DOCKET NO. 439 – Message Center Management, Inc. and 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 Bates Woods Park, New London, Connecticut.	}	Connecticut Siting Council
		October 31, 2013

Findings of Fact

Introduction

1. Message Center Management, Inc. and New Cingular Wireless PCS, LLC (collectively the Applicant), in accordance with provisions of Connecticut General Statutes (C.G.S.) § 16-50g, et seq., applied to the Connecticut Siting Council (Council) on June 21, 2013 for the construction, maintenance, and operation of a 115-foot wireless telecommunications facility at Bates Woods Park in New London, Connecticut (refer to Figure 1). (Applicant 1, pp. 1-2)

2. New Cingular Wireless PCS, LLC (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. AT&T 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, pp. 2-3)

3. Message Center Management, Inc. (MCM) is a Connecticut company with an office in Hartford, Connecticut. MCM owns and operates numerous facilities throughout Connecticut. MCM would be the Certificate Holder and would construct and maintain the proposed facility. (Applicant 1, p. 2)

4. The party in this proceeding is the Applicant. (Transcript 1, September 10, 2013- 3:30 p.m. [Tr. 1], p. 4)

5. The purpose of the proposed facility is to provide reliable wireless telecommunications services in the Route 1, Route 85 and Interstate 95 area of New London. (Applicant 1, p. 8)

6. Pursuant to C.G.S. § 16-50m, the Council, after giving due notice thereof, held a public hearing on September 10, 2013, beginning at 3:30 p.m. and continuing at 7:00 p.m. at New London High School, 490 Jefferson Avenue, New London, Connecticut. (Council's Hearing Notice dated July 29, 2013; Tr. 1, p. 1)

7. The Council and its staff conducted an inspection of the proposed site on September 10, 2013, beginning at 2:30 p.m. During the field inspection, the Applicant flew a 4-foot diameter balloon to simulate the height of the proposed tower. The weather was breezy so the balloon was mostly at an angle rather than straight up. (Tr. 1, pp. 72-73)

8. Pursuant to C.G.S. § 16-50*l* (b), public notice of the application was published in The Day on June 17 and June 18, 2013. (Applicant 3)

9. Pursuant to C.G.S. § 16-50*l*(b), notice of the application was provided to all abutting property owners by certified mail. Return receipts for nine abutters were not received. The Applicant sent out a second notice via First Class Mail to these abutters. (Applicant 4, response 1)

10. Pursuant to C.G.S. § 16-50*l* (b), AT&T provided notice to all federal, state and local officials and agencies listed therein. (Applicant 1, p. 4)

State Agency Comment

11. Pursuant to C.G.S. § 16-50j (h), on July 29, 2013 and September 11, 2013, 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); and Department of Emergency Management and Public Protection (DESPP). (Record)

12. The DOT sent a no comment letter to the Council on August 5, 2013. No other agencies responded to the Council's solicitation. (Record)

Municipal Consultation/Site Selection

13. AT&T initially approached the City of New London (City) in 2010 for the potential installation of a rooftop facility at the New London High School, adjacent to Bates Woods Park, as T-Mobile is already located there. (Applicant 1, p. 11; Applicant 5)

14. The City advised AT&T the rooftop was not available because the school may be renovated or replaced in the future. (Applicant 1, pp. 11, 18, Applicant 5; Tr. 1, p. 11)

15. AT&T, with MCM, negotiated an agreement with the City that was finalized in early 2013 for a new facility within Bates Woods Park. (Applicant 1, pp. 11, 18; Applicant 5)

16. A technical report was filed with the City of New London and the Town of Waterford (within 2,500 feet) on January 25, 2013. (Applicant 1, p. 18)

17. A public information meeting was held in New London on March 20, 2013. Two area residents attended the meeting but did not express any concerns. (Applicant 1, p. 1; Tr. 1, p. 24)

18. The City of New London did not request additional information. The Town of Waterford did not comment on the proposal. (Applicant 1, pp. 18-19)

19. The City has reserved space at the top of the tower for the future installation of a whip antenna. The City has not identified what departments would be using the antenna or a date of installation. (Applicant 4, response 7)

Public Need for Service

20. 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)

21. 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 throughout the State. (Council Administrative Notice Item No. 4; Applicant 1, p. 89)

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

23. 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)

24. 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. Approximately 70 percent of 9-1-1 calls are made with a wireless device. (Council Administrative Notice Item No. 6; Applicant 1, p. 7)

25. Following the enactment of the 911 Act, the FCC mandated wireless carriers to provide enhanced 911 services (E911) to allow public safety dispatchers to determine a wireless caller's geographical location within several hundred feet. The proposed facility would become a component of AT&T's E911 network in this part of the state. (Council Administrative Notice Item No. 6; Applicant 1, p. 9)

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 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)

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. (C.G.S. §16-50aa)

Existing and Proposed Wireless Coverage

28 AT&T's proposed installation would provide 850 MHz (cellular), 1900 MHz (PCS), and 700 MHz (LTE) service. (Applicant 1, Tab 4)

29. AT&T designs its system for -82 dBm in-vehicle coverage and -74 dBm in-building coverage. (Applicant 1, Tab 1)

30. AT&T's existing signal strength in the proposed service area ranges from less than -100 dBm to -82 dBm. (Applicant 4, response 4)

31. Existing AT&T sites cannot reliably provide coverage to the proposed service area. Adjacent AT&T sites that direct coverage into the proposed service area have unsatisfactory lost-call rates and data rate losses. (Applicant 1, Tab 1; Tr. 1, pp. 49-53)

32. The proposed site, with AT&T antennas at a centerline height of 112 feet, would provide 0.8 square miles of new coverage (-82 dBm) within the City as well as significantly increase the amount of available in-building data coverage (-74 dBm) in the areas of Jefferson Avenue, Route 1, Chester Street, Broad Street, Williams Street, and Vauxhall Street in New London and Fog Plain Road, Clark Lane in Waterford. Traffic counts on these roads range from 4,200 to 16,000 daily trips. (AT&T 1, Tab 1; Tr. 1, pp. 49-53)

33. Coverage from the proposed site would provide uninterrupted service for AT&T subscribers traveling these roads as well as enhanced signal penetration into residences, businesses and three area schools within the proposed service area. (Applicant 1, Tab 1, Tab 5)

34. United States Census data (2008) indicates 28,338 people live within the proposed coverage area. Although the coverage from the proposed site overlaps substantially with coverage from existing sites, a population of 3,292 persons would be within the new coverage area. (Applicant 1, Tab 1)

35. Providing coverage to the proposed service area via a distributed antenna system, repeater, or microcell is not practical given the limited service area for each of these systems. These systems are employed for limited, targeted areas such as within buildings, highway underpasses or in urban environments. (Applicant 1, p. 12)

Facility Description

36. The proposed facility would be located on a 124.75-acre parcel owned by the City of New London (refer to Figure 2). (Applicant 1, Tab 3)

37. The site property is developed as a recreational park (Bates Woods Park) and includes athletic fields, a small building and a parking area. (Applicant 1, Tab 3)

38. The tower site is located at the south edge of the east athletic field, in the location of an existing 90-foot tall light pole serving the field. (Applicant 1, p. 1, Tab 3)

39. The Applicant would replace an existing light pole with a 115-foot tall monopole capable of supporting two racks of field lights, two telecommunications carriers, and a municipal whip antenna. (Applicant 1, Tab 3)

40. AT&T would install up to twelve panel antennas on a platform at a centerline height of 112 feet above ground level. A conical ice shield would be installed above the lights to deflect ice falling from the antennas and associated mounting equipment. (Applicant 1, Tab 3)

41. Two racks of field lights would be mounted at approximately 90 feet, in keeping with the current field lighting pattern. (Applicant 1, Tab 3)

42. The tower would be constructed to support a 30-foot extension which would be able to accommodate three additional carriers. (Applicant 1, Tab 3)

43. T-Mobile would have to find a new site once the City moves ahead with renovation or replacement of the current high school. T-Mobile may locate at the 102-foot level of the tower although a lease has not been executed with the Applicant. (Applicant 4, responses 5, 6; Tr. 1, p. 11)

44. A generally rectangular, 3,190 square foot equipment compound would be constructed at the base of the tower. The compound would be able to accommodate equipment for five to six carriers, depending on carriers' specific needs. (Applicant 1, Tab 3)

45. AT&T would install a 12-foot by 20-foot equipment shelter within the compound. (Applicant 1, Tab 3)

46. The compound would be enclosed by an eight-foot high chain-link fence. (Applicant 1, Tab 3)

47. Access to the compound would be from an existing park maintenance driveway traversing the edge of the athletic field area. A small gravel parking area/compound access way would be installed adjacent to the driveway. (Applicant 1, Tab 3)

48. Utility service to the compound would be installed underground from an existing utility pole located in the park's parking lot and would run through a grassy area between the east and west athletic fields to the compound. (Applicant 1, Tab 3)

49. AT&T would install a diesel emergency generator on a concrete pad within the compound. The generator could supply 48 hours of run time before refueling is necessary. (Applicant 1, Tab 3; Applicant 4, response 8)

50. The Applicant does not intend to install an emergency generator that can service multiple carriers, stating there would be outages for all of the carriers if a single generator failed. (Applicant 4, response 8; Tr. 1, p. 71)

51. There are 11 single family residences and 3 multifamily residential buildings within 1,000 feet of the compound. (Applicant 1, Tab 3)

52. The nearest residence to the tower site is approximately 690 feet to the east on Ledge Road. (Applicant 1, Tab 3)

53. The nearest property line to the proposed tower site is approximately 570 feet to the west (new London Water Department property). (Applicant 1, Tab 3)

54. The nearest school is the New London High School, located 1,238 feet northeast of the tower site. (Applicant 1, Tab 3)

55. There are no day care facilities within 250 feet of the proposed site. The nearest licensed day care facility is over a mile away. (Applicant 4, response 10)

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

Radio equipment and antennas	$250,000.
Site development/installation	54,000.
Tower and foundation	125,000.
Utilities	23,500.
Total estimated cost	$452,500.

(Applicant 1, p. 19)

Environmental Concerns

57. The proposed site would have no effect on any properties eligible for or on the National Register of Historic Places. (Applicant 4, response 3)

58. There are no known state or federal endangered, or threatened, or species of special concern in the project area. (Applicant 1, Tab 4)

59. The site is at the edge of an existing athletic field. Two trees would be removed to develop the site. (Applicant 1, Tab 4)

60. Land use within a quarter-mile of the site includes multi and single-family residential, developed park land, open space and a school. (Applicant 1 Tab 3)

61. No wetlands would be directly impacted by the project. The nearest wetland is approximately 285 feet southeast of the site in a wooded portion of the park. This wetland is characterized as a stony seep wetland dominated by single-aged red maple. A second wetland is located 320 feet west of the site, adjacent to an existing paved park road and dog kennel. This wetland has been altered to function as a detention basin. (Applicant 1, Tab 3, Tab 4)

62. An approximate 11,630 square-foot area would be disturbed to develop the site. The site is on the edge of a slope and would require 87 cubic yards of cut and 370 yards of fill material, including 120 cubic yards of crushed stone material. (Applicant 1, Tab 3)

63. The south side of the site would feature a 1.5:1 slope with rip-rap protection. (Applicant 1, Tab 3)

64. Erosion and sedimentation controls consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*, as amended, and other best management practices would be established and maintained during construction. (Applicant 1, Tab 4)

65. Aircraft hazard obstruction marking or lighting of the tower would not be required. Aviation hazard lighting would be required for a facility height above 165 feet. (Applicant 1, p. 14; Tr. 1, p. 30)

66. The nearest Important Bird Area, a National Audubon Society designation that recognizes unique habitats that stand out from the surrounding landscape and typically support vulnerable or special concern species, is approximately 1.2 miles north of the proposed site. The designated area consists of a mature hemlock forest within the Connecticut College Arboretum. (Applicant 4, response 11)

67. The design of the proposed tower would comply with recommended guidelines of the United States Fish and Wildlife Service for minimizing the potential for telecommunications towers to impact bird species. The guidelines recommend that towers be less than 199 feet tall, avoid the use of aviation lighting, and avoid guy wires as tower supports. (Council Administrative Notice 13; AT&T 2, response 12)

68. Once the tower is constructed, osprey nesting on the antenna platforms could be an issue with maintenance of the facility. Any antenna work would have to be scheduled outside of osprey nesting season, generally May to September. (Tr. 1, pp. 17-18; 44, 45)

69. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of the proposed AT&T antennas is calculated to be 11.2% of the standard for the General Public/Uncontrolled Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed 115-foot 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 base. (Applicant 1, p. 14)

Visibility

70. The proposed tower would be visible year-round above the tree canopy from approximately 120-acres within a two-mile radius of the proposed site (refer to Figure 5). Most of this visibility would be from locations within 0.5 miles of the site that already have a view of the existing 90-foot light pole, including open athletic fields, school property, a multi-family housing complex and a cemetery. (Applicant 1, Tab 5)

71. Nine residences along Davis Farm Way, abutting Bates Woods Park to the west, would have year-round views of the upper 80 feet of the tower. (Applicant 1, Tab 5)

72. Approximately 128 acres within two miles of the site would have seasonal visibility of the proposed tower. Seasonal views would mostly be of the upper 80 feet of the tower. (Applicant 1, Tab 5)

73. Visibility of the proposed tower from specific locations within a two-mile radius of the site is as follows:

Specific Location	**Photo location on Map***	**Approx. Portion of Tower Visible (not including whip antenna)**	**Approx. Distance (miles)/Direction to Tower**
Bates Woods Park Parking Lot	1	Entire structure	0.13/southeast
New London High School Parking Lot^	2	Entire structure	0.24/southwest
Jefferson Avenue	3	100 feet	0.32/southwest
St. Mary's Cemetery	4	40 feet	0.38/southeast
Michael Road	5	25 feet	0.32/southeast
Davis Farm Way^	6	80 feet	0.18/southeast
Clark Lane	7	45 feet	0.41/northeast

* Map is attached as Figure 5.
^ Photosimulation of tower from this location attached.

74. There are no State-designated scenic roads in New London or Waterford. (Council Administrative Notice 50)

75. The tower would not be visible from any known hiking trails maintained by the DEEP or the Connecticut Forest and Parks Association. (Council Administrative Notice 49)

76. The proposed tower would have a galvanized finish. Other light poles serving the fields have either a galvanized finish or a weathering steel finish. The Applicant could install a tower with a weathering steel finish. (Applicant 1, Tab 5; Tr. 1, pp. 31-32)

Figure 1: Site location in Bates Woods Park, New London. (Applicant 1, Tab 3)

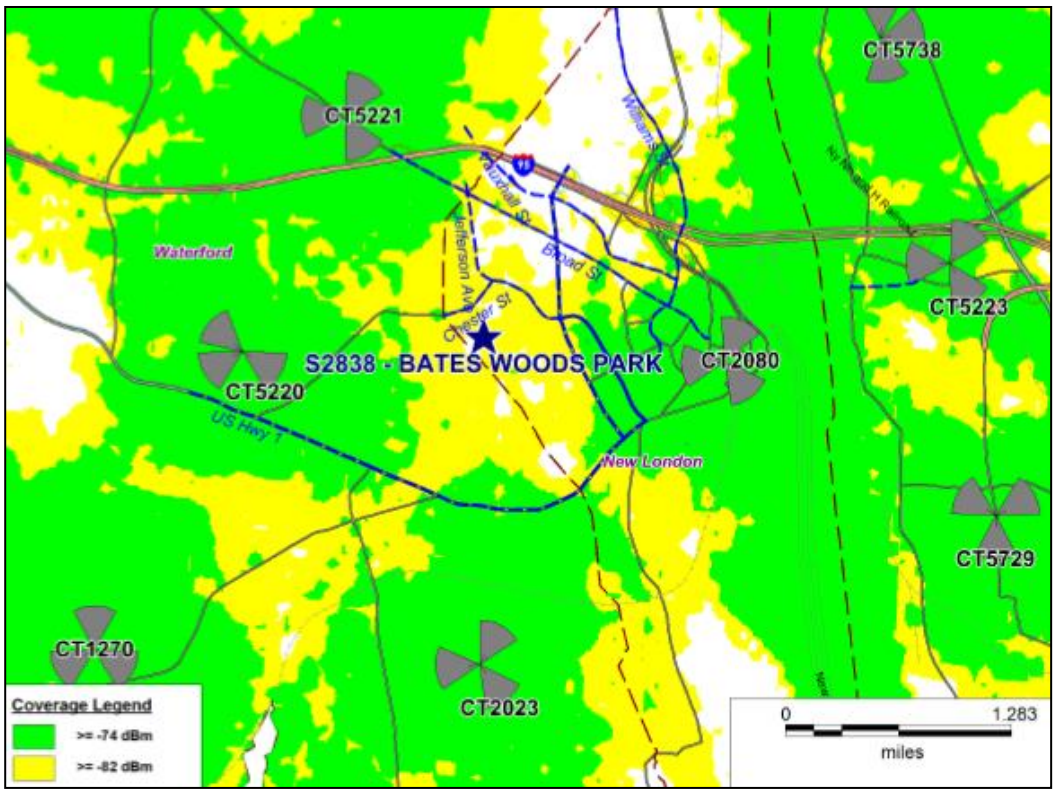


Figure 2: Existing AT&T coverage. (Applicant 1, Tab 1)

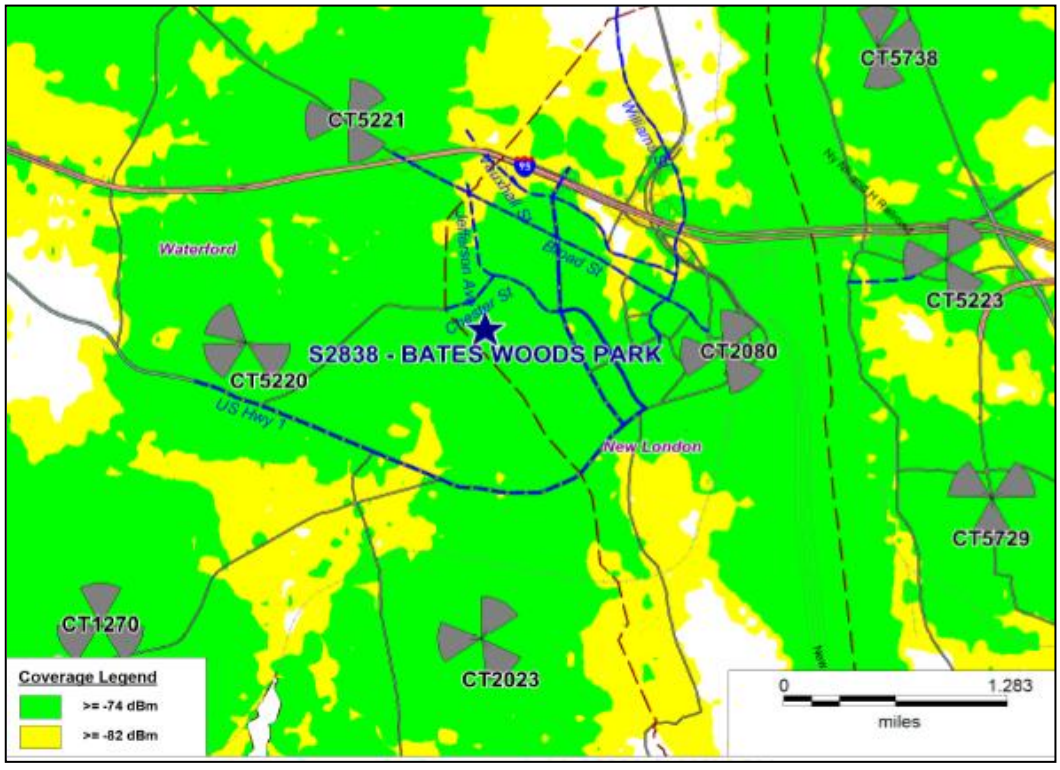
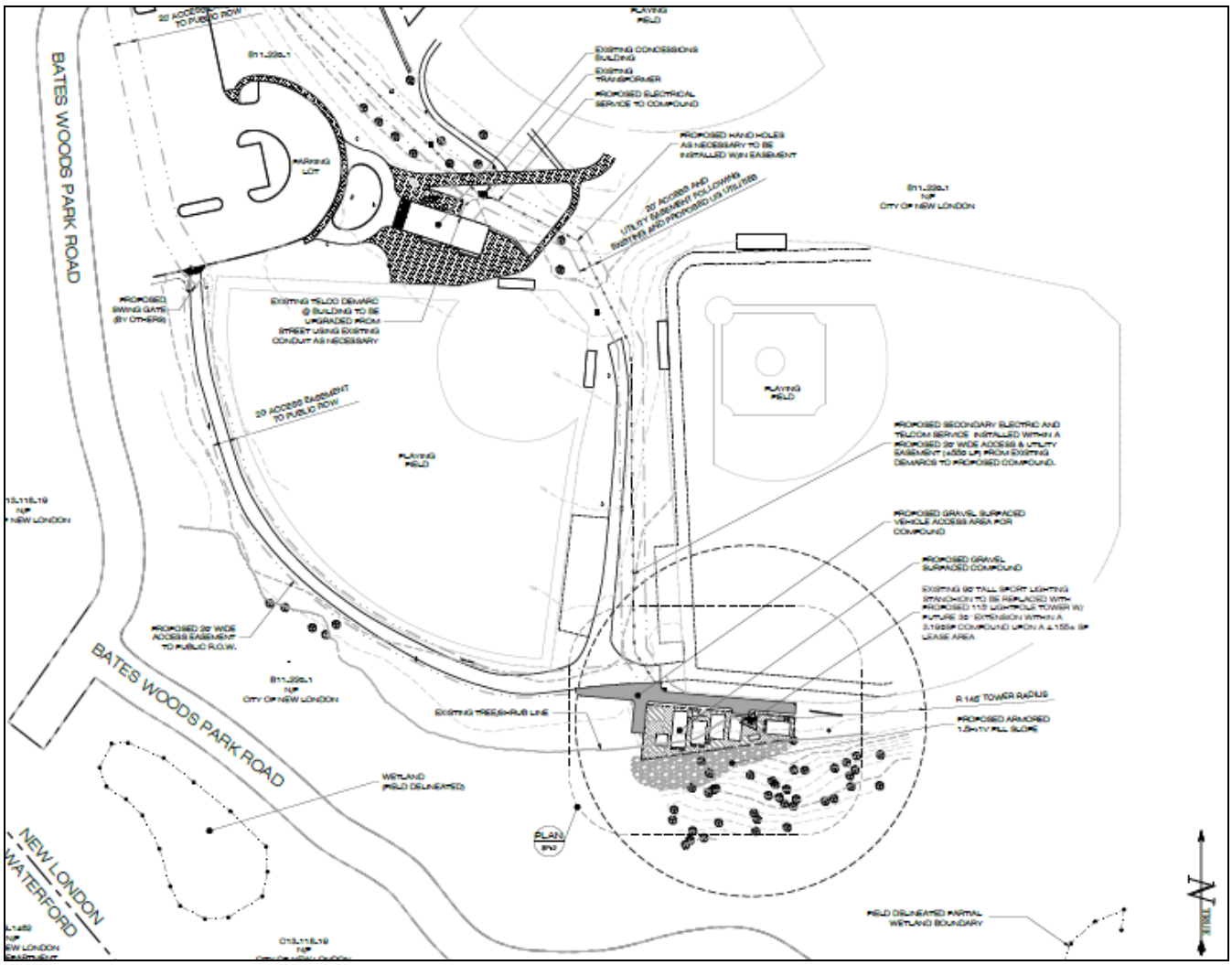


Figure 3: Existing and proposed AT&T coverage. (Applicant 1, Tab 1)



(Not to scale)

Figure 4: Proposed site plan. (Applicant 1, Tab 3)

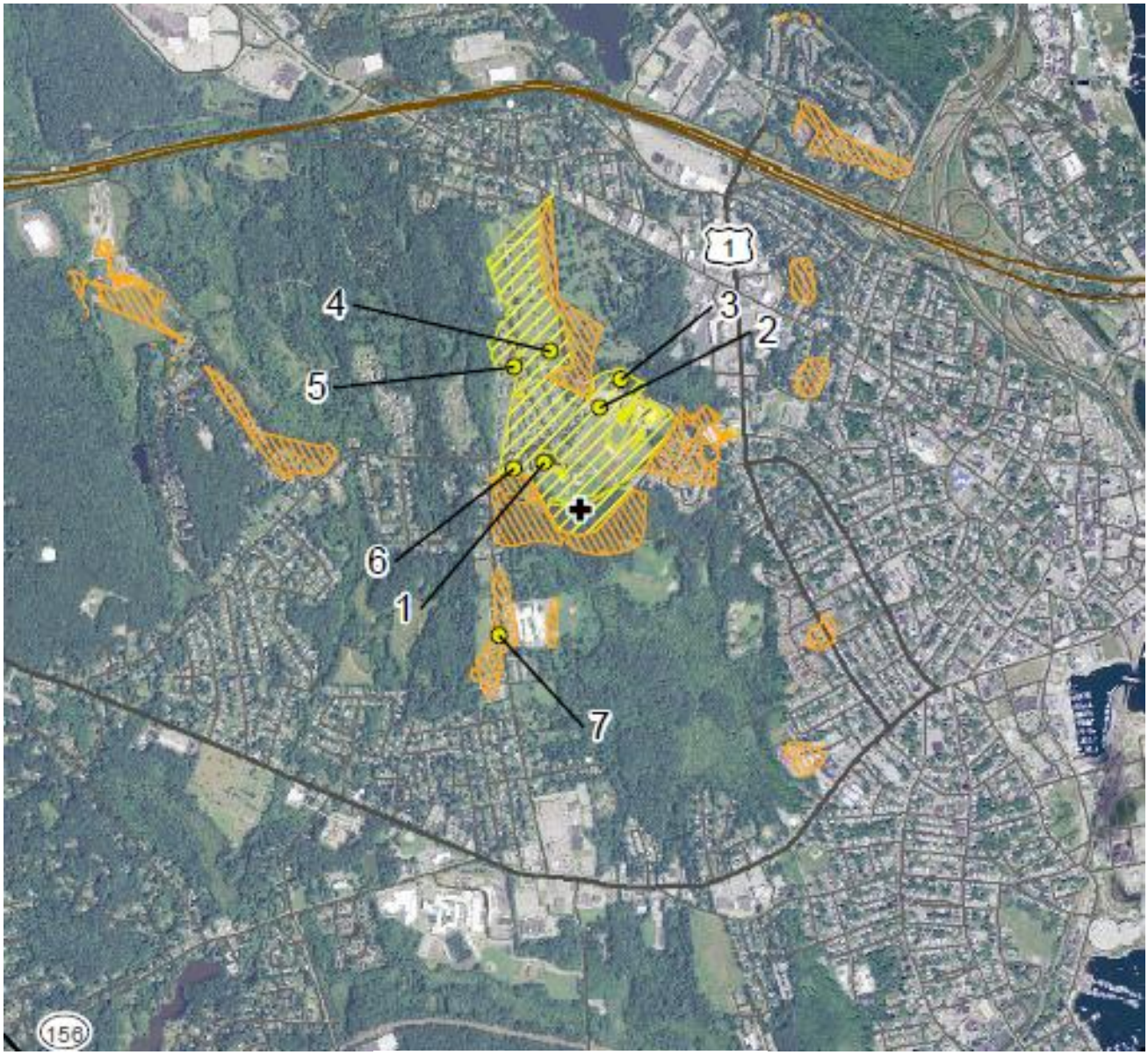


Figure 5: Projected visiblity of the 150-foot tower. (Applicant 1, Tab 5)

Top photo : existing light pole.
Bottom photo: photo simulation of proposed tower
Location: Davis Farm Way, 0.18 miles north west of site. Visibility map location 6. (Applicant 1, Tab 5)

Top photo: existing light pole
Bottom photo: Photo simulation of proposed 115-foot tower.
Location: New London High School, 0.32 mile northeast of site. Visibility map location 3. (Applicant 1, Tab 5)