STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
APPLICATION OF BAY COMMUNICATIONS, LLC FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS FACILITY AT 170 SOUTHEAST ROAD, NEW HARTFORD, CONNECTICUT	:	DOCKET NO. 380
	:	MAY 8, 2009

UPDATED RESPONSES OF INTERVENOR
CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS TO
CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES

The Connecticut Siting Council ("Council") issued pre-hearing questions to Cellco Partnership d/b/a Verizon Wireless ("Cellco") relating to an application by Bay Communications, LLC for a Certificate of Environmental Compatibility and Public Need for the development of a telecommunication facility at 170 Southeast Road in New Hartford, Connecticut. The Council assigned this application Docket No. 314. Cellco intervened in Docket No. 314 and intends to install antennas on the proposed tower at the 160-foot level so that it might satisfy its coverage objectives in the southeast portion of the New Hartford. In support of its request to share the proposed facility tower, Cellco filed responses to the Docket No. 314 interrogatories on May 15, 2006. By letter dated April 23, 2009, the council asked Cellco to update its May 15, 2006 responses in the context of the current Docket No. 380 proceeding. Cellco's updated responses are provided below.

Question No. 1

Discuss Cellco's need for the proposed facility. Specifically, what level of coverage does Cellco currently have in this area, and in what ways would the proposed facility affect the existing level of service?

Response

The proposed Bay Communications tower off Southeast Road would provide Cellco customers with coverage along an approximately two and one-half mile portion of Route 202, as well as significant coverage in the immediately surrounding areas of southeastern New Hartford. Coverage from the proposed tower would fill a significant Personal Communication Service ("PCS") and cellular service coverage gap between Cellco's existing Collinsville 2 cell site off Powder Ridge Road in Canton and New Hartford cell site at 20 Antolini Road in New Hartford. As of the date of this filing, Cellco maintains FCC licenses to provide cellular (850 MHz), PCS (1900 MHz) and 700 MHz wireless services throughout Litchfield County, Connecticut. Today, Cellco provides wireless service in the cellular and PCS frequency ranges from its existing adjacent cell sites known as Collinsville 2, Collinsville, Burlington West and New Hartford. Cellco can satisfy its cellular and PCS coverage gaps with antennas installed at the 160 level on the proposed Bay Communication tower.

Question No. 2

What are the operating frequency and the minimum signal level threshold Cellco is planning to use in the New Hartford area? Please explain how the cellular and PCS systems interact, if applicable.

Response

Cellco's PCS antennas will operate in the 1970-1975 MHz frequency band. Cellco's cellular antennas will operate in the 850 MHz frequency band. Cellco's 700 MHz antennas will operate in the 746-757 MHz frequency band. Cellco's design threshold for all of its PCS, cellular and 700 MHz facilities is -75 dBm for in-building coverage and -85 dBm for in vehicle coverage.

Question No. 3

Provide Cellco's proposed antenna height, and antenna specifications, including type, make, size, model, quantity, number of channels, and maximum power output.

Response

PCS Antennas

Alpha Sector – 160 ft.	**Beta Sector – 160 ft.**	**Gamma Sector – 160 ft.**
Antenna Type: BXA-185060/12CF 2° (1)	Antenna Type: BXA-185060/12CF 2° (1)	Antenna Type: BXA-185060/12CF 2° (1)
Frequency: Tx: 1945-1950, 1965-1980 MHz; Rx: 1865-1870, 1885-1900 MHz	Frequency: Tx: 1945-1950, 1965-1980 MHz; Rx: 1865-1870, 1885-1900 MHz	Frequency: Tx: 1945-1950, 1965-1980 MHz; Rx: 1865-1870, 1885-1900 MHz
No. Channels: 14	No. Channels: 14	No. Channels: 14
ERP/Channel: 602.97 W Max	ERP/Channel: 602.97 W Max	ERP/Channel: 602.97 W Max

Cellular Antennas

Alpha Sector – 160 ft.	**Beta Sector – 160 ft.**	**Gamma Sector – 160 ft.**
Antenna Type: SC-E6014 Rev2 (2)	Antenna Type: SC-E6014 Rev2 (2)	Antenna Type: SC-E6014 Rev2 (2)
Frequency: Tx: 869-880,890-	Frequency: Tx: 869-880,890-	Frequency: Tx: 869-880,890-

891.5 MHz; Rx: 824-835, 845-846.5 MHz	891.5 MHz; Rx: 824-835, 845-846.5 MHz	891.5 MHz; Rx: 824-835, 845-846.5 MHz
No. Channels: 9	No. Channels: 9	No. Channels: 9
ERP/Channel: 333.93 W Max	ERP/Channel: 333.93 W Max	ERP/Channel: 333.93 W Max

700 MHz Antennas

Alpha Sector – 160 ft.	**Beta Sector – 160 ft.**	**Gamma Sector – 160 ft.**
Antenna Type: BXA-70063/6CF (1)	Antenna Type: BXA–70063/6CF (1)	Antenna Type: BXA–70063/6CF (1)
Frequency: Tx: 769-757 MHz; Rx: 776-787 MHz	Frequency: Tx: 769-757 MHz; Rx: 776-787 MHz	Frequency: Tx: 769-757 MHz; Rx: 776-787 MHz
No. Channels: 1	No. Channels: 1	No. Channels: 1
ERP/Channel: 821.69 W Max	ERP/Channel: 821.69 W Max	ERP/Channel: 821.69 W Max

Question No. 4

Provide a multi-signal level propagation plot at a scale of 1:40,000, depicting coverage from all existing and/or approved Cellco sites in the area. Provide a brief description of the existing sites including location, distance to the proposed facility, facility type, and antenna height.

Response

The plots showing Cellco's existing cellular and PCS coverage at a scale of 1:30,000 are included in Attachment 1. The 1:30,000 scale plots provide the Council with additional clarity and is the scale used for all current Council filings.

The proposed Bay Communication facility would interact with four of Cellco's adjacent cells sites. They include:

1. Cellco's existing New Hartford cell site consists of antennas at the 135 foot level on the 145 foot tower located at (20 Antolini Road - New Hartford, CT 06057). This cell site is 2.5 miles to the west of the proposed Bay Communication tower.
2. Cellco's existing Collinsville 2 cell site consists of antennas at the 147 foot level on the 180 foot tower located at (96 Powder Mill Road - Canton, CT 06022). This cell site is 2.3 miles to the east of the proposed Bay Communication tower.
3. Cellco's existing Collinsville cell site consists of antennas at the 120 foot level on the 120 foot tower located at (650 Albany Turnpike - Collinsville, CT 06022). This cell site is 2.3 miles to the east of the proposed Bay Communication tower.
4. Cellco's existing Burlington West, CT cell site consists of antennas at the 99 foot level on the 120 foot tower located at (12 Nepaug Road - Burlington, CT 06013). This cell site is 2.6 miles to the east of the proposed Bay Communication tower.

Question No. 5

Provide a multi-signal level propagation plot at a scale of 1:40,000, depicting coverage from the proposed site and all existing and/or approved Cellco sites in the area.

Response

The plot showing Cellco's cellular and PCS coverage from existing and the proposed New Hartford East cell site with antennas at 160 feet AGL at a scale of 1:30,000 are included in Attachment 2. The 1:30,000 scale plots provide the Council with additional clarity and is the scale used for all current Council filings.

Question No. 6

Provide specifications of the equipment building or cabinets to be installed at the proposed site.

Response

Cellco intends to install its standard 12' x 30' equipment shelter in the tower compound. The specifications for Cellco's radio equipment and shelter are included in Attachment 3.

Question No. 7

Provide a power density analysis according to the methodology prescribed in the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) assuming all Cellco antennas are directed at the base of the tower and all channels are operating simultaneously.

Response

See Attachment 4.

Question No. 8

What is the minimum antenna height required to meet coverage objectives? Provide an additional propagation plot(s) to demonstrate the need for this minimum height.

Response

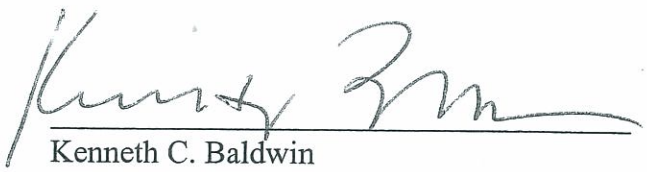
Consistent with the Council's findings of fact in Docket No. 314, Cellco's minimum height at the proposed Bay Communications facility is 160 feet.

CERTIFICATE OF SERVICE

I hereby certify that on the 8th day of May 2009, a copy of the foregoing was sent, via regular mail, postage pre-paid, to:

Bay Communications, LLC
c/o Thomas J. Regan, Esq.
Brown Rudnick Berlack Israels LLP
CityPlace I
185 Asylum Street, 38th Floor
Hartford, CT 06103-3402

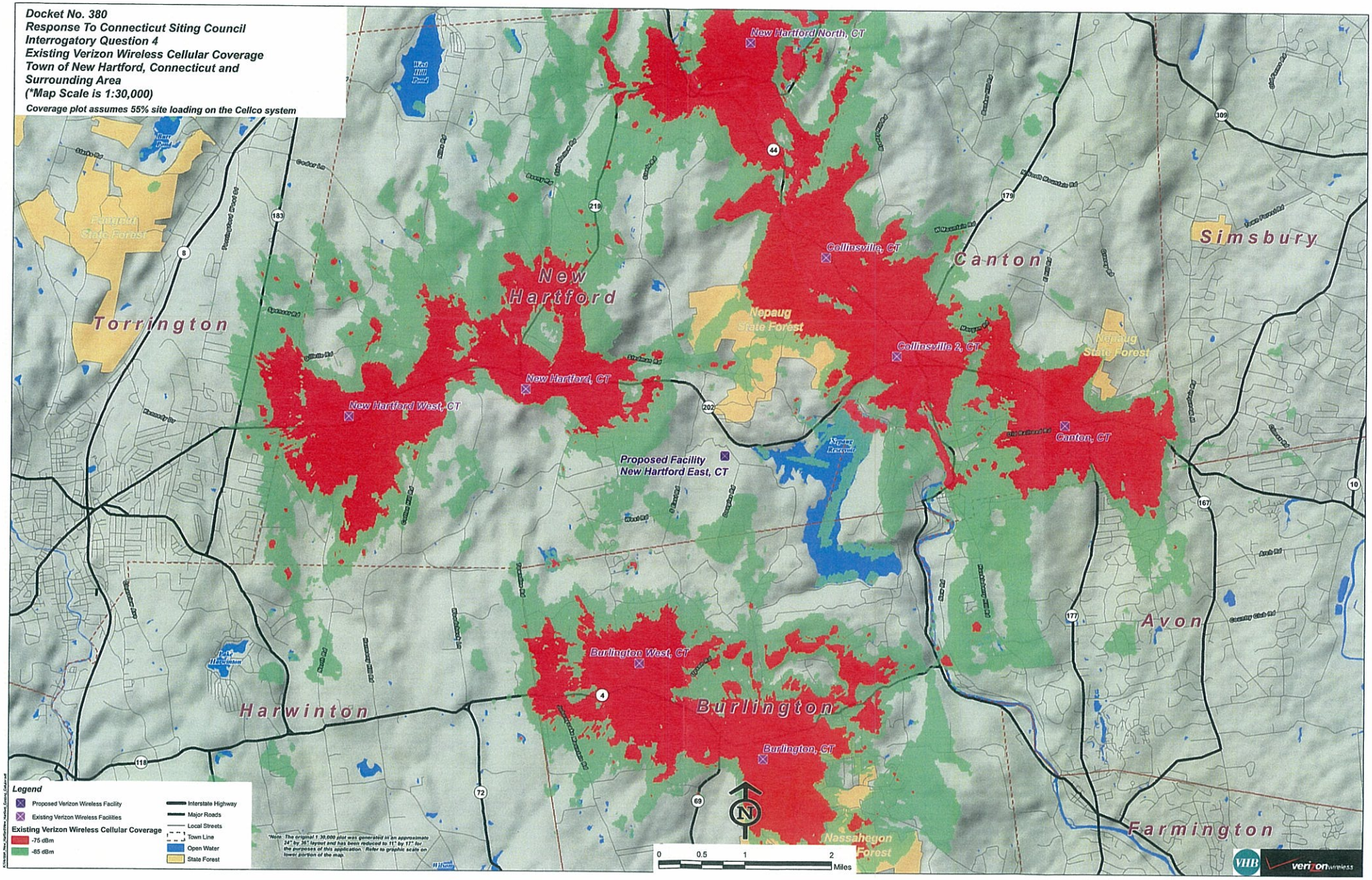
Cingular Wireless PCS, LLC
c/o Christopher B. Fisher, Esq.
Cuddy & Feder LLP
90 Maple Avenue
White Plains, NY 10601

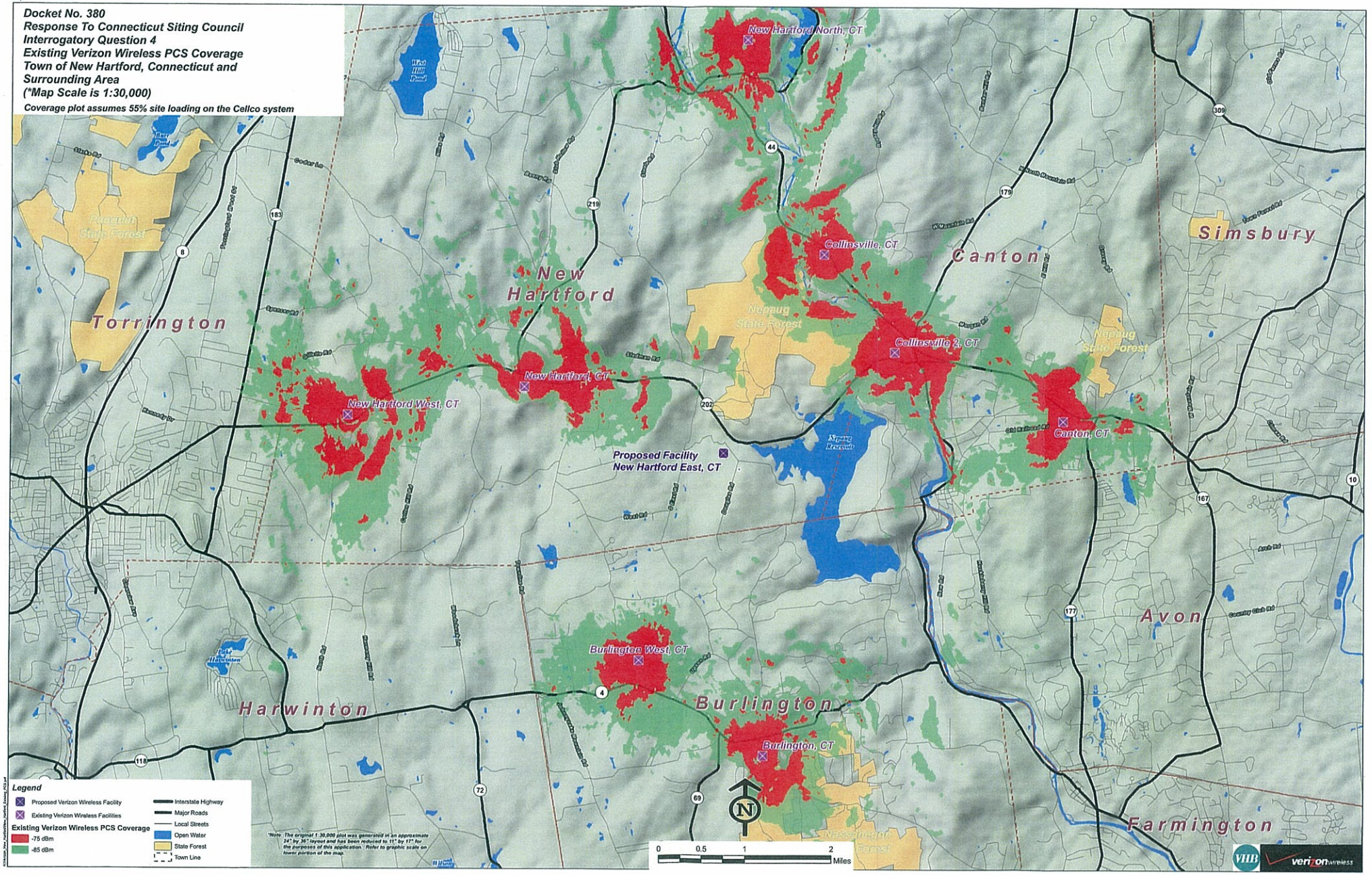


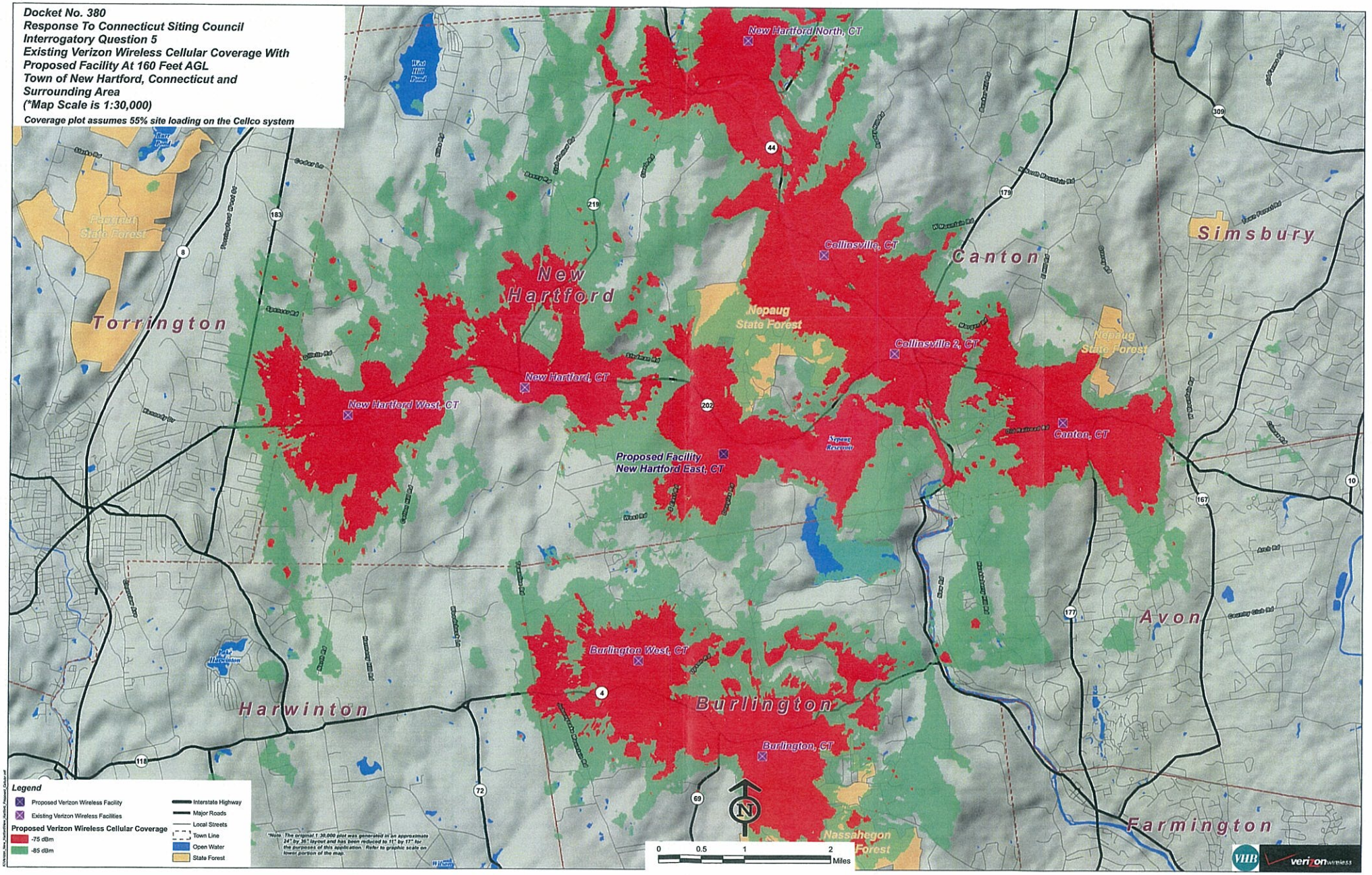
Kenneth C. Baldwin

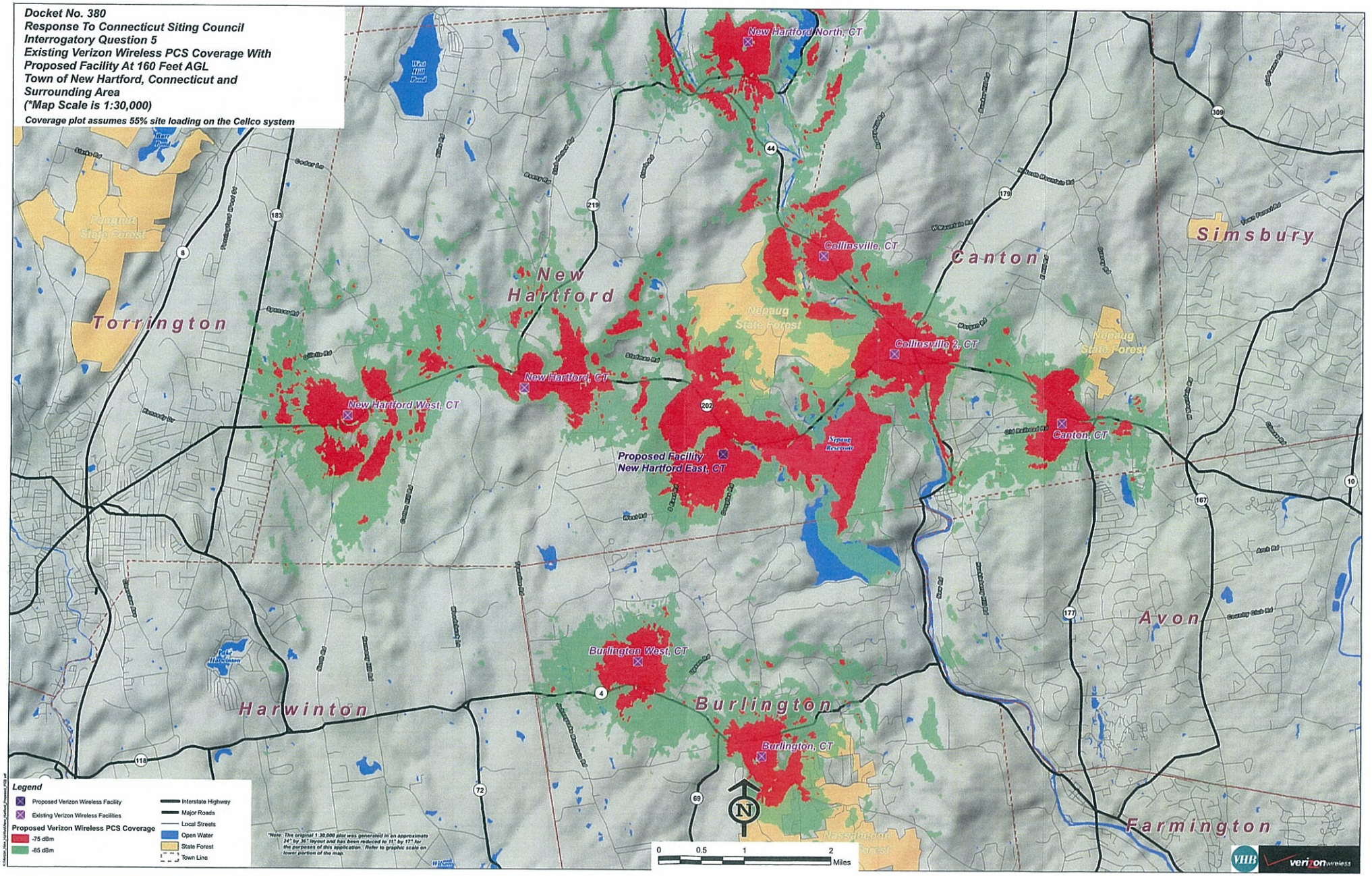
Docket No. 380
Response To Connecticut Siting Council
Interrogatory Question 4
Existing Verizon Wireless Cellular Coverage
Town of New Hartford, Connecticut and
Surrounding Area
(*Map Scale is 1:30,000)

Coverage plot assumes 55% site loading on the Cellco system



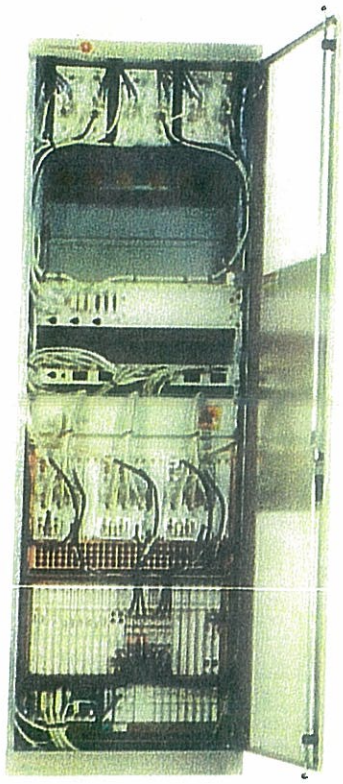

Docket No. 380
Response To Connecticut Siting Council
Interrogatory Question 4
Existing Verizon Wireless PCS Coverage
Town of New Hartford, Connecticut and
Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system
New Hartford North, CT
Collinsville, CT
Collinsville 2, CT
New Hartford, CT
New Hartford West, CT
Canton, CT
Proposed Facility
New Hartford East, CT
Burlington West, CT
Burlington, CT
New Hartford
Canton
Simsbury
Torrington
Avon
Harwinton
Burlington
Farmington
Nepaug State Forest
Peoguin State Forest
Legend
Proposed Verizon Wireless Facility
Existing Verizon Wireless Facilities
Existing Verizon Wireless PCS 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
0.5
1
2
Miles
N
VHB
verizonwireless


Docket No. 380
Response To Connecticut Siting Council
Interrogatory Question 5
Existing Verizon Wireless Cellular Coverage With
Proposed Facility At 160 Feet AGL
Town of New Hartford, Connecticut and
Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system
New Hartford North, CT
Collinsville, CT
Canton
Simsbury
New Hartford
Nepaug State Forest
Torrington
Collinsville 2, CT
New Hartford, CT
New Hartford West, CT
Canton, CT
Proposed Facility
New Hartford East, CT
Avon
Burlington West, CT
Harwinton
Burlington
Burlington, CT
Nassahegon Forest
Farmington
Legend
Proposed Verizon Wireless Facility
Existing Verizon Wireless Facilities
Proposed Verizon Wireless Cellular Coverage
-75 dBm
-85 dBm
Interstate Highway
Major Roads
Local Streets
Town Line
Open Water
State Forest
0 0.5 1 2 Miles
verizonwireless


Docket No. 380
Response To Connecticut Siting Council
Interrogatory Question 5
Existing Verizon Wireless PCS Coverage With
Proposed Facility At 160 Feet AGL
Town of New Hartford, Connecticut and
Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system
New Hartford North, CT
Collinsville, CT
Collinsville 2, CT
New Hartford, CT
New Hartford West, CT
Proposed Facility
New Hartford East, CT
Canton, CT
Burlington West, CT
Burlington, CT
New Hartford
Torrington
Canton
Simsbury
Avon
Harwinton
Burlington
Farmington
Penwood State Forest
Nepaug State Forest
Nepaug Reservoir
West Hill Pond
Lake Harwinton
Legend
Proposed Verizon Wireless Facility
Existing Verizon Wireless Facilities
Proposed Verizon Wireless PCS 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 portions of the map.
0
0.5
1
2
Miles
N
verizon wireless

Lucent CDMA Modular Cell 4.0B Indoor

For CDMA Networks



Lucent CDMA Modular Cell 4.0B is a high capacity base station equipped with the state-of-the-art technologies developed by Bell Labs. The product brings you outstanding carrier density and immediate OPEX savings. This indoor product can support up to 8 carriers/3 sectors per frame. It is twice the density of Modular Cell 4.0 (indoor). Modular Cell 4.0B offers full spectrum coverage in a single frame, dramatically simplifying growth patterns. As the leader in spread spectrum technology, Lucent Technologies continues to introduce innovations to the market: Multi-Carrier Radio (15MHz), Block Filters/Wideband Filters, and 40W Power Amplifier Modules are the latest assets integrated in the base station.

Features

The Modcell 4.0B indoor version offers a small footprint with exceptional carrier density in a standard ETSI cabinet.

- Indoor Single Frame Configuration
- 1-8 carriers per frame at 3 sectors (will support up to 11 carriers with Auxiliary Amplifier Frame)
- Dual Band: one cell to the ECP & mobile
- Close Loop Gain Control
- Timing and Controller Redundancy
- Integrated Power option
- Support CDMA2000™1X, and EV-DO Rev.0, with future support to EV-DO Rev. A
- IP Backhaul and Ethernet Backhaul capable
- 6-Sector option ready
- Intelligent Antenna option ready

Benefits

- Optimized for highest carrier density, smooth growth in one frame
- Conserves indoor footprint, reducing hardware and floor space requirements
- Minimizes configuration complexity
- Software-Only Carrier Add at certain carrier counts
- Flexible channel growth planning
- Designed to use existing power supply
- Grow CDMA carriers on only 2 antennas/sector
- Multi-Carrier Radio (15MHz), Block Filters/ Wideband Filters, and 40W Power Amplifier Modules

Lucent Technologies
Bell Labs Innovations

Technical Specifications

Description	Specification
1. **Configurations**	
a. Sectors	3, 4 and 6
b. Carriers	1–8 per frame at 3 sectors (up to 11 with Auxiliary Amplifier Frame)
2. **CDMA Channel Card Capacity**	12 slots; CMU IVB capable
3. **T1, E1 Facilities**	Maximum of 20 per cabinet when equipped with URC-II's
4. **User Alarms**	7 Power Alarms, 25 User Alarms
5. **GPS Antenna**	Yes
6. **Air Interface Standards**	T1A/E1A 95-A plus TSB-74; T1A/E1A 95-B for 850 MHz; CDMA 2000
7. **Frequency Bands**	850MHz/1900 MHz; 300 to 2100 MHz capable
8. **Vocoder**	8 Kbps; 8 Kbps EVRC; 13 Kbps; SMV-ready
9. **Environmental Cabinet Housing**	Standard ETSI cabinet; UL50 compliant; zero rear clearance
10. **Cabinet Access**	Front Access
11. **Operating Temperature Range**	Range: -5 to +40°C (continuous)
12. **Dimensions**	600 mm W x 600 mm D x 1880 mm H (23.6 x 23.6 x 74) inches
13. **Estimated Installed Weight**	365 kg (785 lbs.) DC [8 carriers in one cabinet]
14. **Power Options**	Integrated Power, AC 120/240 Volt Input, -48V or +24 V DC Conversion Non-integrated Power requires either + 24 VDC Input or - 48 VDC Input
15. **Power Consumption**	
a. 3 Carrier/3 Sectors	2167 W
b. 6 Carrier/3 Sectors	5449 W
c. 11 Carrier/3 Sectors	10026 W
16. **RF Power (at J4)**	25 W per carrier (850) FCC Rated short-term average 20 W per carrier (850) FCC Rated long-term average 20 W per carrier (1900) FCC Rated short-term average 16 W per carrier (1900) FCC Rated long-term average
17. **Minimal Antenna Configuration**	2 antennas/sector
18. **Filter**	Block and Wide Band Dual Duplex
19. **Growth Frame**	PCS AUX Frame, Dual Band Growth Frame
20. **Operational Accessories**	Integrated Power
21. **Channel Elements**	Channel pooling across sectors or carriers

To learn more about our comprehensive portfolio, please contact your Lucent Technologies Sales Representative or visit our web site at http://www.lucent.com.

MOB-Mod4B-i 0106

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Bell Labs Innovations

Site Name: New Hartford E, CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	14	602.97	8441.58	160	0.1186	1.0	11.86%
VZW Cellular	875	9	333.93	3005.37	160	0.0422	0.583	7.24%
VZW 700	746	1	821.69	821.69	160	0.0115	0.4973	2.32%

Total Percentage of Maximum Permissible Exposure 21.42%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used.