STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION OF HOMELAND TOWERS, LLC (HOMELAND TOWERS) AND NEW CINGULAR WIRELESS PCS, LLC (AT&T) FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS TOWER FACILITY IN WASHINGTON, CONNECTICUT

DOCKET NO. 441

November 12, 2013

HOMELAND TOWERS, LLC and NEW CINGULAR WIRELESS, PCS LLC (AT&T)
RESPONSES TO SITING COUNCIL PRE-HEARING QUESTIONS SET I

Q1. Of the letters sent to abutting property owners, how many certified mail receipts did AT&T receive? If any receipts were not returned, which owners did not receive their notice? Did AT&T make additional attempts to contact those property owners?

A1. Return receipts were received for all but one abutting property owner, The State of Connecticut. AT&T sent additional notices to this abutting property address via first class mail as well as to the State of Connecticut Office of Personnel and Management.

Q2. Would any blasting be required for either site?

A2. Ledge is prominent in the area and mechanical removal for trenching and foundation is likely. In the unlikely event mechanical removal methods prove unsuccessful, blasting would be utilized as required to remove the ledge.

Q3. What are the frequencies AT&T is licensed to use in the area covered from the proposed facility?

A3. AT&T's licensed frequencies for Litchfield County include:

Cellular
KNKN589 B-Band
PCS
WPSL626 A3 Block
700 MHz
WPWV376 Lower C
WQIZ617 Lower E
WQJU671 Lower B

Q4. Identify the adjacent sites with which the proposed facility would hand off signals. Include addresses of these sites.

A4. The information provided in Table 4 of AT&T's Radio frequency Engineering Report included as Application Attachment 1 identifies the four adjacent sites to the proposed site and that table is reproduced here:

Site ID	Longitude	Latitude	Address	Town	State	Structure Type	Antenna Centerline (ft)
CTV1059	-73.367449	41.631917	399 CHESTNUT LAND ROAD	NEW MILFORD	CT	MONOPOLE	130
CTV2001	-73.437474	41.599403	33 BOARDMAN ROAD	NEW MILFORD	CT	STEALTH STRUCTURE	120
CTV2550	-73.365289	41.6691	6 MOUNTAIN ROAD	WASHINGTON	CT	MONOPOLE	167
CTV2155	-73.408582	41.590853	4 ELKINGTON FARM ROAD	NEW MILFORD	CT	MONOPOLE	154

Figure 1: S2417 Surrounding Sites

It is anticipated that Sites CTV2550 and CTV1059 will be hand off sites. While there will be instances of voice or data connections being handed off between the proposed site the most distant sites, CTV2001 and CTV2155, such hand off will be weak or nonexistent. Indeed, in an area such as Washington where network build out is still in its nascent stages, the site will have weak or nonexistent handoff candidates to the north,

east and south, but does work well in providing coverage to a municipal center and handing off to nearby sites existing today.

Q5. What is the signal strength for which AT&T designs its system? For in-vehicle coverage? For in-building coverage? Does this signal strength differ according to the different frequencies AT&T is licensed to use?

A5. As shown on the plots provided in the Application and here as Attachment 1, -74 dBm is AT&T's design criteria for in-building service and -82 dBm is AT&T's design criteria for in-car service. For more information regarding frequencies, please see A6 below.

Q6. What is the existing signal strength in those areas AT&T is seeking to cover from this facility? At what frequencies?

A6. The existing signal strength in the areas to be covered by this site varies from the noise floor to areas that are below standard for AT&T service. Per the answer to #5, above, and as shown on the plots, -74 is AT&T's acceptable standard for in-building service and -82 is AT&T's acceptable standard for in-car service. Any area below those thresholds does not meet the levels of service which AT&T seeks to provide for reliable service to their customers. This analysis is done at 850 MHz, which is one of two bands providing UMTS service (along with 1900 MHz) to AT&T customers. A 1900 MHz plot would demonstrate even weaker coverage in this area of the State at those frequencies.

Q7. Does AT&T have any statistics on dropped calls or other indicators of substandard service in the vicinity of the proposed facility? If so, what do they indicate?

A7. Yes. AT&T's dropped call data on neighboring sites and the sectors that face directly into the area where reliable service is needed indicate elevated voice and data drops. The data show that AT&T's network performance standards are not being met in the area where reliable service is needed. Additionally,

there are some areas where calls or data sessions could not be initiated, so a drop could not be recorded if no call or session could be started. Included in Attachment 1 is a map of AT&T's drive data which also confirms that reliable service is not available in this area of Washington.

Q8. What are lengths of the respective coverage gaps on the roads that would be covered from the proposed site? What are the distances that would be covered along these roads from the proposed site?

Green Hill Road
Calhoun Street
Bee Brook Road
Blackville Road
Church Hill Road
Foulois Road
River Road
Cook Street
Sabbaday Lane

A8. The gaps and lengths of coverage on the noted roadways is as follows:

	Existing coverage	New coverage
Green Hill Road	none	0.25 miles
Calhoun Street	0.2 miles	2.4 miles
Bee Brook Road	none	1.9 miles
Blackville Road	none	1.6 miles
Church Hill Road	0.6 miles	1.8 miles
Foulois Road	none	0.2 miles
River Road	none	1.1 miles
Cook Street	none	0.4 miles
Sabbaday Lane	none	0.5 miles

Figure 2: Road Coverage

Q9. Do the areas on the coverage maps included with the application depict a particular frequency licensed by AT&T?

A9. Yes, as in A6, above, these plots were generated using AT&T's propagation tool, and the prediction was generated at 850 MHz.

Q10. What is the lowest feasible height at which AT&T's antennas could fulfill the coverage objectives from the proposed facility? What problems would result if AT&T were to install antennas at a lower height? Submit a propagation map showing the coverage at ten feet below this height.

A10. The lowest height acceptable to AT&T would be 126' AGL. If AT&T were to install antennas at lower heights, some areas of substandard service in the target area would begin to appear where customers would experience dropped calls or data sessions, increased latency, lower transmission speeds or unintelligible communication. For AT&T, a lower overall tower height would impact future tower siting locations and heights of future towers, particularly in areas moving out of Washington Depot to the north, east and south. Please see Attachment 1. Moreover, a tower of lesser height above the tree line would negatively impact the ability for other carriers to collocate on the tower. Indeed, as revealed during the course of the municipal consultation, other carriers have expressed interest in serving the area and consultations with the town identified the Town's garage site as the only viable alternative in the area. See, Application Attachment 7.

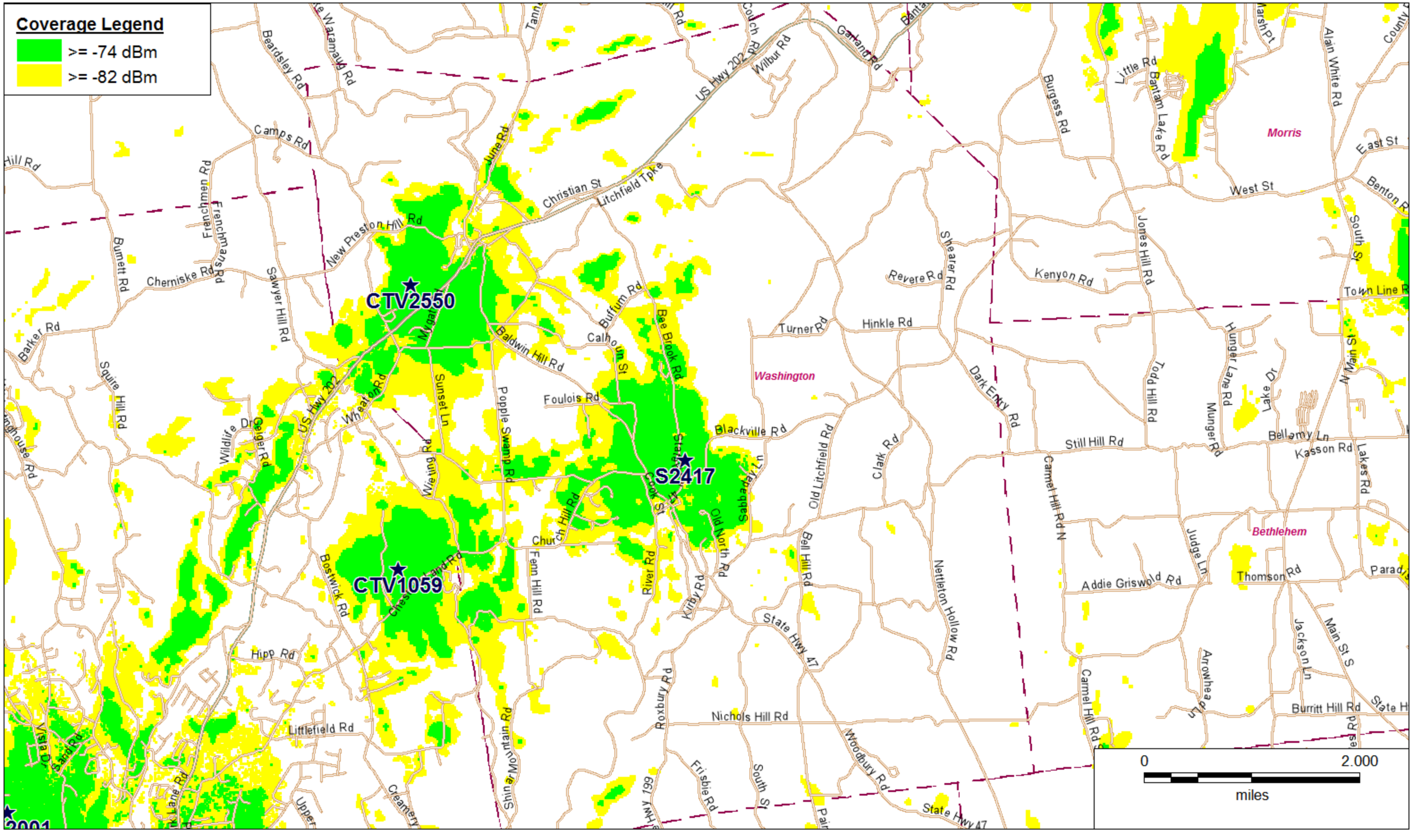
Q11. What kind of fuel would the backup generator use? How many hours of service would the generator be able to provide before it needs to be refueled?

A11. AT&T's proposed backup generator is a diesel generator to serve its facility. The estimated runtime is 48 hours assuming full load and 200 gallons of fuel available.

Q12. Provide a power density calculation, using the same methodology as that used for the calculation included in the application, estimating what power density levels would be at the base of the proposed tower.

A12. The total power density levels at the base of the proposed tower would be .0908 mW/cm^2 or approximately 13.38% of the Federal standard.

ATTACHMENT 1



AT&T Proposed Coverage at Washington, CT with S2417 @ 116' AGL