STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A WIRELESS TELECOMMUNICATIONS FACILITY AT 174 SOUTH GRAND STREET, SUFFIELD, CONNECTICUT DOCKET NO. 403

DEGENOUT STRING CONNECTICUT

OCTOBER 25, 2010

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS PROPOSED FINDINGS OF FACT

Introduction

- 1. Cellco Partnership d/b/a Verizon Wireless ("Cellco"), in accordance with the provisions of Connecticut General Statutes ("CGS") §§ 16-50g through 16-50aa, applied to the Connecticut Siting Council ("Council") on July 9, 2010 for the construction, maintenance, and operation of a 120-foot wireless telecommunications facility located at 174 South Grand Street, Suffield, Connecticut ("Suffield SW Facility"). (Cellco 1, p. 1).
- 2. Cellco is a Delaware corporation with its administrative office at 99 East River Drive, East Hartford, Connecticut. Cellco is licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless service system in Connecticut. (Cellco 1, p. 5).
- 3. The purpose of the proposed facility is to provide wireless service for Cellco customers along portions of Routes 168 and 187 and local roads in the southwest portion of Suffield. (Cellco 1, pp. 1-2, Tab 6).
- 4. Pursuant to CGS § 16-50m, the Council held a public hearing on September 28, 2010, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Suffield High School Auditorium, 1060 Sheldon Street, West Suffield, Connecticut. (Transcript 1 09/28/10, 3:00 p.m. [Tr. 1], p. 2; Transcript 2 09/28/10, 7:00 p.m. [Tr. 2], p. 2).
- 5. The Council and its staff conducted an inspection of the proposed site on September 28, 2010, beginning at 2:00 p.m. The applicant flew a red, four foot diameter balloon at the site from 8:00 a.m. to 6:00 p.m. to simulate the height of the proposed tower. (Tr. 1, pp. 20-21; Tr. 2, pp. 2, 5).

- 6. Notice of the application was sent to all abutting property owners by certified mail. Cellco received return receipts from all but two abutters. Notice letters to William J. Morris and Stacy M. and Timothy Sperrazza were returned "unclaimed". Cellco sent a second notice letter to these abutters by regular mail on August 4, 2010. (Cellco 1, p. 6, Tab 4; Cellco 4, Q. 6).
- 7. Public notice of the application was published in the <u>Journal Inquirer</u> on July 7 and July 8, 2010. (Cellco 1, p. 6; Cellco 3).
- 8. Cellco installed a four-foot by six-foot sign at the proposed site entrance on September 13, 2010. The sign presented information regarding the project and public hearing in accordance with the Council's guidelines. (Cellco 5).
- 9. Pursuant to CGS § 16-50*l*(b), Cellco provided a copy of its application to all federal, state and local officials and agencies listed therein. (Cellco 1, p. 6, Tab 2).

State Agency Comment

- 10. Pursuant to General Statutes § 16-50j(h), the following State agencies were solicited to submit written comments regarding the proposed facility: 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, Department of Transportation and Department of Agriculture, and Department of Emergency Management and Homeland Security. (Record).
- 11. No state agencies submitted comments in response to the Council's solicitation. (Record).

Municipal Consultation

- 12. In August 2009, Cellco representatives met with the Economic and Community Development Director of the Town of Suffield, Patrick McMahon, to discuss Cellco's need for wireless service in the area and its plans to develop a facility at 174 South Grand Street. During that meeting, Mr. McMahon asked Cellco to investigate several Townowned parcels, which Cellco did. Ultimately, none of the Town-owned locations provided a suitable alternative location for the proposed Suffield SW Facility. (Cellco 1, Tab 8; Cellco 2).
- 13. On April 22, 2010, Cellco representatives met with the First Selectman of the Town of Suffield, Thomas Frenaye, to commence the local input process and review the project. (Cellco 1, p. 20; Cellco 2).
- 14. At the request of the First Selectman, Cellco hosted a Public Information Meeting at the Suffield Town Hall on May 20, 2010. At this meeting, Cellco discussed the details of the proposed facility, its need for a facility in the area and the Council application process. Notice of this Public Information Meeting was sent to abutting landowners and published in the *Journal Inquirer*. (Cellco 1, p. 20; Cellco 2).

- 15. Cellco offered the town free space on the tower for municipal service antennas. (Tr. 1, pp. 8-9).
- 16. The First Selectman of the Town of Suffield, Thomas Frenaye spoke at the hearing and submitted written comments from the Town Planner. The Town's comments focused on its ability to use the facility, emergency vehicle access to the site and a request that the tower be painted to better blend in with the surrounding area. (Tr. 2, pp. 8-12; Record).

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. 8).
- 18. In issuing wireless licenses, the Federal government has preempted the determination of public need for wireless service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. Cellco is licensed by the FCC to provide wireless service to Hartford County. (Council Administrative Notice Item No. 8; Cellco 1, p. 5; Cellco 4, Q. 1).
- 19. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 8).
- 20. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating wireless telecommunications towers on the basis of environmental effects, which include human health effects, of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also bans the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 8).
- 21. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999. The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Council Administrative Notice Item No. 9).

Cellco - Existing and Proposed Wireless Coverage

- 22. Cellco proposes to provide cellular (850 MHz), PCS (1900 MHz), and LTE (700 MHz) services from the proposed site. Cellular and PCS service would begin immediately. LTE service would likely be deployed in 2011. (Cellco 1, p. 3; Tr. 1, pp. 36-37).
- 23. Cellco seeks to provide coverage along portions of Route 168 and Route 187 between its existing Suffield Facility at 44 Fyler Place in Suffield, approximately 2.3 miles east of

the proposed site; Suffield South Facility at 55 King Spring Road in Windsor Locks, approximately 3.5 miles southeast of the proposed site; Suffield West Facility at 2715 Mountain Road, approximately 2.2 miles northwest of the proposed site; Suffield NE Facility at 639 North Street in Suffield, approximately 2.8 miles northeast of the proposed site; Bradley Airport Facility on the roof of the parking garage at Bradley Airport in Windsor Locks, approximately 4 miles south of the proposed site; East Granby Facility at 116 Newgate Road in East Granby, approximately 2.5 miles southwest of the proposed site; and Agawam 3 Facility at 850 South Westfield Road in Agawam, Massachusetts, approximately 3.8 miles north of the proposed site. (Cellco 1, Tab 6; Cellco 4, Q. 3).

- 24. Cellco's existing signal level in the proposed service area ranges from -86 dBm to -100 dBm. (Cellco 4, Q. 8).
- 25. To provide reliable service, Cellco designs its network to operate at a minimum signal level threshold of -85 dBm for in-vehicle service and -75 dBm for in-building service. (Cellco 4, Q. 7; Tr. 1, pp. 46-47).
- 26. Cellco experiences cellular 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, Q. 10, 11; Tr. 1, pp. 13, 82-83).
- 27. Cellco experiences PCS coverage gaps of approximately 3.16 miles along Route 168, 2.62 miles along Route 187, 2.94 miles along North Stone Street, 2.3 miles along Ratley Road, 0.51 miles along Hill Street and 1.61 miles along Spruce Street. (Cellco 4, Q. 10, 11; Tr. 1, pp. 13, 82-83).
- 28. Cellco currently experiences a 1.34% average drop call rate and 1.14% average ineffective attempt rate within the proposed service area. Cellco is seeking to reduce the drop call and ineffective attempt rates to less than 1%. (Cellco 4, Q. 9; Tr. 1, pp. 16, 44-47).
- 29. Installing antennas at the proposed height of 120 feet above ground level (agl) would provide the following coverage to the proposed service area:

Coverage Type (-85 dBm)	Linear miles on Route 187	Linear miles on Route 168	Linear miles on North Stone Street	Linear miles on Ratley Road	Linear miles on Hill Street	Linear miles on Spruce Street	Square miles
Cellular	3.9	3.53	1.72	1.35	0.27	0.12	11.82
PCS	3.16	2.7	2.9	1.36	0.18	1.60	6.9

(Cellco 1, p. 3; Tr. 1, p. 13).

30. Installing antennas at a height of 110 feet would not meet Cellco's service objectives in the proposed service area. (Cellco 4, Q. 5).

Site Selection

- 31. Cellco established a search area near the intersection of Routes 168 and 187 in July of 2008. (Cellco 1, Tab 8).
- 32. The search for alternative sites included the identification of existing structures that could be used for telecommunications purposes and an examination of area properties, including municipal parcels. (Cellco 1, Tab 8).
- 33. Cellco maintains seven (7) existing facilities within a four (4) mile radius of the proposed cell site. Coverage from these existing facilities does not extend to the proposed Suffield SW service area. (Cellco 1, Tab 6, Tab 8).
- 34. Cellco did not identify any existing buildings or structures in or near the search area that would be suitable for use as a telecommunications facility. (Cellco 1, Tab 8).
- 35. After determining there were no viable structures within the search area, Cellco searched for properties suitable for tower development. Cellco investigated seventeen (17) different locations and selected one, the property at 174 South Grand Street, for tower development. The sixteen remaining locations were rejected for various reasons. (Cellco 1, Tab 8; Tr. 1, pp. 48-51).

Facility Description

- 36. The proposed Suffield SW Facility would be located in the easterly portion of an approximately 17.5-acre parcel at 174 South Grand Street in Suffield. (Cellco 1, p. 3).
- 37. The property is owned by Darian and Robert Paganelli. (Cellco 1, p. 17, Tab 13).
- 38. The property is zoned R-45, residential. (Cellco 1, p. 17).
- 39. The property is improved with a residence and barn. (Cellco 1, Tab 9).
- 40. Surrounding terrain consists of rolling hills and a steep, north-to-south ridgeline to the west with elevations ranging from 120 feet above mean sea level (amsl) to 696 feet amsl. The average tree height in the area is 65 feet. (Cellco 1, Tab 9).
- 41. Land use within a quarter-mile of the site includes low density residential and agricultural. (Cellco 1, Tab 1).
- 42. The closest off-site residence is located at 128 South Grand Street, approximately 612 feet to the west of the site. (Cellco 1, p. 15).
- 43. There are seventeen (17) residences, including the Property Owner's residence, within 1,000 feet of the facility. (Cellco 1, p. 15).
- 44. Cellco proposes to construct a 120-foot monopole at the site, capable of supporting four levels of platform-mounted antennas. The tower would be constructed in accordance

- with the Electronic Industries Association standard EIA/TIA-222-F. (Cellco 1, Tab 1; Tr. 1, pp. 32-33).
- 45. Cellco would design the foundation and tower to support a 20-foot extension. (Tr. 1, p. 34).
- 46. Cellco proposes to install fifteen (15) panel antennas on a low-profile platform at a centerline height of 120 feet agl. (Cellco 1, p. 3).
- 47. Cellco proposes to construct a 60-foot by 60-foot fenced compound within an 100-foot by 100-foot lease area at the site. An eight-foot high chain link fence would enclose the compound. (Cellco 1, pp. 3-4, Tab 1).
- 48. A 12-foot by 24-foot equipment shelter would be installed within the compound. The shelter would house Cellco's radio equipment and a diesel-fueled back-up generator. (Cellco 1, p. 3, Tab 1).
- 49. Access to the site would extend from South Grand Street along an existing 300-foot driveway then over a new gravel driveway extension an additional 600 feet to the cell site. Cellco has agreed to work with the Town of Suffield to incorporate "pull-over areas" for emergency vehicle access into the final D&M Plan roadway design. (Cellco 1, p. 3, Tab 1; Tr. 2, pp. 19-20).
- 50. Underground utilities would extend from South Grand Street along the proposed access road to the site. (Cellco 1, p. 3, Tab 1; Cellco 4, Q. 16).
- 51. Once the cell site is operational, maintenance personnel will visit the cell site on a monthly basis. (Cellco 1, p. 4).
- 52. The estimated construction cost of the facility is:

Cell site radio equipment	\$450,000
Tower, coax and antennas	150,000
Power systems	20,000
Equipment building	50,000
Miscellaneous (including site preparation and installation)	<u>125,000</u>
Total estimated cost	\$795,000

(Cellco 1, p. 22).

Environmental Concerns

53. The proposed facility would have no adverse effect on historic, architectural or archeological resources listed in or eligible for the National Register of Historic Places. (Cellco 1, Tab 10).

- 54. The site is not within any federally designated areas indicating the presence of threatened or endangered species. (Cellco 1, Tab 10).
- The DEP Natural Diversity Database indicated that the state species of Special Concern eastern meadowlark and whippoorwill occur in the vicinity of the site. However, DEP determined that, given the location, it was unlikely that the eastern meadowlark would be impacted by the proposed facility. With respect to the whippoorwill, the DEP initially recommended that land clearing be conducted outside of the breeding season. (Cellco 1, Tab 10).
- 56. In response to the DEP's recommendation, Cellco completed a whippoorwill survey. The study did not reveal the presence of any whippoorwills on the host property or in nearby areas. DEP concurred with the findings in the whippoorwill study and ultimately determined that there was no need for seasonal restriction on construction of the facility, if approved. No other bird species impacts are expected from the development of the proposed facility. (Cellco 1, Tab 10; Cellco 4, Q. 24, Q. 25, Tab 3; Cellco 6, Q. 22; Tr. 1, pp. 39-44).
- 57. Development of the facility compound would not directly impact any wetlands or watercourses. The closest wetland area is located approximately 75 feet to the east of the proposed tower compound. The closest watercourse feature to the tower compound is located 230 feet to the south. (Cellco 1, p. 19, Tab 1, Tab 11).
- 58. Cellco will employ erosion and sedimentation controls in accordance with DEP Guidelines for Sedimentation and Erosion Controls to properly protect nearby wetland resources. (Cellco 1, p. 19, Tab 1; Tr. 2, pp. 16-17).
- The tower setback radius would extend approximately sixteen (16) feet onto the adjacent property to the east. The property to the east is undeveloped and heavily-wooded. Cellco is willing to install a yield point so that the fall zone of the tower would remain within the host property. (Cellco 4, Q. 21; Tr. 1, pp. 11-12).
- 60. Thirty-one trees with a diameter of six inches or greater at breast height would be removed to develop the site. (Tr. 1, p. 20).
- 61. Site construction will require total cut of approximately 410 cubic yards of material and total fill of approximately 50 cubic yards of material. (Cellco 4, Q. 12; Tr. 1, pp. 26-27).
- 62. The site is within Flood Zone X, designated by the Federal Emergency Management Agency as an area outside of the 500-year floodplain area with a minimal risk for flooding. (Cellco 1, pp. 19-20; Cellco 4, Q. 15; Tr. 1, p. 12; Tr. 2, p. 16).
- 63. Aircraft hazard obstruction marking or lighting of the tower is not required or proposed. (Cellco 1, Tab 12).
- 64. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of the proposed Cellco's antennas is calculated to be 23.13% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the

proposed tower. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously, which creates the highest possible power density levels. Under normal operation, the antennas would be oriented outward, directing radio frequency emissions away from the tower, thus resulting in significantly lower power density levels in areas around the tower base. (Cellco 1, p. 16).

Visibility

- 65. The proposed tower would be visible year-round, above the tree canopy from approximately 46 acres within a two-mile radius of the site. A majority of the year-round visibility would be from areas along select portions of South Grand Street; in open fields adjacent to South Grand Street; along portions of Routes 168 northeast of the tower site; and along select portions of Hill Street, northwest of the site, and Sheldon Street, southeast of the site. (Cellco 1, Tab 9).
- 66. Portions of approximately 17 residential properties may have at least partial year-round views of the facility, including 12 residences along South Grand Street, 3 residences along Sheldon Street and 2 residences along Hill Street. (Cellco 1, Tab 9).
- 67. The tower would be seasonally visible from an additional 98 acres within a two-mile radius of the site, mostly from areas immediately surrounding the site. (Cellco 1, Tab 9).
- 68. Limited seasonal views of the facility may occur from 20 additional residential properties, including 16 residential properties along South Grand Street and 4 residential properties along Route 168. (Cellco 1, Tab 9).
- 69. Portions of the Metacomet Trail are located approximately 1.7 miles west/southwest of the site. Potential views from the trail would be distant and set into existing vegetation and hillsides. (Cellco 1, Tab 9).
- 70. Cellco agreed to work with the Town of Suffield to determine an appropriate color for the tower to ensure the tower blends in with its surroundings. (Tr. 1, pp. 61 and 68; Tr. 2, p. 17).

Respectfully submitted, CELLCO PARTNERSHIP d/b/a

VERIZON WIRELESS

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