DOCKET NO. 121 - An application of SNET Cellular, Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, operation, and maintenance of a cellular telephone tower and associated equipment in the Town of Stonington, Connecticut.	:	CONNECTICUT SITING COUNCIL February 15, 1990

FINDINGS OF FACT

1. SNET Cellular, Inc. (SNET) in accordance with the provisions of Sections 16-50g to 16-50z of the Connecticut General Statutes (CGS) applied to the Connecticut Siting Council on September 27, 1989, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a telecommunications tower and associated equipment to provide domestic public cellular radio communication service (cellular service) in the Town of Stonington, Connecticut within the New London New England County Metropolitan Area (New London NECMA). (Record)

2. The Council and its staff made an inspection of the proposed and alternative Stonington sites on November 14, 1989. This inspection was publicly noticed in the New London Day and the Hartford Courant. During the field review, SNET flew ballons at the proposed and alternative tower sites. (Record)

3. Pursuant to Section 16-50m of the CGS, the Council, after giving due notice thereof, held a public hearing on the proposed and alternative tower sites on November 14, 1989, beginning at 3:00 P.M. and continuing at 7:00 P.M. the same day, in the auditorium of the Stonington High School, Stonington, Connecticut. (Record)

4. The parties to the proceeding are the applicant and those persons and organizations whose names are listed in the Decision and Order which accompanies these Findings of Fact. (Record)

5. Cellular service consists of small, overlapping broadcast regions, two to ten miles in diameter, known as cells. Each cell is limited by the Federal Communications Commission (FCC) to no more than 100 watts

effective radiated power per channel. The proposed cell can accommodate a maximum of 45 cellular channels. Each cell is connected to a central switching point containing electronic apparatus uniting the cells into a system. (SNET 1, Section II, p. 2; SNET 1, Section VI, p. 25.)

6. The FCC has determined that the public interest requires two licenses for cellular service be made available in each market of each NECMA. (SNET 1, p.3)

7. In 1981, the FCC recognized a national need exists for technical improvement, wide area coverage, high quality service, and competitive pricing in mobile telephone service. (SNET 1, Section III, pp. 1-3)

8. The FCC has pre-empted State regulation in determining that a public need currently exists for cellular service, setting technical standards for that service, and establishing a competitive market. (SNET 1, Section III, pp. 3-4)

9. The FCC granted SNET authorization to provide cellular service for the New London NECMA on July 25, 1986, and issued an operating license for the New London NECMA on May 27, 1987. (SNET 1, p.4)

10. As part of SNET's overall system, the proposed site in the Town of Stonington is planned to overlap with existing cellular coverage to the north from the existing SNET North Stonington site, to the west in the existing Waterford site, and would provide future hand-off with a NYNEX site in Rhode Island. (SNET 1, Section II, p. 32)

11. The coverage from the proposed Stonington tower site would include Routes 1, 27, 184, and I-95 within the towns of Stonington, Pawcatuck, and portions of Mystic, while filling in existing areas of weak coverage from the North Stonington site. (SNET 1, pp.4-5; SNET 1, Section II, p. 2; SNET 2, Q.4)

12. The SNET cellular sites on the eastern Connecticut border are designed to operate without interference with NYNEX sites in Rhode Island. SNET and NYNEX do not plan to use directional antennas. (SNET 2, Q.5)

13. The proposed Stonington site is located adjacent to an existing SNET Central Office equipment building 100 feet from Pequot Trail south of Route I-95. The property is owned by SNET and zoned RR-80 Rural Residential. (SNET 1, Section VI, pp. 15-16, p.30)

14. The SNET property on which the 15-foot by 15-foot cell site would be constructed measures 300 feet by 212 feet. (SNET 2, Q. 12)

15. The elevation of the proposed site is 145 feet above mean sea level (AMSL). (SNET 1, Section VI, p. 16)

16. Access to the proposed site would be via an existing paved driveway from Pequot Trail. Existing underground utility services to the existing building would be used. (SNET 1, Section VI, p. 16)

17. SNET proposes to construct a 130-foot monopole adjacent to the existing SNET one-story equipment building. The cellular antennas would add 17 feet to the overall height of this tower structure. SNET also plans to mount a cellular message alert antenna on this tower. The total height of the tower structure, including antennas, would be 150 feet. (SNET 1, Section V, p.5; SNET 1, Section VI, p. 13, p. 30)

18. The alternative Stonington cell site is located on the north site of Route I-95, on Taugwank Spur off of Taugwank Road. The alternative site is 1300 feet to the northwest of the proposed Stonington site. (SNET 1, Section VII, p.2)

19. The alternative site is owned by D'Amato Brothers Builders, and is within an M-2 Manufacturing Park Zoning district. (SNET 1, Section VII, p.2)

20. The elevation of the alternative site is 125 feet AMSL. SNET proposed to construct a 150-foot monopole at the alternative site. Signal propagation for this location would be the same as for the proposed Stonington site. (SNET 1, Section VII, p.6, p.13)

21. The alternative site is adjacent to a newly constructed multi-tenant storage building. An existing access roadway and parking area would be used to access the alternative site. Existing utilities to the building on the alternative site would be used. (SNET 1, Section VII, p.6)

22. The antennas which would be attached to the top of the monopole would add 17 feet to the overall height of the tower structure. SNET also plans to mount a cellular message alert antenna at the alternative site. The total height of the tower structure at the alternative site, including antennas, would be 170 feet. (SNET 1, Section V, p.5)

23. The only exterior work required at the alternative site would be the installation of the tower. The area required for the tower is level and has been cleared. Grading would be required after the tower foundation is complete, to restore the grade to its pre-construction contour. (SNET 2, Q. 8)

24. A storm drainage pipe which presently crosses the septic leeching fields at the alternative site is located above the leeching field. The storm drain could be relocated around the base of the alternative tower and reconnected to an existing drainage line. Manholes 48 inches in diameter would be installed at the two points of direction change. Therefore, there would be no need to disturb the existing leeching field. (SNET Late File 4)

25. The owner of the alternative site has plans to develop the remainder of the site to the west, so the tower site could not be moved farther to the west to take Taugwank Spur and the existing building on the site out of the fall zone. (Tr., pp. 26-28, p. 58)

26. There are no inland wetlands on either the proposed or alternative Stonington sites. The proposed site is approximately 70 feet from the nearest wetlands. The alternative site is approximately 250 feet from the nearest wetlands. (SNET 2, Q. 10; Tr., p. 22)

27. The William Woodbridge House appears eligible for the State and National Registers of Historic Places. The proposed tower site is approximately 240 feet from this house, and the alternative site is approximately 1300 feet from it. (Tr., p. 20; SNET 1, Section VII, p. 4)

28. According to the State Historic Commission, the construction of the proposed tower on Pequot Trail would not adversely affect the historical and architectural ambiance of the William Woodbridge House. The State Historic Commission would, however, prefer construction of the tower at the alternative site on Taugwank Spur. The State Historic Commission states that the construction of a tower at the alternative site would have no effect on the State's cultural heritage. (SNET 2, Q. 3, p.6)

29. The proposed tower would be visible from the cul-de-sac on Taugwank Road, from the intersection of Taugwank Road and Pequot Trail, from the intersection of Runnymede Road and Pequot Trail, and from the intersection of Farm Holme Road and Pequot Trail. The alternative tower would not be visible from these locations. The alternative tower would be visible from Taugwank Spur, Taugwank Road, and Route 395. (SNET 2, Q. 2, pp. 1-11)

30. There are no existing populations of federally endangered or threatened species or Connecticut species of special concern occurring at the proposed or alternative Stonington sites. (SNET 2, Q. 6, p. 2)

31. SNET filed a notice of proposed construction for the proposed and alternative Stonington tower sites with the Federal Aviation Administration (FAA) on September 13, 1989. (SNET 1, Section VI, p.30)

32. The tower at the proposed or alternative site would be painted a mixed blue-grey color. The top of the monopole would support a triangular shaped structure to which omnidirectional whip antennas would be attached. (SNET 1, Section V, p. 3)

33. The cellular antennas would be 12 feet long and three inches in diameter. A minimum of four and a maximum of six antennas would be attached to the top of the tower. (SNET 1, Section V, p. 5)

34. The monopole would be designed to withstand 125 mile per hour winds while covered with two inches of radial ice. (SNET 1, Section V, p. 3)

35. A fence would be installed around the base of the monopole. (SNET, Section V, p. 2)

36. An equipment building would not be constructed at the proposed or alternative sites. Four hundred square feet of office space within the existing SNET Central Office building would house the required radio equipment at the proposed site. At the alternative site, SNET would use a 20-foot by 40-foot garage-style storage unit within an existing multi-tenant building to house its radio equipment. (SNET 1, Section I, p. 2)

37. Based on conservative assumptions, the worst case electromagnetic radio frequency power density (power density) level would be 0.15210 mW/cm^2at the base of the proposed tower. The power density level at the base of the alternative tower would be 0.11624 mW/cm^2. The American National Standards Institute (ANSI) safety standard for the proposed frequency is 2.933 mW/cm^2. (SNET 1, Section VI, p. 25; SNET 1, Section VII, p. 7)

38. The General Assembly has directed that the Commissioner of the Department of Environmental Protection shall by regulation adopt the standards recommended by the ANSI with respect to human exposure to radio frequency electromagnetic fields. (CGS 22a - 162 (a))

39. SNET evaluated the use of an existing 190-foot tower in North Stonington on which SNET has cellular antennas attached at the 135-foot and 165-foot levels. This tower is 5.7 miles from the proposed and alternative Stonington cell sites. At this

distance, signal strength would not be sufficient to meet SNET's design for consistency, quantity, and quality of coverage. A 300-foot tower at the North Stonington site would not provide adequate coverage to sections of Route 1 in the southeastern portion of Stonington. Additionally, interference with NYNEX cell sites on Long Island is a possibility. (SNET Late File 6)

40. Facility costs at the proposed Stonington tower site are estimated as follows:

Radio equipment	$119,500.00
Antenna equipment and tower	50,000.00
Power and Common equipment	170,670.00
Land and building	45,000.00
Miscellaneous (including site Preparation and Installation)	70,400.00
Total Cost	$455,570.00

(SNET 1, Section VI, p. 26)

41. Facility costs at the alternative Stonington tower site are estimated as follows:

Radio equipment	$119,500.00
Antenna equipment and tower	57,000.00
Power and common equipment	170,670.00
Land and building	52,000.00
Miscellaneous (including site preparation and installation)	70,400.00
Total Cost	$469,570.00

(SNET 1, Section VI, p. 8)