

July 1, 2014

*Via Hand Delivery*

Melanie A. Bachman  
Acting Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

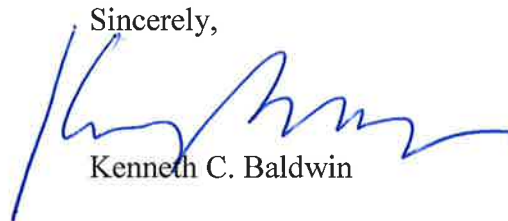
Re: **Docket No. 448 – Cellco Partnership d/b/a Verizon Wireless Application For A Certificate Of Environmental Compatibility And Public Need For The Construction, Maintenance And Operation Of A Wireless Telecommunications Facility At 831 Derby Milford Road, Orange, Connecticut**

Dear Ms. Bachman:

On behalf of Cellco Partnership d/b/a Verizon Wireless (“Cellco”), enclosed please find the original and fifteen (15) copies of the applicant’s Responses to the Siting Council’s Pre-Hearing Questions. Cellco will seek to have these responses admitted as a full exhibit at the July 17, 2014 evidentiary hearing.

If you have any questions or need any additional information please do not hesitate to contact me.

Sincerely,



Kenneth C. Baldwin

KCB/kmd  
Enclosures  
Copy to:

Sandy M. Carter  
Jamie Laredo  
Michael P. Libertine, L.E.P.  
Dean Gustafson  
Carlo F. Centore, PE  
Harry Rocheville

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE: :  
: :  
APPLICATION OF CELLCO PARTNERSHIP : DOCKET NO. 448  
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 :  
831 DERBY MILFORD ROAD, ORANGE, :  
CONNECTICUT : JULY 1, 2014

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

On June 17, 2014, the Connecticut Siting Council (“Council”) issued Pre-Hearing Questions to Cellco Partnership d/b/a Verizon Wireless (“Cellco”), relating to the above-captioned docket. Below are Cellco’s responses. As discussed in the Docket No. 448 Application, Cellco identifies this facility as its “Orange North” cell site.

Question No. 1

Were return receipts received for each abutting landowner identified in the application? If not, list the abutters that did not receive notice and describe any additional effort to serve notice. When was the abutter list compiled?

Response

Yes. All certified mail receipts were received indicating that all abutting landowners identified in Attachment 4 of the Application received Cellco’s notice of intent to file the Orange North cell site application. The abutting property owners list was compiled on May 2, 2014.

### Question No. 2

Estimate the number of residences (include streets) with year-round and “leaf-off” seasonal views of the proposed tower.

### Response

It is estimated that partial year-round views of at least a portion of the tower could be achieved from areas from approximately 23 residential properties in the area. Seasonally, when the leaves are off the deciduous trees, an additional 3± residential properties may have obstructed views of at least a portion of the tower. Field verification activities during the balloon float are restricted to publicly accessible areas, so we rely on the computer model to compile a comprehensive list of residential properties that could have views of the tower. The model also has its limitations because it is designed to answer a very simple yes-no question: can at least the top of the tower be seen from any point within a 2-mile radius (the “Study Area”), given the intervening topography and vegetation. Theoretically, if one inch of the tower is detected from any point within the Study Area, it is considered visible; although, in real world conditions, the tower might not be discernable to the human eye. Therefore, the calculations tend to over predict visibility. This is a conservative analysis that evaluates potential visibility from a residential property by interpreting if a property falls within shaded areas of potential visibility shown on the Viewshed Maps included in the Visibility Analysis in Attachment 9 of the application. It may be possible to view the tower from within portions of shaded areas on the Viewshed Maps, but not necessarily from all locations within those shaded areas.

### Question No. 3

What would be the respective run time for Cellco’s diesel generator before it would need to be refueled, assuming it is running at full load?

Response

At full load, Cellco's Generac SD050 (50 kW) generator, with a 210 gallon diesel fuel tank, could run continuously for approximately 49 hours before refueling would be required. As Cellco has stated in prior proceedings, at less than full load, under more "normal" operating conditions, the same generator could run for up to four (4) days before refueling would be required.

Question No. 4

Could the proposed generator be shared by other carriers that may locate at the proposed facility? What effect would a shared generator have on the run time of the generator if at full load?

Response

It is possible that a properly sized generator at this site could be shared by two or more wireless carriers. Generally, larger generators will maintain larger fuel tanks resulting in run times comparable to that of a smaller generator. Prior to filing this Application, Cellco contacted representatives of both T-Mobile and AT&T asking if they had any interest in sharing this proposed tower site. Neither carrier expressed any interest in sharing the proposed Orange North facility.

Question No. 5

Describe the sources of noise during normal, nonemergency operations. Would noise from these sources meet applicable noise criteria?

Response

The only non-emergency noise source at the proposed facility would be the air conditioning units attached to the equipment shelter. Cellco's prefabricated shelter maintains

two (2) redundant air conditioning units. Only one unit operates at a time. The closest property line to the equipment shelter is approximately 143 feet to the southwest, owned by OR Shalom/BJSG Cemetery Association. Based on the manufacturer's specifications and Cellco's experience with these air conditioning units, noise levels at this closest property line associated with the air conditioning units would be approximately 35 dBA. The allowable noise levels at this property line would be 55 dBA during the day and 45 dBA at night.

Question No. 6

What is the signal strength Cellco uses to design its system? Are there different levels for voice and data systems?

Response

Cellco's minimum design threshold signal strength is -85 dBm for in-vehicle service and -75 dBm for in-building service. These thresholds are the same for Cellco's voice and data services.

Question No. 7

Are all frequencies used to transmit voice and data?

Response

Currently, no. Cellco is utilizing its 850 MHz and 1900 MHz frequencies to transmit CDMA voice services and data services and its 700 MHz and 2100 MHz frequencies to transmit long-term evolution (LTE) data services only. Cellco plans to launch LTE voice services some time before the end of 2014. Initially, Cellco will deploy only 700 MHz and 2100 MHz frequencies at the Orange North cell site.

Question No. 8

Provide an estimate of the residential population within the proposed service area.

Response

According to 2010 census information, the proposed Orange North cell site will cover a population of 15,902 within its 700 MHz frequency coverage footprint; 8,023 within its 2100 MHz frequency coverage footprint; 7,763 within its 850 MHz frequency coverage footprint; and 7,457 within its 1900 MHz frequency coverage footprint.

Question No. 9

When was the search ring established?

Response

Cellco established the Orange North search ring on June 4, 2013.

Question No. 10

Describe the tools/methodology used by Cellco to establish capacity need in the proposed service area. Provide supporting documentation, if available.

Response

Cellco evaluates historic cell site performance and utilization data, together with cell site traffic growth data for each of its cell sites on a monthly basis. This data allows Cellco to forecast when any individual or combination of cell sites will reach their maximum capacity. The cell site performance and utilization data and traffic growth data is competitively sensitive information that Cellco cannot share publicly.

Question No. 11

Regarding the Site Search in Tab 8, what is the height of the water tank at 962 Grassy Hill Road? Why wouldn't the water tank meet radio frequency objectives? What is the ground elevation of the water tank site?

Response

The water tank located off Grassy Hill Road in Orange is approximately 35 feet tall at a ground elevation of approximately 295 feet AMSL. The existing water tank is 0.8 miles to the east of the proposed Orange North facility, is very low (35'), relative to the surrounding terrain and is too close (within about 0.7 miles) to Cellco's existing Orange 2 cell site, a tower site off Ogg Meadow Road in Orange. A cell site at this location would interfere with existing service from the Orange 2 facility. Also, due to its location to the east of the Orange North search area and the candidate site at 831 Derby-Milford Road, Cellco would not be able to meet its coverage objectives to the west from the water tank location.

Question No. 12

Provide the power density values and input parameters for each wireless system (LTE, cellular, PCS AWS) used to generate the power density on page 17 of the application.

Response

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	7	358	2507	100	0.0902	1.0	9.02%
VZW Cellular	869	9	330	2971	100	0.1068	0.5793333333	18.44%
VZW AWS	2145	1	1403	1403	100	0.0505	1.0	5.05%
VZW 700	698	1	696	696	100	0.0250	0.4653333333	5.38%

**Total Percentage of Maximum Permissible Exposure**

**37.88%**

Question No. 13

In regards to the visibility analysis, provide the addresses of the residences in the following photos – #6, #9, #14.

Response

The residence partially depicted in Photo #6 is identified as 917 Rainbow Trail. In Photo #9, the northerly portion of the residence at 834 Brookside Drive can be seen. (Please note that this is the property where the owner allowed Verizon Wireless to obtain Photo #10 from the back yard). The residence visible in Photo #14 is the landlord's home at 831 Derby Milford Road (identified as the "Host Property" in the Visibility Analysis included in Attachment 9 of the Application.

Question No. 14

Will the proposed facility support text-to-911 service? Is additional equipment required for this purpose?

Response

Yes. The Orange North facility will support text-to-911 service as soon as the supporting Public Safety Answering Point (PSAP) is ready to accept text-to-911 messages. No additional equipment is required at the Orange North cell site to support this service.

Question No. 15

Are you aware of any Public Safety Answering Points in the area of the proposed site that are able to accept text-to-911?

Response

No, not at this time.

Question No. 16

Plan C-1A includes a landscaping note for visual mitigation to an adjacent property. What property is referenced? What is the expected view of the facility from this property?



Response

As discussed in the local input section of the application narrative (page 20), the issue of visual screening from the adjacent property to the southwest, owned by the OR Shalom/BJSC Cemetery Association, was raised by members of the Orange Planning and Zoning Commission (“PZC”) and one member of the public at a meeting we had with the PZC prior to the filing of the application. The PZC asked Cellco to consider supplementing existing vegetation, to the extent necessary, to screen views of the facility compound from the cemetery property. While Cellco believes that significant vegetation between the cell site and the cemetery will remain following cell site construction and provide adequate screening, it agreed to include the notations on Sheet C-1A in its Siting Council Application drawings to bring the issue to the Council’s attention and provide such supplemental plantings, to the extent it is necessary. Attached to these responses is a May 29, 2014 letter to Chairman Walter Clark, describing Cellco’s effort to address the PZC’s screening concerns.

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Also admitted in Massachusetts

May 29, 2014

Walter "Beau" Clark IV, Chairman  
Town Plan and Zoning Commission  
Town Hall  
617 Orange Center Road  
Orange, CT 06477

Re: **Application Of Celco 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 831 Derby Milford Road, Orange,  
Connecticut**

Dear Chairman Clark:

By now, you should have received a copy of the Verizon Wireless Connecticut Siting Council application for a new tower site at 831 Derby Milford Road in Orange, Connecticut. The application includes a set of project plans behind Tab 1. Plan Sheet C-1A includes some details and notes regarding Celco's proposed planting plan along the westerly side of the facility compound. This area has been designated for the planting of additional white spruce trees, as needed, to fill gaps in the existing vegetation and gaps created by the construction of certain facility and drainage improvements. The location of these white spruce trees is subject to adjustment but is intended to screen views from the cemetery to the west. If you or members of your Commission have any questions or comments regarding this supplemental planting plan please pass them along to me and we will incorporate them into the Connecticut Siting Council review process.

We don't expect that a public hearing will be held on the tower proposal until sometime in July, at the earliest. We hope that will give the Commission ample time to review the planting plan and offer its suggestions.



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# ROBINSON & COLE<sub>LLP</sub>

Walter "Beau" Clark IV  
May 29, 2014  
Page 2

Thank you for your continued cooperation.

Sincerely,



Kenneth C. Baldwin

KCB/kmd

Copy to:

Paul Dinice, Zoning Administrator & Enforcement Officer  
Sandy M. Carter  
Carlo F. Centore, PE  
Michael P. Libertine, L.E.P.

