

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov www.ct.gov/csc

April 26, 2012

Julie D. Kohler, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604

RE:

DOCKET NO. 421 – T-Mobile Northeast LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 158 Edison Road, Trumbull, Connecticut.

Dear Attorney Kohler:

By its Decision and Order dated April 26, 2012, the Connecticut Siting Council granted a Certificate of Environmental Compatibility and Public Need for T-Mobile Northeast LLC for the construction, maintenance and operation of a telecommunications facility located at 158 Edison Road, Trumbull, Connecticut.

Enclosed are the Council's Certificate, Findings of Fact, Opinion, and Decision and Order.

Very truly yours,

Linda Roberts
Executive Director

LR/cm

Enclosures (4)





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April 27, 2012

TO:

Parties and Intervenors

FROM:

Linda Roberts, Executive Director

RE:

DOCKET NO. 421 – T-Mobile Northeast LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance

and operation of a telecommunications facility located at 158 Edison Road,

Trumbull, Connecticut.

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Enclosed are the Council's Findings of Fact, Opinion, and Decision and Order.

LR/cm

Enclosures (3)

c: Julie Kohler, Esq., Cohen and Wolf State Documents Librarian



STATE OF CONNECTICUT				
SS.	New Britain, Connecticut		:	
CC	OUNTY OF HARTFORD)	

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

Linda Roberts
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 421 has been forwarded by Certified First Class Return Receipt Requested mail on April 27, 2012, to all parties and intervenors of record as listed on the attached service list, dated October 20, 2011.

ATTEST:

Carriann Mulcahy Secretary II Connecticut Siting Council

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

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	☐ E-mail	T-Mobile Northeast, LLC	Julie D. Kohler, Esq. Jesse A. Langer, Esq. Cohen and Wolf, P.C. 1115 Broad Street
	☑ U.S. Mail		Bridgeport, CT 06604 (203) 368-0211 (203) 394-9901 fax jkohler@cohenandwolf.com
	s s)	2	jlanger@cohenandwolf.com
Intervenor (Approved on 10/20/11)	☐ E-mail	Citizens Against Trumbull Tower	Keith R. Ainsworth, Esq Evans Feldman & Ainsworth, L.L.C. P.O. Box 1694
	⊠ U.S. Mail		New Haven, CT 06507-1694 203-772-4900 203-782-1356-fax krainsworth@snet.net
	☐ E-mail		
	U.S. Mail	e	
2'	☐ E-mail		
	or U.S. Mail		



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April 27, 2012

TO:

Classified/Legal Supervisor

421110909

The Connecticut Post

410 State Street

Bridgeport, CT 06604-4560

FROM:

Carriann Mulcahy, Secretary II

RE:

DOCKET NO. 421 – T-Mobile Northeast LLC application for a Certificate of

Environmental Compatibility and Public Need for the construction, maintenance

and operation of a telecommunications facility located at 158 Edison Road,

Trumbull, Connecticut.

Please publish the attached notice as soon as possible, but not on Saturday, Sunday, or a holiday.

Please send an affidavit of publication and invoice to my attention.

Thank you.

CM





CONNECTICUT SITING COUNCIL

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NOTICE

Pursuant to General Statutes § 16-50p (a), the Connecticut Siting Council (Council) announces that, on April 26, 2012, the Council issued Findings of Fact, an Opinion, and a Decision and Order approving an application from T-Mobile Northeast LLC for the construction, maintenance and operation of a telecommunications facility located at 158 Edison Road, Trumbull, Connecticut. This application record is available for public inspection in the Council's office, Ten Franklin Square, New Britain, Connecticut.



DOCKET NO. 421 – T-Mobile Northeast LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 158 Edison Road, Trumbull, Connecticut.

Connecticut

Siting

Council

April 26, 2012

Findings of Fact

Introduction

- 1. T-Mobile Northeast LLC (T-Mobile), in accordance with the provisions of Connecticut General Statutes (CGS) §§ 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on August 3, 2011, for the construction, maintenance, and operation of a 150-foot wireless telecommunications facility located at 158 Edison Road in Trumbull, Connecticut (refer to Figure 1). (T-Mobile 1, pp. 1-2)
- 2. T-Mobile is a Delaware corporation with an office in Bloomfield, Connecticut. T-Mobile is licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless services system in Connecticut. (T-Mobile 1, p. 3)
- 3. The party in this proceeding is T-Mobile. The intervenor in the proceeding is Citizens Against Trumbull Tower (CATT). (Record)
- 4. Pursuant to CGS § 16-50m, the Council held a public hearing on December 6, 2011 in Trumbull, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Trumbull Town Hall, 5866 Main Street, Trumbull, Connecticut. The evidentiary hearing was continued on December 20, 2011 and February 7, 2012 at the office of the Connecticut Siting Council, 10 Franklin Square, New Britain, Connecticut. (Transcript 1 12/06/11, 3:00 p.m. [Tr. 1], Tr. 1, p. 3; Transcript 2 12/06/11, 7:00 p.m. [Tr. 2], p. 3; Transcript 3 12/20/11, 1:00 p.m. [Tr. 3], p. 3; Transcript 4 02/07/12, 1:00 p.m. [Tr. 4], p. 2)
- 5. The Council and its staff conducted an inspection of the proposed site on December 6, 2011, beginning at 2:00 p.m. To simulate the height of the proposed facility, T-Mobile flew balloons attached to the same line from 8:00 a.m. to 4:00 p.m. Due to the proximity of an existing tower and building, T-Mobile flew the balloons 43 feet from the proposed tower location. A blue and yellow balloon was tethered at 153 feet above ground level to represent the top of the tower and a red balloon was tethered at 174 feet to represent the top of proposed whip antennas. Winds were variable throughout the day, causing the balloons to lose up to 25 feet in elevation at times. (T-Mobile 8, Response [R]. 6)
- 6. Notice of the application was sent to all abutting property owners by certified mail. All notices were claimed, except for the owner of record at 12 Merwin Street, Trumbull. (T-Mobile 3, R. 1)
- 7. Pursuant to CGS § 16-50*l*(b), T-Mobile published public notice of its intent to submit this application in the Connecticut Post on July 16 and 18, 2011. (T-Mobile 1, Tab F)
- 8. T-Mobile installed a sign at the entrance to the property on November 21, 2011. The sign presented information regarding the proposed project and the Council's December 6, 2011 public hearing. (T-Mobile 5a, R. 15)

9. Pursuant to CGS § 16-50l(b), T-Mobile provided notice to all federal, state and local officials and agencies listed therein. (T-Mobile 1, Tab E)

State Agency Comment

- 10. Pursuant to CGS § 16-50j(h), on September 4, 2011 and March 15, 2012, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility: Department of Energy and Environmental Protection (DEEP), Department of Public Health, Council on Environmental Quality, Office of Policy and Management, Department of Economic and Community Development, the Department of Transportation (DOT), Department of Emergency Management and Homeland Security, and the Department of Agriculture. (Record)
- 11. The Council received a written comment from the DOT regarding procedures for leasing DOT land for telecommunications use. The letter did not indicate the availability of DOT property for such use in Trumbull. No other response from any other agency was received. (Record)

Municipal Consultation

- 12. T-Mobile sent a letter to the Town of Trumbull (Town) on February 9, 2009 regarding a proposal to install a new 130-foot lattice tower at the Police Department that would replace the existing 100-foot lattice tower. The new tower would accommodate T-Mobile antennas on a platform and Town communication antennas that would be re-located at their original mounting heights. (CATT Administrative Notice No. 2)
- 13. After the initial contact with the Town, T-Mobile and the Town's emergency communication consultant, Northeastern Communications Inc., developed a new 150-foot tower design that would accommodate T-Mobile and a Town emergency communication platform as a replacement for the current tower. This design was known by April 1, 2009. (T-Mobile 1, Tab B; T-Mobile 5f; Tr. 4, p. 101)
- 14. T-Mobile needed to obtain Town Planning and Zoning (P&Z) and Town Council approval to enter into a lease with the Town. The Planning and Zoning meeting, attended by T-Mobile and Northeast Communications Inc., was held on September 16, 2009. At the meeting, the proposed tower was described as being approximately 130 feet tall. After the presentation, the P&Z voted to approve the project as a municipal improvement. Minutes of the Town Council meeting held on October 5, 2009 are not in the record. (CATT Administrative Notice 1; Tr. 4, p. 104)
- 15. On October 30, 2009, T-Mobile executed a lease with former First Selectman Raymond Baldwin, on behalf of the Town, that specified a 150-foot monopole to accommodate T-Mobile and a Town regional dispatch platform. (T-Mobile 1, Tab B)
- 16. Pursuant to CGS § 16-50l(e), on December 23, 2009 T-Mobile formally commenced the municipal consultation process regarding this application by submitting a technical report to the Trumbull First Selectman Timothy Herbst. (T-Mobile 1, p. 20)
- 17. T-Mobile met with the First Selectman, Police Chief Thomas Kiely, and Town Attorney Douglas LoMonte on January 29, 2010 to discuss the proposed facility. (T-Mobile 1, p. 20)
- 18. Further meetings were conducted with the Police Chief and members of the Police union, including a site visit on February 24, 2010 to measure current radio frequency levels around the existing tower. (T-Mobile 1, p. 21)

- 19. Town and community meetings regarding other alternative sites were conducted on July 15, September 3, and December 3, 2010. (T-Mobile 1, p. 21)
- 20. Community meetings regarding the Town's need for a 150-foot tower to support future upgrades to the Town's emergency communication system were conducted on April 14, May 26, and June 30, 2011. The design of the facility was altered prior to submission of the application to the Council in an attempt to address comments expressed at these meetings. These changes included the use of slim line whip antennas instead of dipole antennas, reduction of the longest whip antenna so that the overall height of the facility would be 171 feet six inches rather than 173 feet, four inches, and the use of boom antenna mounts instead of a walk-around antenna platform. (T-Mobile 1, p. 23; T-Mobile 5a, R. 14)
- 21. Upgrading the existing Town emergency communication system to simulcast technology could occur within two to five years. The preliminary design consists of nine whip antennas, up to 21 feet in length, on top of the tower to service the simulcast system. (Tr. 1, pp. 27-30)
- 22. The Police Department serves as the emergency operations center for the Town and needs to have transmit capability from the tower in case phone lines are down. (T-Mobile 5f, R. 5; Tr. 1, pp. 36-37)
- 23. The Town's future preliminary backhaul design requires up to three dish antennas that need to be installed at the 147-foot level of the tower. The preliminary design indicates a lower tower height would not meet line-of-sight connectivity to an existing Town site on Monitor Hill in Trumbull, assuming a 100-foot tree canopy height between the proposed site and the Monitor Hill location. (T-Mobile 8, R. 2; Tr. 1, pp. 33-39; Tr. 4, pp. 98-99)
- 24. First Selectman Timothy Herbst submitted a letter to the Council on September 2, 2011 requesting that the Council consider any means to reduce the visual impact of the tower on the neighborhood while not unreasonably compromising T-Mobile's need for the tower and the future emergency communication needs of the Town. (Record)
- 25. The Trumbull Town Council Majority Leader, Chadwick Ciocci, and Minority Leader, Marybeth Thornton, submitted a letter to the Council on November 3, 2011 stating that although the Town Council voted to approve a tower proposal in 2009, the current proposal is not the one that was presented to the Town Council. They request that the Council, if approving the facility, reduce the height of the tower to lessen the visual impact on the neighborhood. (Record)

Public Need for Service

- 26. 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 No. 4)
- 27. 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 No. 4)

- 28. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers based on 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. 4)
- 29. 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. Congress further enacted the Enhanced 911 Act to facilitate emergency response capabilities. (Council Administrative Notice No. 5 & 6; T-Mobile 1, pp. 7-8)
- 30. Pursuant to the tower sharing policy of the State of Connecticut under C.G.S. §16-50aa, 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. (Conn. Gen. Stat. §16-50aa)

T-Mobile - Existing and Proposed Coverage

- 31. T-Mobile is licensed by the FCC to provide Personal Communication Service (1900 MHz) and Advanced Wireless Services (2100 MHz) in Fairfield County. (T-Mobile 5b, R. 5)
- 32. T-Mobile designs and operates its network at the following signal-level thresholds: in-vehicle service is -84 dBm and in-building service is -76 dBm. (T-Mobile 5b, R. 6)
- 33. T-Mobile seeks to provide sufficient coverage to the Route 15, Main Street, and Highgate Road areas. This area is a primarily developed with a mix of commercial and residential uses. (T-Mobile 5b, R. 7; Tr. 1, pp. 20-21)
- 34. T-Mobile currently experiences a dropped call rate of 2.2 percent for calls leading into the deficient coverage area. (T-Mobile 4, R. 13)
- 35. Existing T-Mobile facilities in Trumbull cannot provide adequate coverage to the proposed service area (refer to Figure 2). The nearest T-Mobile facility is a rooftop mount at 5065 Main Street (Westfield Trumbull Mall), approximately 0.5 mile southwest of the proposed site. (T-Mobile 1, Tab H, Tab I)
- 36. The proposed site would provide approximately 9.6 square miles of coverage at -84 dBm and 1.8 square miles of coverage at -76 dBm (refer to Figure 3). (T-Mobile 3, R. 12)
- 37. The minimum antenna height for T-Mobile to achieve coverage objectives is 130 feet above ground level. Gaps in coverage would occur as the antenna height is reduced, specifically north of the proposed site in the Route 127 and Route 25 area. (Tr. 1, pp. 21-22, 47; Tr. 3, pp. 129-130)
- 38. If a flush-mount antenna configuration were used, T-Mobile would require two mounting heights on the tower at 130 feet and 140 feet to meet coverage objectives, because only three antennas could be accommodated at each level. (Tr. 3, pp. 132-133; Tr. 4, pp. 51-52)

Site Selection

- 39. T-Mobile began its search for a site to serve its coverage needs in early 2008. (T-Mobile 5a, R. 6)
- 40. T-Mobile initially began searching for a site north of the proposed site in the area of Middlebrooks Avenue and within Island Brook Park but could not find suitable property that the Town supported or was available through a lease agreement. (T-Mobile 4, R. 16; Tr. 1, pp. 22-24)
- 41. The Town offered the 158 Edison Road property as an alternative to the municipal-owned properties in the original search area because it was already developed with a police station and an existing 100-foot lattice tower that supports Town emergency service communication equipment. (T-Mobile 1, Tab J; Tr. 1, pp. 22-25; Tr. 3, pp. 126-127)
- 42. The existing Police Department tower is approximately 30 years old, has limited structural capacity, and has reached the end of its designed life span. (T-Mobile 5f, R. 9; Tr. 1, pp. 86-88; Tr. 4, pp. 74)
- 43. Potential locations investigated and rejected by T-Mobile prior to submission of the application to the Council are as follows:
 - a. 5663 Main Street, commercial property Town opposed to tower in this location due to adjacent residential area.
 - b. 100 Middlebrooks Avenue, Baptist Church church steeple too short; a tower on the parcel would require heights of 140 to 160 feet.
 - c. 100 Quality Street, Stop and Shop plaza landowner not interested in lease.
 - d. 250 Middlebrooks Avenue, Town EMS building Town opposed to tower on parcel.
 - e. Town Hall area Town opposed to freestanding tower in this area.
 - f. 366 Church Hill Road, Town DPW site topography would require 250-foot tower.
 - g. 5866 Main Street, Town Hall cupola cupola too low to meet coverage objectives.
 - h. 5958 Main Street, church property too far north of coverage objective.
 - i. 5065 Main Street, raw land adjacent to Westfield Trumbull Mall landowner not interested in lease.
 - j. 965 Church Street, commercial building property too low in elevation, surrounded by land at higher elevations.
 - k. Island Brook Park, Town Park Town and community not receptive. (T-Mobile 1, Tab J; T-Mobile 3, R. 2)
- 44. Providing coverage via a distributed antenna system to provide coverage rather than with a macrosite, as proposed, would be problematic given the infrastructure and property easements required to install such a system. Additionally, the low-power nodes and omni-directional antennas would be a limiting factor in designing and optimizing a wireless network. (T-Mobile 4, R. 21)

Facility Description

- 45. The proposed facility would be located on a 2.3-acre parcel used as the Town's Police Station. (T-Mobile 1, p. 10, Tab C)
- 46. The Police Station property is accessed from Edison Road. Merwin Street is located directly along the western boundary. Residential lots abut the site to the south along Merwin Street, and to the east along Koger Road (refer to Figure 4). (T-Mobile 1, Tab C)
- 47. The property is zoned Residence A. (T-Mobile, Tab C)

- 48. The existing 100-foot lattice tower owned by the Town is located adjacent to the west side of the building, between the station and a paved parking lot. (T-Mobile 1, Tab C)
- 49. The existing tower serves as the primary dispatch center for all of the Town's emergency communication services. The tower serves as a receive site for the Police Department and a transmit site for the Fire department, Emergency Medical Service, as well as a backup transmit site for Public Works. (T-Mobile 5f, R. 5)
- 50. T-Mobile proposes to construct a 150-foot monopole at the proposed site. The proposed tower site is located approximately 20 feet south of the existing lattice tower (refer to Figure 4.) (T-Mobile 1, Tab C)
- 51. The proposed tower site is located at an elevation of 322 feet above mean sea level (amsl) at 41° 14° 3.67" north latitude and 73° 13' 7.54" west longitude. (T-Mobile 1, Tab C)
- 52. The tower would be designed to support four levels of cluster-mounted antennas, one of which would be used by T-Mobile, and Town emergency services whip and dish antennas at the top of the tower. A cluster mount is an eight-inch standoff with a mounting bar that would allow for two antennas per sector. Using a cluster-mount, up to six antennas can be mounted at each tower level. (T-Mobile 1, Tab C; Tr. 1, pp. 24-25)
- 53. No other telecommunication carriers have expressed interest in co-locating at the site. (T-Mobile 4, R. 15)
- 54. The tower would be constructed in accordance with the State Building Code that specifies the Telecommunications Industry Association/Electric Industries Association Standard 222F in regards to wind loading. (T-Mobile 1, Tab C; Tr. 1, pp. 95-99; Tr. 4, pp. 40-44)
- 55. The proposed tower and foundation would not be constructed to support a tower extension above 150 feet. (Tr. 1, pp. 62-63)
- 56. T-Mobile would install six cluster-mount antennas at the 140-foot level of the proposed 150-foot tower. (T-Mobile 1, Tab C)
- 57. Once the new tower is constructed, the Town would move its existing antennas from the existing lattice tower to the 150-foot level of the new tower. T-Mobile would then remove the lattice tower. (T-Mobile 1, Tab B; Tr. 1, pp. 28-29)
- 58. The proposed tower can accommodate future Town communication whip antennas on t-booms at the top of the tower. A t-boom consists of mounting bars that extend four feet horizontally from the face of the tower. Three t-booms can be accommodated at the top of the tower. Municipal whip antennas can also be mounted on the top horizontal surface of the tower. (Tr. 1, pp. 32-33)
- 59. The future Town whip antennas cannot be clustered together and need some separation at the top of the tower to reduce the probability of interference. (Tr. 1, pp. 49-50)
- 60. T-Mobile would install three equipment cabinets on a 200-square-foot concrete pad adjacent to the proposed tower base. The equipment would be located within a 490-square-foot lease area, enclosed by an eight-foot high chain link fence. Privacy slats would be installed on the fence to obscure the ground equipment from view. (T-Mobile 1, p. 18, Tab C)

- 61. T-Mobile's lease with the Town specifies ground space that can only accommodate T-Mobile. If another carrier sought to locate on the tower, it would have to negotiate a ground lease with the Town and a tower lease with T-Mobile. T-Mobile has lease rights that would allow another carrier to install equipment on framing above T-Mobile's ground equipment as long as there is no expansion of T-Mobile's ground lease area. (Tr. 1, pp. 42-43)
- 62. Utilities would be installed underground through the parking lot from a utility pole on Merwin Street. (T-Mobile 1, Tab C)
- 63. Emergency power would be provided by a battery system with a run time of 12 to 16 hours. (Tr. 1, p 76)
- 64. The nearest residential property line to the proposed tower is approximately 142 feet to the west at 65 Merwin Street. (T-Mobile 1, Tab C, Tab G)
- 65. The two nearest residences to the proposed tower are 65 Merwin Street, approximately 155 feet west of the proposed tower, and 35 Merwin Street, approximately 190 feet northwest of the proposed tower. (T-Mobile 1, Tab L)
- 66. There are approximately 136 residential structures within 1,000 feet of the proposed tower site. (T-Mobile 1, Tab L)
- 67. The estimated construction cost of the facility, not including the Town's equipment, is:

Radio equipment and antennas	\$72,000.
Site development/installation	70,000.
Tower and foundation	135,000.
<u>Utilities</u>	45,000.

Total estimated cost \$322,000.

(T-Mobile 1, p. 25; T-Mobile 3, R. 17)

Environmental Concerns

- 68. The site is not within any designated area indicating the presence of Federally threatened or endangered species or State endangered, threatened or special concern species. (T-Mobile 1, p. 14)
- 69. The proposed tower would comply with recommended guidelines of the United States Fish and Wildlife Service for minimizing potential impact to bird species. These guidelines recommend that towers be less than 199 feet tall, avoid the use of aviation lighting, and avoid guy-wires as tower supports. (Council Administrative Notice No. 13)
- 70. No wetlands or wildlife habitat would be affected. (T-Mobile 1, pp. 15-16, Tab C, Tab J)
- 71. The site is not located within a floodplain. (T-Mobile 1, Tab P)

- 72. The nearest historic resource to the proposed site is the Merritt Parkway, a property listed on the National Register of Historic Places. The parkway is approximately 0.1 miles south of the proposed site at its nearest point. The State Historic Preservation Office reviewed the proposal and determined that the proposed tower would have no effect on the Merritt Parkway due to limited visibility of the tower. (T-Mobile 1, Tab N)
- 73. The proposed tower would not require aircraft hazard obstruction marking or lighting. (T-Mobile 1, Tab R)
- 74. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of the proposed T-Mobile antennas is calculated to be 5.5% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the tower. This value is based on the worst case parameters including all antennas are operating at full capacity, all antennas channels are transmitting simultaneously, and radio transmitters are operating at full power. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997). 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. The calculation does not include any proposed antennas operated by the Town as specific equipment and mounting heights are not known. Power density calculations would be conducted once exact equipment needs are known. (T-Mobile 1, Tab O)

Visibility

- 75. The proposed tower would be visible year-round from approximately 46 acres, mostly within 0.3 miles of the site. An additional 42 acres, mostly within a quarter mile of the site, would have "leaf-off" (seasonal) views of the proposed tower (refer to Figure 5). (T-Mobile 1, Tab M)
- 76. Approximately 45 residential properties within 0.3 miles of the site would have year-round views of the proposed tower. (T-Mobile 1, Tab M)
- 77. Approximately 26 residential properties within 0.4 to 0.9 miles would have year-round views of the proposed tower. (T-Mobile 1, Tab M)
- 78. An additional 48 residential properties between 0.1 to 0.9 miles of the site would have seasonal views of the proposed tower. (T-Mobile 1, Tab M)
- 79. The tower would not be visible from any known hiking trails maintained by the DEEP or the Connecticut Forest and Parks Association. (Council Administrative Notice 38)
- 80. Approximately 75 feet of the tower would be visible from the Route 111 overpass and associated ramp areas of the Merritt Parkway (refer to Figure 7) approximately 0.2 mile south of the site. The parkway is a designated National Scenic Byway. (T-Mobile 1, Tab M, Tab P, NEPA, p. 6; Council Administrative Notice 39; Tr. 1, pp. 90-91)

81. Visibility of the proposed 150-foot tower, including proposed Town whip antennas (one of which is

21 feet tall), from specific locations within a one-mile radius of the site is as follows:

Specific location	Portion of Existing Tower Visible	Approximate portion of proposed tower and whip antennas visible	Approx. distance to tower	
Pine Street adjacent to # 44	None	60 feet above trees	0.8 mile west	
Hickory Street at Turner Avenue	None	60 feet above trees	0.9 mile west	
Frost Hill Road at Spruce Street	None	60 feet above trees	0.9 mile west	
Turner Street at Beech Street *	None	55 feet above trees	0.8 mile west	
Maple Street at Turner Avenue	None	50 feet above trees	0.8 mile west	
Plattsville Road adjacent to #866	None	45 feet above trees	0.7 mile west	
Chatfield Road adjacent to #8	None	45 feet above trees	0.6 mile west	
Madison Avenue adjacent to #4244	None	30 feet above trees	0.6 mile west	
West Wind Road adjacent to #9	None	60 feet through branches	1.0 mile southwest	
Trumbull Mall west parking lot	None	35 feet above trees	0.7 mile southwest	
Bonnie View Drive	None	25 feet through trees	0.4 mile southeast	
Parkway Drive adjacent to #29	None	25 feet above trees 50 feet through trees	0.2 mile west	
Killian Avenue at Main Street	None	40 feet above trees 50 feet through trees	0.1 mile northwest	
Edison Road adjacent to #220 *	50 feet through trees	105 feet above and through one tree	0.2 mile northeast	
Highgate Road adjacent to #32	None	45 feet through one branch	0.2 mile northeast	
Elaine Street adjacent to #35	None	45 feet above trees	0.3 mile northeast	
Woodbridge Circle adjacent to #31	None	45 feet through trees	0.3 mile northeast	
Edison Road adjacent to #301	None	40 feet above trees	0.3 mile northeast	
Island Brook Park	None	25 feet through trees	0.4 mile north	
Wilmont Avenue at Main Street	None	60 feet above trees	0.5 mile north	
Roseland Terrace at Main Street	None	45 feet above trees 25 feet through trees	0.3 mile north	
Koger Road adjacent to #35 *	20 feet through trees	25 feet above trees 40 feet through trees	0.1 mile southeast	
Merwin Street adjacent to #20 *	None	70 feet above house	>0.1 mile southwest	
Main Street at Merritt Parkway *	None	95 feet above trees	0.2 mile southwest	
Main Street adjacent to #5167 *	15 feet through branches	65 feet above house	0.1 mile southwest	
Main Street adjacent to #5196	None	100 feet above house	0.1 mile west	
Koger Road adjacent to #17	None	25 feet above tree 70 feet through tree	>0.1 mile southeast	
Williams Road	None	80 feet through trees	0.2 mile southeast	

^{*}Refer to Figures 6 - 12, photo-simulations of proposed tower. Photo-simulations do not show the 21-foot whip antenna or a potential antenna co-location at 110-feet. (T-Mobile 1, Tab M)

- 82. The tower and T-Mobile antennas would be painted sky blue. This finish would be most effective on non-cloudy days. (T-Mobile 1, p. 23; Tr. 1, p. 39)
- 83. Using a more traditional mounting configuration for T-Mobile's antennas, such as t-arms or platforms, would increase the near-view visual profile of the tower. (Tr. 1, pp. 45-46)

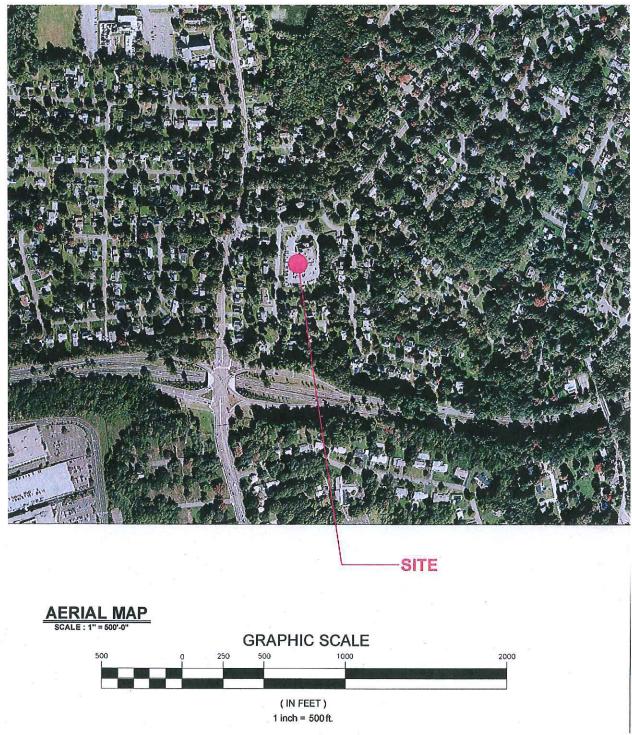


Figure 1: Location of proposed site at 158 Edison Road, Trumbull. (T-Mobile 1)

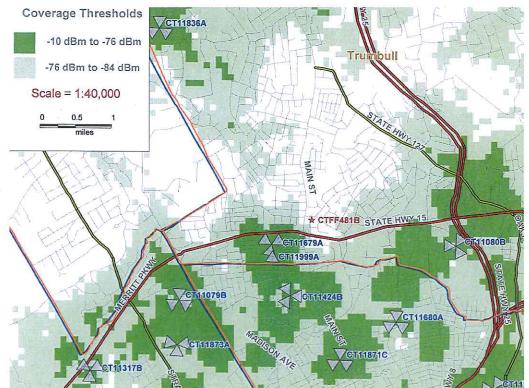


Figure 2: Existing T-Mobile service. Proposed Site is CTF481B (red). (T-Mobile 1, Tab H)

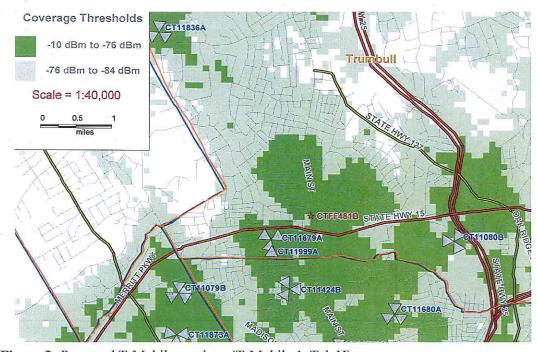


Figure 3: Proposed T-Mobile service. (T-Mobile 1, Tab H)

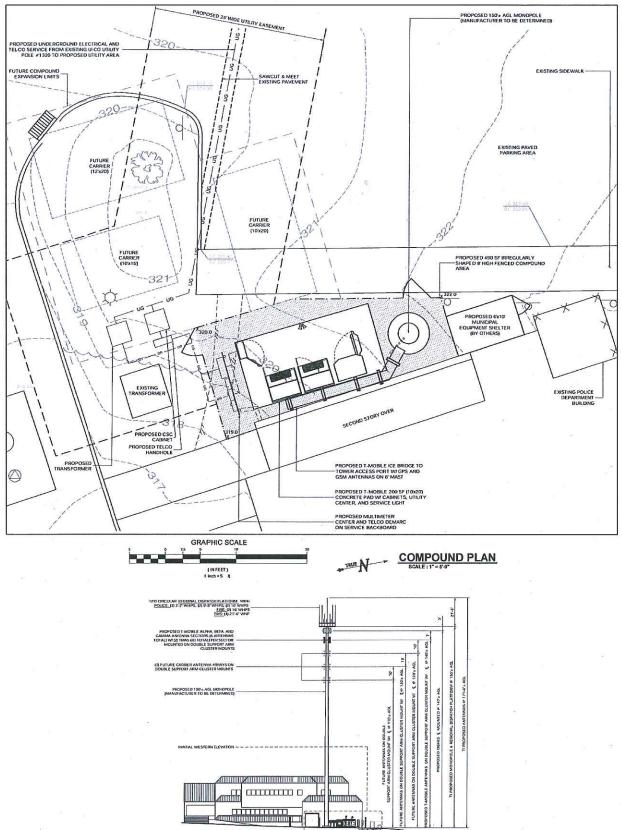


Figure 4: Site plans of proposed facility. (T-Mobile 1, Tab C)

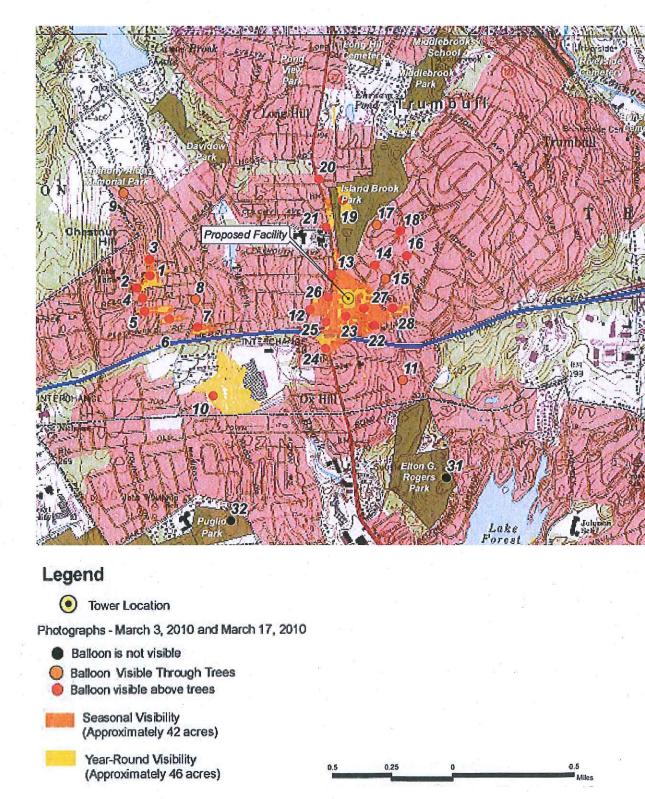


Figure 5: Projected visibility of proposed site. (T-Mobile 1, Tab M)

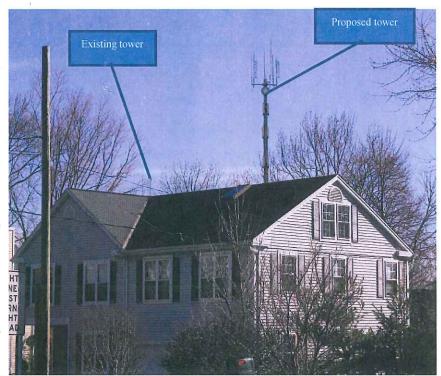


Figure 6: Photo-simulation of proposed tower and location of existing tower at #5167 Main Street - map location 25.



Figure 7: Photo-simulation of proposed tower from Main Street at Merritt Parkway - map location 24.

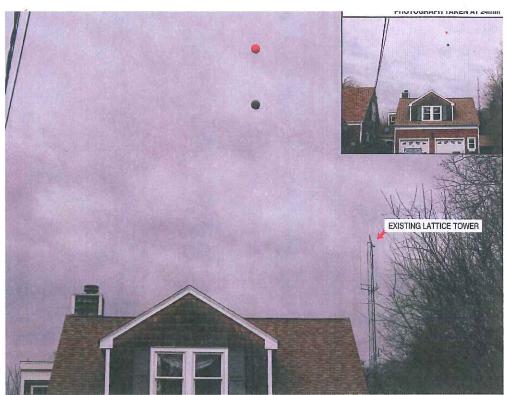


Figure 8A: Balloon float of proposed tower and location of existing tower at 20 Merwin Street. (black is tower height, red is whip antenna height) Map location 23.



Figure 8B: Photo-simulation of proposed tower at #20 Merwin Street (T-Mobile 1, Tab M)

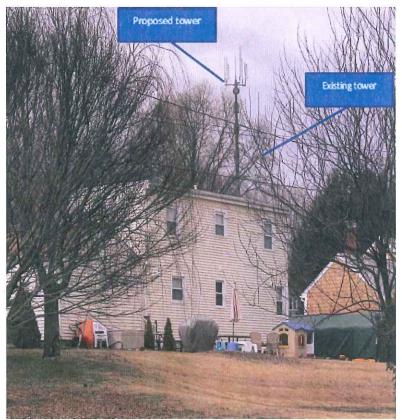


Figure 9: Photo- simulation of proposed tower and location of existing tower at #35 Koger Road – map location 22.



Figure 10: Photo-simulation of proposed tower at Killian Ave/Main Street intersection. Existing tower not discernable. Map location 13.



Figure 11: Photo-simulation of proposed tower and location of existing tower near #220 Edison Road – map location 14.



Figure 12: Photo-simulation of proposed tower at Turner Street/Beech Street intersection – map location 4.

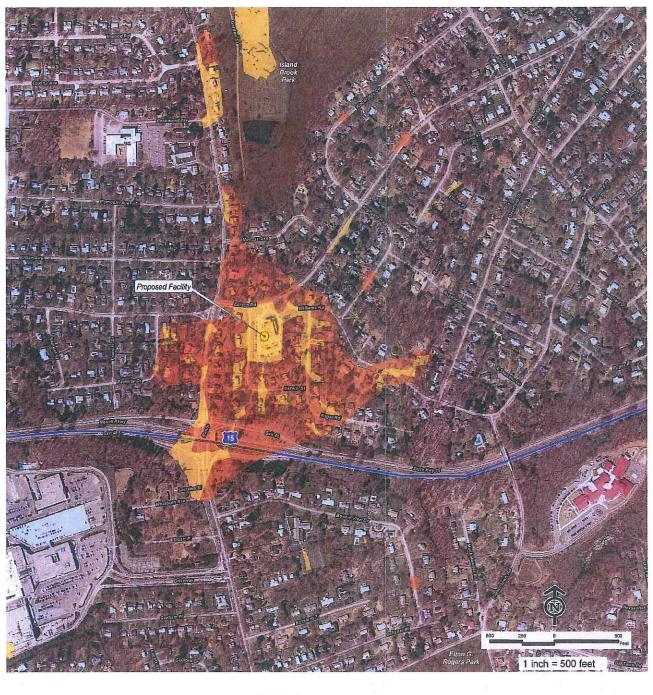




Figure 13: Projected visibility of tower in site area neighborhood. (T-Mobile 3)

DOCKET NO. 421 – T-Mobile Northeast LLC application for	Connecticut	
a Certificate of Environmental Compatibility and Public Need		
for the construction, maintenance and operation of a	}	Siting
telecommunications facility located at 158 Edison Road,		
Trumbull, Connecticut.	}	Council
a		
		April 26, 2012

Opinion

On August 3, 2011, T-Mobile Northeast, LLC (T-Mobile) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility located at the Trumbull Police Department at 158 Edison Road in Trumbull, Connecticut. The proposed facility would provide T-Mobile with wireless service primarily to areas north of the Merritt Parkway.

T-Mobile proposes to construct a 150-foot tall monopole adjacent to the west side of the Police Department building. The proposed tower would replace an existing 100-foot tall lattice tower that supports Town communication services. The existing tower is approximately 30 years old and has limited structural capacity. Once the new tower is constructed, the old lattice tower would be removed from the site and current Town antennas transferred to the top of the new tower.

T-Mobile proposes to install six panel antennas in a cluster-mount configuration at the 140-foot level of the tower. The Town would locate its existing antennas at the 150-foot level of the tower. Ground equipment would be located in a 490-square foot fenced lease area adjacent to the tower base.

T-Mobile proposes to operate 1900 MHz (personal communication service) and 2100 MHz (Advanced Wireless Service) equipment at the site. T-Mobile currently has non-reliable service to the area and the proposed site would provide reliable coverage to the Route 15, Main Street, and Highgate Road areas. During the proceeding, T-Mobile demonstrated a need for coverage in the proposed service area that can be met with antennas located at 130 feet above ground level at the site.

Although T-Mobile has demonstrated that its proposed coverage objectives can be met at 130 feet, a 150-foot tower is proposed to accommodate a future upgrade of the Town's emergency communication system to a simulcast system. The Town's preliminary design, which has no current funding, includes nine whip antennas on t-boom mounts at the 150-foot level, and up to three dish antennas at the 147-foot level of the tower.

T-Mobile investigated numerous alternatives to the proposed site. The proposed coverage area is located mostly in a residential area. The few commercial and municipal properties in the search area were not available for lease. The Town directed T-Mobile to the Police Department site because there was already a tower on the property, the property was developed with a police station and the Town intends to upgrade its existing communication service by using the Police Department as its main dispatch location.

Based on the lack of suitable locations for a new tower, the developed nature of the site property, and the coverage needs of T-Mobile, the Council finds the Police Department site suitable for a tower. However, the Council finds there is no current Town or T-Mobile need for a 150-foot tower. The Council notes that the Town's proposed upgrade of its communication network to a simulcast system is in a preliminary study phase and is contingent on funding sources that are not yet available. The preliminary backhaul design requires 147 feet in order to provide line-of-sight connectivity to another existing tower site on Monitor Hill that is used by the Town. The Monitor Hill tower, even if used in the Town's future

Docket No. 421 Opinion Page 2

communication system, may also need replacement and it is possible that such a replacement could include a higher tower, thus requiring less height at the proposed Police Department site.

The Council finds a need for a 130-foot tower at the site. This height would meet T-Mobile's minimum coverage need, provide co-location opportunities for other telecommunication carriers, and allow the Town to relocate current Town services that are operating from the existing tower to a higher elevation, thus improving coverage and operation of these systems. In order not to impede any future upgrades to the Town's emergency communication system, the Council will require that the facility be capable of supporting an extension. Any future extension of this tower would be subject to future Council approval.

The proposal to remove and replace an existing tower is consistent with the State's tower sharing policy under the provisions of Connecticut General Statute §16-50aa. No proliferation of towers is expected by the shared use of the new facility. Furthermore, the proposed tower is consistent with the provisions of the Connecticut Environmental Protection Act, as it will not have the effect of polluting, impairing, or destroying the public trust in the air, water or other natural resources of the state.

The proposed tower is surrounded by a residential area with approximately 136 residential structures within 1,000 feet. The nearest residence is 155 feet west of the tower. The proposed 150-foot tower would be visible year-round from approximately 45 residences within 0.3 miles of the site. To reduce the visual profile of the tower from the surrounding area, the Council will order panel antennas to be installed in a cluster-mount configuration rather than a traditional wide-profile platform. The Council finds that the visibility of the site is of concern along the streets immediately adjacent to the Police Department and thus urges the Town, when upgrading its emergency communication system, to seek alternatives to increasing the height of this tower beyond 130 feet.

The site is not within any known habitat of federally threatened or endangered species or State endangered, threatened or special concern species. Development of the site would not adversely affect any wetlands or watercourses or any archaeological or historic resources.

According to a methodology prescribed by the Federal Communication Commission (FCC) Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of T-Mobile's antennas proposed to be installed on the tower have been calculated to amount to 5.5% of the FCC's Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal and state standards established for the frequencies used by wireless companies. The Council will require that the power density be recalculated to reflect the lower tower height and to include all of the Town's communication antennas installed on the tower. Also, if federal or state standards change, the Council will require that the tower be brought into compliance with such standards. 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.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, operation, and maintenance of the telecommunications facility at the proposed site, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, operation, and maintenance of a 130-foot monopole telecommunications facility at the proposed site.

DOCKET NO. 421	– T-Mob	ile North	east	LLC	application	on for a	}	Connecticut
Certificate of Enviro								Citina
	construction, maintenance and							Siting
telecommunications	facility	located	at	158	Edison	Road,		Council
Trumbull, Connecticu	ıt.						}	Council
			12					April 26, 2012

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, maintenance, and operation of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to T-Mobile Northeast LLC, hereinafter referred to as the Certificate Holder, for a telecommunications facility at 158 Edison Road in Trumbull, Connecticut.

Unless otherwise approved by the Council, the facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

- 1. The tower shall be constructed as a monopole, sufficient to accommodate the antennas of T-Mobile and other entities, both public and private, but such tower shall not exceed a height of 130 feet above ground level.
- 2. The Certificate Holder shall install a tower foundation and tower that is capable of supporting an extension. Any extension of the tower must be approved by the Council.
- 3. Panel antennas shall be mounted cluster-mount configuration or as otherwise determined by the Council.
- 4. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Trumbull for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
 - b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the <u>2002 Connecticut Guidelines for Soil Erosion and Sediment Control</u>, as amended.

- 5. Prior to the commencement of operation, the Certificate Holder shall provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
- 6. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
- 7. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
- 8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed with at least one fully operational wireless telecommunications carrier providing wireless service within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.
- 9. Any request for extension of the time period referred to in Condition 8 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Trumbull. Any proposed modifications to this Decision and Order shall likewise be so served.
- 10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
- 11. Any nonfunctioning antenna, and associated antenna mounting equipment, on this facility shall be removed within 60 days of the date the antenna ceased to function.
- 12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction, and the commencement of site operation.
- 13. The Certificate Holder shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v.

- 14. This Certificate may be transferred in accordance with Conn. Gen. Stat. §16-50k(b), provided both the Certificate Holder/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. In addition, both the Certificate Holder/transferor and the transferee shall provide the Council a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.
- 15. The Certificate Holder shall maintain the facility and associated equipment, including but not limited to, the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line and landscaping in a reasonable physical and operational condition that is consistent with this Decision and Order and a Development and Management Plan to be approved by the Council.
- 16. If the Certificate Holder is a wholly-owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the Certificate Holder within 30 days of the sale and/or transfer.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the <u>Connecticut Post</u>.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant

T-Mobile Northeast, LLC

Its Representative

Julie D. Kohler, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604

Intervenor

Citizens Against Trumbull Tower

Its Representative

Keith R. Ainsworth, Esq Evans Feldman & Ainsworth, L.L.C. P.O. Box 1694 New Haven, CT 06507-1694

CERTIFICATION

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 421** – T-Mobile Northeast LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 158 Edison Road, Trumbull, Connecticut, and voted as follows to approve the proposed facility:

	Council Members	Vote Cast
	Robert Stein, Chairman	Yes
	A 1 - /	
	Col C. Test	Yes
	Colin C. Tait, Vice Chairman	
	<u> </u>	Yes
	Commissioner Kevin M. DelGobbo	
	Designee: Larry P. Levesque	
	Bri Holenbursh	Yes
	Commissioner Dan Esty Designee: Brian Golembiewski	
100 may 1 3 m		
The real section is not seen	Philip T. Ashton	Yes
\	Daniel P. Lynch, Jr.	Yes
1	James J. Murphy, Jr.	Yes
	Barbara Currier Bell Dr. Barbara Currier Bell	Yes
	Edward S. Wilensky Edward S. Wilensky	Yes

Dated at New Britain, Connecticut, April 26, 2012.