STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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 IN THE CITY OF MILFORD, CONNECTICUT	:	DOCKET NO. 410
	:	DECEMBER 22, 2010

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

On December 9, 2010, 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.

Question No. 1

When was the search ring first initiated for a tower in this area? Provide the size, shape, and location of the center of the search ring.

Response

As discussed in the Site Search Summary, included in Attachment 8 of the Application, Cellco issued its Bayview search area in September of 2006. A copy of the search area ring map is also included in Attachment 8. The Bayview search ring is a circle with a radius of approximately 2,000 feet. The search ring is centered near the intersection of Pond Point Avenue and Bryan Hill Road.

Question No. 2

Describe the land uses surrounding the proposed tower site.

Response

The land use in the area surrounding the Bayview Facility is a mix of single-family residential, multi-family residential (apartments and condominiums), commercial/retail, recreational/park, municipal (fire department) and institutional (Milford Health Care Center) uses. These areas are more clearly labeled on the aerial photograph attached behind Tab 1 of these responses.

Question No. 3

Explain why the proposed diameter of the top of the tower was reduced from 54 inches to 42 inches. Does Cellco Partnership d/b/a Verizon Wireless (Cellco) believe the proposed diameter (42 inches) of the flagpole tower is sufficient to accommodate other carriers' antenna arrays without having to install a "step" i.e. section of larger diameter in the future? Explain.

Response

As discussed in the Application, Cellco originally planned to install a flagpole structure 54" in diameter at the Property. This proposal was proceeding at about the same time that T-Mobile was pursuing the flagpole installation at Silver Hill Hospital in Docket No. 401. After hearing the Council's reaction to and concern for the 54" diameter pole at Silver Hill Hospital, it decided to reconsider the use of a larger diameter pole as part of the Bayview Facility. By going to a 42" diameter pole, Cellco can still satisfy its objectives in the area, but would need to install antennas at three different horizontal levels on the tower (PCS at 130'; cellular at 120'; and LTE at 110'). This configuration limits co-location opportunities for additional carriers. Since T-

Mobile and AT&T currently maintain antennas on the existing flagpole tower on the same parcel this limitation was less of a concern. There is still space, beneath Cellco antennas, and at the 100-foot level on the proposed 136-foot flagpole tower for an additional carrier, if a need exists. Cellco believes that a 42" diameter pole would be sufficient to accommodate the needs of Cellco and a second wireless carrier on the proposed flagpole tower.

Question No. 4

How many hours of run time for the backup generator would the proposed 1,000 gallon propane tank provide?

Response

Cellco's propane-fueled back-up generator could run for a period of approximately 70 hours before refueling would be required.

Question No. 5

Describe the backup generator's containment in the event of an engine oil or coolant leakage.

Response

The generator room inside Cellco's equipment shelter maintains a concrete floor installed at a level several inches below the door threshold. The generator room floor is capable of containing 120% of the volume of all fluids inside the generator. The floor of the generator room also maintains leak detection alarms in the case of a failure of the existing generator coolant and oil containment systems.

Question No. 6

Has Cellco considered using a fuel cell as a backup power source for the proposed

facility? Explain.

Response

No. While Cellco has used fuel cells in two recent demonstration projects, at an existing cell site and at one of its mobile telephone switching office locations (both outside of Connecticut), the company has not committed to the use of fuel cells for primary or back-up power at individual cell sites.

Question No. 7

Calculate the amounts of cut and fill required to develop the proposed tower site and access drive.

Response

Cellco anticipates the need to cut approximately 29 cubic yards of material to construct the proposed facility. Cellco does not anticipate the need for any fill.

Question No. 8

What are the minimum antenna centerline heights required to meet Cellco's cellular, PCS, and LTE coverage objectives?

Response

In the current flagpole-type configuration, all of the antennas are located at the lowest level that allows Cellco to satisfy its coverage objectives in the area.

Question No. 9

No existing LTE coverage map is provided. Is there any existing LTE coverage in the vicinity of the proposed tower? If yes, provide a plot of existing LTE coverage using the same scale provided.

Response

Currently there is no LTE service being provided anywhere in the State of Connecticut. Cellco does anticipate that it will begin to activate its LTE network in Connecticut in 2011. If the Bayview Facility is approved, Cellco would install LTE (700 MHz) antennas at this site. Included behind Tab 2 is a stand-alone coverage plot showing LTE coverage from the proposed Bayview Facility.

Question No. 10

Provide cellular, PCS, and LTE coverage plots, as applicable, using the same scale provided assuming the tower is ten and twenty feet shorter, respectively.

Response

Coverage plots assuming PCS, Cellular and LTE antenna heights ten feet lower than proposed in the application are included behind Tab 3. Coverage plots assuming PCS, cellular and LTE antenna heights twenty feet lower than proposed in the Application are included behind Tab 4.

Question No. 11

Provide the lengths of the proposed coverage in miles for cellular, PCS, and LTE, as applicable, of any roads that Cellco seeks to provide coverage to in the vicinity of the proposed tower assuming the tower is ten and twenty feet shorter, respectively.

Response

In addition to the coverage provided along State Route 162, discussed in the application narrative (p. 2), Cellco has identified Edgefield Street, Pond Point Avenue and Buckingham Avenue as the more significant travel-ways in the area, in its response to this question. As

illustrated on the coverage plots included in the Application, the proposed Bayview Facility would provide reliable wireless service to many other roads in the Bayview area where coverage is not available today.

	Street Name	Proposed 136' Flagpole	126' Flagpole	116' Flagpole
PCS (1900 MHz)	Edgefield Street	0.76 miles	0.75 miles	0.73 miles
	Pond Point Avenue	0.96 miles	0.95 miles	0.94 miles
	Buckingham Avenue	0.56 miles	0.54 miles	0.54 miles
Cellular (850 MHz)	Edgefield Street	0.99 miles	0.94 miles	0.89 miles
	Pond Point Avenue	1.2 miles	1.1 miles	1.08 miles
	Buckingham Avenue	0.69 miles	0.67 miles	0.66 miles
LTE (700 MHz)	Edgefield Street	0.99 miles	0.95 miles	0.94 miles
	Pond Point Avenue	1.21 miles	1.15 miles	1.1 miles
	Buckingham Avenue	0.7 miles	0.68 miles	0.67 miles

Question No. 12

Provide the areas to be covered (in square miles) for cellular, PCS, and LTE service, as applicable, assuming the tower is ten and twenty feet shorter, respectively.

Response

The overall coverage from the proposed Bayview Facility at the heights requested is provided. Please note that the overall coverage footprint from the Bayview Facility is larger than the Council might normally see for a tower of this size due to its proximity to the open water of Long Island Sound.

136' Flagpole	Coverage Footprint
1900 MHz (130')	20.49 square miles
850 MHz (120')	90.0 square miles
700 MHz (110')	101.45 square miles

126' Flagpole	Coverage Footprint
1900 MHz (120')	19.82 square miles
850 MHz (110')	87.84 square miles
700 MHz (100')	98.37 square miles

116' Flagpole	Coverage Footprint
1900 MHz (110')	19.13 square miles
850 MHz (100')	85.43 square miles
700 MHz (90')	95.42 square miles

TAB 1

Legend

- Proposed Facility

Land Use

- Apartment Buildings
- Condominiums
- Single Family Homes
- Fire Department Building
- Municipal Space
- Nursing Home
- Shoppping Area
- Multi Family Homes

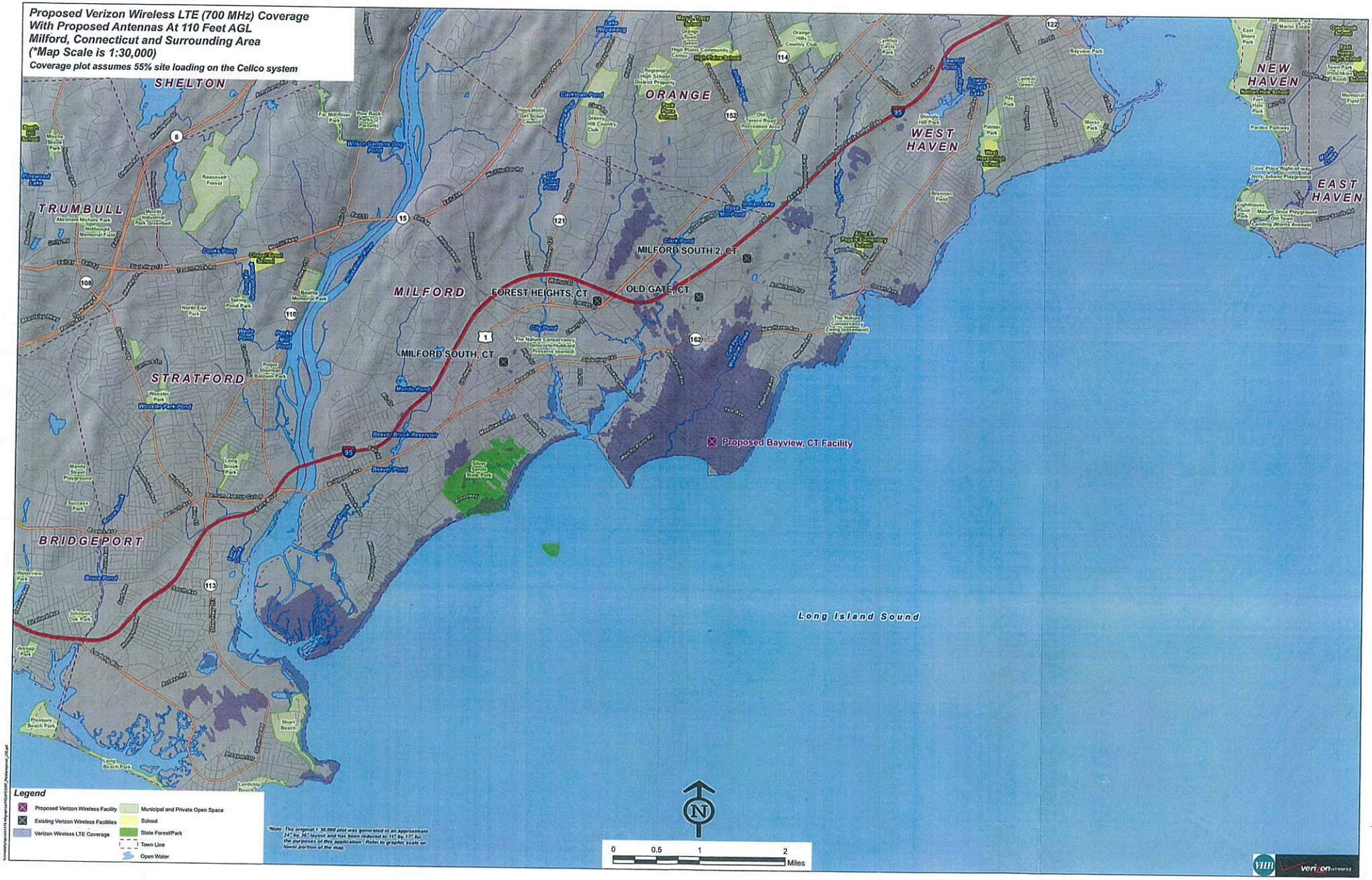
100 50 0 100 Feet

Vanasse Hangen Brustlin, Inc.

Land Use Map
Proposed Verizon Wireless Telecommunications Facility
Bayview
234 Melba Street
Milford, Connecticut

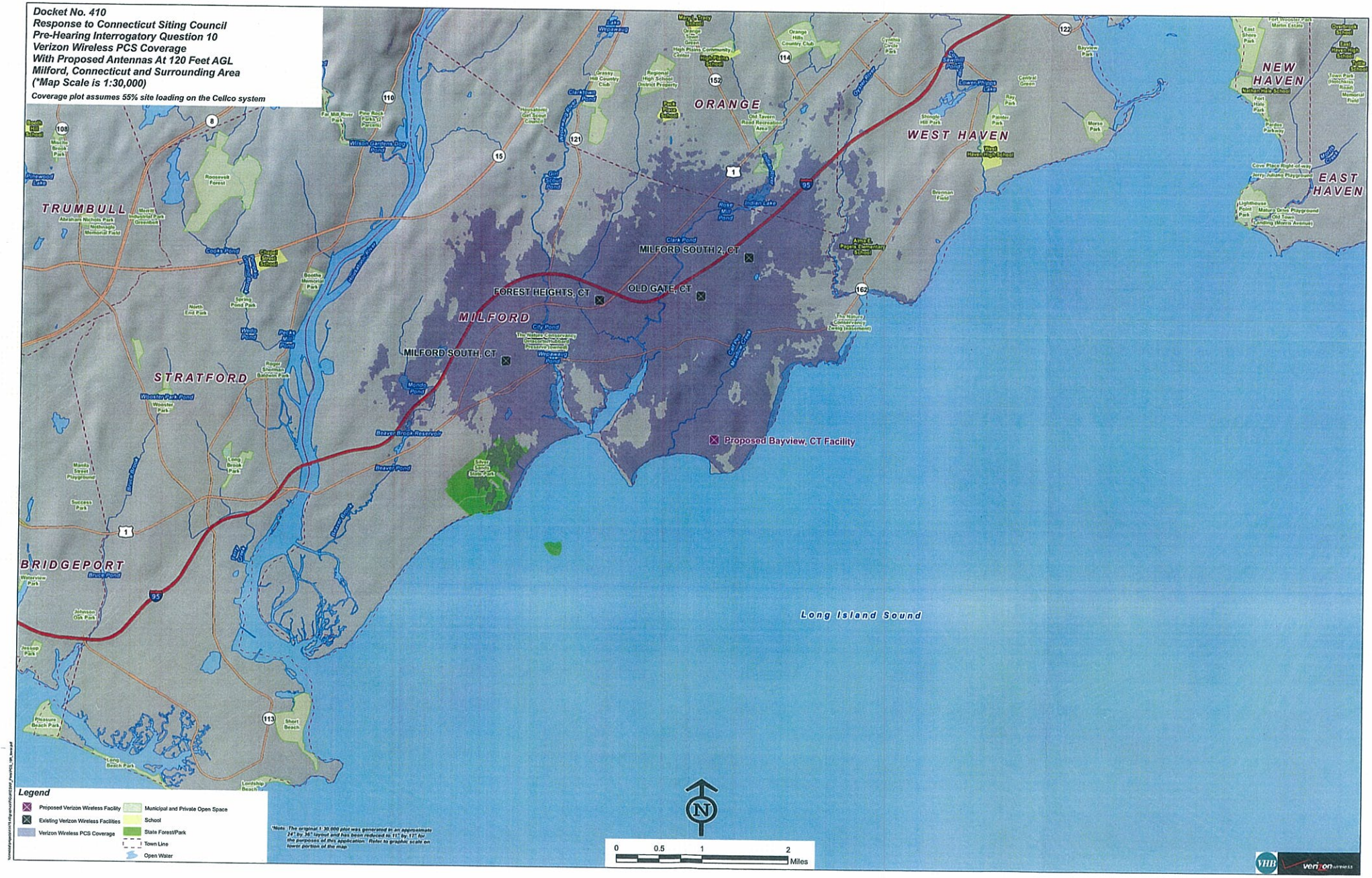
TAB 2

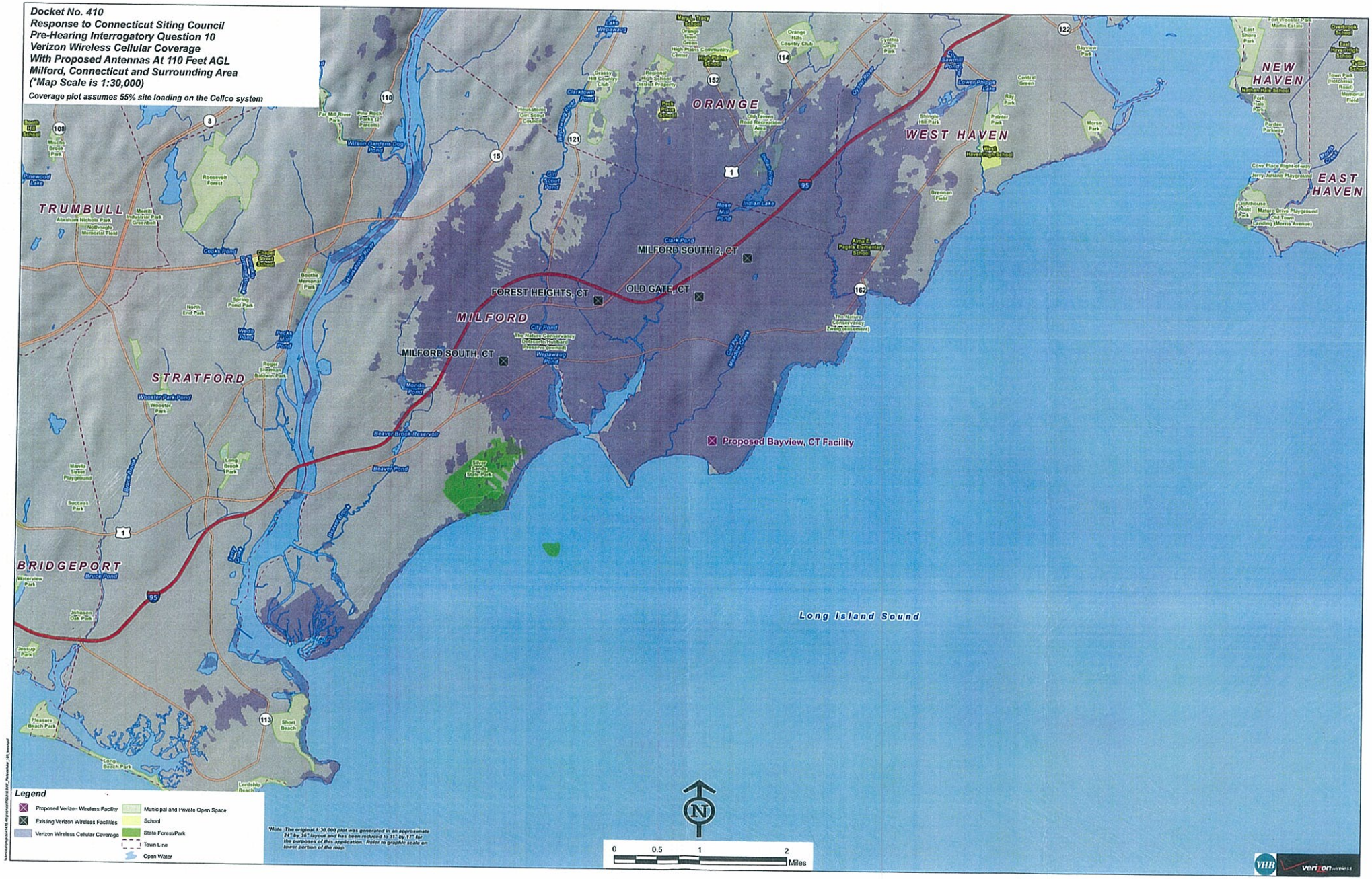
Proposed Verizon Wireless LTE (700 MHz) Coverage
With Proposed Antennas At 110 Feet AGL
Milford, Connecticut and Surrounding Area
*(*Map Scale is 1:30,000)*
Coverage plot assumes 55% site loading on the Cellco system

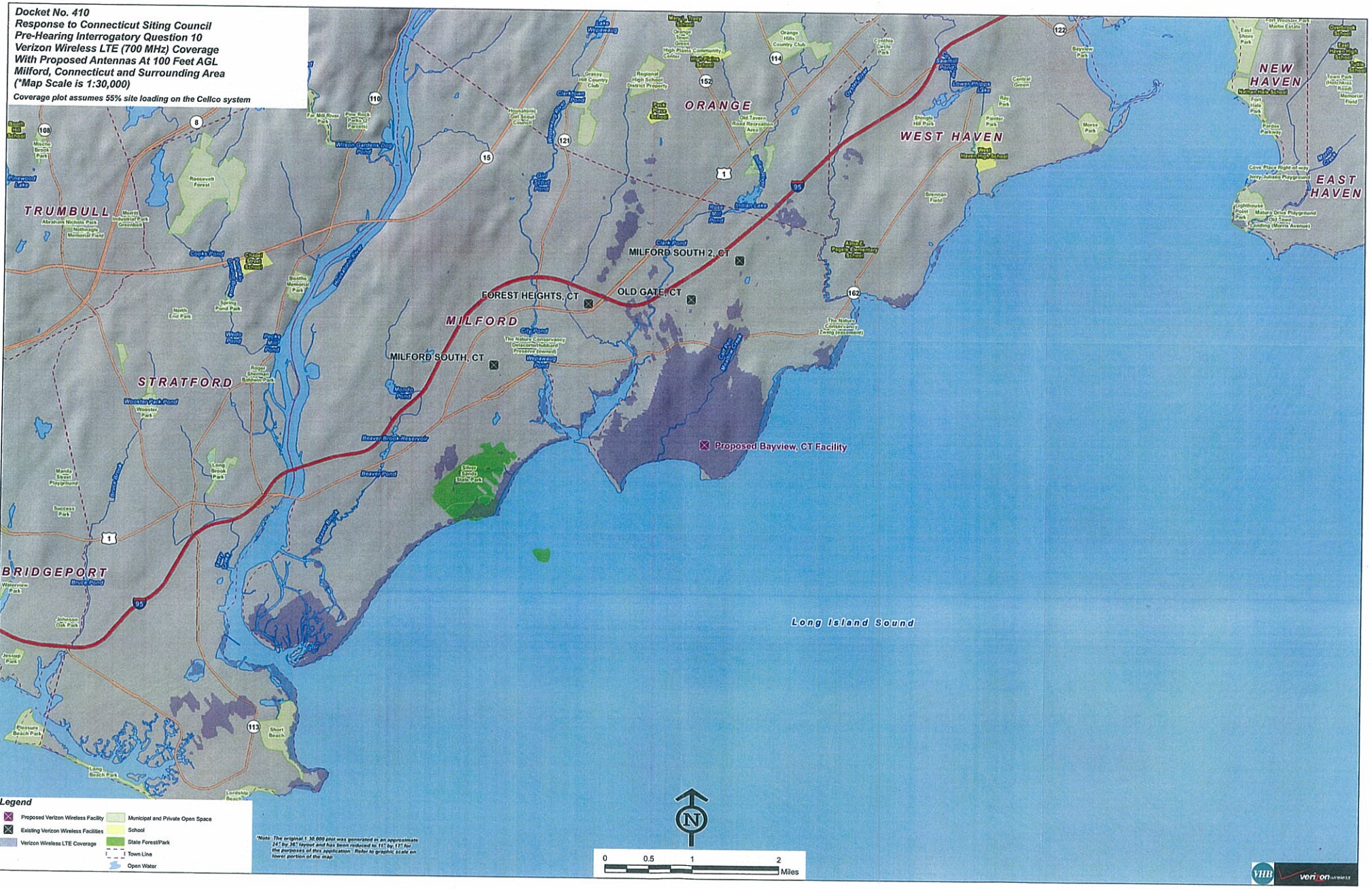


*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purposes of this application. Refer to graphic scale on lower portion of the map.

TAB 3


Docket No. 410
Response to Connecticut Siting Council
Pre-Hearing Interrogatory Question 10
Verizon Wireless PCS Coverage
With Proposed Antennas At 120 Feet AGL
Milford, Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system
TRUMBULL
STRATFORD
BRIDGEPORT
MILFORD
ORANGE
WEST HAVEN
NEW HAVEN
EAST HAVEN
MILFORD SOUTH 2, CT
FOREST HEIGHTS, CT
OLD GATE, CT
MILFORD SOUTH, CT
Proposed Bayview, CT Facility
Long Island Sound
Legend
Proposed Verizon Wireless Facility
Existing Verizon Wireless Facilities
Verizon Wireless PCS Coverage
Municipal and Private Open Space
School
State Forest/Park
Town Line
Open Water
0 0.5 1 2
Miles
VHB
verizon

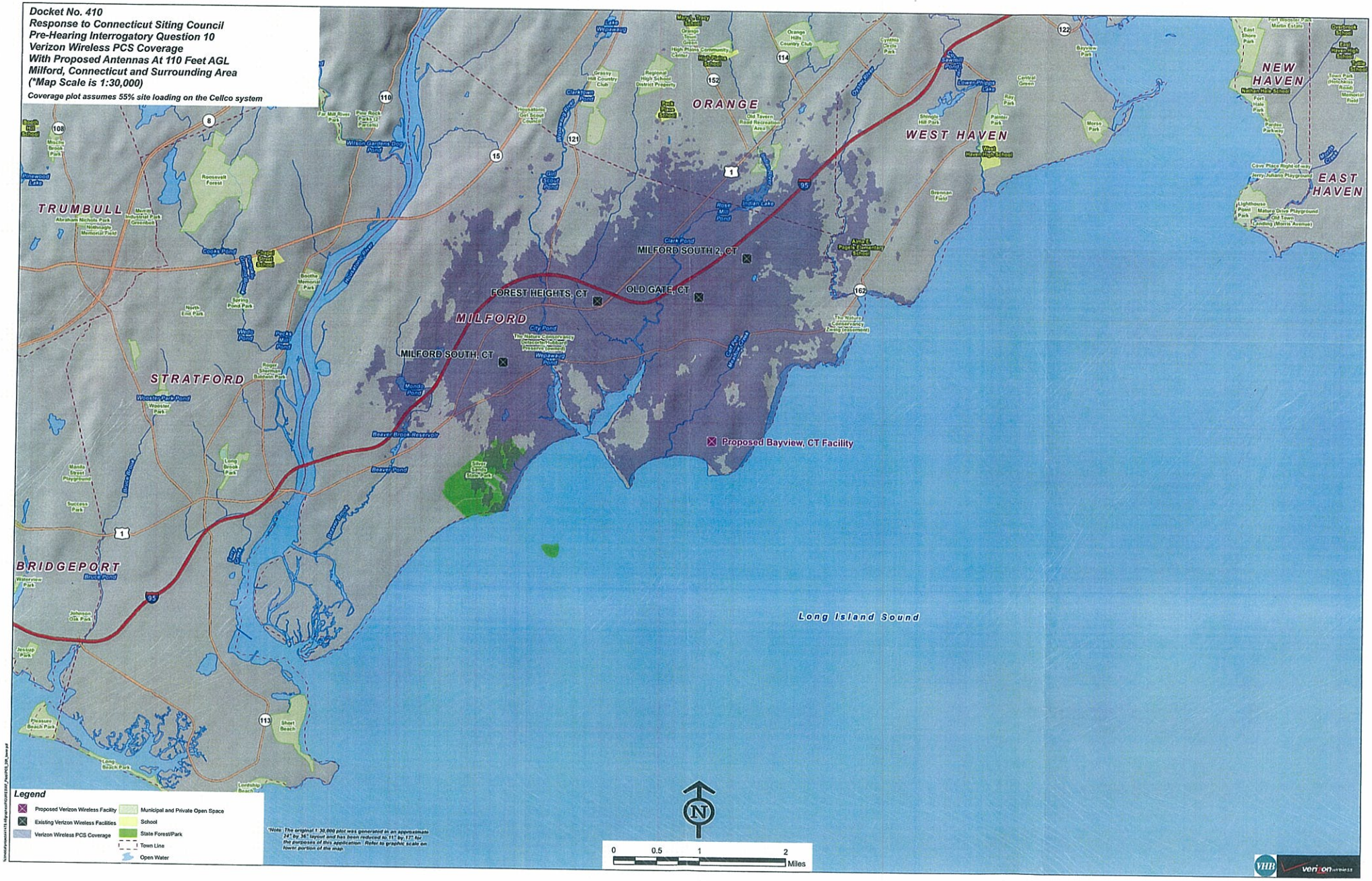

Docket No. 410
Response to Connecticut Siting Council
Pre-Hearing Interrogatory Question 10
Verizon Wireless Cellular Coverage
With Proposed Antennas At 110 Feet AGL
Milford, Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system
TRUMBULL
STRATFORD
BRIDGEPORT
MILFORD
ORANGE
WEST HAVEN
NEW HAVEN
EAST HAVEN
MILFORD SOUTH 2, CT
FOREST HEIGHTS, CT
OLD GATE, CT
MILFORD SOUTH, CT
Proposed Bayview, CT Facility
Long Island Sound
Legend
Proposed Verizon Wireless Facility
Existing Verizon Wireless Facilities
Verizon Wireless Cellular Coverage
Municipal and Private Open Space
School
State Forest/Park
Town Line
Open Water
*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

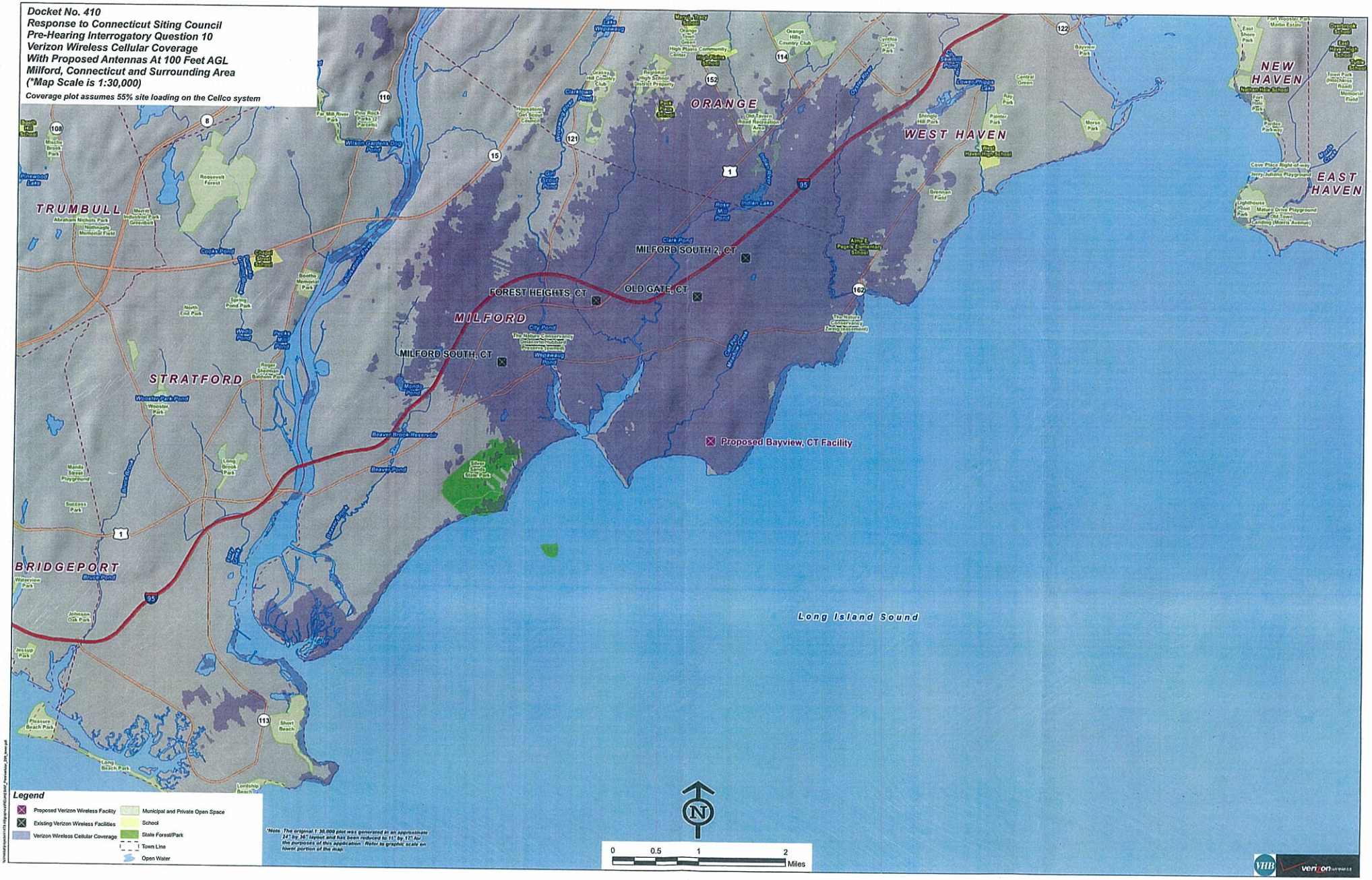

Docket No. 410
Response to Connecticut Siting Council
Pre-Hearing Interrogatory Question 10
Verizon Wireless LTE (700 MHz) Coverage
With Proposed Antennas At 100 Feet AGL
Milford, Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system
TRUMBULL
STRATFORD
BRIDGEPORT
MILFORD
ORANGE
WEST HAVEN
NEW HAVEN
EAST HAVEN
MILFORD SOUTH 2, CT
FOREST HEIGHTS, CT
OLD GATE, CT
MILFORD SOUTH, CT
Proposed Bayview, CT Facility
Long Island Sound
Legend
Proposed Verizon Wireless Facility
Existing Verizon Wireless Facilities
Verizon Wireless LTE Coverage
Municipal and Private Open Space
School
State Forest/Park
Town Line
Open Water
*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
verizon

TAB 4

Docket No. 410
Response to Connecticut Siting Council
Pre-Hearing Interrogatory Question 10
Verizon Wireless PCS Coverage
With Proposed Antennas At 110 Feet AGL
Milford, Connecticut and Surrounding Area
(*Map Scale is 1:30,000)

Coverage plot assumes 55% site loading on the Cellco system




Docket No. 410
Response to Connecticut Siting Council
Pre-Hearing Interrogatory Question 10
Verizon Wireless Cellular Coverage
With Proposed Antennas At 100 Feet AGL
Milford, Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system
TRUMBULL
STRATFORD
BRIDGEPORT
MILFORD
ORANGE
WEST HAVEN
NEW HAVEN
EAST HAVEN
FOREST HEIGHTS, CT
OLD GATE, CT
MILFORD SOUTH 2, CT
MILFORD SOUTH, CT
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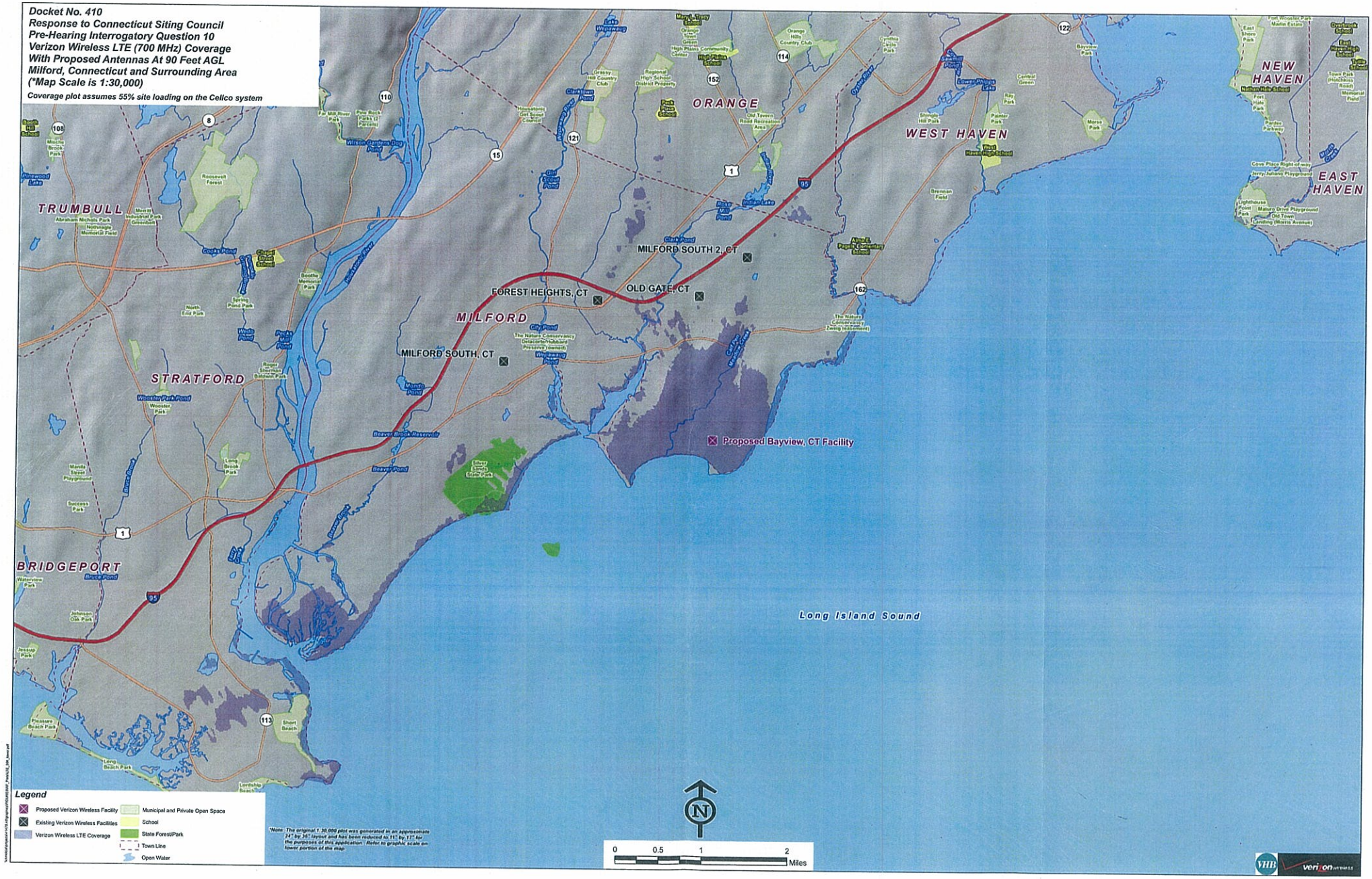
Verizon Wireless Cellular Coverage
Town Line
Open Water
Municipal and Private Open Space
School
State Forest/Park
*Note: The original 1:30,000 plot was generated in an approximate 24" by 36" layout and has been reduced to 11" by 17" for the purposes of this application. Refer to graphic scale on lower portion of the map.
0
0.5
1
2
Miles


Docket No. 410
Response to Connecticut Siting Council
Pre-Hearing Interrogatory Question 10
Verizon Wireless LTE (700 MHz) Coverage
With Proposed Antennas At 90 Feet AGL
Milford, Connecticut and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Cellco system
TRUMBULL
STRATFORD
BRIDGEPORT
MILFORD
ORANGE
WEST HAVEN
NEW HAVEN
EAST HAVEN
MILFORD SOUTH 2, CT
FOREST HEIGHTS, CT
OLD GATE, CT
MILFORD SOUTH, CT
Proposed Bayview, CT Facility
Long Island Sound
Legend
Proposed Verizon Wireless Facility
Existing Verizon Wireless Facilities
Verizon Wireless LTE Coverage
Municipal and Private Open Space
School
State Forest/Park
Town Line
Open Water
*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