existing telecommunications tower located at Bright Meadow Boulevard in Enfield, Connecticut. This facility, which is owned by Sprint PCS, is currently used by Sprint to provide wireless system coverage to the area. Nextel and AT&T each propose to add directional antennas to the 150-foot tall monopole and install radio equipment inside pre-fabricated equipment shelters placed at the base of the tower.

Nextel and AT&T propose to share use of this facility, rather than have the need to construct additional telecommunications tower(s) in the general area.

Nextel respectfully asks that 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.

Thank you for your consideration in this matter.

V. Old

Sincerely,

GD (FC)

Ronald C. Clark

Manager Real Estate Operations

CC: Honorable Mary Lou Strom, Mayor

Town of Enfield

Mr. Kenneth Mac Master

Sprint PCS

Mrs. Jennifer Gaudet

**AT&T Wireless Services** 

Mrs. Sandy Carter

Bell Atlantic Mobile Communications

#### **TOWER SHARING**

# **BRIGHT MEADOW BOULEVARD**

#### ENFIELD, CONNECTICUT

# **BACKGROUND**

Nextel Communications, Inc. ("Nextel") and AT&T Wireless Services, Inc. ("AT&T") are each licensed by the Federal Communications Commission (FCC) to provide wireless communications services in the State of Connecticut, including the Town of Enfield.

Nextel and AT&T each propose to mount antennas on an existing 150-foot monopole owned and operated by Sprint PCS and place their radio equipment inside pre-fabricated equipment shelters at the base of the tower. The facility is located on Bright Meadow Boulevard in Enfield. The site is currently used by Sprint to provide wireless system coverage to the Plainville area. On July 15, 1999 the Council approved an application from Bell Atlantic Mobile Communications ("BAM") to share use of the facility (TS-BAM-049-990701) and mount its antennas at the 132-foot level of the tower. BAM has not yet installed its equipment on/at the site.

The facility is located on the East side of Interstate 84, adjacent to the Harley Hotel, on property owned by Northeast Utilities. It is located at a ground elevation of 110-feet AMSL and is situated at the geographic coordinates of: 42°-01'-15" North Latitude / 72°-35'-08" West Longitude.

# **NEXTEL AND AT&T INSTALLATION**

Nextel and AT&T each propose to install directional antennas on the monopole. Nextel proposes to center-mount twelve (12) antennas at the 127-foot level, while AT&T proposes to center-mount nine (9) antennas at the 117-foot level. In order to achieve these mounting heights and still maintain necessary inter-carrier antenna separations, BAM will move its antennas from a centerline from 132-feet to a centerline of 137-feet (see Attachment A). Nextel plans to locate its radio equipment inside a 10-foot by 20-foot pre-fabricated equipment shelter placed at the tower base. AT&T will install its equipment in a 12-foot by 20-foot pre-fabricated structure also placed near the base of the tower (see Attachment B). The fenced area surrounding the tower will be enlarged to accommodate the new shelters, but will not require expansion of Sprint's leased parcel boundaries.

# POWER DENSITY CALCULATIONS

The operation of the additional 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 Standards. "Worst case" calculations for a point at the tower base show the combined power density level for the existing Sprint antennas, the BAM antennas at their new height and the proposed antennas totals just 14.4325% of the State/Federal Standard for exposure in an uncontrolled environment (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. The monopole, which was designed, engineered and constructed as a multi-carrier structure, is fully capable of supporting the carrier's antennas and associated tower mounted hardware (see Attachment D). The proposed-shared use of this tower 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 applicant to obtain a building permit for the proposed installations.
- Environmental Feasibility. The proposed shared use of this telecommunications facility by Nextel and AT&T would have a minimal environmental effect for the following reasons:
  - A. The proposed installations 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 area.
  - B. The installations would not increase the noise levels at the boundaries of the existing facility by six decibels or more.
  - C. 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 Federal Government. The "worst-case" exposure levels have been calculated for ground level at the tower base. The combined power density level for the existing

Sprint antennas, the BAM antennas at the new, 137-foot level and the proposed AT&T and Nextel antennas is only 14.4325% of the State/Federal Standard for exposure in an uncontrolled environment. As such, the facility would be operated in full and complete compliance with the Federal Telecommunications Act of 1996.

D. The installations would not require any water or sanitary facilities, generate any air emissions or create discharges into any water bodies. After construction has been completed (approximately 4-5 weeks in duration), the installations would not generate any vehicular traffic other than from periodic maintenance visits by each carrier's service technicians.

The proposed shared use of the facility would therefore, have a minimal environmental effect and is indeed, environmentally feasible.

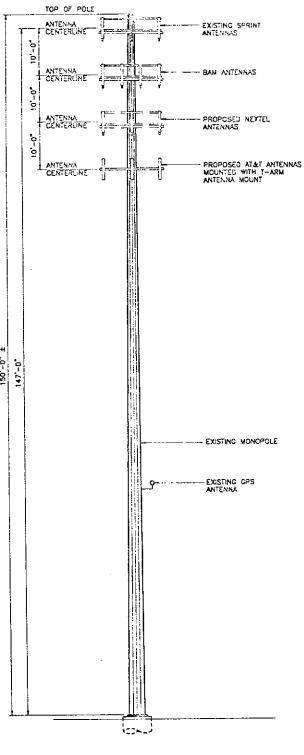
- Economic Feasibility. Nextel and AT&T have both entered into agreements with Sprint PCS to share use of the tower and BAM has an agreement with Sprint to install it's antennas at the new, 137-foot level. As a result, shared use of the facility is economically feasible.
- Public Safety Concerns. As stated previously, the tower is structurally capable of supporting the proposed antennas and radio frequency emissions fall well below State and Federal Standards. Neither Nextel nor AT&T is aware of any other public safety issue(s) relative to the shared use of this facility.

In reality, the provision of additional wireless coverage can be expected to enhance the safety, security and welfare of local residents as well as those traveling through the area. The simple fact that *more than one-half million* wireless 911 calls were made in Connecticut during 1998, clearly demonstrates the positive that impact wireless communications has had on public safety in the State. The benefits of wireless system coverage are further illustrated by the decision of many law enforcement agencies here in Connecticut, and in other parts of the country, to provide mobile phones to local resident groups, civic organizations, etc., to improve, expand and enhance emergency communications capabilities. The proposed-shared use of this facility can likewise contribute to the public's safety and security in the Town of Enfield.

# **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 and AT&T therefore respectfully request the Siting Council issue an order approving the shared use of this facility.

# ATTACHMENT A



1 TOWER ELEVATION SC-2 SCALE: N.T.S.

SITE 10 NO:
CT 157

Designed by:

Designed b

AT&T WIRELESS PCS LLC

UNMANNED WIRELESS COMMUNICATION EQUIPMENT SITE

SITE ADDRESS: NORTH THOMPSONVILLE BRIGHT MEADOW BOULEVARD ENFIELD, CONNECTICUT REV. DATE: DESCRIPTION

Scale: AS NOTED (Date: 10-11-95)

Jab No.F301284.80 File No. SC-2 Owg. 2 of 2

Enfield, CT - Co-location on an Existing Tower						
Sprint Spectrum Directional PCS Antennas - 1957.5 MHz	at centerline 147' AGL	L - Existing				
Bell Atlantic Mobile Cellular Antennas - 875 MHz at centerline 137	rline 137' AGL - Existing	Du Du				
Nextel Communications Directional ESMR Antennas - 851 MHz at centerline 127' AGL - Proposed	MHz at centerline 127	7' AGL - Proposed				
AT&T Wireless Directional PCS Antennas - 1950 MHz at centerline 11	centerline 117' AGI - Pronosed	Proposed				
				Note: Power dens	Power densities are in mW/crh²	
			Total ERP	Centerline of	Power density	
Transmitter:	Frequency	CT Standard	per sector	Tx antennas	calculated at	
	in MHz	mW/cm²	(Watts)	AGL (ft)	the tower base	
	100	· ·	0.004	7	000000000	į
Sprint Specifulii - PCS	0.7081	2	1342	<u> </u>	0.022320069	
Sprint Spectrum - % of CT Standard					2.2320%	
Bell Atlantic Mobile - Cellular	875	0.58333	2000	137	0.038297192	
Bell Atlantic Mobile - % of CT Standard					6.5652%	
Nextel Communications - ESMR	851	0.56733	006	127	0.02005456	
Nextel Communications - % of CT Standard					3.5349%	
AT&T Wireless - PCS	1950	1.0	800	117	0.021003726	
AT&T Wireless - % of CT Standard					2.1004%	
Total % of CT and FCC Standard					14.4325%	
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**U**E - Breiner Wasdward **Clyde** 

A Division of URS Corporation

October 21, 1999

500 Enterprise Drive, Suite 38 Rocky Hill, CT 06067 Tel: 860.529.3882 Fax: 860.529.3991 Offices Worldwide

Mortimer A. Gelston Chairman Connecticut State Siting Council New Britain, CT 06051

Reference:

Proposed Telecommunications Facility

AT&T Site No. CT-157

Sprint PCS Site

Bright Meadow Boulevard Enfield, Connecticut F300001824.80

Dear Mr. Gelston:

URS Greiner Woodward Clyde (URSGWC) has prepared a Structural Analysis for the Sprint PCS monopole located on Bright Meadow Boulevard in Enfield, Connecticut. The Structual Analysis concluded that the existing monopole will support the additional loads of both Nextel and AT&T Wireless PCS antennas. This tower analysis was performed to the requirements of EIA/TIA-222-F.

Please call if there are any questions.

Sincerely,

URS/Greiner Woodward Clyde A.E.S.

Ignacio C. Artaiz, AIA

ICA/mks Enclosures

CC:

Carmen Chapman, AT&T

Ron Clark, Nextel

Christopher Fisher, Cuddy & Feder & Worby

Jennifer Young Gaudet, Pinnacle

D. Roberts, URSGWC

A. Abadjian, URSGWC