DOCKET NO. 136 - 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 Plainfield, Connecticut.	Connecticut Siting Council September 26, 1990

Findings of Fact

1. SNET Cellular, Inc. (SCI), in accordance with provisions of section 16-50g to 16-50z of the Connecticut General Statutes (CGS) applied to the Connecticut Siting Council (Council) on May 4, 1990, for a Certificate of Environmental Compatibility and Public Need for the construction, operation, and maintenance of a telecommunications tower, associated equipment, and building to provide domestic public cellular radio service (cellular service) in the Town of Plainfield, Connecticut, within the Windham County Rural Service Area (RSA). (Record)

2. Pursuant to section 16-50m of the CGS, the Council, after giving due notice thereof, held a public hearing on this application on July 10, 1990, at 3:30 p.m. and continued at 7:00 p.m. in the Plainfield Town Hall in Plainfield, Connecticut. (Record)

3. Affidavit of newspaper notice as required by CGS section 16-50l was supplied by the applicant. Newspaper notice of this application was published twice in the Norwich Bulletin. (SCI I, section I, pp. 5 and 6)

4. The Council and its staff inspected the proposed site on July 10, 1990. During the field review SCI flew a balloon at the proposed site to simulate the height of the proposed tower. (Record)

5. The only party to the proceeding is the applicant. (Record)

6. The Department of Environmental Protection (DEP) filed written comments with the Council pursuant to CGS section 16-50j. (Record)

7. An application by SCI proposing construction and operation of two cellular facilities in the Windham County RSA was submitted to the Council on September 29, 1989. On November 22, 1989, the Council ruled to dismiss this application without prejudice until such time as SCI receives the necessary FCC licenses to construct and operate in the Windham County RSA. (Docket 127 Record)

8. On October 5, 1989, the Federal Communications Commission (FCC) issued a public notice accepting SCI's application in the Windham County RSA for filing. As of April 6, 1990, all requirements were met pursuant to 47 USC Statute 22.43(d) allowing SCI to proceed in constructing cellular sites as the wireline carrier of cellular service in the Windham County RSA. (SCI section I, p.3; section IV, p.2, and Chapman Testimony)

9. Applicants for cellular licenses are not required to demonstrate a public need for cellular service as the FCC has determined the need and has an objective to establish nationwide service. (SCI I, p.3 and section III, p.3)

10. The FCC preempts state regulation of cellular systems in three major areas: technical standards, market structure, and state certification prior to federal ruling. (SCI I, section III, p.4)

11. The system design of cellular technology provides frequency reuse and handoff which is capable of an orderly and compatible expansion. (SCI I, section II, p.6)

12. The FCC has allocated 832 channels of a frequency spectrum in the 870-890 MHz band. In the public interest of competition the FCC awarded half of the channels to a "wireline" carrier and the other half to a "non-wireline" carrier. (SCI I, p.3, and section IV, p.8)

13. Cellular service consists of small overlapping broadcast regions, two to ten miles in diameter, known as cells. Each cell is served by a transmitter limited by the FCC to no more than 100 watts per channel in metropolitan areas and 500 watts per channel in RSAs. Each cell would be connected to a central switching facility uniting the cells into a system. (SCI I, pp.1-4)

14. The FCC allows a transmit power of 500 watts per channel and towers up to 500 feet in RSAs to economically provide service to large geographical areas with lower population densities. (SCI I, section III, p.4 and Transcript p.20)

15. SCI chose not to increase transmitting power from 100 watts per channel to 500 watts per channel as authorized by the FCC because wattage of this magnitude would cause interference between SCI sites in Connecticut and with NYNEX sites in Massachusetts, Rhode Island, and Long Island, New York. (Transcript pp. 20, 57, and 58)

16. The proposed site would be designed to operate a maximum of 45 channels. However, digital technology, expected to be available by 1992, would increase the number of channels within the existing frequencies from 45 channels to 135 channels. The change from analog technology to digital technology would not require larger buildings or taller towers. Existing cell sites would continue to provide analog service. (Transcript pp.68-71; SCI III, Q.11)

17. SCI considered eight sites, rejecting seven, to provide cellular coverage in the Plainfield area. Reasons for rejection were low elevation, inadequate coverage, inability to lease property, and potential visibility to sensitive areas within the Town of Plainfield. (SCI I, section VI pp.4-6)

18. SCI proposes to construct, operate, and maintain a 150-foot tower plus antennas and a 12-foot by 26-foot equipment building on property owned by Margaret and Florinda Credie off Spaulding Hill Road in Plainfield, Connecticut. (SCI I, section VI, p.1)

19. The proposed site would be a 273-foot by 450-foot leased parcel 335 feet west of Spaulding Hill Road, within a 67 acre parcel of property. (SCI I, section VI, p.3; SCI III, Q.14)

20. The elevation at the proposed site is 559 feet above mean sea level (AMSL) within a level, wooded area with heavy understory growth. (SCI I, section VI, p.16; SCI III, Q.14)

21. The proposed site would provide primary coverage to Route I-395 in addition to Routes 12, 14, 14A, 49, 169, and 205 within the Towns of Plainfield and Canterbury as well as portions of the Towns of Sterling and Brooklyn. (SCI I, section VI, p.1)

22. The proposed Plainfield site is planned to overlap coverage with adjacent cell sites in Lisbon and Brooklyn. Cell sites in Ashford, Thompson, and, eventually in the Pomfret area would also provide cellular coverage to Windham County. (SCI I, section VI, p.2; SCI III, Q.6; and Transcript P.41)

23. A structure supporting four cellular antennas would be attached to the top of the proposed 150-foot monopole adding 17 feet to the overall height. Total height from the pedestal foundation to the top of antennas would be 167 feet AGL. Cellular coverage would be significantly reduced if the tower's height were lower than 150 feet at the proposed site. Topographic features to the west and east would absorb and block radio transmission at lower tower heights. (SCI I section VI, p.11; SCI III, Q.7; Transcript pp.52 and 53; SCI I, section V, p.5; Transcript p.30)

24. The proposed monopole would be designed to withstand 125 mile-per-hour winds with 2-inches of radial ice. (SCI I, section V, p.4)

25. The proposed tower has a load capacity design that could support additional users. (Transcript p.39)

26. The proposed cell site location is in a R-60 residential zoned area. (SCI I, section VI, p.24)

27. There are no wetlands on the proposed site or access road. (SCI III, Q.10)

28. A new 370-foot gravel driveway would be constructed to the site from Spaulding Hill Road. Utilities would be brought underground to the proposed "pre-fab" equipment building. (SCI I, section VI, p.16)

29. The "pre-fab equipment building" is an insulated concrete-skinned structure with factory installed electrical and mechanical air conditioning systems. (SCI III, Q.9)

30. The proposed cell site would not require a permanent on-site technician. SCI would make occasional visits for preventative maintenance and snowplowing. (SCI I, section VI, p.20; Transcript p.49)

31. The fall zone of the proposed tower would be within the landowner's property. The only building within the fall zone would be SCI's equipment building. (SCI I, section VI, p.17)

32. There would be seven homes within a 2,000 foot radius of the proposed tower. The nearest home would be approximately 450 feet to the north. (SCI III, Q.8)

33. The proposed tower could be moved approximately 70 feet south and 100 feet west within the leased parcel. This would lessen the visibility of the proposed tower from adjacent property owners. (SCI III, Q.3; Transcript pp. 44, 45, & 87)

34. Based on conservative assumptions, with all channels operating simultaneously at maximum power, the worst case electromagnetic radio frequency power density level would be 0.01927 milliwatts per square centimeter (mW/cm^2) at the base of the proposed tower and 0.00221 mW/cm^2 at the nearest residence. The American National Standards Institute (ANSI) safety standard for the proposed frequency level, 880-890 MHz, as adopted by the State of Connecticut pursuant to DEP regulations, is 2.933 mW/cm^2. (SCI I, section VI, p.25; Transcript P.91)

35. After construction, water quality on and around the proposed site would remain unchanged and the facility would not use or discharge any water. Also, air quality would not be affected as the site would be served electrically and no permanent emergency generators would be on site. (SCI I, section VI, p.19; Transcript p.28)

36. There are no known extant populations of federally endangered and threatened species or Connecticut "species of special concern" occurring at the site. (SCI I, section VI, p.22; DEP letter dated 2/27/90)

37. Two proposed historic districts are located in Plainfield. The proposed Central Village historic district is located at the intersection of Route 12 and 14, approximately 3.5 miles north-northwest from the proposed cellular site. The proposed Plainfield historic district would be located along Route 12 between Route 14A and Railroad Avenue, approximately 1.9 miles west of the proposed cellular site. According to the Connecticut Historical Commission, the proposed cellular tower would have no affect on the State's historic, architectural, and archeological resources. (SCI I, section VI, p.24; SCI III, Q.5, pp.3, 7, 9, & 10)

38. The Pachaug State Forest is adjacent to the proposed cell site. The proposed tower would not affect any State park or recreation programs. (SCI,I, section VI, pp.14 and 24)

39. The estimated construction cost to be incurred by SCI is as follows:

Radio equipment	$179,515
Antenna equipment and tower	$ 57,000
Power and associated electrical equipment	$170,670
Land and building	$225,000
Miscellaneous	$ 70,400
Total	$702,585

(SCI I, section VI, p.26)

40. The Town of Plainfield requested SCI to consider a site off Gendron Road, which was originally proposed by SCI in the Council's Docket 127. This site was dropped as the prime site after the Council dismissed Docket 127, and SCI began consulting the Town for its input in the site selection process. The Council and its staff reviewed this site off Gendron Road on July 10, 1990. (SCI II; SCI III, Q.16; Record)

41. The Gendron Road site would be approximately 1,000 feet east of Gendron Road on a 1.6-acre portion within a 114 acre parcel of land zoned R-60 residential. Elevation of this site would be approximately 535 feet AMSL. (SCI III, Q.16; SCI IV, Q.3)

42. There are 19 homes within a 2,000-foot radius of the Gendron Road site. The nearest home is approximately 950 feet away. A planned subdivision would add an additional 31 homes within the 2,000-foot radius. (SCI IV, Q.6)

43. An access road approximately 1,100 feet long would be constructed to the Gendron Road site. Approximately 380 feet would require clearing of the property owner's woodland for this access road. No wetlands are on the access road or site. (SCI IV, Q.7)

44. There are no known extant populations of federally endangered and threatened species or Connecticut "species of special concern" occurring at the Gendron Road site. (SCI IV, Q.4)

45. According to the Connecticut Historical Commission, the Gendron Road site would have no affect on historic, architectural, and archaelogical resources. (SCI IV, Q.4)