

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

SPRINT NEXTEL CORPORATION
APPLICATION FOR A CERTIFICATE
OF ENVIRONMENTAL COMPATIBILITY
AND PUBLIC NEED FOR THE
CONSTRUCTION, MAINTENANCE AND
OPERATION OF A TELECOMMUNICATIONS
FACILITY LOCATED AT 836 FOXON ROAD,
EAST HAVEN, CONNECTICUT.

DOCKET 331

AUGUST 10, 2007

PRE-FILED TESTIMONY OF ALEX MURILLO

Q.1. Please summarize your professional background in telecommunications.

A. My career in the wireless industry has spanned the past nine years. For the past four years, my responsibilities as a contractor for T-Mobile have included the design and integration of the T-Mobile wireless network. Prior to this period, I was responsible for the design, integration, optimization and management of network buildouts for commercial wireless carriers, including AT&T Wireless and Voicestream (T-Mobile's predecessor).

Q.2. What does your testimony address?

A. The purpose of my testimony is to provide information relating to T-Mobile's existing network in this area of the state and to describe the need for a proposed facility in the area. This includes information on the general design of T-Mobile's network and the technical constraints in selecting proposed facilities.

Q.3. Please describe T-Mobile's wireless network in Connecticut.

A. T-Mobile's predecessor entities began building a wireless network to provide PCS service in Connecticut in the mid 1990s. T-Mobile is licensed by the Federal Communications Commission to provide PCS service using frequencies in the 1900 MHz range. T-Mobile operates approximately 550 sites in Connecticut. Current efforts are directed to providing signal to areas without coverage and meeting demand for additional capacity within areas already served. Each new site must be chosen to meet the need for coverage and/or capacity without creating RF interference among sites.

Q.4. What requirements does the nature of wireless technology place on T-Mobile's selection of cell site locations?

A: Like all personal communications service providers, T-Mobile's wireless network is based on the principle of frequency reuse. Cell site locations must be chosen to provide for sufficient signal strength overlap to allow call hand-off between cells without creating unnecessary duplicative coverage and frequency interference. Terrain variations and local land use policies and development further limit cell site locations.

Technological advances in service, such as the availability of data and video services through customer handsets, are also significant factors in system development. Increased customer demand and expectations resulting from those advances drive the need for additional sites.

T-Mobile's required lower limit threshold is -84 dBm, which is expected to provide reliable in-vehicle coverage. A higher threshold level of -76 dBm is the

minimum required to provide reliable in-building coverage. At levels below the -84 dBm threshold, signal degradation would be expected to result in areas of unreliable service to T-Mobile customers for voice and data services. In addition, levels below -84 dBm would adversely affect T-Mobile's ability to provide reliable E-911 services as mandated by the federal government.

Q.5. Please describe T-Mobile's need for the proposed site.

A. The interrelationship between the proposed Site and T-Mobile's existing system (including recently approved but not yet on-air sites) is depicted in the propagation plots included as Exhibit 1. As shown, this proposed Site is needed primarily to provide new coverage along State Highway (Route) 80 and the surrounding area.

Q.6. How did T-Mobile analyze the proposed sites?

A. T-Mobile's RF engineers first utilized propagation prediction tools to determine the potential effectiveness of the proposed locations in meeting the identified coverage need. That analysis confirmed that the Site would provide signal within the coverage gap along Route 80 would improve service generally within the area. That analysis also revealed that an antenna center line of 87' would allow T-Mobile to achieve the coverage objective levels in this area. At 77' and below, the coverage along Route 80 starts to break apart and fall below the T-Mobile minimum required threshold of -84 dBm. Therefore, co-location on

the existing building, which is approximately 27 feet based on information provided by the Applicant, would not serve to fill T-Mobile's coverage gap.

Q.7. Please summarize the basis for the height of this proposed facility

A. Based upon the results of analysis conducted for the proposed East Haven facility, the minimum height required to fully cover the intended coverage objective is 87' AGL. At heights below 87' AGL, the coverage within the target area of Route 80, starts to fall below the required minimum T-Mobile coverage threshold of -84 dBm. A minimum height of 87' at the Site to locate T-Mobile's antennas, will allow T-Mobile to provide adequate coverage within the targeted portion of Route 80 and the surrounding area.

The statements above are true and complete to the best of my knowledge.

August 10, 2007



Date

Alex Murillo

Subscribed and sworn before me this ___ day of August, 2007.

By: _____
Notary