### STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

RE: APPLICATION BY T-MOBILE

DOCKET NO. 399

NORTHEAST LLC FOR A

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

FOR A TELECOMMUNICATIONS FACILITY AT 166 PAWCATUCK AVENUE THE TOWN

OF STONINGTON, CONNECTICUT

Date: March 18, 2010

## INTERROGATORY RESPONSES TO CONNECTICUT SITING COUNCIL FROM APPLICANT T-MOBILE NORTHEAST LLC

The Applicant, T-Mobile Northeast LLC ("T-Mobile"), submits the following responses to the first set of Pre-Hearing Interrogatories propounded by the Connecticut Siting Council in connection with the above-captioned Application.

- How many of the return receipts for the notices sent to abutting landowners did T-Mobile receive? If some return receipts were not received, did T-Mobile make other attempts to notify the landowners? If yes, explain.
- A1 T-Mobile issued notice to the abutting property owners on two occasions: November 17, 2009 and January 20, 2010. See Exhibit G of the Application. T-Mobile received all of the return receipts for the abutting landowners listed in the Application on both of those occasions. Additionally, T-Mobile caused notice of its Application to be published twice in the New London Day on two occasions (November 19 and 21, 2009, as well as January 22 and 24, 2010). See Exhibit F of the Application.
- 2. Who owns the property at 138 Pawcatuck Avenue?
- A2 The record owner of real property commonly known as 138 Pawcatuck Avenue is Hannah H. Siener of 44 Golden Road, Mystic, Connecticut.
- 3. When did this site search begin? Where was the site search centered? What was the extent of the search ring? Provide a map, with scale and compass, of search ring.
- A3 T-Mobile initiated its site search on or about August 15, 2008. This site search was centered in the vicinity of Pawcatuck Avenue and Hawley Street in Stonington. The search area radius was approximately one-half mile. Please see the search area map appended hereto as Attachment A.

- 4. Does T-Mobile have statistics on the percentage of dropped calls that occur in the area that would be covered by the proposed facility. If so, what is the percentage of dropped calls indicated by these statistics?
- A4 T-Mobile monitors network statistics including dropped calls on its current on-air sites. For the sectors that cover areas leading into the coverage objective of the proposed telecommunications facility to be located at 166 Pawcatuck Avenue ("Facility"), the dropped call percentages range from 1.6 percent up to 6.3 percent, with an overall dropped call percentage of 3.75 percent across all sectors sampled. This is higher than the targeted 2 percent dropped call percentage that T-Mobile utilizes in providing reliable coverage to its customers. Thus, additional coverage is required to address network performance in this area of Stonington.
- 5. What are T-Mobile's licensed operating frequencies in the area to be served from this site?
- A5 T-Mobile's licensed operating frequencies in the New London BTA for its GSM and UMTS technologies include:

#### GSM

upper 2/3 A 536 to 588

TX: 1935.000 MHz to 1945.000 MHz RX: 1855.000 MHz to 1865.000 MHz

#### 776 to 781 (C Band)

TX: 1983.000 MHz to 1984.000 MHz RX: 1903.000 MHz to 1904.000 MHz

#### <u>UMTS</u>

TX: 2140.000 MHz to 2145.000 MHz RX: 1740.000 MHz to 1745.000 MHz

- 6. Would T-Mobile's antennas cause interference problems for the 900 MHz radio system in use at the sanitary sewer pumping station located across the street from the Main property on Pawcatuck Avenue? Explain why or why not.
- T-Mobile's antennas and frequencies would not cause interference for the existing 900 MHz in use at the sanitary sewer pumping station located across the street from the site of the proposed Facility. T-Mobile's transmit and receive frequencies are spectrally located approximately 1 Gigahertz (GHz) away. This is a very large separation for frequency spacing. T-

Mobile's transmission and receiving equipment is designed to function at T-mobile's operating frequency range and has in place filters that dramatically reduce, or attenuate, any emissions that may reside outside T-Mobile's operating frequency bands.

- 7. What are T-Mobile's design signal strengths for in-vehicle and in-building coverage?
- A7 T-Mobile's minimum design signal strength for In-Vehicle coverage is -84 dBm. T-Mobile's minimum design signal strength for In-Building coverage is -76 dBm.
- 8. What are T-Mobile's existing signal strengths in the area that would be covered from this site?
- A8 T-mobile's existing signal strength in the area that would be covered by the proposed Facility ranges from -76 dBm to below -100 dBm.
- 9. What are the lengths of any existing coverage gaps on the Amtrak rail line? On Pawcatuck Avenue? On River Road? And on Greenhaven Road?
- A9 (a) The length of the coverage gap along the Amtrak rail line in the proposed coverage area is approximately 1.78 miles.
  - (b) The length of the coverage gap along Pawcatuck Avenue in the proposed coverage area is approximately 0.76 miles.
  - (c) The length of the coverage gap along River Road in the proposed coverage area is approximately 0.8 miles.
  - (d) The length of the coverage gap along Greenhaven Road in the proposed coverage area is approximately 1.1 miles.
- 10. What are the respective distances T-Mobile would cover from the proposed facility on the Amtrak rail line and the roads identified above?
- A10 The proposed Facility would provide coverage for the following distances:
  - (a) Approximately 1.98 miles along the Amtrak rail line.
  - (b) Approximately 0.98 miles along Pawcatuck Avenue.
  - (c) Approximately 0.86 miles along River Road.
  - (d) Approximately 1.46 miles along Greenhaven Road.

- 11. What would be the total area T-Mobile could cover from the proposed facility?
- A11 The total area of coverage from the proposed Facility would be approximately 5.38 square miles.
- 12. Identify existing sites with which the proposed site would hand off signals. Include address, type and height of tower, height of T-Mobile antennas, and distance and direction from proposed site.

A12

Site ID	Site Name	Address	Town	Facility Type	Structure height	Antenna Height	Distance to Proposed Facility
CT11310A	SBA Stonington	811 Stonington Road	Stonington	Flagpole	150 feet	134 feet	1.74 miles
CITISTUA			Stormigton		100 1661	104 1661	1.74 111163
CT11442A	Stonington Rte 1	173 South Broad Street	Stonington	Self Support Tower	180 feet	140 feet	0.73 miles
CT11307C	Mechanic Street Flagpole	82 Mechanic Street	Pawcatuck	Flagpole	150 feet	147 feet	1.38 miles
4FR8607E	Hauser Chocolates	59 Tom Harvey Road	Westerly	Monopole	150 feet	147 feet	2.92 miles

- 13. What is the lowest height at which T-Mobile could achieve its coverage objectives at the proposed site?
- A13 T-Mobile's signal strength begins to deteriorate once the height to the centerline of the antennas decreases below 117 feet above grade level. T-Mobile can best achieve its coverage goals with a telecommunications facility at the height proposed in the Application.
- 14. To what engineering standard would the tower be built? What would be the dimensions of the tower (diameter of tower at base; diameter of tower at top)?
- A14 The proposed Facility would be designed in accordance with the 2005 Connecticut State Building Code and the Electronic Industries Association Standard EIA/TIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures" for New London County. To develop a "yield point," the proposed Facility would be over-designed to withstand pressures equivalent to wind at a maximum of 120 miles per hour (three second gust). The foundation design would be based on soil conditions at the site.

**Tower Dimensions:** 

Base = 36" – 42" outer diameter

Top = 21" - 26" outer diameter

- 15. How many carriers would the tower be designed to accommodate?
- A15 The proposed Facility would be able to accommodate T-Mobile and three additional wireless providers in the Connecticut market.
- 16. How much cut and fill would be required to develop the proposed site?
- A16 Cut (access drive and compound) = 80 cubic yards
  Cut (utility trench) = 95 cubic yards
  Fill = 90 cubic yards
  Crushed Stone = 90 cubic yards
- 17. Would any blasting be required to develop the site?
- A17 T-Mobile does not anticipate blasting for the construction of the proposed Facility.
- 18. What would the distance of the utility run?
- A18 The distance of the proposed utility run would be approximately 425 feet.
- 19. What would be the length of the gravel drive installed from the existing driveway to the compound?
- A19 The length of the proposed gravel drive from the existing driveway to the proposed compound area would be approximately 160 feet.
- 20. What would T-Mobile use for backup power at the proposed facility?
- A20 T-Mobile would utilize battery back up power for the proposed Facility.
- 21. What is the estimated cost of T-Mobile-s antennas and related ground equipment that would be installed at this site?
- A21 The estimated cost of T-Mobile's antennas and related ground equipment for the proposed Facility would be between \$55,000 and \$65,000.
- 22. Did SHPO issue any amendments or modifications to its finding of <u>no effect</u> after receiving the *Phase 1A Literature Review and Archaeological Sensitivity Assessment?* If so, provide copies of the correspondence.
- A22 No. SHPO did not issue any amendments or modifications to its finding of "no effect" after receiving the Phase 1A Literature Review and Archaeological Sensitivity Assessment.

#### Respectfully submitted,

#### T-MOBILE NORTHEAST LLC

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#### **CERTIFICATE OF SERVICE**

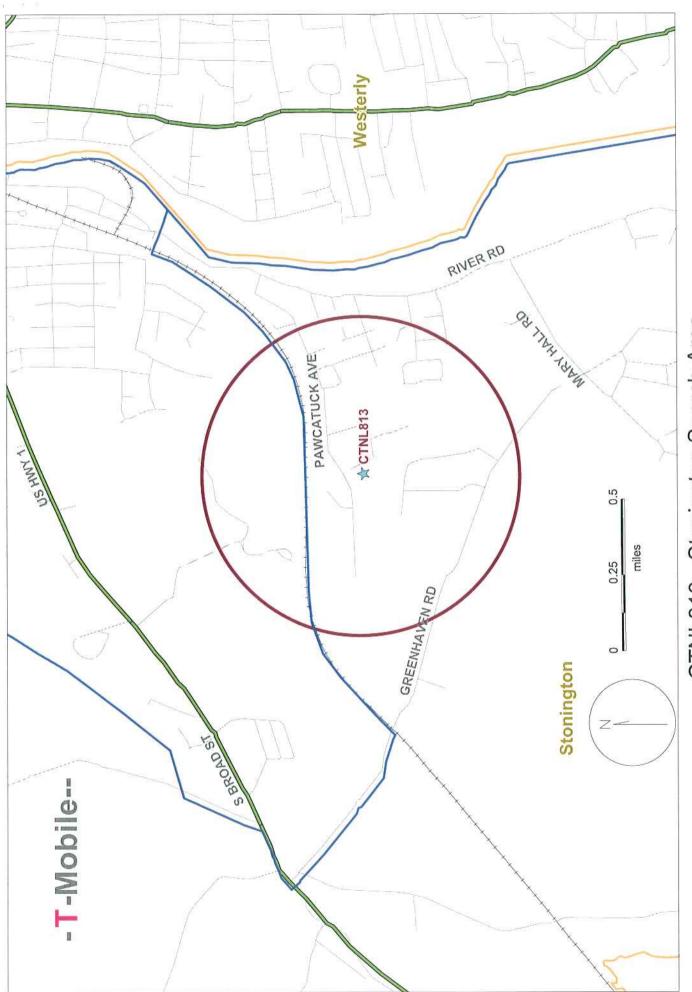
I hereby certify that on this day a copy of the foregoing was delivered by Electronic Mail and First Class U.S. Mail, postage prepaid, to all parties and interveners of record, as follows:

Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597

(Via Email: kbaldwin@rc.com)

Jesse A. Langer

# **ATTACHMENT A**



CTNL813 - Stonington Search Area