

<p><b>DOCKET NO. 240</b> – AT&amp;T Wireless PCS, LLC d/b/a AT&amp;T Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility in Bolton, Connecticut.</p>	<p>} Connecticut          } Siting          } Council</p>
	<p>July 8, 2003</p>

**Findings of Fact**

**Introduction**

1. Pursuant to Connecticut General Statutes § 16-50g et seq., and the Regulations of Connecticut State Agencies § 16-50j-1 et seq., AT&T Wireless PCS, LLC d/b/a AT&T Wireless (“AT&T”) applied to the Connecticut Siting Council (“Council”) on January 15, 2003 for the construction, operation, and maintenance of a telecommunications facility to be located in Bolton, Connecticut. (AT&T 1, p. 2)
2. AT&T Wireless PCS, LLC d/b/a AT&T Wireless, is a Delaware limited liability company with an office at 12 Omega Drive, Stamford, Connecticut. The company’s member corporation, AT&T Wireless PCS, Inc. is licensed by the Federal Communications Commission (“FCC”) to construct and operate a personal wireless services system within the meaning of CGS Section 16-50(a)(6). (AT&T 1, p. 3)
3. AT&T holds FCC PCS licenses for the Hartford Basic Trading Area (“BTA”), which includes Tolland County. These licenses and associated FCC regulations include construction requirements for the build-out of AT&T’s network to ensure that spectrum licensed for PCS services is used effectively and made available to as many communities as possible. (AT&T 1, p. 5)
4. The party in this proceeding is the applicant, AT&T Wireless. (Transcript, April 2, 2003, 3:00 p.m. [Tr. 1], p. 4)
5. Pursuant to Conn. Gen. Stat. § 16-50l(b), AT&T had public notice of this application published in the Hartford Courant on December 27 and 30, 2002. (AT&T 1, p. 4, Attachment 10)
6. In accordance with CGS § 16-50l(b), AT&T notified owners of property abutting each of its two candidate sites of its intent to file an application with the Council. AT&T’s letter of notification was sent on December 27, 2002. (AT&T 1, p. , Attachment 11)
7. Neither of the two proposed sites is located within 2,500 feet of another municipality. (AT&T 2 - response no. 4)

8. Pursuant to Conn. Gen. Stat. § 16-50l(b), AT&T 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, Capitol Region Council of Governments, Mary Ann Handley – State Senator from the 4<sup>th</sup> Senatorial District, Pamela Sawyer – State Representative from the 55<sup>th</sup> Assembly District, Federal Aviation Administration, Federal Communications Commission, Town of Bolton First Selectman, Bolton Planning and Zoning Commission Chairman, Bolton Zoning Board of Appeals Chairman, Bolton Conservation Commission Chairman, Bolton Inland Wetlands Agency Chairman. (AT&T 1, Attachment 9)
9. Pursuant to CGS § 16-50l, the Council solicited comments on AT&T'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 January 29, 2003. (CSC Hearing Package dated Jan. 29, 2003)
10. In response to the Council's solicitation, the Connecticut Department of Transportation commented that AT&T's plan was not expected to be inimical to that Department's planning program. (ConnDOT Facsimile Transmission Cover Sheet received February 6, 2003)
11. In response to the Council's solicitation, the Connecticut Department of Environmental Protection ("DEP") submitted comments about the visibility of the respective sites from nearby residential properties, the existing vegetative conditions of the sites, and the power densities as predicted by AT&T. At Site A, provision would need to be made to accommodate runoff. At Site B, the possible presence of wood turtles, *Clemmys insculpta*, would require special protective measures to be taken. (Letter from DEP dated March 21, 2003)
12. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on April 2, 2003, beginning at 3:00 p.m. and continuing at 7:00 p.m. in Bolton, Connecticut. (Council's Hearing Notice dated January 29, 2003; Tr. 1, pp. 2; Transcript, April 2, 2003, 7:00 p.m. [Tr. 2], p. 2)
13. During the field review of the proposed sites conducted by the Council and staff on April 2, 2003, the applicant flew balloons to simulate the requested height of the proposed tower at each of the respective candidate sites. Balloons were raised at approximately 12:45 p.m. and were flown until 5:00 p.m. During the field inspection, the wind was minimal and the balloons flew steadily at the heights of the proposed towers. (Tr. 1, pp. 22-23 )

#### **Public Need for Wireless Service**

14. 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. (AT&T 1, pp. 4-5)

15. A purpose of the Telecommunications Act 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.” (AT&T 1, p. 5)
16. In 1999, Congress enacted the Wireless Communications and Public Safety Act (the “911 Act”) to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. As an outgrowth of the 911 Act, the FCC mandated wireless carriers to provide enhanced 911 services (“E911”). (AT&T 1, p. 7)

### **PCS Service Design**

17. AT&T successfully bid on several PCS licenses in Connecticut, including licenses for the Hartford BTA, which includes Tolland County. These licenses were formally issued by the FCC in June, 1997. (AT&T 1, p. 5)
18. AT&T’s licenses obligate the firm to build out an effective network available to as many communities as possible. Failure to do so in a timely manner could result in forfeiture of its licenses. (AT&T 1, p. 5)
19. At the time of application, AT&T had a coverage gap in the Town of Bolton, specifically in the area known as Bolton Notch along U.S. Route 6. (AT&T 1, p. 6)
20. AT&T’s proposed facility would become an integral component of this company’s mandated E911 service. (AT&T 1, p. 7)
21. Neither microcells nor repeaters are a practical, technological alternative to the proposed facility. Both are used for small “hole-filling” applications and are low power in nature. Numerous microcell facilities would be required to provide service comparable to the proposed facility. Repeaters require a line-of-sight to on-air “donor” facilities and provide no added capacity in a network. AT&T’s network in this area of Connecticut does not have any “donor” sites that would support repeaters. (AT&T 2, response no. 6)
22. AT&T’s goal for minimum signal strength is -85 dBm signal level. (Tr. 1, pp. 25-26) For suburban and rural environments, this signal strength is sufficient for both stationary and mobile calls. In more urban areas, AT&T seeks to achieve a -75 dBm signal strength. (Tr. 1, p. 81)
23. At the time of application, AT&T had no signal strength present in the proposed coverage area. (Tr. 1, p. 25)
24. The minimum height at which a tower at proposed Site A would provide AT&T with acceptable coverage would be 120 feet. (Tr. 1, p. 71)
25. The minimum height at which a tower at proposed Site B would provide AT&T with acceptable coverage would be 180 feet. (AT&T 2, response 27)

26. Either of AT&T's proposed two sites would provide coverage for an area approximately two miles in diameter. (AT&T 2 - response no. 10)
27. Site A would cover a distance along Route 6 of approximately 2.6 miles. Site B would cover a distance along Route 6 of approximately 2.4 miles. (Tr. 1, p. 20)

### **Municipal Consultation**

28. On September 20, 2002, AT&T submitted a letter and a technical report to the First Selectman of the Town of Bolton. The letter introduced the proposed facility to town officials and invited them to discuss any comments or questions about the facility with AT&T. The technical report included specifics about each proposed location and addressed the public need for the facility, the site selection process, and the environmental effects of the proposed facility. (AT&T 1, p. 19)
29. In response to AT&T's letter, the Chairman of the Bolton Planning and Zoning Commission submitted to AT&T the following recommendation: "The Commission recommends that Site B, 299 Hop River Road, is a more suitable site for a tower facility since it is in the Business and Industrial Zones . . ." (AT&T 1, Attachment 8)

### **Site Search**

30. For this facility, AT&T established a site search area, with an approximate radius of 0.5 mile, southeast of Bolton Notch in the vicinity of Route 6. An investigation of various parcels of land in this area did not identify any existing structures on which antennas could be mounted to effectively cover AT&T's existing service gap. (AT&T 1, Attachment 4)
31. In its site search, AT&T found six existing communications towers within approximately two miles of the site search area. Upon investigation, AT&T determined that none of the towers would provide acceptable coverage to the target area. The identified towers are listed below.

<u>Owner/Operator</u>	<u>Tower Location</u>	<u>Height</u>
Mountaintop Enterprises	130 Vernon Road Bolton	280' 150' 130'
United Cable TV Corp. (now AT&T Broadband)	200 Boston Turnpike Bolton	63'
Unknown – residential	between 228 and 244 Boston Turnpike, Bolton	60'
England Hardware  (AT&T 1, Attachment 4)	Route 44 Bolton Notch	30'

32. AT&T investigated several locations within its search area where the construction of a tower might be feasible and identified several potential sites. These sites and the final determination of their suitability are listed below:
- 49 South Road: Site A location.
  - 299 Hop River Road (Route 6): Site B location.
  - 174 Hop River Road (Route 6): Site of Munson Chocolates manufacturing, warehouse, and retail facility. A tower at this location would not provide adequate coverage to target area.
  - Hop River Road (Route 6): Site of Bolton Ice Palace. A tower at this location would not provide adequate coverage to target area.
  - South Road: Large farm and residential properties along South Road in the vicinity of Site A were rejected because they would be more visible than the proposed Site A.

### **Project Description**

33. AT&T proposes to locate a wireless telecommunications facility in Bolton at one of two sites identified respectively as Site A and Site B. (AT&T 1, p. 2)
34. AT&T's Site A is located on a parcel of approximately 25 acres located at 49 South Road. The property is owned by Leonard W. and Cheryl P. Giglio. The property is classified in the R-2 zoning district (a residential district in which single-family, two family, and multiple dwelling units are allowed). The parcel is located on the westerly side of the intersection of South and Stony Roads. (AT&T 1, Attachment 5)
35. The Site A facility would consist of a 120' monopole and a 100' by 100' leased area. Within the lease area, AT&T would construct an 80' by 80' fenced compound for ground equipment. The latitude and longitude coordinates for the proposed monopole would be 41° 47' 20.55" N and 72° 25' 45.1" W. The ground elevation at the base of the monopole would be 621 feet AMSL. (AT&T 1, Attachment 5)
36. The Site A facility would be designed to accommodate up to five additional carriers. (AT&T 1, p. 9)
37. At Site A, AT&T would install up to 12 panel antennas at approximately the 120-foot level of the monopole tower and equipment cabinets on a concrete pad within the tower compound. (AT&T 1, Attachment 5)
38. The Site A tower compound would be enclosed by an 8-foot high security fence. (AT&T 1, Attachment 5)

39. Vehicular access to Site A would extend from South Road westerly along an existing paved driveway a distance of approximately 306 feet, then generally westerly through an existing hay field along a new gravel drive for a distance of approximately 356 feet. (AT&T 1, Attachment 5)
40. Underground utility connections to Site A would extend from South Road and generally follow the access drive to the tower compound. (AT&T 1, Attachment 5)
41. The tower setback radius at the proposed Site A would be completely within the site owner's property. (AT&T 1, Attachment 5 – Site Access Map).
42. There are no existing structures within the tower setback radius of the proposed Site A tower. (AT&T 2 - AT&T response no. 8)
43. The land within ¼ mile of Site A is a mixture of developed and undeveloped property, with the developed property used for residential and farm purposes. (AT&T 1, Attachment 5)
44. The property owners' home is the closest structure to the proposed facility; it is located approximately 548 feet away from the facility. Other than the property owners, the closest residential structure to the Site A facility would be 570 feet away. (AT&T 1, p. 12)
45. There are twenty structures within 1,000 feet of the proposed Site A facility. (AT&T 2, response 5)
46. The construction costs for the Site A facility are estimated to be:
- |                            |                     |
|----------------------------|---------------------|
| Electronic equipment costs | \$95,500.00         |
| Tower and antenna costs    | \$138,000.00        |
| Site development costs     | \$222,500.00        |
| <b>Total</b>               | <b>\$456,000.00</b> |
- (AT&T 1, p. 20)
47. AT&T's Site B is located on a parcel of approximately 6.7 acres located at 299 Hop River Road. The property is owned by Griffen Dewatering Corporation. The two hundred feet of this property closest to Route 6, Hop River Road, is zoned Business. The remainder of the property is zoned Industrial. The Site B lease parcel is in the Industrial zone; the utility easement to the lease parcel would cross the Business zoned portion of the property. (AT&T 1, Attachment 6; AT&T 3 - response no. 32)
48. The Site B facility would consist of a 180-foot self-supporting monopole with a 100-foot by 70-foot leased area. Within the lease area, AT&T would construct an 80-foot by 54-foot fenced compound for ground equipment. The latitude and longitude coordinates for the proposed monopole would be 41° 46' 55.65" N and 72° 25' 58.75" W. The ground elevation at the base of the monopole would be 474 feet AMSL. (AT&T 1, Attachment 6; Tr. 1, p. 17)
49. At Site B, AT&T would install up to 12 panel antennas at approximately the 180-foot level of the monopole tower and equipment cabinets on a concrete pad within the tower compound. (AT&T 1, Attachment 6)

50. The Site B facility would be able to accommodate up to five additional wireless carriers. (AT&T 1, p. 11)
51. The Site B tower compound would be enclosed by an 8-foot high security fence. (AT&T 1, Attachment 6)
52. Vehicular access to Site B would extend from Hop River Road across the lessor's paved parking lot a distance of approximately 450 feet, then along a new gravel drive approximately 130 feet in length. (AT&T 1, Attachment 6)
53. Underground utility connections to Site B would extend from Route 6 across the lessor's property. (AT&T 1, Attachment 6)
54. The tower setback radius at the proposed Site B would encompass portions of two adjacent properties. (AT&T 1, Attachment 6 – Site Access Map)
55. The two adjacent properties that are within the tower setback radius of Site B are zoned R-2 Residential, which allows up to 4 units per acre. (AT&T Bulk filing: Town of Bolton Zoning Regulations, p. 6-4)
56. AT&T can design the proposed monopole at Site B with a yield point to effectively reduce the tower setback radius. (AT&T 2, response no. 9; Tr. 1, p. 65)
57. There are no existing structures within the tower setback radius at Site B. (AT&T 2 - response no. 8)
58. The land within ¼ mile of Site B is a mixture of commercial and residential uses. (AT&T 1, Attachment 6)
59. The closest off-site structure to Site B is approximately 750' from the proposed facility. There are seven other structures within 750' to 1000' of proposed Site B. (AT&T 1, p. 13)
60. The construction costs for the Site B facility are estimated to be:

Electronic equipment costs	\$89,500.00
Tower and antenna costs	\$152,500.00
Site development costs	<u>\$171,000.00</u>
<b>Total</b>	<b>\$413,000.00</b>

(AT&T 1, pp. 20-21)

61. At either site, the facility would be equipped with an eight-hour battery back-up system. In the case of long-term power outages, however, AT&T would bring in a portable diesel generator on a small trailer. (Tr. 1, pp. 24-25)
62. At either site, the proposed monopole would be constructed in accordance with the Electronic Industries Association Standard EIA/TIA-222-E, "Structural Standards for Steel Antenna Towers and Antenna Support Structures." The foundation design would be based on soil conditions at the particular site. (AT&T 1, Attachments 5 and 6)

63. AT&T's proposed facility would hand off traffic to an existing AT&T facility identified as CT-333 and located at 130 Vernon Road in Bolton. CT-333 is approximately 1.1 miles from Site A and 1.4 miles from Site B. (AT&T 2 - response no. 12)
64. AT&T's proposed facility would also hand off traffic to a facility being proposed in Andover identified as CT-860. (Tr. 1, p. 33)

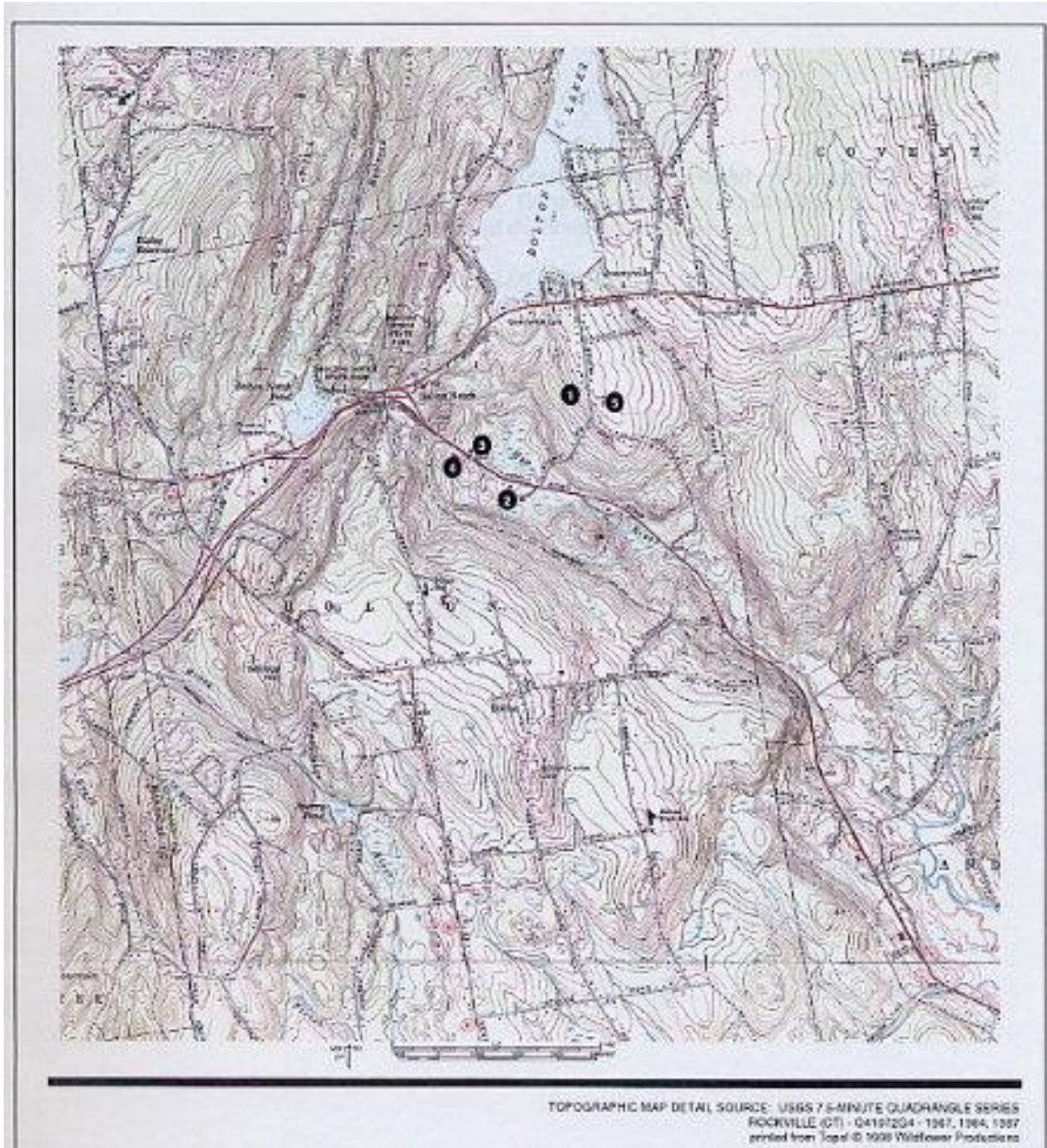
### Environmental Considerations

65. At Site A, the compound and a small portion of the access drive would require minimal to moderate clearing. Minimal grading would be required for the compound and access drive. (AT&T 1, Attachment 5)
66. At Site B, the compound would require minimal grading and moderate clearing. (AT&T 1, Attachment 6)
67. AT&T does not expect that any blasting would be required to develop a facility at either proposed site. (Tr. 1, p. 44)
68. At Site A, one tree with a diameter at breast height of over 12 inches would have to be removed to construct the proposed facility. At Site B, two such trees would have to be removed. (AT&T 2, response 18)
69. There are no wetlands located on or near the proposed Site A. (AT&T 1, p. 18)
70. The closest wetlands to the proposed Site B facility is zero feet at wetlands flag 7, which is located at the southwest corner of the proposed lease parcel. The fence line proposed at this site and the compound itself would be farther back from the wetlands area. (Tr. 1, p. 18)
71. The Hop River State Park Trail, a "rails to trails" multi-use recreation trail, runs almost parallel to Route 6 approximately 800 feet to the south of Site B. (AT&T 1, Attachment 6) The Hop River Trail is approximately 3,800 feet to the southwest from Site A. (AT&T 1, Attachment 5) A tower at Site A would be visible from some portions of this trail, and the top of a tower at Site B would be visible from some portions of this trail. (AT&T 1, pp. 12-13, Attachments 5 & 6)
72. The Shenipsit Trail passes through the Bolton Notch area. Views of a tower at Site A from this trail would be obscured by vegetation. (AT&T 1, p. 12)
73. The property on which Site B is located is contiguous to a 61-acre property used as a Boy Scout camp for six weeks in the summer and occasionally during the winter. (Tr. 1, p. 12)
74. The Connecticut Historical Commission expects that AT&T's proposal for a facility at either Site A or Site B would have no effect on Connecticut's archaeological heritage. (AT&T 1, Attachment 7)



75. There are no known extant populations of Federal or State endangered, threatened or special concern species that occur at the proposed Site A. (AT&T 1, Attachment 7)
76. There are known extant populations of State Special Concern *Clemmys insculpta* (wood turtle) in the vicinity of the proposed Site B. (AT&T 1, Attachment 7)
77. Wood turtles are dormant from November 1 to April 1. (AT&T 3 - DEP letter from Julie Victoria, Wildlife Biologist)
78. Using a methodology included in the FCC Office of Science and Technology Bulletin No. 65 ("OET Bulletin 65"), AT&T has calculated the maximum power density for its proposed facility. Based on the methodology AT&T used, the maximum power density of AT&T's operations at Site A would be 0.000353 mW/cm<sup>2</sup>, or 0.04% of the applicable standard. For Site B, the worst-case calculation of power density would be 0.000163 mW/cm<sup>2</sup>, or 0.02% of the applicable standard. (AT&T 1, p. 14)
79. For the potential sites, AT&T utilized the FCC's TOWAIR program to determine if they would require registration with the FAA. The results indicated that neither site would require FAA registration or FAA review as a potential air navigation obstruction or hazard. For this reason, no FAA lighting or marking would be required for the proposed towers. (AT&T 1, pp. 19-20)
80. Throughout the construction of the proposed facility, AT&T would establish and maintain soil and erosion control measures and other best management practices in accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Council of Soil and Water Conservation. (AT&T 1, p. 18)
81. Both proposed sites are located within Flood Zone C, which is defined by the Federal Emergency Management Agency as areas of minimal flooding. (AT&T 1, p. 15)

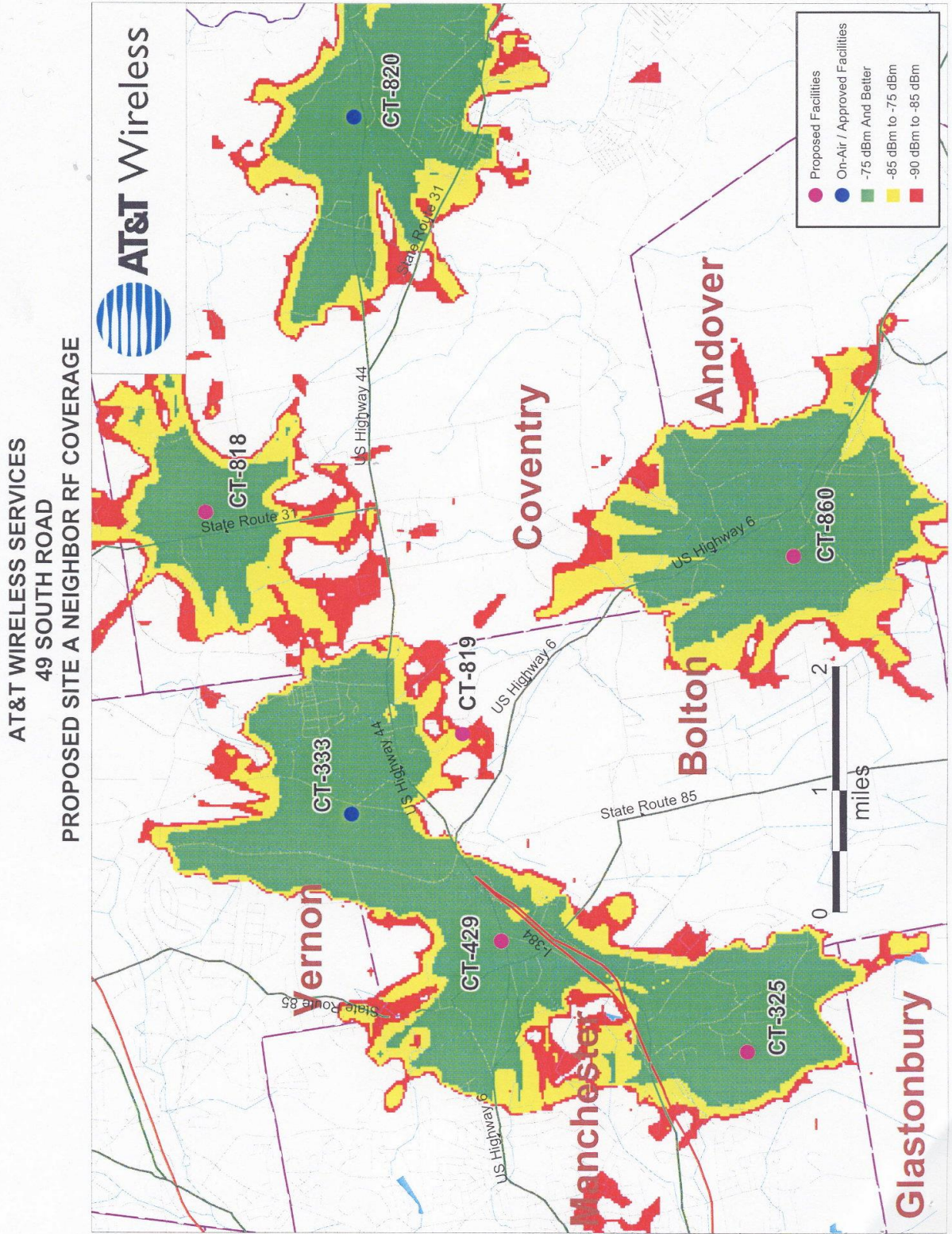
### Appendix A: Proposed and Rejected Sites



- 1 – Proposed Site A
- 2 – Proposed Site B
- 3 – 174 Hop River Road; rejected site
- 4 – Bolton Ice Palace; rejected site
- 5 – South Road; rejected site



**Appendix B: Site Coverage**  
**Existing Coverage without Proposed Site**

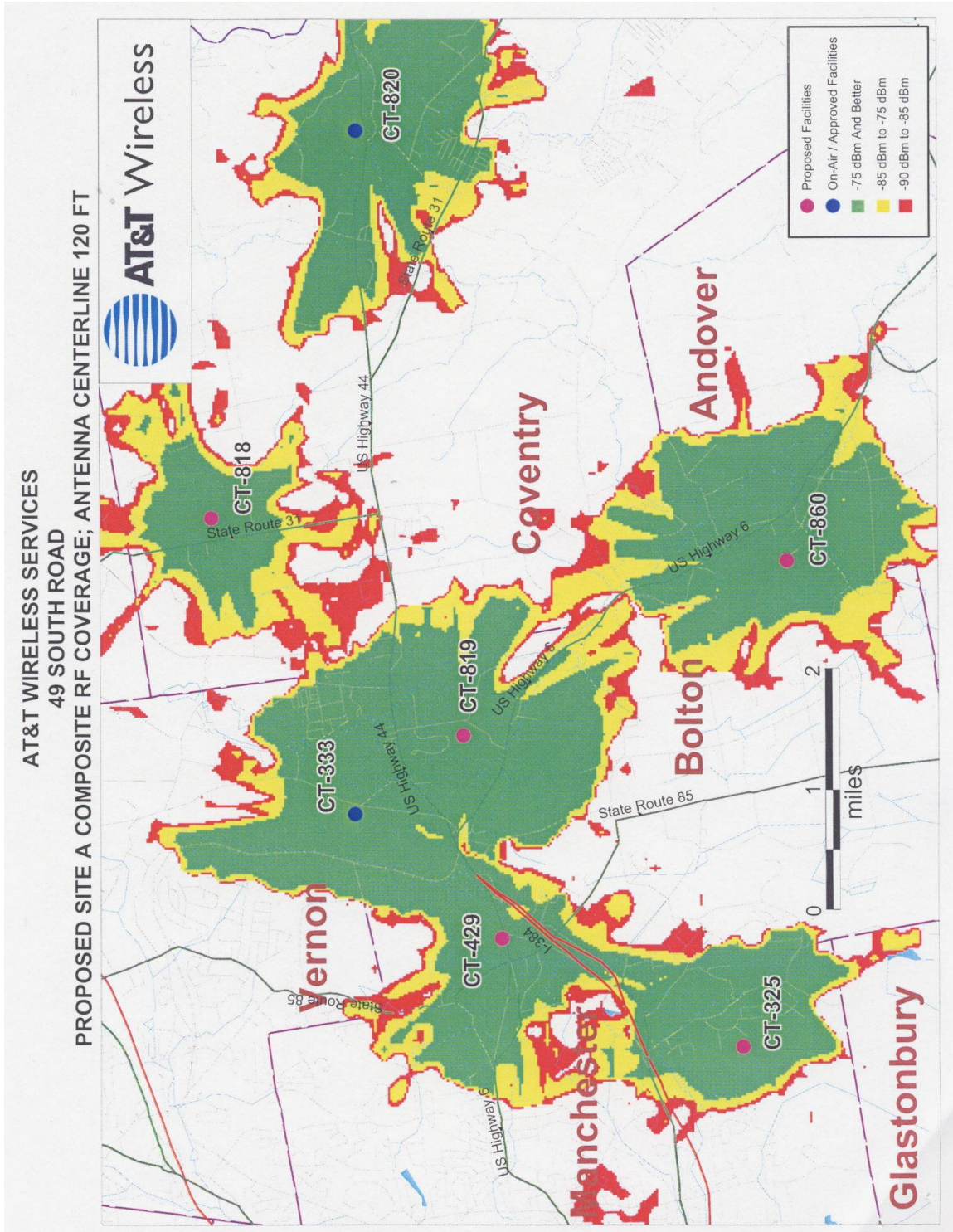








**Appendix B: Site Coverage  
Coverage with Site A**

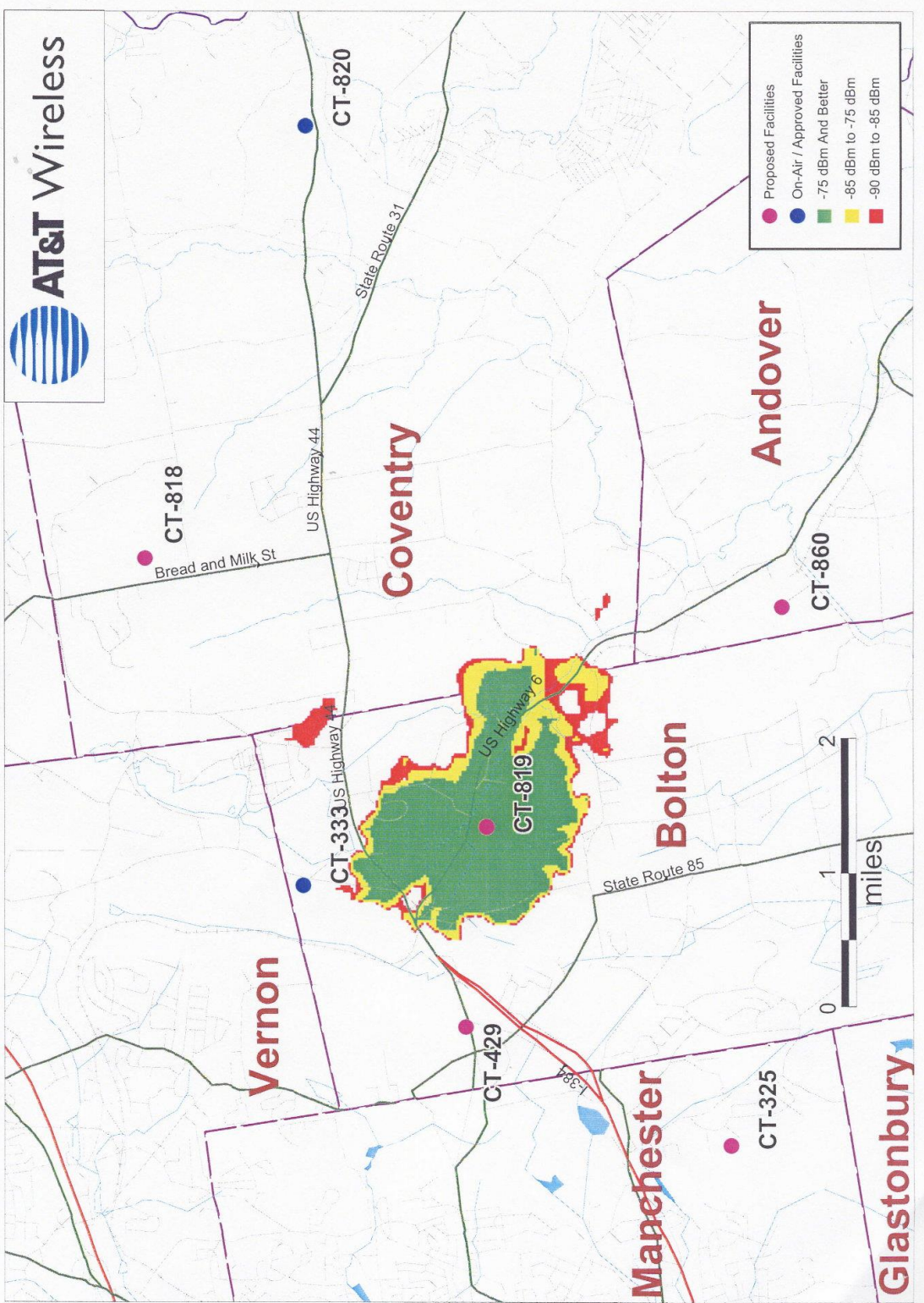




**Appendix B: Site Coverage**  
**Site B Coverage**

AT&T WIRELESS SERVICES  
299 HOP RIVER ROAD

PROPOSED SITE B INDIVIDUAL RF COVERAGE; ANTENNA CENTERLINE: 180 FT





**Appendix B: Site Coverage  
Coverage with Site B**

