

DOCKET NO. 125 - An application of Metro Mobile CTS of Hartford, Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of cellular telephone antennas and associated equipment in the City of Middletown, Connecticut.

Connecticut

Siting

Council

April 9, 1990

#### OPINION

On September 28, 1989, Metro Mobile CTS of Hartford, Inc., (Metro Mobile), applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) to construct, operate, and maintain a cellular telecommunications facility, consisting of antennas and associated equipment to provide cellular telephone service from an existing building in the City of Middletown, Connecticut.

The public need for cellular telephone facilities has been determined by the Federal Communications Commission (FCC) which pre-empts a determination of public need by state regulatory agencies. Under Connecticut law, the Council must balance the need to develop the proposed site as a cellular telephone facility with the need to protect the environment, including public health and safety.

In locating a proposed facility site, an applicant must determine if a new site or an existing tower to share is capable of providing the necessary coverage, would not have a substantial effect on the environment, and would be adequately distant from wetlands, public recreation areas, and adjacent homes. Because Metro Mobile does not have the legal authority to obtain land through eminent domain, acquisition of a site requires consent of the property owners to lease or sell the property. These requirements restrict the number of potential facility sites within a defined search area.

The proposed site would operate as a secondary cellular facility located between two existing primary cellular facilities in Portland and Rocky Hill, Connecticut. The future cellular service demand is expected to exceed the call-handling capabilities of these two facilities in 1990. The proposed Middletown facility would provide additional, call-handling capacity overlapping these existing cells for the continuous transfer of calls through the Portland and Rocky Hill area, thereby expanding service, improving signals, and decreasing interference and dropped calls.

The proposed equipment would be located in a room on the mechanical level of the existing Middlesex Mutual Assurance Company building, 213 Court Street, Middletown. Six eleven-inch by twenty-inch panel-type receive/transmit antennas would be affixed to the vertical section of the building's copper roof at 177 feet above ground level. Two omnidirectional six and a half-foot long by two inches in diameter whip signal processing transmit antennas would be located on the top part of the roof, 207 feet above ground level and adjacent to a beacon required by the Federal Aviation Administration. The panel antennas would be attached to a two-to three-foot facade set back two to three feet from the vertical section of the building's copper dome. Access to the building would be over an existing driveway and parking lot.

The most significant effect that might result from the proposed antennas would be from visibility. However, the proposed antennas would be difficult to see from surrounding areas from which the roof's facade and beacon are now visible. Visibility would be further reduced by painting the antennas to match the surface of the roof's mounting area.

Electromagnetic radio frequency power density is a health and safety concern of the Council. However, the electromagnetic radio frequency power density from the proposed antennas, as measured at street level at the base of the building, and assuming all 90 channels were operating simultaneously at maximum allowable power, was calculated at 0.0399 milliwatts per square centimeter ( $\text{mW}/\text{cm}^2$ ), well below the American National Standards Institute (ANSI) safety standard of 2.92  $\text{mW}/\text{cm}^2$ , as adopted by the State of Connecticut by Connecticut General Statute 22a-162. The power density would rapidly decrease as distance from the antenna increased. The distance from the nearest residence to the antennas is about 239 feet. The power density at that distance for maximum allowable output would be 0.0221  $\text{mW}/\text{cm}^2$ . Due to the shielding effects of the building's structural composition, the power density on the uppermost occupied floor (12th floor) of the building would be 0.0005  $\text{mW}/\text{cm}^2$  at a distance of 20 feet directly below the antennas.

Metro Mobile considered six sites for the proposed facility, rejecting five for various reasons including existing tower structures which would be physically incapable of supporting cellular antennas, and buildings which were either unavailable or physically unacceptable. Metro Mobile consulted with City of Middletown officials regarding potential facility sites. No alternate sites were proposed by these City officials who suggested the proposed building would be a suitable site.

No wetlands or water courses exist at the proposed site.

The proposed site would have no significant impact on rare or endangered species or areas of historical significance. The Council has identified no adverse visual, health, or environmental impacts that would result from the installation and operation of the facility. The Council finds that the installation of the facility in and upon an existing building would have much less environmental and visual impact than the construction of a new tower at any other location.

Based upon its record in this proceeding, the Council opines that the effects associated with the construction, operation, and maintenance of a cellular site and associated equipment at the proposed site, including the effects on the natural environment, ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not significant either alone or cumulatively with other effects, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny this application.

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