



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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August 27, 2009

TO: Parties and Intervenors

FROM: S. Derek Phelps, Executive Director

RE: **DOCKET NO. 379** – SBA Towers II, LLC application for a Certificate of Environmental Compatibility and Public need for the construction, maintenance and operation of a telecommunications facility located at 12 Burr Road, Bloomfield, Connecticut.

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As stated at the hearing in Bloomfield on July 9, 2009, 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 September 10, 2009.

SDP/CDM/jbw

Enclosure



**LIST OF PARTIES AND INTERVENORS**  
**SERVICE LIST**

| Status Granted   | Document Service   | Status Holder<br>(name, address & phone number) | Representative<br>(name, address & phone number)  |
|------------------|--|---|---|
| <b>Applicant</b> | <input type="checkbox"/> E-mail<br>or<br><input checked="" type="checkbox"/> U.S. Mail | SBA Towers II, LLC                              | Carrie L. Larson, Esq.<br>Pullman & Comley, LLC<br>90 State House Square<br>Hartford, CT 06103-3702<br>(860) 424-4312<br>(860) 424-4370 fax<br><a href="mailto:clarson@pullcom.com">clarson@pullcom.com</a> |
|                  | <input type="checkbox"/> E-mail<br>or<br><input type="checkbox"/> U.S. Mail            |   |   |
|                  | <input type="checkbox"/> E-mail<br>or<br><input type="checkbox"/> U.S. Mail            |   |   |
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DOCKET NO. 379 – SBA Towers II, LLC application for a } Connecticut  
Certificate of Environmental Compatibility and Public Need for }  
the construction, maintenance and operation of a } Siting  
telecommunications facility at 12 Burr Road, Bloomfield, } Council  
Connecticut. }

August 20, 2009

## DRAFT

### Findings of Fact

#### Introduction

1. Pursuant to Chapter 277a, Sections 16-50g et seq. of the Connecticut General Statutes (CGS), as amended, and Section 16-50j-1 et. seq. of the Regulations of Connecticut State Agencies (RCSA), SBA Towers II, LLC (SBA) applied to the Connecticut Siting Council (Council) on March 16, 2009 for the construction, operation, and maintenance of a telecommunications facility, which would include a 130-foot tall monopole tower, to be located at 12 Burr Road the Town of Bloomfield, Connecticut. (See Figures 1 and 2) (SBA 1, pp. 1-2)
2. SBA is a Delaware limited liability company and is a subsidiary of SBA Communications Corporation, a publicly traded company that owns and operates wireless infrastructure facilities nationwide. Its offices are at One Research Drive, Suite 200C, Westborough, Massachusetts. (SBA 1, p. 3)
3. The party in this proceeding is SBA. Intervenors are Cellco Partnership, Inc. d/b/a Verizon Wireless (Verizon), Thomas Midney, and Elizabeth Auerbach Schiro. (Transcript, July 9, 2009, 3:20 p.m. [Tr. 1], pp. 6-7)
4. The proposed facility would provide service along State Highway 185 (Simsbury Road) and adjacent areas of the Town of Bloomfield for Verizon and Omnipoint Communications, Inc. d/b/a T-Mobile (T-Mobile). (SBA 1, p. 1)
5. SBA also has a signed lease agreement with Sprint Nextel to place its antennas on the proposed tower. (Tr. 1, p. 37)
6. Pursuant to CGS § 16-50/(b), notice of the applicant's intent to submit this application was published on October 22 and 24, 2008 in the Hartford Courant. (SBA 1, p. 4; SBA 4)
7. SBA published a second legal notice on March 10 and 12, 2009, also in the Hartford Courant. (SBA 1, p. 4; SBA 4)
8. In accordance with CGS § 16-50/(b), SBA sent notice of its intent to file an application with the Council to each person appearing of record as owner of property abutting the property on which the site is located. (SBA 1, p. 4, Exhibit F)

9. SBA received return receipts from each of the abutting property owners to whom it sent notice. (SBA 2, A1)
10. Pursuant to CGS § 16-50l (b), SBA provided a copy of its application to all federal, state, regional, and local officials and agencies listed therein. (SBA 1, p. 4, Exhibit D)
11. On June 24, 2009, SBA posted a sign on the host property informing the public of its pending application. Information on the sign included the time and date of the Council's scheduled public hearing in this application and contact information for the Council. (SBA 3: Pre-Filed Testimony of Hollis Redding, Q8 and Exhibit 2)
12. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on July 9, 2009, beginning at 3:20 p.m. and continuing at 7:00 p.m. in the Multi-Purpose Room of the Marilyn Michaelson Senior Center of Bloomfield at 330 Park Avenue, Bloomfield, Connecticut. (Tr. 1, p. 3 ff.)
13. The Council and its staff conducted an inspection of the proposed site on July 9, 2009 beginning at 2:00 p.m. On the day of the field inspection SBA flew a balloon from approximately 7:20 a.m. to 6:30 p.m. to simulate the height of the proposed tower. The weather conditions were good for the balloon flight with light winds and visibility of more than a mile and a half. (Tr. 1, p. 16)

#### State Agency Comments

14. Pursuant to CGS § 16-50l, the Council solicited comments on this application on April 28, 2009 and July 10, 2009 from the following state departments and agencies: Department of Agriculture, Department of Environmental Protection (DEP), Department of Public Health, Council on Environmental Quality, Department of Public Utility Control, Office of Policy and Management, Department of Economic and Community Development, and the Department of Transportation. (CSC Hearing Package dated April 28, 2009; Letter to State Department Heads dated July 10, 2009)
15. Connecticut Attorney General Richard Blumenthal submitted a letter in which he expressed a concern that the proposed facility was poorly sited in close proximity to a residential neighborhood and that it could potentially jeopardize the health of surrounding community residents. (Letter from Richard Blumenthal, Attorney General, dated July 29, 2009)
16. Other than Attorney General Blumenthal, no state agency submitted any comments in response to the Council's solicitation. (Record)

#### Municipal Consultation

17. SBA originally submitted a letter and technical report containing specifics about the proposed facility on Burr Road to Town of Bloomfield officials on February 6, 2006. (SBA 1, p. 18)



18. SBA met with Thomas Hooper, Bloomfield's Planning Director, on April 6, 2006 regarding its proposal. (SBA 1, p. 18; Exhibit O)
19. During the April 6, 2006 meeting, Mr. Hooper suggested that SBA investigate the possibility of locating its facility on nearby land owned by the Metropolitan District Commission (MDC). (SBA 1, Exhibit O – Letter from Pullman & Comley to Bloomfield town officials, dated September 26, 2008)
20. On October 31, 2007 SBA representatives met with Mr. Hooper and representatives from Auer Farm, a 120-acre parcel used as a 4-H facility that is located on Auer Farm Road west of the proposed facility. (SBA 1, p. 18; Exhibit I)
21. SBA sent a letter, dated September 26, 2008, to Bloomfield town officials informing them that it intended to proceed with the filing of an application for the site at 12 Burr Road. (SBA 1, Exhibit O)
22. SBA representatives had a telephone conversation with Mr. Hooper on October 8, 2008 in which they informed him that they had investigated possible alternate sites on Auer Farm property and MDC property. Auer Farm rejected SBA's proposal. The MDC property was determined to be unavailable for development as a wireless telecommunications facility because the majority of the property is classified as Class I or Class II watershed lands. (SBA 1, Exhibit O – Memorandum from Carrie Larson to Thomas Hooper, dated October 20, 2008; Exhibit I)
23. The Town of Bloomfield Fire Department indicated an interest in placing antennas on the proposed tower. (SBA 3, Pre-Filed Testimony of Hollis Redding, Q7 and Exhibit 1)
24. SBA would make space on the tower available to the town free of charge. (SBA 3, Pre-Filed Testimony of Hollis Redding, Q7)

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

25. 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; SBA 1, p. 5)
26. 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. (Council Administrative Notice Item No. 7)
27. The Telecommunications Act of 1996 prohibits local and state bodies from discriminating among providers of functionally equivalent services. (Council Administrative Notice No. 7 - Telecommunications Act of 1996)

28. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice No. 7 - Telecommunications Act of 1996)
29. T-Mobile and Verizon experience coverage gaps in the western part of Bloomfield, particularly along Route 185 (Simsbury Road). The antennas that would be installed at this site would be integral components of their respective wireless networks. (SBA 1, p. 5; Exhibit G: Existing T-Mobile On Air Coverage Plot; Verizon 2, Attachment 1- Existing Cellular and PCS Coverage Maps)
30. The Sprint Nextel Corporation (Sprint) has expressed a need for a facility in the western part of Bloomfield. (SBA 1, p. 5)
31. Congress enacted the Wireless Communications and Public Safety Act of 1999 (the 911 Act) in order to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (SBA 1, p. 6)
32. As an outgrowth of the 911 Act, the Federal Communications Commission has mandated that wireless carriers provide enhanced 911 services (E911) as part of their communications networks. (SBA 1, p. 7)

#### Site Selection

33. The search for a site in this area began in April, 2006. The search centered around the Auer Farm property. (SBA 2, A8)
34. At the time the site search was initiated, Sprint had identified an existing coverage gap along Route 185 and the surrounding areas of this section of Bloomfield. (SBA 3, Pre-Filed Testimony of Hollis Redding, Q4)
35. SBA began looking for a tower in this area through its relationship with T-Mobile and its knowledge of the needs of other wireless carriers in this area. (SBA 2, A9)



36. SBA identified 19 communications towers, either existing or proposed, within approximately four miles of its proposed site. None of these towers was found to be adequate for Verizon's or T-Mobile's coverage purposes. The towers are listed in the table below.

| <b>Tower Location</b>                     | <b>Height and Type of Tower</b> | <b>Tower Owner</b>             | <b>Approx. Distance and Direction</b> |
|---|---------------------------------|--------------------------------|---------------------------------------|
| 100 Filley Street, Bloomfield             | 95' monopole                    | T-Mobile                       | 3.45 miles to NE                      |
| 1021 Blue Hills Avenue, Bloomfield        | 130' lattice tower              | SBA                            | 3.5 miles to E                        |
| 28 Brewer Street, Bloomfield              | 120' monopole                   | Sprint                         | 1.6 miles to NE                       |
| 30 Brae Burnie Lane, Bloomfield           | 120' flagpole                   | T-Mobile                       | 1.6 miles to N                        |
| 32 Montevideo Rd, Talcott Mtn, Bloomfield | 60' lattice                     | Dept of Public Safety          | 1.8 miles to W                        |
| 785 Park Avenue, Bloomfield               | 140' monopole                   | Town of Bloomfield             | 1.75 miles to NE                      |
| 811 Blue Hills Avenue Bloomfield          | 110' monopole                   | Verizon                        | 3.5 miles to E                        |
| Talcott Mtn Science Center, Bloomfield    | 60' lattice                     | Talcott Mtn Science Center     | 1.8 miles to W                        |
| Deercliff Road, Avon                      | 560' guyed lattice              | Pinnacle Tower                 | 3.5 miles to SW                       |
| 869 Blue Hills Avenue Bloomfield          | 90' lattice                     | WDRC                           | 3.6 miles to E                        |
| 869 Blue Hills Avenue, Bloomfield         | 90' lattice                     | WDRC                           | 3.6 miles to E                        |
| 275 Deercliff Road, Hartford              | 454' guyed lattice              | CBS Communication Services     | 3.6 miles to SW                       |
| 375 Deercliff Road, Avon                  | 441' guyed lattice              | CBS Communication Services     | 3.4 miles to SW                       |
| 375 Deercliff Road, Avon                  | 440' guyed lattice              | CBS Communication Services     | 3.4 miles to SW                       |
| 375 Deercliff Road, Avon                  | 554' guyed lattice              | Meredith Corp                  | 3.4 miles to SW                       |
| 3114 Albany Avenue, West Hartford         | 348' guyed lattice              | Greater Hartford Communication | 2.2 miles to SW                       |
| 81 Montevideo Road, Avon                  | 150' lattice                    | Message Center Management      | 2.2 miles to SW                       |
| 439-455 Homestead Ave, Hartford           | 140' monopole                   | Crown Castle                   | 3.9 miles to SE                       |
| 3114 Albany Avenue, West Hartford         | 346' guyed lattice              | Marlin Tower                   | 2.2 miles to SW                       |

(SBA 1, p. 8; Exhibit H)

37. During its initial search for a facility location, SBA considered a number of properties. These properties and assessments of their suitability are listed in the table below:

| <b>Location Considered</b>   | <b>Suitability</b>   |
|--|--|
| 12 Burr Road, Bloomfield   | This is the location of the proposed site.   |
| Auer Farm, 147 Auer Farm Road, Bloomfield                              | This is a 120-acre parcel to the west of the proposed site. It is currently used as a 4-H facility. The property has a deed restriction limiting its uses. The Auer Farm Board of Directors rejected an SBA proposal to use this property.   |
| Cold Spring Flood Water Retention Reservoir, Simsbury Road, Bloomfield | This is a 170-acre parcel to the north of the proposed site. It is used as a country club. The Board of Directors of the country club rejected an SBA proposal to use this property. In addition, SBA conducted a balloon flight, which determined that a site at this location would have substantial visible impact.   |
| Tumble Brook Country Club, 376 Simsbury Road, Bloomfield               | This is a 180-acre parcel to the south of the proposed site that is used as a country club. The Board of Directors of the country club rejected an SBA proposal to use this property. In addition, SBA conducted a balloon flight, which determined that a site at this location would have greater visibility than the proposed site.                                   |
| Gibraltar Lane, Bloomfield   | This property is owned by the MDC and comprises 680 acres to the west of the proposed site. SBA determined that a tower on this property could not adequately cover its target area. In addition, a majority of this property is classified as either Class I or Class II watershed lands, which makes it unavailable for development for a telecommunications facility. |
| Cliffmount Drive, Bloomfield   | This property consists of two parcels, which together comprise seven acres. It was rejected because it is listed as open space and is positioned between dense residential neighborhoods with little natural vegetation for screening.   |

(Table continued on next page)

| Location Considered                            | Suitability   |
|--|---|
| Mallard Drive, Bloomfield                      | This property consists of two parcels, which together comprise 11 acres. The parcels are owned by the Town of Bloomfield and used as open space. It is also positioned between dense residential neighborhoods with little natural vegetation for screening.                        |
| Gillette Ridge, Cottage Grove Road, Bloomfield | This is a 150-acre property located east of the proposed site. It consists of a golf course and a residential subdivision and open space. It was rejected by SBA because of the visual impact to the dense surrounding residential development a tower at this location would have. |

(SBA 1, Exhibit I; SBA 3, Pre-Filed Testimony of Hollis Redding, Q4)

38. SBA maintains that repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means to provide service within the coverage area that T-Mobile and Verizon are seeking to serve due to significant terrain variations and tree cover in the area, as well as other practical considerations. (SBA 1, p. 7)

**Site Description**

39. The proposed facility is located on a 29.54-acre property at 12 Burr Road. The property is owned by Maple Hill Farms, Inc. and is used as a farming products distribution facility. It is approximately 500 feet to the east of Route 185. (SBA 1, pp. 1-2; Exhibit B)
40. The Burr Road property is located within an R-30 residential zone. Wireless telecommunications towers are permitted in R-30 zones with the issuance of a special permit. The Bloomfield zoning regulations require telecommunications towers to have a setback from nearest property equal to the height of a tower. The distance of SBA’s proposed tower to the nearest property line is greater than its height. The minimum lot size in the R-30 zone is 30,000 square feet. The Maple Hill Farms property is 29.54 acres. (SBA 1, p. 16; Bulk Filing – Town of Bloomfield Zoning Regulations)
41. The proposed facility would be located in the southerly portion of the Maple Hill Farms property. (SBA 1, Exhibit B, Drawing A01)
42. The proposed facility would consist of a 130-foot tall monopole tower within a 50-foot by 90-foot equipment compound that would be enclosed by an eight-foot tall chain link fence. (See Figure 3) (SBA 1, p. 9; Exhibit B)



43. The proposed facility would be located at 41° 49' 4.2" north latitude and 72° 45' 52.4" west longitude. Its ground elevation would be 199 feet above mean sea level (amsl). (SBA 1, Exhibit L; Exhibit B, Sheet A02)
44. Ground elevations at the Tumble Brook Country Club range from approximately 200 feet amsl to 130 feet amsl. (Tr. 1, p. 37)
45. The proposed tower would be designed in accordance with the specifications of the Electronic Industries Association Standard ANSI/TIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" consistent with the International Building Code. The diameter of the tower would be approximately 20 inches at its top and approximately 60 inches at its base. The tower would be designed to accommodate the antennas of four wireless carriers and antennas for the Town of Bloomfield's public safety functions. (SBA 1, p. 9; SBA 2, A2)
46. The proposed 130-foot monopole would be designed to be expandable by 30 feet. (Tr. 1, p. 35)
47. T-Mobile would install antennas at a centerline height of 127 feet above ground level (agl). Its ground equipment would be installed on a 10-foot by 12-foot concrete pad within the base compound. (SBA 1, p. 9)
48. Verizon would install 15 antennas (five per sector) at a centerline height of 117 feet agl. It would utilize a 12-foot by 30-foot equipment shelter for its ground equipment. Verizon would prefer to install its antennas on a low profile platform or T-arm mounts. (SBA 1, p. 9; Verizon 1, Response 13; Tr. 1, pp. 66-67)
49. Verizon would rely first on a battery system and then on a generator for back up power. Both systems would be located within Verizon's equipment shelter. The generator would be located in a separate 10-foot by 12-foot room. (Verizon 1, Response 14)
50. Verizon would use a propane-fueled generator to distinguish its fuel from other fuels used on the Maple Farms property in case of spills. (Tr. 1, p. 67)
51. Development of the proposed facility would require approximately 697 cubic yards of cut and 38 cubic yards of fill. (SBA 2, A3)
52. Vehicular access to the facility would extend from Burr Road over an existing driveway for a distance of approximately 460 feet and then over a new 50-foot gravel driveway to be installed as part of the facility development. (SBA 1, pp. 2, 9; Exhibit B, Drawing A02)
53. Utility service would be extended underground to the proposed facility from existing service on Burr Road. Utilities would be installed on the edge of the access drive. (SBA 1, pp. 9-10; Exhibit B Drawing A02)
54. Should ledge be found in the vicinity of the proposed facility during a geotechnical investigation, SBA would prefer to use chipping rather than blasting to remove it. (SBA 2, A10)



55. The proposed tower's setback radius would be contained within the limits of the Maple Hill Farms property and would not encompass the gasoline pumps on the property. (Applicants 1, Exhibit B, Sheet A02; Transcript, July 9, 2009, 7:00 p.m. [Tr. 2], p. 45)
56. At the tower's location identified in SBA's application, the setback radius would encompass an existing building. In order to keep the existing building out of the setback radius, SBA may move the location of the tower 40 feet to the northwest. (Tr. 1, pp. 13-14)
57. Traffic associated with the construction of the proposed facility would not compromise the underground fuel storage tanks beneath the gasoline pumps. (Tr. 2, p. 47)
58. Underground utility lines would be located away from the underground fuel storage tanks and would not cause any damage to them. (Tr. 2, pp. 47-48)
59. There are 15 residences within 1,000 feet of the proposed tower's location. The nearest residence is located 460 feet to the southwest and is owned by Beverly E. Miller. (SBA 1, Exhibit B)
60. Land uses in the surrounding area are mixed. They include agriculture and residential properties and a country club to the south and southeast. (Tr. 1, p. 36)
61. The estimated cost of the proposed facility, not including antennas and related equipment, is:
- |                                   |               |
|-----------------------------------|---------------|
| Tower and foundation costs        | \$ 106,000    |
| Site development costs            | 85,000        |
| <u>Utility installation costs</u> | <u>34,000</u> |
| Total estimated costs             | \$ 225,000    |
- (SBA 1, p. 20)
62. The estimated cost of Verizon's antennas and associated equipment to be installed is approximately \$650,000. (Verizon 2, Response 12)

#### **Environmental Considerations**

63. In its original review of SBA's plans for its proposed facility, the State Historic Preservation Office (SHPO) was of the opinion that the project would affect the historic ambiance of the Southwest District School, which is listed on the National Register of Historic Places, and Auer Farm, which appears eligible for listing on the National Register. However, SHPO concluded that the project would have no adverse effect on these properties as long as SBA adhered to certain conditions, which were: that SBA examine the feasibility of installing a tower that weathers to a non-reflective natural brown/rust color or, if this option is not feasible, painting the monopole brown; that T-Mobile's antennas be flush mounted at the top of the monopole and antennas of all other carriers be flush mounted as well; that, if the tower or any associated equipment is not used for six consecutive months, such equipment be removed within 90 days of the six-month non-use period. (SBA 1, Exhibit M – Letter from SHPO dated July 23, 2008)

64. SBA could not adhere to SHPO's expressed desire for a tower with only flush-mounted antennas because of the horizontal separation needed for the array of antennas deployed by Verizon. (Tr. 1, pp. 17-18)
65. SBA proposed several different ways in which it might mitigate the visual impact of a tower with platform-mounted antennas on Auer Farm. Upon reviewing SBA's proposals, SHPO concluded that the facility would have no adverse effect with the conditions that: 1) a draft of the historic documentation of Auer Farm and Beatrice Fox Auerbach be submitted prior to project construction; 2) the final report on Auer Farm be consistent with SHPO documentation standards; 3) SHPO be provided with two bound copies of the final report with one bound and one unbound copy being provided to Auer Farm; and 4) any antennas and equipment not in use for six months will be removed. (SBA 5, Letter from SHPO dated March 16, 2009)
66. There are no extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on the Maple Hill Farms property. (SBA 1, Exhibit M – Letter from Department of Environmental Protection, Bureau of Natural Resources, dated September 17, 2008)
67. SBA completed a National Environmental Policy Act (NEPA) review of its site to determine if a prior FCC approval was needed. The NEPA review found that the proposed facility did not fall within any of the listed categories. SBA's site, therefore, did not require an FCC review. (SBA 1, p. 19; SBA 6, Letter from VHB dated March 23, 2009)
68. Tumbledown Brook, a small watercourse, runs along the southwesterly boundary of the Maple Hills Farm property. It is approximately 200 feet from the location of the proposed facility at its closest point. There is a wetland associated with the brook that is approximately 160 feet from the facility's proposed location at its nearest point. There is another wetland area to the northwest of the proposed facility location that is approximately 200 feet distant at its closest point. (SBA 1, Exhibit K, Wetland Sketch, dated September 5, 2008)
69. A portion of the existing driveway that would provide access to the proposed facility and approximately 100 feet of the utility run lie within a 100 year floodplain. Because the utility trenching needed to bring utilities to the proposed facility would not result in any permanent changes to the existing ground elevation in the floodplain, the facility would not have any impact on the floodplain. (SBA 1, p. 10; SBA 3, Pre-filed testimony of Dean Gustafson, Q6)
70. SBA would establish and maintain appropriate soil erosion and sedimentation control measures, in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control established by the Connecticut Council for Soil and Water Conservation, in cooperation with the Connecticut Department of Environmental Protection, throughout the construction period of the proposed facility. (SBA 1, p. 17)
71. Existing vegetation in the vicinity surrounding the proposed site consists of mature, mixed deciduous hardwood species with an average estimated height of 65 feet. (SBA 1, p. 12)



72. No trees with a diameter of six inches or more at breast height would be removed for the construction of the proposed facility. (SBA 1, p. 9; Exhibit B – Letter from Clough Harbour & Associates dated June 5, 2008)
73. SBA has received a determination from the Federal Aviation Administration that its proposed facility would not be a hazard to air navigation and that marking and lighting of the tower would not be necessary. (SBA 1, Exhibit P)
74. The cumulative worst-case maximum power density from the radio frequency emissions of the proposed T-Mobile and Verizon antennas is calculated to be  $0.1960 \text{ mW/cm}^2$  or 29.21% 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. (SBA 1, Exhibit N; Verizon 2, Response to Question 9)

#### Visibility

75. The proposed tower would be at least partially visible year-round from approximately 37 acres within a two-mile radius. The visibility of the tower would be minimized due to topography and mature vegetation in the surrounding vicinity. (See Figure 10) (SBA 1, p. 12; Exhibit J, p. 5)
76. Most of the areas from which the tower would be visible are on or in the immediate vicinity of the host property, including portions of Route 185, Burr Road, High Hill Road, and several open fields within the Auer Farm property to the southwest. (SBA 1, Exhibit J, p. 5; SBA 3)
77. There are some additional, smaller areas of anticipated year-round visibility farther from the proposed facility. These areas include a short segment of Milburn Road to the northeast and a small area within the Tumble Brook Country Club to the east/southeast. (SBA 1, Exhibit J, p. 5)
78. Approximately nine residential properties would have at least partial year-round views of the proposed tower. These properties include three properties located along Route 185; two properties located along High Hill Road; three properties located along Burr Road; and one property located along Milburn Road. (SBA 1, p. 12; Exhibit J, p. 5)
79. No views of the tower would be anticipated from the Metacomet Trail, which is located between one and two miles to the west of the proposed facility. (SBA 1, Exhibit J, p. 5)
80. Distant views of the tower would be possible from the east and southeast facing upper story windows of the Heublein Tower, which is located approximately two miles to the northwest. (SBA 1, p. 13; Exhibit J, p. 5)

81. The tower would be seasonally visible from an additional approximately 14 acres, which are generally located in the immediate vicinity of the proposed facility. (SBA 1, Exhibit J, p. 5)
82. Eight additional residential properties would have seasonal views of the proposed tower. These properties are located along High Hill Road, Burr Road, and Kenmore Road. (SBA 1, p. 12; Exhibit J, p. 5)
83. The visibility of the proposed tower in the surrounding vicinity is summarized in the table below. (See Figure 10)

| Location                                 | Visible | Approx. Portion of (130') Tower Visible (ft.) | Approx. Distance and Direction to Tower |
|--|---------|---|---|
| 1 – Auer Farm                            | Yes     | 40'   | 1,400 feet; NE                          |
| 2 – Auer Farm access road                | Yes     | 60'   | 1,000 feet; NE                          |
| 3 – High Hill Road, west of Route 185    | Yes     | 50'   | 1,050 feet; SE                          |
| 4 – 16 Milburn Drive                     | Yes     | 10'   | 2,300 feet; S                           |
| 5 – Route 185 and Kenmore Road           | Yes     | 80'   | 1,500 feet; SE                          |
| 6 – Route 185 at High Hill Road          | Yes     | 40'   | 740 feet; SE                            |
| 7 – Burr Road, adjacent to host property | Yes     | 50'   | 500 feet; NE                            |

(SBA 1, Exhibit J)

84. In July, 2008 VHB, SBA's environmental consultant, flew a balloon from a location in the south central portion of the Tumble Brook Country Club nearly adjacent to Route 185. The ground elevation at this location was approximately 185 to 190 feet. Verizon could achieve its coverage objectives with its antennas at 120 feet agl at this location; T-Mobile would need to place its antennas at 155 feet agl. A 120-foot tower would be visible year-round from approximately 33 acres from this location. A 155-foot tower would be visible year-round from approximately 56 acres. (SBA 8; Tr. 1, pp. 38-40)
85. A tower erected at the location of the Tumble Brook Country Club balloon flight would not be visible from most of the Auer Farm property. (Tr. 1, p. 44)

**Existing and Proposed Wireless Coverage**

Verizon

86. Verizon is licensed to operate in the cellular (850 MHz), personal communications service (PCS – 1900 MHz), and 700 MHz frequency bands throughout the State of Connecticut. (Verizon 1, Response 1)
87. Verizon's minimum coverage thresholds are -75 dBm for reliable in-building service and -85 dBm for reliable in-vehicle service. (Verizon 1, Response 2)



88. Verizon's existing signal strengths in the area to be served by the proposed facility range from -86 dBm to -110 dBm at cellular frequencies and from -86 dBm to -112 dBm at PCS frequencies. Verizon does not currently provide 700 MHz frequency service in Connecticut. (Verizon 1, Response 3)
89. Verizon experiences a 1.27 mile gap in coverage at cellular frequencies and a 4.83 mile gap at PCS frequencies along Route 185 in the vicinity of the proposed facility. (Verizon 1, Response 5)
90. Verizon's antennas would cover a 3.7 mile portion of Route 185 at cellular frequencies and a 3.4 mile portion of Route 185 at PCS frequencies from the proposed facility. (Verizon 1, Response 6)
91. Verizon would cover approximately 6.1 square miles at cellular frequencies and 4.6 square miles at PCS frequencies from the proposed facility. (Verizon 1, Response 4)
92. Verizon's proposed facility would hand off signals with adjacent facilities identified in the table below.

| <b>Site Location</b>                     | <b>Distance and Direction to Site</b> |
|--|---------------------------------------|
| 785 Park Avenue, Bloomfield              | 1.75 miles to northeast               |
| 200 Bloomfield Avenue, Hartford (U of H) | 3.01 miles to southeast               |
| Talcott Mountain, Bloomfield             | 1.85 miles to west                    |
| 1 Grist Mill Road, Simsbury              | 4.25 miles to northwest               |
| 8 Hoskins Road, Bloomfield               | 5.18 miles to north                   |
| 345 Main Street, West Hartford           | 2.43 miles to south                   |

(Verizon 1, Response 8)

93. The minimum height at which Verizon's antennas could achieve their coverage objective is 117 feet agl. (Verizon 1, Response 10)





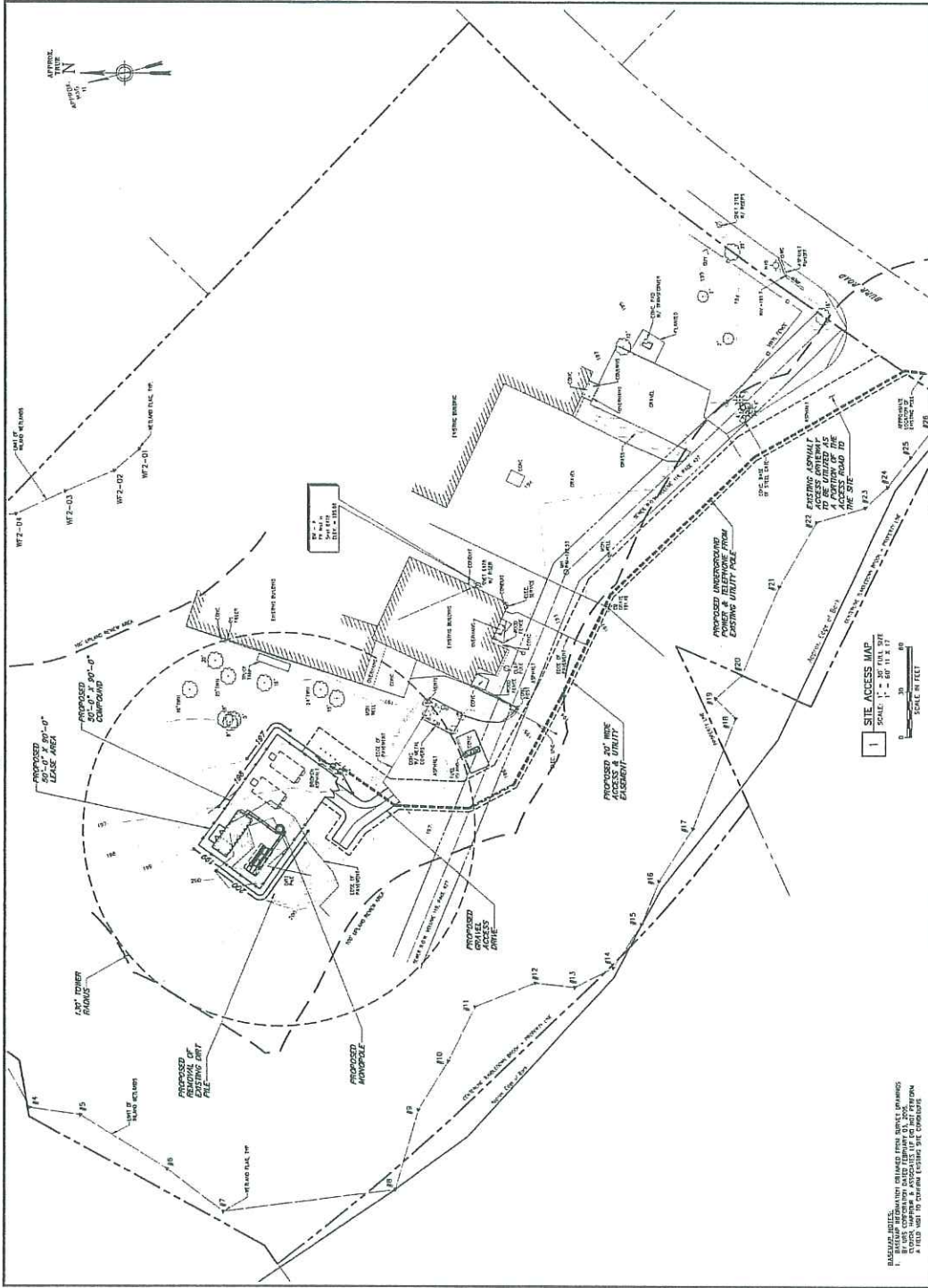
Figure 2: Aerial View of Site



(SBA 2, Exhibit 1)



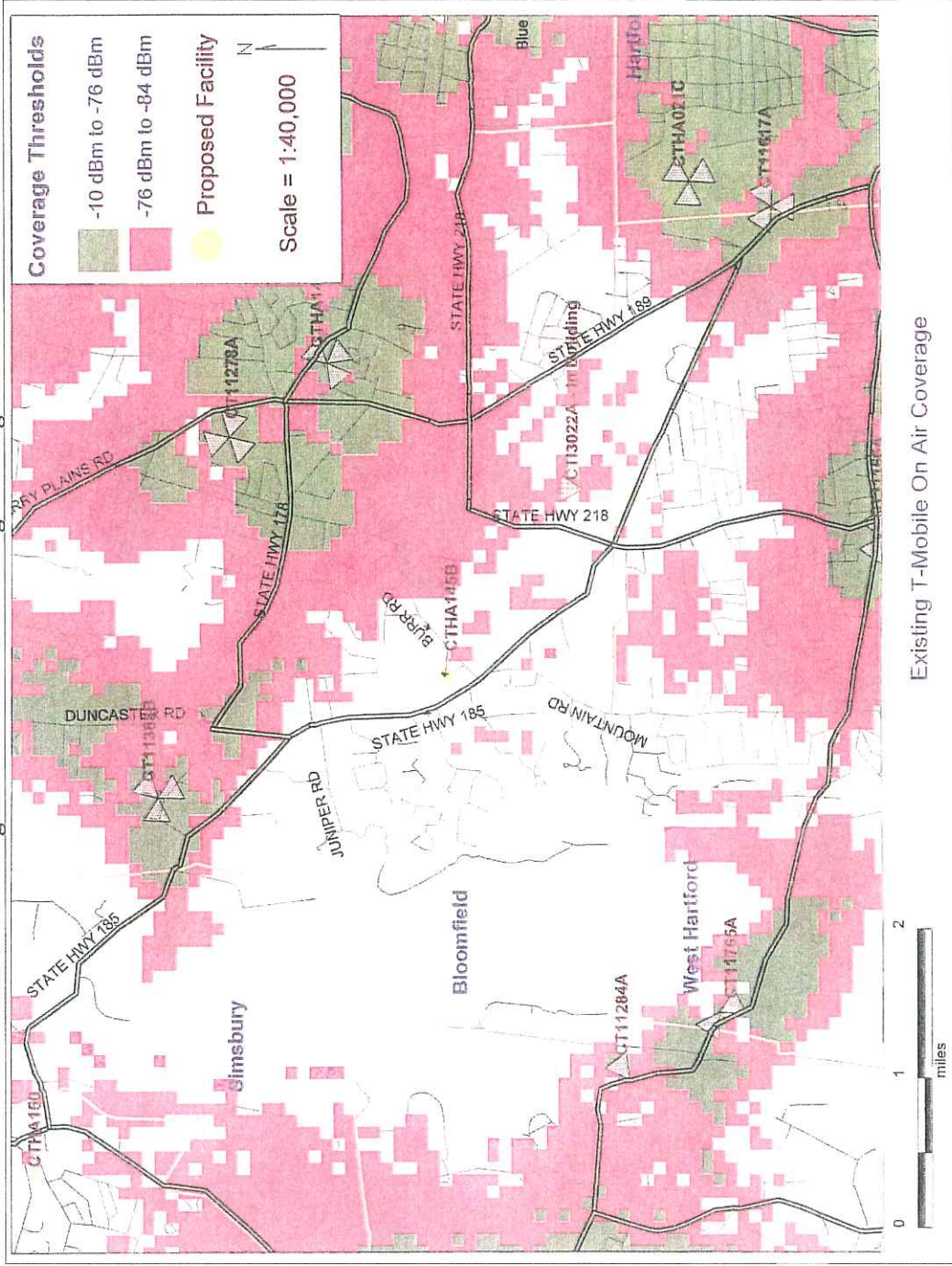
Figure 3: Facility Site Plan



(SBA 1, Exhibit B, Drawing A02)



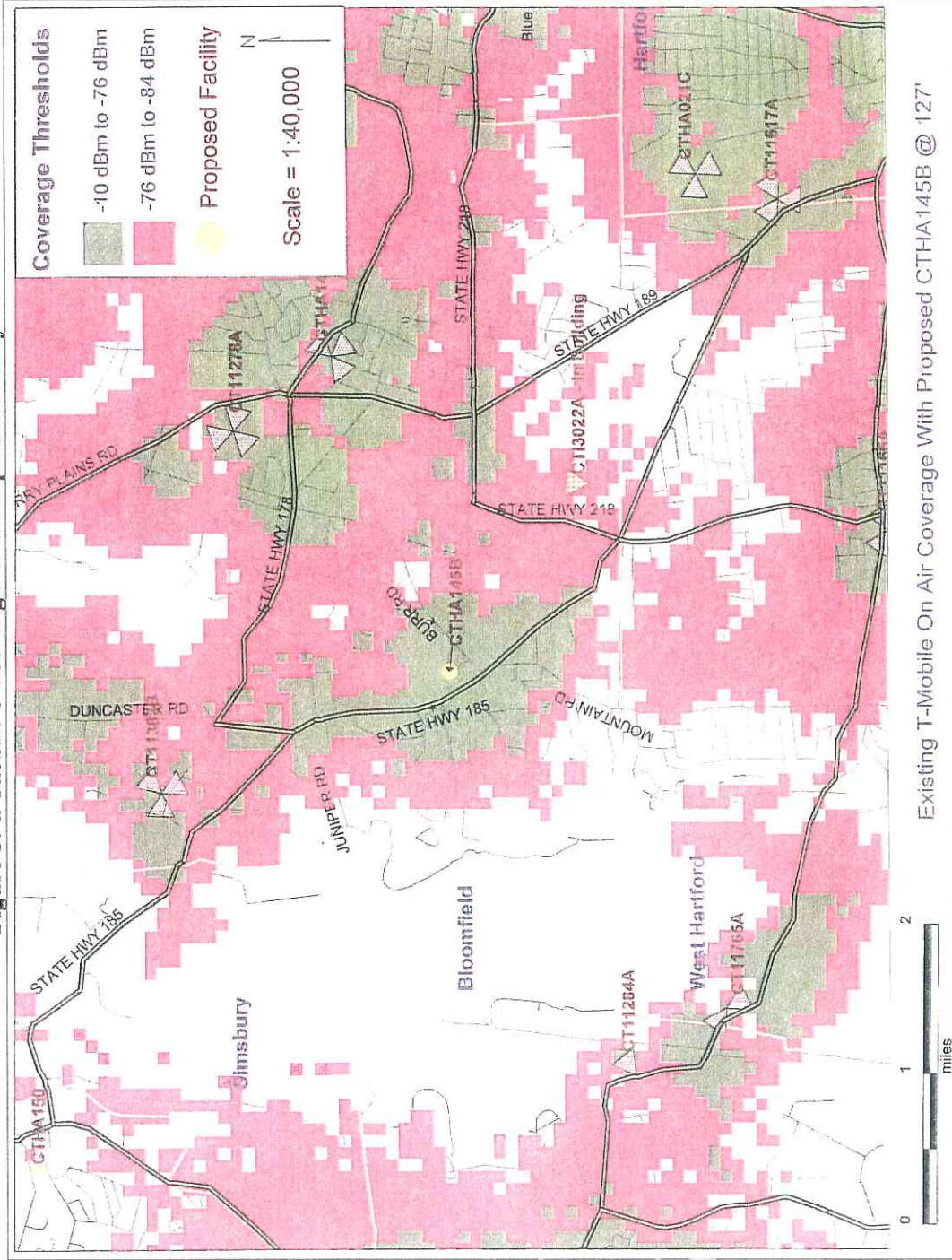
Figure 4: T-Mobile's Existing Coverage



Existing T-Mobile On Air Coverage

(SBA 1, Exhibit G)

Figure 5: T-Mobile's Coverage with Proposed Facility

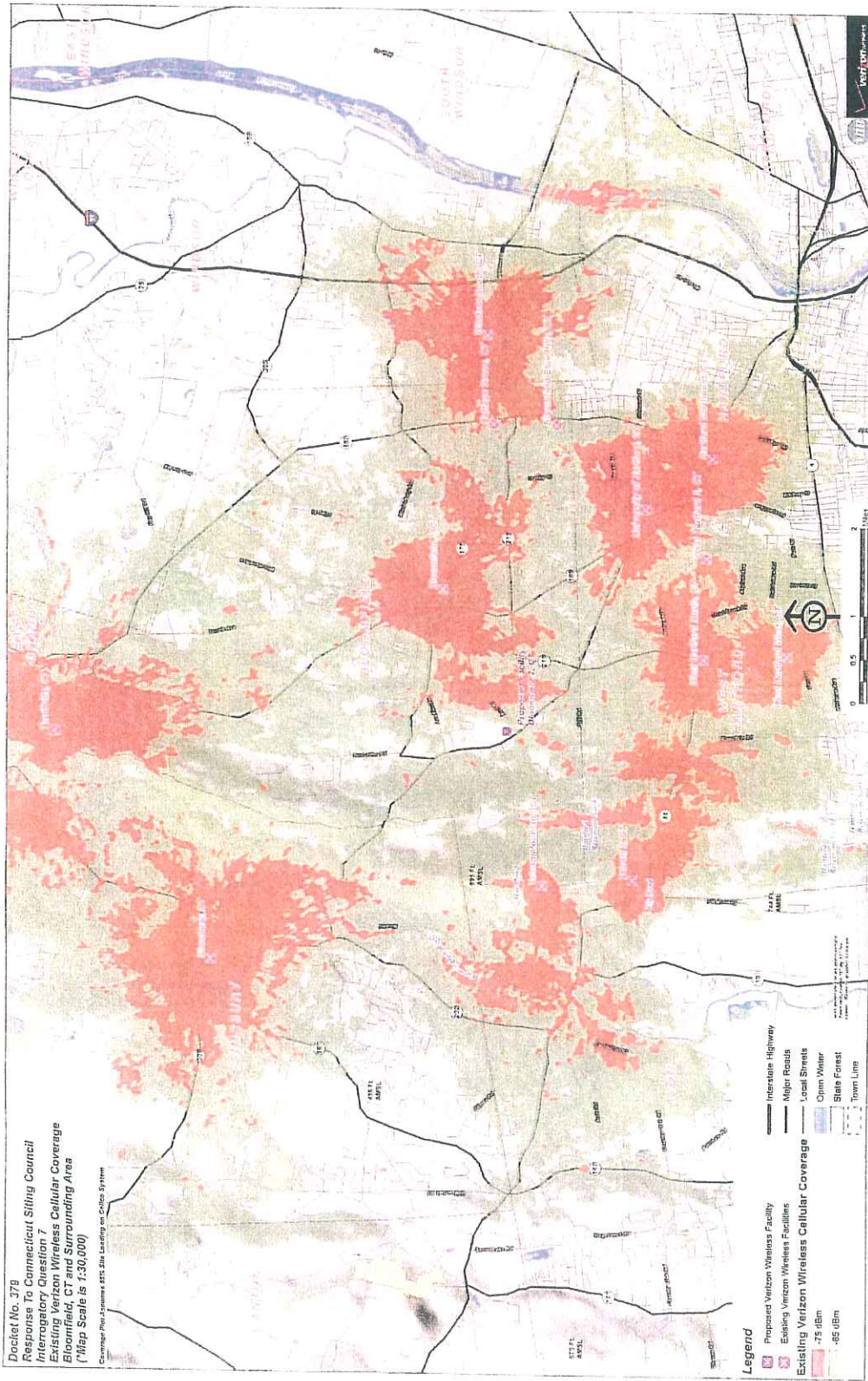


Existing T-Mobile On Air Coverage With Proposed CTHA145B @ 127'

(SBA 1, Exhibit G)



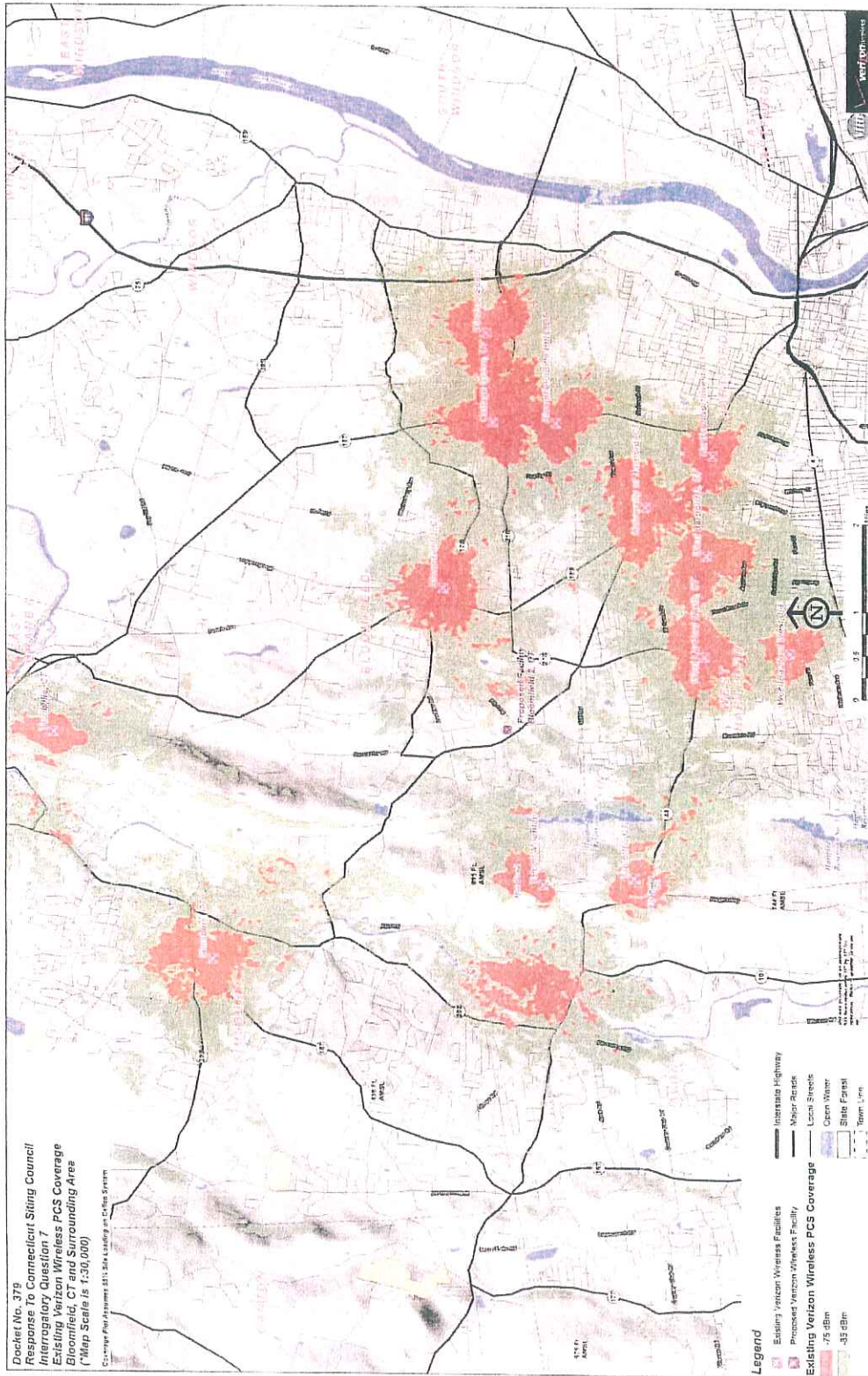
Figure 6: Verizon Existing Cellular Coverage



(Verizon 2, Attachment 2)



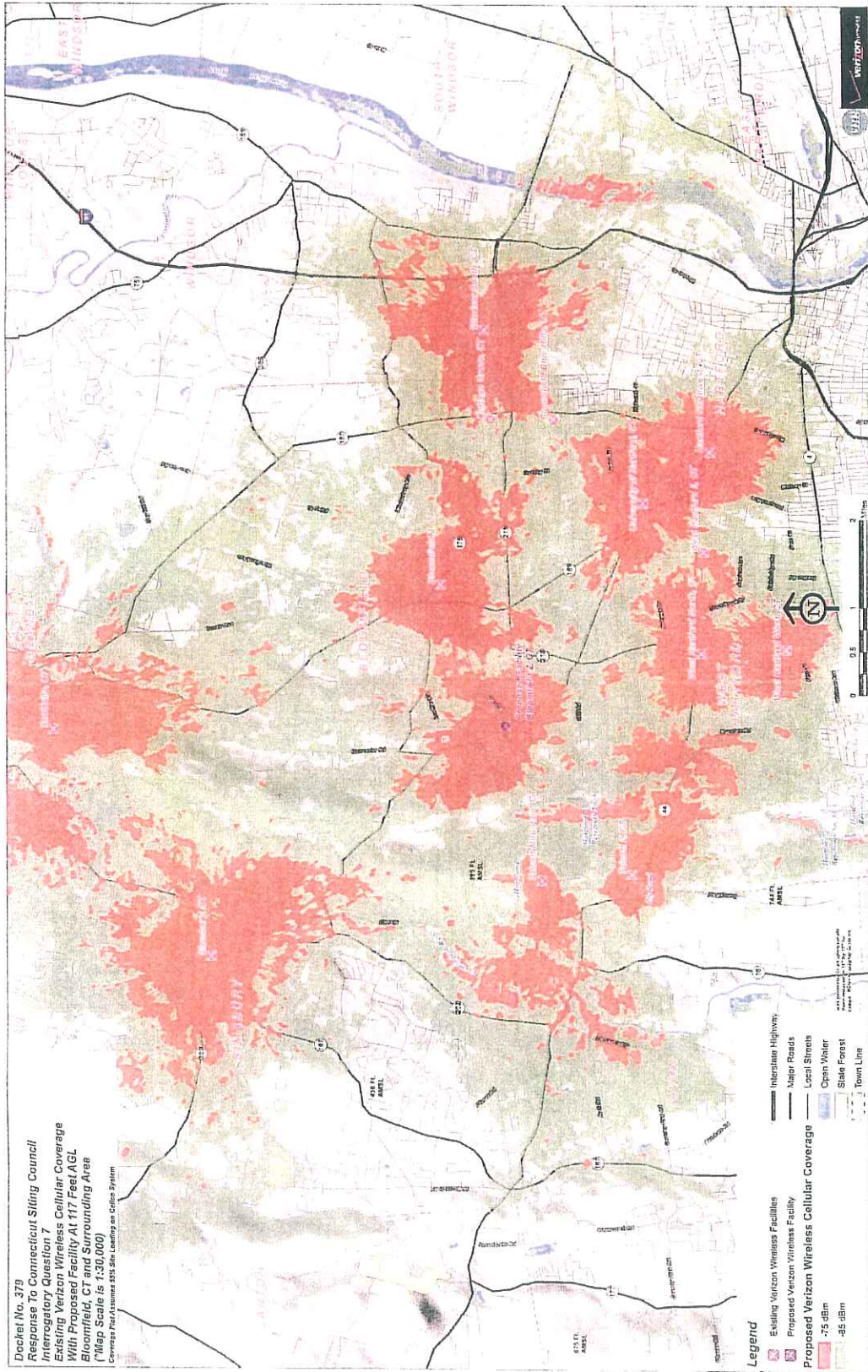
Figure 7: Verizon Existing PCS Coverage



(Verizon 2, Attachment 2)



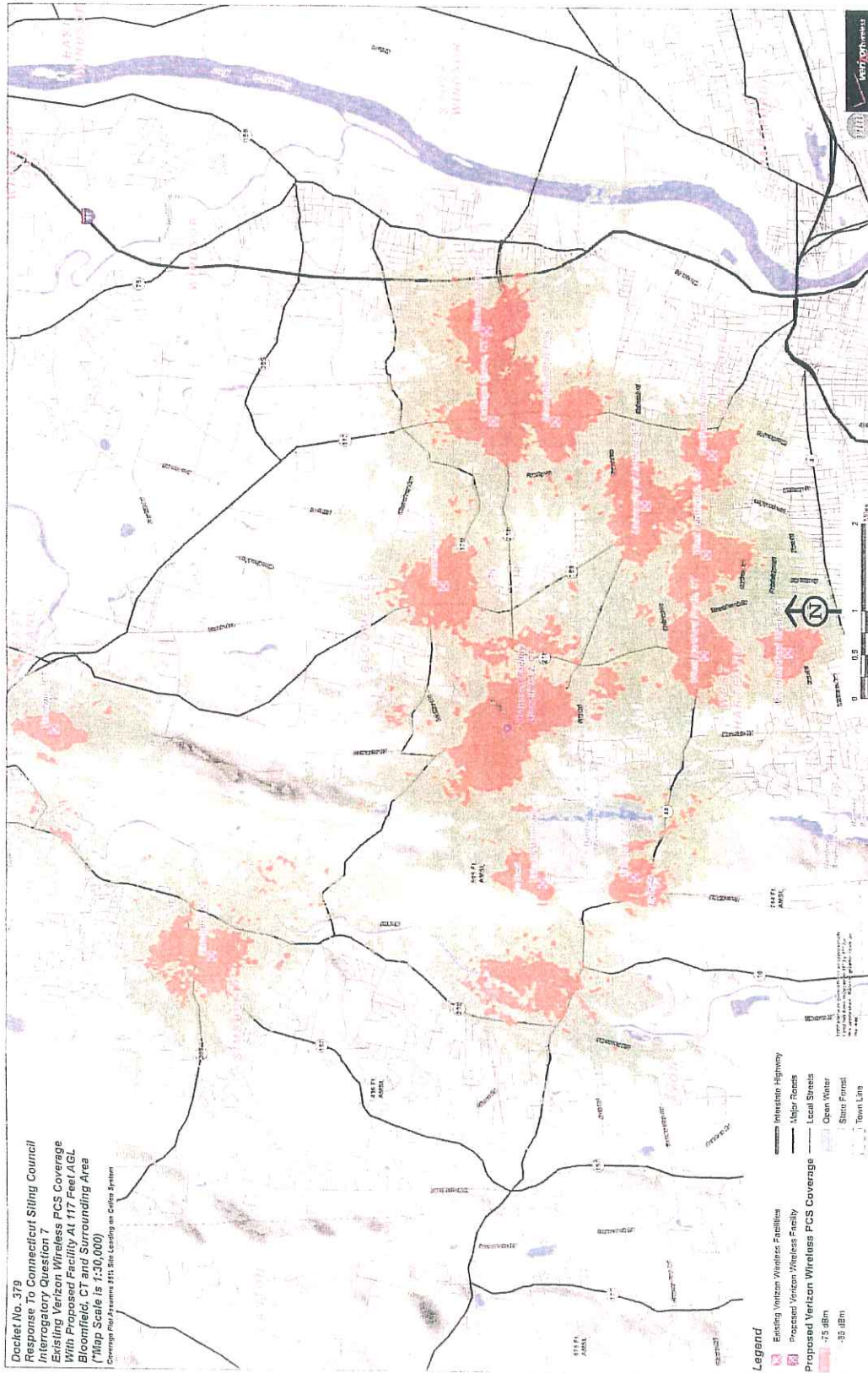
Figure 8: Verizon Cellular Coverage with Proposed Site



(Verizon 2, Attachment 2)



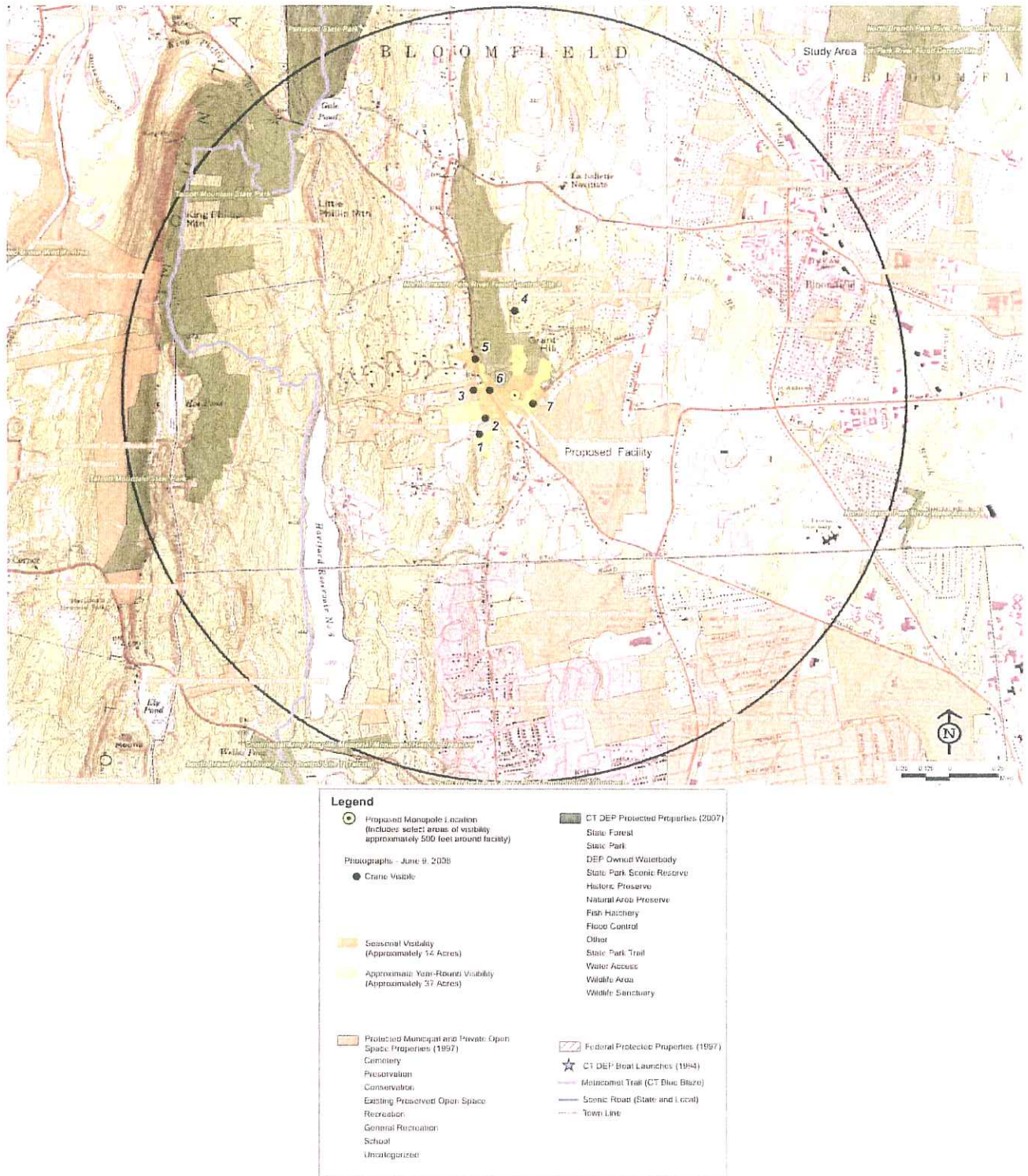
Figure 9: Verizon PCS Coverage with Proposed Site



(Verizon 2, Attachment 2)



Figure 10: Viewshed Analysis Map



(SBA 1, Exhibit J)

