

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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April 1, 2011

TO:

Parties and Intervenors

FROM:

Linda Roberts, Executive Director (

RE:

DOCKET NO. 410 - Cellco Partnership d/b/a Verizon Wireless application for

a Certificate of Environmental Compatibility and Public Need for the

construction, maintenance and operation of a telecommunications facility located

at 234 Melba Street, Milford, Connecticut.

As stated at the hearing in Milford on February 3, 2011, 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 April 7, 2011.

LR/MP/laf

Enclosure



| DOCKET NO. 410 - Cellco Partnership d/b/a Verizon Wireless | } | Connecticut |
|---|---|----------------|
| application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 234 Melba Street, Milford, | } | Siting |
| Connecticut. | } | Council |
| | | March 31, 2011 |

DRAFT Findings of Fact

Introduction

- 1. Cellco Partnership d/b/a Verizon Wireless (Cellco), in accordance with provisions of Connecticut General Statutes (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on October 20, 2010 for the construction, maintenance, and operation of a telecommunications facility, which would include a 136-foot flagpole tower, at 234 Melba Street in the Town of Milford, Connecticut. (Cellco 1, p. i)
- 2. Cellco is a Delaware Partnership with an administrative office located at 99 East River Drive, East Hartford, Connecticut. Cellco is licensed by the Federal Communications Commission (FCC) to operate a wireless telecommunications system in Connecticut. The operation of wireless telecommunications systems and related activities is Cellco's sole business in Connecticut. (Cellco 1, p. 5)
- 3. The party in this proceeding is the applicant. (Transcript, February 3, 2011, 3:15 p.m. [Tr. 1], pp. 3-4)
- 4. The purpose of the proposed facility is to provide coverage and capacity relief along portions of Route 162 and local roads, as well as commercial and residential areas in the Bayville section of Milford, and portions of Long Island Sound. (Cellco 1, p. i)
- 5. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on February 3, 2010, beginning at 3:15 p.m. and continuing at 7:00 p.m. at the Milford City Hall Auditorium, 110 River Street, Milford, Connecticut. (Tr. 1, p. 2)
- 6. The Council and its staff conducted an inspection of the proposed site on February 3, 2011, beginning at 2:00 p.m. The applicant flew a red, four-foot diameter balloon at the site from approximately 8:00 a.m. until approximately 5:00 p.m. at a height of 136 feet to simulate the proposed flagpole tower. Weather conditions were not optimal. While the winds were calm for approximately the first hour of the balloon flight, these calm conditions were intermittent. At other times, there was an eight to twelve mile per hour wind. (Tr. 1, p. 10)
- 7. Pursuant to CGS § 16-50*l*(b), Cellco published public notice of its intent to submit this application on October 14 and 15, 2010 in the Connecticut Post. (Cellco 1, p. 6; Cellco 3)

- 8. Pursuant to CGS § 16-50*l*(b), Cellco sent notices 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. (Cellco 1, p. 6; Attachment 4)
- 9. Of the 69 certified letters Cellco sent to the abutting property owners, 13 were returned "unclaimed" or otherwise "undeliverable." A second notification letter was sent by regular mail to the 13 property owners from whom return receipts were not received. (Cellco 6, Response 13)
- 10. Pursuant to CGS § 16-50*l* (b), Cellco provided copies of its application to all federal, state and local officials and agencies listed therein. (Cellco 1, p. 6; Attachment 2)
- 11. Cellco posted a sign giving public notice of its pending application on the host property on January 17, 2011. The sign was four feet by six feet in size and included the date of the scheduled public hearing and contact information for the Council. (Cellco 5)

State Agency Comment

- 12. Pursuant to CGS § 16-50*l*, on December 8, 2010 and February 4, 2011, the Council solicited comments on Cellco's application from the following state 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, the Department of Transportation, and the Department of Emergency Management and Homeland Security. (CSC Hearing Package dated December 8, 2010; CSC Letter to State Department Heads dated February 4, 2011)
- 13. The Council did not receive comments from any state agencies. (Record)

Municipal Consultation

- 14. On May 5, 2010, Cellco representatives met with Mayor James L. Richetelli of the City of Milford (City) to commence the sixty day municipal consultation period required by CGS §16-50*l*(e). At this meeting, Cellco provided Mayor Richetelli with copies of technical information summarizing Cellco's proposed telecommunications facility. The information provided was based on the original design which included a 126-foot flagpole tower with a top diameter of 54 inches. (Cellco 1, p. 20)
- 15. On August 10, 2010, Cellco notified Mayor Richetelli of its plans to modify the flagpole design by increasing the height to 136 feet and decreasing the top diameter to 42 inches. (Cellco 1, p. 20)
- 16. Cellco would provide space on the tower for municipal emergency services antennas free of charge if a need exists. (Cellco 1, p. 3; Tr. 1, p. 15)

Public Need for Service

- 17. 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)
- 18. 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; Celloo 1, p. 7)
- 19. The Telecommunications Act of 1996 prohibits local and state bodies from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)
- 20. The Telecommunications Act of 1996 prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects, which include human health effects, of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 7)
- 21. In recognition of the public safety benefits enhanced wireless telecommunications networks can provide, Congress enacted the Wireless Communications and Public Safety Act of 1999 (the 911 Act). The purpose of this legislation was to promote public safety by making 9-1-1 the universal emergency assistance number and through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Cellco 1, p. 8)
- 22. In 2004, Congress enacted the Enhanced 911 (E911) Act for the specific purpose of enhancing and promoting homeland security, public safety, and citizen activated emergency response capabilities. (Cellco 1, p. 8)
- 23. Cellco's antennas at the proposed facility would comply with E911 requirements. (Cellco 6, Response 15)

Existing and Proposed Wireless Coverage

- 24. Cellco is licensed to operate in the 850 MHz (cellular), 1900 MHz (PCS), and 700 MHz (Long Term Evolution LTE) frequency ranges throughout Connecticut. (Cellco 6, Response 14)
- 25. Cellco's network design thresholds for reliable service are -85 dBm for reliable in-vehicle service and -75 dBm for reliable in-building coverage. (Cellco 6, Response 18)
- 26. Cellco's existing signal strength in the vicinity of the proposed facility ranges from -86 dBm to -98 dBm. (Cellco 6, Response 19)

- 27. Cellco does not currently provide LTE service in Connecticut. However, Cellco expects to begin activating its LTE network in Connecticut in 2011. (Cellco 4, response 9)
- 28. From existing sites surrounding the proposed facility, Cellco experiences dropped calls at a rate of 1.49 percent and ineffective attempts at a rate of 2.19 percent. (Cellco 6, Response 20)
- 29. Cellco's nationwide standard for dropped calls and ineffective attempts is less than one percent. (Cellco 6, response 20)
- 30. Cellco currently experiences coverage gaps of approximately 1.03 miles along Route 168, 1.19 miles along Route 187, 1.72 miles along North Stone Street, 1.35 miles along Ratley Road, 0.27 miles along Hill Street, and 0.96 miles along Spruce Street. (Cellco 4, responses 10 and 11; Tr. 1, pp. 13, 82-83)
- 31. Cellco also experiences significant gaps in PCS and cellular coverage along portions of Route 162, Edgefield Street, Pond Point Avenue, and Buckingham Avenue in southeast Milford. (Cellco 1, Tab 6; Cellco 4, response 11)
- 32. The table below indicates the distances Cellco would cover at its different licensed frequencies along the major routes in the area of its proposed facility at various heights.

| Frequency | Street Name | Coverage at Proposed Flagpole Height of 136 feet | Coverage at 125 feet | Coverage at 116 feet |
|--------------------|----------------------|--|-------------------------|-------------------------|
| PCS (1900 MHz) | Edgefield Street | 0.76 miles | 0.75 miles | 0.73 miles |
| PCS (1900 MHz) | Pond Point Avenue | 0.96 miles | 0.95 miles | 0.94 miles |
| PCS (1900 MHz) | Buckingham Avenue | 0.56 miles | 0.54 miles | 0.54 miles |
| Cellular (850 MHz) | Edgefield Street | 0.99 miles | 0.94 miles | 0.89 miles |
| Cellular (850 MHz) | Pond Point Avenue | 1.2 miles | 1.1 miles | 1.08 miles |
| Cellular (850 MHz) | Buckingham Avenue | 0.69 miles | 0.67 miles | 0.66 miles |
| LTE (700 MHz) | Edgefield Street | 0.99 miles | 0.95 miles | 0.94 miles |
| LTE (700 MHz) | Pond Point Avenue | 1.21 miles | 1.15 miles | 1.1 miles |
| LTE (700 MHz) | Buckingham Avenue | 0.7 miles | 0.68 miles | 0.67 miles |

(Cellco 4, response 11)

33. The table below indicates the total areas Cellco would cover at its different licensed frequencies from the proposed facility at various heights.

| Frequency | Area Covered at Proposed Flagpole Height of 136 feet* | Area Covered at 125 feet* | Area Covered at 116 feet* |
|--------------------|--|------------------------------|------------------------------|
| PCS (1900 MHz) | 20.49 square miles | 19.82 square miles | 19.13 square miles |
| Cellular (850 MHz) | 90.0 square miles | 87.84 square miles | 85.43 square miles |
| LTE (700 MHz) | 101.45 square miles | 98.37 square miles | 95.42 square miles |

^{*}This includes coverage over open water.

(Cellco 4, response 12)

34. Cellco's proposed facility would hand off signals with the adjacent facilities identified in the following table.

| Site Location | Distance and Direction from Proposed Site | |
|--------------------------------|--|--|
| 200 High Street, Milford | 2.7 miles northwest | |
| 1052 Boston Post Road, Milford | 2.3 miles northwest | |
| 311 Old Gate Lane, Milford | 1.7 miles north | |
| 185 Research Drive, Milford | 2.2 miles northeast | |

(Cellco 1, p. 2; Cellco 6, Response 21)

35. The lowest feasible heights at which Cellco's antennas could achieve its coverage objectives are the proposed heights: PCS antennas at 130 feet; cellular antennas at 120 feet; and LTE antennas at 110 feet above ground level (agl). (Cellco 1, p. I; Cellco 4, Response 8)

Site Selection

36. Cellco initiated its site search process in the vicinity of the proposed site in September 2006. The search ring was centered near the intersection of Pond Point Avenue and Bryan Hill Road. The radius of the search ring was approximately 2,000 feet. (Cellco 4, response 1)

37. Cellco maintains four telecommunications facilities within approximately three miles of the proposed site. None of these facilities can provide the service Cellco is seeking to provide in this area of Milford. Cellco's existing sites are listed in the following table.

| Owner/(Cellco Site Name) | Facility Height and Type | Location | Cellco Ant. Ht. | Distance and Direction to Proposed Facility |
|-----------------------------|-----------------------------|-----------------------------------|--------------------|--|
| Milford South | 70' smokestack | 200 High Street, Milford | 67' | 2.6 mi, SE |
| Forest Heights | 87.5' rooftop flagpole | 1052 Boston Post Road, Milford | 76.5' and 82.5' | 2.1 mi, SE |
| Old Gate | 120' monopole tower | 311 Old Gate Lane, Milford | 100' | 1.7 mi, S |
| Milford South 2 | 185' monopole tower | 185 Research Drive, Milford | 126' | 2.1 mi, S |

(Cellco 1, Attachment 8; Tr. 1, p. 12)

- 38. In its site search process, Cellco did not find any existing, non-tower structures of a height that would enable Cellco to provide its desired coverage. (Cellco 1, pp. 11-12)
- 39. Cellco investigated two municipal properties for a possible tower site. These properties and the determinations of their suitability are listed below
 - a.) <u>Milford Fire Department Station 6 Melba Street</u> This location does not have sufficient space for tower and the associated equipment.
 - b.) Park Melba Street This property is not available for lease for a tower. (Tr. 1, pp. 10-11)
- 40. Cellco also investigated the possibility of locating its tower on private property, but found that the surrounding area has lot sizes that are too small for a telecommunications facility. (Tr. 1, pp. 11-12)
- 41. The possibility of co-locating on existing electric transmission structures was also considered. However, there are no electric transmission structures located within Cellco's search ring. (Tr. 1, p. 17)
- 42. There is an existing 135-foot tall flagpole tower (which varies in diameter from 24 inches to 16 inches) on the subject property that is owned by T-Mobile and located approximately 125 feet southwest of the proposed tower. This tower is not structurally capable of supporting additional antennas or being expanded to accommodate Cellco. The flagpole would have to be replaced with a 165-foot flagpole to accommodate Cellco and the existing carriers. The diameter of the flagpole would also have to be significantly greater. (Cellco 1, pp. I, 4-5; Cellco 1, Attachment 1, Drawing C-2; Tr. 1, pp. 11-12, and 14)
- 43. From a radio frequency perspective, it is not feasible to co-locate Cellco's antennas on the existing flagpole, below the existing carriers. (Tr. 1, pp. 28-29)

44. Cellco could not identify any equally effective technological alternatives to the proposed facility that would provide service of comparable quality. (Cellco 1, p. 11)

Facility Description

- 45. Cellco's proposed site is on a 2.71-acre property located at 234 Melba Street in the Bayville section of Milford. The property is owned by Melba Realty LLC and is currently used for commercial retail purposes. (See Figures 1 and 2) (Cellco 1, pp. I, 1, and 2)
- 46. The Melba Realty LLC property is zoned Business Zone District (BD). (Cellco 1, p. 2)
- 47. Cellco's proposed facility would be located in the western portion of the Melba Realty LLC property. Cellco would lease an approximately 27-foot by 22-foot parcel, within which it would develop an approximately 1,405 square foot fenced compound. The compound would be enclosed by an eight-foot high chain link fence with privacy slats and topped with three strands of barbed wire. (Cellco 1, Attachment 1; Tr. 1, p. 15)
- 48. The proposed tower would be located at 41° 12' 35.52" N latitude and 73° 01' 9.87" W longitude. Its elevation at ground level would be approximately 30 feet above mean sea level. (Cellco 1, Attachment 1, Sheet T-1)
- 49. Cellco's proposed tower would be designed in accordance with the specifications of the Electronic Industries Association Standard EIA/TIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures." (Cellco 1, Attachment 1, p. 6)
- 50. The diameter of the tower would be approximately 56 inches at its base and taper to a smaller diameter, reaching 42 inches at approximately the 83-foot level of the tower. From the 83-foot level to the top of the tower, the tower with have a constant diameter of 42 inches. (Tr. 1, pp. 30-33)
- 51. Consistent with the flagpole design, the tower would have a brass-colored sphere at the top of the tower. However, a flag is not proposed to avoid interference issues with the antennas (particularly when the flag is wet), as well as the need to maintain the flag and/or light it at night. (Cellco 1, Tr. 1, pp. 14; Tr. 2, pp. 3-5)
- 52. The proposed tower would be designed to accommodate a minimum of two additional wireless carriers and municipal public safety antennas. To date, no other wireless carriers have expressed an interest in co-locating on the proposed facility. (Cellco 1, p. 12; Cellco 1, Attachment 1, Drawing C-2; Tr. 1, p. 15)
- 53. Cellco would install 9 antennas—three PCS antennas (1900 MHz), three cellular antennas (850 MHz), and three LTE (700 MHz) antennas, at centerline heights of 130 feet, 120 feet, and 110 feet, respectively. These antennas would be internally-mounted within the flagpole. (Cellco 1, p. I and Attachment 1)
- 54. Cellco's ground equipment would be housed in a 12-foot by 24-foot shelter located near the base of the tower. Equipment housed in the shelter would include a propane-fueled generator for emergency backup power. The generator room floor would be lower than the door threshold to create a "bowl" effect capable of containing 120% of the volume of all generator fluids. The floor would also be equipped with leak detection alarms. (Cellco 4, responses 4 and 5; Cellco 1, Attachment 1, Drawing C-2)

- 55. Propane for the back-up generator would be stored in a 1,000-gallon tank located in the northern portion of the fenced compound. This would provide about 70 hours of generator run time before refueling would be required. (Cellco 4, Response 19; Tr. 1, pp. 16-17)
- 56. The generator would, under normal conditions, operate 20 minutes per week as an exerciser. The generator, with designed noise mitigation, would meet applicable noise standards. (Tr. 1, pp. 16-17)
- 57. Development of the proposed facility would require approximately 29 cubic yards of cutting. No filling is expected to be necessary. (Cellco 4, Response 7)
- 58. Vehicular access to the proposed facility would extend from Melba Street over an existing paved driveway for a distance of approximately 405 feet to the proposed compound. (Cellco 1, p. 3)
- 59. Utilities for the proposed facility would extend underground from an existing utility meter board associated with the T-Mobile facility to Cellco's equipment shelter. Final routing of utilities will be subject to the review and approval of The United Illuminating Company. (Cellco 1, Attachment 1, Drawing C-2; Cellco 6, response 23)
- 60. Cellco does not anticipate a need to conduct any blasting to develop the proposed site. (Cellco 6, Response 24)
- 61. The tower's setback radius would extend approximately 82 feet onto adjacent properties to the west owned by Point Beach Volunteer Engine Co. and Saranor Apartments Limited Partnership. (Cellco 1, Attachment 1, Sheets C-1 and C-1A)
- 62. Cellco could design a yield point into the proposed tower so that it would not encroach onto any adjacent properties in the event of a collapse. Such yield point would be located at approximately 82 feet above ground level. (Cellco 1, Attachment 1, Sheets C-1 and C-1A; Cellco 6, Response 25)
- 63. There are 53 residential properties and 27 apartment buildings within 1,000 feet of the proposed facility. (Tr. 1, p. 13)
- 64. The closest off-site residence property is the Saranor Apartments located at 5 Hilldale Court, approximately 100 feet to the west-northwest of the proposed facility. It is owned by Saranor Apartments Limited Partnership. (Cellco 1, Attachment 1, Sheet C-1)
- 65. Land use in the surrounding vicinity consists of a mix of single-family residential, multi-family residential (apartments and condominiums), commercial/retail, recreational/park, municipal (fire department) and institutional (Milford Health Care Center) uses. (Cellco 4, response 2)
- 66. The existing T-Mobile tower has a flag that is undersized in proportion to the structure's height. The flag on the T-Mobile tower is flown 24 hours per day, seven days per week, and is lit at night. (Tr. 1, pp. 35-36; Tr. 2, p. 4)

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- 67. Typical flagpole lighting requires either lighting from the base of the pole up towards the flag or the installation of a light at the top of pole directed down towards the flag. (Tr. 2, p. 6)
- 68. The correct (proportional) sized flag for a pole of 136 feet in height would be 20 feet tall by 38 feet wide, which is substantially larger than the flag currently located on the T-Mobile flagpole tower. The cost of an appropriately sized flag is approximately \$800 and typically would need to be replaced every six to eight months. (Tr. 2, pp. 3-5)
- 69. T-Mobile has no objections to removing the flag from its tower, if requested. (Tr. 2, pp. 4 and 7)
- 70. The estimated cost of the proposed facility, including antennas, is:

| Cell site radio equipment | 8 | \$450,000 |
|---------------------------------|---|-----------|
| Tower, coax, and antennas costs | | 150,000 |
| Power systems costs | | 40,000 |
| Equipment building costs | | 50,000 |
| Miscellaneous costs | | 43,000 |
| Total costs | | \$733,000 |

(Cellco 1, p. 22)

Environmental Considerations

- 71. The proposed facilities would have no effect upon historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (Cellco 1, Attachment 10)
- 72. The Piping Plover, a federally-listed threatened species occurs in the Milford area. The Piping Plover is a migratory breeder that nests only in coastal sandy beaches. This habitat does not exist on the subject site. Therefore, the proposed facility would not have an adverse impact on this species. (Cellco 1, p. 21 and Attachment 10)
- 73. There are no known extant populations of State endangered, threatened or special concern species that occur at the subject site. (Cellco 1, Attachment 10)
- 74. Cellco's proposed facility is approximately 2.1 miles east/northeast of the state's nearest Important Bird Area, which is Silver Sands/Walnut Beach/Charles Island Natural Area Preserve in Milford. (Cellco 6, response 26)
- 75. Cellco's proposed facility would comply with the United States Fish and Wildlife Service's recommended guidelines for minimizing the potential for telecommunications towers to impact bird species, provided that the tower is not lit. If the tower is lit, for example to accommodate a flag, it might not fully comply with such guidelines. (Cellco 6, response 27; Tr. 2, p. 7)
- 76. Cellco's proposed facility is not expected to have an adverse impact on migratory birds. (Tr. 1, pp. 27-28)

- 77. Approximately six trees with diameters greater than six inches at breast height would be removed to build the proposed facility. (Tr. 1, pp. 24-25)
- 78. The nearest wetland system is located approximately 13 feet from the northwest corner of the compound. (Cellco 1, Attachment 1, Sheet C-1A; Tr. 1, pp. 25-26)
- 79. Cellco 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 DEP, throughout the construction period of the proposed facility. (Cellco 1, p. 19)
- 80. Cellco's environmental consultant, Vanasse Hangen Brustlin, Inc., recommends further measures to mitigate wetland impacts such as stabilizing exposed soils with loam and seeding with a New England Conservation/Wildlife seed mix. Also, a row of native shrubs (e.g. serviceberry, black chokecherry, gray dogwood, and nannyberry) should be planted along the north side of the proposed compound in the disturbed area between the compound's fence and the limit of work line defined by the erosion and sedimentation controls. (Cellco 1, Attachment 11, pp. 1-2)
- 81. With appropriate soil erosion and sedimentation controls and other mitigation measures, development of the proposed facility would not result in any likely adverse impacts to wetlands. (Cellco 1, Attachment 11, pp. 1-2)
- 82. The proposed facility location is located within the coastal boundary. No federal or state-regulated coastal resources are located on the subject property. The nearest coastal resources consist of tidal wetlands and an estuary area associated with the Calf Pen Meadow Creek, located approximately 800 feet northwest of the proposed facility and a beach area associated with Point Beach, located approximately 1,200 feet to the south. Due to the distance separating nearby coastal resources from the proposed facility and the stealth facility design on a commercial parcel, there is no likely adverse impact to coastal resources associated with this project. (Cellco 1, Attachment 11)
- 83. Cellco's proposed facility is located outside of the 500-year floodplain delineated by the Federal Emergency Management Agency. (Cellco 1, p. 19 and Attachment 11)
- 84. The proposed tower would not constitute an obstruction or hazard to air navigation and, therefore, would not require any obstruction marking or lighting. (Cellco 1, pp. 20-21; Attachment 12)
- 85. The cumulative worst-case maximum power density from the radio frequency emissions from Cellco's proposed antennas is 19.05 percent 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. (Cellco 1, p. 16)

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86. The existing T-Mobile flagpole tower has a maximum worst-case power density of 22.14 percent of the standard for Maximum Permissible Exposure. Thus, the combined power densities of both towers would not exceed 41.19 percent of the FCC limit. (Cellco 6, p. 4)

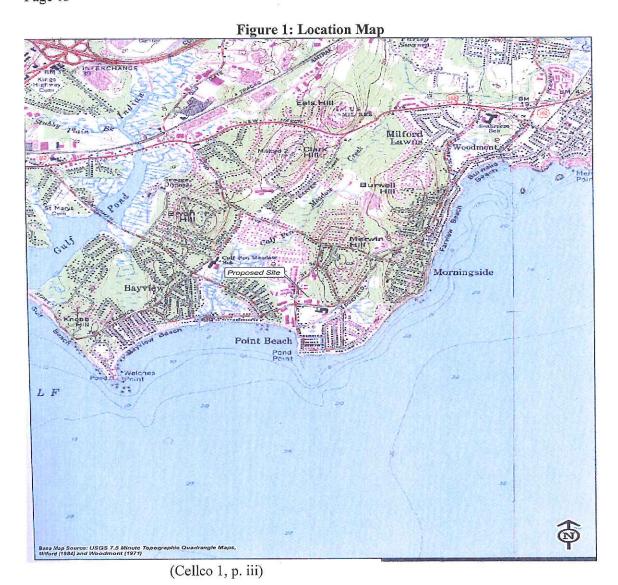
Visibility

- 87. The proposed tower would be visible year-round from approximately 3,276 acres within a two-mile radius of the site. A vast majority of this year-round visibility (3,258 acres or 99.45 percent) occurs over the open waters of Long Island Sound. (Cellco 1, pp. 14-15, Attachment 9)
- 88. Approximately 81 residential properties would have at least partial year-round views of the proposed facility. Approximately 73 additional properties would have seasonal views of the proposed tower. However, the use of a flagpole would minimize these visual effects, particularly in comparison with a monopole with externally-mounted antennas. (Cellco 1, Attachment 9)
- 89. The visibility of Cellco's proposed tower from different vantage points in the surrounding vicinity is summarized in the following table. The vantage points listed are identified by their corresponding number in the Visual Resource Evaluation Report contained in Attachment 9 of Cellco's application.

| Location | <u>Site</u> <u>Visible</u> | Approx. Portion of (136') Tower Visible | Approx. Distance and Direction to Tower |
|--|-------------------------------|---|---|
| 1 – 29 Point Beach Road | Yes | 23' | 1,900 feet; NW |
| 2 – 22 Virginia Street | Yes | 24' | 1,600 feet; N |
| 3 – 22 Morehouse Avenue | Yes | 38' | 1,400 feet; N |
| 4 – Park located south of subject property | Yes | 57' | 790 feet; N |
| 5 - Field Court at Bayside Drive | Yes | 23' | 4,000 feet; NE |
| 6 – Melba Street at Mills Street | Yes | 57' | 1,000 feet; NE |
| 7 – 33 Clover Street | Yes | 59' | 1,400 feet; SE |
| 8 – 29 Indian River Road | Yes | 52' | 3,100 feet; SE |
| 9 – Welchs Point Road | Yes | 20' | 2,900 feet; SE |
| 10 – 44 Carriage Lane | Yes | 47' | 1,300 feet; SE |
| 11 – Parking area on Platt Street | · Yes | 62' | 1,300 feet; E |
| 12 – 196 Platt Street | Yes | 40' | 950 feet; SW |
| 13 – 64 Melba Avenue | Yes | 87' | 500 feet; NW |
| 14 – 94 Point Lookout Road | Yes | 48' | 5,700 feet; NE |
| 15 – 21 McDermott Street | Yes | 28' | 4,900 feet; SW |

- 90. While approximately the top 25 percent of the proposed tower would be visible from Long Island Sound, the tower is expected to blend in with the surroundings due the close proximity of the T-Mobile flagpole tower. (Tr. 1, p. 18)
- 91. Replacing the existing flagpole with a new flagpole approximately 30 feet taller than proposed would create a significant visual intrusion in the area because it would be out of scale, given the approximately 50-foot existing tree height. (Tr. 1, pp. 20-21)

- 92. A stealth tower (other than a flagpole) is not a practical option because it would not blend in effectively with the existing flagpole. (Tr. 1, p. 22)
- 93. Lighting the tower could be a source of light pollution to neighbors. (Tr. 2, pp. 3-4)



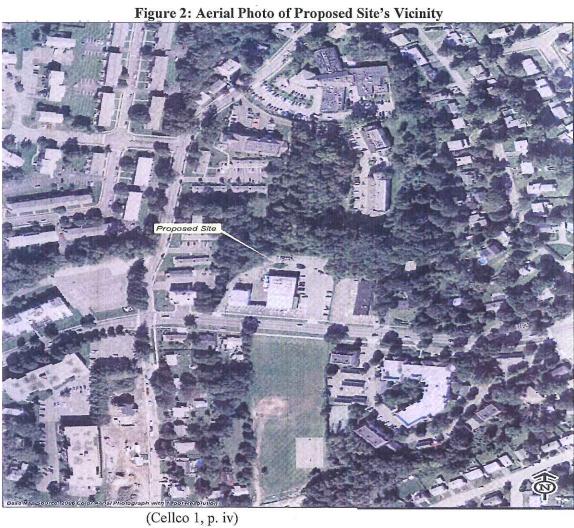
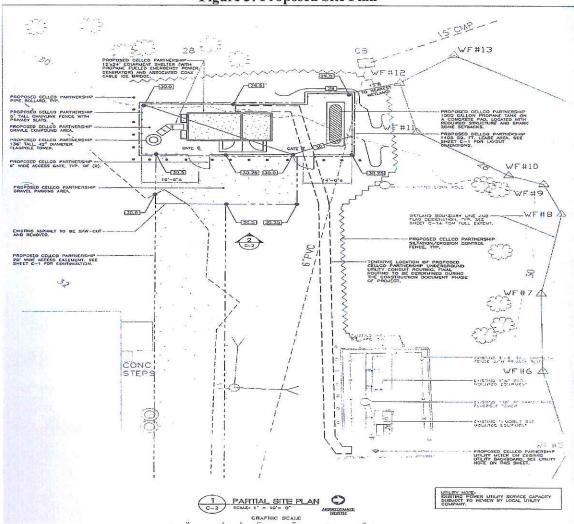


Figure 3: Proposed Site Plan



(Cellco 1, Attachment 1, Drawing C-2)

Figure 4: Cellco's Existing Coverage at Cellular Frequencies

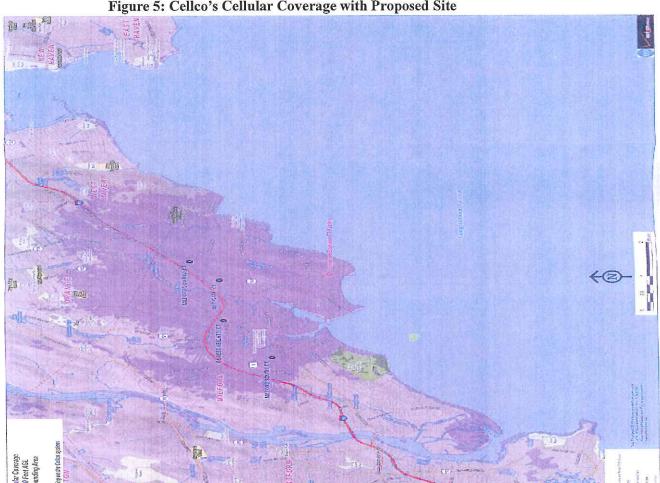
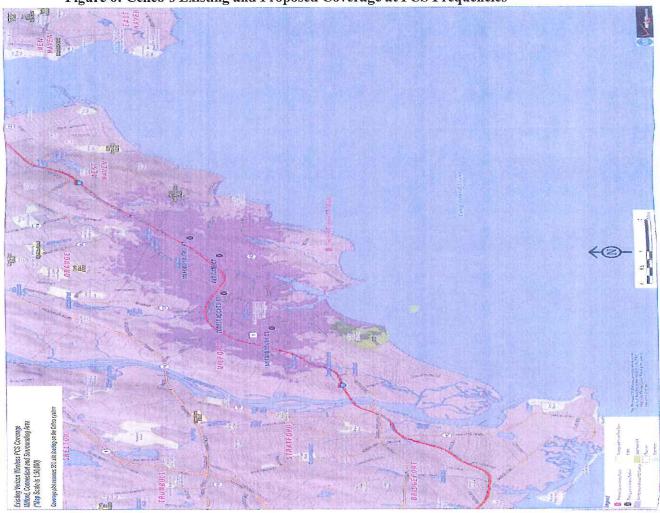


Figure 5: Cellco's Cellular Coverage with Proposed Site

Figure 6: Cellco's Existing and Proposed Coverage at PCS Frequencies



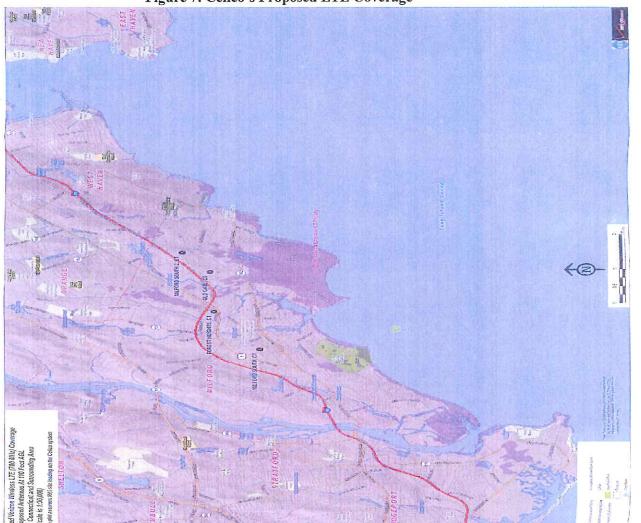
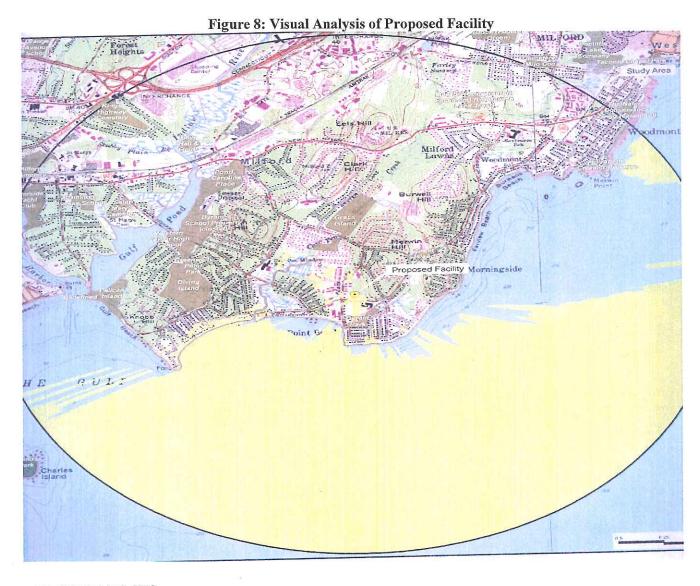


Figure 7: Cellco's Proposed LTE Coverage





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LIST OF PARTIES AND INTERVENORS $\underline{SERVICE\ LIST}$

| Status Crantad | Document | Status Holder | Representative |
|----------------|----------------------------|---|--|
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