

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
 :
 APPLICATION OF T-MOBILE NORTHEAST, : DOCKET NO. 399
 LLC FOR A CERTIFICATE OF :
 ENVIRONMENTAL COMPATIBILITY AND :
 PUBLIC NEED FOR THE CONSTRUCTION, :
 MAINTENANCE AND OPERATION OF A :
 TELECOMMUNICATIONS FACILITY AT :
 166 PAWCATUCK AVENUE IN THE TOWN :
 OF STONINGTON, CONNECTICUT : APRIL 1, 2010

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

On March 15, 2010, the Connecticut Siting Council (“Council”) issued Pre-Hearing Interrogatories to Intervenor, Cellco Partnership d/b/a Verizon Wireless (“Cellco”), relating to the above-captioned docket. Below are Cellco’s responses.

Question No. 1

What are Verizon’s licensed operating frequencies in this part of the state?

Response

Cellco maintains FCC licenses to operate a wireless system in the cellular (850 MHz), PCS (1900 MHz) and LTE (700 MHz) frequency ranges.

Question No. 2

What is the design signal strength for Verizon’s system for in-vehicle coverage? For in-building coverage?

Response

Cellco’s coverage thresholds are -85 dBm for reliable in-vehicle service and -75 dBm for

reliable in-building service.

Question No. 3

What is the existing signal strength in the area Verizon would serve from this proposed site?

Response

The existing signal strength in the area to be served by the proposed T-Mobile tower ranges from -86 dBm to -97 dBm.

Question No. 4

What would be the total area Verizon could cover from the proposed site?

Response

Cellco expects to provide reliable service to an area of 9.92 square miles at cellular frequencies (850 MHz); 13.28 square miles at LTE frequencies (700 Hz); and 7.41 square miles at PCS frequencies (1900 MHz) from the proposed T-Mobile cell site

Question No. 5

According to its own statistics, what is the rate of dropped calls in the vicinity of the area that Verizon could cover from this site?

Response

For those sectors of Cellco's adjacent cell sites directed toward the Pawcatuck facility, Cellco experiences dropped calls at a rate of 1.81% and ineffective attempts at a rate of 2.02%.

Question No. 6

What are Verizon's coverage objectives in placing its antennas on the proposed tower?

Response

Cellco's primary coverage objectives in this area are to provide PCS service to a number of existing coverage gaps along Route 1, portions of the Acela/Shoreline East rail line, as well as local roads in the area. From the T-Mobile facility, Cellco will also provide enhanced 850 MHz wireless services to the existing residential and commercial areas immediately south of the tower site, including several commercial marinas and recreational areas and to boaters along the Pawcatuck River and portions of Long Island Sound.

Question No. 7

For the highways and major thoroughfares identified in the answer to Interrogatory No. 6, what are the lengths of any Verizon coverage gaps?

Response

There are a number of existing PCS coverage gaps totaling 1.29 miles along Route 1 and a single gap of 1.15 miles along the Acela/Shoreline East rail line.

Question No. 8

What are the respective distances Verizon could cover on the major thoroughfares identified in its response to Interrogatory No. 6?

Response

With antennas attached at a centerline height of 107 feet above ground level, Cellco would provide PCS coverage to a 1.08 mile portion of Route 1 and the entire 1.15 mile gap along the Acela/Shoreline East rail line.

Question No. 9

Is providing coverage for Amtrak passengers a reason for Verizon to locate on this tower?

Response

Yes. Service to the Amtrak/Shoreline East rail line is a part of Cellco's coverage objective in the area.

Question No. 10

Provide propagation maps, at the frequencies currently being used by Verizon, showing Verizon's existing wireless coverage in the vicinity of the proposed site, what its coverage(s) would be from the proposed site, and what would be the combined coverages of its existing sites and the proposed site.

Response

The coverage plots requested are included behind Tab 1.

Question No. 11

Identify, by address, sites with which Verizon's antennas at the proposed site would hand off signals – include type and height of structure and height of Verizon's antennas on structure and distance and direction from the proposed tower.

Response

Pawcatuck Cell Site – 173 South Broad Street, Stonington, CT. This existing 199-foot tower is located approximately 0.92 miles to the north of the T-Mobile tower site. Cellco antennas are located at a centerline height of 150 feet.

Stonington South Cell Site – 34 Summit Street, Stonington Borough, CT. This existing 143-foot water tank is located approximately 2.8 miles west of the T-Mobile tower site. Cellco antennas are located at a centerline height of 140 feet.

Question No. 12

Provide the following information: 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

PCS Antennas

<u>Alpha Sector – 107 ft.</u>	<u>Beta Sector – 107 ft.</u>	<u>Gamma Sector – 107 ft.</u>
Antenna Type: BXA – 185063/12CF (1)	Antenna Type: BXA – 185063/12CF (1)	Antenna Type: BXA – 185063/12CF (1)
Frequency: Tx: 1965-1980,1945-1950 MHz; Rx: 1885-1900,1865-1870 MHz	Frequency: Tx: 1965-1980,1945-1950 MHz; Rx: 1885-1900,1865-1870 MHz	Frequency: Tx: 1965-1980,1945-1950 MHz; Rx: 1885-1900,1865-1870 MHz
No. Channels: 14	No. Channels: 14	No. Channels: 14
ERP/Channel: 538.41 W Max	ERP/Channel: 538.41 W Max	ERP/Channel: 538.41 W Max

Cellular Antennas

<u>Alpha Sector – 107 ft.</u>	<u>Beta Sector – 107 ft.</u>	<u>Gamma Sector – 107 ft.</u>
Antenna Type: LPA-80063/6CF (2)	Antenna Type: LPA-4019-3 (2)	Antenna Type: LPA-80063/6CF (2)
Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz	Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz	Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz
No. Channels: 9	No. Channels: 9	No. Channels: 9
ERP/Channel: 439.52 W Max	ERP/Channel: 492.21 W Max	ERP/Channel: 439.52 W Max

LTE Antennas

Alpha Sector – 107 ft.

Antenna Type: BXA–
70063/6CF (1)

Frequency: Tx:746 – 757
MHz; Rx: 776-787 MHz

No. Channels: 1

ERP/Channel: 879.14 W Max

Beta Sector – 107 ft.

Antenna Type: BXA–
70063/6CF (1)

Frequency: Tx:746 – 757
MHz; Rx: 776-787 MHz

No. Channels: 1

ERP/Channel: 879.14 W Max

Gamma Sector – 107 ft.

Antenna Type: BXA–
70063/6CF (1)

Frequency: Tx:746 – 757
MHz; Rx: 776-787 MHz

No. Channels: 1

ERP/Channel: 879.14 W Max

Question No. 13

Would Verizon’s antennas cause interference problems for the 900 MHz radio system in use at the sanitary sewer pumping station located across the street from the Main property on Pawcatuck Avenue? Explain why or why not.

Response

No. Cellco does not have an FCC license allowing it to operate in the 900 MHz frequency range. Cellco’s 1900 MHz, 850 MHz and 700 MHz systems will not interfere with the 900 MHz operating frequencies systems.

Question No. 14

What is the minimum height at which Verizon could achieve its coverage objectives from the proposed site?

Response

Cellco has reserved the second highest spot on the T-Mobile tower and intends to install its antennas at a centerline height of 107 feet on the tower. This is the minimum height needed to satisfy its coverage objectives.

Question No. 15

Provide a propagation map showing what Verizon's coverage would be at 10 feet below its antennas' proposed height at the proposed site.

Response

Attached behind Tab 2 are the coverage plots requested.

With an antenna centerline height of 97 feet, Cellco's overall coverage footprint from this site would shrink from 9.92 to 7.30 square miles at cellular frequencies; 13.28 to 11.39 square miles at LTE frequencies; and 7.41 to 5.91 square miles at PCS frequencies. PCS coverage would be reduced from 1.08 miles to 0.87 miles along Route 1. At 97 feet, Cellco would still be able to satisfy its coverage objectives along the Acela/Shoreline East rail line.

Question No. 16

What is the approximate cost of the antennas and related equipment that Verizon would install at the proposed facility?

Response

Below is a listing of all of Cellco's costs associated with the proposed T-Mobile facility in Pawcatuck.

Cell Site Radio Equipment	\$450,000
Platform, Antennas and Coax	\$64,000
Power Systems (including generator and propane tank)	\$44,000
Equipment Building	\$50,000
Miscellaneous Site Costs (site preparation and restoration of facility compound)	\$7,500

Question No. 17

What is the size of the equipment shelter Verizon would use at this site?

Response

Cellco intends to install a 12' x 30' shelter.

Question No. 18

What would Verizon use for back up power at this site?

Response

Yes. Cellco intends to install a diesel-fueled emergency back up generator at the site, for use only at times when commercial power to the facility is interrupted. The generator will be exercised for a period of 20 to 30 minutes, once a week, during the day to ensure it is operating properly.

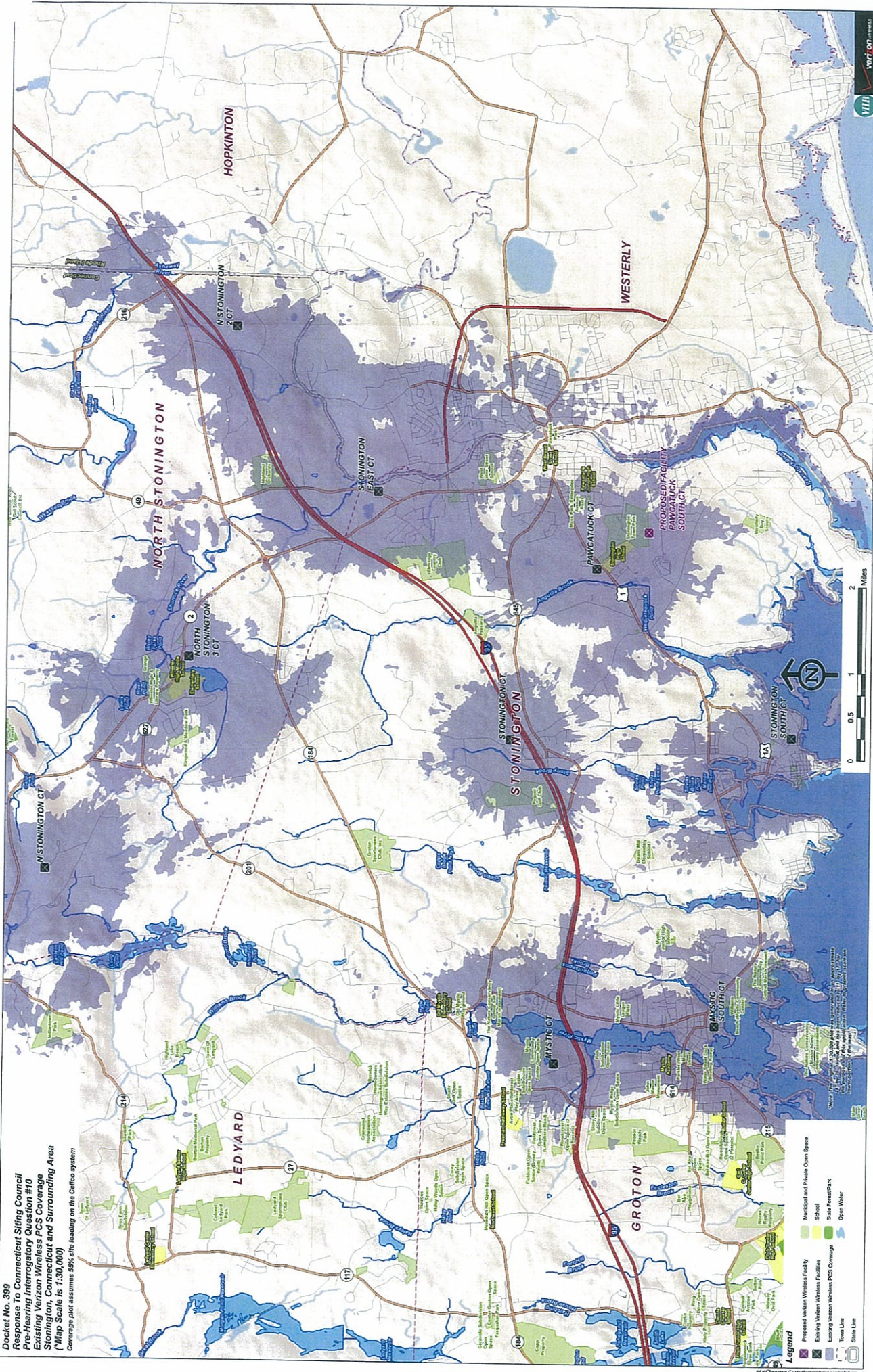
CERTIFICATE OF SERVICE

I hereby certify that on the 1st day of April, 2010, a copy of the foregoing was sent,
postage prepaid, to:

Julie Donaldson Kohler, Esq.
Jesse A. Langer, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
P.O. Box 1821
Bridgeport, CT 06604-4247


Kenneth C. Baldwin

Response to Connecticut Siting Council
Pre-Hearing Interrogatory Question #10
Existing Verizon Wireless PCS Coverage
Stonington, Connecticut and Surrounding Area
(Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Celco system

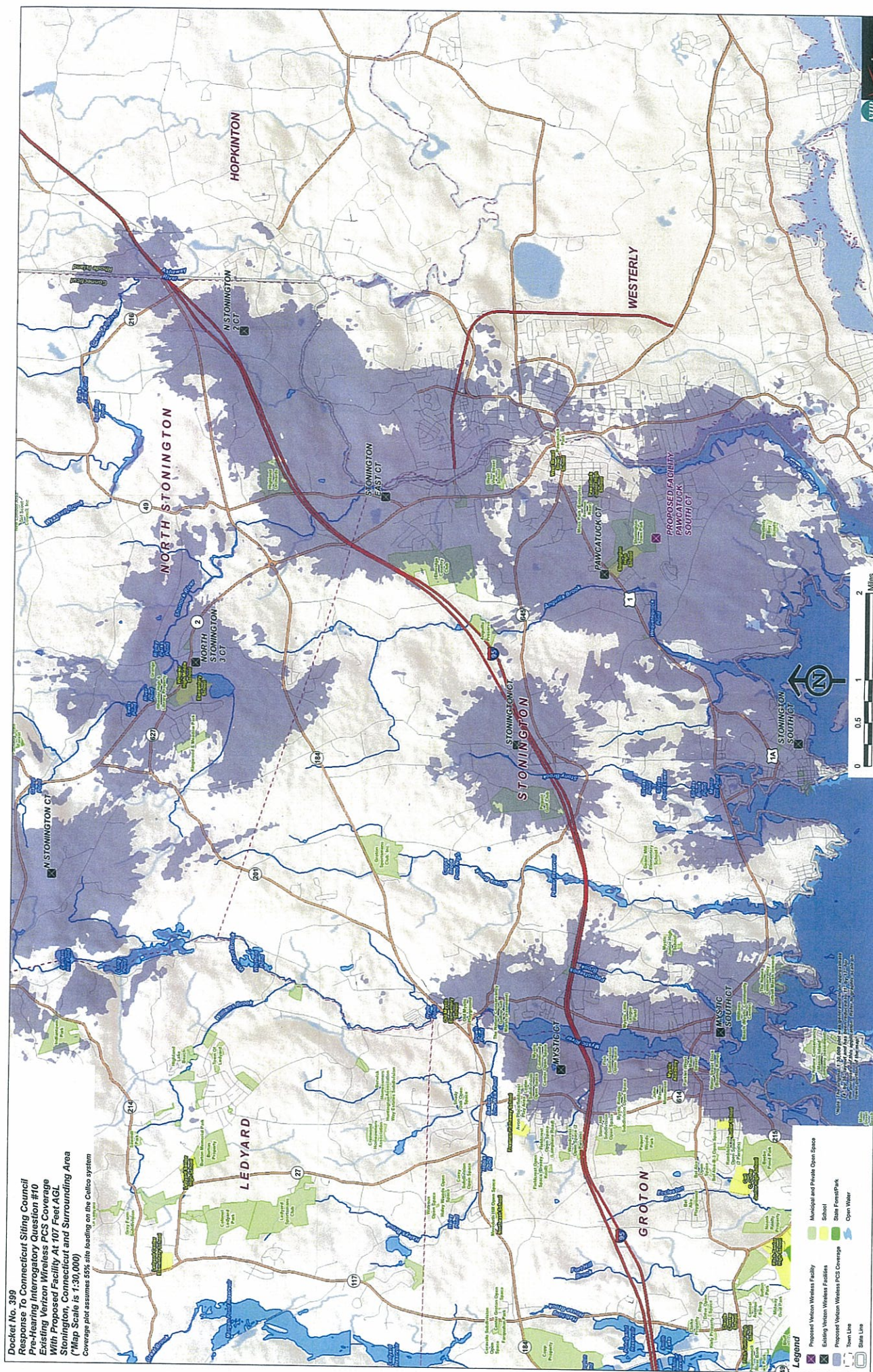


Legend

- Existing Verizon Wireless Facilities
- Proposed Verizon Wireless Facility
- Existing Verizon Wireless PCS Coverage
- Proposed Verizon Wireless PCS Coverage
- Open Water
- State Line
- Municipal and Private Open Space
- School
- Solar Forest/Park
- Item Link



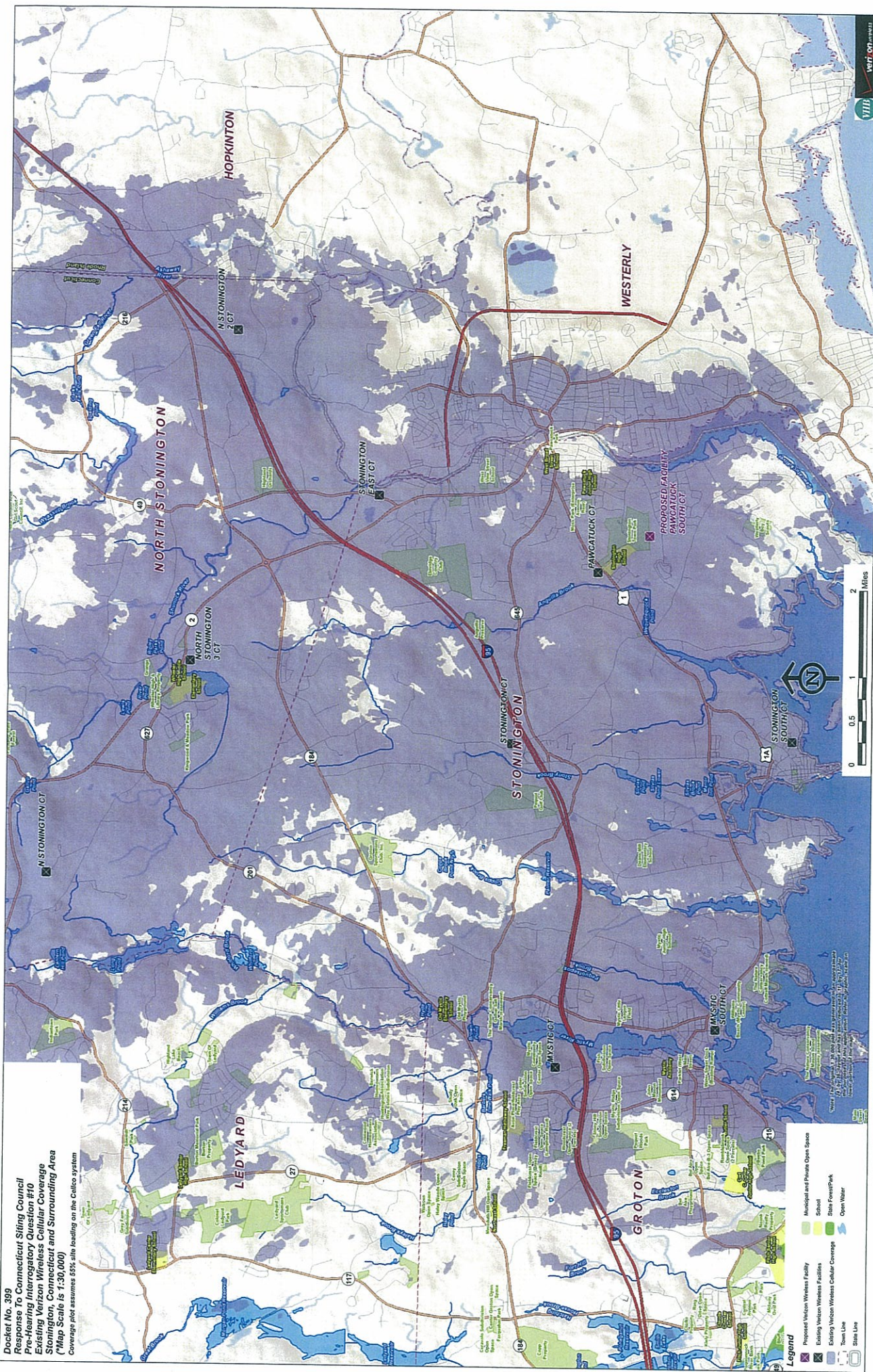
Response to Connecticut Siting Council
Re-Hearing Interrogatory Question #10
Existing Verizon Wireless PCS Coverage
With Proposed Facility At 107 Feet AGL
Stonington, Connecticut and Surrounding Area
(*Map Scale is 1:25,000)
Coverage plot assumes 50% site loading on the Cellos system



Legend

- Proposed Verizon Wireless Facility
- Existing Verizon Wireless Facilities
- Proposed Verizon Wireless PCS Coverage
- Open Water
- Municipal and Private Open Space
- School
- State Forest/Park
- Open Water
- State Line

Map Scale: 1:25,000
Coverage plot assumes 50% site loading on the Cellos system



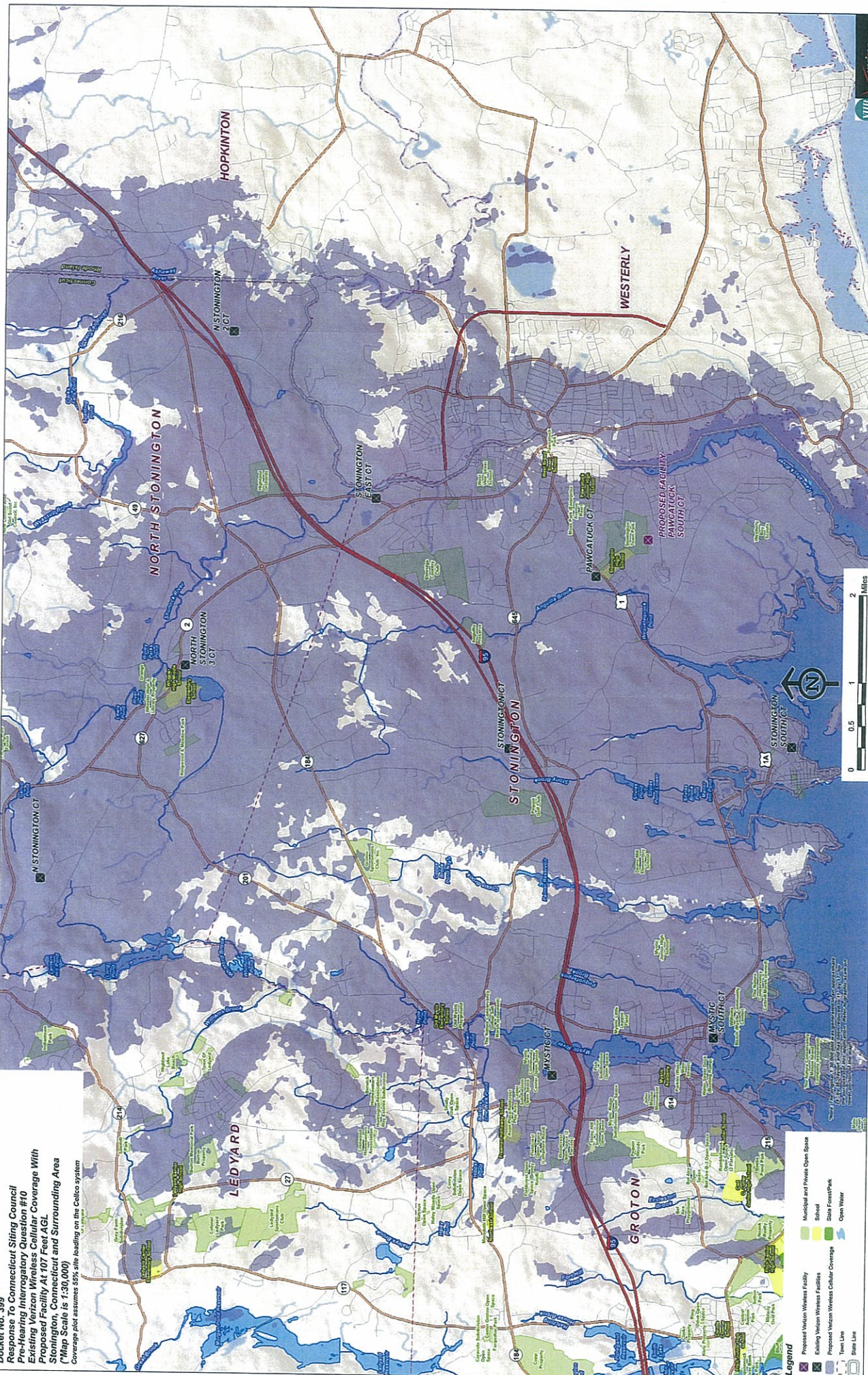
Docket No. 399
 Response To Connecticut Siting Council
 Pre-Hearing Interrogatory Question #10
 Existing Verizon Wireless Cellular Coverage
 Stonington, Connecticut and Surrounding Area
 (Map Scale is 1:30,000)
 Coverage plot assumes 85% site loading on the Celco system

Legend

- Proposed Verizon Wireless Facility
- Existing Verizon Wireless Facilities
- Proposed Cellular Coverage
- Existing Cellular Coverage
- Proposed Private Open Space
- School
- State Forest/Park
- Open Water
- Town Line
- State Line



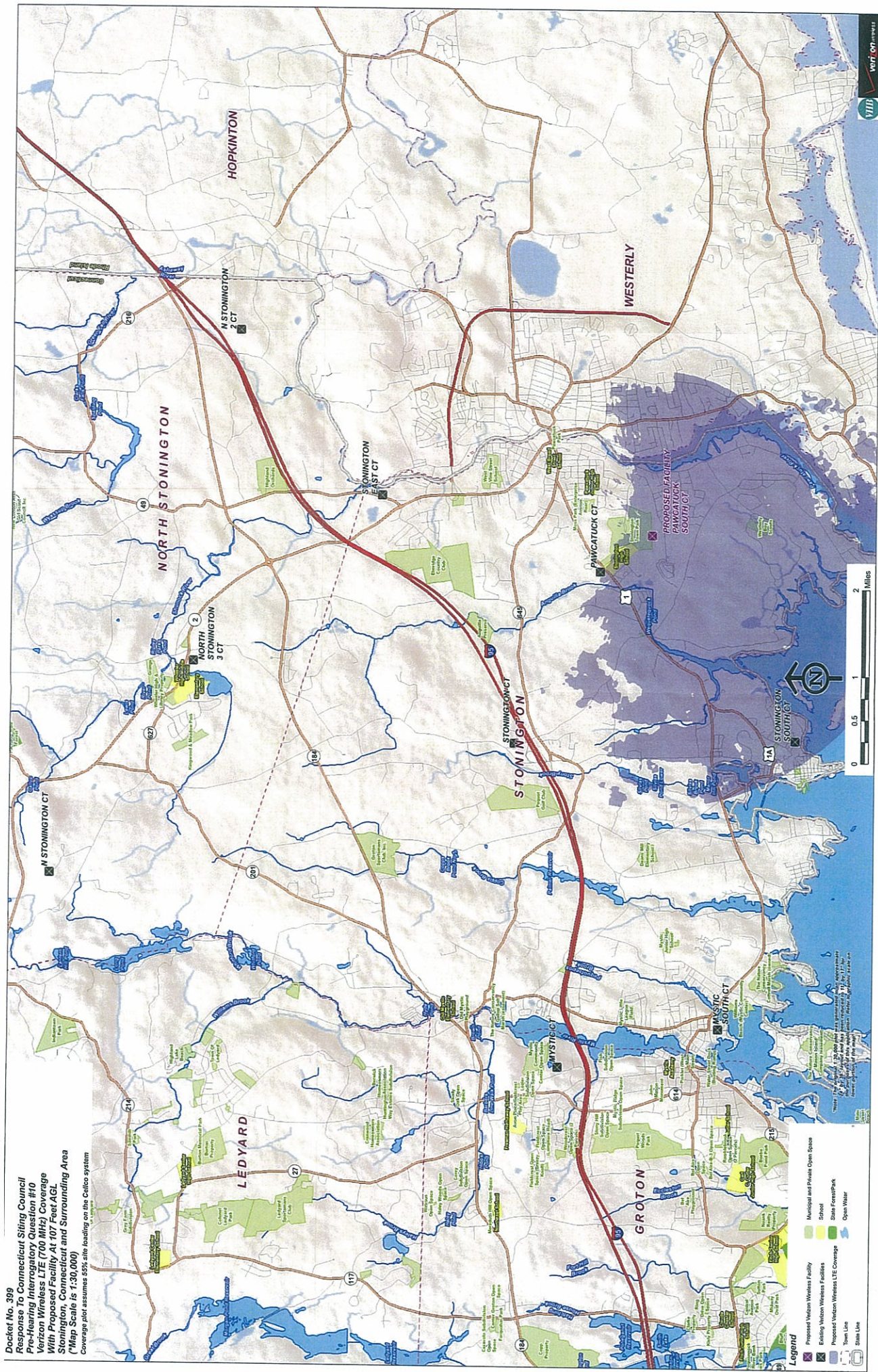
Response to Connecticut Siting Council
Requesting Interrogatory Question #10
Existing Wireless Cellular Coverage With
Proposed Facility At 107 Feet AGL
Stonington, Ct and Surrounding Area
(*Map Scale is 1:30,000)
Coverage plot assumes 55% site loading on the Celco system



Legend

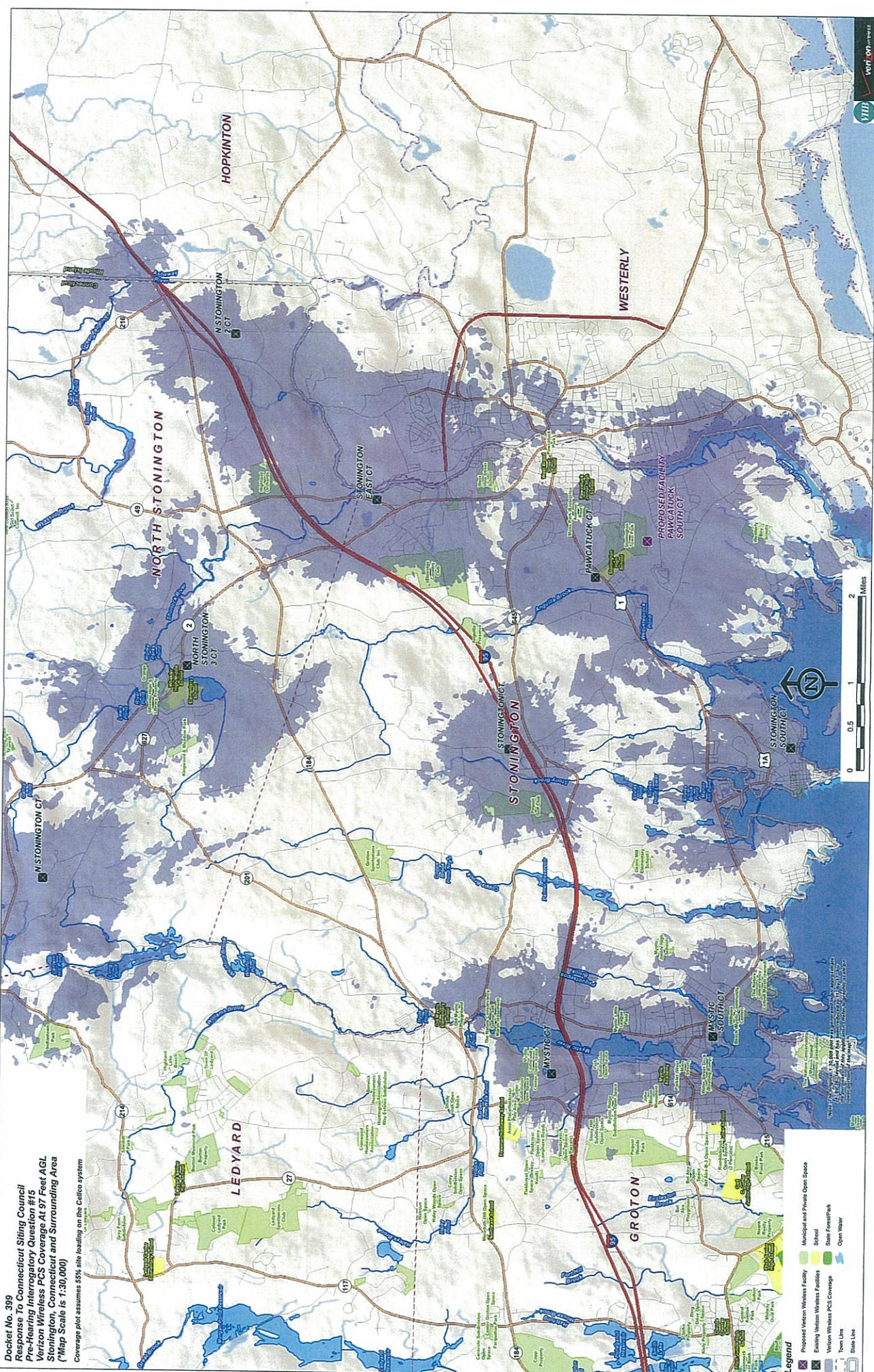
- Proposed Wireless Facility
- Existing Wireless Facilities
- Proposed Wireless Cellular Coverage
- State Line
- Municipal and Private Open Space
- School
- State Forest/Park
- Open Water

Docket No. 309
 Response To Connecticut Siting Council
 Pre-Hearing Interrogatory Query #10
 Verizon Wireless LTE (700 MHz) Coverage
 With Proposed Facility At 107 Feet AGL
 Stonington, Connecticut and Surrounding Area
 (*Map Scale is 1:30,000)
 Coverage plot assumes 55% site loading on the Celco system



- Legend**
- Proposed Verizon Wireless Facility
 - Existing Verizon Wireless Facilities
 - Proposed Verizon Wireless LTE Coverage
 - Municipal and Private Open Space
 - School
 - State Forest/Park
 - Open Water
 - Town Line
 - State Line





Docket No. 399
 Response To Connecticut Siting Council
 Pre-Hearing Interim Questions #5
 Verizon Wireless PCS Coverage At 37 Feet ASL
 Stonington, Connecticut and Surrounding Area
 (Map Scale is 1:30,000)
 Coverage plot assumes 55% site loading on the Collico system

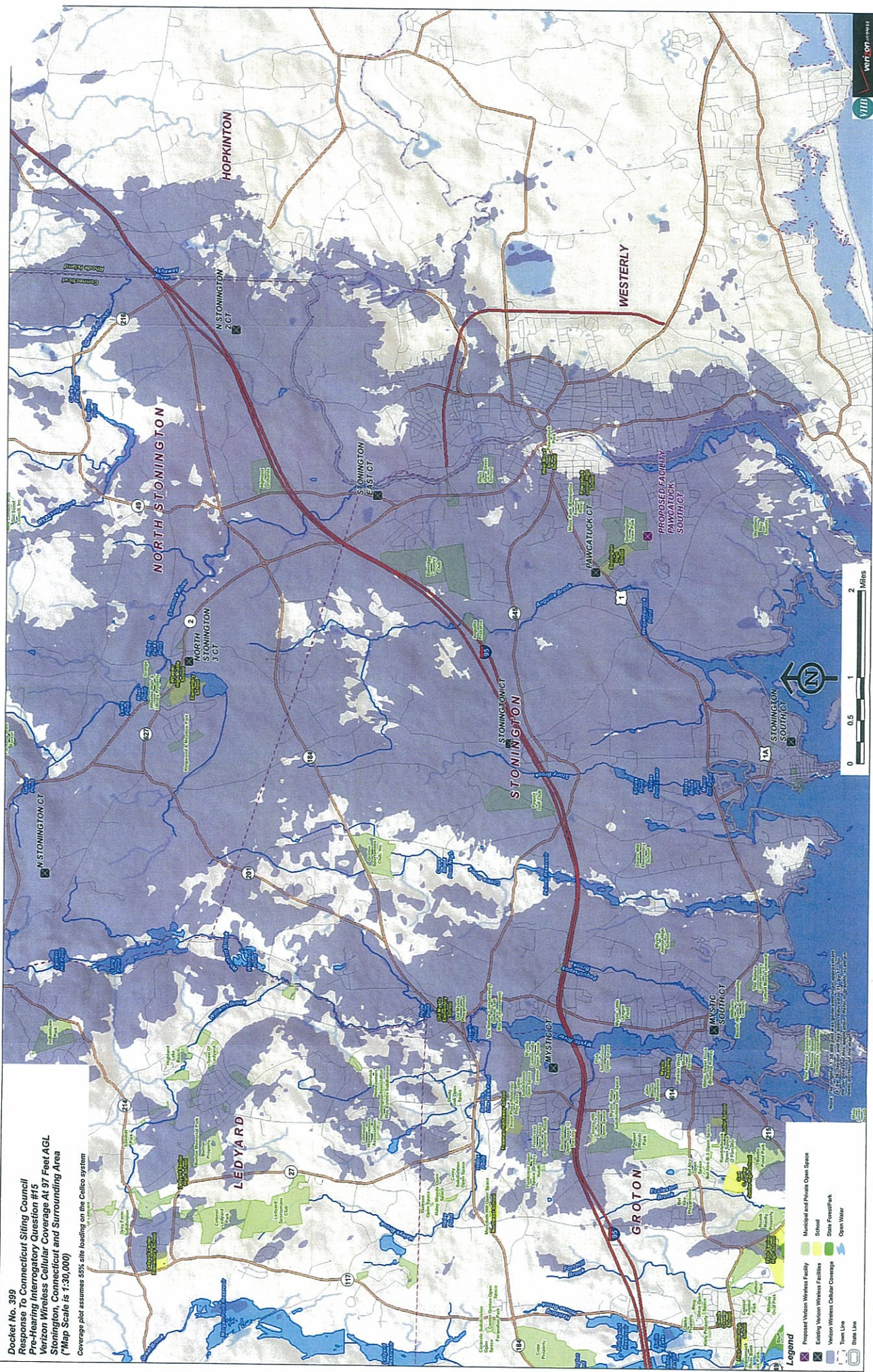
Legend

- Proposed Verizon Wireless Facility
- Existing Verizon Wireless Facility
- Municipal and Private Open Space
- School
- State Forest/Park
- Open Water
- Stream Line
- Scale Line



Docket No. 399
 Response To Connecticut Siting Council
 Pre-Hearing Interrogatory Question #15
 Verizon Wireless Cellular Coverage At 97 Feet AGL
 Stonington, Connecticut and Surrounding Area
 (Map Scale is 1:30,000)

Coverage plot assumes 55% site loading on the Celico system



Legend

- Proposed Verizon Wireless Facility
- Existing Verizon Wireless Facility
- Verizon Wireless Cellular Coverage
- Town Line
- State Line
- Municipal and Private Open Space
- School
- State Fair/Park
- Open Water

