STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

ORIGINAL

IN RE:	:	
	:	
APPLICATION OF CELLCO 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 OFF STERLING ROAD (ROUTE 14), PLAINFIELD, CONNECTICUT	:	DOCKET NO. 368
	:	OCTOBER 17, 2008

RESPONSES OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS
TO CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES, SET ONE

On October 1, 2008, the Connecticut Siting Council ("Council") issued Pre-Hearing Interrogatories to the Applicant, Cellco Partnership d/b/a Verizon Wireless ("Cellco"), relating to the above-captioned docket. Below are Cellco's responses.

Question No. 1

What frequencies is Cellco licensed to use in Windham County?

Response

In the Plainfield area, Cellco is licensed to operate in both the cellular (869-880, 890 – 891.5 MHz) and PCS F Block (1970 - 1980 MHz) frequency bands. Cellco plans to install both PCS and cellular antennas at the proposed Moosup Facility.

Question No. 2

What is the Wireless Communications and Public Safety Act of 1999?

Exhibit 5

Response

The Wireless Communications and Public Safety Act of 1999 (the "WCPS Act") was enacted by the United States Congress to promote and enhance public safety by making 911 the universal emergency assistance number, by furthering deployment of wireless 911 capabilities and related functions, and by encouraging construction and operation of seamless, ubiquitous and reliable networks for wireless services.

In an effort to further the goals of the WCPS Act, Congress enacted the Enhanced 911 Act in 2004 (the "E-911 Act"). The E-911 Act was enacted to facilitate the reallocation of spectrum from the government to commercial users; improve, enhance and promote Homeland Security, public safety, and citizen activated emergency response capabilities through enhanced 911 services; upgrade Public Safety Answering Point (PSAP) capabilities and related functions in receiving E-911 calls; and support the construction of a ubiquitous and reliable citizen activated system.

The FCC has divided the implementation of the E-911 program into two parts. Under Phase 1, carriers had to provide a local PSAP with the telephone number of the originator of a 911 call and the location of the cell site or base station transmitting the call. Under Phase 2, carriers had to begin to provide PSAP's with more precise information including the latitude and longitude of the caller. The FCC requires the technology used for E-911 services to meet certain accuracy standards, the development of new technologies to support E-911 services, as well as coordination among public safety agencies, wireless carriers, technology vendors, equipment manufacturers and wireline carriers.

Technology satisfying the Phase 1 and Phase 2 requirements has been incorporated into all existing Cellco facilities in Connecticut and will be installed in the proposed Moosup Facility.

Question No. 3

Would Cellco's antennas be compliant with E911 requirements?

Response

Yes.

Question No. 4

Has Cellco received any comments regarding the proposed facility from any of the Town of Plainfield's boards or commissions?

Response

No.

Question No. 5

Has the Town of Plainfield expressed any interest in placing antennas on this facility?

Response

As described in the application, Cellco offered to the Town of Plainfield the opportunity to place its emergency service antennas on the proposed Moosup Facility tower at no cost. To date, the Town has not expressed any interest in sharing the proposed tower.

Question No. 6

Are there any other towers located within a two-mile radius of the proposed site other than the four towers identified in Attachment 9?

Response

Cellco is not aware of any towers, other than those listed, within two miles of the Moosup Facility. There is one additional tower located approximately 3.5 miles south of the Moosup Facility off Ekonk Hill Road in Sterling, Connecticut. This tower is 140 feet tall and is owned by the Connecticut Department of Public Safety. Cellco does not currently share this tower.

Question No. 7

Identify adjacent sites with which the proposed site would hand off signals and the distances and directions to them.

Response

The proposed Moosup Facility would interact with its existing Plainfield North 2 cell site, located approximately 2.4 miles to the west; recently approved Sterling cell site, approximately 1.5 miles to the east; Plainfield cell site approximately 3.25 miles to the south; and Plainfield North cell site approximately 2.54 miles to the northwest.

Question No. 8

Provide the following information for Cellco antennas: number of channels per sector for each antenna system that would be installed on the proposed tower, ERP per channel for each antenna system, and frequency at which each antenna system would operate.

Response

Alpha Sector – 160 Ft.	Beta Sector – 160 Ft.	Gamma Sector – 160 Ft.
Antenna Type: LPA-185063/12CF	Antenna Type: LPA-185063/12CF	Antenna Type: LPA-185063/12CF
Frequency: 1970-1980 MHz	Frequency: 1970-1980 MHz	Frequency: 1970-1980 MHz
No. Channels: 6	No. Channels: 6	No. Channels: 6
ERP/Channel: 420 W Max	ERP/Channel: 420 W Max	ERP/Channel: 420 W Max

Alpha Sector – 160 Ft.	Beta Sector – 160 Ft.	Gamma Sector – 160 Ft.
Antenna Type: LPA – 80063/6CF	Antenna Type: LPA – 80063/6CF	Antenna Type: LPA – 80063/6CF
Frequency: 869-880,890-891.5 MHz	Frequency: 869-880,890-891.5 MHz	Frequency: 869-880,890-891.5 MHz
No. Channels: 9	No. Channels: 9	No. Channels: 9

Alpha Sector – 160 Ft.	Beta Sector – 160 Ft.	Gamma Sector – 160 Ft.
ERP/Channel: 326 W Max	ERP/Channel: 326 W Max	ERP/Channel: 326 W Max

Question No. 9

What is the lowest height at which Cellco's antennas could achieve its coverage objectives from this site? Submit propagation maps showing the coverage at ten feet below this height.

Response

Cellco's PCS antennas must be located at the 160-foot level to achieve its coverage objectives in the Moosup area. Coverage plots showing Cellco's PCS and cellular coverage at 150 feet (ten feet below the proposed antenna height) are included behind Tab 1. Cellco can satisfy its cellular coverage objectives in the Moosup area with antennas mounted as low as 70 feet above ground level at the proposed site.

As discussed in the Application, Cellco holds licenses to provide both cellular and PCS service in Windham County, Connecticut and proposes to deploy both PCS and cellular frequencies at the Moosup Facility. The cellular and PCS services Cellco plans to deploy, operate at different frequencies, and will allow customers to use the same cell site for voice and/or data services. By installing both PCS and cellular antennas at the Moosup Facility, Cellco can ensure that it has more capacity available to meet the growing demand of its customers for wireless voice and data services.

As discussed in previous dockets, the deployment of both PCS and cellular frequencies is particularly important to Cellco's customers in areas between I-395 and the Rhode Island State border. In Connecticut, Cellco owns the A-Band cellular license. AT&T owns the B-Band cellular license in Connecticut. In Rhode Island, the opposite occurs; Cellco owns the B-Band

cellular license and AT&T owns the A-Band cellular license. To avoid cross-border interference problems, Cellco and AT&T have entered into a spectrum sharing agreement, under which, each company agrees to use only one-half of its licensed cellular frequencies in the area along the state border. Using this approach, both companies limit the possibility of interference between their respective cellular systems. By doing so, however, Cellco limits the capacity of its cellular network in the eastern-most portions of Connecticut. Cellco compensates for this loss of cellular capacity by utilizing more PCS channels to carry its voice services. Cellco's ability to provide reliable coverage at PCS frequencies in the eastern portion of the state, therefore, is a more significant factor for Council consideration when addressing the issue of need.

Question No. 10

Provide propagation maps showing only the PCS and cellular coverages from the proposed site.

Response

The coverage plot requested is included behind Tab 2 of these responses.

Question No. 11

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

Response

Cellco has received all of the return receipts from the abutters' notice mailing.

Question No. 12

What is the in-vehicle signal strength for which Cellco designs its system? The in-building signal strength?

Response

Cellco's signal strength design thresholds are negative 85 dBm for in vehicle service and negative 75 dBm for in-building service.

Question No. 13

What is the existing signal strength in those areas Cellco is seeking to cover from this site? How were these signal strengths determined?

Response

According to Cellco's base-line drive data, existing signal strength in the area surrounding the Moosup Facility ranges from -86 dBm to -130 dBm, with some area receiving no signal at all.

Question No. 14

Did Cellco conduct any drive tests for this site? If so, provide information depicting the results of these tests.

Response

No. Due to the existing site conditions, the Moosup cell site location is not accessible.

Question No. 15

Quantify the amounts of cut and fill that would be required to develop this site.

Response

Estimates for cut and fill for development of the Moosup Facility, including the access road and site compound are: Cut 1,300 cubic yards; and Fill 1,400 cubic yards.

Question No. 16

When was Cellco's search ring for this area first issued?

Response

The Moosup search ring was issued in January of 2007.

Question No. 17

Would any blasting be required to develop this site?

Response

No.

Question No. 18

How would utilities be brought to the site?

Response

As proposed, utilities would extend underground from existing overhead service along Sterling Road. Final utility location is ultimately subject to approval of CL&P and will be incorporated into the D&M Plan for an approved Moosup Facility.

Question No. 19

How would Cellco mount its antennas on the proposed tower?

Response

As shown on the project plans behind Tab 1 of the Application, Cellco proposes to mount its antennas on a low profile platform attached to the tower at the 157-foot level of the 160-foot tower.

Question No. 20

To what standard would the tower be designed? The application says Electronic Industries Association Standard EIA/TIA-222-E "Structural Standards for Steel Antenna Towers and Antenna Support Structures".

Response

Per section 3108 of the 2003 International Building Code, as adopted by the current 2005 CT State Building Code, the tower will be designed to meet the requirements of EIA/TIA-222-F. An analysis will also be prepared in accordance to the requirements of the latest version EIA-TIA-222-G. The more stringent of the two versions will be used for the final design of the tower.

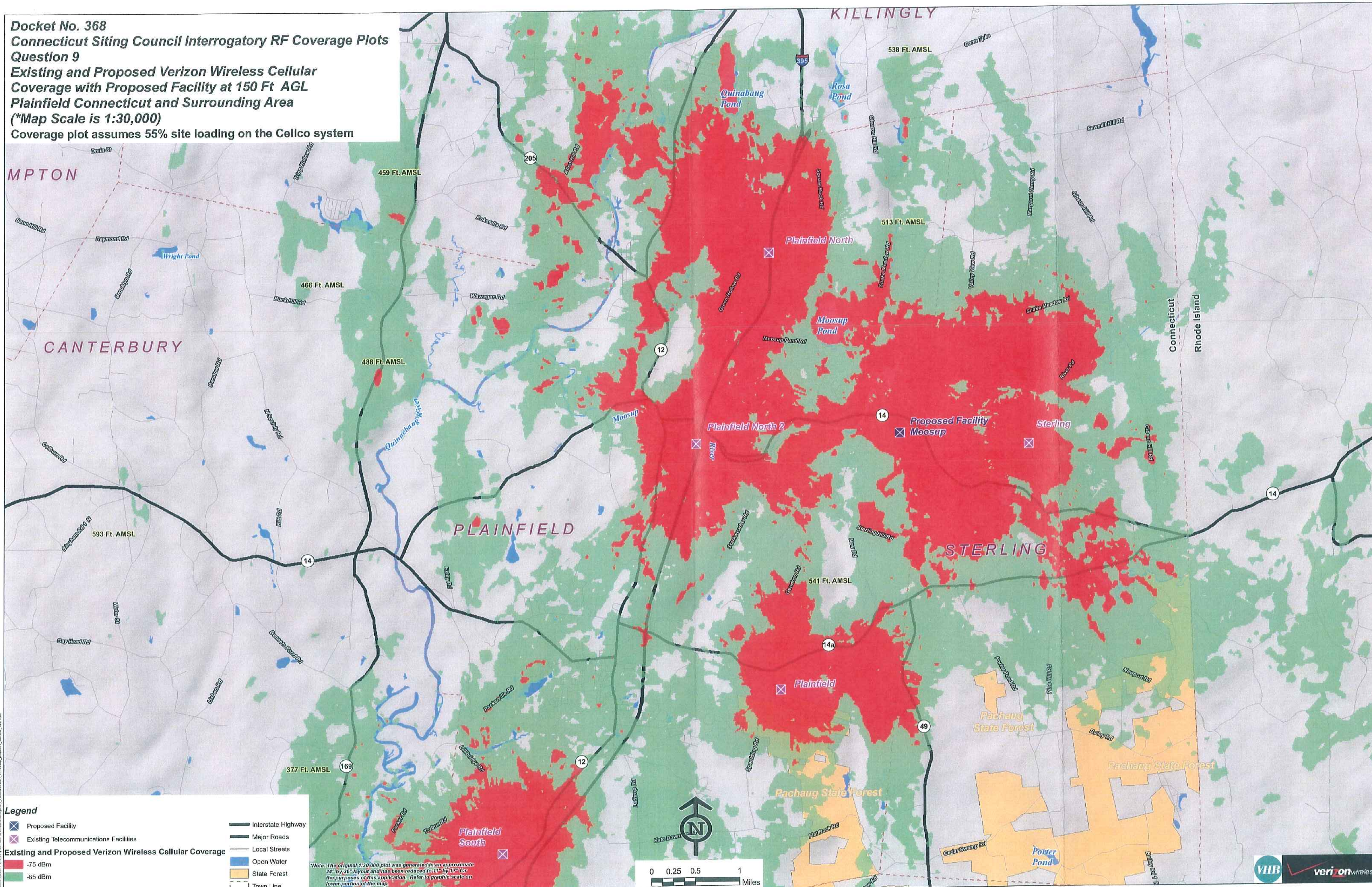
Question No. 21

Are there any residential properties that will have at least partial views of the proposed tower during leaf off conditions that do not have views of the tower during the times of the year when the leaves are on?

Response

No.

Docket No. 368
Connecticut Siting Council Interrogatory RF Coverage Plots
Question 9
Existing and Proposed Verizon Wireless Cellular
Coverage with Proposed Facility at 150 Ft AGL
Plainfield Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system

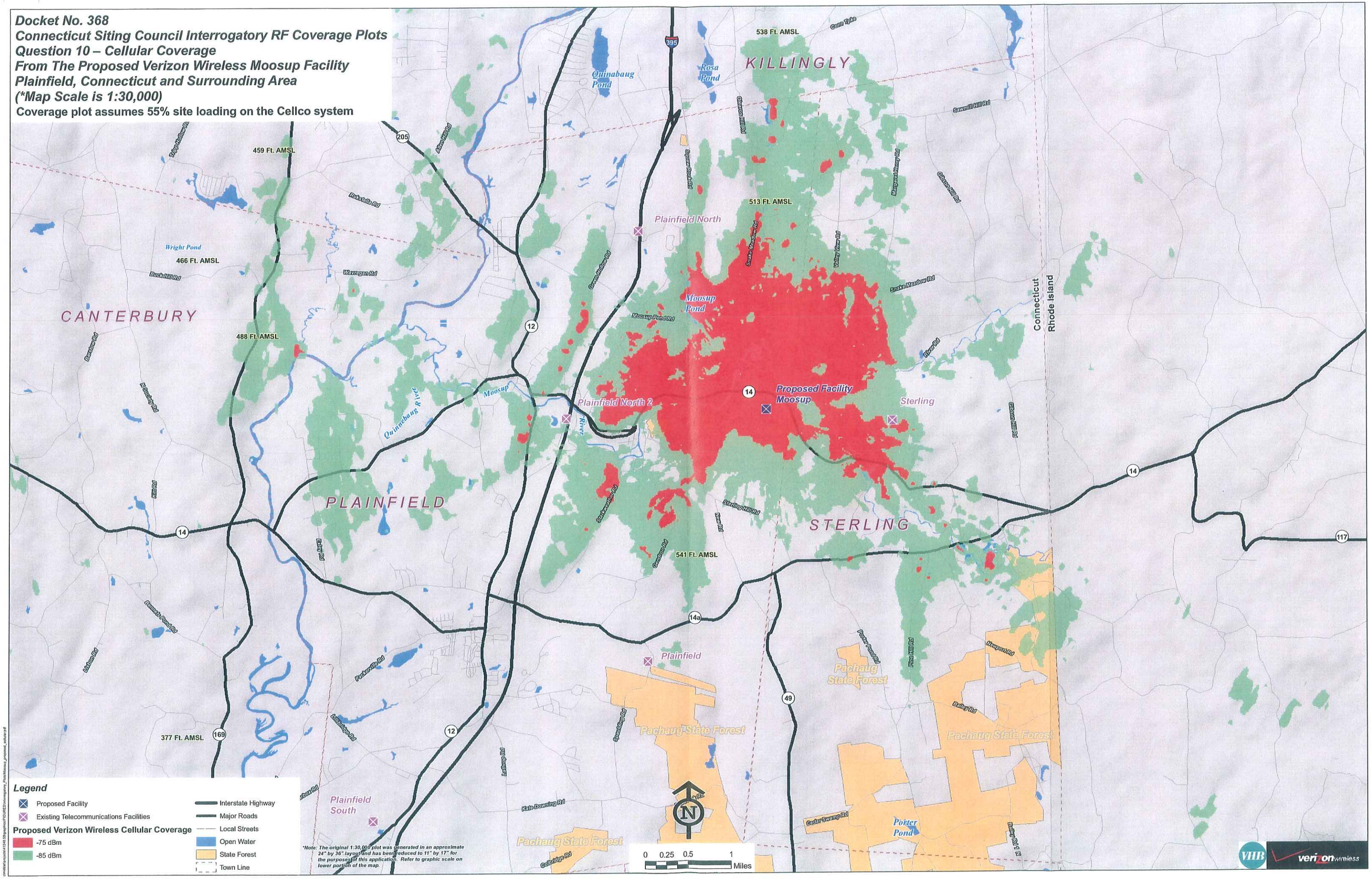


KILLINGLY
MPTON
CANTERBURY
PLAINFIELD
STERLING
Connecticut
Rhode Island
Quinabaug Pond
Rosa Pond
Moosup Pond
Wright Pond
Porter Pond
Moosup
Quinebaug River
Pachaug State Forest
Plainfield North
Plainfield North 2
Proposed Facility Moosup
Sterling
Plainfield
Plainfield South
538 Ft. AMSL
459 Ft. AMSL
513 Ft. AMSL
466 Ft. AMSL
488 Ft. AMSL
593 Ft. AMSL
541 Ft. AMSL
377 Ft. AMSL
Legend
Proposed Facility
Existing Telecommunications Facilities
Existing and Proposed Verizon Wireless Cellular Coverage
-75 dBm
-85 dBm
Interstate Highway
Major Roads
Local Streets
Open Water
State Forest
Town Line
*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purposes of this application. Refer to graphic scale on lower portion of the map
0 0.25 0.5 1
Miles
VHB
verizon wireless

Docket No. 368
Connecticut Siting Council Interrogatory RF Coverage Plots
Question 9
Existing and Proposed Verizon Wireless PCS
Coverage with Proposed Facility at 150 Ft AGL
Plainfield Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system

*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purposes of this application. Refer to graphic scale on lower portion of the map.

Docket No. 368
Connecticut Siting Council Interrogatory RF Coverage Plots
Question 10 – Cellular Coverage
From The Proposed Verizon Wireless Moosup Facility
Plainfield, Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system



Docket No. 368
Connecticut Siting Council Interrogatory RF Coverage Plots
Question 10 – PCS Coverage
From The Proposed Verizon Wireless Moosup Facility
Plainfield, Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system

KILLINGLY
CANTERBURY
PLAINFIELD
STERLING
Plainfield North
Plainfield North 2
Proposed Facility Moosup
Sterling
Plainfield
Plainfield South
Moosup Pond
Quinebaug Pond
Rosa Pond
Wright Pond
Porter Pond
Pachaug State Forest
Quinnebaug River
Moosup River
Connecticut
Rhode Island
538 Ft. AMSL
513 Ft. AMSL
541 Ft. AMSL
459 Ft. AMSL
466 Ft. AMSL
488 Ft. AMSL
377 Ft. AMSL
Interstate 395
Route 205
Route 12
Route 14
Route 14a
Route 49
Route 117
Route 169

Legend

- Proposed Facility
- Existing Telecommunications Facilities
- **Proposed Verizon Wireless PCS Coverage**
  - -75 dBm
  - -85 dBm
- Interstate Highway
- Major Roads
- Local Streets
- Open Water
- State Forest
- Town Line

0 0.25 0.5 1 Miles

*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purposes of this application. Refer to graphic scale on lower portion of the map.

VHB
verizonwireless