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STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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October 8, 2010

TO: Parties and Intervenors

FROM: Linda Roberts, Executive Director

RE: **DOCKET NO. 402** - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public need for the construction, maintenance and operation of a telecommunications facility located at 16 Bell Road Extension, Cornwall, Connecticut.

As stated at the hearing in Cornwall on July 20, 2010, after the Council issues its draft findings of fact, parties and intervenors may identify errors or inconsistencies between the Council's draft findings of fact and the record; however, no new information, evidence, argument, or reply briefs will be considered by the Council.

Parties and Intervenors may file written comments with the Connecticut Siting Council on the Draft Findings of Fact issued on this docket by October 14, 2010.

Enclosure

LR/RDM/laf

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	<input checked="" type="checkbox"/> E-mail	Cellco Partnership d/b/a Verizon Wireless	Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597 (860) 275-8345 (860) 275-8299 kbaldwin@rc.com
	<input checked="" type="checkbox"/> U.S. Mail		Sandy Carter Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108
Intervenor (granted 06/17/2010)	<input checked="" type="checkbox"/> U.S. Mail	Town of Cornwall	The Honorable Gordon M. Ridgway First Selectman Town of Cornwall P.O. Box 97 Cornwall, CT 06753 (860) 672-4959 (860) 672-4068 cwselectmen@optonline.net
Intervenor (granted 06/17/2010)	<input checked="" type="checkbox"/> U.S. Mail	Frederic I. Thaler Kathleen Mooney 66 Popple Swamp Road Cornwall Bridge, CT 06754 (860) 672-0052 fthaler@snet.net	
Intervenor (granted 07/15/2010)	<input checked="" type="checkbox"/> U.S. Mail	Nicholas and Caroline Daifotis 239 Brushy Ridge Road New Canaan, CT 06840 (203) 972-2820 Nicholas.daifotis@rbccm.com	

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application for a Certificate of Environmental Compatibility and }
Public need for the construction, maintenance and operation of a }
telecommunications facility located at 16 Bell Road Extension, }
Cornwall, Connecticut. }

Connecticut

Siting

Council

September 10, 2010

DRAFT Findings of Fact

Introduction

1. Cellco Partnership d/b/a Verizon Wireless (Cellco), in accordance with the provisions of Connecticut General Statutes (CGS) §§ 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on May 6, 2010 for the construction, maintenance, and operation of a 110-foot wireless telecommunications facility located at 16 Bell Road Extension, Cornwall, Connecticut (refer to Figure 1). (Cellco 1, p. 12)
2. Cellco is a Delaware corporation with an office in East Hartford, Connecticut. Cellco is licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless service system in Connecticut. (Cellco 1, pp. 4-5)
3. The purpose of the proposed facility is to provide wireless service for Cellco to Route 4 and Route 7 in the west-central area of Cornwall. (Cellco 1, p. 2, Tab 7)
4. Pursuant to CGS § 16-50m, the Council held a public hearing on July 20, 2010, beginning at 3:30 p.m. and continuing at 7:30 p.m. at the Cornwall Town Hall, 24 Pine Street, Cornwall, Connecticut. (Transcript 1 – 07/20/10, 3:30 p.m. [Tr. 1], p. 3; Transcript 2 – 07/20/10, 7:30 p.m. [Tr. 2], p. 3)
5. Intervenors to this proceeding are the Town of Cornwall, Frederic Thaler and Kathleen Mooney, and Nicholas and Caroline Daifotis. (Tr. 1, p. 5)
6. The Council and its staff conducted an inspection of the proposed site on July 20, 2010, beginning at 2:00 p.m. The applicant flew a red balloon at the site on a 110-foot tether from 12:40 p.m. to 7:00 p.m. to simulate the height of the proposed tower. During the field review, the balloon was caught in a tree branch, and, to compensate, the applicant released another twenty feet of string. The Applicant was able to free the string from the branch and the line was re-tethered at 110 feet above ground level (agl). Weather was favorable with sunny skies and light winds. (Tr. 1, pp. 31-32)
7. Notice of the application was sent to all abutting property owners by certified mail and all return receipts were received. (Cellco 1, p. 6, Tab 5; Cellco 4, Q. 1)
8. Public notice of the application was published in the Waterbury Republican-American on May 3 and May 4, 2010. (Cellco 1, p. 6; Cellco 3)
9. Cellco installed a four-foot by six-foot sign at the entrance to the property on Bell Road Extension on July 1, 2010. On July 15, 2010, at the request of Council staff, the sign was relocated to the corner of Bell Road Extension and Popple Swamp Road to make it more visible to members of the public traveling through the area. The sign presented information regarding the project and public hearing. (Cellco 5; Tr. 1, pp. 32-33)

10. Pursuant to CGS § 16-50l(b), Cellco provided notice to all federal, state and local officials and agencies listed therein. (Cellco 1, pp. 5-6)

State Agency Comment

11. Pursuant to General Statutes § 16-50j(h), on June 2, 2010 and July 21, 2010, the following State agencies were solicited to submit written comments regarding the proposed facility: Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality, Department of Public Utility Control, Office of Policy and Management, Department of Economic and Community Development, the Department of Transportation (DOT), the Department of Agriculture, and the Department of Emergency Management and Homeland Security. (Record)
12. The Council received written no-comment responses from the DPH Drinking Water Section on June 4, 2010 and the DOT Bureau of Engineering and Highway Operations on June 28, 2010. (Record)
13. With the exception of the DPH and DOT, no other state agencies submitted comments in response to the Council's solicitation. (Record)

Municipal Consultation

14. Cellco discussed its plan to expand service in Cornwall with town officials in February of 2007 and continued the dialogue throughout 2007. By early 2008, Cellco put all of their site searches in Litchfield County on hold due to a merger with Alltel. Cellco located on all of the existing Alltel sites to provide maximum coverage to the area. Cellco resumed dialogue with the Town in the Fall of 2008, discussing further coverage needs. (Cellco 1, pp. 20-21; Tr. 1, pp. 33-34; Tr. 2, pp. 70-73)
15. Cellco formally commenced the 60-day municipal consultation process on July 21, 2009 by meeting Town officials and submitting a technical report that presented two alternative sites to serve the proposed service area: one at 78 Popple Swamp Road (Collins property) and one at the proposed site. (Cellco 1, pp. 20-21; Tr. 1, pp. 33-34; Tr. 2, pp. 70-73)
16. A public information meeting regarding the two alternative sites was held on August 20, 2009 at the Cornwall Town Hall. Abutters to both sites were notified of the meeting. (Cellco 1, pp. 20-21; Tr. 1, p[p. 33-34)
17. Cellco met with Town of Sharon's then First Selectman Malcolm Brown on July 21, 2009 to discuss the proposal. A technical report was also submitted on this date. (Cellco 1, p. ii, Tab 3; Cellco 2)
18. Cellco offered the Town of Cornwall lease-free space on the tower for emergency service antennas. The town did not respond to this offer. (Tr. 1, pp. 69, 73)
19. The Town of Cornwall did not state any preference for a tower location. The Town of Sharon did not comment on the proposal. (Record)

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. 7)

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. Cellco is licensed by the FCC to provide wireless service to Litchfield County. (Council Administrative Notice Item No. 7; Cellco 1, p. 8)
22. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)
23. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers on the basis of 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. 7)
24. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999. The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Cellco 1, p. 8)
25. Congress enacted the Enhance 911 Act of 2004, to improve, enhance, and promote the Nation's homeland security, public safety, and citizen activated emergency response capabilities through the use of enhanced 911 services and to support in the construction and operation of a ubiquitous and reliable citizen activated system. (Cellco 1, p. 8)

Cellco - Existing and Proposed Wireless Coverage

26. Cellco proposes to operate cellular (800 MHz), personal communication service (PCS) (1900 MHz), and long term evolution (LTE) (700 MHz) equipment at the proposed site. Cellular and PCS service would begin immediately. LTE service would be deployed in 2011. (Cellco 1, pp. 2, 8-9)
27. Cellco seeks to provide coverage to Route 4 and Route 7 including the Cornwall village area south of Route 4. (Cellco 1, Tab 7)
28. Existing Cellco facilities off North Road in Goshen, approximately 6.2 miles east of the site, at 7 Surdan Mountain Road in Sharon, approximately 2.2 miles northwest of the site, and on Toomey Road in Cornwall, approximately 3.8 miles southeast of the site, cannot provide adequate coverage to the proposed service area, including Cornwall village. (Cellco 1, pp. 1-2, Tab 7)
29. The existing signal level in the proposed service area ranges from -87 dBm to -109 dBm (refer to Figures 2 & 3). (Cellco 4, Q. 5)
30. To maintain reliable service, Cellco designs and operates at a signal level threshold of -85 dBm for in-vehicle service and -75 dBm for in-building service. Cellco is designing the site to the in-vehicle threshold. (Cellco 4, Q. 4; Tr. 1, pp. 38-40)
31. Cellco currently experiences a 2.6% drop call rate and 1.9% ineffective attempt rate within the proposed service area. (Tr. 1, p. 31)

32. Installing antennas at the proposed height of 110 feet agl would provide the following coverage to the proposed service area:

Coverage Type	Linear miles on Rt. 4	Linear miles on Rt. 7	Square miles
<i>Cellular (Fig. 4)</i>	2.4	2.0	10.0
<i>PCS (Fig. 5)</i>	0.9	1.8	3.0
<i>LTE</i>	2.5	2.1	12.0

(Refer to Figures 4 & 5). (Cellco 1, p. 2, Tab 7)

33. Reducing the antenna height to 100 feet agl would reduce coverage on both Route 7 (0.13 miles for PCS and 0.15 miles for cellular) and Route 4 (0.3 miles for PCS and 0.17 miles for cellular). (Cellco 4, Q. 5)
34. The proposed site would not be able to provide coverage to the villages of Cornwall Bridge (Route 4 and Route 7 intersection) or West Cornwall (Route 7 and Route 128 intersection). Cellco has an active search ring to provide coverage to the Cornwall Bridge area as well as three other active rings in the Sharon-Cornwall-Goshen area that would serve different areas of Cornwall. (Cellco 1, Tab 7; Tr. 1, pp. 30-31, 57-59, 91-93)

Site Selection

35. Cellco established a search area for the site in November of 2007. The initial search ring was centered along Route 7 west of Mine Mountain, with the entire ring contained within the Housatonic State Forest and Housatonic Meadows State Park. Since DEP property is not available for telecommunications use, Cellco shifted the search area eastward. (Cellco 1, Tab 9; Tr. 1, p. 30)
36. The search process includes identification of potential structures that could be used for telecommunications purposes and the examination of area properties, including municipal parcels, to identify potential telecommunications sites. (Cellco 1, Tab 9)
37. Cellco did not identify any structures that would be suitable for a telecommunications facility. (Cellco 1, Tab 9)
38. In addition to the two alternative sites presented in the technical report to the Town, Cellco investigated and rejected six other locations, as follows:
- a) Hare Property, Cornwall – would not meet coverage objectives on Route 7;
 - b) 10 Guinea Road, Sharon – would not meet coverage objectives on Route 7;
 - c) 260 Dibble Hill Road, Cornwall – would not meet coverage objectives;
 - d) Town parcel on Buck Mountain – would not meet coverage objectives on Route 7;
 - e) Trinity Episcopal Church property – located too far north of search area; and
 - f) Housatonic State Forest – property owned by the DEP, unavailable for telecommunications use.
- (Cellco 1, Tab 9)
39. After submission of the technical report to the Town, Cellco further examined the viability of the 78 Popple Swamp Road location and determined that the severe terrain of the site would create significant environmental impacts including excessive grading, the removal of 144 trees, as well as unmanageable runoff. (Cellco 2)

40. Due to these environmental impacts, Cellco notified the Town on November 18, 2009 that it was withdrawing the 78 Popple Swamp Road site from consideration. (Cellco 1, pp. 20-21; Cellco 2; Tr. 2, pp. 72-73)
41. Cellco also examined the feasibility of constructing a tower at another location of the Collins property (north side) with access off the same existing driveway that would serve the proposed 16 Bell Road Extension site. Cellco determined there was no legal access to the Collins property from the driveway, and additionally, there was no way to access the northern portion of the Collins property from the south due to severe topography. Due to the lack of access, Cellco stated it would not propose a new location for a tower in the northern portion of the Collins property. (Cellco 2)

Facility Description

42. The proposed facility would be located on the western portion of a 41-acre parcel at 16 Bell Road Extension in Cornwall (refer to Figure 6). (Cellco 1, p. 2)
43. The property is owned by Ralph Gulliver, Jr. (Cellco 1, Tab 2)
44. The property is zoned R-5, residential. (Cellco 1, p. 2)
45. A residence is located in the central portion of the property, approximately 512 feet southeast of the proposed tower. The remainder of the parcel is heavily wooded. (Cellco 1, Tab 2)
46. The tower site is 0.4 miles north of Popple Swamp Road and 0.6 miles east of Route 7. (Cellco 1, Tab 2)
47. The tower site is located on a small plateau at an elevation of 1,000 feet above mean sea level (amsl) on the east slope of Mine Mountain. (Cellco 1, Tab 2; Tr. 1, p. 13)
48. The site is approximately 450 feet east of and below the Mine Mountain ridgeline and approximately 460 feet northeast of a notch in the ridge (979 feet amsl) that divides the north (1157 feet amsl) and south (1169 feet amsl) summits of Mine Mountain. The west slope of Mine Mountain is within the Housatonic State Forest. (Cellco 1, Tab 2; Tr. 1, pp. 35-37)
49. Surrounding terrain consists of Mine Mountain and the Housatonic River valley to the west, Buck Mountain to the north, Popple Swamp valley and Dean Hill to the south, and the village of Cornwall to the east. (Cellco 1, Tab 2, Tab 10)
50. Tree heights in the immediate area range from 60 to 80 feet agl. (Tr. 1, p. 12)
51. Land use within a quarter-mile of the site includes low-density residential, and extensive forestland, both public and private. (Cellco 1, Tab 2, Tab 9)
52. The nearest property line from the tower site is approximately 440 feet to the south at 78 Popple Swamp Road (Collins property). (Cellco 1, Tab 2)
53. Besides the residence owned by the lessor on the property, there are no residences within 1,000 feet of the tower site. (Cellco 1, Tab 1)
54. The nearest off-parcel residence is 1,245 feet southeast of the tower site at 66 Popple Swamp Road (Thaler residence). (Cellco 1, Tab 2)

55. Cellco proposes to construct a 110-foot monopole at the site, capable of supporting four levels of platform-mounted antennas with a 10-foot vertical separation. The monopole would be constructed in accordance with the Electronic Industries Association standard ANSI/TIA-222-F. (Cellco 1, Tab 1; Tr. 1, pp. 63-68)
56. Cellco would design the foundation and tower to support a 20-foot extension. (Tr. 1, p. 64)
57. Cellco proposes to install 15 panel antennas on a platform at a centerline height of 110 feet agl. (Cellco 1, Tab 1)
58. Cellco proposes to construct a 34-foot by 70-foot compound within a 100-foot by 100-foot lease area at the site. An eight-foot high chain link fence would enclose the compound. (Cellco 1, p. 3, Tab 2)
59. A 12-foot by 24-foot equipment shelter would be installed within the compound. An emergency diesel fueled generator would be installed within the shelter. (Cellco 1, pp. 2-3, 12)
60. Although the compound area is in a fairly level area, the north and south edge of the compound development area encounters significant slopes that would require stabilization with retaining walls, which would average eight feet in height. Cellco may be able to use existing ledge at the site to retain slopes, reducing the size of the retaining walls. A final determination of the exact height and length of the retaining walls would be made upon completion of a site geotechnical survey. A six-foot high fence would be installed along the top of the walls. (Cellco 1, Tab 2; Tr. 1, pp. 14, 53-54)
61. Cellco could examine the feasibility of shifting the compound approximately 20 feet to the southeast onto a flatter portion of the plateau to reduce the height of the retaining walls and amount of grading. (Tr. 1, pp. 60-62)
62. Access to the site would be from an existing, mostly level, 1,420-foot long driveway extending northwest from Bell Road Extension that ends at the on-site residence. From the residence, a new 12-foot wide, 780-foot long gravel drive would be constructed to the site. The new portion of driveway would generally follow an old roadway/logging path uphill, turning northwards to the compound location. (Cellco 1, Tab 2)
63. The existing driveway would be widened from 10 feet to 12 feet with 1.5-foot wide side slopes. (Cellco 1, Tab 2; Tr. 1, pp. 21, 49)
64. The existing driveway abuts the Thaler property, located to the southeast. Once widened, the driveway would only be a few feet from the property line. (Cellco 1, Tab 1)
65. An A-2 survey of the property line in relation to the existing driveway was not conducted. If the site were approved by the Council, such a survey would be performed to accurately determine the location of the property line and a drawing certified accurate to A-2 standards would be used in the Development and Management Plan required by the Council for the site. (Tr. 1, pp. 85-86; Tr. 2, pp. 52-53)

66. If the A-2 survey indicates that the driveway, or any feature thereof, is on the Thaler Property, Cellco would re-design the driveway to keep it on the lessor's property. No part of the driveway or its associated drainage features would be constructed on the abutting Thaler property. (Tr. 2, pp. 52-53)
67. Most of the 2,220-foot long access drive is relatively flat but as the access drive climbs the hill to the compound, the last 715 feet of the driveway would have an average grade of 20 percent, with a maximum grade of 22 percent. (Cellco 1, Tab 1; Tr. 1, pp. 14-15)
68. This steep section would be constructed using a reinforced gravel access drive. The bed of the driveway would feature an interlocking grid material under eight-inches of gravel, preventing washouts normally associated with a standard gravel drive. Cellco is currently using this construction method at two similar sites in Massachusetts. Although a driveway built in this way requires more maintenance than conventional pavement, it is advantageous since it is pervious and inhibits icing conditions. (Cellco 1, Tab 2; Tr. 1, pp. 18-19, 56, 62-63; Tr. 2, pp. 80-83, 88-89)
69. The Town of Cornwall zoning regulations state driveways shall not be constructed with grades in excess of 15 percent and that all portions of driveways greater than 10 percent shall be paved. The Cornwall Planning and Zoning Commission is opposed to this application due to the grade of the new portion of the driveway. (Town 2; Tr. 1, pp. 76-77, 98-100)
70. Reducing the grade of the new portion of driveway would result in more site clearing, widening of the driveway bed, and the creation of embankments. (Tr. 1, pp. 80-82)
71. Cellco would be willing to pave the driveway instead of utilizing its proposed construction method but runoff would increase due to its impervious surface. (Tr. 1, pp. 19-20, 80-82)
72. An approximate two-foot high, 230-foot long guardrail would be installed where the driveway curves northward. (Cellco 1, Tab 2)
73. Underground utilities would be installed along the edge of the access drive from an existing utility connection on the property. The utility line would be installed within the center of the driveway where it traverses through wetland areas. The utility line installation would not affect wetland drainage patterns. (Cellco 1, Tab 2; Tr. 1, pp. 50, 68-69)
74. A technician would visit the site approximately once a month to service equipment. (Cellco 1, p. 4)
75. The estimated construction cost of the facility is:

Tower, coax, and antennas	\$150,000.
Radio equipment	450,000.
Power systems	40,000.
Equipment building	50,000.
<u>Miscellaneous (site work)</u>	<u>305,000.</u>
<u>Total estimated cost</u>	<u>\$995,000.</u>

(Cellco 1, pp. 21-22)

Environmental Concerns

76. The proposed facility would have no adverse effect on historic, architectural or archeological resources listed in or eligible for the National Register of Historic Places. (Cellco 1, p. 22)
77. The Town of Cornwall is located within the Upper Housatonic Valley National Heritage corridor, encompassing 29 towns in northwest Connecticut and western Massachusetts. Congress established the corridor in 2006 to recognize the region as a unique national resource. The designation is intended to encourage preservation and promotion of the region's cultural, historical and natural heritage. The proposed site would not affect any identified cultural, historical or natural resources identified within the area. (Cellco 4, Q. 7; Thaler & Mooney 3; Tr. 2, pp. 89-91)
78. The site is not within the Housatonic River Overlay Zone, a Town zoning designation. (Cellco 1, p. 18; Cellco 1a; Tr. 1, p. 29)
79. The site is not within any designated area indicating the presence of Federally threatened or endangered species or State endangered, threatened or special concern species. (Cellco 1, p. 22)
80. Seventy-seven trees with a diameter of six inches or greater at breast height would be removed to develop the site. (Tr. 1, pp. 38, 73-74)
81. The site would require 1,375 cubic yards of cut and 1,265 cubic yards of fill. (Cellco 4, Q. 4)
82. The site is within Flood Zone X, designated by the Federal Emergency Management Agency as an area with minimal flooding above the 500-year flood level. (Cellco 1, p. 20, Tab 12)
83. Development of the compound area would not affect any wetlands or watercourses. The nearest wetland from the compound area is approximately 620 feet to the southeast along the existing driveway on the property. (Cellco 1, Tab 1, 12)
84. The existing driveway on the property bisects a forested wetland system and has a 24-inch corrugated pipe in the roadbed to convey water flow from the northeast side to the southwest side of the driveway. (Cellco 1, Tab 12)
85. Expansion of the existing driveway from 10 feet wide to 12 feet wide would result in the permanent filling of approximately 1,300 square feet of wetlands and the temporary disturbance of approximately 800 square feet of wetlands in two separate areas along the existing access road. Both areas are currently classified as disturbed wetlands due to their locations adjacent to the existing driveway. (Cellco 1, Tab 12)
86. One of the areas is located on the southwest side of the existing driveway, approximately 1,000 feet west of Bell Road Extension. In this area, a small pool abuts the northeast side of the driveway and drains to the southwest side through a metal pipe. To avoid any filling that would directly impact this pool, Cellco would widen the driveway and install necessary side slope armoring, on the southwest side of the driveway. This widening to the southwest would result in the filling of 1,000 square feet of wetlands adjacent to the road. (Cellco 1, Tab 12; Tr. 1, pp. 24-27)
87. The small pool, approximately 10 feet wide by 30 feet long, was formed when the existing driveway was constructed. The existing 24-inch metal drainage pipe would be replaced with a 24-inch reinforced concrete pipe that would be able to withstand greater loads than the existing pipe. The pipe outfall would be protected with stone armoring. (Cellco 1, Tab 1; Tr. 1, pp. 23-24)

88. The pool offers limited vernal pool habitat but is used by obligate vernal pool amphibians. Wood frogs and two sterile Spotted Salamander egg masses were identified in the pool during the wetland delineation inspection. Approximately 400 square feet of temporary wetland impact would occur in the vicinity of this pool, associated with the replacement of the driveway drainage pipe and the installation of erosion and sedimentation controls measures to prevent washout into the pool. No filling would occur around or in the pool. The new pipe would be installed in the same orientation as the existing pipe. In order to prevent changes to the pool's hydrology, the road substrate would be of a compacted material to prevent a flow path around the pipe. (Cellco 1, Tab 12; Tr. 1, pp. 22- 25, 50-51)
89. To prevent impacts to amphibians that may use the pool, Cellco would avoid construction from March 1 to May 15. (Cellco 1, Tab 12; Tr. pp. 25-26)
90. The second wetland area to be affected by proposed improvements to the existing access drive is located approximately 160 feet west of the pool area, where again, the existing driveway passes through wetlands. Here, approximately 300 square feet of wetlands would be filled along the north side of the driveway in order to widen it. Existing flow paths from the north side of the driveway to the south side would be maintained. (Cellco 1, Tab 12; Tr. 1, pp. 24-27, 52)
91. Wetland areas that are disturbed temporarily would be restored through the replacement of native wetland soil and planting of native wetland vegetation. (Cellco 1, Tab 12)
92. Soils in the proposed construction areas are classified as having a severe or very severe erosion hazard (US Dept. of Agriculture Natural Resource Conservation Service). (Town 3)
93. Drainage and runoff from the steep portion of the access road would be controlled using riprap swales along the access drive and a ten-foot long level-spreader at elevation 934 that would dissipate driveway runoff. The pad outfall would discharge onto the site property. (Cellco 6; Tr. 1, pp. 15-16)
94. From the splashpad to Bell Road Extension, drainage from the access drive would be through natural sheet flow into riprap-lined swales along the access drive that would slow the water down, allowing it to infiltrate into the ground rather than running off at a high velocity. (Cellco 1, Tab 2; Tr. 1, pp. 17-18; Tr. 2, pp. 40-41)
95. Cellco performed a preliminary drainage assessment for the site using methods within the DOT Drainage Manual and the 2002 Connecticut Guidelines for Erosion and Sedimentation Control. Drainage features were designed to reduce site runoff to negligible levels. Final drainage calculations and a final drainage design would be submitted as part of the Development and Management Plan for the site, if the Council approved the site. (Tr. 1, pp. 48, 54-55; Tr. 2, pp. 40-42, 79-84)
96. The proposed drainage features would not adversely impact wetlands downstream from the access drive and would stabilize current erosion issues associated with the existing drainage pipe outfall. (Tr. 2, pp. 43-44, 47-49)
97. Construction of the access drive would not significantly increase runoff to the Daifotis property, located south of Bell Road Extension/Popple Swamp Road intersection. An existing, partially collapsed rock well on the north side of Popple Swamp Road is causing run-off issues on the Daifotis property. (Tr. 2, pp. 79-84; Daifotis 1)

98. The preliminary drainage design includes one level-spreader; however, the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control recommends use of water bars that divert runoff into an energy dissipater at a minimum interval of 50 feet for all grades above 15 percent. (Town 3)
99. Erosion and soil control fencing, as proposed, has siltation barriers running parallel to the slope, which could cause concentrated flows. The 2002 Connecticut Guidelines for Soil Erosion and Sediment Control specify that wing trenches should be installed perpendicular to the slope to capture runoff. (Town 3)
100. Aircraft hazard obstruction marking or lighting of the tower is not required or proposed. (Cellco 1, 21, Tab 13)
101. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of the proposed Cellco's antennas is calculated to be 35.1% 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 base. (Cellco 4, Q. 6)

Visibility

102. The proposed tower would be visible year-round from approximately 14 acres within a two-mile radius of the site (refer to Figure 7). Most of the year-round visibility would be from spot locations on Valley Road and Jewell Street, and adjacent open field areas, approximately 1.6 to 1.9 miles east of the site (Cornwall Plains area). (Cellco 1, Tab 10)
103. Cornwall Plains is an area of special concern identified in the Town Plan. The tower would be visible from select areas (see previous finding) of Cornwall Plains, silhouetted against the sky, (refer to Figure 8). According to the Town's zoning regulations, the viewshed of Cornwall Plains is one of the least preferred locations for a tower. (Cellco 1, Tab 10)
104. Partial year-round views of the tower would be possible from four residential properties in the Cornwall Plains area approximately 1.6 miles east of the site, including three on Jewell Street and one off School Street. (Cellco 1, Tab 10)
105. The tower would be seasonally visible from an additional 13 acres within a two-mile radius of the site, mostly around the periphery of areas with year-round views and in the immediate area of the tower. (Cellco 1, Tab 10)
106. The tower would not be visible from abutting residential properties due to the heavily wooded and steep terrain in the area. (Tr. 1, pp. 27-28)
107. The tower would not be visible from West Cornwall village, Cornwall Bridge village or the Housatonic Overlay Zone, areas of special concern identified in the Town Plan. The Town's zoning regulations lists these viewsheds as least preferred locations for a tower. (Cellco 1a, 1c, Tab 10)
108. The tower would not be visible from Route 4 between Cornwall Bridge and Cornwall village. (Cellco 1, Tab 10)

109. The tower would not be visible from Route 7, a state designated scenic road, located in the Housatonic River valley west of the site. The road in this area ranges from 522 to 459 feet amsl. (Cellco Tab 2, Tab 10)
110. The Appalachian Trail traverses the ridgelines on the west side of the Housatonic River valley. The tower would not be visible from the trail. A spur trail, the Pine Knob Loop, branches off the Appalachian Trail to two overlooks of the valley directly west of the tower location. The overlooks, one at an elevation of 1,120 feet amsl, are oriented to the south and southeast. The edge of one overlook faces east but intervening Mine Mountain would obscure any view of the tower. (Council Administrative Notice Item No. 9; Cellco 1, Tab 10; Tr. 1, pp. 28-29)
111. Housatonic State Forest abuts the site to the west with the property boundary running generally along the Mine Mountain ridgeline. There are no formal DEP or Connecticut Forest and Parks Association (CFPA) maintained trails on this ridgeline. (Administrative Notice Item No. 9; Cellco 1d, Tab 2; Tr. 1, p. 29)
112. The tower would be visible from a road segment of the Mohawk Trail, a CFPA-maintained trail, along Valley Road and Jewell Street in Cornwall village. A trail viewpoint on top of the Mohawk Mountain ski area, approximately three miles east of the site, would have distant views of the tower. (Council Administrative Notice Item No. 9; Tr. 1, pp. 40-43, 74-75)
113. A tree tower design would not be beneficial in this area due to the existing heavy vegetation that already sufficiently screens near views of the tower. Most views of the tower are from a distance, silhouetted against the sky, where the bulky profile of a tree tower would be more discernable. (Cellco 1, p. 3, Tab 10; Tr. 1, pp. 46-47)

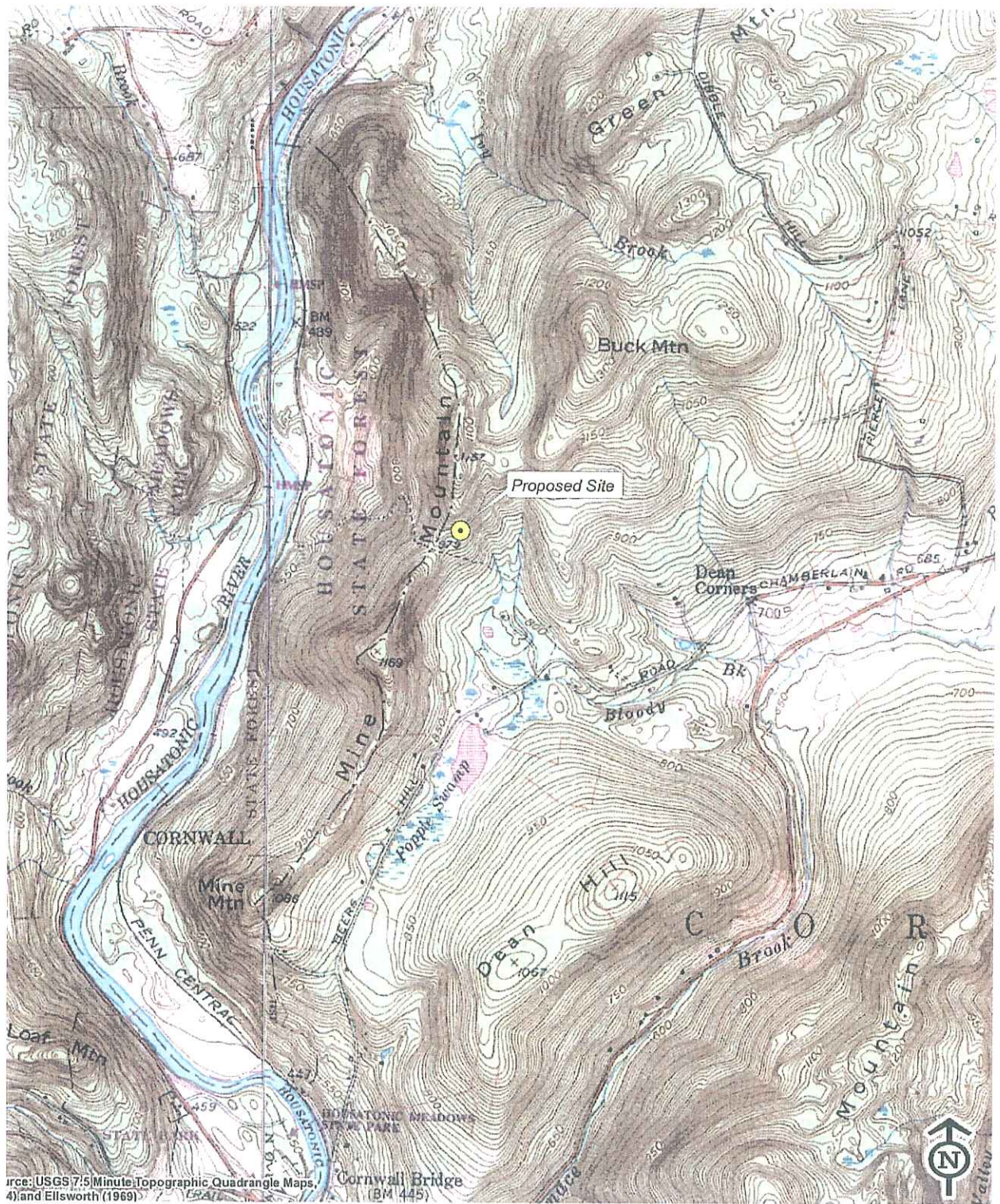


Figure 1: Site location in Cornwall. (Cellico 1, p. 3)



Legend

-  Proposed Verizon Wireless Facility
-  Existing Verizon Wireless Facilities
-  Existing Verizon Wireless Cellular Coverage

Figure 2: Existing cellular coverage. (Cellco 1, Tab 7)

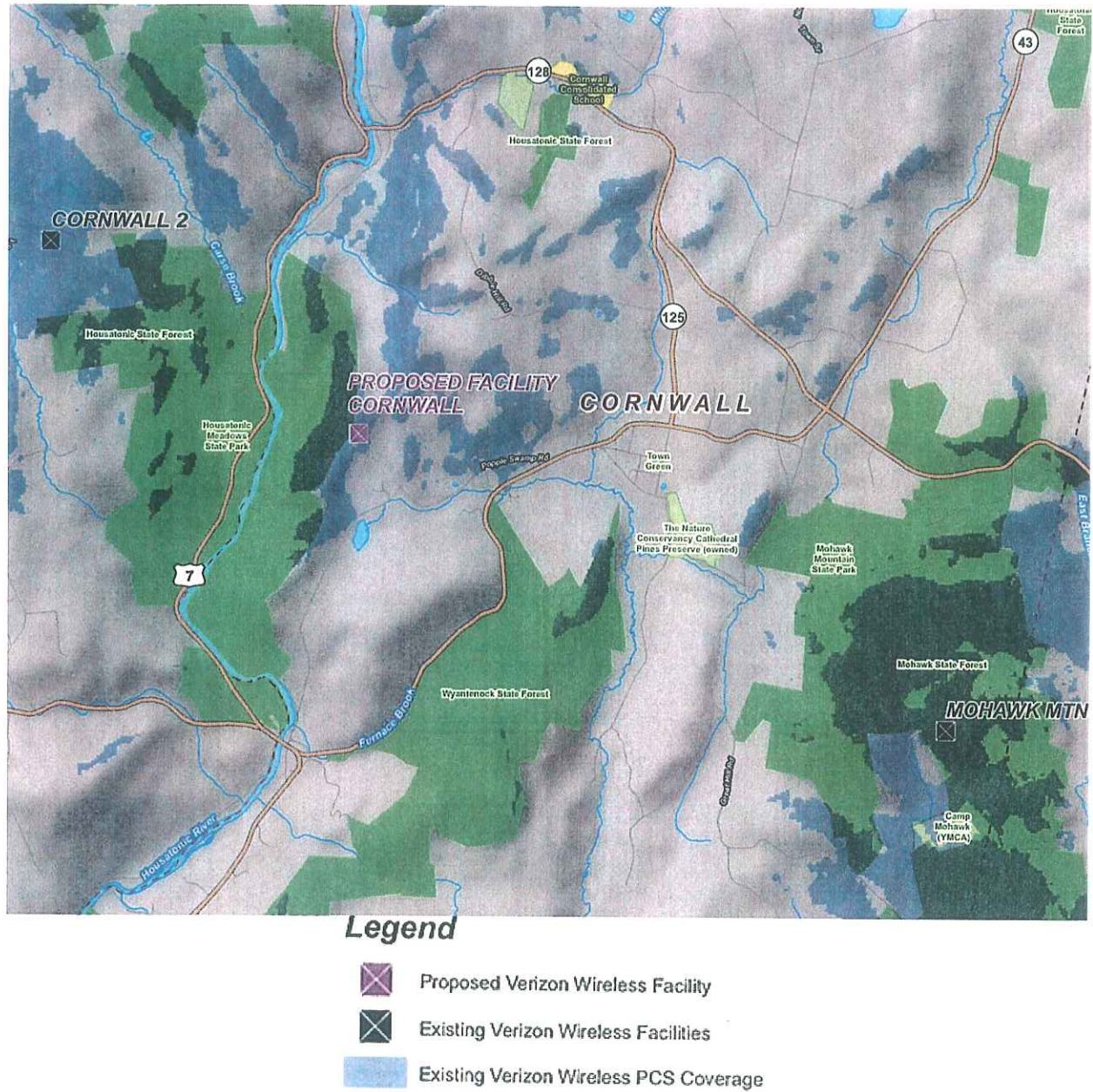


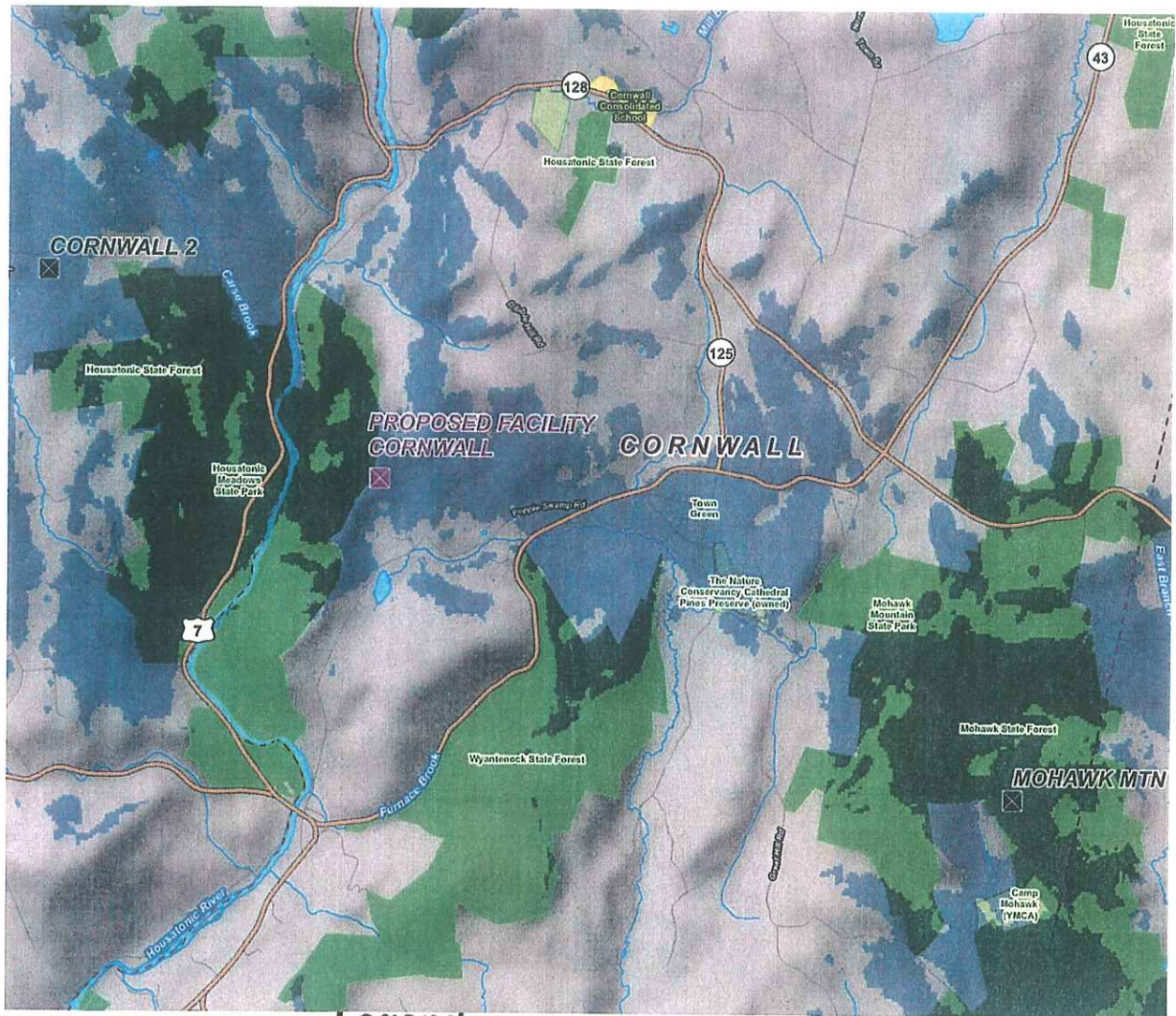
Figure 3: Existing PCS coverage. (Cellco 1, Tab 7)



Legend

-  Proposed Verizon Wireless Facility
-  Existing Verizon Wireless Facilities
-  Proposed Verizon Wireless Cellular Coverage

Figure 4: Existing and proposed cellular coverage. (Cellco 1, Tab 7)



Legend

-  Proposed Verizon Wireless Facility
-  Existing Verizon Wireless Facilities
-  Proposed Verizon Wireless PCS Coverage

Figure 5: Existing and proposed PCS coverage. (Cellco 1, Tab 7)

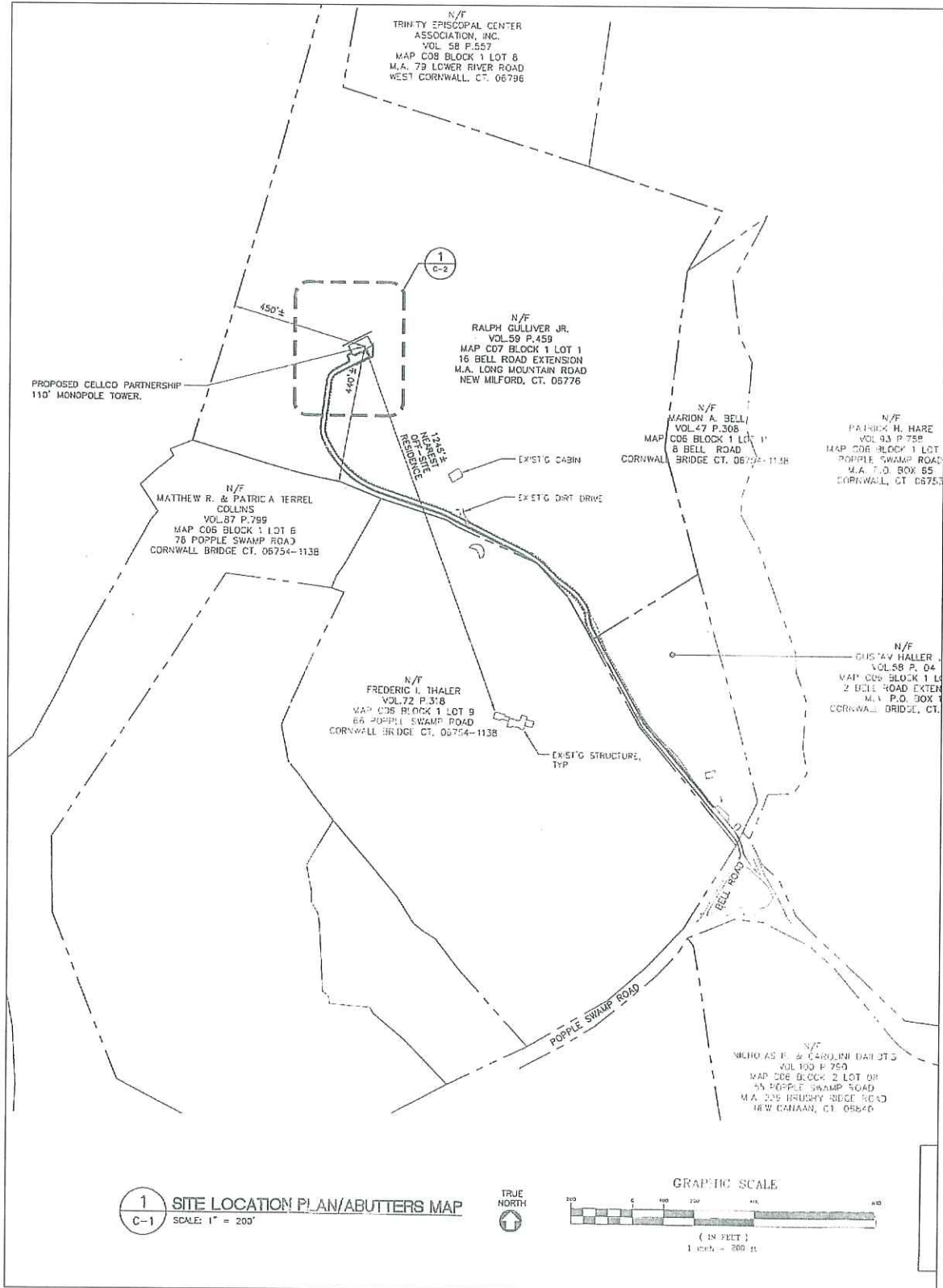
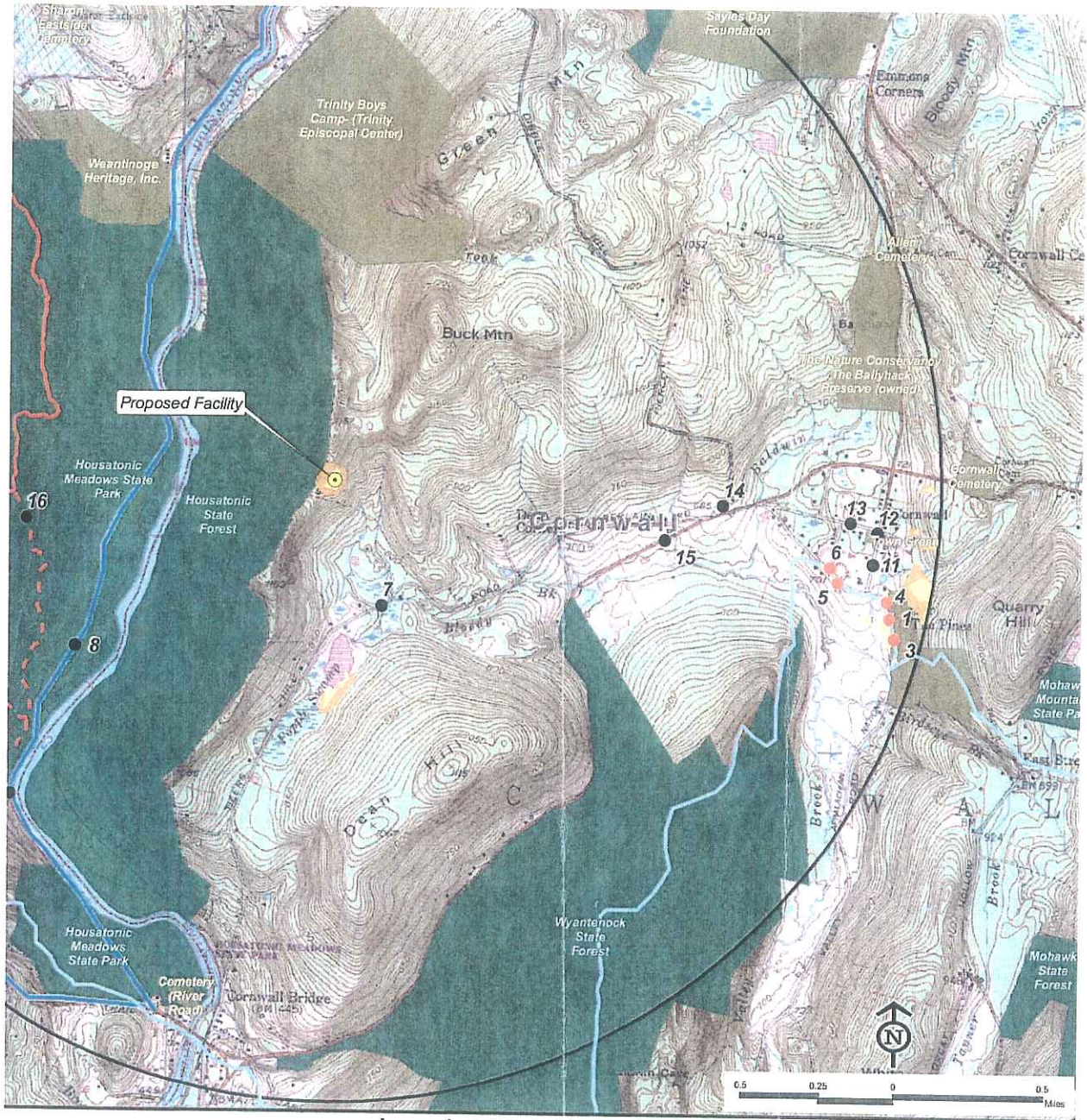


Figure 6: Site Plan. (Cellco 1, Tab 2)



Legend







-  Proposed Site Location
- Photographs - August 7, 2009 and December 2, 2009
-  Balloon is not visible
-  Balloon visible above trees
-  Potential Seasonal Visibility (Approximately 13 acres)
-  Year-Round Visibility (Approximately 14 acres)
-  Protected Municipal and Private Open Space Properties (1997)

Figure 7: Visibility of proposed site. (Cellco 1, Tab 10)



Figure 8: Photosimulation of proposed tower from School Street, adjacent to house #42 (Cornwall Plains). (Cellco 1, Tab 10)