DOCKET NO. 412 – SBA Towers II and New Cingular	}	Connecticut
Wireless PCS, LLC application for a Certificate of Environmental		
Compatibility and Public Need for the construction, maintenance	}	Siting
and management of a telecommunications facility located at		
Wewaka Brook Road, Bridgewater, Connecticut.	}	Council

December 9, 2011

DRAFT Findings of Fact

Introduction

- 1. SBA Towers III (SBA) and New Cingular Wireless PCS, LLC (AT&T) (collectively, the Applicant), in accordance with provisions of Connecticut General Statutes (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on November 19, 2010 for the construction, maintenance, and operation of a telecommunications facility, which would include a 170-foot tall monopole tower, at Wewaka Brook Road in the Town of Bridgewater, Connecticut. (Applicant 1, pp. 1, 3)
- 2. SBA is a Delaware limited liability company and a subsidiary of SBA Communications Corporation, a publicly traded company that owns and operates wireless infrastructure facilities nationwide. Its offices are at One Research Drive, Suite 200C, Westborough, Massachusetts. (Applicant 1, p. 3)
- 3. AT&T is a Delaware limited liability company with an office at 500 Enterprise Drive, Rocky Hill, Connecticut. The company's member corporation is licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless services system. The company does not conduct any other business in the State of Connecticut other than the provision of wireless services under FCC rules and regulations. (Applicant 1, p. 4)
- 4. The parties in this proceeding are the Applicant and the Town of Bridgewater. (Transcript, April 5, 2011, 3:33 p.m. [Tr. 1], pp. 4, 5)
- 5. The purpose of the proposed facility would be to provide wireless communication coverage in the eastern portion of Bridgewater. (Applicant 1, p. 1)
- 6. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on April 5, 2011, beginning at 3:30 p.m. and continuing at 7:05 p.m. at the Burnham Elementary School Auditorium, 80 Main Street South, Bridgewater, Connecticut. (Tr. 1, p. 3 ff.)
- 7. The Council and its staff conducted an inspection of the proposed site on April 5, 2011, beginning at 2:30 p.m. On the day of the field inspection, the applicant attempted to fly a red balloon at the site between 12:00 p.m. and 7:00 p.m. Weather conditions were not conducive for the balloon flight due to the wind. Three balloons were lost. (Tr. 1, p. 15)
- 8. Pursuant to CGS § 16-50l (b), public notice of the application was published in the <u>Housatonic Times</u> on October 8 and 15, 2010 and <u>The News-Times</u> on November 16, 2010. (Applicant 1, p. 5; Applicant 2)

- 9. Pursuant to CGS § 16-50*l*(b), AT&T sent notices of its intent to file an application with the Council to each person appearing of record as owner of property abutting the property on which the proposed facility is located. (Applicant 1, p. 5)
- 10. AT&T received return receipts from all of the abutting property owners to whom it sent notice. (Applicant 3, response 3)
- 11. Pursuant to CGS § 16-50*l* (b), AT&T provided notice to all federal, state, regional, and local officials and agencies listed therein. (Applicant 1, p. 5)
- 12. On March 22, 2011, AT&T posted a sign on Wewaka Brook Road informing the passing public of the time, date, and place of the hearing on this application and the proposed facility height. (Tr. 1, p. 15-16)
- 13. On April 26, 2011, the Council requested consent to extend the deadline for decision for a maximum of 180 days until November 14, 2011. (Council Extension Request Letter dated April 26, 2011)
- 14. On May 20, 2011, the Applicant granted consent to extend the deadline for decision until November 14, 2011. (Applicant Extension Letter dated May 20, 2011)
- 15. On July 21, 2011, the Council provided notice of a continued evidentiary hearing to be held on September 13, 2011, in Hearing Room One, Ten Franklin Square, New Britain, Connecticut. (Council Hearing Memo dated July 21, 2011)
- 16. On September 9, 2011, the Town of Bridgewater requested a continuance of the hearing scheduled for September 13, 2011 due to the unavailability of some of the Town's witnesses on that hearing date and the Town's intent to supplement its land use commission's report regarding wetlands impacts. (Town Request for Continuance dated September 9, 2011)
- 17. On September 9, 2011, the Applicant indicated that it did not object to the continuance. (Applicant Response to Continuance Request dated September 9, 2011)
- 18. On September 12, 2011, the Council cancelled the evidentiary hearing to be held on September 13, 2011. (Council Hearing Cancellation Memo dated September 12, 2011)
- 19. On September 15, 2011, the Council provided notice of a continued evidentiary hearing to be held on November 1, 2011, in Hearing Room One, Ten Franklin Square, New Britain, Connecticut. (Council Hearing Memo dated September 15, 2011)
- 20. On October 20, 2011, the Council denied the proposed facility without prejudice on the basis that the statutory deadline for a decision could not be met. (Minutes of October 20, 2011 Council Meeting)
- 21. On October 20, 2011, the Council voted to reconsider the application under C.G.S. § 4-181a(a). (Minutes of October 20, 2011 Council Meeting)
- 22. On November 1, 2011, the Council held a continued public hearing in New Britain. (Transcript 3 November 1, 2011 at 1:00 p.m. [Tr. 3], p. 2)

State Agency Comments

- 23. Pursuant to CGS § 16-50*l*, the Council solicited comments on AT&T's application from the following state departments and agencies: Department of Agriculture, Department of Environmental Protection (DEP), Department of Public Health, Council on Environmental Quality, Department of Public Utility Control, Office of Policy and Management, Department of Economic and Community Development, the Department of Transportation, and the Department of Emergency Management and Homeland Security. The Council's letters requesting comments were sent on February 14, 2011. (CSC Hearing Package dated February 14, 2011)
- 24. On March 8, 2011, DOT responded to the Council's solicitation, but had no comments. No responses were received from any of the other state agencies solicited. (DOT Comments dated March 8, 2011; Record)

Municipal Consultation

- 25. AT&T filed a technical report with the Town of Bridgewater (Town) on July 16, 2010. (Applicant 1, p. 22)
- 26. A public information session was held in Bridgewater on September 6, 2010. (Applicant 1, p. 22)
- 27. Subsequent to the public information session, AT&T conducted a balloon float at the site to gather additional visual data in conjunction with a request from the State Historic Preservation Office. (Applicant 1, p. 22)
- 28. Consultation with the Town resulted in the following alternative sites: the Town Garage; a property across the street from the Town Fire Department; and a property at 50 Stuart Road. None of these sites would meet AT&T's coverage requirements. (Applicant 1, p. 22)
- 29. By letter, the Town First Selectman William T. Stuart noted that if the Council approves the tower (which is not the Town's preference), that the tower be erected in a manner that greatly minimizes its visual intrusiveness and negative impact on property values. The tower should be as low as possible and use technology that would narrow its profile or camouflage the appearance. (Town 2)
- 30. By letter dated September 29, 2011, Bridgewater Wetland Enforcement Officer Russell Dirienzo expressed concerns about the project. Mr. Dirienzo believes that the access drive has inadequate turning radius, the project would cause disturbance to wetlands, and other alternatives exist. Specifically, Mr. Dirienzo proposes an alternate access to the site intended to minimize wetland impacts. (Town 4)

Public Need for Service

- 31. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 8 Telecommunications Act of 1996)
- 32. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. AT&T is licensed by the FCC to provide personal wireless communication service throughout the State of Connecticut. (Council Administrative Notice Item No. 8 Telecommunications Act of 1996; AT&T 1, p. 6)
- 33. The Act prohibits local and state bodies from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 8 Telecommunications Act of 1996)
- 34. The Act 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 Item No. 8 Telecommunications Act of 1996)
- 35. Congress enacted the Wireless Communications and Public Safety Act of 1999 (the 911 Act) to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Council Administrative Notice Item No. 9 Wireless Communications and Public Safety Act of 1999; Applicant 1, p. 7-8)
- 36. AT&T would provide Enhanced 911 services from its proposed site in compliance with the 911 Act. (Applicant 1, p. 7-8; Applicant 3, response 5)

Existing and Proposed Wireless Coverage

- 37. AT&T's proposed facility would provide 880 MHz (cellular) and 1900 MHz (PCS) service. (Applicant 1, Attachment 5)
- 38. AT&T designs its system for -82 dBm in-vehicle coverage and -74 dBm in-building coverage. AT&T used in-vehicle coverage in its analysis of this site. (Applicant 3, response 7; Tr. 3, p. 11)
- 39. The tower is mostly to provide coverage, although it would also improve capacity. (Tr. 3, p. 23)
- 40. AT&T's existing signal strength in the area that would be covered from the proposed facility ranges from -80 dBm to -105 dBm due to terrain fluctuations. (Applicant 3, response 7)

41. The table below indicates the distances Cellco would cover at its different licensed frequencies along the major routes in the area of its proposed facility at various heights.

Street Name	Coverage at Proposed Tower Height of	Coverage at 160 feet	Coverage at 150 feet
	170 feet		
North Mountain Road	0.063 miles	0.032 miles	0.031 miles
Obtuse Rocks Road	0.053 miles	0.023 miles	0.021 miles
State Route 133 /	2.584 miles	1.427 miles	1.372 miles
Southville Road			
Whisconier Road	0.276 miles	0.101 miles	0.065 miles

(Applicant 3, response 10)

42. The table below indicates the total areas Cellco would cover at its different licensed frequencies from the proposed facility at various heights.

Signal Strength	Coverage Area at Proposed Tower Height of 170 feet	Coverage Area at 160 feet	Coverage Area at 150 feet
>= -74 dBm	12.76 square miles	7.043 square miles	6.245 square miles
>= -82 dBm	23.50 square miles	12.58 square miles	11.53 square miles

^{*}at -74 dBm for in-building coverage (Applicant 3, response 11)

43. AT&T's proposed facility would interact with the adjacent facilities identified in the following table.

Site Location	Distance and Direction from Proposed Site
Second Hill Road	3.2 miles to north-northwest
24 Dinglebrook Lane	3.0 miles to south-southeast
100 Old Town Park Road	4.1 miles to northwest
761 Federal Road	3.5 miles to southwest
33 ½ Carmen Hill Road	3.9 miles to west-southwest
316 Perkins Road	2.7 miles to east

(AT&T 3, response 15)

44. The minimum height at which AT&T could achieve its coverage objectives is the proposed height of 170 feet AGL with an antenna centerline height of 167 feet AGL. At lower heights, coverage along Route 133 would be compromised. (Applicant 1, Attachment 3; Applicant 3, response 13; Tr. 1, pp. 19, 37-38)

Site Selection

45. AT&T initiated a search ring for this area in 2007. (Tr. 1, p. 16)

- 46. The center of AT&T's search ring was located between Wewaka Brook Road and Skyline Ridge Road. Its radius was approximately 0.75 miles. (Applicant 3, response 1; Tr. 1, p. 16)
- 47. There are 8 communications towers within a radius of approximately four miles of the proposed site. None of these towers were found to be adequate for AT&T's coverage purposes. The towers are listed in the table below.

Tower Location	Height, Type of Tower	Tower Owner	Approx. Distance and Direction from Proposed Tower
39 Carmen Hill Road,	80 feet, self-	Charter	3.9 miles to W
Brookfield	supporting lattice	Communications	
39 Carmen Hill Road,	500 feet, guyed	Aurora of Danbury	4.0 miles to W
Brookfield	lattice		
761 Federal Road,	91 feet, power	CL&P	3.5 miles to SW
Brookfield	mount		
586 Danbury Road, New	99 feet, flagpole	VoiceStream	3.4 miles to W
Milford			
W. Flagg Swamp Road,	180 feet, self-	DPS	3.7 miles to E
Southbury	supporting lattice		
24 Dinglebrook Lane,	150 feet,	Cingular/AT&T	3.1 miles to S
Newtown	monopole		
Second Hill Road,	100 feet,	State of Connecticut	3.3 miles to N
Bridgewater	monopole		
Main Street South,	65 feet, telephone	Town of Bridgewater	1.7 miles to N
Bridgewater	pole	Fire Department	

(Applicant 1, Attachment 1)

48. AT&T investigated 14 sites as potential locations for its proposed facility. Information about these sites presented in the table below.

Location	Assessor Parcel	Determination of
	Number	Suitability
50 Stuart Road East	14-31	SBA was unable to reach a
		lease agreement with the
		property owner.
66 Northrop Street	14-4	The property owner did not
		respond to SBA's inquiries
		to lease.
149 Northrop Street	10-3	The property owner did not
		respond to SBA's inquiries
		to lease.
129 & 0 Stuart Road	14-44	The property owners were
East		not interested.
0 Stuart Road East	14-55	This parcel was rejected due
		to a land trust restriction.
58 Hambrock Lane	18-15	The property owner was not
		interested, and the site
		would not meet AT&T's
		coverage objectives.
50 Stuart Road East	14-31	SBA was unable to reach a
		lease agreement with the
		property owner.
Wewaka Brook Road	15-1	This site would not meet to
		AT&T's coverage
		objectives due to the low
		elevation.
Northrop Street	10-41	The property owner was not
Benson Road	14-9	interested, and these sites
Christian Road	14-18	would not meet coverage
Hut Hill Road	18-9	objectives.
370 Northrop Street	7-9	The property owner did not
		respond to SBA's inquiries
		to lease.
293 Wewaka Brook	10-23	The property owner did not
Road		respond to SBA's inquiries
		to lease.
Northrop Street	7-1-1	The property owner did not
		respond to SBA's inquiries
		to lease.
000 Hut Hill Road	22-1	This site would not meet
		AT&T's coverage
		objectives.
324 Hut Hill Road	Not available	This site would not meet
		AT&T's coverage
		objectives.

(Applicant 1, Attachment 2)

- 49. No combination of existing site co-locations would meet AT&T's coverage objectives. (Tr. 1, p. 21)
- 50. Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means of providing service within the coverage objective area, and there are no equally effective and feasible technological alternatives to the construction of the proposed tower. (Applicant 1, p. 8)
- 51. Prior to the April 5, 2011 hearing for this proceeding, AT&T filed a technical report with the Town for another proposed tower at 111 Second Hill Road, Bridgewater. The application for 111 Second Hill Road tower has not yet been submitted to the Council. (Tr. 1, p. 44; Council Records)

Facility Description

- 52. AT&T's proposed site is located on a 51.2-acre parcel, west of Wewaka Brook Road. The property is owned by the Mary Allen. Currently the parcel is largely undeveloped and used for agricultural purposes. (See Figures 1 and 2) (Applicant 1 p. 3)
- 53. The subject property is within a Residential R-4 Zoning District, which does not allow for wireless telecommunications facilities. (Applicant 1b; Tr. 1, p. 17)
- 54. AT&T would locate its proposed facility in the northwestern portion of the subject property. It would lease a 100-foot by 100-foot parcel, within which it would develop a 45-foot by 80-foot compound that would include a 170-foot tall monopole tower. The compound would be gravel and enclosed by an eight-foot high chain link fence. AT&T would house its ground equipment in a 12-foot by 20-foot shelter. (See Figure 3) (Applicant 1, pp. 3, 11, and Attachment 3)
- 55. The proposed tower would be designed in accordance with the American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with the 2005 Connecticut Amendment. It would have a diameter of approximately four and one-half feet at its base and approximately two feet at its top. (Applicant 1, Attachment 3 Facilities and Equipment Specification)
- 56. At its proposed height of 170 feet, SBA's tower could accommodate three additional wireless carriers. (Applicant 1, Attachment 3 Tower Elevation Drawing)
- 57. No other carriers have expressed an interest in co-locating at the proposed facility. (Tr. 1, p. 25)
- 58. The proposed tower would be located at 41° 30′ 31.43″ north latitude and 73° 21′ 15.8″ west longitude. Its ground elevation would be 582 feet above mean sea level (amsl). (Applicant 1, Attachment 3 Site Evaluation Report)
- 59. AT&T would deploy up to 12 panel antennas on a low-profile platform at a centerline height of 167 feet AGL. (Tr. 1, p. 9)
- 60. AT&T could use T-arm mounts without compromising coverage. (Tr. 1, p. 20)

- 61. To utilize flush-mounted antennas would require twenty feet of additional height and three levels of antennas: 187 feet, 177 feet, and 167 feet. (Tr. 1, p. 20)
- 62. For backup power, AT&T would primarily rely on a diesel generator. In addition, AT&T would also have a battery backup to prevent the facility from experiencing a "re-boot" condition during the generator start-up delay period. The generator fuel tank would be a 210-gallon steel containment chamber lined with a bladder to contain fuel in the event of a fuel spill. (Applicant 3, response 17)
- 63. Approximately 1,430 cubic yards of cut and approximately 350 cubic yards of fill would be required to develop the proposed tower site and access drive. (Applicant 3, response 16)
- 64. Vehicular access to the proposed facility would extend from Wewaka Brook Road westerly along an existing access drive and over a bridge to be replaced. Access then continues over a new gravel access drive for a total distance of 2,495 feet to the proposed compound. (Applicant 1, p. 11)
- 65. Utility service for the proposed facility would be extended underground from pole number 1242 on Wewaka Brook Road and generally follow the access drive to the site. (Applicant 1, p. 11)
- 66. Should ledge be encountered upon completion of a geotechnical investigation, mechanical means would be the preferred method of removal. However, if blasting is required, an appropriate protocol would be following in accordance with State law. (Applicant 3, response 20)
- 67. The setback radius of the proposed tower would remain within the boundaries of the subject property. (Applicant 1, Attachment 3)
- 68. There are no residences located within 1,000 feet of the proposed site. (Applicant 1, Attachment 5)
- 69. The nearest residence is 1,140 feet to the southwest of the proposed facility. The address is 0 Stuart Road. (Applicant 1, Attachment 3; Tr. 1, p. 18)
- 70. Land use in the general proximity of the proposed facility are residential and agricultural in nature. (Applicant 3, response 3)
- 71. The estimated cost of construction of the proposed facility not including radio equipment is:

Tower and foundation costs

	\$100,000
Site development costs	200,000
Utility installation costs	90,000
Facility installation	<u>95,000</u>
Total Estimated Cost	485,000

(Applicant 1, p. 23)

Environmental Considerations

- 72. The proposed backup generator would meet all applicable noise standards. (Tr. 1, p. 29)
- 73. The State Historic Preservation Office determined that the proposed facility would have no adverse effect on historic or cultural resources. (Applicant 1, Attachment 6)
- 74. SBA's proposed facility would comply with the recommendations of the U.S. Fish and Wildlife Service for minimizing the potential for telecommunications towers to impact bird species. (Applicant 3, response 22)
- 75. SBA's proposed facility is not located near an Important Bird Area (IBA) as designated by the National Audubon Society. (Applicant 3, response 21)
- 76. There are no extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on the property where the proposed facility would be located. (Applicant 1, p. 12)
- 77. 102 trees with diameters of six inches or more at breast height would be removed in the construction of the proposed facility. (Applicant 1, p. 14)
- 78. The Applicant would replace the existing bridge over Wewaka Brook, a perennial stream, to provide safe access for emergency vehicles, site technicians and heavy construction equipment to the proposed facility. The existing bridge will not accommodate design load and dimensional requirements for construction and equipment access for the proposed project. (Applicant 1, p. 15)
- 79. The design of the crossing would utilize culverts placed in Wewaka Brook to fill in the narrowest portion of the waterway to provide access during the demolition of the existing bridge and construction of the new bridge. (Applicant 1, p. 15)
- 80. Approximately 400 square feet of the perennial stream would be temporarily impacted. Once the replacement bridge is completed, the banks of the Wewaka Brook would be properly restored with native stream materials and native plantings. (Applicant 1, p. 15)
- 81. There are six wetlands in the vicinity of the proposed site. (Applicant 1, Attachment 6, pp. 2-7)
- 82. Wetland 1 is an isolated depressional palustrine forested wetland located approximately 178 feet northwest of the closest construction area. No direct or indirect impacts to Wetland 1 is expected. (Applicant 1, Attachment 6, p. 2)
- 83. Wetland 2 is a depressional palustrine forested and scrub/shrub wetland located approximately 100 feet southwest of the closest construction area. No direct or indirect impacts to Wetland 2 is expected. (Applicant 1, Attachment 6, pp. 2-3)

- 84. Wetland 3 is a narrow headwater palustrine forested wetland that would be directly impacted by the proposed access drive due to the culvert and road fill material. Approximately 819 square feet of Wetland 3 would be impacted. (Applicant 1, Attachment 6, pp. 3-4)
- 85. Wetland 4 is a palustrine wetland with forested, scrub/shrub, wet meadow and agricultural disturbed habitats. The proposed access drive deviates off the existing trail to avoid direct impacts. Approximately 63 square feet of permanent wetland impacts and 150 square feet of temporary wetland impacts are expected. (Applicant 1, Attachment 6, pp. 4-5)
- 86. Wetland 5 is a riparian corridor that consists of the delineated banks of Wewaka Brook. The temporary culvert crossing of Wewaka Brook would temporarily impact 400 square feet of stream resource. These impacts are not likely to have a permanent adverse impact to the this resource with mitigating protective design considerations. (Applicant 1, Attachment 6, pp. 6-7)
- 87. Wetland 6 is a small man-made pond adjacent to the north driveway entrance from Wewaka Brook Road. No direct or indirect impact to Wetland 6 would result from the proposed development. (Applicant 1, Attachment 6, p. 7)
- 88. Several spotted salamander egg masses and numerous wood frog tadpoles. Both species are considered vernal pool species. (Applicant 1, Attachment 6, p. 2)
- 89. No wildlife species observed at the site were state or federally listed endangered, threatened, or special-concern species. (Tr. 1, p. 33)
- 90. The Applicant's environmental consultant, VHB, Inc., recommends the following protective measures:
 - a) An extensive erosion and sedimentation control plan be developed in accordance with the <u>2002 Connecticut Guidelines for Soil Erosion and Sediment Control</u> to properly protect these special aquatic resources. Silt fencing will act as an exclusion to amphibians from active construction areas and avoid amphibian mortality associated with construction equipment traffic.
 - b) A thorough cover search of the construction area be performed by a properly qualified professional for amphibians prior to and following the installation of silt fencing to remove an amphibians from the work zone prior to the initiation of construction activities.
 - c) A properly qualified professional independent of the site contractor monitor the installation and maintenance of erosion and sedimentation controls throughout the construction project and perform periodic sweep for amphibians to ensure that nearby wetlands are protected and amphibians are not trapped within the construction zone of the project.

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- d) Construction of the wireless telecommunications facility be seasonally restricted from occurring between March 1 and May 15 to avoid construction activities and potential disturbance during the peak amphibian migration and breeding period. Access drive construction activities located more than 750 feet from the vernal pools are not seasonally restricted from this period, excepting in-stream work seasonal restrictions associated with the bridge replacement as previously described.
- e) Any ruts or artificial depressions that could hold water created unintentionally by site clearing/construction activities be properly filled in and permanently stabilized with vegetation to avoid the creation of decoy pools that could intercept amphibians moving towards the vernal pools.
- f) Restrict the usage of herbicides and pesticides at the proposed wireless telecommunications facility and along the proposed access drive.

(Applicant 1, Attachment 6, pp. 11-12)

- 91. The wetlands and watercourses are not expected to be adversely impacted provided that the protective measures and mitigation described by VHB, Inc. are performed. (Applicant 1, Attachment 6, p. 12)
- 92. The proposed site is not located within the 100-year or 500-year flood areas. (Applicant 1, p. 18)
- 93. AT&T utilized the FCC's TOWAIR program to determine if this proposed site would require registration with the per the Federal Aviation Administration (FAA), the proposed tower not would require lighting or marking. (Applicant 1, Attachment 5)
- 94. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of AT&T's proposed antennas is 4.56% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on 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, which creates the highest possible power density levels. Under normal operation, the antennas would be oriented outward, directing radio frequency emissions away from the tower, thus resulting in significantly lower power density levels in areas around the tower. (Applicant 1, p. 14)

Alternate Access

- 95. The Town recommended an alternate access to eliminate two proposed crossings of Wetland 4 and improve the turning radius. (Town 4)
- 96. The alternate access suggested by the Town would enter the subject property via the same bridge along the existing access drive, but would turn to the north and then run closely parallel to the northern property boundary to reach the site. The total length of the alternate access would be approximately 2,290 feet. (Applicant 9)

- 97. The alternate access would result in 5,800 square feet of wetland impact on Wetland 4 and 1,300 square feet of impact on Wetland 3. This is over 6,000 square feet of additional permanent wetland impact area versus the proposed access. (Applicant 9; Tr. 3, pp. 15, 62)
- 98. The number of trees to be cleared for the alternate access would be at least comparable to the proposed access, possibly greater. The total has not been confirmed via a field survey. (Tr. 3, p. 32)
- 99. It is not known if the underlying property owner would agree to the alternate access. The property owner was not consulted. (Tr. 1 p. 23)

Visibility

- 100. The proposed tower would be visible on a year-round basis from approximately 62 acres within a two-mile radius of the proposed site. (See Figure 7) (Applicant 1, Attachment 7 Visual Analysis Map)
- 101. The proposed tower would be seasonally visible from approximately 61 within a two-mile radius of the proposed site. (Applicant 1, Attachment 7 Visual Analysis Map)
- 102. The proposed tower would be visible year-round from approximately 17 residential properties and on a seasonal basis from approximately 19 residential properties. The streets on which these properties are located are listed in the following table.

Road	Number of Residences with Year-round Visibility	Number of Residences with Seasonal Visibility
Hut Hill Road	2	-
Northrop Road	8	5
Route 133	1	1
Skyline Ridge Road	2	6
Stuart Road	2	3
Wewaka Brook Road	2	4

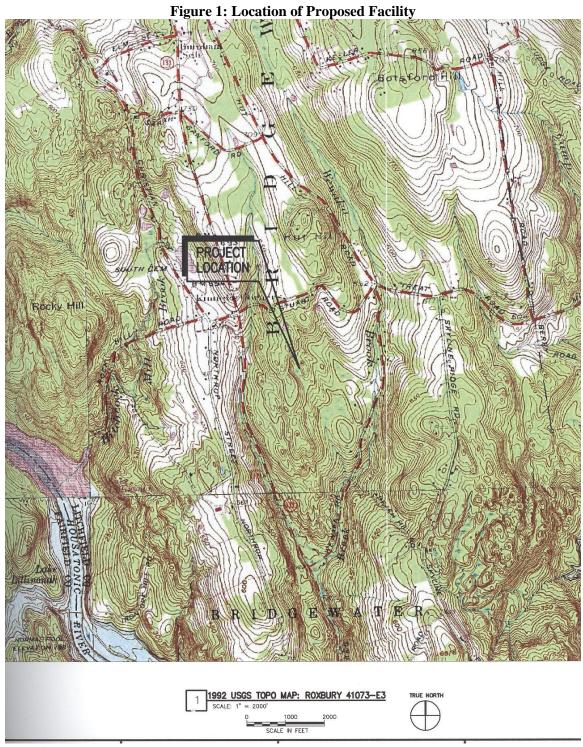
(Applicant 1, Attachment 7 – Visual Analysis Report)

103. The visibility of the proposed tower from different vantage points in the surrounding vicinity is summarized in the following table. (See Figure 7)

Location	Visibility	Approx. Portion of (170') Tower Visible (ft.)	Approx. Distance and Direction to Tower Site
1 – Skyline Ridge Road	Year round	41'	0.81 miles northwest
2 – Skyline Ridge Road near #66	Year round	60'	0.70 miles southwest
3 – Skyline Ridge Road near #66	Year round	61'	0.71 miles southwest
4 – Northrop Street near #211	Year round	60'	0.82 miles northeast
5 – Northrop Street	Year round	44'	0.78 miles northeast
6 – Northrop Street near #160	Year round	33'	0.59 miles northeast
7 – Northrop Street near #147	Year round	25'	0.50 miles southeast
8 – Northrop Street near #119	Year round	26'	0.47 miles northeast
9 – Northrop Street near #70	Year round	12'	0.45 miles southeast
10 – Stuart Road near #	Year round	48'	0.35 miles southwest
11 – Route 133	Year round	20'	0.58 miles southeast
12 – Stuart Road near #50	Year round	19'	0.33 miles southeast
13 – Hut Hill Road north of Sarah Sanford Road	Not visible	None	1.29 miles southeast
14 – Stuart Road	Not visible	None	0.42 miles southwest
15 – Route 133 at Stuart Road	Not visible	None	0.41 miles southeast
16 – Wewaka Brook Road east of Route 133	Not visible	None	0.94 miles north
17 – Wewaka Brook Road at host property	Not visible	None	0.39 miles west
18 – Wewaka Brook Road at Stuart Road	Not visible	None	0.54 miles southwest

(Applicant 1, Attachment 7 – Visual Analysis Report)

- 104. There are no state or locally designated scenic roads within a two-mile radius of the proposed site. (Applicant 1, Attachment 7 Visual Analysis Map; Tr. 1, p. 17)
- 105. There are no hiking trails within a two-mile radius of the proposed site. (Applicant 1, Attachment 7 Visual Analysis Map; Tr. 1, p. 17)

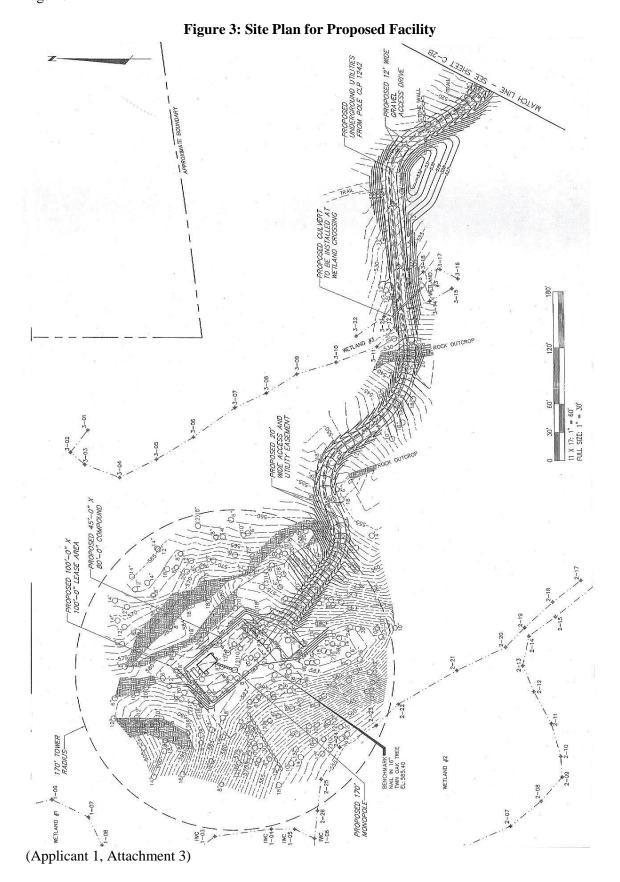


(Applicant 1, Attachment 3)

PROJECT LOCATION 133

Figure 2: Aerial Photograph of Vicinity of Proposed Facility

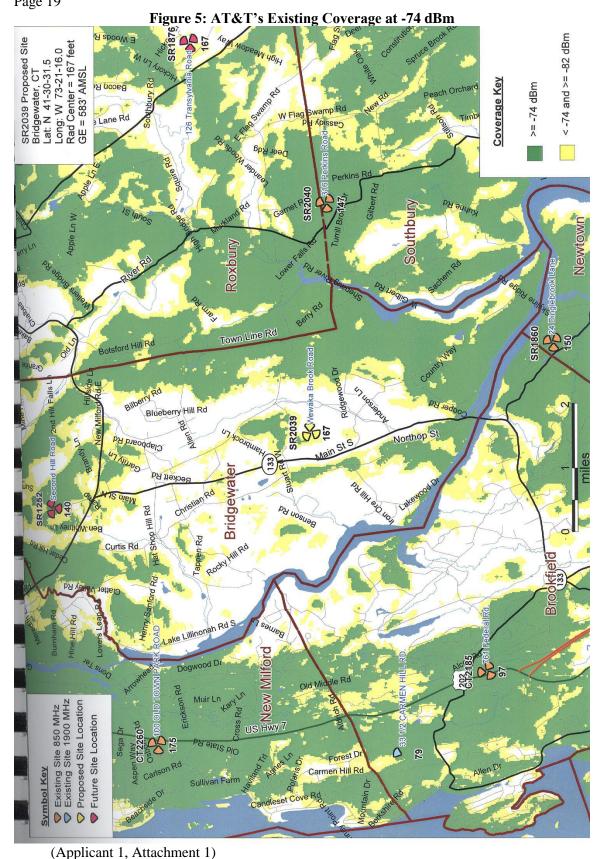
(Applicant 1, Attachment 3)

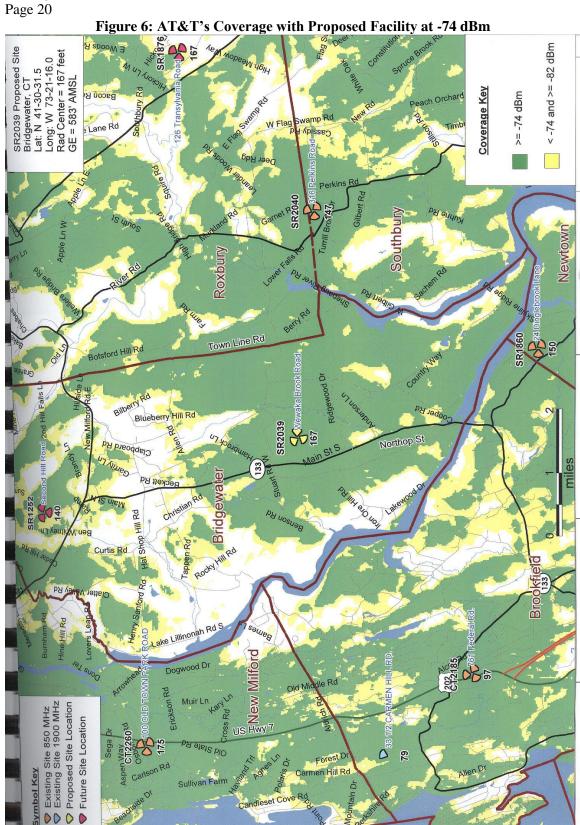


Alternate Access Map Proposed SBA Towers II LLC Telecommunications Facility Wewaka Brook Road Bridgewater, Connecticut

Figure 4: Alternate Access

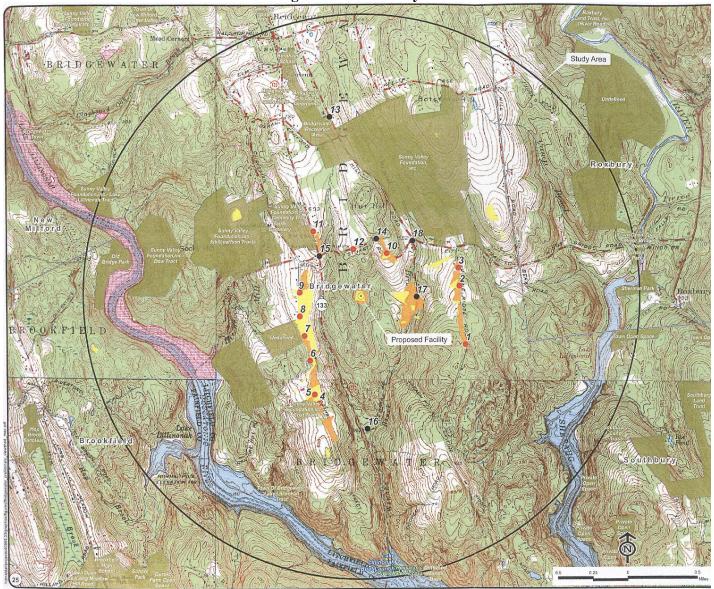
(Applicant 9)





(Applicant 1, Attachment 1)

Figure 7: Visual Analysis



(AT&T 1, Attachment 7)

Figure 8: Viewshed Map Key

