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| <p><b>DOCKET NO. 463A</b> – American Towers, LLC and New Cingular Wireless PCS, LLC amended application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at 351A Boston Post Road, East Lyme, Connecticut or for the construction, maintenance and operation of a telecommunications facility at an alternative site located at 2 Arbor Crossing, East Lyme, Connecticut pursuant to Connecticut General Statutes §4-181a(a).</p> | <p>} Connecticut<br/>         } Siting<br/>         } Council<br/>         December 22, 2016</p> |
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**Findings of Fact**

**Introduction**

1. American Towers, LLC 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 October 6, 2015 for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a 194-foot monopole wireless telecommunications facility located at 351A Boston Post Road in East Lyme, Connecticut. (Applicant 1, p. 1)
  
2. The purpose of the proposed facility is to replace an existing 150-foot telecommunications facility located at 2 Scott Road in East Lyme, approximately 0.3 miles northwest of the proposed site (refer to Figure 1). AT&T and T-Mobile Northeast LLC (T-Mobile) are located on the existing tower. T-Mobile did not intervene in the proceeding but intends to locate on the proposed facility. (Applicant 1, p. 11; Applicant 2, Tab E; Tr. 1, p. 67; Letter from Vertical Development dated October 31, 2016)
  
3. The existing 2 Scott Road facility was approved in 1986 in Docket 67 prior to the subsequent development of the underlying parcel as a residential development known as The Orchards. In its decision, the Council issued a Certificate to AT&T’s predecessor, Southern New England Telephone Company. At the time of the Application filing, AT&T’s existing property lease with the landlord would expire in late 2016 and AT&T was unable to secure a long-term lease for the existing tower. (Applicant 1, pp. 2, 11, Tab 1)
  
4. American Towers, LLC (ATC) is a Massachusetts Corporation with an office in Woburn, Massachusetts. ATC owns and/or operates numerous tower facilities in Connecticut. (Applicant 1, p. 5)
  
5. New Cingular Wireless PCS, LLC (AT&T) is a Delaware limited liability company with an administrative office located in Rocky Hill, Connecticut. AT&T is licensed by the Federal Communications Commission (FCC) to provide personal wireless communication service to Connecticut. (Applicant 1, p. 5)
  
6. The parties in this proceeding are ATC, AT&T, the Town of East Lyme (Town) and BHSO Community Conservancy. Pursuant to Connecticut General Statutes §22a-19, the Council granted both the Town of East Lyme and BHSO Community Conservancy Connecticut Environmental Protection Act intervenor status. (BHSO Community Conservancy 1; Town 1; Transcript 1, December 15, 2015, 3:00 p.m. [Tr. 1], p. 5)

### Procedural Matters

7. Pursuant to C.G.S. § 16-50(b), public notice of the application filing to the Council was published in The Day on September 23, and September 30, 2015. (Applicant 5)
8. Pursuant to C.G.S. §16-50(b), notice of the application was provided to all abutting property owners by certified mail. Notice was refused by one abutter at 339 Boston Post Road, East Lyme. (Applicant 1, Tab 13; Applicant 2, Response 20)
9. On October 5, 2015, the Applicant provided notice to all federal, state and local officials and agencies listed in C.G.S. §16-50(b). (Applicant 1, Tab 14)
10. Upon receipt of the application, on October 7, 2015 the Council sent a letter to the Town of East Lyme as notification that the application was received and is being processed, in accordance with C.G.S. §16-50gg. (Record)
11. During a regular Council meeting on November 12, 2015, the application was deemed complete pursuant to Regulations of Connecticut State Agencies (R.C.S.A.) §16-50-1a and the public hearing schedule was approved by the Council. (Record)
12. Pursuant to C.G.S. §16-50m, a legal notice was published in The Day on November 17, 2015 that indicated the date, location and time of the Council's public hearing to be held on December 15, 2015. (Record)
13. Pursuant to C.G.S. §16-50m, on November 13, 2015, the Council sent correspondence to the Town of East Lyme to provide notification of the scheduled public hearing and to invite the municipality to participate. (Record)
14. On November 24, 2015, the Council held a pre-hearing teleconference on procedural matters for parties and intervenors to discuss the requirements for pre-filed testimony, exhibit lists, administrative notice lists, expected witness lists, filing of pre-hearing interrogatories and the logistics of the public inspection of the site scheduled for December 15, 2015. (Council Pre-Hearing Conference Memoranda, dated November 17, 2015)
15. In compliance with 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 November 30, 2015. The sign presented information regarding the project and the Council's public hearing. (Applicant 3)
16. The Council and its staff conducted an inspection of the proposed 351A Boston Post Road site on December 15, 2015, beginning at 2:00 p.m. During the field inspection, the Applicant attempted to fly a four-foot diameter red balloon at the proposed site to simulate the height of the proposed tower. Weather conditions at this time included high winds which caused three balloons to become entangled in the surrounding tree canopy. The Applicant successfully flew a 5.5-foot diameter red and yellow balloon from 8:00 a.m. to approximately 1:00 pm. when winds were calmer. (Council's Hearing Notice dated November 24, 2015; Tr. 1, pp. 17-18; Transcript 2, December 15, 2015 – 7:00 p.m. [Tr. 2], p. 1)
17. Pursuant to C.G.S. §16-50m, the Council, after giving due notice thereof, held a public hearing on December 15, 2015, beginning with the evidentiary session of the hearing beginning at 3:00 p.m. and continuing with the public comment session at 7:00 p.m. at the East Lyme Town Hall, 108 Pennsylvania Avenue, East Lyme, Connecticut. (Council's Hearing Notice dated November 13, 2015; Tr. 1, p. 1; Tr. 2, p. 1)

18. The Council continued the public evidentiary hearing on January 26, 2016 at the Council's office at 10 Franklin Square, New Britain, Connecticut. (Council's Continued Hearing Memo dated December 16, 2015; Transcript 3, January 26, 2016, 11:00 a.m. [Tr. 3], p. 1)
19. On January 22, 2016, the Council requested consent from the Applicant to extend the deadline for a decision in the proceeding until May 3, 2016. (Council Extension Request Letter dated January 22, 2016)
20. On February 12, 2016, the Applicant granted consent to extend the deadline for a decision until April 15, 2016. (Applicant Consent to Extension Letter dated February 12, 2016)
21. On March 3, 2016, the Council reviewed the Draft Findings of Fact prepared for the 351A Boston Post Road site and after conducting a non-binding straw poll in favor of the proposed facility, directed staff to draft a favorable Opinion and Decision and Order for Council review at a meeting scheduled for March 31, 2016. (Council Meeting Minutes of March 3, 2016)
22. On March 28, 2016, the Applicant requested the Council defer a final decision in this matter and granted the Council an extension of time until September 3, 2016 to render a decision to allow the Applicant enough time to thoroughly investigate a potential alternative site. In its letter, the Applicant indicated a lease extension was negotiated for the existing 2 Scott Road tower through December 31, 2017. (Applicant Request to Defer Decision and Grant Extension on Decision Deadline dated March 28, 2016)
23. On August 19, 2016, the Council requested consent from the Applicant to extend the deadline for a decision in the proceeding to the 360-day statutory deadline of September 30, 2016. (Council Extension Request Letter dated August 19, 2016)
24. On August 23, 2016, the Applicant granted consent to extend the deadline for a decision until the 360-day statutory deadline of September 30, 2016. (Applicant Consent to Extension Letter dated August 23, 2016)
25. On September 14, 2016 the Applicant submitted an amendment to the application for an alternative tower site located at 2 Arbor Crossing in East Lyme, Connecticut (Alternate Site). (Applicant's Amendment to the Application received September 14, 2016)
26. On September 29, 2016 the Council voted to deny the application for the 351A Boston Post Road Site without prejudice and on its own motion, moved to reconsider the final decision on the application pursuant to Connecticut General Statutes § 4-181a(a) and approved a schedule to consider the alternative location. (Record)
27. Pursuant to C.G.S. §16-50m, on September 30, 2016 the Council sent correspondence to the Town of East Lyme to provide notification of the scheduled public hearing for the Alternate Site and to invite the municipality to participate. (Record)
28. Pursuant to C.G.S. §16-50m, a legal notice was published in The Day on October 4, 2016 that indicated the date, location and time of the Council's amended public hearing to be held on November 1, 2016. (Record)
29. On October 12, 2016, the Council held a pre-hearing teleconference on procedural matters for parties and intervenors to discuss the requirements for pre-filed testimony, exhibit lists, administrative notice lists, expected witness lists, filing of pre-hearing interrogatories and the logistics

of the public inspection of the site scheduled for November 1, 2016. (Council Pre-Hearing Conference Memoranda, dated October 5, 2016)

30. In compliance with R.C.S.A. §16-50j-21, on October 17, 2016 the Applicant installed a four-foot by six-foot sign at the entrance to the 351A Boston Post Road Site and the Alternate Site regarding the project and the Council's public hearing. (Applicant 14)
31. The Council and its staff conducted an inspection of the Alternate Site on November 1, 2016, beginning at 2:00 p.m. During the field inspection, the Applicant flew 4.5-foot diameter red balloon at the proposed Alternate Site to simulate the height of the proposed facility. Weather conditions were generally favorable and the balloon was afloat from 8:00 a.m. to 6:00 p.m. (Council's Hearing Notice dated September 30, 2016; Transcript 3, November 1, 2016 – 3:00 p.m. [Tr. 3], p. 58)
32. Pursuant to C.G.S. §16-50m, the Council, after giving due notice thereof, held a public hearing on the amended application on November 1, 2016 with the evidentiary session of the hearing beginning at 3:00 p.m. and continuing with the public comment session at 7:00 p.m. at the East Lyme Town Hall, 108 Pennsylvania Avenue, East Lyme, Connecticut. (Council's Hearing Notice dated September 30, 2016; Tr. 3, p. 1; Transcript 4, November 1, 2016 – 7:00 p.m. [Tr. 4], p. 69)

#### **State Agency Comment**

33. Pursuant to C.G.S. § 16-50j (g), on November 13, 2015, January 27, 2016, September 30, 2016 and November 2, 2016 the following State agencies were solicited by the Council to submit written comments regarding the proposed facilities: 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); Department of Emergency Services and Public Protection (DESPP); and State Historic Preservation Office (SHPO). (Record)
34. The Council received a response from the DOT's Bureau of Engineering and Construction on November 13, 2015 and November 3, 2016 indicating that a Highway Encroachment Permit would be required if any work is conducted within the state right of way on Route 1. (DOT Comments received November 13, 2015 and November 3, 2016)
35. The Council received a response from the DPH's Drinking Water Section on December 1, 2015, indicating that the proposed 351A Boston Post Road site does not appear to be located in a public water supply source water area. The DPH did not comment on the Alternate Site. (DPH Comment dated December 1, 2015; Record)
36. The following agencies did not respond with comment on either site: DEEP, CEQ, PURA, OPM, DECD, DOAg, CAA, DESPP, and SHPO. (Record)

#### **Municipal Consultation**

37. AT&T began preliminary discussions with the Town regarding a replacement facility in the Fall of 2013. (Applicant 1, Tab 2; Tr. 1, p. 14)

38. On April 9, 2015 AT&T, in anticipation of the decommissioning of the 2 Scott Road tower, filed Petition 1152 with the Council for a temporary tower on Ancient Highway in East Lyme. The purpose of the temporary facility was to provide limited wireless service to Route 1 and surrounding areas until a permanent replacement tower site was found. (Council Administrative Notice 29 – Petition 1152 Record)
39. The Town submitted a letter to the Council on May 8, 2015 objecting to the temporary tower site and the petition. (Council Administrative Notice 29 – Petition 1152 Record)
40. AT&T withdrew Petition 1152 without prejudice on June 8, 2015. (Council Administrative Notice 29 – Petition 1152 Record)
41. For the proposed 351A Boston Post Road site, the Applicant commenced the 90-day pre-application municipal consultation process by filing a technical report with the Town of East Lyme on June 5, 2015. A meeting with town officials to discuss the project was held on June 25, 2015. (Applicant 1, p. 24)
42. The Applicant participated in a Town-held public presentation regarding the proposed 351A Boston Post Road site on July 29, 2015. (Applicant 1, p. 24)
43. In regards to the 351A Boston Post Road site, the Town seeks mitigation of environmental impact to scenic vistas in East Lyme, specifically in the Boston Post Road area by the use of alternate facility locations, alternative technologies and configurations. (Town 1)
44. The Town submitted correspondence to the Council on October 24, 2016 indicating it does not object to the 2 Arbor Crossing site and as such, it would not participate in the Council's hearing on November 1, 2016. (Town 3; Tr. 3, p. 10)
45. The Town of East Lyme First Selectman Mark Nickerson made a limited appearance at the November 1, 2016 public hearing expressing support for the proposed 2 Arbor Crossing site. Additionally, First Selectman Nickerson indicated the Town has not received any opposition regarding the proposed Alternate Site. (Tr. 3, pp. 8-9; Tr. 4, pp. 82-83)

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

46. 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 – Telecommunications Act of 1996)
47. 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 Connecticut, including the Town of East Lyme. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996; Applicant 1, Tab 1, RF Report p. 1) )
48. Section 253 of the Telecommunications Act of 1996 prohibits any state or local statute or regulation, or other state or local legal requirement from prohibiting or having the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)

49. Section 704 of the Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services and from prohibiting or having the effect of prohibiting the provision of personal wireless services. This section also requires state or local governments to act on applications within a reasonable period of time and to make any denial of an application in writing supported by substantial evidence in a written record. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
50. Section 704 of the Telecommunications Act of 1996 also prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions, which include effects on human health and wildlife, to the extent that such towers and equipment comply with FCC’s regulations concerning such emissions. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
51. In February 2009, as part of the American Recovery and Reinvestment Act, Congress directed the FCC to develop a National Broadband Plan to ensure every American has “access to broadband capability.” Congress also required that this plan include a detailed strategy for achieving affordability and maximizing use of broadband to advance “consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, employee training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.” (Council Administrative Notice Item No. 18 – The National Broadband Plan)
52. Section 706 of the Telecommunications Act of 1996 requires each state commission with regulatory jurisdiction over telecommunications services to encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans, including elementary and secondary schools, by utilizing regulating methods that promote competition in the local telecommunications market and remove barriers to infrastructure investment. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
53. 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 – Presidential Proclamation 8460, Critical Infrastructure Protection)
54. In February 2012, Congress adopted the Middle Class Tax Relief and Job Creation Act to advance wireless broadband service for both public safety and commercial users. The Act established the First Responder Network Authority to oversee the construction and operation of a nationwide public safety wireless broadband network. Section 6409 of the Act contributes to the twin goals of commercial and public safety wireless broadband deployment through several measures that promote rapid deployment of the network facilities needed for the provision of broadband wireless services. (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012)
55. In June 2012, President Barack Obama issued an Executive Order to accelerate broadband infrastructure deployment declaring that broadband access is a crucial resource essential to the nation’s global competitiveness, driving job creation, promoting innovation, expanding markets for American businesses and affording public safety agencies the opportunity for greater levels of effectiveness and interoperability. (Council Admin Notice Item No. 12 – Presidential Executive Order 13616, Accelerating Broadband Infrastructure Development)

56. Pursuant to Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, also referred to as the Spectrum Act, a state or local government may not deny and shall approve any request for collocation, removal or replacement of equipment on an existing wireless tower provided that this does not constitute a substantial change in the physical dimensions of the tower. The Federal Communications Commission defines a substantial change in the physical dimensions of a tower as follows:
- a) An increase in the existing height of the tower by more than 10 percent or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty feet, whichever is greater. Changes in height should be measured from the dimensions of the tower, inclusive of originally approved appurtenances and any modifications that were approved prior to the passage of the Spectrum Act.
  - b) Adding an appurtenance to the body of the tower that would protrude from the edge of the tower more than twenty feet, or more than the width of the tower structure at the level of the appurtenance, whichever is greater.
  - c) Installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four, or more than one new equipment shelter.
  - d) A change that entails any excavation or deployment outside the current site.
  - e) A change that would defeat the concealment elements of the tower.
  - f) A change that does not comply with conditions associated with the siting approval of the construction or modification of the tower, provided however that this limitation does not apply to any modification that is non-compliant only in a manner that would exceed the thresholds identified in (a) – (d).
- (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012; Council Administrative Notice Item No. 20 – FCC Wireless Infrastructure Report and Order)
57. According to state policy, 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)

#### **AT&T Existing and Proposed Wireless Services**

58. AT&T would deploy 700 MHz, 850 MHz and 1900 MHz wireless services at the proposed sites. Both the 700 MHz and 1900 MHz frequencies would provide long-term evolution (4G) voice and data service with an in-building service design threshold of -83 dBm and -86 dBm, respectively. The 850 MHz frequency would provide service to older technology (2G, 2.5G, 3G) at an in-building service design threshold of -74 dBm and an in-vehicle threshold of -82 dBm. AT&T intends to phase out 2G service on January 1, 2017. (AT&T 2, R. 1, R. 3; Tr. 3, p. 63)
59. The proposed facilities are designed to replace as much wireless service as possible that is currently provided by the existing 2 Scott Road facility (refer to Figure 8). The 2 Scott Road facility is located at an approximate elevation of 337 feet above mean sea level (amsl) near the summit of Pond Hill, one of the tallest hills in the Route 1 area of East Lyme. (Applicant 1, Tab 1; Council Administrative Notice 24, Docket 67 Record)
60. The proposed facilities would provide reliable wireless service for AT&T to portions of Route 1, Lovers Lane, Dean Road, Scott Road, North Bride Brook Road, and surrounding areas including residential and commercial developments (refer to Figures 9 & 10). (Applicant 1, Tab 1 RF Report)

61. AT&T's proposed antennas would interact with the following AT&T facilities as part of its seamless wireless network:

| Site Location                    | Distance and Direction from Proposed Tower | Antenna Centerline above ground level | Structure Type      |
|----------------------------------|--|---------------------------------------|---------------------|
| 269 Flanders Road, East Lyme     | 0.8 miles east                             | 107 feet                              | power line facility |
| 93 Roxbury Road, East Lyme       | 1.6 miles south                            | 79 feet                               | water tank facility |
| 15 Liberty Way, East Lyme        | 2.8 miles south                            | 62 feet                               | building mount      |
| 38 Hatchetts Hill Road, Old Lyme | 3.6 miles southwest                        | 165 feet                              | monopole            |
| 62-1 Boggy Hole Road, Old Lyme   | 4.8 miles west-southwest                   | 145 feet                              | monopole            |

(Applicant 2, R. 4)

62. The table below presents AT&T's existing 850 MHz service parameters from the existing 2 Scott Road facility and anticipated service parameters from the proposed 351A Boston Post Road site and the 2 Arbor Crossing site:

|   | 2 Scott Road (antenna height @ 489 feet amsl)            | 351A Boston Post Road Site (antenna height @ 389 feet amsl) | 2 Arbor Crossing Site (antenna height @ 423 feet amsl) |
|---|--|---|--|
| <b>Length of service on Main Roads</b>      | 4.1 miles (-82 dBm)                                      | 3.7 miles (-82 dBm)   | 4.3 miles (-82 dBm)                                    |
| <b>Length of service on Secondary Roads</b> | 16.1 miles (-82 dBm)                                     | 13.2 miles (-82 dBm)  | 13.2 miles (-82 dBm)                                   |
| <b>Service Area</b>                         | 3.0 square miles (-74 dBm)<br>6.2 square miles (-82 dBm) | 2.2 sq. miles (-74 dBm)<br>4.1 sq. miles (-82 dBm)          | 2.5 sq. miles (-74 dBm)<br>5.4 sq. miles (-82 dBm)     |
| <b>Population</b>                           | 1,370 (-74 dBm)<br>2,389 (-82 dBm)                       | 1,365 (-74 dBm)<br>2,076 (-82 dBm)                          | 1,175 (-74 dBm)<br>2,016 (-82 dBm)                     |

(Applicant 1, Tab 1, RF Report; Applicant 2, R. 5; Applicant 13, R. 3, R. 4)

63. The proposed 351A Boston Post Road facility would not be able to replace all of the reliable wireless service currently provided by the 2 Scott Road facility as AT&T's proposed antennas are approximately 100 feet lower in ground elevation than its current installation on the 2 Scott Road tower. Most of the "lost" service would be along Scott Road and Route 1 west of North Bride Brook Road. AT&T has no current plan to replace this "lost" service. (Applicant 1, Tab 1 RF Report; Tr. 1, pp. 31-32)
64. If AT&T's proposed antenna height at the 351A Boston Post Road site was reduced below 190 feet above ground level (agl), reliable service would be negatively affected along Route 1. Additionally, some wireless connectivity loss to adjacent AT&T facilities would occur. Specific coverage loss includes four separate 0.1 mile areas on Route 1, a 0.2 mile section on Goldfinch Terrace, 0.1 mile on Upper Pattagansett Road, and 0.1 mile on Nelson Road. (AT&T 10, R. 4; Tr. 1, p. 66)
65. Although the proposed 2 Arbor Crossing site generally offers more wireless service than the 351A Boston Post Road site, it does not adequately service a 0.4 mile long area along Boston Post Road in the Lovers Lane area. Degraded service in this area would most likely occur during leaf-on conditions where the foliage blocks some of the signal. The proposed 351A Boston Post Road site offered more service to this major road. The existing 2 Scott Road site does not adequately service this area. (Applicant 11, Tab 1; Tr. 4, pp. 31-32, 40)



**Site Selection**

66. The search for a tower site in this area dates to the Fall of 2013 when ATC and AT&T were separately examining properties that could host a telecommunications tower. (Applicant 1, Tab 2; Tr. 1, pp. 14, 37)
67. The search included investigating whether existing towers or other sufficiently tall structures were available within the Applicant's search area that could provide adequate wireless service for AT&T. No such structures were identified. (Applicant 1, Tab 2)
68. Given the topography of the area, characterized by hilly terrain to the northwest and southeast of Route 1, both AT&T and ATC focused their search for suitable properties in the area around Pond Hill, site of the 2 Scott Road facility and The Orchards residential development, and along high elevation terrain on Wilson Hill in the Ancient Highway area. (Applicant 1, Tab 2, Tab 8 topographic map)
69. In addition to the proposed sites, the Applicant investigated numerous other parcels including sites suggested by the Town, BHSO Community Conservancy, and the Council. None of the investigated or suggested parcels were suitable for telecommunications use, as indicated in the table below:

| <b>Location</b>  | <b>Parcel Size (acres)</b> | <b>Reason for rejection</b>   |
|--|----------------------------|---|
| 351B Boston Post Road  | 7.27                       | Property owner not interested   |
| 405 Boston Post Road   | 39.7                       | Property owner not interested   |
| Hathaway Road (M35.0/L23)  | 152                        | Property owner not interested   |
| Scott Road (M34.0/L9)  | 44                         | Rejected by AT&T radio frequency engineers  |
| 24 Sunrise Trail (Rear)  | 4.1                        | Property owner not interested   |
| 171 Boston Post Road (light duty tower at Public Safety Complex) | 61                         | Rejected by AT&T radio frequency engineers  |
| Stone Ranch (existing tower)                                     | 1026                       | Rejected by AT&T radio frequency engineers and not available per property owner (CT Military Dept.)             |
| 6 Stone Ranch (near former airfield)                             | 1026                       | Rejected by AT&T radio frequency engineers  |
| 415 Boston Post Road   | 34.4                       | Rejected by AT&T radio frequency engineers  |
| 12 Scott Road  | 3.2                        | Rejected by AT&T radio frequency engineers  |
| Scott Road (M29.0/L11)   | 34                         | Rejected by AT&T radio frequency engineers  |
| 405 Boston Post Road (M29.0/L31)                                 | 39.7                       | Rejected by AT&T radio frequency engineers  |
| 291 N. Bride Brook (M24.0/L95)                                   | 53.5                       | Rejected by AT&T radio frequency engineers  |
| 430 Boston Post Road   | 18.9                       | Rejected by AT&T radio frequency engineers  |
| 440 Boston Post Road (water tank)                                | 0.3                        | Rejected by AT&T radio frequency engineers  |
| Marion Drive (M25.0/L32)   | 35.4                       | Town owned open space not available and rejected by AT&T radio frequency engineers                              |
| Ancient Highway, Drabik lot M30.0/L1                             | 8.6                        | Site acceptable to AT&T but site given adverse effect determination by Mohegan Tribe. Location of Petition 1152 |

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| Ancient Highway Drabik lots<br>M30.0/L2 & M25.0/L31 | 4.2 & 21      | Site acceptable to AT&T but site given adverse effect determination by Mohegan Tribe                         |
| 286 Flanders Road                                   | 79            | Gateway development area acceptable to AT&T but area given adverse effect determination by Mohegan Tribe     |
| 18 Drabik Road                                      | 6.5           | Rejected by AT&T radio frequency engineers   |
| Drabik Road (Cedar Ridge G.C.)                      | 77.2          | Rejected by AT&T radio frequency engineers   |
| 16 Mostowy Road                                     | 301.5         | Rejected by AT&T radio frequency engineers   |
| 83-89 Upper Pattagansett Road                       | 53.8          | Rejected by AT&T radio frequency engineers   |
| 29 Goldfinch Terrace                                | 200.5         | Rejected by AT&T radio frequency engineers   |
| 300 Flanders Road                                   | 2.4           | Rejected by AT&T radio frequency engineers   |
| 11 Industrial Park Road                             | 4.8           | Rejected by AT&T radio frequency engineers   |
| 49 Industrial Park Road                             | 8.4           | Rejected by AT&T radio frequency engineers   |
| 63 Scott Road                                       | Not available | Rejected by AT&T radio frequency engineers   |
| 397 Boston Post Road                                | Not available | Rejected by AT&T radio frequency engineers   |
| 21 Legendary Road                                   | Not available | Rejected by AT&T radio frequency engineers   |
| 12 Seebeck Road                                     | Not available | In area determined by MTHPO as culturally significant  |
| Flanders Lane (M31/L1)                              | Not available | Rejected by AT&T radio frequency engineers and in area determined by Mohegan Tribe as culturally significant |
| Ancient Highway (M25/L30)                           | Not available | Rejected by AT&T radio frequency engineers and in area determined by Mohegan Tribe as culturally significant |
| 84 Lovers Lane (M25.1/L85)                          | Not available | Rejected by AT&T radio frequency engineers   |
| 94 Lovers Lane (M25.1/L88)                          | Not available | Rejected by AT&T radio frequency engineers   |

(Applicant 1, Tab 2; Applicant 2, R. 18, R. 19; Applicant 9, R. 3)

70. Both the Drabik parcel (M30.0/L1) and the 286 Flanders Road Gateway parcel were acceptable to AT&T. During the municipal consultation process, the Applicant submitted a technical report to the Town that proposed a tower on both of these parcels as well as at 351A Boston Post Road. During the Applicant's FCC-mandated National Environmental Policy Act (NEPA) review process, the Mohegan Tribal Historic Preservation Office (MTHPO) performed a site visit of the Ancient Highway area where these two sites were located. The MTHPO indicated that due to potential tribal features on an abutting parcel and the potential historic use of the Ancient Highway by the tribe, development of a tower in the Ancient Highway area would have an adverse effect on tribal cultural resources and the historic landscape of the Ancient Highway area. Given this adverse effect determination, the Applicant would not be able to obtain NEPA approval for telecommunications use of these two parcels as well as other potential tower locations in the general area of Ancient Highway. Given this determination, these two locations were not submitted as candidates in the Application to the Council. (AT&T 1, Tab 2; Applicant 2, R. 19; Tr. 3. pp. 38-49, 80-92)
71. A parcel owned by the Town located east of Marion Drive (M25.0/L32) is considered Town Open Space and is not available to the Applicant. (Town 2, R. 3; Tr. 3, p. 17)

72. The Applicant examined locations at the Stone Ranch parcel, specifically the existing telecommunications tower located at the highest point on the property and a location adjacent to the former airfield at a lower elevation. Both locations are not suitable for AT&T as they would not provide adequate coverage. Even if the existing tower was at a height of 400 feet agl, coverage would still be deficient. Although Stone Ranch is a large parcel, other locations on this property would not be suitable because the property is located too far west of the target service area on Route 1. Furthermore, the CT Military Department, operators of Stone Ranch, would not permit use of the existing tower or the other areas of the Stone Ranch parcel for commercial telecommunications use. (Applicant 1, Tab 2; Applicant 2, R. 18; Applicant 9, R. 1, R. 2, R. 3)
73. AT&T examined possible use of the 45-foot tall Town-owned water tank at 440 Boston Post Road but the tank is too short to meet wireless service objectives. Installing a tower on the parcel would not be feasible given the parcel's small size (0.32 acre) and location adjacent to a residence. Additionally, AT&T determined the site would not provide adequate coverage even if antennas were installed at 199 feet agl in this location. (Applicant 1, Tab 2; Applicant 2, R. 18; Applicant 10, R. 4)
74. The property owner of 335 Boston Post Road, an abutting property east of the 351 Boston Post Road site, offered their property for telecommunications use. The Applicant would not pursue a location on this property given its narrow width, steep grade, and lack of existing access to the rear of the parcel. (Tr. 1, pp. 86-87)
75. Utilizing microcells, distributed antenna systems, repeaters or other types of transmitting technologies are not feasible to replace the wireless services currently provided by the existing 2 Scott Road tower. These technologies are better suited for specific localized areas where coverage and capacity are needed, such as commercial buildings, stadiums and tunnels. (Applicant 1, p. 13)

#### **Proposed Facility Description – 351A Boston Post Road**

76. The proposed facility consists of a 194-foot monopole located on an approximately 7.2-acre flag shaped parcel at 351A Boston Post Road in East Lyme. The parcel is located on the southeast side of Pond Hill. (Applicant 1, p. 15, Tab 4, Tab 8)
77. The parcel is located northwest of Route 1 and contains a single family residence (refer to Figure 2). The parcel is accessed from a paved driveway extending uphill from Route 1. The driveway is shared with an abutter to the north at 351B Boston Post Road. There are no restrictions in the property deed that would limit the Applicant's access to the proposed site. (Applicant 1, Tab 4; Applicant 10, R. 9; Tr. 1, p. 18)
78. The subject property is zoned Residential (RU-40). (Applicant 1, Tab 4)
79. Land use immediately surrounding the subject parcel is residential. Seven developed residential properties are to the south, downhill, between the property line and Route 1. A developed residential property is located to the north at 351B Boston Post Road. Residential development is also located to the west in The Orchards residential development and to the east/northeast. (Applicant 1, Tab 4, Tab 8)
80. The tower site is located in a wooded, eastern portion of the property, at an elevation of approximately 200 feet above mean sea level (refer to Figure 3). (Applicant 2, Tab D)
81. The property owner's residence is approximately 320 feet west of the proposed tower site. (Applicant 1, Tab 4, Sheet C-1.0)

82. The proposed tower site is 100 feet from the north property line (351B Boston Post Road) and 152 feet from the east property line (335 Boston Post Road). (Applicant 2, R. 11)
83. The nearest abutting residence to the proposed tower site is approximately 397 feet to the south at 341 Boston Post Road. (Applicant 1, Tab 4, Sheet C-1.0; Applicant 2, Tab E)
84. There are approximately 39 residential dwellings within 1,000 feet of the proposed tower site. (Applicant 2, R. 10)
85. The proposed 194-foot monopole would be designed to accommodate up to four wireless antenna platforms. It would have an approximate diameter of 60 inches at the base and 42 inches at the top (refer to Figure 4). (Applicant 1, Tab 3, Tab 4)
86. The monopole would have a gray, galvanized steel finish. The Applicant would be willing to paint the antennas and antenna mounts a gray color to match the monopole finish. (Applicant 1, p. 21; Applicant 10, R. 2)
87. AT&T would install up to 12 panel antennas and 27 remote radio units on an antenna platform at a centerline height of 190 feet agl. The total height of the facility with antennas would be 194 feet agl. (AT&T 1, Tab 4)
88. T-Mobile intends to locate at the 180-foot level of the proposed facility. A lease most likely would be signed with ATC if the facility is approved for construction. (Applicant 1, Tab 7; Tr. 1, p. 67)
89. A 60-foot by 100-foot tower equipment compound would be established within a 70-foot by 120-foot lease area. (Applicant 1, Tab 4)
90. AT&T proposes to install an 11.5-foot by 16-foot equipment shelter within the compound. (Applicant 1, p. 15)
91. Two HVAC units would be attached to AT&T's proposed equipment shelter to provide air conditioning and heating to the equipment shelter. Typically, only one of the HVAC units operates at a time. (AT&T 2, Tab A)
92. The proposed equipment compound would be surrounded by an eight-foot high, anti-climb chain-link fence. The compound and AT&T's equipment shelter would be locked for security purposes. (Applicant 2, R. 13)
93. Underground utilities would be installed to the compound from existing service along the paved residential driveway. (Applicant 1, p. 15)
94. Existing ground elevation in the proposed compound area varies by 12 feet. Construction would require cut and fill (balanced) to create a compound surface. Retaining walls on the uphill and downhill slopes would be constructed to stabilize adjacent slopes. (Applicant 2, Tab D; Tr. 1, p. 23)
95. Access to the proposed compound would utilize the existing paved residential driveway on the west edge of the property for approximately 360 feet. Access would proceed east onto an existing dirt pathway that extends into the eastern portion of the property. The dirt path would be resurfaced, graded, widened to a travel width of 12 feet, and extended to a total length of approximately 700 feet. (Applicant 1, Tab 3; Applicant 2, Tab D; Tr. 1, p. 18)

96. The grade of the existing paved driveway is approximately 15 percent. The grade of the proposed access drive that follows the dirt path is three to five percent but reaches eight percent near the compound. (Tr. 1, pp. 20-22)

97. ATC would be the Certificate Holder for the 351A Boston Post Road facility. The estimated cost of the proposed facility is:

|                             |                  |
|-----------------------------|------------------|
| Tower and Foundation        | \$150,000        |
| Site Development            | 105,000          |
| Utility Installation        | 85,000           |
| AT&T Antennas and Equipment | <u>\$250,000</u> |
| Total Estimated Costs       | \$590,000        |

(Applicant 1, pp. 5, 25)

### **Proposed Facility Description – 2 Arbor Crossing**

98. The proposed facility consists of a 105-foot faux silo and associated structures located on an approximately 5.2-acre parcel at 2 Arbor Crossing in East Lyme. The parcel is located near the summit of Pond Hill (refer to Figure 5). (Applicant 11, p. 14, Tab 3)

99. The parcel is developed with a clubhouse, recreational areas and the existing 2 Scott Road tower. The proposed facility site is located 240 feet south of the 2 Scott Road tower and immediately north of the clubhouse pool (refer to Figure 6). (Applicant 11, pp. 8-9, Tab 3)

100. The subject property is zoned Residential (RU-40) and is located adjacent to undeveloped lots within The Orchards residential development. Residential development within the Orchards has occurred mainly to the south and west of the proposed tower site. (Applicant 11, p. 14, Tab 3; Applicant 13, R. 2)

101. The proposed facility is located in the wooded, northern portion of the property, at an elevation of approximately 335 feet amsl. (Applicant 11, Tab 2)

102. The proposed faux silo is approximately 82 feet east of the undeveloped residential lots at 5 Pumpkin Grove and 7 Pumpkin Grove. (Applicant 11, Tab 3)

103. The nearest residence to the proposed faux silo is approximately 450 feet to the south at 35 Plum Hill Road. (Applicant 11, Tab 3)

104. There are approximately 28 residential dwellings within 1,000 feet of the proposed faux silo. (Applicant 11, Tab 3)

105. The 105-foot faux silo would be designed to accommodate up to four wireless antenna platforms that would be contained within the silo structure. The uppermost platform within the silo would be located at a centerline height of 95 feet (refer to Figure 7). (Applicant 11, Tab 3)

106. The faux silo would have an approximate diameter of 22-24 feet. (Applicant 11, Tab 3; Tr. 3, pp. 17-18)

107. The faux silo would be painted a gray color with white trim. (Applicant 11, Tab 3; Tr. 3, p. 24)

108. AT&T would install up to 12 panel antennas and associated remote radio units on an antenna platform at a centerline height of 95 feet agl. (Applicant 11, Tab 3)
109. Both T-Mobile and Cellco have expressed interest in locating at the facility. (Record)
110. A 35-foot wide by 50-foot long by 35-foot high faux barn equipment building would be constructed to house ground equipment for facility tenants. A gravel apron would be established on the north side of the building. (Applicant 11, Tab 3)
111. The faux barn would be of wood frame construction and painted red with white trim. Colored vinyl siding may also be used. (Applicant 11, Tab 3; Tr. pp. 24-25)
112. The faux silo and faux barn would be located within a 100-foot by 100-foot lease area. A decorative four-foot tall fence would be constructed to separate the lease area from the adjacent swimming pool area. (Applicant 11, Tab 3)
113. Existing ground elevation in the proposed facility construction area varies by 15 feet. Construction would require cut and fill (balanced) to create a compound surface. Riprap slopes would be established on the south side of the silo to stabilize an embankment adjacent to the swimming pool yard. (Applicant 11, Tab 3; Tr. 3, pp. 37-38, 49-51)
114. Access to the facility would be from a new 12-foot wide gravel driveway extending along the west edge of 4 Arbor Crossing for approximately 250 feet, then an additional 125 feet on the subject parcel to the faux barn. A vehicle turnaround area would be established on the east side of the faux barn. (Applicant 11, Tab 3)
115. Underground utilities would be installed from Arbor Crossing to the compound along the access drive. (Applicant 11, Tab 3)
116. AT&T would be the Certificate Holder for the 2 Arbor Crossing facility. The estimated cost of the proposed facility is:

|                             |                  |
|-----------------------------|------------------|
| Tower and Foundation        | \$550,000        |
| Site Development            | 105,000          |
| Utility Installation        | 85,000           |
| AT&T Antennas and Equipment | <u>\$250,000</u> |
| Total Estimated Costs       | \$990,000        |

(Applicant 11, pp. 7, 20)

#### **Public Safety**

117. 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 - Wireless Communications and Public Safety Act of 1999)
118. The proposed facility would be in compliance with the requirements of the 911 Act and would provide Enhanced 911 services. (Applicant 1, p. 12)

119. Wireless carriers have voluntarily begun supporting text-to-911 services nationwide in areas where municipal Public Safety Answering Points support text-to-911 technology. Text-to-911 will extend emergency services to those who are deaf, hard of hearing, have a speech disability, or are in situations where a voice call to 911 may be dangerous or impossible. However, even after a carrier upgrades its network, a user's ability to text to 911 is limited by the ability of the local 911 call center to accept a text message. The FCC does not have the authority to regulate 911 call centers; therefore, it cannot require them to accept text messages. (Council Administrative Notice Item No. 21 – FCC Text-to-911: Quick Facts & FAQs)
120. Pursuant to the Warning, Alert and Response Network Act of 2006, "Wireless Emergency Alerts" (WEA) is a public safety system that allows customers who own certain wireless phone models and other enabled mobile devices to receive geographically-targeted, text-like messages alerting them of imminent threats to safety in their area. WEA complements the existing Emergency Alert System that is implemented by the FCC and FEMA at the federal level through broadcasters and other media service providers, including wireless carriers. (Council Administrative Notice Item No. 5 – FCC WARN Act)
121. The proposed facilities would be constructed in accordance with the American National Standards Institute "Structural Standards for Steel Antenna Towers and Antenna Support Structures" Revisions F and G. (Applicant 1, Tab 3; Applicant 11, Tab 2)
122. The proposed facilities would not constitute an obstruction or hazard to air navigation and would not require any obstruction marking or lighting. (Applicant 1, Tab 3; Applicant 11, Tab 2)
123. AT&T's equipment area would be remotely monitored 24/7 and equipped with silent intrusion and system alarms. (Applicant 2, R. 13)
124. The tower set back radius for the 351A Boston Post Road facility extends beyond the north property boundary by 94 feet and to the east by 42 feet. The tower set back radius for the 2 Arbor Crossing facility extends onto two undeveloped residential lots to the west by 23 feet. (Applicant 2, p. 11; Applicant 11, Tab 3)
125. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of AT&T's proposed and T-Mobile's potential antennas is 3.41 percent of the standard for the General Public/Uncontrolled Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed 351A Boston Post Road tower and 15.4 percent at the base of the 2 Arbor Crossing facility. 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 in a sector would be pointed at the base of the tower and all channels would be operating simultaneously, which creates the highest possible power density levels. Under normal operation, the antennas would be oriented outward, directing radio frequency emissions away from the tower, thus resulting in significantly lower power density levels in areas around the tower. (Applicant 1, Tab 6; Applicant 11, Tab 6; Council Administrative Notice Item No. 2 – FCC OET Bulletin No. 65)

#### **Emergency Backup Power**

126. 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. (Council Administrative Notice Item No. 49 - Final Report of the Two Storm Panel)

127. In response to the findings and recommendations of the Panel, and in accordance with C.G.S. §16-50//, 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), studied 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 Administrative Notice Item No. 27 – Council Docket No. 432)
128. 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 Administrative Notice Item No. 27 – Council Docket No. 432)
129. A shared diesel powered emergency generator would be installed at either facility that could supply up to four telecommunications carriers for 48 hours before it would require re-fueling. A 300 gallon diesel fuel tank would be located within the emergency generator unit. The tank would be double walled for leak prevention. (Applicant 2, R. 16; Tr. 1, pp. 28-31, 92-93; Applicant 11, Tab 3, Tab 4; Tr. 4, p. 48-49)
130. 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, is exempt from the State Noise Control Regulations. (R.C.S.A. §22a-69-1.8)

### **Environmental Considerations**

131. No historic or cultural resources would be affected by the proposed facilities. (Applicant 1, p. 18, Tab 12; Applicant 11, tab 4; Tr. 3, pp. 27-28)
132. The site properties do not contain any wetlands or watercourses. The nearest wetland to the 351A Boston Post Road facility is located 900 feet to the south, on private property south of Route 1. The nearest wetland to the 2 Arbor Crossing facility is 1,330 feet to the west. Development of either site would not affect these wetlands. (Applicant 1, p. 19, Tab 6; Applicant 11, Tab 4, Tab 5)
133. Post-construction stormwater controls for the 351A Boston Post Road facility would be designed to maintain existing natural drainage patterns and are designed for a 100-year storm event. Stormwater control features for the site include rip rap lined swales in the compound and access drive area, level spreaders along the access drive and two to three underground detention chambers installed along the access drive to collect runoff from the swales. (Applicant 2, Tab D; Tr. 1, pp. 24-27)
134. The underground detention chambers would measure two feet in diameter by eight feet long, surrounded by two feet of gravel to allow for chamber discharge percolation into the soil. The underground system is being used at this site given the relatively close distance of the development area to the south property line. (Tr. 1, pp. 27-28, 73-75)
135. Although a geotechnical study was not undertaken on the 351A Boston Post Road property, given the presence of ledge outcroppings, some blasting and or chipping may be required to install the access drive, tower foundation and site detention system. If significant ledge is encountered, the stormwater control system may have to be redesigned to account for existing soil conditions. (Tr. 1, pp. 29, 73-75)



136. Stormwater controls for the 2 Arbor Crossing facility would be incorporated into the stormwater controls established for the Orchards residential development. A swale would be constructed from the faux barn area that would extend south along the access road to a future catch basin that would be constructed when the roadway for Arbor Crossing is constructed. Presently, the roadway is partially constructed. (Applicant 11, p. 12, Tab 3; Tr. 3, p. 33)
137. Construction erosion and sedimentation controls would consist of straw bales, silt fencing and natural fiber erosion control blankets, where necessary. If approved, the final details of the construction erosion and sedimentation control plan would be provided in the D&M Plan. (Applicant 2, Tab D; Applicant 11, Tab 3)
138. Both sites are located in the Federal Emergency Management Agency Zone X, an area outside of the 500-year flood zone. (Applicant 1, Tab 4)
139. Approximately 0.4 acre of woodland would be cleared to develop either site. Both sites are in edge habitats and would not result in the fragmentation of a core forest block. (Applicant 2, R. 14; Tr. 1, pp. 14, 53-54; Applicant 11, Tab 3; Tr. 3, p. 28)
140. Several forest openings occur on either side of the proposed access drive to the 351A Boston Post Road site. The Applicant would examine relocating part of the access drive into these openings in order to reduce the amount of necessary tree clearing. Several trees would be trimmed along the existing paved driveway to accommodate construction vehicles. (Tr. 1, pp. 20-21)
141. A review of the project's potential impact on plant and animal species determined that the northern long-eared bat, a federally-listed Threatened Species and State-listed Endangered Species, the red bat, a State Species of Special Concern, and the small whorled pogonia, a federally-listed Threatened Species, were recorded as occurring in the general area of both sites. (DEEP 2015 revision to State Listed Species; Applicant 1, p. 18; Applicant 11, p. 11)
142. The Applicant surveyed the site properties for the northern long-eared bat and the small whorled pogonia and did not find either species or any associated suitable habitat. Although the Applicant sent information regarding the northern long-eared bat to the USFWS, the USFWS did not provide comment on the project. (Applicant 2, R. 14; Applicant 13, R. 5)
143. DEEP recommended a tree clearing restriction from May 1 to August 15 to avoid potential impacts to the red bat, a tree roosting species that favors large diameter trees. (Applicant 1, p. 17, Tab 9; Tr. 3, p. 29)
144. The proposed facilities are not located near a National Audubon Society designated Important Bird Area (IBA). The nearest IBA to the either proposed site is the Connecticut College Arboretum, approximately six miles to the northeast. (Council Administrative Notice Item No. 75; Applicant 1, Tab 9)
145. The proposed facilities are approximately 3 miles east of the nearest waterfowl focus area, a designation that recognizes the most important habitats for waterfowl along the Atlantic Flyway, a regional primary migratory bird flyway. (Applicant 1, Tab 10; Applicant 11, Tab 3)
146. The proposed facilities would comply with the USFWS guidelines for minimizing the potential impact of telecommunications towers on bird species. (Council Administrative Notice Item No. 13; Applicant 1, Tab 10; Applicant 11, p. 11)

147. Noise from HVAC units from the proposed 351A Boston Post Road facility would not exceed State Noise Control Regulations at the property boundaries. No specific noise information was provided for the 2 Arbor Crossing facility. (Applicant 2, Tab A; Record)

### Visibility

148. Pursuant to C.G.S. § 16-50p(a)(3)(F), no schools or commercial child day care centers are located within 250 feet of either tower site. The nearest school, Flanders School, is over 2 miles to the east of the sites approximately 1.6 miles east-northeast of the sites. The nearest commercial child day care facility is over two miles to the east-southeast of the sites. (Applicant 1, Tab 8 p. 6; Applicant 11, Tab 3, Tab 7)
149. There are no hiking trails designated by the Connecticut Forest and Parks Association or DEEP within two miles of either site. (Applicant 1, Tab 8; Council Administrative Notice Item No. 65)
150. There are no state or locally-designated scenic roads located within two-miles of the either site. (Applicant 1, Bulk File, Town of East Lyme Plan of Conservation and Development)

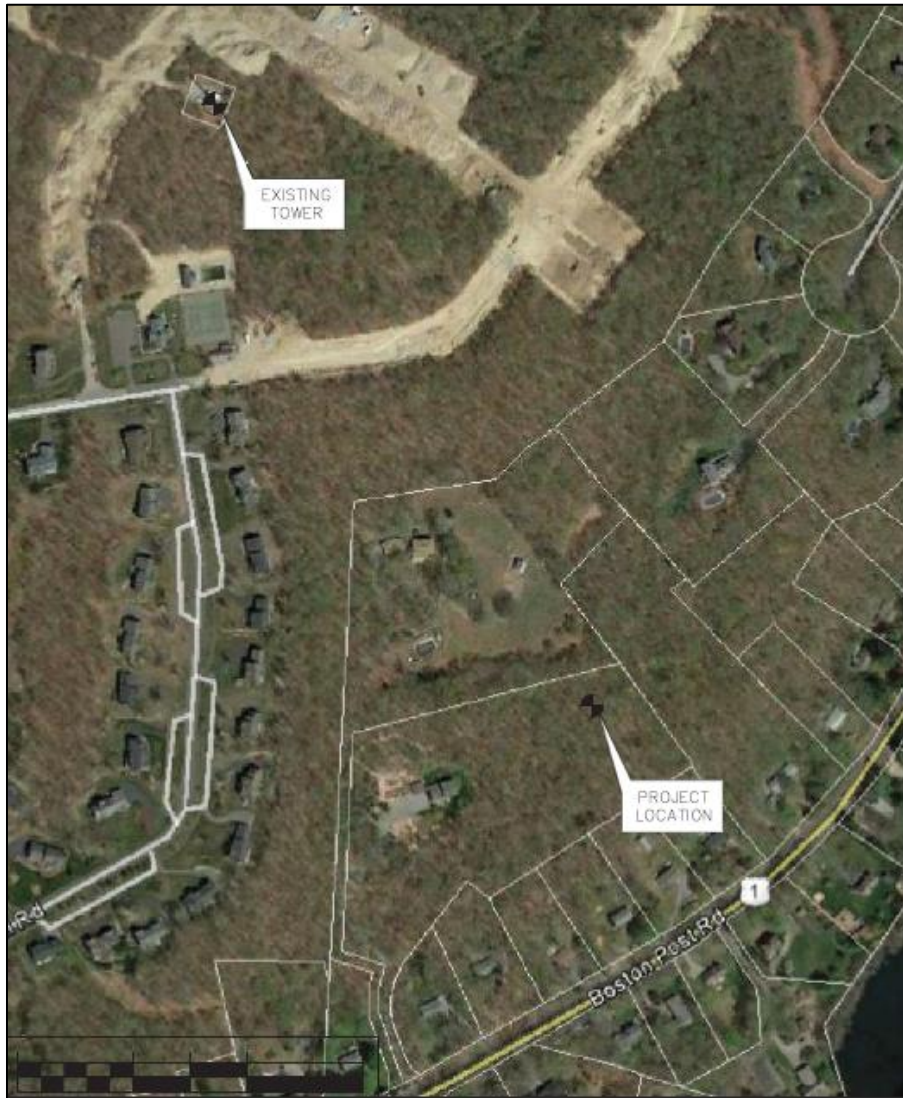
### **351 Boston Post Road Monopole Facility**

151. The proposed 351A Boston Post Road tower would be visible year-round from approximately 115 acres within a two-mile radius of the site (refer to Figure 11), with about a third of the visibility occurring over the open waters of Pattagansett Lake northeast of the site. The tower would be seasonally visible from approximately 844 acres within a two-mile radius of the site. (Applicant 8)
152. Generally, year-round views of portions of the facility would occur from locations in the immediate area surrounding the site, as well as from areas east of the site out to a distance of 0.75 miles. Year-round views from more distant areas to the west and south are effectively blocked by hilly terrain or dense tree cover. Refer to Figure 11 and associated photo-location table. (Applicant 1, Tab 8; Applicant 8)
153. Approximately 24 residentially developed properties would have year-round views of the proposed tower. For residences with visibility within 0.25 miles of the site, the majority would have views of the upper 10 feet of the tower. (Applicant 10, R. 1)
154. Several homes, including but not limited to 351B Boston Post Road and 21 Plum Hill Road, given their location on the hillside above the tower site, would have year-round views of a substantial portion of the tower. (Applicant 8 Viewshed map; BHSO 2, photos; Tr. 3 p. 69)
155. Residences with substantial seasonal visibility of the tower would be mostly from the surrounding immediate area, including but not limited to, the residences at 24 Sunrise Trail, 342 Boston Post Road, and 345 Boston Post Road. (Applicant 8 map; BHSO 2, photos)
156. Generally, the proposed site is more visible to developed areas east of Pond Hill than the existing 2 Scott Road tower. The 2 Scott Road tower would mainly be visible from areas to the west, although most of this area is undeveloped. (Applicant 8)

**2 Arbor Crossing Faux Silo Facility**

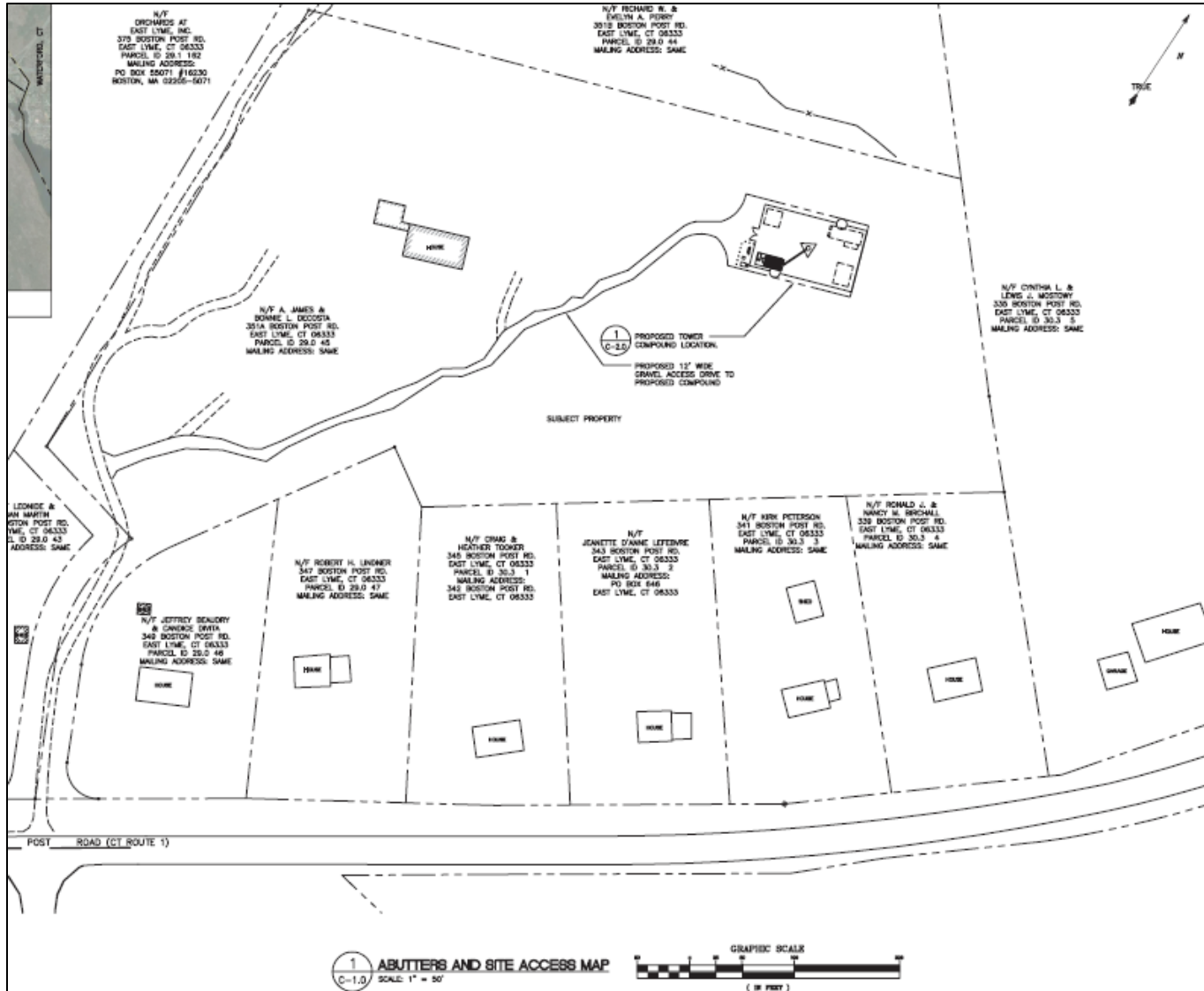
157. The proposed 2 Arbor Crossing faux silo would be visible year-round from approximately 163 acres within a two-mile radius of the site (refer to Figure 12), with about half of the visibility occurring over along the south side of Pond Hill (The Orchards area). The tower would be seasonally visible from approximately 204 acres within a two-mile radius of the site. (Applicant late file of December 1, 2016)
158. Generally, year-round views of portions of the facility would occur from locations in the immediate area surrounding the site. Most of the facility would be visible from The Orchards area. Year-round views from more distant areas are mostly confined to the upper 20 feet of the facility. Refer to Figure 12 and associated photo-location table. (Applicant 11, Tab 7; Applicant late file of December 1, 2016)
159. The faux silo would be less visible to the surrounding area than the existing 2 Scott Road facility. The antennas would be concealed within the faux silo, thus softening the visual profile when compared to a standard monopole with platform-mounted antennas. (Tr. 3, pp. 55-57)
160. The proposed 351A Boston Post Road monopole would have more of an overall visual effect than the proposed faux silo facility. (Tr. 3, pp. 55-57)
161. The residences at 351B Boston Post Road, 342 Boston Post Road, and 345 Boston Post Road are not expected to have seasonal or year-round views of the facility. (Tr. 3, pp. 57-58, 62-63)
162. The size of the faux barn would be proportional with the proposed size of the faux silo. A smaller faux barn would make the silo appear larger. (Tr. 3, pp. 53-54)

**Figure 1 – Aerial Photograph Showing Existing Tower at 2 Scott Road and the proposed 351A Boston Post Road facility on Pond Hill.**



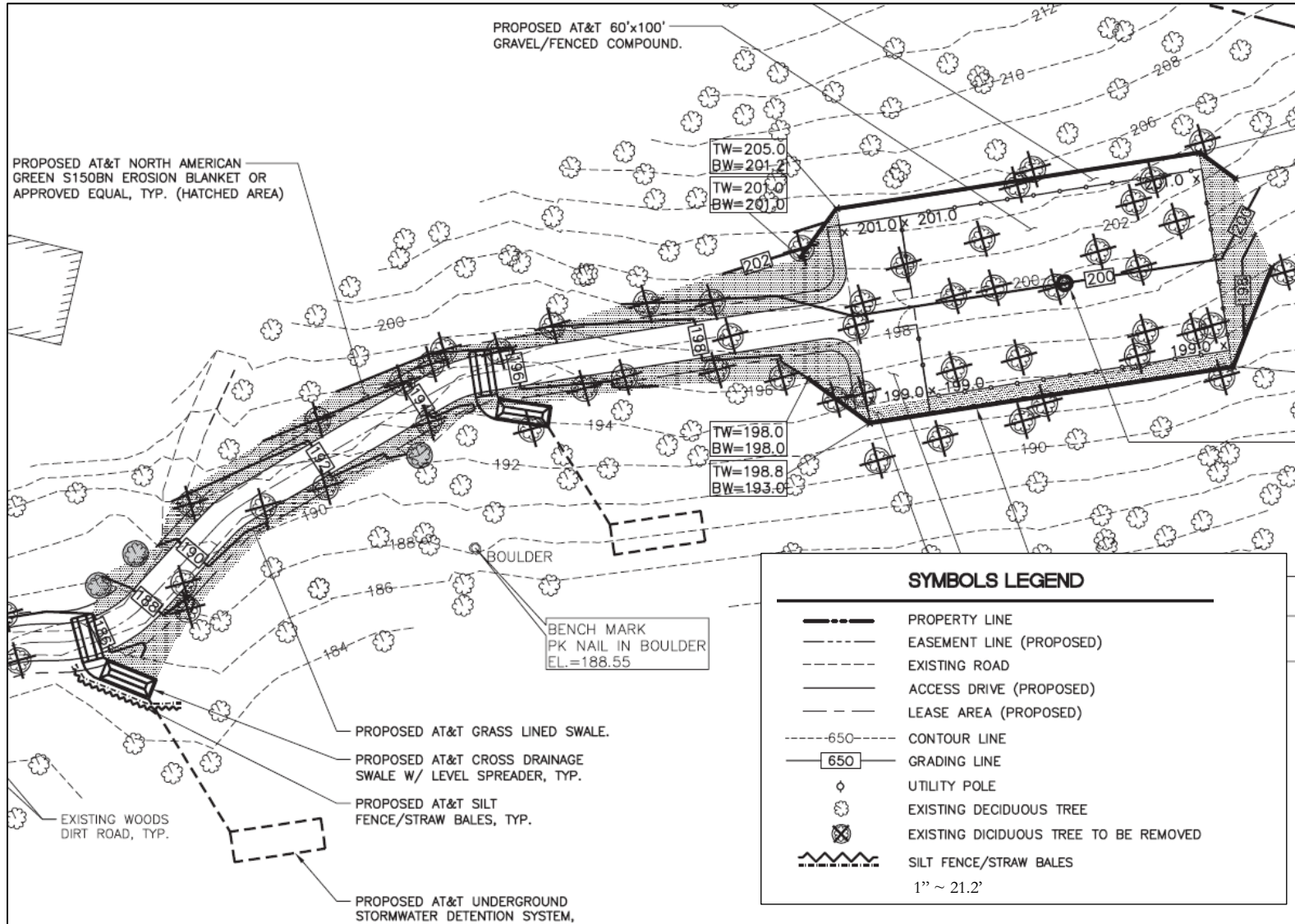
(Applicant 2, Tab E)

Figure 2 – Proposed 351A Boston Post Road Site Plan



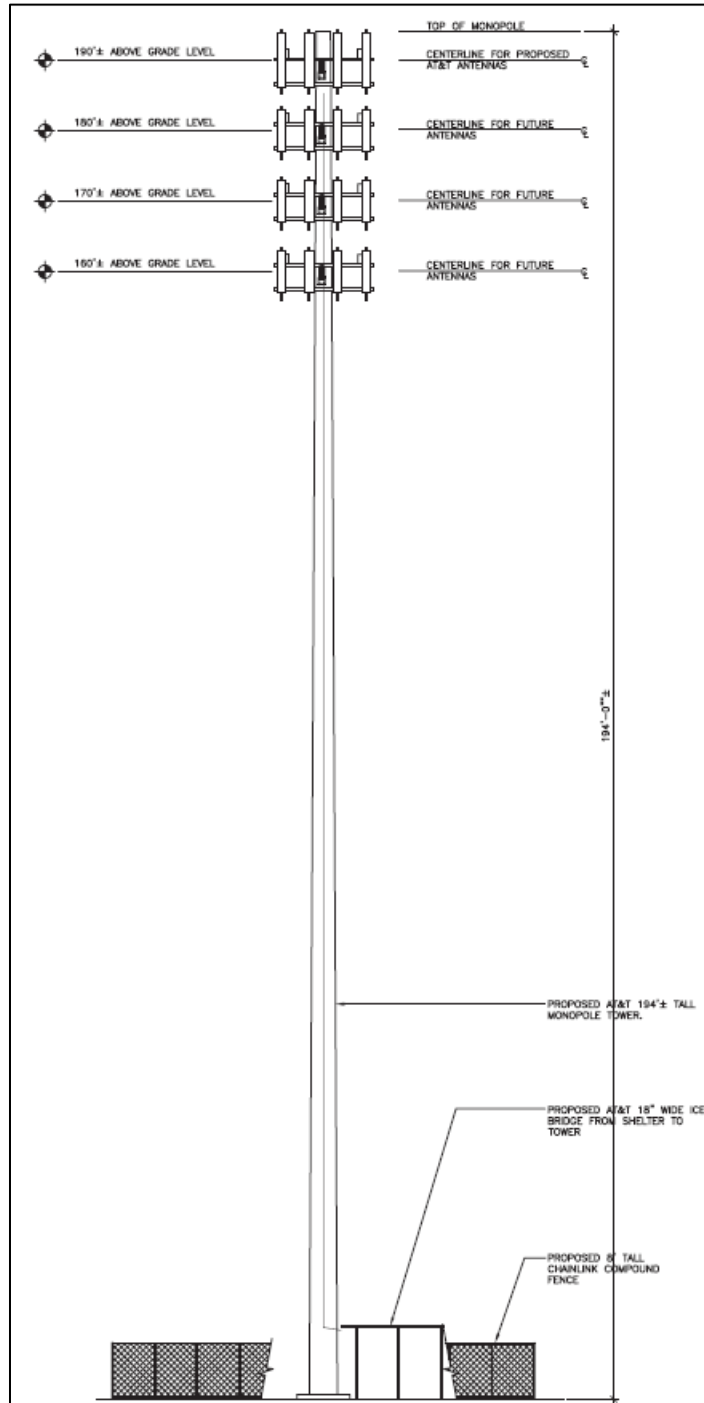
(Applicant 1, Tab 4 – Sheet C-1.0)

Figure 3: Proposed 351A Boston Post Road Compound Area Plan Detail



(Applicant 2, Tab D)

Figure 4 – 351A Boston Post Road Tower Profile Drawing



(Applicant 1, Tab 1 – Sheet C-2.0)



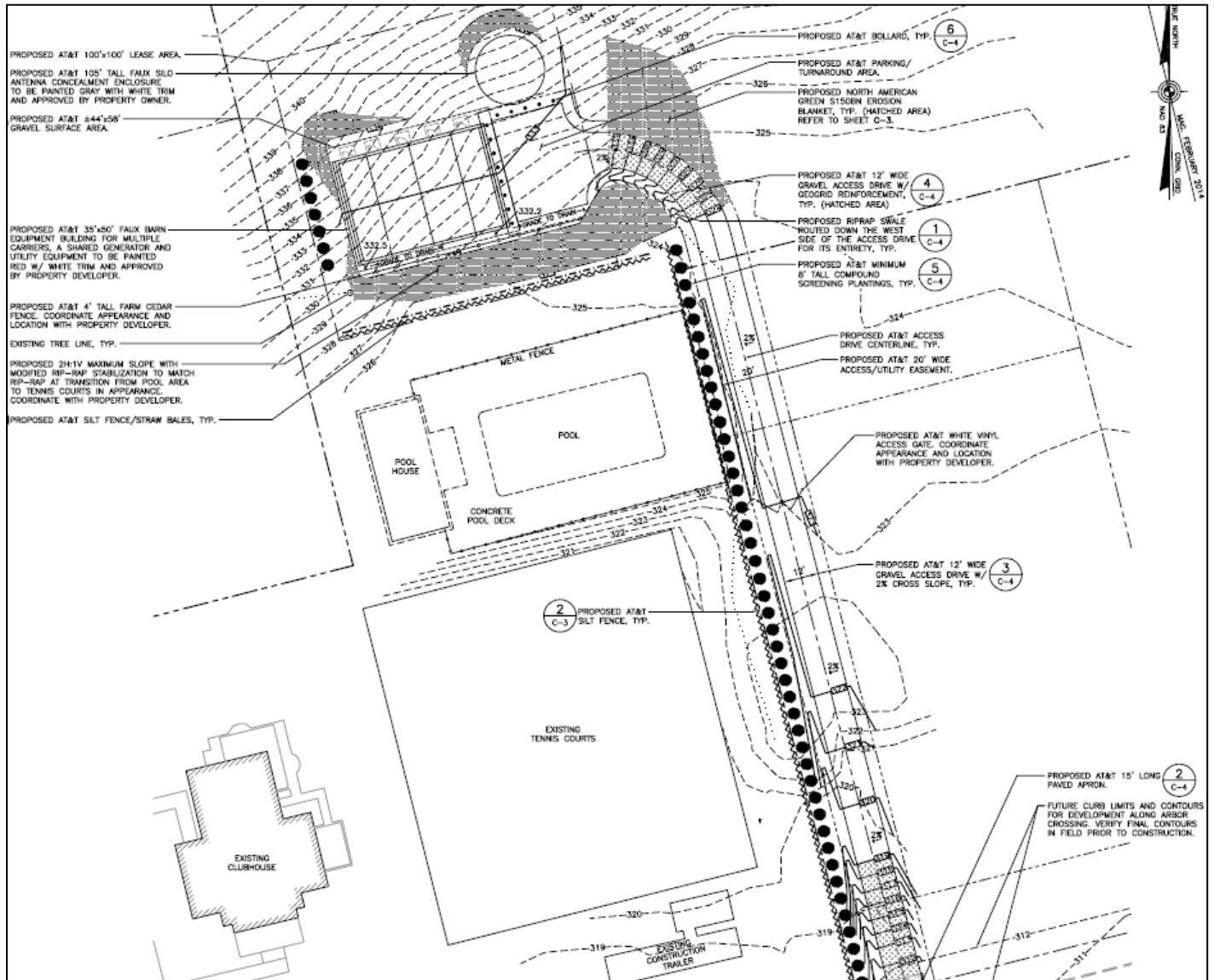
**Figure 5 – Aerial Photograph Showing Existing Tower at 2 Scott Road and the proposed 2 Arbor Crossing facility.**



(Applicant 11, Tab 5)

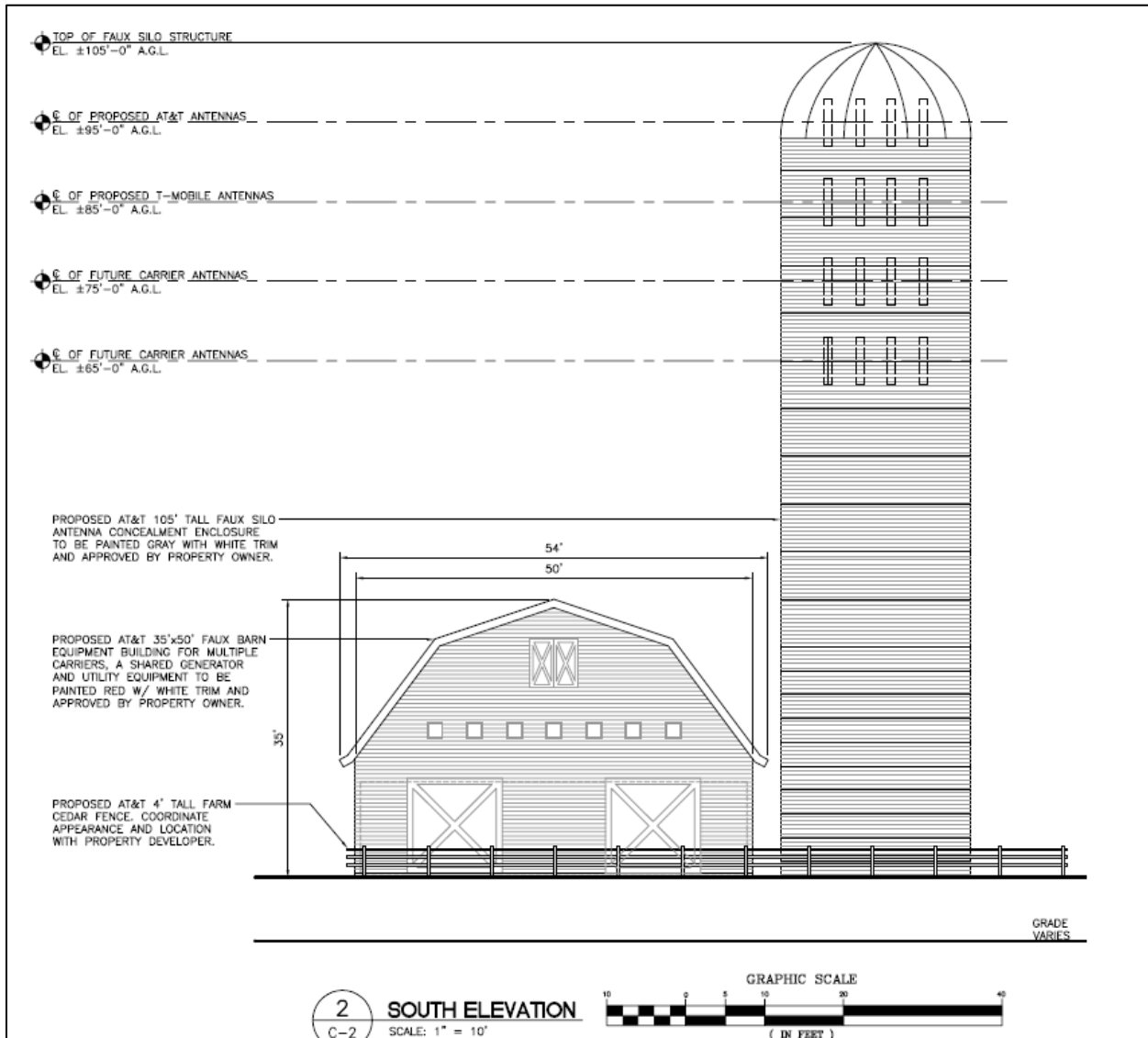


Figure 6 – Proposed 2 Arbor Crossing facility site plan



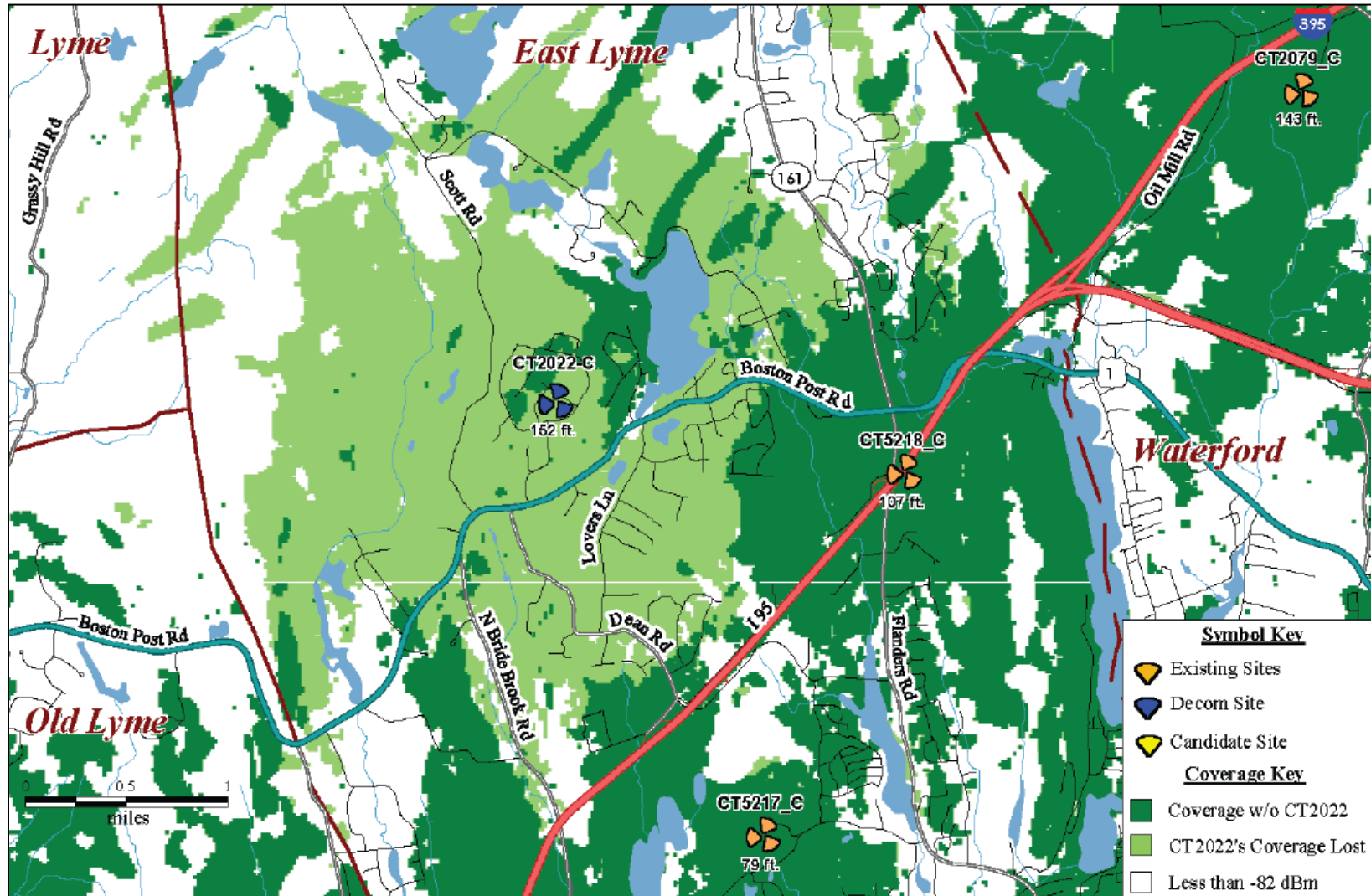
(Applicant 11, Tab 3)

Figure 7 - Proposed 2 Arbor Crossing Faux Silo elevation plan



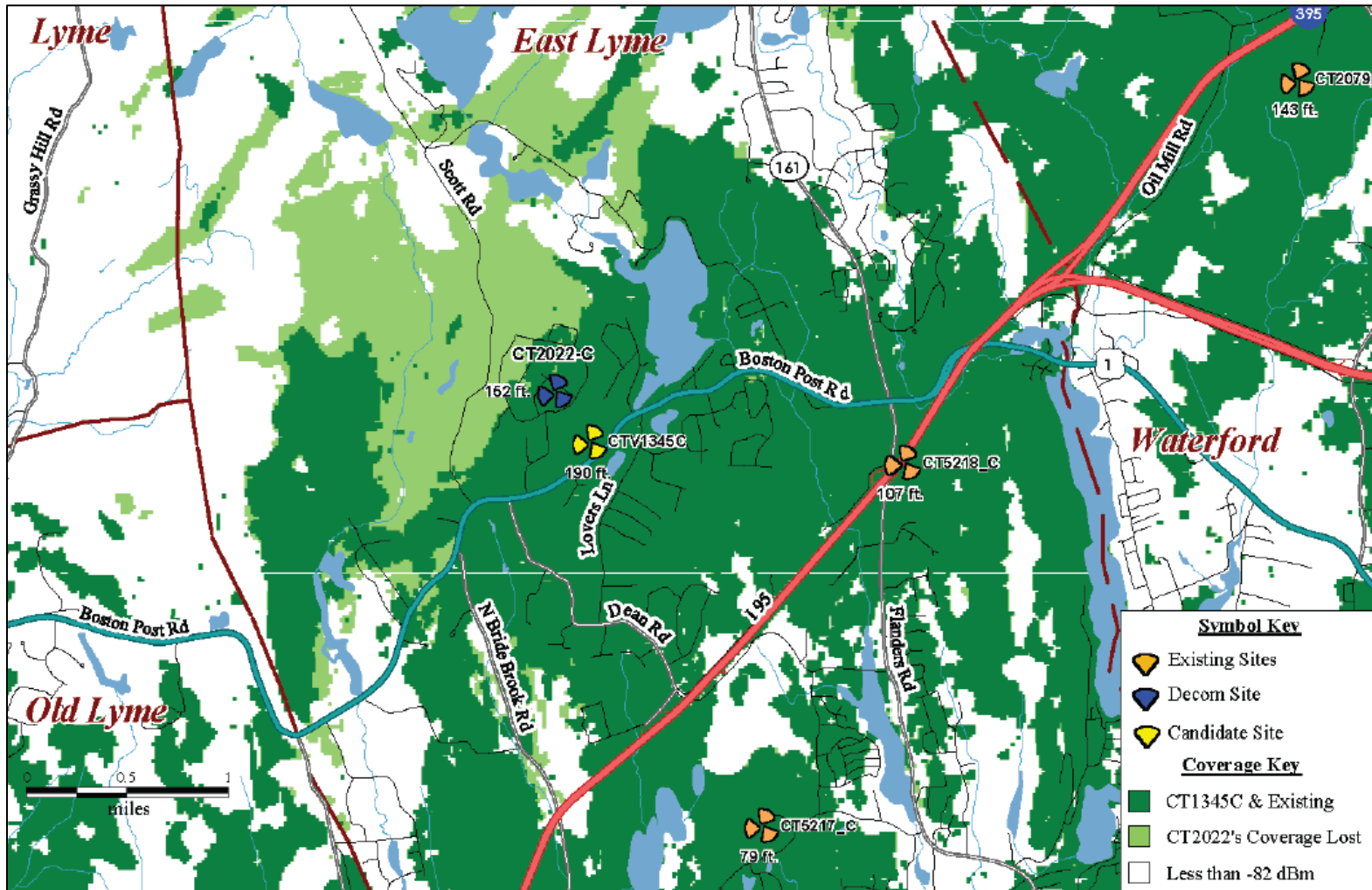
(Applicant 11, Tab 3)

Figure 8: Existing AT&T Coverage in East Lyme Area (850 MHz). Light Green represents coverage “lost” once the existing 2 Scott Road facility is decommissioned. Dark green represents remaining coverage after the 2 Scott Road is facility is decommissioned.



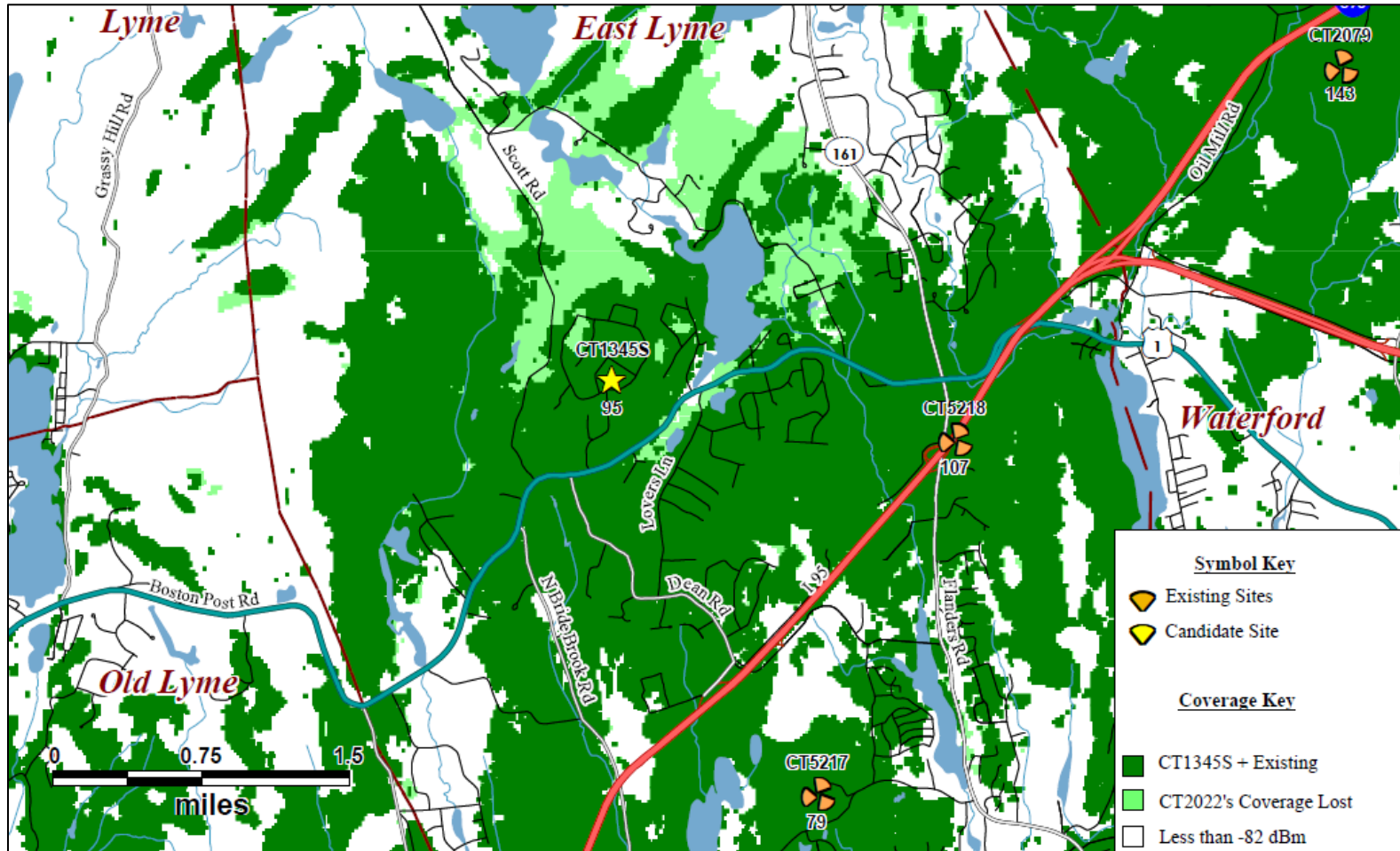
(Applicant 1, Tab 1)

Figure 9: Existing and Proposed AT&T Coverage from 351A Boston Post Road facility (850 MHz). Dark green represents existing and proposed coverage after the 2 Scott Road is facility is decommissioned. Light Green represents coverage not recovered by the proposed facility.



(Applicant 1, Tab 1)

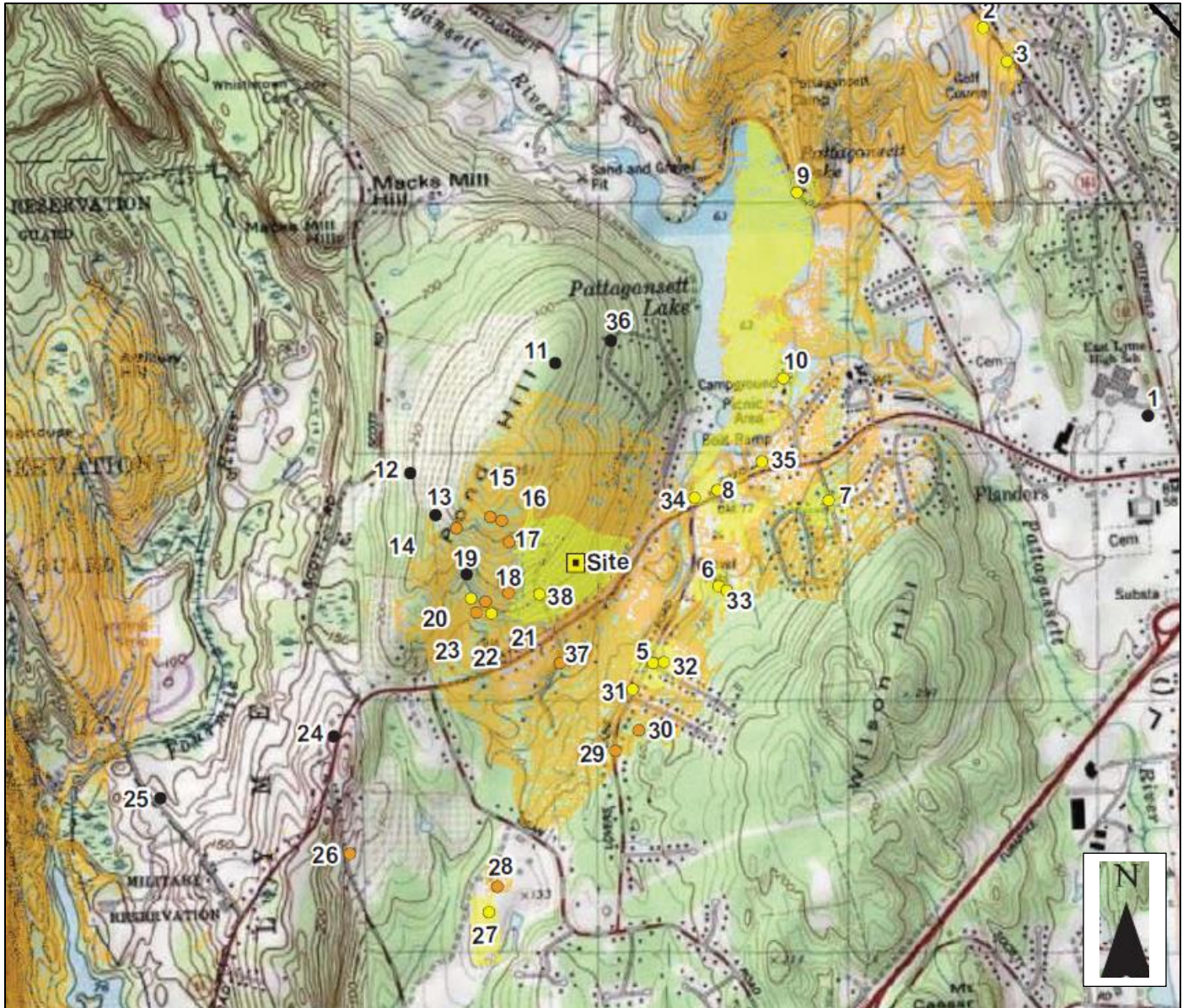
Figure 10: Existing and Proposed AT&T Coverage from 2 Arbor Crossing facility (850 MHz). Dark green represents existing and proposed coverage after the 2 Scott Road is facility is decommissioned. Light Green represents coverage not recovered by the proposed facility



(Applicant 11)



Figure 11 – 351A Boston Post Road Facility Projected Visibility



1" ~ 0.27 mi

(Applicant 8, viewshed map)

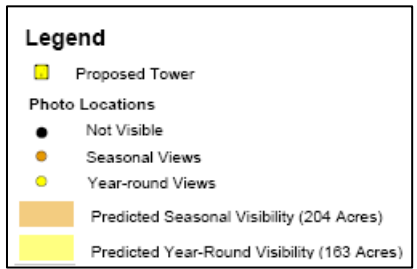
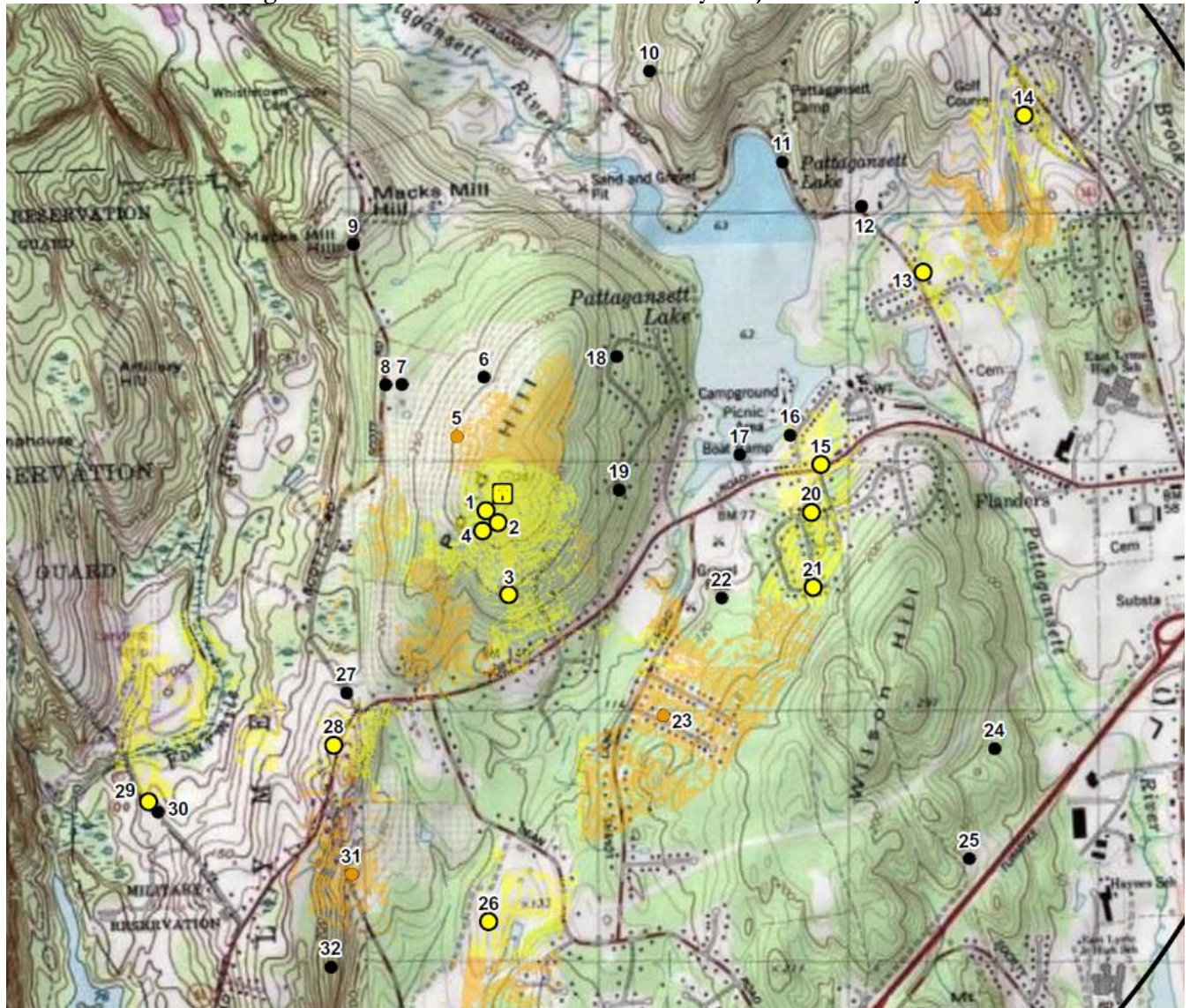
**Figure 11 Table– Photo log table with projected visibility of the proposed 351A Boston Post Road tower from specific locations within a two-mile radius of the site:**

| Specific Location                                | Map Photo-location | Approx. Portion of Facility Visible     | Approx. Distance & Direction from Tower |
|--|--------------------|---|---|
| East Lyme High School                            | 1                  | Not visible                             | 1.4 mi east                             |
| Chesterfield Road                                | 2                  | Year-round - 30 feet barely discernible | 1.6 mi northeast                        |
| Chesterfield Road                                | 3                  | Year-round - 15 feet barely discernible | 1.6 mi northeast                        |
| Flanders Road                                    | -                  | Year-round - 30 feet                    | 2.4 mi southeast                        |
| Maplewood Drive                                  | 5                  | Year-round - 35 feet                    | 0.3 mi southeast                        |
| MacKinnon Pl. at Morris Ln.                      | 6                  | Year-round – 80 feet                    | 0.3 mi east                             |
| Parker Drive                                     | 7                  | Year-round – 80 feet                    | 0.6 mi east                             |
| Boston Post Road                                 | 8                  | Year-round – 50 feet                    | 0.4 mi east                             |
| Upper Pattagensett Road                          | 9                  | Year-round – 15 feet                    | 1.0 mi northeast                        |
| Island Campground                                | 10                 | Year-round – 40 feet                    | 0.7 mi east                             |
| Partridge Lane                                   | 11                 | Not visible                             | 0.50 mi north                           |
| The Orchards -Arbor Crossing at Peach Lane       | 12                 | Not visible                             | 0.47 mi northwest                       |
| The Orchards - Arbor Crossing                    | 13                 | Not visible                             | 0.37 mi northwest                       |
| The Orchards - Arbor Crossing (by #105)          | 14                 | Seasonal - 20 feet through trees        | 0.31 mi northwest                       |
| The Orchards - Arbor Crossing (near #111)        | 15                 | Seasonal - 40 feet through trees        | 0.24 mi northwest                       |
| The Orchards - Plum Hill Road (near #35)         | 16                 | Seasonal - 80 feet through trees        | 0.21 mi northwest                       |
| The Orchards - Plum Hill Road (near #31)         | 17                 | Seasonal - 100 feet through trees       | 0.17 mi west                            |
| The Orchards - Plum Hill Road (near #19)         | 18                 | Seasonal - 40 feet through trees        | 0.19 mi west                            |
| The Orchards - Hickory Court (near #5)           | 19                 | Not visible                             | 0.27 mi west                            |
| The Orchards - Hickory Court                     | 20                 | Year-round – 15 feet                    | 0.26 mi southwest                       |
| The Orchards - Hickory Ct. at Plum Hill Rd.      | 21                 | Seasonal - 50 feet through trees        | 0.26 mi southwest                       |
| The Orchards - Plum Hill Road (near #11)         | 22                 | Year-round – 20 feet                    | 0.25 mi southwest                       |
| Plum Hill Road                                   | 23                 | Seasonal - 40 feet through trees        | 0.28 mi southwest                       |
| Joshua Valley Road                               | 24                 | Not visible                             | 0.74 mi southwest                       |
| Esther Pond Lane                                 | 25                 | Not visible                             | 1.19 mi southwest                       |
| North Bride Brook Road                           | 26                 | Seasonal - barely discernible           | 0.91 mi southwest                       |
| Woodrow Road                                     | 27                 | Seasonal - 30 feet through trees        | 0.90 mi south                           |
| Woodrow Road                                     | 28                 | Seasonal - barely discernible           | 0.83 mi south                           |
| Lovers Lane                                      | 29                 | Seasonal - 50 feet through trees        | 0.48 mi south                           |
| Jean Drive                                       | 30                 | Seasonal - 30 feet through trees        | 0.45 mi south                           |
| Lovers Lane                                      | 31                 | Year-round -15 feet/ Seasonal 60 feet   | 0.34 mi south                           |
| Maplewood Drive                                  | 32                 | Year-round – 80 feet                    | 0.32 mi southeast                       |
| MacKinnon Pl. at Morris Ln                       | 33                 | Year-round – 80 feet                    | 0.36 mi east                            |
| Boston Post Road                                 | 34                 | Year-round – 60 feet                    | 0.34 mi east                            |
| Boston Post Road                                 | 35                 | Year-round – 60 feet                    | 0.53 mi east                            |
| Legendary Road                                   | 36                 | Not visible                             | 0.56 mi north                           |
| Naomi Road                                       | 37                 | Seasonal - 35 feet through trees        | 0.25 mi south                           |
| Host Property Driveway                           | 38                 | Year-round – 50 feet                    | 0.12 mi southwest                       |
| Boston Post Rd. #342 (front)                     | -                  | Seasonal - 60 feet through trees        | 730 feet southwest                      |
| Boston Post Rd. #345 (rear)                      | -                  | Seasonal - 50 feet through trees        | 570 feet west                           |
| Boston Post Road #341 (front)                    | -                  | Year-round - 50 feet/ Seasonal 30 feet  | 595 feet south                          |
| Sunrise Trail #24 (rear)                         | -                  | Seasonal - 40 feet through trees        | 630 feet east                           |
| Boston Post Road #351B (front)                   | -                  | Year-round – majority of tower          | 500 feet north                          |
| The Orchards - Plum Hill Road, near #21 (street) | -                  | Year-round - 30 feet                    | 970 feet west                           |

(Applicant 1, Tab 2, Tab 4, Tab 8, Applicant 2, Tab E; Applicant 8, BHSO Community Conservancy 2 photos; Tr. 3, pp. 69, 93-94)



Figure 12 – 351A Boston Post Road Facility Projected Visibility



1" ~ 0.27 mi

(Applicant late file of December 1, 2016)



**Figure 12 Table– Projected visibility of the proposed 2 Arbor Crossing Faux silo facility from specific locations within a two-mile radius of the site is presented in the table below:**

| Specific Location                       | Photo location on Map* | Approx. Portion of Facility Visible | Approx. Distance & Direction to Silo |
|---|------------------------|-------------------------------------|--------------------------------------|
| Host Property*                          | 1                      | Year-round - entire facility        | 310 Feet east                        |
| Arbor Crossing*                         | 2                      | Year-round - 65 feet                | 401 Feet north                       |
| Plum Hill Road*                         | 3                      | Year-round - 80 feet                | 0.25 Mile north                      |
| Arbor Crossing*                         | 4                      | Year-round - entire facility        | 0.11 Mile northeast                  |
| Peach Lane*                             | 5                      | Seasonal - through trees            | 0.18 Mile southeast                  |
| Arbor Crossing*                         | 6                      | Not visible                         | 0.29 Mile southeast                  |
| Arbor Crossing*                         | 7                      | Not visible                         | 0.37 Mile southeast                  |
| Scott Road                              | 8                      | Not visible                         | 0.40 Mile southeast                  |
| Scott Road*                             | 9                      | Not visible                         | 0.73 Mile southeast                  |
| Kensington Drive                        | 10                     | Not visible                         | 1.11 Miles southwest                 |
| Upper Pattagansett Road*                | 11                     | Not visible                         | 1.07 Miles southwest                 |
| Upper Pattagansett Road*                | 12                     | Not visible                         | 1.14 Miles southwest                 |
| Upper Pattagansett Road*                | 13                     | Year-round - top                    | 1.18 Miles southwest                 |
| Drabik Road*                            | 14                     | Year-round – upper portion          | 1.06 Miles southwest                 |
| Boston Post Road*                       | 15                     | Year-round - top                    | 0.80 Miles west                      |
| Pattagansett Drive*                     | 16                     | Not visible                         | 0.73 Mile west                       |
| Pattagansett Lake                       | 17                     | Not visible                         | 0.60 Mile west                       |
| Legendary Road                          | 18                     | Not visible                         | 0.44 Mile southwest                  |
| Sunrise Trail                           | 19                     | Not visible                         | 0.30 Mile west                       |
| Parker Drive*                           | 20                     | Year-round – upper portion          | 1.20 Miles northwest                 |
| Chris Alan Drive*                       | 21                     | Year-round – upper portion          | 0.81 Mile northwest                  |
| MacKinnon Place *                       | 22                     | Not visible                         | 0.60 Mile northwest                  |
| Marion Drive                            | 23                     | Seasonal - through trees            | 0.68 Mile northwest                  |
| Maple Tree Lane                         | 24                     | Not visible                         | 1.38 Miles northwest                 |
| Maple Tree Lane                         | 25                     | Not visible                         | 1.47 Miles northwest                 |
| Woodrow Drive*                          | 26                     | Year-round – upper portion          | 1.05 Miles north                     |
| Scott Road*                             | 27                     | Not visible                         | 0.62 Mile northeast                  |
| Joshua Valley Road at Boston Post Road* | 28                     | Year-round – upper portion          | 0.75 Mile northeast                  |
| Stone Ranch Road*                       | 29                     | Year-round – upper portion          | 1.17 Miles northeast                 |
| Stone Ranch Road at Esther Pond Lane*   | 30                     | Not visible                         | 1.17 Miles northeast                 |
| North Bride Brook Road                  | 31                     | Year-round – upper portion          | 1.01 Miles northeast                 |
| Applewood Common                        | 32                     | Not visible                         | 1.25 Miles northeast                 |

\* Existing 2 Scott Road tower visible from these locations.

**Photo-simulation of proposed 351 A Boston Post Road tower from host property** (Applicant 8)



| <b>PROPOSED</b> |                           |             |                  |            |
|-----------------|---------------------------|-------------|------------------|------------|
| PHOTO           | LOCATION                  | ORIENTATION | DISTANCE TO SITE | VISIBILITY |
| 38              | ENTRANCE TO HOST PROPERTY | EAST        | +/- 0.12 MILE    | YEAR ROUND |

**Photo-simulation of proposed 2 Arbor Crossing faux silo from host property** (Applicant 11)



| <b>PROPOSED</b> |               |             |                  |            |
|-----------------|---------------|-------------|------------------|------------|
| PHOTO           | LOCATION      | ORIENTATION | DISTANCE TO SITE | VISIBILITY |
| 1               | HOST PROPERTY | EAST        | +/- 310 FEET     | YEAR ROUND |