DOCKET NO. 444 – New Cingular Wireless PCS, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at the FirstLight Hydro Generating Company property, New Milford Tax Assessor Map 83, Lot 4, Kent Road, New Milford, Connecticut.	}	Connecticut
	}	Siting
	}	Council
		May 29, 2014

Findings of Fact

Introduction

1. New Cingular Wireless PCS, LLC (AT&T), in accordance with provisions of Connecticut General Statutes (C.G.S.) § 16-50g, et seq, applied to the Connecticut Siting Council (Council) on November 1, 2013 for the construction, maintenance, and operation of a 150-foot wireless telecommunications facility at the FirstLight Hydro Generating Company property, New Milford Tax Assessor Map 83, Lot 4, Kent Road, New Milford, Connecticut. (AT&T 2, p. 1)

2. The application was initially deemed incomplete by the Council on November 5, 2013 due to lack of notice to the Town of Sherman, located within 2,500 feet of the proposed facility, in accordance with C.G.S. § 16-50*l*. AT&T subsequently corrected this deficiency by providing notice to the Town of Sherman on November 11, 2013. Thus, the effective date of receipt of the complete application was February 11, 2014, or the completion of the 90-day municipal consultation period. (Council Memo dated November 5, 2013; AT&T 1d)

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. (AT&T 2, p. 3)

4. The party in this proceeding is AT&T. (Transcript 1- April 1, 2014 - 3:00 p.m. [Tr. 1], p. 4)

5. The purpose of the proposed facility is to provide reliable personal wireless services in the northwestern portion of New Milford, the Gaylordsville area, including portions of Route 7 (Kent Road), and residences and other establishments in the surrounding area. (AT&T 2, p. 1)

6. Pursuant to C.G.S. § 16-50m, the Council, after giving due notice thereof, held a public hearing on April 1, 2014, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Roger Sherman Town Hall, E. Paul Martin Room, 10 Main Street, New Milford, Connecticut. (Council's Hearing Notice dated February 21, 2014; Tr. 1, p. 1; Transcript 2 – 7:00 p.m. [Tr. 2], p. 131)

7. The Council and its staff conducted an inspection of the proposed site on April 1, 2014, beginning at 2:00 p.m. During the field inspection, the applicant flew a four-foot diameter red balloon at the proposed site to simulate the height of the proposed tower. During the field review, the balloon string was set for 150 feet above ground level (agl), and the balloon reached its full height. Weather conditions were favorable for a balloon flight. The balloon was aloft from 12:00 p.m. to 7:00 p.m. for the convenience of the public. (Council's Hearing Notice dated February 21, 2014; Tr. 1, pp. 11-12)

8. Pursuant to R.C.S.A. §16-50j-21, the Applicant installed a four-foot by six-foot sign at the entrance to the subject property on March 18, 2014. The sign presented information regarding the project and the Council's public hearing. (AT&T 4)

9. Pursuant to C.G.S. § 16-50*l* (b), public notice of the application was published in The New Milford Spectrum on October 18 and 25, 2013. (AT&T 8)

10. Pursuant to C.G.S. § 16-50*l* (b), notice of the application was provided to all abutting property owners by certified mail. Two notices were sent to The Connecticut Light and Power Company (CL&P), as listed by the New Milford Tax Assessor. While one notice was returned as undeliverable because there was no delivery point associated with that one address, the return receipt card for CL&P for the second address was received by AT&T. (AT&T 2, Tab 7; AT&T 3, response 1)

11. Pursuant to C.G.S. § 16-50*l* (b), AT&T provided notice to all federal, state and local officials and agencies listed therein. (AT&T 1; AT&T 2, Tab 8)

State Agency Comment

12. Pursuant to C.G.S. § 16-50j (h), on February 21, 2014 and April 2, 2014, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility: Department of Energy and Environmental Protection (DEEP); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Agriculture (DOAg); Department of Transportation (DOT); Connecticut Airport Authority (CAA); State Historic Preservation Office (SHPO); and Department of Emergency Services and Public Protection (DESPP). (Record)

13. On December 10, 2013, the Council received comments from the DOT's Bureau of Engineering and Construction. In its comments, DOT noted that the proposed project has utility work within the State of Connecticut right-of-way and an existing curb cut on Route 7 that requires upgrading. Thus, a permit pursuant to the Highway Encroachment Permit Regulations must be obtained prior to performing any work in the State right-of-way. The District 4 Permit Office will require four complete sets of construction plans that show all work within the State right-of-way, all site work, and any required easements and standard details for highway construction prior to issuing the encroachment permit. (DOT Comments received on December 10, 2013)

14. On March 27, 2014, the Council received comments from the CEQ. The CEQ believes that the proposed tower would be located in an area of the State known regionally and nationally for its exceptional scenic attributes. Specifically, CEQ is concerned about visibility of the tower from the Appalachian Trail (AT). CEQ suggests vegetative screening to reduce scenic intrusion, such as occlusive plantings along the AT. CEQ also notes that portions of the AT that would have visibility of the tower fall within the Upper Housatonic Valley National Heritage Area (UHVNHA). The CEQ recommends that the least intrusive design be used on towers visible from portions of the UHVNHA. (CEQ Comments received on May 27, 2014)

15. The following agencies did not respond with comment on the application: DEEP, DPH, PURA, OPM, DECD, DOAg, CAA, SHPO, and DESPP. (Record)

Municipal Consultation

16. AT&T notified the Town of New Milford of the proposal on July 10, 2013 by sending a technical report to the Mayor of the Town of New Milford. Copies of the report were also provided to the New Milford Planning Commission, Zoning Commission, Inland Wetlands Commission, and Conservation Commission. (AT&T 7; AT&T 2, p. 19, Tab 6)

17. AT&T's municipal consultation with the Town of New Milford included a public information meeting held on August 27, 2013 where members of the community and Town officials had an opportunity to discuss the proposed facility with representatives of AT&T. (AT&T 7; AT&T 2, p. 19, Tab 6)

18. The Town of New Milford did not provide any specific recommendations or suggest any alternatives sites to AT&T. (AT&T 7; AT&T 2, p. 19, Tab 6)

19. On November 11, 2013, AT&T commenced municipal consultation with the Town of Sherman by submitting copies of the Docket No. 444 Certificate Application to the Town of Sherman. (AT&T 1a)

20. Subsequently, the Town of Sherman requested that AT&T review a parcel located on Evans Hill Road in Sherman as a potential alternative tower site. See FOF #43. (AT&T 1d)

21. If requested, AT&T would provide space on the proposed tower for municipal emergency services antennas at no fee. However, the Town of New Milford has not expressed an interest in co-locating on this tower at this time. (Tr. 1, pp. 12, 45, and 124)

Public Need for Service

22. 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. 4)

23. 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 Federal Communications Commission (FCC) to provide personal wireless communication service to Litchfield County, Connecticut. (Council Administrative Notice Item No. 4; AT&T 2, p. 3; AT&T 3, response 12)

24. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 4)

25. The Telecommunications Act of 1996 prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects, which include human health 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.4)

26. In December 2009, President Barack Obama recognized cell phone towers as critical infrastructure vital to the United States. The Department of Homeland Security, in collaboration with other Federal stakeholders, State, local, and tribal governments, and private sector partners, has developed the National Infrastructure Protection Plan (NIPP) to establish a framework for securing our resources and maintaining their resilience from all hazards during an event or emergency. (Council Administrative Notice Item No. 11 -Barack Obama Presidential Proclamation 8460, Critical Infrastructure Protection)

27. Pursuant to the tower-sharing policy of the State of Connecticut under C.G.S. §16-50aa, if the Council finds that a request for shared use of a facility by a municipality or other person, firm, corporation or public agency is technically, legally, environmentally and economically feasible, and the Council finds that the request for shared use of a facility meets public safety concerns, the Council shall issue an order approving such shared use to avoid the unnecessary proliferation of towers in the state. (Conn. Gen. Stat. §16-50aa)

Existing and Proposed Wireless Coverage

28. AT&T's proposed facility would initially provide UMTS services over its 850 MHz and 1900 MHz frequencies as well as LTE services over its 700 MHz frequencies. At some point in the future, AT&T would also provide LTE services over its 1900 MHz frequencies. (AT&T 2, Tab 4; AT&T 3, responses 15 and 19)

29. An increasing percentage of AT&T's customer usage volume is associated with data rather than voice. (Tr. 1, p. 24)

30. AT&T has historically designed its GSM and UMTS networks using signal strengths of -74 dBm and -82 dBm, respectively, as its criteria for reliable in-building and in-vehicle coverage. Today, as customers expect low latency and faster data speeds, AT&T is using signal strengths of -83 dBm and -93 dBm for its 700 MHz LTE frequencies and -86 and -96 dBm for its 1900 MHz LTE frequencies. The new -93 dBm and -96 dBm thresholds are now the minimum acceptable signal levels required to meet customer expectations for 4G service and don't necessarily correlate to in-building or in-vehicle signal strength thresholds. (AT&T 3, response 15)

31. Based on 850 MHz, AT&T's existing signal strength in the area that would be served by the proposed facility ranges from -74 dBm down to less than -120 dBm. (AT&T 3, response 16)

32. The table below indicates the current coverage gaps along the main route (Route 7) and the coverage gaps along secondary routes in the area of the proposed facility.

Street Name	**Current Coverage Gap in Miles (UMTS 850 MHz)**	**Current Coverage Gap in Miles (UMTS 1900 MHz)**	**Current Coverage Gap in Miles (LTE 700 MHz)**
Kent Road (Route 7), New Milford	5.85 miles	10.69 miles	0.68 miles
Memory Lane, New Milford	0.11 miles	0.11 miles	0.06 miles
Burkhardt Way, New Milford	0.23 miles	0.23 miles	0.16 miles
Strid Lane, New Milford	0.16 miles	0.16 miles	0.16 miles
Meadowland Drive, New Milford	0.45 miles	0.45 miles	0.45 miles
Loorman Lane, New Milford	0.13 miles	0.13 miles	0.09 miles
Grove Road, New Milford	0.77 miles	0.77 miles	0.49 miles
Webatuck Road, New Milford	0.61 miles	0.61 miles	0.38 miles
Housatonic Point, Sherman	0.06 miles	0.06 miles	0.00 miles

Long River Road, Sherman	1.35 miles	1.35 miles	1.33 miles
Pond View Lane, Sherman	0.22 miles	0.22 miles	0.17 miles
Evans Hill Road, Sherman	0.95 miles	0.95 miles	0.87 miles
River Bend Lane, New Milford	0.19 miles	0.19 miles	0.00 miles

(AT&T 5, response 46)

33. The three tables below indicate the distances AT&T would cover along the main road (Route 7) and secondary roads in the area of its proposed facility at various heights.

Street Name	**Coverage in Miles with Antenna Height of 146 feet agl at UMTS 850 MHz**	**Coverage in Miles with Antenna Height of 136 feet agl at UMTS 850 MHz**	**Coverage in Miles with Antenna Height of 126 feet agl at UMTS 850 MHz**
Kent Road (Route 7), New Milford	1.94 miles	1.47 miles	1.47 miles
Memory Lane, New Milford	0.11 miles	0.11 miles	0.11 miles
Burkhardt Way, New Milford	0.23 miles	0.23 miles	0.23 miles
Strid Lane, New Milford	0.16 miles	0.14 miles	0.14 miles
Meadowland Drive, New Milford	0.13 miles	0.09 miles	0.09 miles
Loorman Lane, New Milford	0.13 miles	0.03 miles	0.03 miles
Grove Road, New Milford	0.68 miles	0.68 miles	0.67 miles
Webatuck Road, New Milford	0.57 miles	0.27 miles	0.24 miles
Housatonic Point, Sherman	0.06 miles	0.06 miles	0.06 miles
Long River Road, Sherman	0.11 miles	0.10 miles	0.10 miles
Pond View Lane, Sherman	0.11 miles	0.11 miles	0.10 miles
Evans Hill Road, Sherman	0.61 miles	0.34 miles	0.32 miles
River Bend Lane, New Milford	0.19 miles	0.19 miles	0.19 miles

Street Name	Coverage in Miles with Antenna Height of 146 feet agl at UMTS 1900 MHz	Coverage in Miles with Antenna Height of 136 feet agl at UMTS 1900 MHz	Coverage in Miles with Antenna Height of 126 feet agl at UMTS 1900 MHz
Kent Road (Route 7), New Milford	0.27 miles	0.16 miles	0.21 miles
Memory Lane, New Milford	0.00 miles	0.00 miles	0.00 miles
Burkhardt Way, New Milford	0.00 miles	0.00 miles	0.00 miles
Strid Lane, New Milford	0.10 miles	0.08 miles	0.07 miles
Meadowland Drive, New Milford	0.08 miles	0.07 miles	0.06 miles
Loorman Lane, New Milford	0.00 miles	0.00 miles	0.00 miles
Grove Road, New Milford	0.10 miles	0.08 miles	0.01 miles
Webatuck Road, New Milford	0.00 miles	0.00 miles	0.00 miles
Housatonic Point, Sherman	0.00 miles	0.00 miles	0.00 miles
Long River Road, Sherman	0.33 miles	0.34 miles	0.38 miles
Pond View Lane, Sherman	0.07 miles	0.09 miles	0.09 miles
Evans Hill Road, Sherman	0.00 miles	0.00 miles	0.00 miles
River Bend Lane, New Milford	0.02 miles	0.00 miles	0.00 miles

Street Name	Coverage with Antenna Height of 146 feet agl at LTE 700 MHz	Coverage with Antenna Height of 136 feet agl at LTE 700 MHz	Coverage with Antenna Height of 126 feet agl at LTE 700 MHz
Kent Road (Route 7), New Milford	5.85 miles	5.82 miles	5.82 miles
Memory Lane, New Milford	0.11 miles	0.11 miles	0.11 miles
Burkhardt Way, New Milford	0.23 miles	0.14 miles	0.11 miles
Strid Lane, New Milford	0.13 miles	0.13 miles	0.13 miles
Meadowland Drive, New Milford	0.45 miles	0.38 miles	0.33 miles
Loorman Lane, New Milford	0.13 miles	0.09 miles	0.06 miles
Grove Road, New Milford	0.69 miles	0.69 miles	0.69 miles
Webatuck Road, New Milford	0.61 miles	0.61 miles	0.61 miles

Housatonic Point, Sherman	0.06 miles	0.06 miles	0.06 miles
Long River Road, Sherman	1.35 miles	1.35 miles	1.35 miles
Pond View Lane, Sherman	0.22 miles	0.22 miles	0.22 miles
Evans Hill Road, Sherman	0.96 miles	0.96 miles	0.95 miles
River Bend Lane, New Milford	0.19 miles	0.19 miles	0.19 miles

(AT&T 3, response 22)

34. The table below indicates the incremental areas that AT&T would cover from its proposed facility at various heights.

Antenna Height	**Area Coverage with UTMS 850 MHz**	**Area Coverage with UMTS 1900 MHz**	**Area Coverage with LTE 700 MHz**
146 feet agl	2.83 square miles	0.54 square miles	16.1 square miles
136 feet agl	2.66 square miles	0.53 square miles	15.3 square miles
126 feet agl	2.48 square miles	0.52 square miles	14.5 square miles

(AT&T 5, response 47)

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

Site Location	**Distance from Proposed Tower**	**Height of AT&T Antennas**	**Structure Type**	**Structure Height**
136 Bulls Bridge Road, South Kent	1.48 miles	180 feet	monopole	180 feet
33 Boardman Road, New Milford	3.66 miles	120 feet	Stealth structure	150 feet
2 Taber Road, Sherman	2.48 miles	70 feet	silo	74 feet

(AT&T 3, response 11)

36. AT&T's minimum required antenna height is 146 feet agl. (AT&T 3, response 14)

37. At antenna heights less than 146 feet, gaps will open up along Route 7 between the connection to an existing site to the north and the South Kent area and to the site in the south in New Milford. (Tr. 1, pp. 18-19)

Site Selection

38. AT&T established a search ring in northwestern New Milford with a 0.5-mile radius centered at 41° 39' 51.13" north latitude and 73° 29' 47.51" west longitude. (AT&T 3, response 24; AT&T 2, Tab 2)

39. The search area consists principally of the FirstLight Hydroelectric Generating Facility, rural single family residential uses, and unprotected open space, along with Route 7. (AT&T 2, p. 1)

40. There are no known existing commercial wireless sites or tall structures in the northwestern part of Town that AT&T could use to provide service to the northwestern portion of New Milford. (AT&T 2, Tab 2)

41. There is only one existing tower within a 2-mile radius of the center of the search ring. This is an existing 89-foot church steeple tower facility located 685 Kent Road, New Milford. This site would not meet AT&T's coverage objectives. (AT&T 2, Tab 2)

42. After determining there were no suitable structures within the search area, AT&T searched for properties suitable for tower development. AT&T investigated nine parcels, one of which was selected for site development. The eight rejected parcels and reasons for their rejection are as follows:
    a) 774 Kent Road (Balmoral Pet Cemetary) – This site was rejected by AT&T because the proposed site would provide more coverage.
    b) 5 Burkhardt Way (private residence) – This site was rejected by AT&T due to the proximity of residences and the difficult access and terrain.
    c) 2 Evans Hill Road (Club River Oaks Wedding Farm) – This site was rejected by AT&T because it would not meet coverage objectives.
    d) 40 Bulls Bridge Road (South Kent Boarding School) – This site was rejected by AT&T because it would not meet coverage objectives.
    e) 70 Bulls Bridge Road (Bulls Bridge Country Club) – This site was rejected by AT&T because it would not meet coverage objectives.
    f) 8 Twin Oaks (Twin Oaks Condos) – This site was rejected by AT&T because it would not meet coverage objectives.
    g) 407 Kent Road (New England Auto Wrecking) – This site was rejected by AT&T because it would not meet coverage objectives.
    h) 3 Martha Lane (Forza Motor Sports) – This site was rejected by AT&T because it would not meet coverage objectives.

    (AT&T 2, Tab 2)

43. AT&T also evaluated the Evans Hill Road site in Sherman suggested by the Town of Sherman and determined that it would not meet coverage objectives. (AT&T 1c)

44. The existing tower at the Gaylordsville Volunteer Fire Department would not meet AT&T's coverage objectives. (AT&T 5, response 41)

45. The existing electric transmission structures in the vicinity of the FirstLight Hydro Generating facility are located in a valley, and as such, do not have adequate height to meet AT&T's coverage objectives. (AT&T 3, response 26)

46. Microcells, repeaters, and distributed antennas systems are not viable technological alternatives for providing service to the target area. These technologies are better suited for specifically defined areas where new coverage is needed such as commercial buildings, shopping malls, tunnels, or at locations needing increased capacity. Closing the coverage gaps and providing reliable wireless services in northwestern New Milford requires a tower site, such as that proposed, that can provide reliable service over a footprint spanning several thousand acres. (AT&T 2, pp. 9-10)

Facility Description

47. The proposed site is located on a 168.5-acre parcel with frontage along Kent Road (Route 7). The parcel is owned by FirstLight Hydro Generating Company. The site is zoned R-80 Residential. The proposed tower location is depicted on Figure 1. (AT&T 2, pp. 1 and 11)

48. The subject property includes open water associated with Cedar Hill Pond, which was created by a head gate structure impounding a diversion of the Housatonic River specifically for purposes of generating hydroelectric power. The remainder of the site is mostly wooded. (AT&T 2, p. 13 and Tab 3)

49. The proposed tower would be located in the southern portion of the property at 41° 39' 41.0" north latitude and 73° 29' 29.2" west longitude at an elevation of 367 feet above mean sea level (amsl). (AT&T 2, Tab 3)

50. The proposed facility would consist of a 150-foot monopole within a 100-foot by 100-foot leased area. The tower would be five feet wide at the base tapering to 3.5 feet at the top. The tower would be designed to support four levels of antennas, including AT&T, with 10-foot center-to-center vertical separation. (AT&T 2, Tab 3; AT&T 6)

51. The proposed facility would not be designed to be expandable in height. However, it could be designed to be expandable in height if requested by the Council. (Tr. 1, p. 45; AT&T 3, response 9)

52. AT&T would install a total of 12 panel antennas at a centerline height of 146 feet agl. The antennas would be attached to a four-sided square platform. AT&T would install four antennas on each of three sides of the platform. The antennas would be approximately eight feet tall, so the top of the antennas would be flush with the top of the tower at 150 feet agl. (AT&T 2, Tab 3; AT&T 3, response 8; AT&T 5, response 43)

53. AT&T would also install up to five remote radio heads and three surge arrestors on the antenna platform. (AT&T 2, Tab 3)

54. T-arm antenna mounts could be used and would still allow AT&T to meet its coverage objectives. (Tr. 1, p. 19)

55. A flush-mounted antenna configuration would result in reduced coverage or necessitate greater antenna height while hindering future technological upgrades. Three levels of antennas, beginning with the minimum height, would be needed. Thus, approximately twenty feet of additional tower height would be required to provide comparable coverage. Future technology may eventually require 30 or 40 feet of additional height. (AT&T 3, response 38; Tr. 1, pp. 19-20)

56. A 75-foot by 75-foot fenced equipment compound would be established at the base of the tower. The size of the compound would be able to accommodate the equipment of a total of four wireless carriers including AT&T. (AT&T 6)

57. No other wireless carriers have expressed an interest in co-locating on the proposed tower at this time. (Tr. 1, p. 12)

58. AT&T would install a 12-foot by 20-foot equipment shelter within the western portion of the equipment compound. Two heating/cooling units (HVAC units) would be installed on the outside of the equipment shelter. (AT&T 6)

59. No landscaping around the compound is proposed. (AT&T 2, Tab 3)

60. Access to the site would be provided along an existing paved access drive from Kent Road for about 56 feet. The access would continue over a proposed gravel access drive for about 383 additional feet to the proposed compound. (AT&T 2, p. 2; AT&T 5, response 44)

61. The access drive would have an average grade of approximately 11 percent. (Tr. 1, p. 13)

62. Development of the proposed access drive would require approximately 76.65 cubic yards of net fill, and development of the proposed compound would require 293.87 cubic yards of net cut. This results in a project total of 217.22 cubic yards of net cut. (AT&T 3, response 4; AT&T 5, response 45)

63. Utilities would be installed underground from an existing pole on Kent Road to the proposed compound, generally following the access drive. (AT&T 2, p. 11; AT&T 6; Tr. 1, pp. 13-14)

64. There are two existing utility poles on the same side of Kent Road as the subject property. It is not yet known which pole would be utilized; that would be coordinated with the utility company. However, utility service to the proposed tower is not expected to cross Kent Road. (Tr. 1, p. 13)

65. Blasting is not anticipated for the construction of the site. If ledge is encountered, removal by mechanical means would be first attempted. If mechanical removal means are not successful, blasting would be considered to remove the ledge. (AT&T 3, response 5)

66. Pursuant to CGS § 16-50p(a)(3)(G), there are no schools or commercial day care facilities located with 250 feet of the host property. The nearest school and day care facility are the Kent Center School and the Community Nursery School, both located approximately 4.4 miles to the north in the Town of Kent. (AT&T 2, Tab 5)

67. The nearest property boundary from the proposed tower is approximately 390 feet to the southwest. This is the property boundary with Route 7. On the opposite side of Route 7 is a parcel owned by CL&P. (AT&T 6)

68. There is one residence within 1,000 feet of the proposed tower site. It (Shimko residence) is located at 67 Grove Road, approximately 800 feet southeast of the tower site. (AT&T 3, response 3; AT&T 6)

69. The site preparation phase of construction is expected to take three to four weeks. Installation of the tower, antennas, and associated equipment would take an additional two weeks. After completion of construction, facility integration and system testing would take approximately additional two weeks. (AT&T 2, p. 20)

70. The estimated construction cost of the proposed facility is:

Tower and Foundation	$ 90,000.
Site Development	90,000.
Utility Installation	55,000.
Facility Installation	65,000.
Antennas and Equipment	250,000.
Total	$ 550,000.

(AT&T 2, p. 19)

Backup Power

71. In response to two significant storm events in 2011, Governor Malloy formed a Two Storm Panel (Panel) that was charged with an objective review and evaluation of Connecticut's approach to the prevention, planning and mitigation of impacts associated with emergencies and natural disasters that can reasonably be anticipated to impact the state. Two of the Panel's findings are as follows:
    a. "Wireless telecommunications service providers were not prepared to serve residential and business customers during a power outage. Certain companies had limited backup generator capacity;" and
    b. "The failure of a large portion of Connecticut's telecommunications system during the two storms is a life safety issue."

    (Final Report of the Two Storm Panel, Council Administrative Notice Item No. 39)

72. The Panel made the following recommendations:
    a. "State regulatory bodies should review telecommunications services currently in place to verify that the vendors have sufficient generator and backhaul capacity to meet the emergency needs of consumers and businesses:" and
    b. The Connecticut Siting Council should require continuity of service plans for any cellular tower to be erected. In addition, where possible, the Siting Council should issue clear and uniform standards for issues including, but not limited to, generators, battery backups, backhaul capacity, response times for existing cellular towers."

    (Final Report of the Two Storm Panel, Council Administrative Notice Item No. 39)

73. In response to the findings and recommendations of the Panel, Public Act 12-148, An Act Enhancing Emergency Preparedness and Response, codified at C.G.S. §16-50*ll*, required the Council, in consultation and coordination with the Department of Energy and Environmental Protection, the Department of Emergency Services and Public Protection and the Public Utilities Regulatory Authority (PURA), to study the feasibility of requiring backup power for telecommunications towers and antennas as the reliability of such telecommunications service is considered to be in the public interest and necessary for the public health and safety. The study was completed on January 24, 2013. (Council Docket No. 432, Council Administrative Notice Item No. 25)

74. The Council's study included consideration of the following matters:
    a. Federal, state and local jurisdictional issues of such backup power requirements, including, but not limited to, siting issues;
    b. Similar laws or initiatives in other states;
    c. The technical and legal feasibility of such backup power requirements;
    d. The environmental issues concerning such backup power; and
    e. Any other issue concerning backup power that PURA deems relevant to such study.

    (Council Docket No. 432, Council Administrative Notice Item No. 25)

75. The Council reached the following conclusions in the study:
    a. "Sharing a backup source is feasible for CMRS providers, within certain limits. Going forward, the Council will explore this option in applications for new tower facilities;" and
    b. "The Council will continue to urge reassessment and implementation of new technologies to improve network operations overall, including improvements in backup power."

    (Council Docket No. 432, Council Administrative Notice Item No. 25)

76. For backup power, AT&T would install a 50-kilowatt (kW) backup generator on a four-foot by eight-foot concrete pad within the fenced compound. This generator would be sized for AT&T's use only. AT&T would also install a 500-gallon propane fuel tank within the compound to supply the backup generator. The typical run time of the generator before it requires refueling is 38 hours. (AT&T 2, Tab 3; AT&T 3, responses 28 and 29)

77. AT&T would also have a battery backup system in order avoid a "re-boot" condition during the generator start-up delay period. The battery backup system could provide four to six hours of backup power. (AT&T 3, responses 28, 29, and 30; Tr. 1, pp. 124-125)

78. The backup generator would run approximately 20 minutes per week to maintain proper working condition. (Tr. 1, p. 15)

79. According to R.C.S.A. §22a-69-1.8, noise created as a result of, or relating to, an emergency, such as an emergency backup generator, are exempt from the State Noise Control Regulations. (R.C.S.A. §22a-69-1.8)

80. AT&T could design the equipment compound to provide future flexibility for the possible deployment of a larger shared generator should another carrier (or future tower site owner) decide to deploy one in the future. (AT&T 3, response 32; Tr. 1, p. 125)

Public Safety

81. The Wireless Communications and Public Safety Act of 1999 (911 Act) was enacted by Congress to promote and enhance public safety by making 9-1-1 the universal emergency assistance number, by furthering deployment of wireless 9-1-1 capabilities, and by encouraging construction and operation of seamless ubiquitous and reliable networks for wireless services. (Council Administrative Notice Item No. 6)

82. AT&T's facility would be in compliance with the requirements of the 911 Act. (AT&T 2, pp. 8-9)

83. AT&T's facility would provide Enhanced 911 services. This allows carriers to help 911 public safety dispatchers identify wireless callers' geographical locations within several hundred feet. (AT&T 2, pp. 8-9)

84. Pursuant to the Warning, Alert and Response Network Act of 2006, the FCC has established a Personal Localized Alerting Network (PLAN) that requires wireless communication providers to issue text message alerts from Federal bodies, including the President of the United States. PLAN would allow the public to receive e-mails and text messages on mobile devices based on geographic location. The proposed facility would enable the public to receive e-mails and text messages from the CT Alert ENS system. (AT&T 2, p. 9)

85. The tower would be constructed in accordance with the American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures". (AT&T 2, Tab 3)

86. The proposed equipment compound will be surrounded by an eight-foot high chain-link fence without barbed wire. (AT&T 6; Tr. 1, p. 14)

87. The tower setback radius would remain within the boundaries of the subject property. (AT&T 6)

Environmental Considerations

88. The proposed facility would typically only be visited by AT&T approximately once per month for about an hour for maintenance purposes. (Tr. 1, p. 122-123)

89. The proposed facility would have no effect upon historic properties. (AT&T Administrative Notice Item No. 1)

90. No negative impacts to Federal or State Endangered, Threatened, or Special Concern species is expected to result from the proposed project. The facility is not located within the shaded area of the DEEP Natural Diversity Database map. (AT&T 2, Tab 4; Tr. 1, pp. 16-17)

91. Part of the subject property associated with the Housatonic River (and not the proposed facility) may have bald eagles present. While it is possible that the bald eagle could overfly the leased area, no adverse impact to the bald eagle is anticipated. (Tr. 1, p. 17)

92. The proposed project is not expected to have an adverse impact on migrating bald eagles. (Tr. 1, p. 70)

93. The proposed tower site is not proximate to an Important Bird Area. Neither is it within what is considered an important area for nesting for birds. Notwithstanding, AT&T is willing to avoid construction during the peak nesting period for birds, which is recognized by the U.S. Fish and Wildlife Services as April 15th through July 15th, and any tree clearing work could be completed prior to April 15th. (Tr. 1, pp. 65-67; AT&T 2, Tab 4 – Avian Resources Evaluation Report, p. 8)

94. If tree clearing must occur during the April 15th through July 15th time period, an avian study could be performed to determine if breeding birds would be disturbed. If the study found that breeding birds would not be disturbed, the seasonal restriction could be lifted for the following season. (Tr. 1, p. 65-66)

95. The proposed tower would comply with the U.S. Fish and Wildlife Services guidelines for minimizing the potential impact to birds. (AT&T 2, Tab 4 – Avian Resources Evaluation Report, p. 8)

96. Because of the relatively low height, lack of lighting, and absence of guy wires, bird strikes on the tower are expected to be minimal. (Tr. 1, p. 74)

97. A total of approximately 11 trees six inches in diameter or greater at breast height would be removed to construct the project. (AT&T 6; Tr. 1, p. 13)

98. Wetland 1 is a large open water wetland associated with Cedar Hill Pond, an impounded diversion of the Housatonic River created by Cedar Hill Dam (refer to Figure 1). Impounded water is controlled by a hydroelectric generating facility located on the west side of Kent Road. Much of the western bank of Cedar Hill Pond is armored with rip-rap. Sparse vegetation has colonized the banks. (AT&T 2, Tab 4 – Wetland Investigation Report, p. 4)

99. Wetland 1 is approximately 96 feet from the southern side of the proposed compound and approximately 18 feet from the proposed access drive. (AT&T 6; Tr. 1, pp. 28-29; AT&T 2, p. 13)

100. Wetland 2 is a small isolated depressional wetland area (refer to Figure 1). Evidence of historic alluvial soil activity was observed within soil profiles investigated within Wetland 2. It appears that with the building of the Cedar Hill Dam, this wetland area lost some of its active hydrology. (AT&T 2, Tab 4 – Wetland Investigation Report, p. 4)

101. Wetland 2 does not have sufficient hydroperiod to be a viable vernal pool. It is a fairly small, apparently relic feature that has been disturbed by the development along Kent Road and the original development of the hydroelectric plant. (Tr. 1, p. 59)

102. Wetland 2 is approximately 285 feet from the western side of the compound and approximately 98 feet from the access drive. (AT&T 6)'

103. Although portions of the proposed access drive are located within close proximity (approximately 18 feet) of Wetland 1, no temporary impacts associated with construction are anticipated, provided that erosion and sedimentation controls are designed, installed, and maintained during construction in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control.* (AT&T 2, Tab 4 – Wetland Investigation Report, p. 5)

104. AT&T's environmental consultant, All Points Technology, Inc. recommends that stormwater generated by the proposed facility be properly handled and treated and in accordance with the *2004 Connecticut Stormwater Quality Manual.* (AT&T 2, Tab 4 – Wetland Investigation Report, p. 5)

105. No direct impact to wetlands would be associated with AT&T's development. With the recommended erosion and sedimentation controls and stormwater handing, the proposed facility would not result in a likely adverse impact to wetland resources. (AT&T 2, Tab 4 – Wetland Investigation Report, p. 5)

106. Long-term secondary impacts to wetland resources possibly associated with this facility are expected to be minimized by the development being unmanned, minimal creation of impervious surfaces given the gravel compound and access drive, and minimal maintenance traffic. (AT&T 2, Tab 4 – Wetland Investigation Report, p. 5)

107. The backup generator housing and container has built-in containment in the event of any coolant or oil leaks. (Tr. 1, p. 15)

108. Obstruction marking and lighting of the tower would not be required. (AT&T 2, Tab 3)

109. The proposed equipment shelter would have an outdoor halogen lamp located near the access door. The light would be off except when turned on by the motion sensor. (AT&T 5, response 49; Tr. 1, p. 14)

110. The HVAC units would meet the applicable noise standards at the property boundaries. (AT&T 6; AT&T 3, response 39; Tr. 1, p. 15)

111. The proposed site is not located within a 100-year or 500-year flood zone. (AT&T 3, response 6 – Attachment 1)

112. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of AT&T's proposed antennas is 9.97% of the standard for the General Public/Uncontrolled 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. (AT&T 2, Tab 4; Council Administrative Notice Item No. 2)

Visibility

113. The proposed tower would be visible year-round from approximately 62 acres within a two-mile radius of the site (refer to Figure 11). The tower would be seasonally visible from approximately 140 acres within a two-mile radius of the site. (AT&T 2, Tab 5)

114. The tower would be visible year-round from approximately five homes and would be seasonally visible from approximately 14 homes. (AT&T 5, response 50)

115. The tower would be at least partially visible year-round along Route 7 in the immediate area of the site and extending generally northwest for about 0.75 miles. (AT&T 2, p. 12)

116. Visibility of the proposed tower from specific locations within a two-mile radius of the site is presented in the table below:

Location	Visible	Approx. Portion of Tower Visible	Approx. Distance to Tower
Kent Road	Yes	52 feet – above trees	0.48 miles southeast
Kent Road	Yes	60 feet – above trees	0.09 miles northeast
Kent Road	Yes	87 feet – above trees	0.10 miles north
Grove Road – adjacent to #67	Yes	76 feet - unobstructed	0.14 miles northwest
Grove Road – adjacent to #53	Yes	20 feet - obstructed	0.33 miles northwest
Long River Road	Yes	10 feet – through trees	1.06 miles northeast
Merwinsville – Brown Forge Road	No	None	1.25 miles northwest

(AT&T 2, Tab 5)

117. The UHVNHA does not include the Town of New Milford. Thus, the proposed project is not located within the UHVNHA. (Tr. 1, p. 29; Council Administrative Notice Item No. 59)

118. There is potential for some year-round visibility of the proposed tower within the UHVNHA along select portions of the Appalachian Trail. However, these are likely over-predictions based on the visibility model. (Tr. 1, p. 30)

119. Theoretically, the very top of the tower might be visible above the tree line in select locations from the AT looking down the river valley. Overall, the views of the tower from the AT are not expected to be significant. (Tr. 1, pp. 31-33; AT&T 2, Tab 5)

120. A portion of the AT along the northern Sherman boundary may have some direct views of the tower, but given the woodlands of both deciduous and evergreen vegetation, the visual analysis model is likely over-predictive. From that vantage point, a viewer would have to know what to look for in order to discern a tower from the surrounding vegetation. (Tr. 1, p. 36)

121. In general, views from the AT would be distant: approximately one mile from the proposed tower. (Tr. 1, p. 112)

122. Some limited seasonal views of the tower are possible approximately 2 miles northwest of the proposed tower location. This is the Schaghticoke Mountain area in Dutchess County, New York. This area is not located within the UHVNHA (Tr. 1, pp. 33-34; AT&T 2, Tab 5; Council Administrative Notice Item No. 59)

123. The Herrick Trail Preserve (HTP) is located in Sherman to the west of the Housatonic River. The HTP has two designated lookout points named Housatonic Overlook and Amy's Overlook. Visibility of the tower from either lookout point is not expected. However, seasonal or leaf-off views are theoretically possible, not on the overlooks themselves, but along the ledges. However, the backdrop of the Cedar Hill would not allow the tower to actually extend above the ridgeline and be profiled against the sky. (Tr. 1, pp. 36-38)

124. AT&T did consider stealth tower designs such as a tree tower, lookout tower, and water tower. However, a stealth tower design may draw the observer's eye even more particularly on Route 7 headed southbound where the tower would be profiled against the sky. (Tr. 1, p. 41-43)

125. The tower could be painted a forest brown or even a softer gray rather than galvanized steel finish to improve aesthetics from more distant vistas. A wooden pole look could even be considered given the existing wood H-frame electric poles in the area. (Tr. 1, pp. 42-44)

126. The antennas could also be painted to match the tower. (Tr. 1, p. 44)

127. Vegetative screening along the AT would be counterproductive, given that it would deprive the public of views from the trail itself. Also permission from property owners would have to be secured before any vegetative screening could be planted. (Tr. 1, pp. 55-58, and 112)

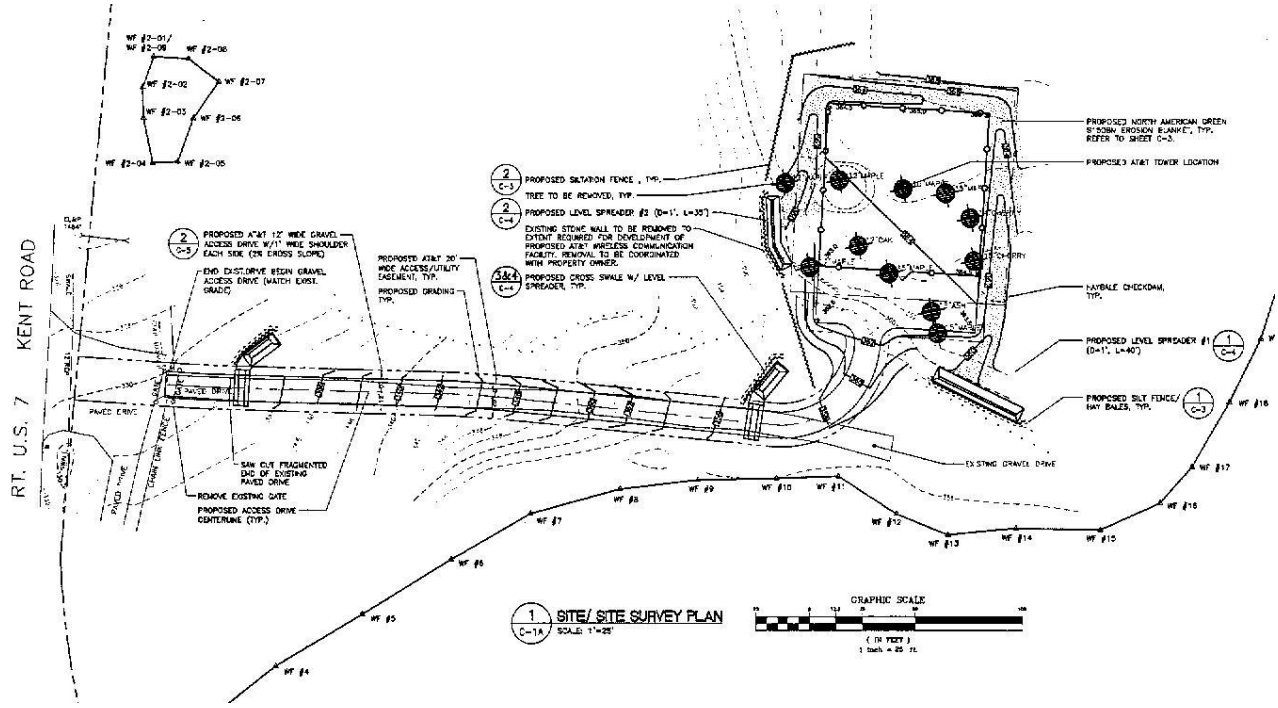
128. If the tower were relocated roughly 100 feet to the northeast (i.e. farther away from Route 7), visibility would be reduced from the immediate area. AT&T could follow the existing access along the canal instead of veering off in the woods. This would reduce the visual impact on Grove Road in the vicinity of address number 67 by increasing the distance and would not materially affect RF propagation. (Tr. 1, pp. 114-118; AT&T 2, Tab 4 – Visual Resource Analysis)

129. There are no State-designated scenic roads within the 2-mile radius study area. (AT&T 2, Tab 5)

Figure 1 – Proposed Site Location and Wetland Map

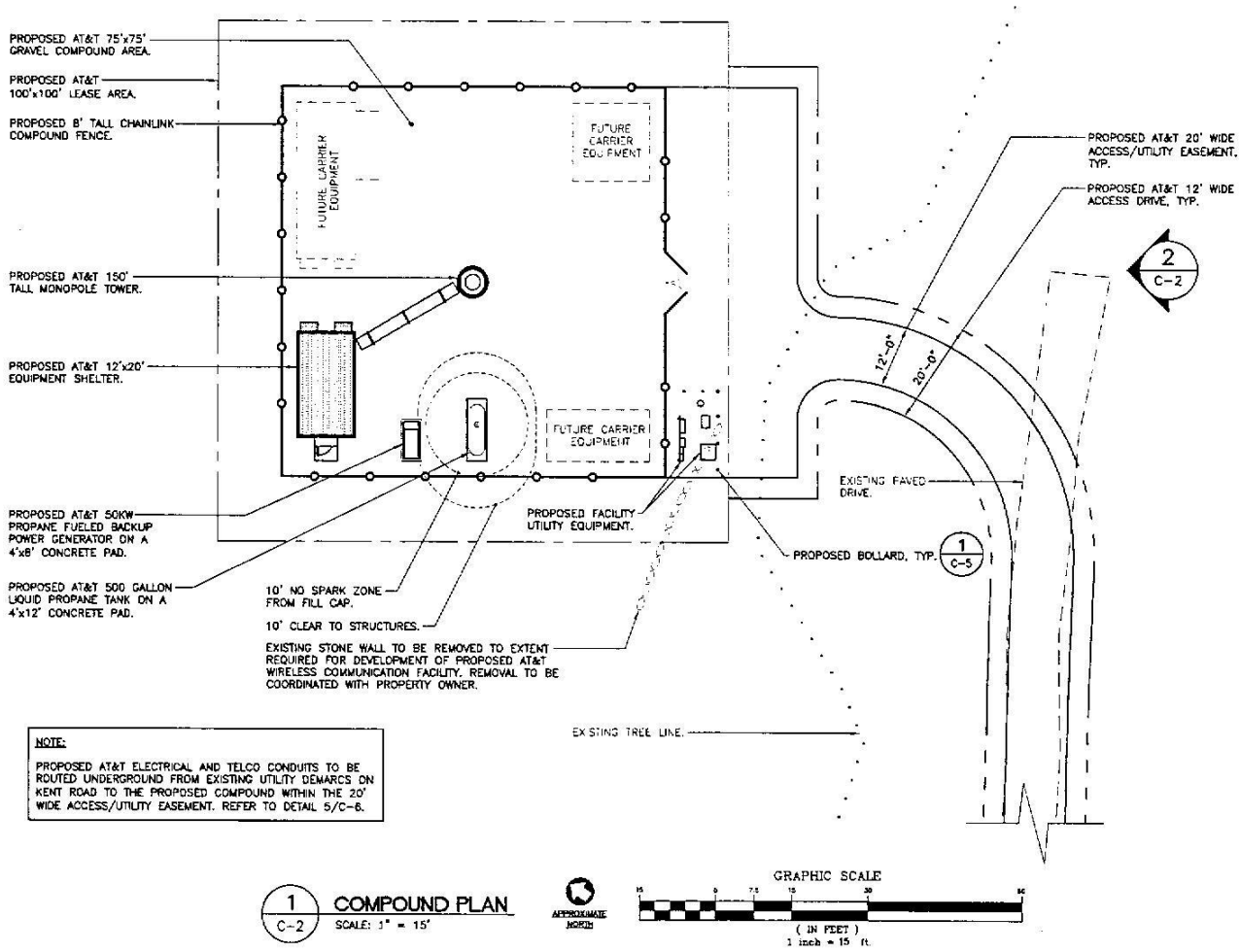
(AT&T 2, Tab 4)

Figure 2 - Site Plan



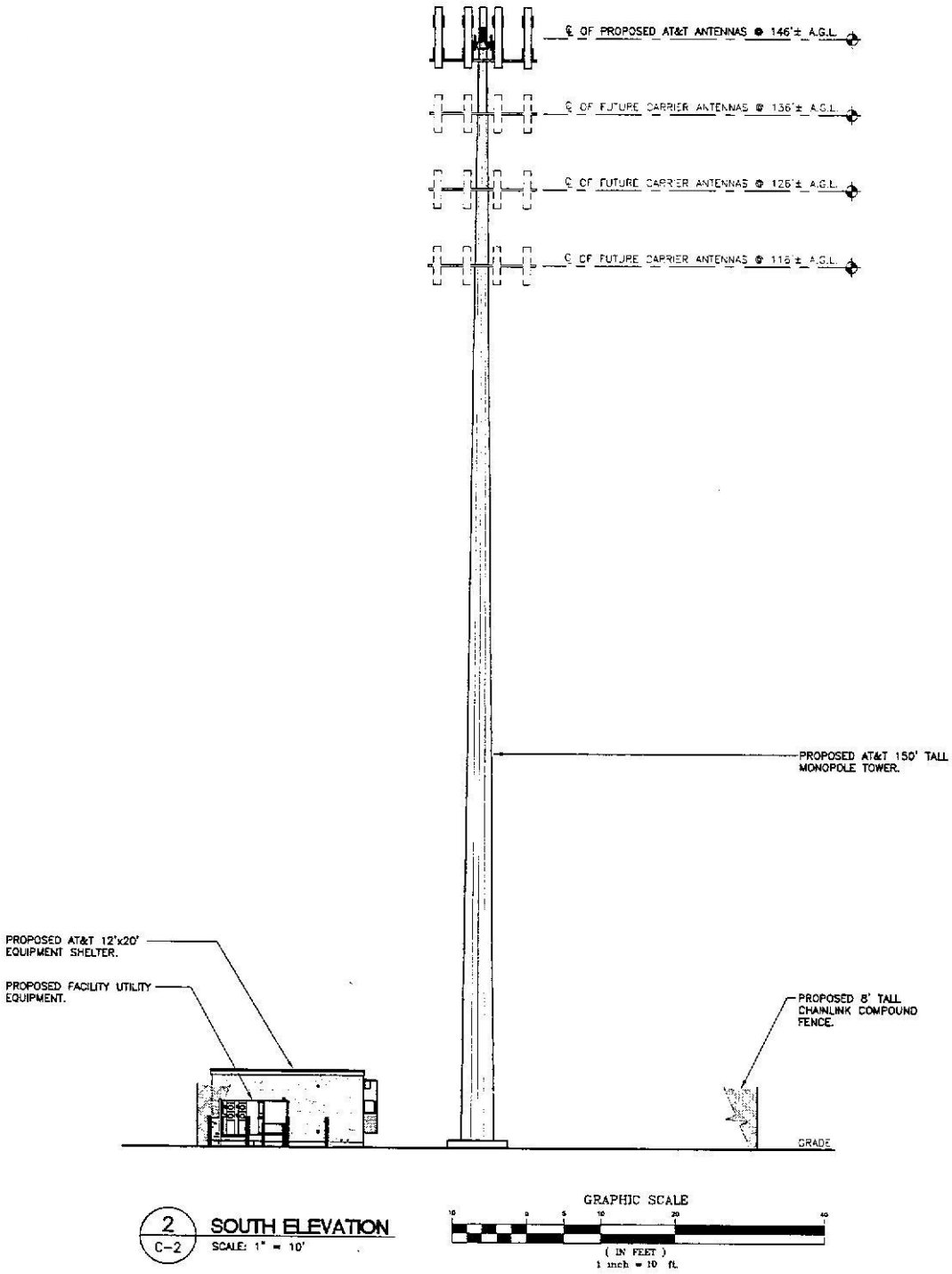
(AT&T 6 – Drawing C-1A)

Figure 3 - Compound Plan



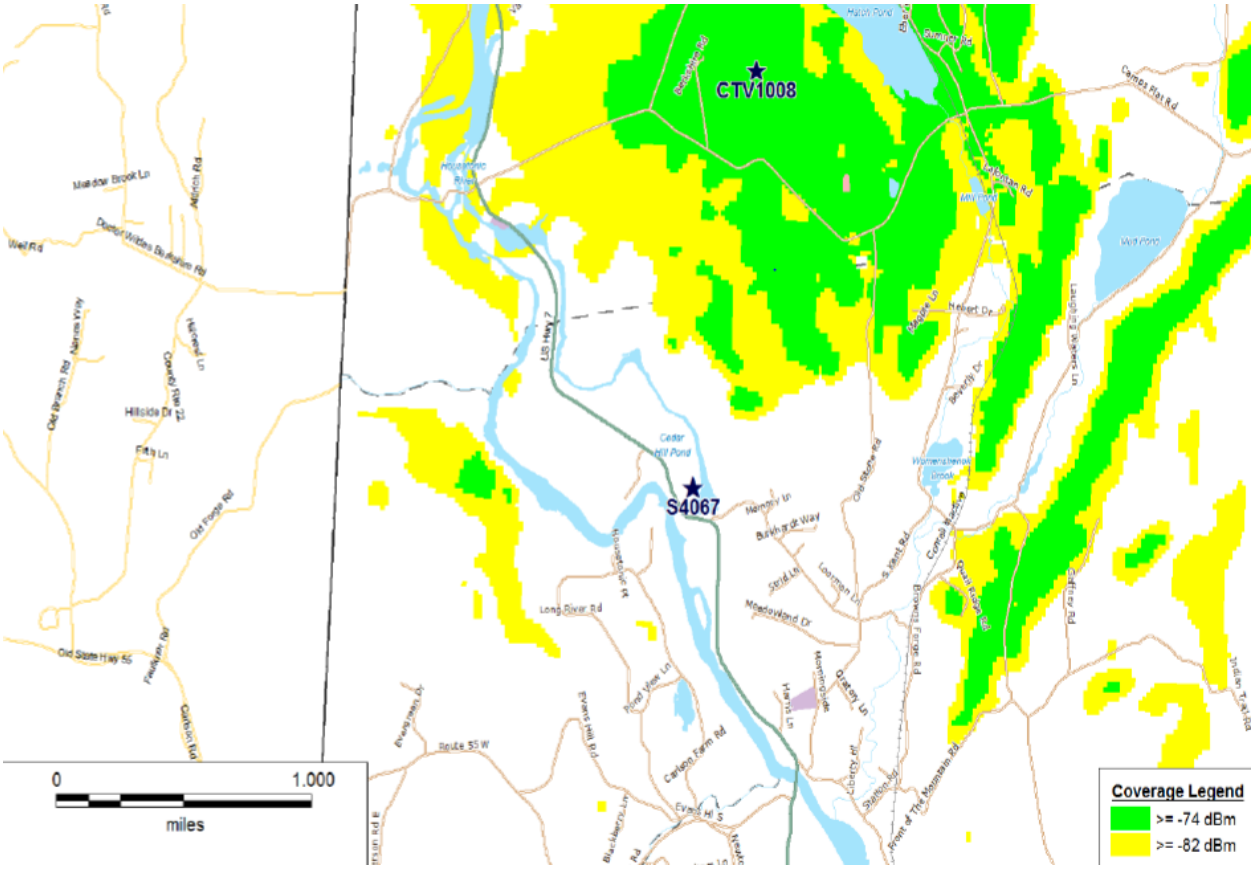
(AT&T 6 – Drawing C-2)

Figure 4 - Tower Profile Drawing



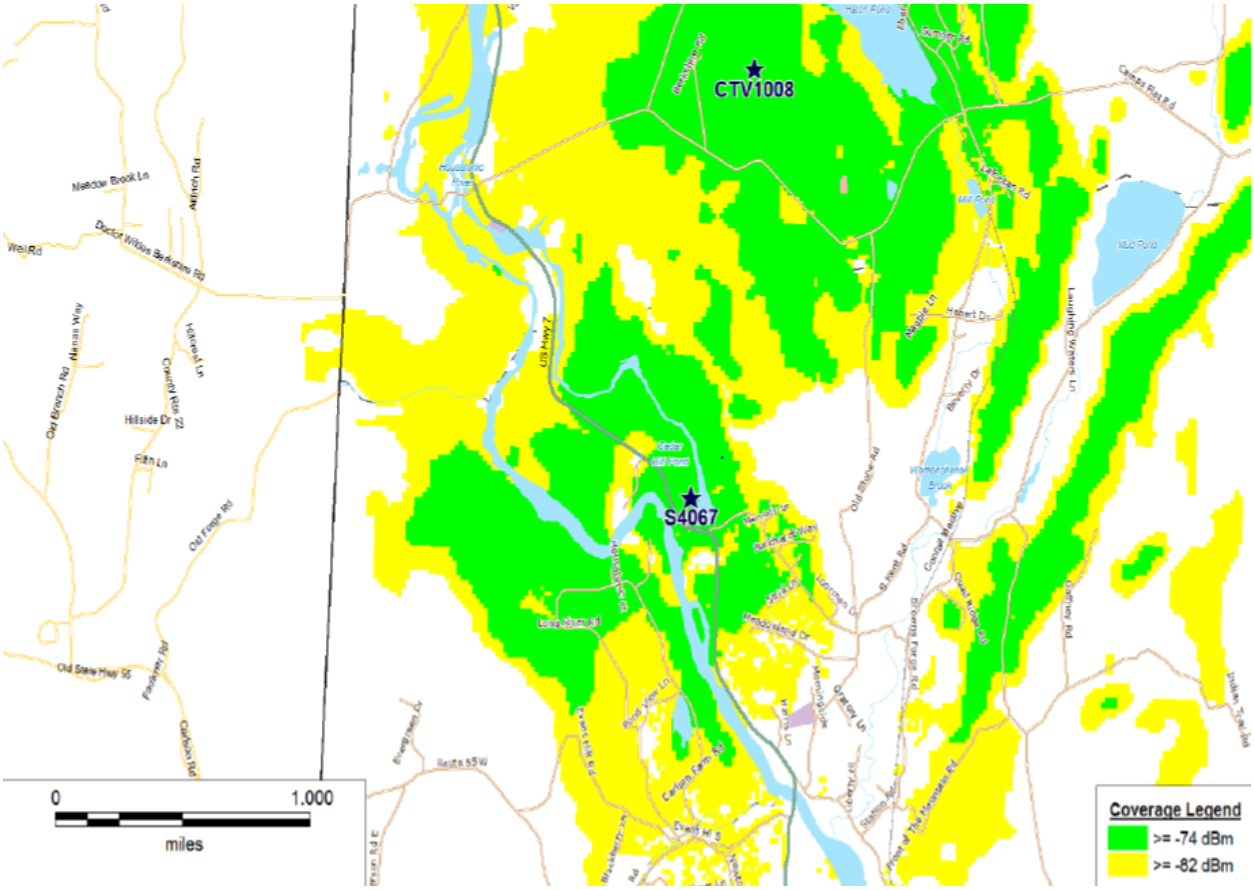
(AT&T 6, Drawing C-2)

Figure 5 - Existing 850 MHz Coverage



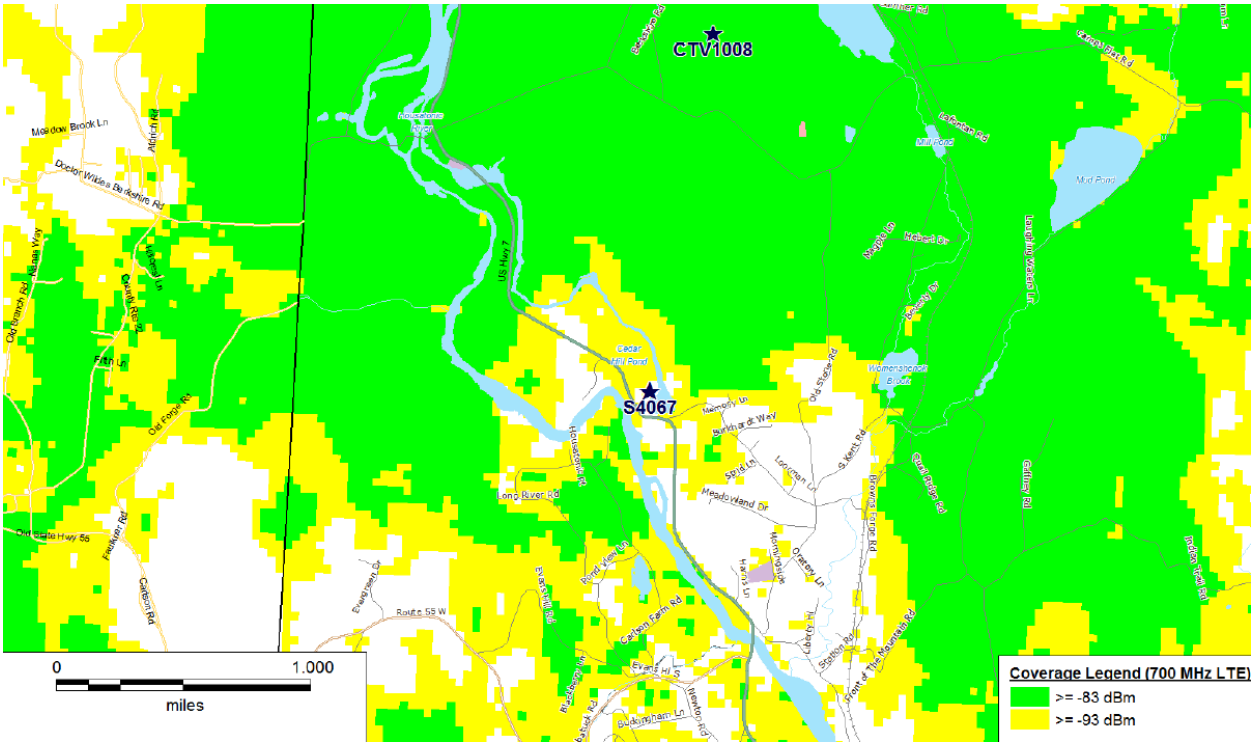
(AT&T 2, Tab 1 – Radio Frequency Engineering Report)

Figure 6 – Existing and Proposed 850 MHz Coverage at Antenna Centerline Height of 146 feet



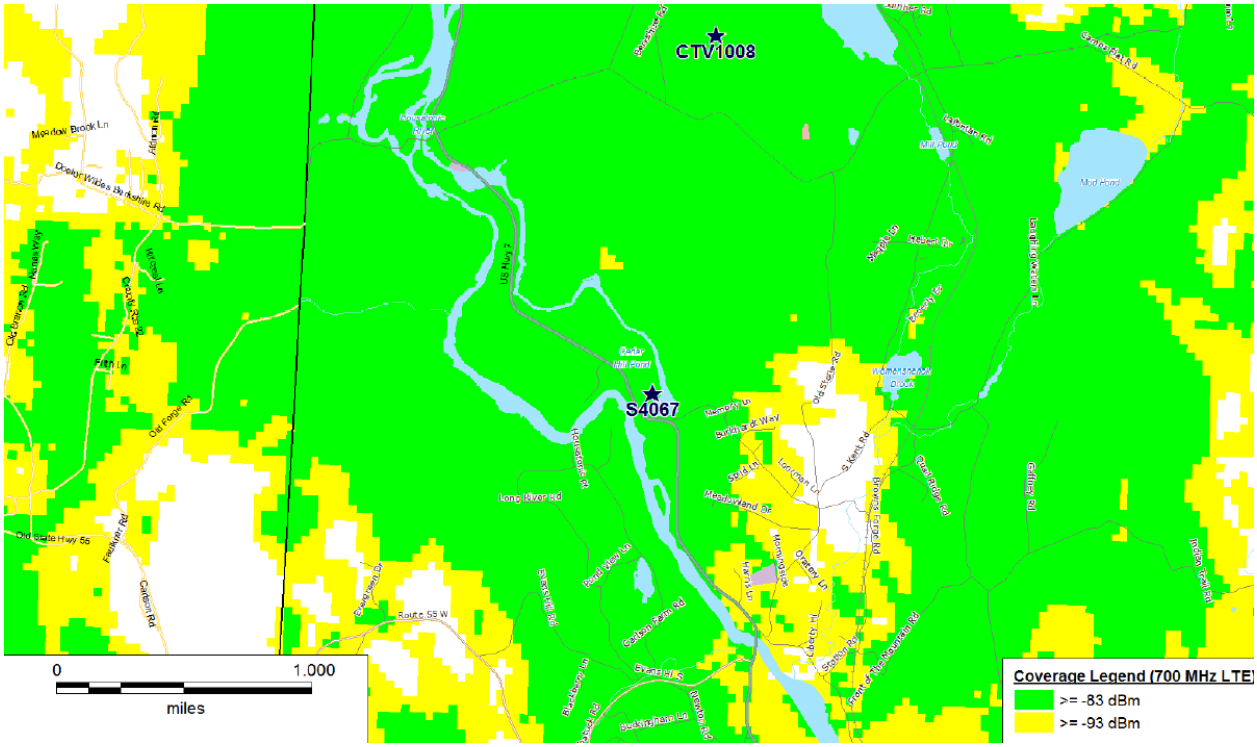
(AT&T 2, Tab 1 – Radio Frequency Engineering Report)

Figure 7 - Existing 700 MHz Coverage



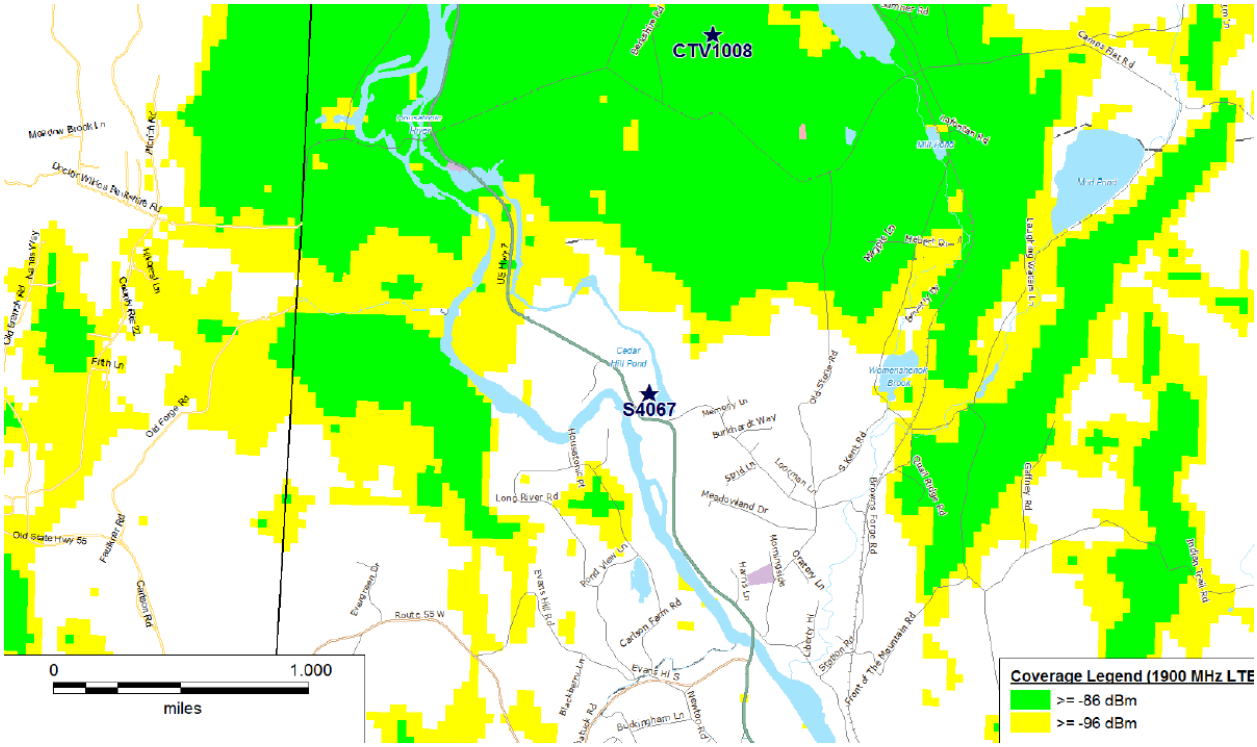
(AT&T 5, response 48, attachment 1)

Figure 8 – Existing and Proposed 700 MHz Coverage at Antenna Centerline Height of 146 feet



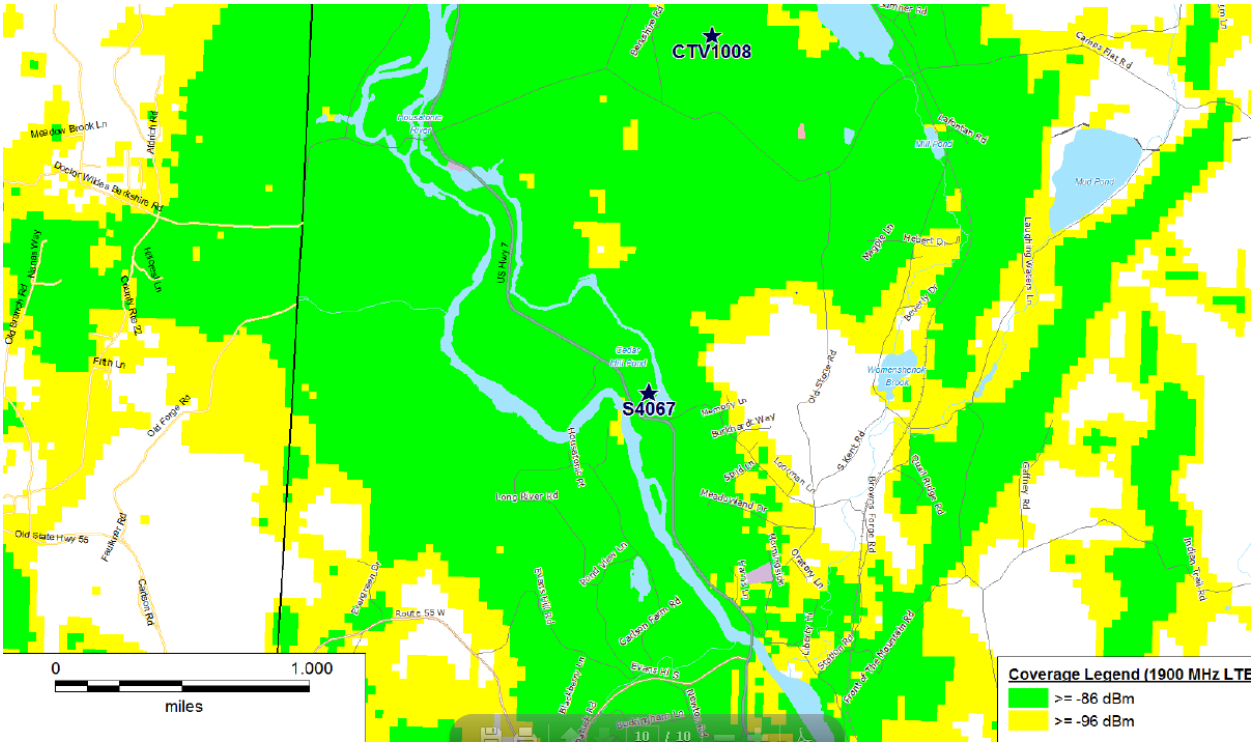
(AT&T 5, response 48, attachment 1)

Figure 9 - Existing 1900 MHz Coverage



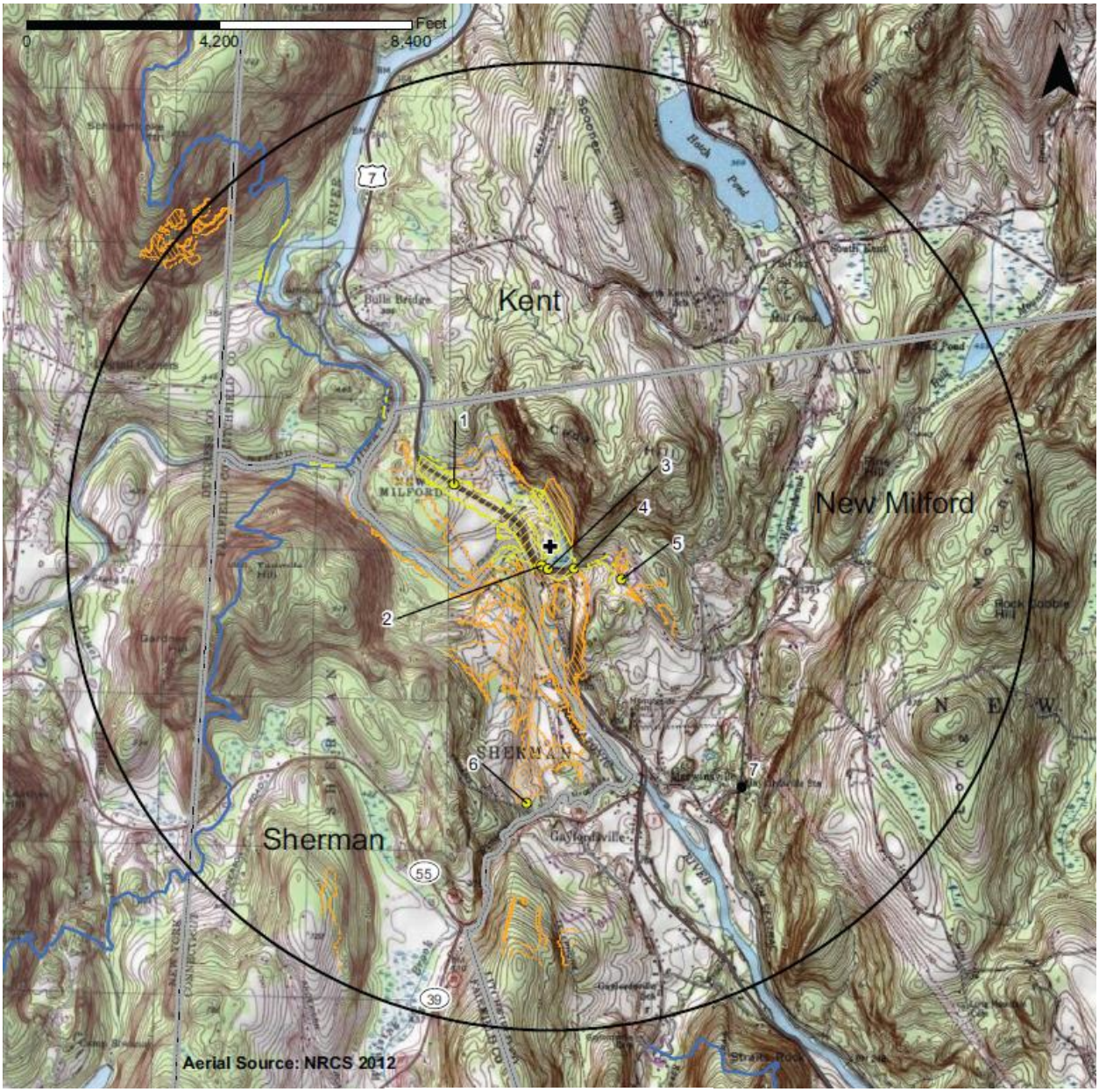
(AT&T 5, response 48, attachment 1)

Figure 10 – Existing and Proposed 1900 MHz Coverage at Antenna Centerline Height of 146 feet



(AT&T 5, response 48, attachment 1)

Figure 11 - Visibility Analysis



(AT&T 2, Tab 5)

Figure 12 – Photo-simulation – Kent Road

(AT&T 2, Tab 5, Photo 1)

Figure 13 – Photo-simulation – Long River Road

(AT&T 2, Tab 5, Photo 6)