

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE: :  
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 APPLICATION OF SBA TOWER II, LLC FOR : DOCKET NO. 396  
 A CERTIFICATE OF ENVIRONMENTAL :  
 COMPATIBILITY AND PUBLIC NEED FOR :  
 THE CONSTRUCTION, MAINTENANCE AND :  
 OPERATION OF A TELECOMMUNICATIONS :  
 FACILITY AT 49 BRAINERD ROAD, :  
 NIAN TIC (EAST LYME), CONNECTICUT : DECEMBER 1, 2010

RESPONSES OF CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS TO  
CONNECTICUT SITING COUNCIL PRE-HEARING QUESTIONS

On November 7, 2010, the Connecticut Siting Council (“Council”) granted the applicant’s Motion to Reopen the Docket No. 396 record. On November 10, 2010, the Council issued Pre-Hearing Questions to Intervenor, Cellco Partnership d/b/a Verizon Wireless (“Cellco”), regarding its interest in this docket. Below are Cellco’s responses to the Council’s questions.

Question No. 1

Did Cellco Partnership d/b/a Verizon Wireless (Cellco) have a search ring along Rt. 156 between the intersection of Black Point Rd. and west to the vicinity of Park Place? Explain why or why not. Explain whether a hypothetical tower in this location would achieve coverage equal to or better than coverage from the proposed location on Brainerd Rd.

Response

Cellco’s search area, as depicted on the attached search area map, includes a significant portion of the southwest Niantic, south of Route 156 between the Black Point and the Rocky

Neck State Park area. As discussed during prior hearing sessions, Cellco's coverage objectives in this area focus on its need for 1900 MHz and 850 MHz service along portions of Route 156, the Amtrak rail line and local roads, as well as residential areas in the Black Point and Giants Neck. These coverage gaps exist between Cellco's existing Old Lyme, East Lyme and Waterford South cell sites. (See Cellco's Interrogatory Responses to the Council dated February 16, 2010).

The area between the intersection of Route 156 and Black Point Road and Park Place is to the northeast and just outside of Cellco's search area. A cell site in this location would provide redundant coverage, to some extent, with Cellco's existing East Lyme and Waterford South cell sites and may (depending upon its height) not connect with coverage from Cellco's existing Old Lyme cell site to the west. Cellco's RF engineers ran this hypothetical location to an antenna height of 199 feet above ground level and could not satisfy its coverage objectives in the area.

#### Question No. 2

Evaluate whether Cellco's coverage objectives could be met with a hypothetical two-tower solution using two shorter towers, about 75' feet each, (assuming a tree canopy at 55'): one using town property in the middle of Black Point, the other using church property to the northeast (Central Ave.) on Black Point.

#### Response

Cellco could not satisfy its coverage objectives using the two site scenario described above. Assuming an antenna height of 75 feet at each location, Cellco could provide coverage to most of Black Point, and portions of Route 156, east of Fairhaven Road. Significant portions of Route 156, west of Fairhaven Road and the entire Giants Neck area would remain uncovered in this scenario. An additional cell site to the north or northwest of the proposed SBA site off Brainerd Road would be required to provide additional service to these areas.

### Question No. 3

If SBA were to use two shorter towers, comment on the effects on RF propagation due to stealth designs: at the church, a bell tower or a cross; at the town property, a tall yacht-club type mast or faux lighthouse.

### Response

The important factor in any stealth tower design and whether such a structure would work for Cellco is directly related to the type of antenna configuration that Cellco can achieve in that stealth design. For example, a yacht club-type mast or church cross as described above, might limit Cellco's antenna installation to a flush-mounted or internal-mounted configuration. As we have discussed at length with the Council in the past, this type of installation limits Cellco's ability to maximize coverage, results in the need to install antennas at three different levels on the support structure and often requires an increase in height of at least 10 feet to satisfy its coverage objectives in an area. Stealth installations like a bell tower or faux lighthouse may allow for Cellco to install a full array of antennas all at the same antenna height. This type of installation would allow Cellco to satisfy its coverage objectives at a lower overall antenna height and would allow all antennas to be mounted at the same horizontal level above ground.

The other factor that must be considered in this discussion, relates to the costs associated with a multiple site scenario. At the risk of stating the obvious, a two or three site scenario in a particular location results in a doubling or tripling of all costs (i.e. rent, equipment, construction) associated with cell site development. While not the principal factor, cost is an important consideration in the development of Cellco's wireless network and must be considered along with other factors.



Question No. 4

Explain why the relatively small (less than 2 miles square), concentrated, flat and linear area of Black Point couldn't be served by a distributed antenna system similar to the one installed by American Tower for AT&T at Chilmark and Aquinah on Martha's Vineyard in MA?

Response

From a pure technical perspective, it is conceivable that the Black Point area as described in Question No. 4, could be served by some form of a distributed antenna system. The number of nodes required, the location of infrastructure and the cost of such a system are a few important issues that would need to be addressed before it could be determined if such a system would be feasible in Black Point. Providing coverage to Black Point, however, is only part of Cellco's overall coverage objective in the area. As illustrated on the coverage maps submitted in Cellco's February 16, 2010 interrogatory responses, Cellco's coverage objectives in the area include significant portions of Route 156, portions of the Amtrak rail line and local roads as far west as the Giants Neck and Rocky Neck State Park areas. Any site that Cellco establishes in Niantic must also connect with its surrounding Old Lyme, East Lyme and Waterford South cell sites. A distributed antenna system in Black Point alone could not and would not satisfy Cellco's objectives in the area.

Question No. 5

Could two towers (at least 20 to 30 feet shorter than the proposed tower) be used in the following configuration: one in the vicinity of Giant's Neck and one in Black Point to adequately achieve Cellco's coverage objectives?

Response

No. While providing some coverage to areas where service is needed, both sites are located too far south to cover those portions of Route 156 where service is lacking today.

CERTIFICATE OF SERVICE

I hereby certify that on the 1<sup>st</sup> day of December, 2010, a copy of the foregoing was sent  
via electronic mail to:

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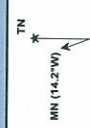




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Scale 1 : 34,375



1" = 2,864.6 ft

Data Zoom 12-5