

DOCKET NO. 316 – Optasite, Inc. application for a Certificate } Connecticut
of Environmental Compatibility and Public Need for the }
construction, maintenance and operation of a telecommunications } Siting
facility at 50 Fairchild Road in Middletown, Connecticut. }
} Council

November 14, 2006

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility including 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 disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Optasite, Inc. for the construction, maintenance and operation of a wireless telecommunications facility to be located at 50 Fairchild Road in Middletown, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be designed as a monopole and shall be constructed no taller than 120 feet above ground level to provide telecommunications services to both public and private entities.
2. All telecommunications antennas providing cellular and/or PCS service shall be flush-mounted to the tower.
3. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the City of Middletown and all parties and intervenors, as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, tower color, antenna mountings, equipment building, access road, utility line, and landscaping; and
 - b) construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted to the Council in the event other carriers locate at this facility or if circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
5. Upon the establishment of any new state or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any City of Middletown public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
8. If the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.
9. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
10. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.
11. Any request for extension of the time periods referred to in Conditions 8, 9, and 10 shall be filed with the Council not later than sixty days prior to the expiration date of this Certificate and shall be served on all parties and intervenors and the City of Middletown, as listed in the service list. Any proposed modifications to this Decision and Order shall likewise be so served.

12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Middletown Press.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors in this proceeding are:

| Status Granted | Status Holder (name, address & phone number) | Representative (name, address & phone number) |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant | Optasite, Inc. | Lucia Chioocchio, Esq. Cuddy & Feder, LLP 90 Maple Avenue White Plains, NY 10601 (914) 761-1300 (914) 761-5372/6405 fax lchioocchio@cuddyfeder.com Jennifer Young Gaudet 345 Taylor Street Talcottville, CT 06066 |
| Intervenor (approved 06/27/06) | Nextel Communications of the Mid-Atlantic, Inc. | Thomas J. Regan, Esq. Brown Rudnick Berlack Israels LLP 185 Asylum Street, CityPlace I Hartford, CT 06103-3402 (860) 509-6522 (860) 509-6501 tregan@brownrudnick.com mkozlik@brownrudnick.com |
| Intervenor (granted 07/27/06) | Barbara Melia 379 Bow Lane Middletown, CT 06457 (860) 346-4334 bardebdave@yahoo.com | |
| Intervenor (granted 07/27/06) | Debora Bagley and Michael Bagley 393 Bow Lane Middletown, CT 06457 (860) 346-5373 | |
| Intervenor (granted 07/27/06) | Earle Roberts 785 Bow Lane Middletown, CT 06457 (860) 346-0068 (860) 344-9327 eroberts4675@sbcglobal.net | |

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Opinion

On June 2, 2006, Optasite, Inc. (Optasite) applied to the Connecticut Siting Council (Council) for the issuance of a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility at 50 Fairchild Road in Middletown, Connecticut. The applicants sought to develop a facility in the southwestern corner of a 23.3 acre parcel owned by Stephen and Barbara Borelli. Nextel Communications of the Mid-Atlantic, Inc. (Nextel) joined this proceeding as an intervenor and would serve as Optasite's anchor tenant for the proposed facility. This location would enable Nextel to provide additional capacity and improve its reliability and service in the southeastern portion of Middletown. Other intervenors included Barbara Melia, Earle Roberts, and Debora and Michael Bagley, who are residents of the area in which the facility was proposed. Barbara Melia and Debora and Michael Bagley did not participate in the public hearing.

At the proposed location, Optasite would erect a 120-foot steel monopole within a 70-foot by 70-foot compound enclosed by an eight-foot high chain link fence. The monopole would be designed to accommodate four carriers. If the tower were to be extended to 150 feet, it could accommodate three additional sets of antennas. Access to the facility would be over an existing driveway for a distance of approximately 527 feet and then along a new gravel driveway that would follow an existing wood path. Utilities would follow the access drive. They would extend overhead for a distance of 400 feet and then continue underground the rest of the distance to the facility.

The tower's setback radius would be completely contained within the Borelli property if the tower were to be built 120 feet high. Any extension of the tower would push the radius onto adjacent properties.

The proposed tower would be visible year-round from approximately 119 acres, most of which are located in the vicinity of Bow Lane. The tower would be seasonally visible from approximately 67 acres. Approximately 16 residences would have partial year-round views of the tower; 38 residences would have seasonal views of the tower.

There was much discussion about whether or not the proposed tower should be a "brown stick," a low-profile design intended to minimize visual impact. The conclusion of this discussion was that it was preferable to mount the antennas in a way that would create less of a profile than the platform mounting preferred by Nextel. Flush-mounted antennas were deemed to be an acceptable way to achieve this lower profile.

A total of 14 trees with a diameter at breast height of six inches or more would be removed to develop this facility. The nearest wetland to the site of the proposed facility is 26 feet to the south of the compound's location. Soil and erosion controls would be installed before the start of construction and would be maintained during construction to protect the wetland from sedimentation.

There are no known extant populations of Federal Endangered or Threatened species or State Endangered, Threatened or Special Concern Species at Optasite's proposed site. The proposed project would have no effect on Connecticut's archaeological heritage.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of the antennas proposed to be installed on the tower have been calculated to amount to 4.4% of the FCC's Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal and state standards established for the frequencies used by wireless companies. If federal or state standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, operation, and maintenance of the proposed telecommunications facility, including 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 disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, operation, and maintenance of a 120-foot monopole tower on which antennas, cellular and PCS, shall be flush-mounted at the proposed site at 50 Fairchild Road in Middletown, Connecticut.

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Findings of Fact

Introduction

1. Pursuant to Chapter 277a, Sections 16-50g et seq. of the Connecticut General Statutes (CGS), as amended, and Section 16-50j-1 et. seq. of the Regulations of Connecticut State Agencies (RCSA), Optasite, Inc. (Optasite) applied to the Connecticut Siting Council (Council) on June 2, 2006 for the construction, operation, and maintenance of a telecommunications facility to be located at 50 Fairchild Road in the City of Middletown, Connecticut. (Optasite 1, p. 1)
2. Nextel Communications of the Mid-Atlantic, Inc. (Nextel) would serve as Optasite's anchor tenant at this facility, which would enable Nextel to increase the reliability of existing service within the City of Middletown and the Town of Portland along State Routes 9, 66, and 17, as well as in adjacent commercial and residential areas. (Optasite 1, p. 1)
3. Nextel is licensed by the Federal Communications Commission (FCC) to provide wireless services in the State of Connecticut. (Optasite 1, p. 7)
4. Optasite is a Delaware corporation with offices at One Research Drive, Suite 200C, Westborough, Massachusetts. It will construct and maintain the proposed facility. Optasite does not conduct any business in the State of Connecticut other than the provision of tower facilities and services to personal communications services carriers. (Optasite 1, p. 3)
5. The party in this proceeding is the applicant, Optasite. Intervenors are Nextel Communications of the Mid-Atlantic, Inc., Barbara Melia, Earle Roberts, and Debora and Michael Bagley. (Transcript, September 12, 2006, 3:00 p.m. [Tr. 1], pp. 5-6)
6. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on September 12, 2006, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Middletown High School in Middletown, Connecticut. (Tr. 1, p. 3 ff.)
7. The Council and its staff conducted an inspection of the proposed site on September 12, 2006, beginning at 2:00 p.m. During the field inspection, the applicant flew a balloon from 11:45 a.m. to 7:00 pm. The winds were very low, and visibility was excellent. Because of difficulty getting the balloons through the tree cover, the balloon was flown approximately 25 feet from the proposed location of the tower. (Tr. 1, pp. 13-14)

8. In accordance with CGS § 16-50/(b), Optasite's notice of intent to submit this application was published on May 31 and June 1, 2006 in The Middletown Press. (Optasite 2, Response 4)
9. In accordance with CGS § 16-50/(b), Optasite sent notices of its intent to file an application with the Council to each person appearing of record as owner of property abutting the proposed site. (Optasite 1, p. 4; Attachment 9)
10. Optasite did not receive return receipts from the owners of two abutting properties. One of the owners from whom notice was not received is Barbara Melia, who is an intervenor. A return receipt was not received from Stephen and Barbara Borelli, who are the owners of the property on which this site is proposed. (Optasite 2, Response 2)
11. Pursuant to CGS § 16-50/(b), Optasite sent copies of its application to the following municipal, regional, state, and federal agencies and officials: Connecticut Attorney General; Department of Environmental Protection; Department of Public Health; Council on Environmental Quality; Department of Public Utility Control; Office of Policy and Management; Department of Economic and Community Development; Department of Transportation; Midstate Regional Planning Agency; Thomas P. Gaffey, State Senator from the 13th Senatorial District; Biagio Ciotto, State Senator from the 9th Senatorial District; Raymond Kalinowski, State Representative from the 100th Assembly District; Gail Hamm, State Representative from the 34th Assembly District; Federal Aviation Administration; Federal Communications Commission; Sebastian Giuliano, City of Middletown Mayor; Wayne Bartolotta, Middletown Central Communications Chief Communications Officer; William Warner, Middletown Planning, Conservation, and Development Director; Barbara Plum, Middletown Planning and Zoning Commission Chair; Annabel Resnisky, Middletown Zoning Board of Appeals Chair; Sandra Hutton, Middletown Town Clerk; Sheila Stone, Middletown Conservation Commission Chair; and Joe Carta, Middletown Inland Wetlands and Watercourses Agency Chair. (Optasite 1, p. 4; Attachment 7)

State Agency Comment

12. Pursuant to CGS § 16-50/, the Council solicited comments on Optasite's application from the following state departments and agencies: Department of Environmental Protection, Department of Public Health, Council on Environmental Quality, Department of Public Utility Control, Office of Policy and Management, Department of Economic and Community Development, and the Department of Transportation. The Council's letter requesting comments was sent on August 9, 2006. (CSC Hearing Package dated August 9, 2006)
13. The Council received a letter from the State Department of Mental Health and Addiction Services (DMHAS) informing it that the Connecticut Valley Hospital (CVH) possesses easement rights across the Borelli property. The easement is for water distribution pipes that cross the Borelli property from the water treatment plant on the Hospital grounds. The letter stated that the Hospital must review the location of the proposed facility to ensure the project does not disrupt the CVH water distribution system. (Letter from DMHAS dated June 1, 2006)

14. The proposed facility would not disturb the water distribution pipes crossing the Borelli property. Utilities would be brought to the facility overhead across the CVH easement and then underground to avoid any potential disruption of the water pipes. (Optasite 4; Tr. 1, pp. 38-39)
15. The Council received a letter from the Department of Transportation stating that it had no comments on this docket. (Letter from DOT dated September 14, 2006)
16. With the exception of the Department of Mental Health and Addiction Services and the Department of Transportation, no state agency submitted comments on this application. (Record)

Municipal Consultation

17. On January 26, 2006, Optasite submitted a letter and a technical report to the Mayor of Middletown to introduce the proposed facility to city officials. The letter invited city officials to discuss any questions they had about the facility. (Optasite 1, p. 17)
18. The Middletown Planning and Zoning Commission reviewed Optasite's technical report at a meeting held on February 22, 2006. Subsequent to this meeting, Middletown's director of planning sent Optasite a letter summarizing the commission's findings. The commission found Optasite's proposal to be in general conformance with the city's zoning regulations with the following noted exceptions: the proposed site would be in a least preferred location because it is a new tower in a residential zone; the tower exceeds the zoning regulations' height limitation of 108 feet, although the tower is 20 feet shorter than the average height of the existing towers in Middletown; and the proposed tower would not conform to a 187.5 foot setback requirement. The commission further felt the tower should be developed with materials and colors that would blend into the landscape. (Optasite 1, Attachment 6)
19. At the public hearing for this application, the Mayor of Middletown, Sebastian Giuliano, stated the city's support for this proposal, in part, because the city uses Nextel for its cell phone service and this facility would enhance the city's service. (Tr. 1, p. 7)
20. The City of Middletown would be amenable to antennas flush mounted on the exterior of the monopole. (Tr. 1, p. 30)

Public Need for Service

21. The United States Congress, through adoption of the Telecommunications Act of 1996, recognized the important public need for high quality telecommunication services throughout the United States. The purpose of this Act, which was a comprehensive overhaul of the Communications Act of 1934, was to "provide for a competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies to all Americans." (Optasite 1, pp. 4-5)

22. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice, Telecommunications Act of 1996)
23. The Telecommunications Act of 1996 prohibits local and state bodies from discriminating among providers of functionally equivalent services. (Council Administrative Notice, Telecommunications Act of 1996)
24. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 (the 911 Act). The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Optasite 1, pp. 6)
25. The proposed facility would be an integral component of Nextel's E911 network. (Optasite 1, p. 7)
26. The City of Middletown would like to reserve the right to locate antennas and equipment at the proposed site at some point in the future. (Tr. 1, p. 23)
27. Optasite would be willing to provide space on its tower for the City of Middletown's public safety communications antennas free of charge. (Optasite 1, p. 9)

Site Selection

28. Nextel released its own search ring for the area within which the proposed site is located in September of 2004. (Nextel 1, Interrogatory Response 15)
29. Optasite became aware of Nextel's need for a facility in this area through ongoing talks that are part of Optasite's relationships with the carriers serving Connecticut. (Tr. 1, pp. 20ff.)
30. Optasite identified seven towers within approximately four miles of its site search area. Nextel has antennas on six of these towers. (Optasite 1, p. 8)
31. There is a tower on River Road used by radio station WMRD. This tower, however, is located in a designated wetland area and in a designated flood plain area. There is no existing vehicular access to the site or suitable location for ground equipment. To develop this site for Optasite's purposes would require significant wetland and flood plain disturbance. (Optasite 2, Response 5)

32. Optasite identified and investigated several properties within its search area. These locations, and the determinations of their suitability, are listed below.
- a. 50 Fairchild Road, Middletown – location of the proposed site.
 - b. Calvary Church Cemetery, Bow Lane, Middletown – the property owner was not willing to enter into a lease agreement.
 - c. Partello properties, Bow Lane, Middletown – the property owner was not willing to make space available for a tower site.
 - d. Klare property, Bow Lane, Middletown – the property owner did not respond to contact from Optasite and was presumed to be not interested in leasing his property.
 - e. Klare property, Virginia Drive, Middletown – this property is directly south of the proposed site; its owner did not respond to contact from Optasite and was not considered interested in leasing his property.
 - f. 191 Saybrook Road, Middletown – this property is developed for industrial use; the owner was willing to make a limited area available for a tower site, but this area was unsuitable for Optasite’s proposed facility.
 - g. 400 Saybrook Road, Middletown – this property is developed as a medical office property; after discussions with Optasite, the property owner appeared uninterested in leasing a portion of the property for a tower site.
 - h. 540 Saybrook Road, Middletown – the Middlesex Hospital Cancer Center is located on this property; much of the property is developed, that portion which is not developed appeared to be unsuitable for Optasite’s needs.
 - i. Middletown Elks Home Club, 444 Maynard Road, Middletown – property is next to Bielefield Elementary School; the owner was willing to lease space for a tower site; but after consulting with Middletown’s planning director, Optasite concluded this site would be more visible than proposed site.
 - j. City of Middletown Properties, Tryon Street, Middletown – there are two adjacent properties here, on one of which is the Bielefield Elementary School; Optasite decided that neither property was suitable due to visibility and proximity to residential development.
 - k. Carolo property on Bartholomew Road in the vicinity of Exit 11/Saybrook Road – the property owner was willing to lease a portion of his property, but the property is too far south to be suitable for carrier needs.
 - l. Connecticut Valley Hospital (CVH) Smokestack – site is located .8 mile north of the proposed site; Nextel investigated its possible use previously as well as other locations on the CVH property; in May of 2006 representatives of the state told Nextel that CVH was not willing to allow this property to be used as wireless site. (Optasite 1, Attachment 3)

33. In response to an inquiry from the Council about why Optasite's request to place cell phone antennas on the CVH smokestack was denied, Thomas Kirk, Commissioner of the Department of Mental Health and Addiction Services, cited the following reasons:

the smokestack is in need of repairs and the placement of antennas would make these repairs more complicated;

the hospital and state did not want to assume the liability that might be involved should service personnel get injured performing routine maintenance;

the CVH campus hosts antennas used by the CVH fire and police personnel, the City of Middletown's police and fire departments, and a DEP monitoring system, and CVH was concerned about potential for interference with its existing antennas;

an ongoing study is evaluating the use of the CVH power plant, and the study's conclusions may result in the need to modify the existing smokestack.

(Letter from DMHAS dated September 14, 2006)

34. Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not practicable or feasible means for providing service within the coverage gap that Nextel experiences in the target area. Significant terrain variations and tree cover, as well as other practical considerations, limit the use of such technologies. (Optasite 1, pp. 7)

Site Description

35. Optasite's proposed site is located near the southwest corner of a 23.3 acre parcel of property at 50 Fairchild Road owned by Stephen and Barbara Borelli in Middletown, Connecticut. (Optasite 1, p. 2)
36. The Borelli property is used as a residence, but the largest portion of the property is undeveloped. (Optasite 1, p. 10)
37. The property is zoned R-30, a single-family residential zone that requires a 30,000 square foot minimum lot size. (Optasite 1, Attachment 4)
38. Middletown's Planning and Zoning Commission may grant special exceptions for wireless sites in residential zones on parcels larger than one acre. (Optasite 1, Bulk Filing: Middletown Zoning Regulations, p. 122)
39. The proposed facility would consist of a 120-foot tall steel monopole, designed to be capable of being extended to 150 feet, within a 70-foot by 70-foot compound that would be enclosed by an eight-foot high chain link fence. (Optasite 1, p. 2)

40. The tower would be built in accordance with the specifications of the 2005 Connecticut State Building Code and the Electronic Industries Association Standard EIA/TIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures" for Middletown. It could accommodate up to four carriers at its proposed 120-foot height and up to three additional carriers if it were extended to 150 feet. (Optasite 1, Attachment 4)
41. The proposed tower would be designed to support up to all wireless carriers active in this area of Connecticut and the City of Middletown's public safety communications. (Optasite 1, p. 2)
42. The coordinates of the tower would be 41° 32' 41.4" North latitude and 72° 37' 14.84" West longitude. The base of the tower would be at 184 feet AMSL. (Optasite 1, Attachment 4)
43. Development in the project's vicinity is primarily residential to the north and south of the Borelli property. A large cemetery is located to the west. The former Connecticut Valley Hospital, now used by various state agencies, is to the north. (Optasite 1, p. 16; Attachment 4)
44. The nearest residence is approximately 536 feet to the southeast of the proposed site and is owned by Rebecca and Christopher Augeri. (Optasite 2, Response 12)
45. There are approximately 18 residences within 1,000 feet of the proposed site. (Optasite 2, Response 10)
46. Vehicular access to the site would extend from the end of the cul-de-sac on Fairchild Road 527 feet along an existing gravel driveway and then along a new 526-foot gravel driveway to be built following an existing wood path. (Optasite 1, p. 2)
47. Utilities for the site would extend overhead from the end of Fairchild Road across the CVH easement for approximately 400 feet and then proceed underground following the new gravel access driveway that would be installed. (Optasite 1, p. 2)
48. Approximately 8.4 cubic yards of cut and 18 cubic yards of fill would be required to develop the proposed facility. (Optasite 2, Response 7)
49. No blasting is anticipated as being necessary to develop the proposed facility. (Optasite 2, Response 8)
50. The proposed tower's 120-foot setback radius lies completely within the Borelli property. (Optasite 1, Attachment 4)
51. The proposed tower location is 150 feet from the nearest property lines to the south and west. (Optasite 2, Response 9)

52. The estimated construction costs of the proposed facility are:

| | |
|----------------------|---------------|
| Tower and foundation | \$ 74,000 |
| Site development | 70,000 |
| <u>Utilities</u> | <u>31,000</u> |
| Total | \$175,000 |

(Optasite 1, p. 18)

Environmental Considerations

53. At the request of the State Historic Preservation Officer (SHPO), Optasite conducted an archaeological reconnaissance study of the proposed site. The study identified no prehistoric or historic archaeological resources within the project area. (Optasite 1, p. 12)
54. The proposed project would have no effect on Connecticut's archaeological heritage. (Optasite 2, Attachment 2 – Letter from SHPO dated May 22, 2006)
55. There are no known extant populations of Federal Endangered or Threatened species or State Endangered, Threatened or Special Concern Species at Optasite's proposed site. (Optasite 1, Attachment 5)
56. The closest wetland to the proposed site is located approximately 26 feet south of the compound's location. During construction, Optasite would employ soil erosion control measures and other best management practices in accordance with the Connecticut Soil Erosion Control Guidelines established by the Council of Soil and Water Conservation to minimize any potential impact on the nearby wetland. (Optasite 1, p. 16)
57. A total of 14 trees with a diameter at breast height of 6" or more would be removed to develop this facility (five trees for the compound and nine for the access drive). (Optasite 2, Response 13)
58. The Federal Aviation Administration determined that the proposed facility would not be a hazard to air navigation and would not require marking or lighting. (Optasite 1, Attachment 4)
59. The maximum power density from the radio frequency emissions of Nextel's proposed antennas would be 4.4% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously. (Optasite 1, p. 12)

Visibility

60. The tower would have a gray, galvanized finish to minimize its visual presence. (Optasite 1, p. 15)

61. The proposed tower would be visible year-round from approximately 119 acres. (Optasite 1, Attachment 4)
62. Most of the areas that would have year-round views of the tower are located east of Route 9 in the vicinity of Bow Lane. (Optasite 1, Attachment 4)
63. The tower would be seasonally visible from approximately 67 acres in the surrounding vicinity. (Optasite 2, Response 14)
64. Approximately 16 residences would have partial year round views of the proposed tower. (Optasite 3, p. 5)
65. Approximately 38 residences would have seasonal views of the proposed tower. (Optasite 3, p. 5)
66. The visibility of the proposed tower from different vantage points in the surrounding vicinity is summarized in the following table. The locations of the vantage points listed are identified by their corresponding number in the Visual Resource Evaluation Report submitted for this property. (See Figure 5)

| <u>Location</u> | <u>Visible</u> | <u>Approx. Portion of (120') Tower Visible (ft.)</u> | <u>Approx. Distance and Direction to Tower</u> |
|----------------------------------|----------------|------------------------------------------------------|------------------------------------------------|
| | <u>Site</u> | | <u>Site</u> |
| 1 – State Veterans’ Cemetery | Yes | 15 | 1050 feet; W |
| 2 – State Veterans’ Cemetery | Yes | 15 | 1050 feet; SE |
| 3 – Bow Lane at Calvary Cemetery | Yes | 80 | 1050 feet; SE |
| 4 – Holmes Drive | Yes | 10 | 1500 feet; SE |
| 5 – Heritage Medical Center | Yes | 50 | 2100 feet; SE |
| 6 – Windy Hill Drive | Yes | 15 | 2100 feet; N |

(Optasite 3, Visual Resource Evaluation Report)

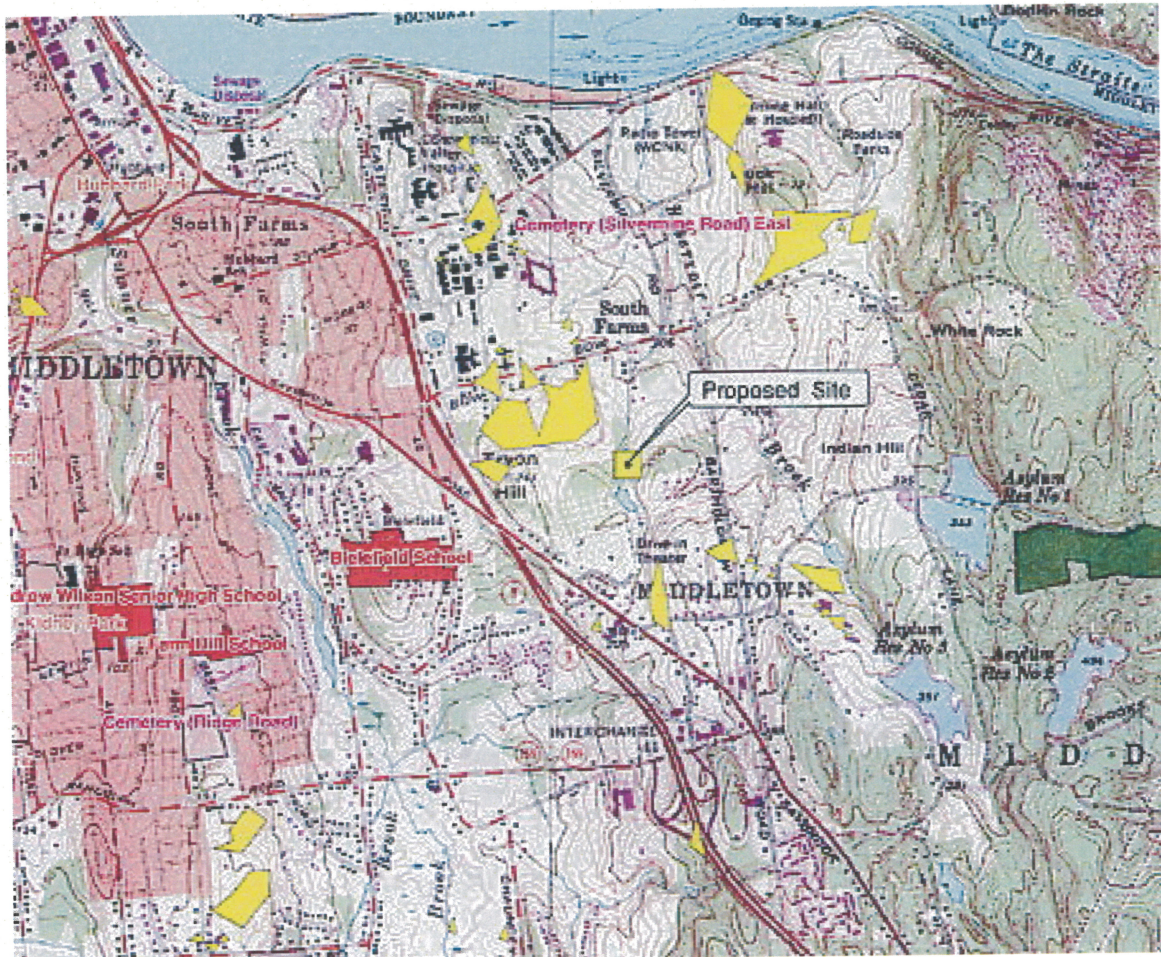
Existing and Proposed Wireless Coverage

67. Nextel’s network in Middletown has insufficient calling capacity, particularly in and south of downtown Middletown. The proposed facility would off-load Nextel’s downtown Middletown site and would provide additional capacity in conjunction with other surrounding sites. (Optasite 1, p. 5)
68. The proposed site would enable Nextel to offload sector 2 of its existing downtown Middletown site. When this site was first activated in December, 1999, its average usage was 5,000 minutes per day. The August, 2006 weekly average for this site was 32,000 minutes per day. At the current rate of growth in usage, this site will reach maximum capacity in approximately 9 to 13 months. (Nextel 1, Interrogatory Response 16)

69. Nextel's antennas at the proposed location would hand off signals to sites in downtown Middletown, at Pratt & Whitney's Middletown facility on Aircraft Road, and in Haddam. (Nextel 1, Interrogatory Response 21)
70. Nextel uses statistics on dropped and blocked calls to help determine if a particular site is having capacity problems. (Tr. 1, pp. 21ff.)
71. Nextel's antennas would cover approximately 1.6 miles on Route 9, 1 mile on Route 66, and ½ mile on Route 17 from this site. (Nextel 1, Interrogatory Response 17)
72. Nextel's antennas would cover a total area of approximately 2.5 square miles from this site. (Nextel 1, Interrogatory Response 18)
73. Nextel would only operate antennas at iDEN frequencies at this site. There is a need for additional CDMA (Sprint's technology) at this location, but there are no current plans to install CDMA antennas. (Tr. 1, p. 93)
74. Nextel designs its system for a signal strength of -81 dBm for in-vehicle coverage. (Nextel 1, Interrogatory Response 19; Tr. 1, p. 93)
75. Nextel's existing signal strength in the area that would be covered by the proposed facility ranges from -91 dBm to better. (Nextel 1, Interrogatory Response 20)
76. Nextel's preference for this site is to mount nine antennas, three per sector, on a triangular platform. (Tr. 1, pp. 92-93)
77. Mounting its antennas at 120 feet would give Nextel the desired offload capacity at this site. Lower antennas would still provide offloading capacity, but this capacity would be diminished. (Tr. 1, pp. 93-94)
78. If they were mounted at 100 feet at this site, Nextel's antennas would not provide capacity relief for motorists traveling on Route 9. (Transcript, September 12, 2006, 7:10 p.m. [Tr. 2], pp. 15-17)
79. Personal Communication Service (PCS) antennas mounted at a height of 110 feet or lower at this location might not be able to provide reliable coverage. (Tr. 1, p. 42)
80. Externally flush mounted antennas would provide more flexibility for antenna orientation than would internally mounted antennas. (Tr. 1, pp. 27ff.)
81. At this proposed location, internally mounted antennas would be able to achieve Nextel's coverage objectives, although not as well as externally mounted antennas. (Tr. 1, p. 28)
82. At this proposed location, the ability to down-tilt antennas as part of a system's coverage design is not especially critical for the iDEN technology used by Nextel. However, it could be more important for the CDMA technology used by some of the other carriers. (Tr. 1, pp. 29ff.)

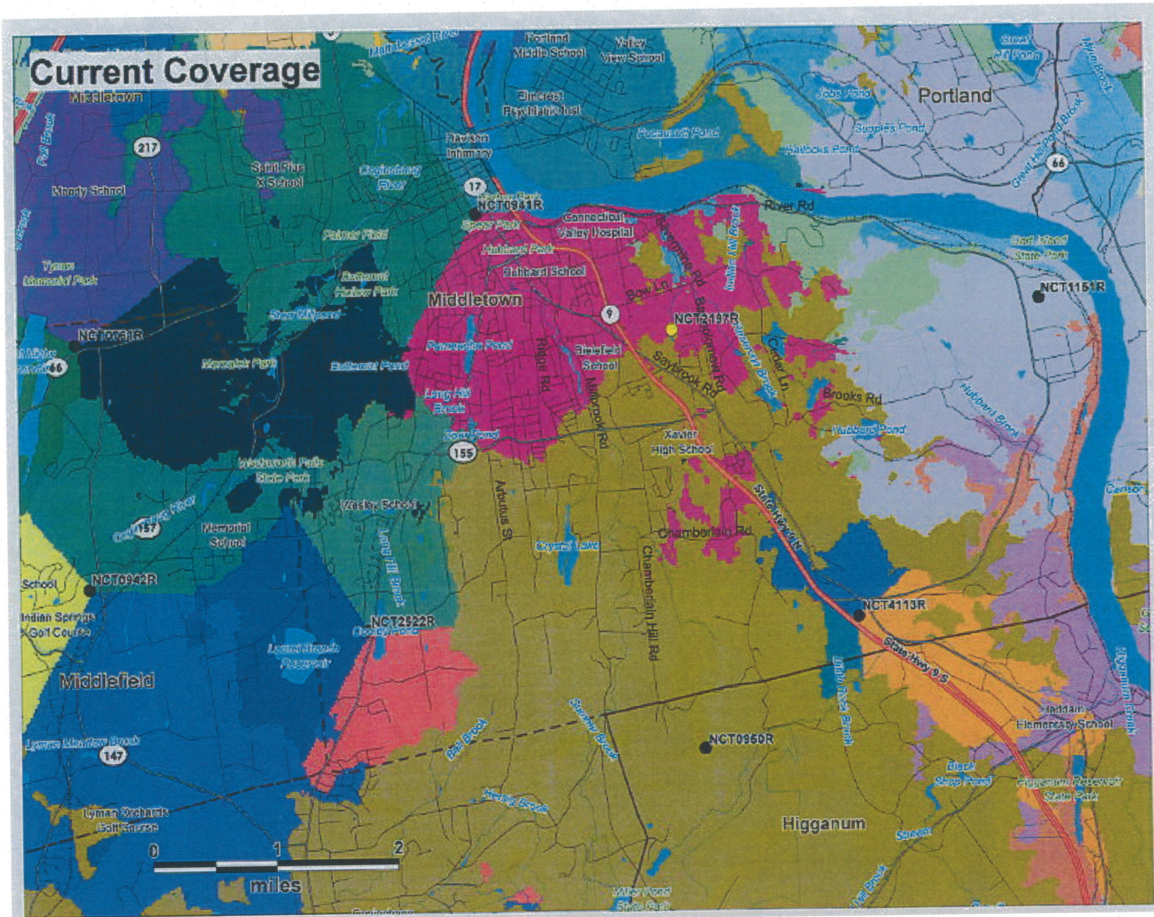
83. The ability to accommodate flexible design for the placement of antennas would enhance the marketability of the proposed location for other carriers. (Tr. 1, p. 33)
84. Mounting antennas on a platform would enable Nextel/Sprint to install antennas for both of the technologies used by the merged company. (Tr. 1, pp. 38-39)
85. A tower on which antennas could only be internally mounted would limit the number of carriers that could use the tower to three because of the space needed inside the tower for coaxial cables. (Tr. 1, p. 39)

Figure 1: Site Location Map



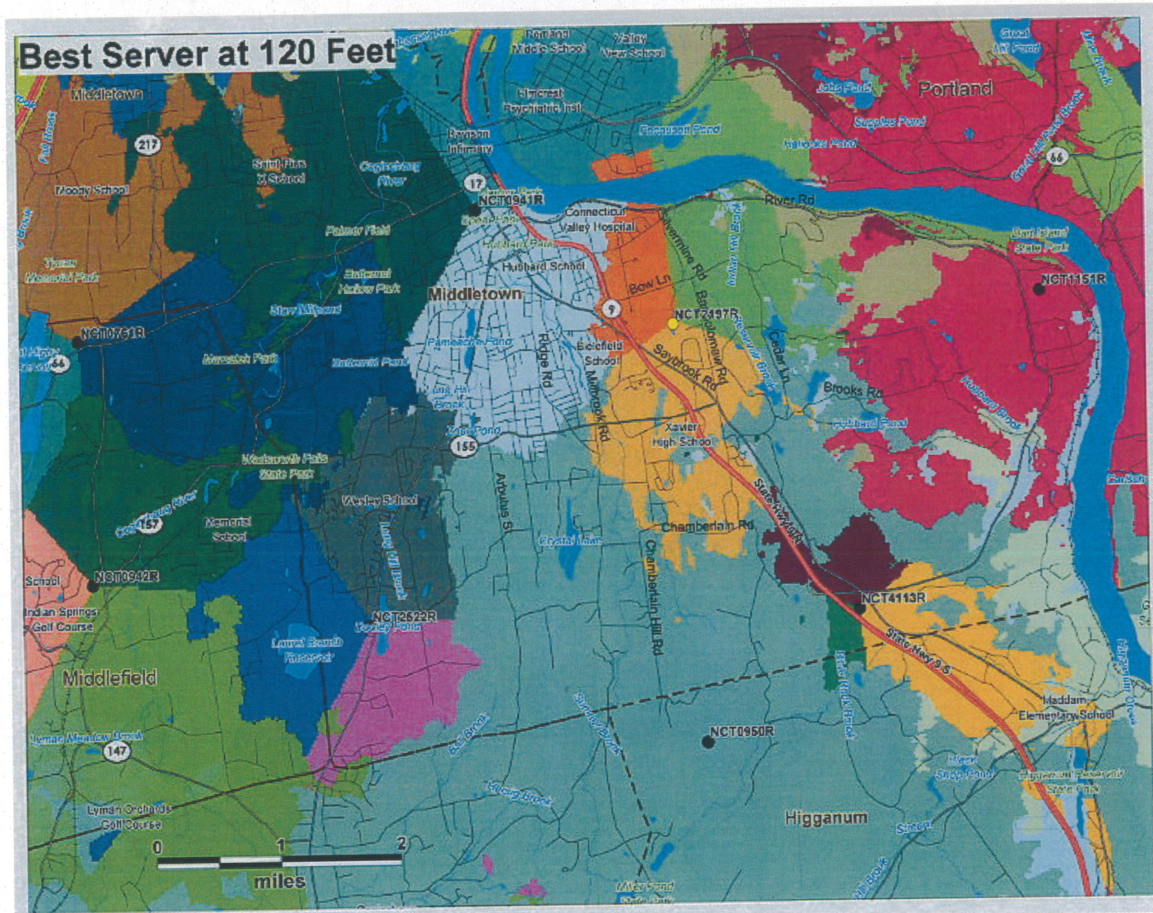
(Optasite 1, Attachment 4)

Figure 2: Extent of Current Site Coverage by Sector



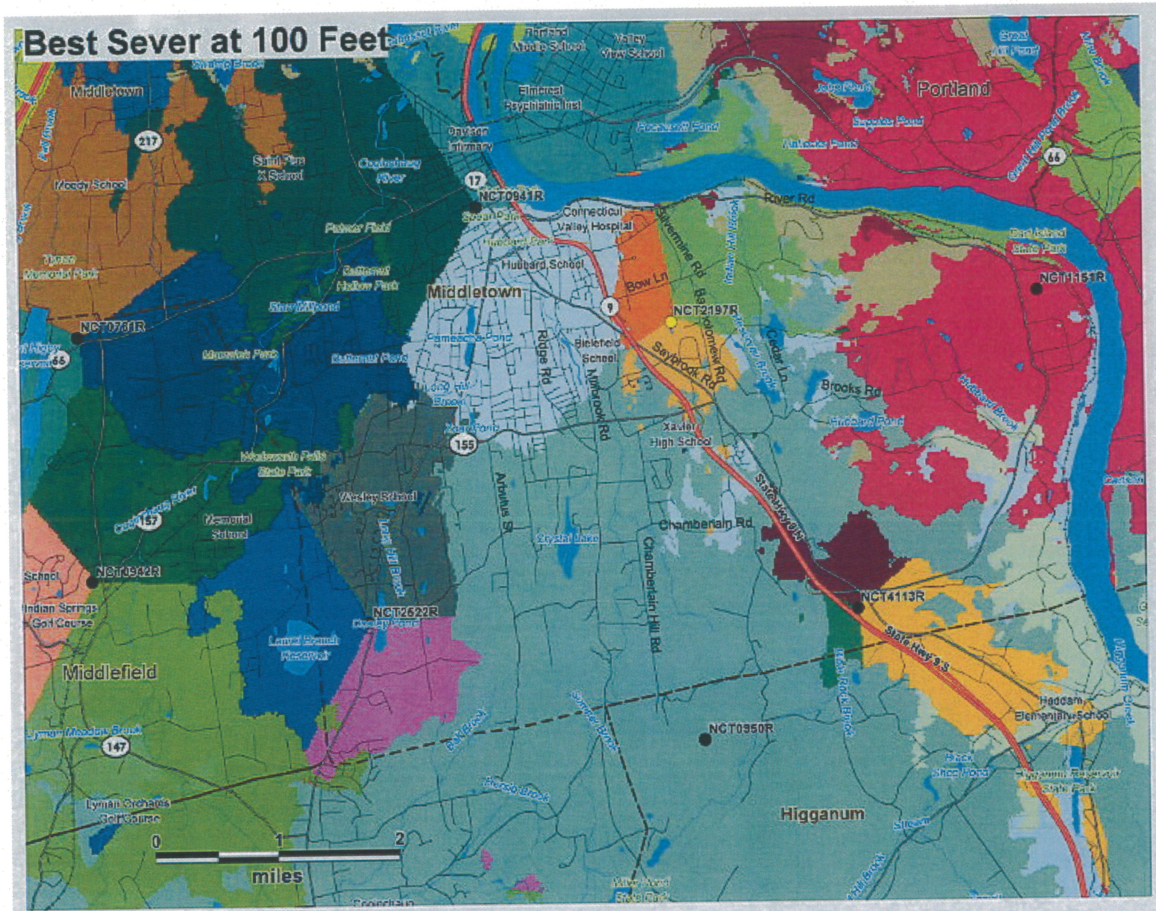
(Nextel 2)

Figure 3: Extent of Site Coverage, by Sector, with Proposed Site at 120 feet



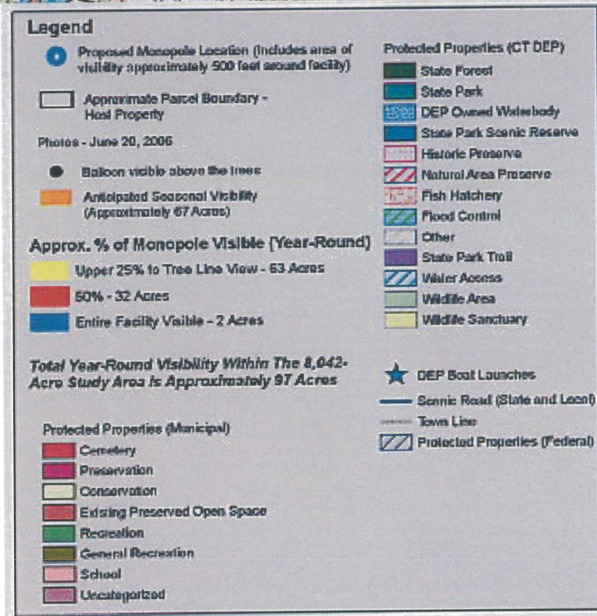
(Nextel 2)

Figure 4: Extent of Site Coverage, by Sector, with Proposed Site at 100 feet



(Nextel 2)

Figure 5: Visibility Map



(Optasite 3, Supplemental Submission – Visual Resource Evaluation Report)