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Memorandum

To: Alexandria Carter
Regulatory Manager
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Date: November 22, 2010

Project No.: 41240.26

From: Vanasse Hangen Brustlin, Inc.

Re: Proposed Replacement to an
Existing Flagpole
36 Ritch Avenue
Greenwich, Connecticut

Verizon Wireless ("Verizon") seeks approval from the Connecticut Siting Council to replace an existing 70-foot tall stealth flagpole with an 84-foot tall replacement facility ("Facility") (incorporating a stealth "monopine", designed to resemble a coniferous tree). The existing flagpole is situated on property located at 36 Ritch Avenue in the Town of Greenwich ("host property"). The proposed monopine would be located approximately 15 feet to the northwest of the existing flagpole. In addition to the monopine, Verizon's replacement Facility would also include the installation of a single shelter designed to house all wireless carrier equipment.

At the request of Verizon, Vanasse Hangen Brustlin, Inc. (VHB) conducted an assessment of the potential visual effects associated with the proposed monopine within a two-mile radius of the project area (Study Area). Portions of the Study Area are located in Port Chester, New York. This memo briefly describes the methodology used in our assessment and discusses its findings. The attachments to this memo include a photolog documentation map that depicts the project location, photographs of existing conditions and photographic simulations of the proposed monopine options, and a comparative viewshed map that depicts potential areas of visibility for both the host property and proposed monopine.

The project area is located at approximately 54 feet Above Mean Sea Level (AMSL). The monopine would be located within a new, fence-enclosed compound area. Access to the project area would generally follow the existing gravel driveway currently used today. Land use within the general vicinity of the Site is comprised of roadway infrastructure associated with the Interstate 95 transportation corridor; Byram Park, a town-owned recreational facility that includes several ball fields, a pavilion area, a boat launch and marina; and medium- and high-density residential parcels. The topography within the Study Area is generally characterized by gently rolling hills with ground elevations ranging from several feet above mean sea level AMSL on Long Island Sound to approximately 200 feet AMSL in the northern portion of Study Area. The forest cover within the Study Area consists mainly of mixed deciduous hardwood species. This tree canopy occupies approximately 2,953 acres of the 8,042-acre study area (37%). The average tree canopy within the Study Area was determined to be 50 feet. Open water on Long Island Sound accounts for roughly 62 % (5,000 acres within 8,042 acres) of the Study Area.

In order to assess the potential visual effects associated with the monopine during different times of the year, VHB developed a computer-based viewshed model generated for comparison of the existing flagpole with the proposed replacement. VHB also conducted a drive-by reconnaissance during both "leaf-off" and "leaf-on" conditions using the existing flagpole as a reference. The reconnaissance took place on December 1, 2009, September 16, 2010 and November 19, 2010. The November 19, 2010 reconnaissance was conducted at the request of the Town of Greenwich and focused on potential views from two condominium complexes located along Ritch Avenue to the east of the host property (Views 5, 6 and 7).

The predictive comparative model was employed to assess potential visibility throughout the entire Study Area, including private property and/or otherwise inaccessible areas for field verification. Using ESRI's ArcView® Spatial Analyst, the areas from where the existing 70-foot flagpole and proposed 84-foot tall replacement monopine may be visible were calculated. These calculations were based on information entered into the model that includes the two tower heights under consideration, the Site's ground elevation, the surrounding topography, existing vegetation and any significant structures/objects that may act to obstruct potential views such as tall buildings and/or elevated roadway infrastructure. Data incorporated into the predictive model includes a digital elevation model (DEM) and a digital forest layer for the Study Area. The DEM was derived from the United States Geological Survey (USGS) National Elevation Dataset (NED), a seamless, publicly available elevation dataset with an approximate 30-meter resolution. The forest layer was derived through on-screen digitizing in ArcView® GIS from 2006 digital orthophotos with a 1-foot pixel resolution.

During the reconnaissance, VHB personnel drove the public road system in the Study Area and walked portions of Byram Park to inventory those locations where the existing flagpole was visible. Photographs were taken from seven representative locations. Photographic simulations depicting the proposed monopine were subsequently generated from five of these locations (the monopine would not be visible from two locations). Photographs of the existing flagpole were taken with a Nikon D-80 digital camera body and Nikon 18 to 135 mm zoom lens. For the purposes of this evaluation, the lens was set to 50mm. "The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm.¹ The photo locations are described below:

1. View from Byram Park adjacent to baseball field.
2. View from Byram Park near pavilion area.
3. View from Byram Park entrance area.
4. View from Frontage Road overlooking I-95.
5. View from driveway of Greenwich Terrace condo complex.
6. View from rear parking area of 124 Ritch Avenue (condo complex).
7. View from rear parking area of 124 Ritch Avenue (condo complex).

¹ Warren, Bruce. *Photography*, West Publishing Company, Eagan, MN, c. 1993, (page 70).

Based on this analysis, no appreciable difference in overall visibility would occur as a result of the proposed replacement. Areas from where the existing 70-foot tall flagpole is visible comprise approximately 1,559 acres within the 8,042-acre Study Area. Year-round visibility increases slightly to approximately 1,567 acres with the introduction of the 84-foot tall monopine. As depicted on the attached viewshed map, a significant portion of the visibility associated with a Facility in this area occurs over open water on Long Island Sound (approximately 99% of the total year-round visibility at either height). Land-based visibility for the existing 70-foot tall structure and the proposed 84-foot tall monopine would be approximately six acres and seven acres, respectively. Overall, no new areas of visibility are anticipated as a result of the proposed replacement. Areas of year-round visibility include select portions of Ritch Avenue within the immediate vicinity of the host property; portions of Interstate 95 that abut the host property; and from several locations within Byram Park where limited views of the existing flagpole are currently achieved. VHB estimates that the proposed monopine would be at least partially visible from portions of approximately five residential properties located within the Study Area, all of which are located along Ritch Avenue and currently have views of the existing stealth flagpole.

Seasonal, or "leaf-off", visibility for both the existing flagpole and proposed monopine tower comprise approximately 32 acres and would be limited to the immediate vicinity of the host property, including select portions of Byram Park, Loudon Street, Frontage Road, Ocean View Avenue, Interstate 95 and a portion of the Greenwich Terrace condominium property (limited to the driveway, see View 5). Given the orientation of the Greenwich Terrace development (facing directly south), no direct seasonal views of the monopine are anticipated from within the associated dwelling units. In total, VHB anticipates that seasonal, or "leaf-off", views of the proposed monopine may be achieved from portions of approximately nine additional residential properties located within the Study Area. This includes six properties located along Ritch Avenue; one residential property located off Loudon Street and two residential properties located off Ocean View Avenue. These areas currently feature seasonal views of the existing Facility.

The proposed monopine design would soften perceived visual intrusions from nearby receptor locations and be consistent with the surrounding environment. Although trees adjacent to the project site consist primarily of deciduous specimens, there are scattered conifers proximate to the site (within 500 feet) and the monopine would blend in among the existing canopy, particularly from locations to the south along the harbor where the majority of the viewshed occurs.

Photolog Map



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	BYRAM PARK ADJACENT TO BASEBALL FIELD	NORTHWEST	0.16 MILE +/-	SEASONAL



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	BYRAM PARK ADJACENT TO BASEBALL FIELD	NORTHWEST	0.16 MILE +/-	SEASONAL



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	BYRAM PARK ADJACENT TO BASEBALL FIELD	NORTHWEST	0.16 MILE +/-	NON-VISIBLE



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	BYRAM PARK NEAR PAVILION AREA	NORTHWEST	0.13 MILE +/-	YEAR-ROUND



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	BYRAM PARK NEAR PAVILION AREA	NORTHWEST	0.13 MILE +/-	YEAR-ROUND



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	BYRAM PARK NEAR PAVILION AREA	NORTHWEST	0.13 MILE +/-	YEAR-ROUND



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	BYRAM PARK NEAR PAVILION AREA	NORTHWEST	0.13 MILE +/-	YEAR-ROUND



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	BYRAM PARK ENTRANCE AREA	NORTH	0.07 MILE +/-	YEAR-ROUND



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	BYRAM PARK ENTRANCE AREA	NORTH	0.07 MILE +/-	YEAR-ROUND



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	BYRAM PARK ENTRANCE AREA	NORTH	0.07 MILE +/-	YEAR-ROUND



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	BYRAM PARK ENTRANCE AREA	NORTH	0.07 MILE +/-	YEAR-ROUND



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	FRONTAGE ROAD OVERLOOKING I-95	EAST	0.07 MILE +/-	SEASONAL



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	FRONTAGE ROAD OVERLOOKING I-95	EAST	0.07 MILE +/-	SEASONAL



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	FRONTAGE ROAD OVERLOOKING I-95	EAST	0.07 MILE +/-	NON-VISIBLE



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	DRIVEWAY OF GREENWICH TERRACE CONDO COMPLEX (104 RITCH AVENUE)	SOUTHWEST	0.12 MILE +/-	SEASONAL



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	DRIVEWAY OF GREENWICH TERRACE CONDO COMPLEX (104 RITCH AVENUE)	SOUTHWEST	0.12 MILE +/-	SEASONAL



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	REAR PARKING AREA OF 124 RITCH AVENUE (CONDO COMPLEX)	SOUTHWEST	0.26 MILE +/-	NON-VISIBLE



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VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	REAR PARKING AREA OF 124 RITCH AVENUE (CONDO COMPLEX)	SOUTHWEST	0.19 MILE +/-	NON-VISIBLE

Comparative Viewshed Analysis
Proposed Verizon Wireless
Telecommunications Facility
36 Ritch Avenue
Greenwich, Connecticut

NOTE:
 - Viewshed analysis conducted using ESRI's Spatial Analyst.
 - Existing Facility height is 70 feet AGL; Proposed Facility height is 84 feet (Proposed Facility to be located within existing compound).
 - Existing tree canopy height estimated at 50 feet.
 - Study Area is comprised of a two-mile radius surrounding the existing Facility and includes 8,042 acres of land.

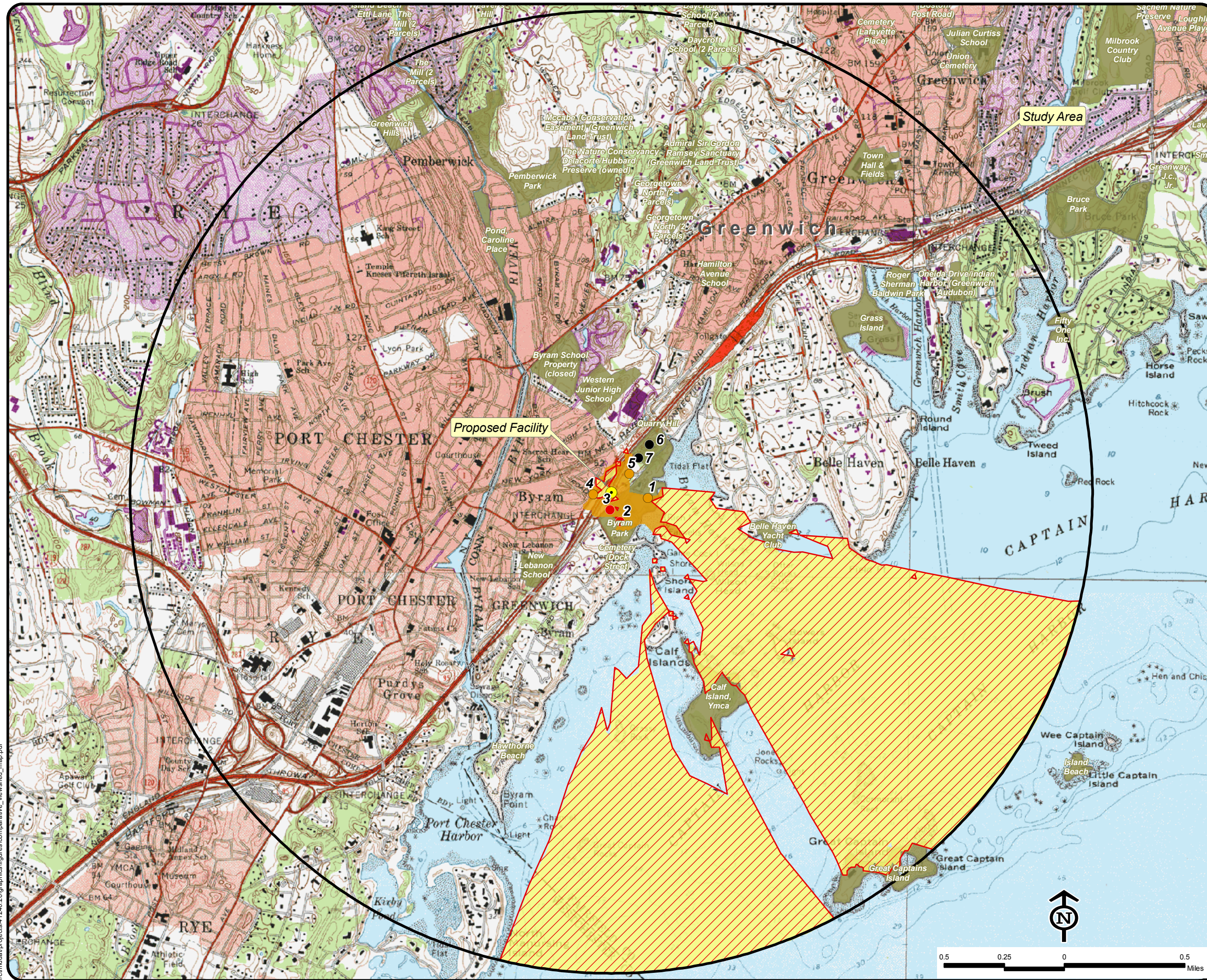
DATA SOURCES:
 - Digital elevation model (DEM) derived from USGS National Elevation Dataset (NED)
 - Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2008
 - Base map comprised of Bayville (1985), Glenville (1971), Mamaroneck (1975) and Stamford (1984) USGS Quadrangle Maps
 - Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997
 - Protected CT DEP properties data layer provided by CTDEP, May 2007
 - CT DEP boat launches data layer provided by CT DEP, 1994
 - Scenic Roads layer derived from available State and Local listings.

Map Compiled September, 2010

Legend

- | | |
|--|--|
| <ul style="list-style-type: none"> Location of Existing and Proposed Facilities Photographic Locations - December 1, 2009, September 16, 2010 and November 22, 2010 Existing Facility Not Visible Existing Facility Visible Through Trees Existing Facility Visible Above Trees Seasonal Visibility, Existing and Proposed Facilities (Approximately 32 acres) Year-Round Visibility of Existing 70-Foot Tall Facility (Approximately 1,559 acres) Year-Round Visibility of Proposed 80-Foot Tall Facility (Approximately 1,567 acres) Protected Municipal and Private Open Space Properties (1997) Cemetery Preservation Conservation Existing Preserved Open Space Recreation General Recreation School Uncategorized | <ul style="list-style-type: none"> CT DEP Protected Properties (2007) State Forest State Park DEP Owned Waterbody State Park Scenic Reserve Historic Preserve Natural Area Preserve Fish Hatchery Flood Control Other State Park Trail Water Access Wildlife Area Wildlife Sanctuary Federal Protected Properties (1997) CT DEP Boat Launches (1994) Scenic Road (State and Local) Town Line |
|--|--|

Inset Map
Town of Greenwich



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Calculated Radio Frequency Emissions



36 Ritch Avenue
Greenwich, CT 06830

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed Verizon Wireless tower replacement located at 36 Ritch Ave in Greenwich, CT. The facility is situated adjacent to I-95 between Ritch Ave and the I-95N on-ramp. The coordinates of the proposed monopole tower are 41-00-18.08 N, 73-38-53.93 W.

Currently, there is an existing flagpole supporting two AT&T antenna arrays at 64' and 54' AGL. The AT&T antennas will be relocated to a single array on the new tower at 67'. Verizon Wireless is proposing to install their antenna arrays on the new tower at 57' AGL. T-Mobile is reserving space at the 77' centerline.

Verizon Wireless is proposing the following:

- 1) Replace the existing flagpole with a monopole capable of supporting AT&T, Verizon Wireless and T-Mobile;
- 2) Move & consolidate all existing AT&T antennas to 67' AGL;
- 3) Reserve space for T-Mobile antennas at 77' AGL;
- 4) Install three 700 MHz LTE antennas (one per sector);
- 5) Install six 850 MHz Cellular antennas (two per sector);
- 6) Install six 1900 MHz PCS antennas (two per sector).

This report uses the actual proposed antenna configuration for each carrier to provide a representation of the resulting cumulative %MPE for this installation.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{EIRP}{\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings, etc...) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the finished installation.

The percent of MPE values presented in this report reflect levels that one may encounter from one sector of each carrier's antennas. Most carriers use 3 sectors per site with azimuths approximately 120 degrees apart, therefore one could not be standing in the main beam of all 3 sectors at the same time. Although carriers are free to orient their antennas in whichever direction necessary to support their network coverage objectives, this report assumes that all carriers are using the same azimuth for each sector. In cases where antenna models are not uniform across all 3 sectors, the antenna model with the highest gain was used for the calculations. This results in a conservative or "worst case" assumption for percent of MPE calculations.

4. Proposed Antenna Inventory

Tables 1, 2 & 3 below outline the proposed antenna configuration for each carrier on the monopole tower. The associated data sheets and antenna patterns for these specific antenna models are included in Attachments C, D & E.

Antenna ID	Height AGL (feet)	Antenna Model	TX Freq (MHz)	Power at Antenna/ Channel (Watts)	Ant Gain (dBd)	Ant Length (feet)	Beam Width	Mech Down Tilt
V1	57	DB846F65ZAXY	850	20	14.5	6	65	0
V2	57	LPA-185063/12CF	1900	16	16.4	6	63	0
V3	57	SLXW 5514	700	40	14	6.5	54	0
V4	57	LPA-185063/12CF	1900	16	16.4	6	63	0
V5	57	DB846F65ZAXY	850	20	14.5	6	65	0
V6	57	DB846F65ZAXY	850	20	14.5	6	65	0
V7	57	LPA-185063/12CF	1900	16	16.4	6	63	0
V8	57	SLXW 5514	700	40	14	6.5	54	0
V9	57	LPA-185063/12CF	1900	16	16.4	6	63	0
V10	57	DB846F65ZAXY	850	20	14.5	6	65	0
V11	57	DB846F65ZAXY	850	20	14.5	6	65	0
V12	57	LPA-185063/12CF	1900	16	16.4	6	63	0
V13	57	SLXW 5514	700	40	14	6.5	54	0
V14	57	LPA-185063/12CF	1900	16	16.4	6	63	0
V15	57	DB846F65ZAXY	850	20	14.5	6	65	0

Table 1: Verizon Wireless Antenna Inventory

Antenna ID	Height AGL (feet)	Antenna Model	TX Freq (MHz)	Power at Antenna/ Channel (Watts)	Ant Gain (dBd)	Ant Length (feet)	Beam Width	Mech Down Tilt
A1	67	P65-16-XLH-RR	750	40	12.7	6	73	0
			850	20 (GSM) 35.5 (UMTS)	13.4	6	65	0
			1900	24 (GSM) 24 (UMTS)	15.1	6	57	0
A2	67	P65-16-XLH-RR	750	40	12.7	6	73	0
			850	20 (GSM) 35.5 (UMTS)	13.4	6	65	0
			1900	24 (GSM) 24 (UMTS)	15.1	6	57	0
A3	67	P65-16-XLH-RR	750	40	12.7	6	73	0
			850	20 (GSM) 35.5 (UMTS)	13.4	6	65	0
			1900	24 (GSM) 24 (UMTS)	15.1	6	57	0

Table 2: AT&T Antenna Inventory

Antenna ID	Height AGL (feet)	Antenna Model	TX Freq (MHz)	Power at Antenna/ Channel (Watts)	Ant Gain (dBd)	Ant Length (feet)	Beam Width	Mech Down Tilt
T1	77	APX16DWV-16DWV	1900/2100	20/24	15.6/15.9	4.5	66	0
T2	77	APX16DWV-16DWV	1900/2100	20/24	15.6/15.9	4.5	66	0
T3	77	APX16DWV-16DWV	1900/2100	20/24	15.6/15.9	4.5	66	0

Table 3: T-Mobile Antenna Inventory

5. Calculation Results

The calculated power density results are shown in Figure 1 below. Each frequency band and technology is calculated separately (one line is displayed to represent the combination of all technologies for each carrier) as well as the resulting total percent of MPE. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3000 feet horizontal distance from the antennas. In addition to the other worst case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas were completed using a local maximum off beam antenna gain (within ± 5 degrees of the true mathematical angle) to incorporate a realistic worst case scenario.

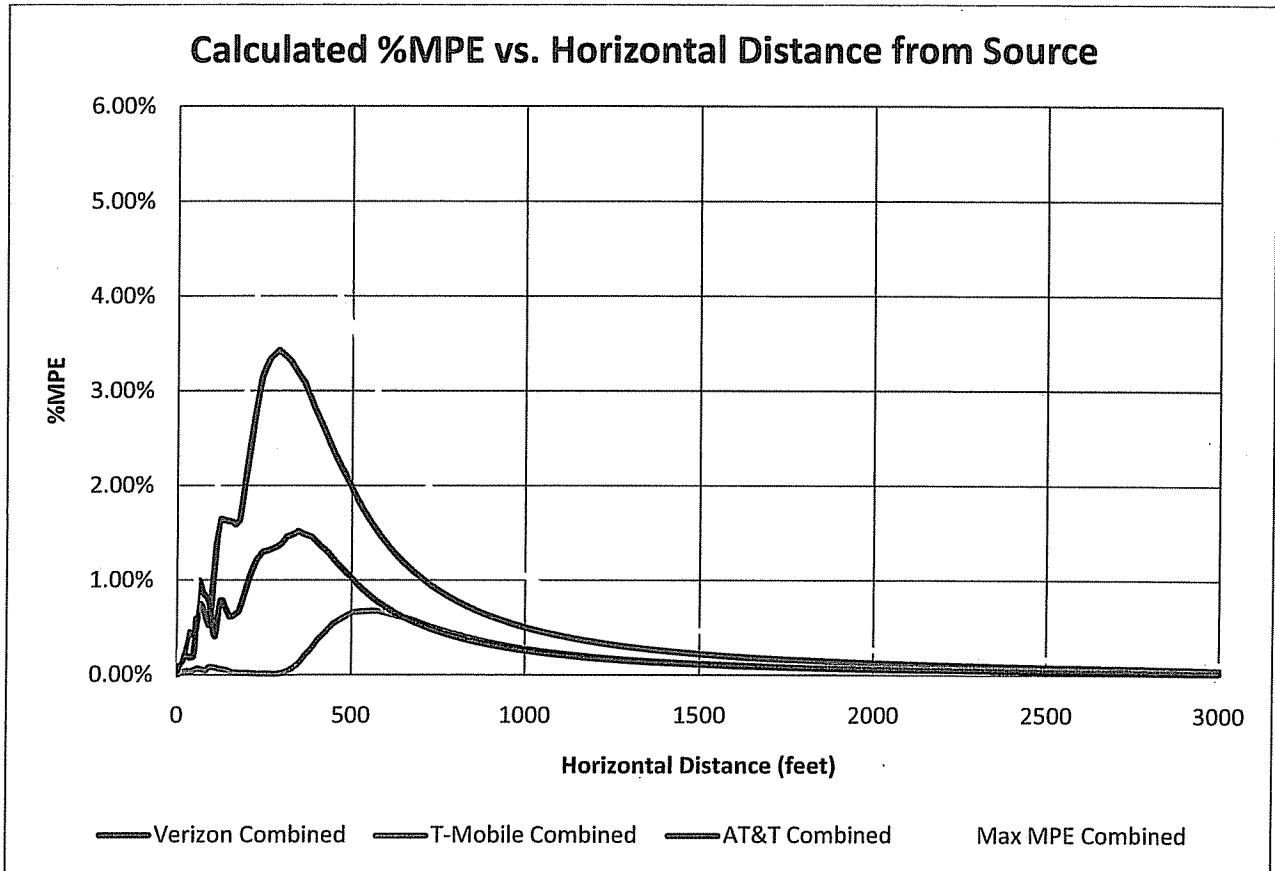


Figure 1: Graph of Percent of MPE vs. Distance

The highest composite percent of MPE was calculated to occur at a horizontal distance of 314 feet from the antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical beamwidth pattern of the antennas used. Therefore, power density RF levels may increase as the distance from the site increases. At distances of approximately 400' and beyond, one would now be in the main beam of most antenna patterns and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 4 below lists percent of MPE values for each carrier and technology as well as the associated parameters that were included in the calculations. The highest composite percent of MPE value was calculated to occur at a horizontal distance of 314 feet from the antennas (reference Figure 1).

As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, 6 feet was subtracted from the height of the antennas for this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the finished installation.

Carrier	Number of Trans.	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm ²)	Limit (mW/cm ²)	%MPE	Composite %MPE
AT&T 750MHz	1	40	67	314	0.0018975	0.500	0.38%	1.47%
AT&T GSM 1900MHz	3	24	67	314	0.0021630	1.000	0.22%	
AT&T GSM 850MHz	1	20	67	314	0.0014835	0.567	0.26%	
AT&T UMTS 1900MHz	2	24	67	314	0.0014420	1.000	0.14%	
AT&T UMTS 850MHz	1	36	67	314	0.0026331	0.567	0.46%	
T-Mobile 1900MHz	8	20	77	314	0.0001648	1.000	0.02%	0.03%
T-Mobile UMTS 2100MHz	2	40	77	314	0.0001644	1.000	0.02%	
Verizon 750MHz	1	40	57	314	0.0029947	0.500	0.60%	3.35%
Verizon CDMA 850MHz	9	20	57	314	0.0134298	0.567	2.37%	
Verizon EVDO 1900MHz	3	16	57	314	0.0011536	1.000	0.12%	
Verizon EVDO 850MHz	1	20	57	314	0.0014922	0.567	0.26%	
Totals							4.85%	4.85%

Table 4: Maximum Percent of MPE Values¹

¹ Frequencies listed in Table 4 are representative of the operating band of the particular carrier and are not the carrier's specific operating frequency.

6. Conclusion

The above analysis verifies that emissions from the proposed site will be below the maximum levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods described above, the maximum composite percent of MPE from the proposed transmit antennas is 4.85% of the FCC limit. This maximum percent of MPE value is calculated to occur at 314' away from the site.

7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



Daniel L. Goulet
C Squared Systems, LLC

September 1, 2010

Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure²

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure³

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 5: FCC Limits for Maximum Permissible Exposure

² Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure

³ General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure

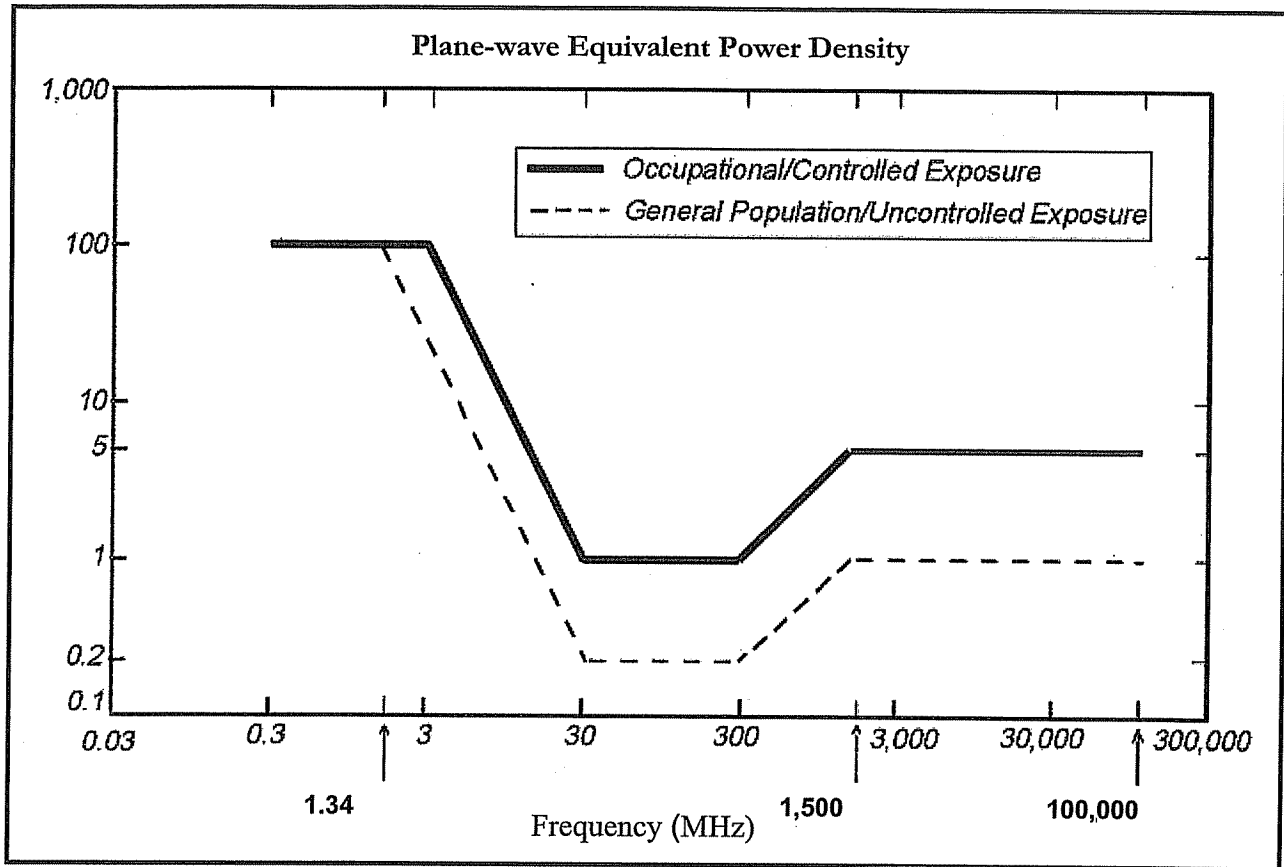
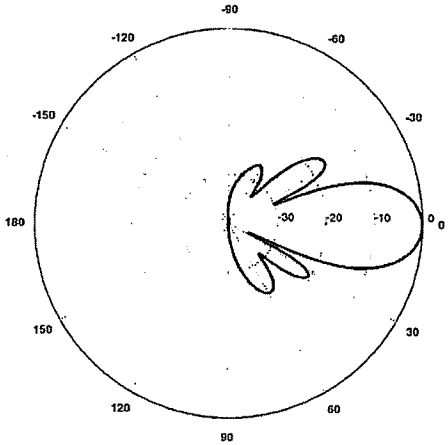
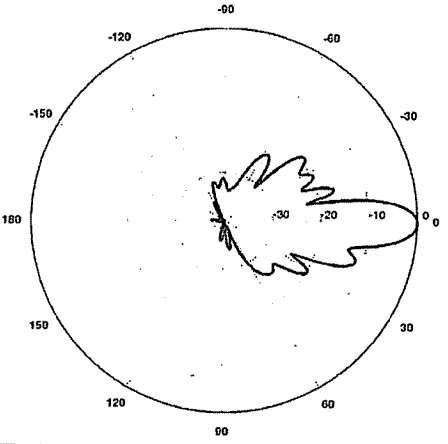
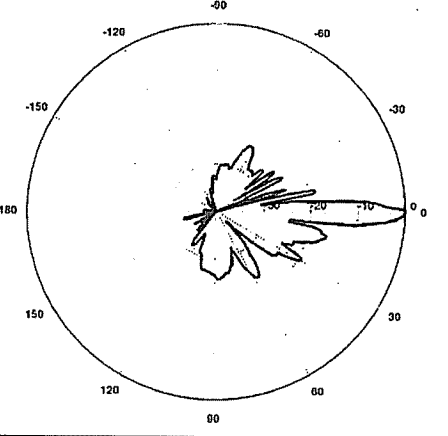
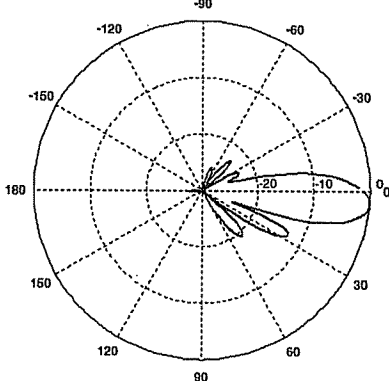
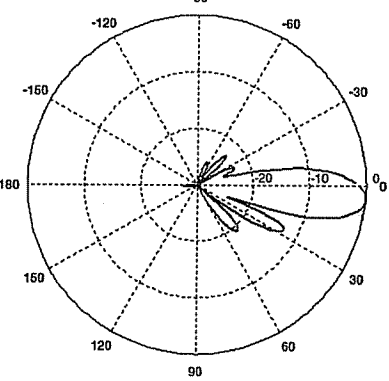
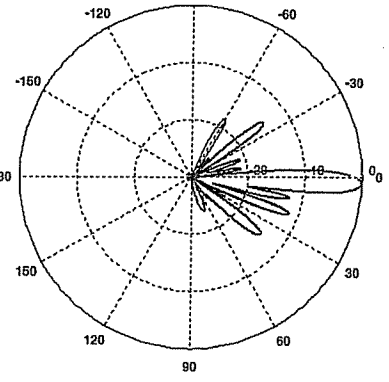


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

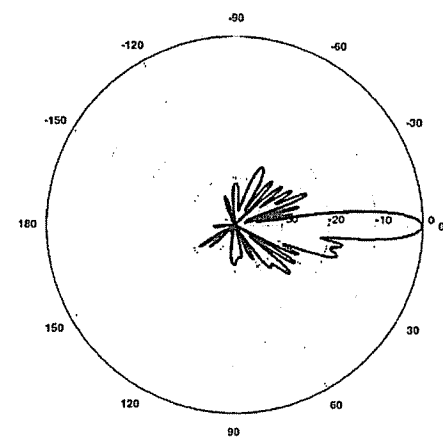
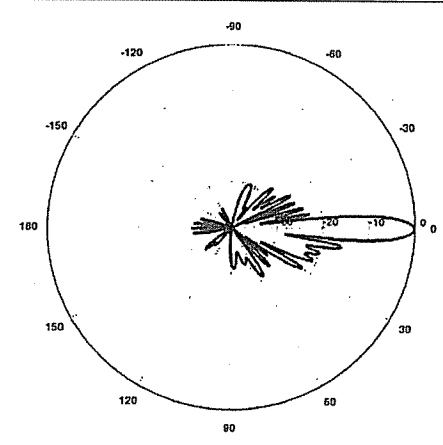
Attachment C: Verizon's Antenna Model Data Sheets and Electrical Patterns

<p>750 MHz</p> <p style="margin-left: 40px;">Manufacturer: Swedcom Model #: SLXW 5514 Frequency Band: 698-900 MHz Gain: 14 dBd Vertical Beamwidth: 18 deg Horizontal Beamwidth: 54 deg Polarization: +/- 45° Size L x W x D: 80.0" x 14.0" x 9.0"</p>	
<p>850 MHz</p> <p style="margin-left: 40px;">Manufacturer: Andrew Model #: DB846F65ZAXY Frequency Band: 806-896 MHz Gain: 14.5 dBd Vertical Beamwidth: 11 deg Horizontal Beamwidth: 65 deg Polarization: Vertical Size L x W x D: 72.0" x 10.0" x 8.5"</p>	
<p>1900 MHz</p> <p style="margin-left: 40px;">Manufacturer: Amphenol Model #: LPA-185063-12CF Frequency Band: 1850-1990 MHz Gain: 16.4 dBd Vertical Beamwidth: 5 deg Horizontal Beamwidth: 63 deg Polarization: Vertical Size L x W x D: 71.1" x 6.6" x 5.8"</p>	

Attachment D: AT&T's Antenna Model Data Sheets and Electrical Patterns

<p>750 MHz</p> <p>Manufacturer: Powerwave Model #: P65-16-XLH-RR Frequency Band: 698-806 MHz Gain: 12.7 dBd Vertical Beamwidth: 14.7 deg Horizontal Beamwidth: 73 deg Polarization: Dual Linear +/- 45° Size L x W x D: 72.0" x 12.0" x 6.0"</p>	
<p>850 MHz</p> <p>Manufacturer: Powerwave Model #: P65-16-XLH-RR Frequency Band: 806-894 MHz Gain: 13.4 dBd Vertical Beamwidth: 12.5 deg Horizontal Beamwidth: 65 deg Polarization: Dual Linear +/- 45° Size L x W x D: 72.0" x 12.0" x 6.0"</p>	
<p>1900 MHz</p> <p>Manufacturer: Powerwave Model #: P65-16-XLH-RR Frequency Band: 1850-1990 MHz Gain: 15.1 dBd Vertical Beamwidth: 6.4 deg Horizontal Beamwidth: 57 deg Polarization: Dual Linear +/- 45° Size L x W x D: 72.0" x 12.0" x 6.0"</p>	

Attachment E: T-Mobile's Antenna Model Data Sheets and Electrical Patterns

<p>1900 MHz</p> <p>Manufacturer: RFS Model #: APX16DWV-16DWV Frequency Band: 1850-1990 MHz Gain: 15.6 dBd Vertical Beamwidth: 7 deg Horizontal Beamwidth: 65 deg Polarization: Dual pol. +/- 45° Size L x W x D: 55.9" x 13.0" x 13.5"</p>	
<p>2100 MHz</p> <p>Manufacturer: RFS Model #: APX16DWV-16DWV Frequency Band: 1900-2200 MHz Gain: 15.9 dBd Vertical Beamwidth: 6.6 deg Horizontal Beamwidth: 65 deg Polarization: Dual pol. +/- 45° Size L x W x D: 55.9" x 13.0" x 13.5"</p>	

USFWS

Transportation
Land Development
Environmental
Services



Vanasse Hangen Brustlin, Inc.

54 Tuttle Place
Middletown, Connecticut 06457
860 632-1500
FAX 860 632-7879

Memorandum

To: Ms. Alexandria Carter
Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

Date: May 4, 2010

Project No.: 41240.26

From: Dean Gustafson
Senior Environmental Scientist

Re: 2010 USFWS Compliance Determination
Byram Park
36 Ritch Avenue
Greenwich, Connecticut

Project Site:

State: Connecticut

County: Fairfield

Address: 36 Ritch Avenue, Greenwich, Connecticut

Latitude/Longitude Coordinates: N41°00'18.29" W73°38'53.93"

Size of Property: 0.267 acres

Watershed: Southwest Shoreline (basin # 7000)

Policies regarding potential conflicts between proposed telecommunications facilities and federally-listed endangered and threatened species are detailed in a January 4, 2010 policy statement of the United States Department of the Interior Fish and Wildlife Service (USFWS) New England Field Office. The following Site is located in Greenwich, Connecticut (Fairfield County). No federally-listed endangered or threatened species are known to occur in Greenwich, Connecticut (refer to the enclosed listing) and as such the proposed development will not result in an adverse affect to any federally-listed endangered or threatened species. A copy of the January 4, 2010 USFWS policy statement as well as a January 4, 2010 USFWS letter regarding federally-listed endangered and threatened species in Greenwich, Connecticut are enclosed for reference.

The bald eagle has been delisted and maintains protection under the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). No bald eagle nests, roosting or foraging areas were observed on the subject property or are known to exist on the surrounding properties. Therefore, the proposed telecommunications facility will not result in disturbance¹ to Bald Eagles.

¹ "Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." (Eagle Act)



**USFWS January 4, 2010
Telecommunications Policy Statement
and Federally-Listed Endangered and
Threatened Species in Connecticut
USFWS January 4, 2010
No Known Federally-Listed or
Endangered Species Letter**



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

January 4, 2010

To Whom It May Concern:

The U.S. Fish and Wildlife Service's (Service) New England Field Office has determined that individual project review for certain types of activities associated with communication towers is **not required**. These comments are submitted in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Due to the rapid expansion of the telecommunication industry, we are receiving a growing number of requests for review of **existing and new** telecommunication facilities in relation to the presence of federally-listed or proposed, threatened or endangered species, critical habitat, wilderness areas and/or wildlife preserves. We have evaluated our review process for proposed communications towers and believe that individual correspondence with this office is not required for the following types of actions relative to **existing** facilities:

1. the re-licensing of existing telecommunication facilities;
2. audits of existing facilities associated with acquisition;
3. routine maintenance of existing tower sites, such as painting, antenna or panel replacement, upgrading of existing equipment, etc.;
4. co-location of new antenna facilities on/in existing structures;
5. repair or replacement of existing towers and/or equipment, provided such activities do not significantly increase the existing tower mass and height, or require the addition of guy wires.

In order to curtail the need to contact this office in the future for individual environmental review for **existing** communication towers or antenna facilities, please note that we are not aware of any federally-listed, threatened or endangered species that are being adversely affected by any existing communication tower or antenna facility in the following states: Vermont, New Hampshire, Rhode Island, Connecticut and Massachusetts. Furthermore, we are not aware of any **existing** telecommunication towers in federally-designated critical habitats, wilderness areas or wildlife preserves. Therefore, no further consultation with this office relative to the impact of the above referenced activities on federally-listed species is required.

January 4, 2010

Future Coordination with this Office Relative to New Telecommunication Facilities

We have determined that proposed projects are not likely to adversely affect any federally-listed or proposed species when the following steps are taken to evaluate new telecommunication facilities:

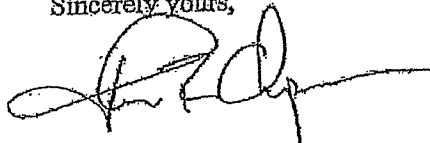
1. If the facility will be installed within or on an existing structure, such as in a church steeple or on the roof of an existing building, no further coordination with this office is necessary. Similarly, new antennas or towers in urban and other developed areas, in which no natural vegetation will be affected, do not require further review.
2. If the above criteria cannot be met, your review of our lists of threatened and endangered species locations within Vermont, New Hampshire, Rhode Island, Connecticut and Massachusetts may confirm that no federally-listed endangered or threatened species are known to occur in the town or county where the project is proposed.
3. If a listed species is present in the town or county where the project is proposed, further review of our lists of threatened and endangered species may allow you to conclude that suitable habitat for the species will not be affected. Based on past experiences, we anticipate that there will be few, if any, projects that are likely to impact piping plovers, roseate terns, bog turtles, Jesup's milk-vetch or other such species that are found on coastal beaches, riverine habitats or in wetlands because communication towers typically are not located in these habitats.

For projects that meet the above criteria, there is no need to contact this office for further project review. A copy of this letter should be retained in your file as the Service's determination that no listed species are present, or that listed species in the general area will not be affected. Due to the high workload associated with responding to many individual requests for threatened and endangered species information, we will no longer be providing response letters for activities that meet the above criteria. This correspondence and the species lists remain valid until January 1, 2011. Updated consultation letters and species lists are available on our website:

(<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>)

Thank you for your cooperation, and please contact Mr. Anthony Tur at 603-223-2541 for further assistance.

Sincerely yours,



Thomas R. Chapman
Supervisor
New England Field Office



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

January 4, 2010

To Whom It May Concern:

This project was reviewed for the presence of federally-listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>)

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN CONNECTICUT**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Fairfield	Piping Plover	Threatened	Coastal Beaches	Westport, Bridgeport and Stratford
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	Westport and Stratford
	Bog Turtle	Threatened	Wetlands	Ridgefield and Danbury.
Hartford	Dwarf wedgemussel	Endangered	Farmington and Podunk Rivers	South Windsor, East Granby, Simsbury, Avon and Bloomfield.
Litchfield	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Sharon.
	Bog Turtle	Threatened	Wetlands	Sharon and Salisbury.
Middlesex	Roseate Tern	Endangered	Coastal beaches, islands and the Atlantic Ocean	Westbrook and New London.
	Piping Plover	Threatened	Coastal Beaches	Clinton, Westbrook, Old Saybrook.
New Haven	Bog Turtle	Threatened	Wetlands	Southbury
	Piping Plover	Threatened	Coastal Beaches	Milford, Madison and West Haven
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	Branford, Guilford and Madison
New London	Piping Plover	Threatened	Coastal Beaches	Old Lyme, Waterford, Groton and Stonington.
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	East Lyme and Waterford.
	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Waterford
Tolland	None			

-Eastern cougar, gray wolf, seabeach amaranth and American burying beetle are considered extirpated in Connecticut.

-There is no federally-designated Critical Habitat in Connecticut.

7/31/2008

DEP COMMENTS



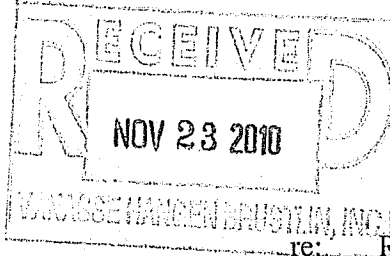
STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Natural Resources/Wildlife Division
79 Elm Street, Sixth Floor
Hartford, CT 06106
Natural Diversity Data Base

November 19, 2010

Ms. Coreen Kelsey
Vanasse Hangen Brustlin, Inc.
54 Tuttle Place
Middletown, CT 06457



re: Replacement of an Existing
Telecommunications Facility at 36 Ritch
Avenue in Greenwich, Connecticut

Dear Ms. Kelsey:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed replacement of an existing telecommunications facility at 36 Ritch Avenue in Greenwich, Connecticut. I have determined that these activities will not impact any known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur in the vicinity of this property.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Environmental Protection's Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at 860-424-3592 or dawn.mckay@ct.gov. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,

Dawn M. McKay

Dawn M. McKay
Biologist/Environmental Analyst 3

Cc: NDDDB #201006258

SHPO

RECEIVED SEP 30 2010



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Vanasse Hangen Brustlin, Inc.

September 27, 2010

Ref: 41240.26

Ms. Susan Chandler
Commission on Culture & Tourism
State Historic Preservation Office
One Constitution Plaza, Second Floor
Hartford, CT 06103

NO EFFECT

David Paley DEPUTY SHPO

STATE HISTORIC PRESERVATION OFFICE

Date 10.4.10 Project _____

Re: Proposed Verizon Wireless Telecommunications Facility
36 Ritch Avenue, W
Greenwich, Connecticut

Dear Ms. Chandler:

Vanasse Hangen Brustlin, Inc. (VHB) previously consulted with your office regarding the above reference project Site back in August 2008, and again in December 2009 due to a change in the proposed tower design, for which was issued "no effect" findings (letters attached). Celco Partnership d.b.a. Verizon Wireless have recently increased the proposed tower height from a ± 70 -foot tall monopole tower to a ± 84 -foot tall monopine tower. (Refer to the attached revised Site Plans). The existing 70-foot tall flagpole tower currently located on the subject parcel will be removed. The new tower facility will be shared by Verizon Wireless and AT&T; as well as a future carrier. It is the opinion of VHB that the current proposed tower design will have "no effect" upon resources under Section 106 of the National Historic Preservation Act.

At your earliest convenience, please forward your correspondence or concurrence to my attention. Thank you in advance for your prompt consideration for this request.

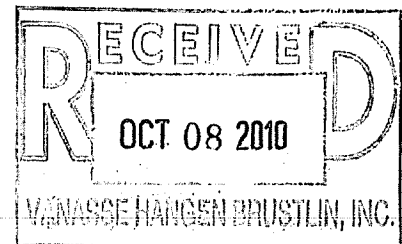
Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Coreen Kelsey

Coreen Kelsey
Environmental Coordinator

Enclosures

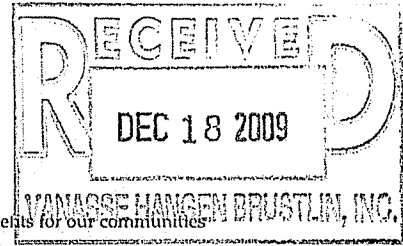


54 Tuttle Place
Middletown, Connecticut 06457-1847
860.632.1500 • FAX 860.632.7879
email: info@vhb.com
www.vhb.com

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Vanasse Hangen Brustlin, Inc.

December 1, 2009

Ref: 41240.26

Ms. Susan Chandler
Commission on Culture & Tourism
State Historic Preservation Office
One Constitution Plaza, Second Floor
Hartford, CT 06103

12/7/09

Re: Proposed Verizon Wireless Telecommunications Facility
Byram Park
36 Ritch Avenue
Greenwich, Connecticut

Dear Ms. Chandler:

Vanasse Hangen Brustlin, Inc. consulted with your office back in August 2008 regarding the above reference project site, for which you issued a "no effect" letter dated August 5, 2008 (attached). Since that time, Cellco Partnership d.b.a. Verizon Wireless has changed their design of the tower from a ±95-foot tall flagpole to a ±70-foot monopole tower. (See attached revised Site Plans). The existing +70-foot tall flagpole tower facility currently located on the subject parcel will be removed. The new tower will be shared by Verizon Wireless and AT&T. A revised legal notice will be published in the *Greenwich Times* on December 4, 2009 and revised notification letters were mailed to the Town of Greenwich First Selectman, Director of Planning and Zoning, Deputy Director of Planning and Zoning and the Historic Commission.

We respectfully request a written opinion from your office regarding the potential effect or no effect of the updated proposed activities on resources under Section 106. At your earliest convenience, please forward correspondence to my attention. Thank you in advance for your prompt consideration for this request.

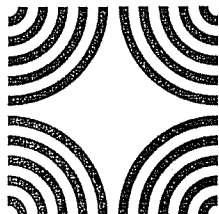
Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Coreen Kelsey
Coreen Kelsey
Environmental Coordinator

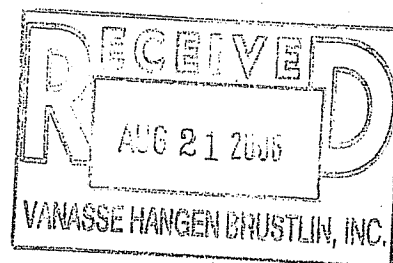
Enclosures

NO EFFECT
James B. Cole DEPUTY SHPO
STATE HISTORIC PRESERVATION OFFICE
Date 12-15-09



Connecticut Commission on Culture & Tourism

August 5, 2008



Historic Preservation
and Museum Division

Ms. Coreen Kelsey
Vanasse Hangen Brustlin Inc.
54 Tuttle Place
Middletown, CT 06457-1847

One Constitution Plaza
Second Floor
Hartford, Connecticut
06103

Subject: Verizon Wireless Telecommunications Facility
36 Ritch Avenue
Greenwich, CT

860.256.2800
860.256.2763 (f)

Dear Ms. Kelsey:

The State Historic Preservation Office has reviewed the above-named project. This office expects that the proposed undertaking will have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places.

This office appreciates the opportunity to have reviewed and commented upon the proposed undertaking.

This comment is provided in accordance with the National Historic Preservation Act and the Connecticut Environmental Policy Act.

For further information, please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

Karen Senich
State Historic Preservation Officer

CONNECTICUT

www.cultureandtourism.org

An Affirmative Action
Equal Opportunity Employer



Vanasse Hangen Brustlin, Inc.

54 Tuttle Place
Middletown, Connecticut 06457
860 632-1500
FAX 860 632-7879

Memorandum

To: Alexandria Carter
Verizon Wireless
99 East River Drive
East Hartford, CT 06108

Date: November 18, 2010

Project No.: 41240.26

From: Dean Gustafson
Professional Soil Scientist

Re: Wetland Inspection Update
36 Ritch Avenue
Greenwich, Connecticut

Vanasse Hangen Brustlin, Inc. (VHB) previously inspected the referenced property on March 30, 2008 to determine if wetlands or watercourses are located on the subject property. As detailed on the enclosed VHB Wetland Inspection report, dated May 20, 2008, no wetlands or watercourses are located on the subject property. A recent inspection (10/29/10) of the property revealed that no changes have occurred and the results of the wetland inspection as document in the May 20, 2008 report are still accurate.

Enclosure

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May 20, 2008

Vanasse Hangen Brustlin, Inc.

Ref: 41240.26

Ms. Alexandria Carter
Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

Re: Wetland Inspection
Byram Park
36 Ritch Avenue
Greenwich, Connecticut

Dear Ms. Carter:

Vanasse Hangen Brustlin, Inc. (VHB) completed an investigation on March 30, 2008 to determine if wetlands and/or watercourses are located on the above-referenced Site. VHB has relied upon the accuracy of information provided by URS Corporation AES (refer to attached Site Plan) regarding the location of the existing tower facility to be replaced.

VHB understands that Verizon Wireless proposes to reconstruct the current wireless telecommunications facility located at 36 Ritch Avenue in Greenwich, Connecticut with an extension of 25 feet. The Site's current communications tower is 70 feet tall with access gained through a gravel drive located between two residences. No wetlands or watercourses were identified (or delineated) on the Site or within 100 feet of proposed redevelopment activities. Soils classified in the vicinity of the proposed redevelopment are generally consistent with published data and consist of somewhat excessively drained soil classified as Hollis-Chatfield-Rock outcrop complex (soil symbol - 75). Rock outcrops were observed adjacent to the existing tower facility. The nearest wetland/watercourse feature is an unnamed watercourse feature located about 750 feet northeast of the site. Also, a tidal estuary area known as Byram Bay is situated approximately 1,000 feet south of the Site. Therefore, the proposed redevelopment will not directly or indirectly affect wetlands or watercourses.

If you have any questions concerning this matter do not hesitate to call me.

Very truly yours,

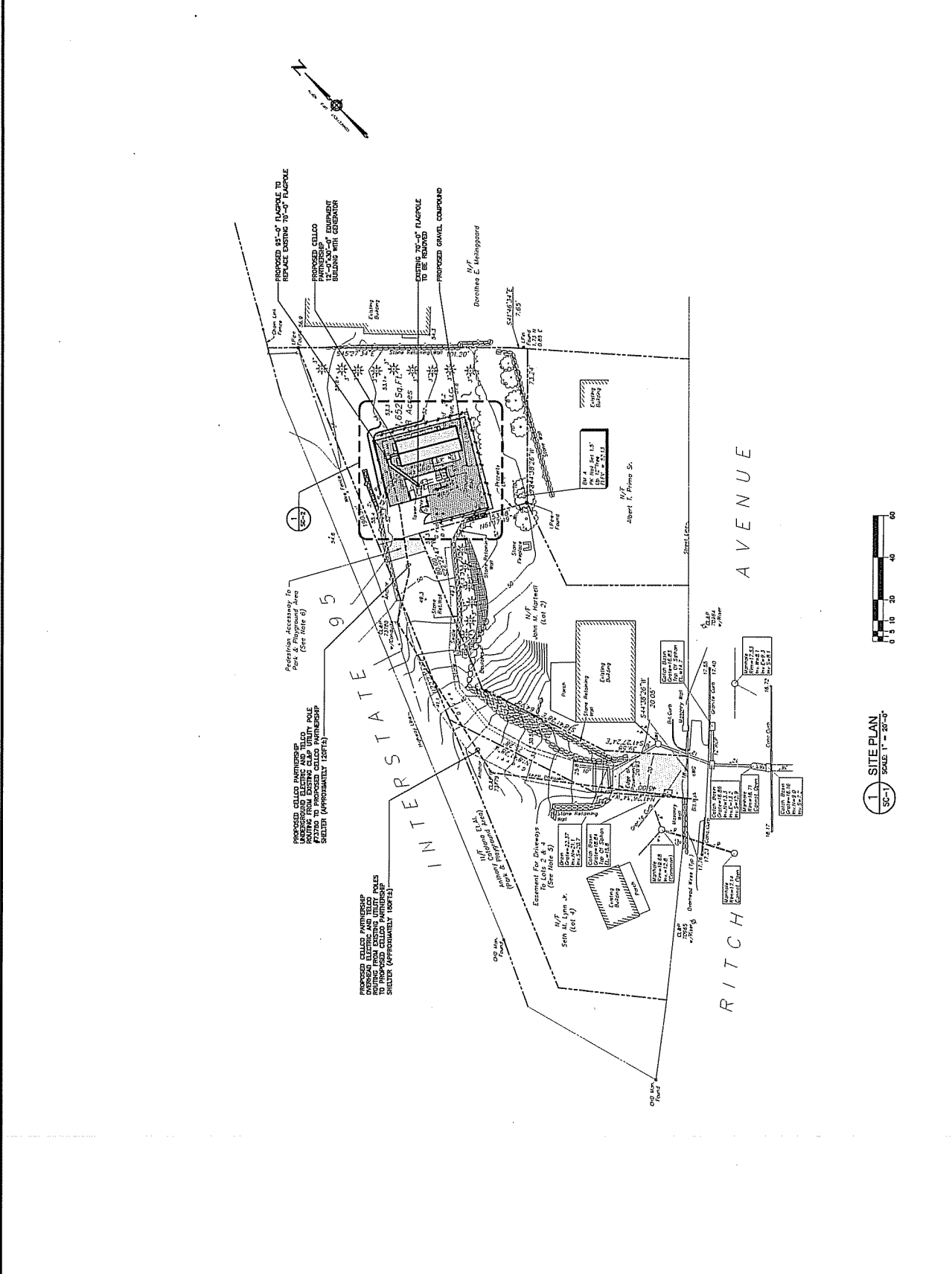
VANASSE HANGEN BRUSTLIN, INC.


Dean Gustafson
Professional Soil Scientist

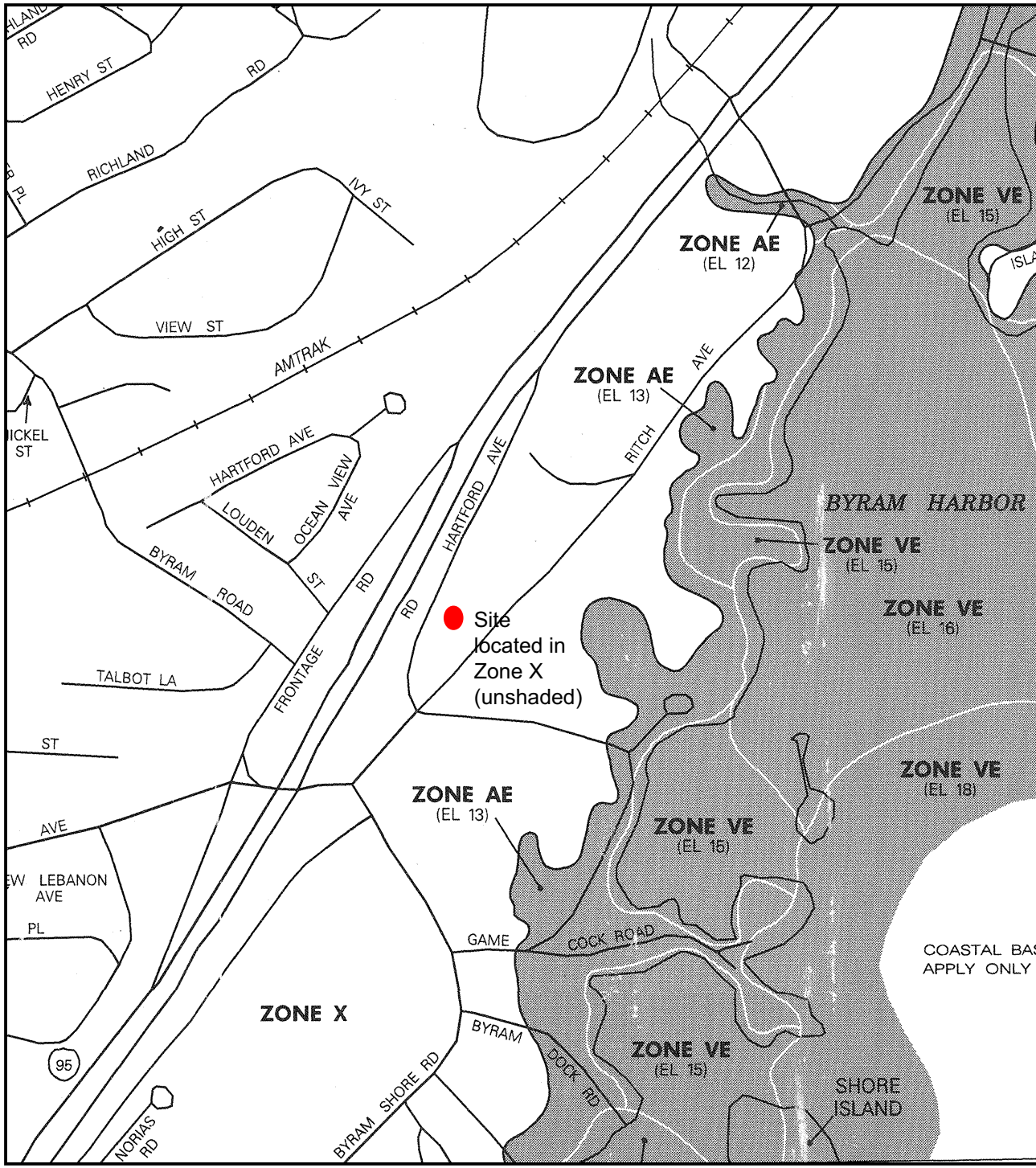
Enclosure

ISSUED FOR	
A	03-04-08 R067
B	03-04-08 R068

THE INFORMATION CONTAINED
IN THIS SET OF DOCUMENTS
IS FOR THE EXCLUSIVE USE OF
ANY USER FOR ENCLOSURE
OTHER THAN THAT WHICH
RELATES TO VERIZON WIRELESS
IS STRICTLY PROHIBITED.



1 SITE PLAN
SCALE: 1" = 20'-0"



APPROXIMATE SCALE
 500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM
 FLOOD INSURANCE RATE MAP**

TOWN OF
 GREENWICH,
 CONNECTICUT
 FAIRFIELD COUNTY

PANEL 22 OF 28
 (SEE MAP INDEX FOR PANELS NOT PRINTED)

**COMMUNITY - PANEL NUMBER
 090008 0022 C**

**MAP REVISED:
 FEBRUARY 22, 1999**



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

01' 52.5"

LEGEND



SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.
- ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

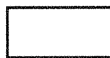


FLOODWAY AREAS IN ZONE AE



OTHER FLOOD AREAS

- ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.



OTHER AREAS

- ZONE X** Areas determined to be outside 500-year floodplain.
- ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS*



APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM
FLOOD INSURANCE RATE MAP**

TOWN OF
GREENWICH,
CONNECTICUT
FAIRFIELD COUNTY

PANEL 22 OF 28

(SEE MAP INDEX FOR PANELS NOT PRINTED)

**COMMUNITY - PANEL NUMBER
090008 0022 C**

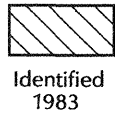
**MAP REVISED:
FEBRUARY 22, 1999**



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

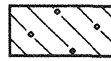
UNDEVELOPED COASTAL BARRIERS*



Identified
1983



Identified
1990 or Later




Otherwise
Protected Areas
Identified
1991 or Later

*Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.

———— Floodplain Boundary

- - - - - Floodway Boundary

- - - - - Zone D Boundary

 Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

~~~~~ 513 ~~~~~ Base Flood Elevation Line; Elevation in Feet\*\*

 Cross Section Line

(EL 987) Base Flood Elevation in Feet Where Uniform Within Zone\*\*

RM7 x Elevation Reference Mark

● M1.5 River Mile

\*\*Referenced to the National Geodetic Vertical Datum of 1929

MAP REPOSITORY

Town of Greenwich Planning and Zoning Department, 101 Field Point Road, Greenwich, Connecticut 06836 (Maps available for reference only, not for distribution.)

INITIAL IDENTIFICATION:

OCTOBER 18, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:

NONE

FLOOD INSURANCE RATE MAP EFFECTIVE:

SEPTEMBER 30, 1977

FLOOD INSURANCE RATE MAP REVISIONS:

August 19, 1986 – to change base flood elevations, to add base flood elevations, to add special flood hazard areas, to change special flood hazard areas, to include effects of wave action, and to change zone designations.

February 22, 1999 – to change base flood elevations, special flood hazard areas, and zone designations; to add roads and road names; and to update map format.



APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

TOWN OF  
GREENWICH,  
CONNECTICUT  
FAIRFIELD COUNTY

PANEL 22 OF 28

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY - PANEL NUMBER  
090008 0022 C

MAP REVISED:  
FEBRUARY 22, 1999



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

NE X

ONE VE  
(EL 15)



*Vanasse Hangen Brustlin, Inc.*

54 Tuttle Place  
Middletown, Connecticut 06457  
860 632-1500  
FAX 860 632-7879

**Memorandum**

To: Ms. Alexandria Carter  
Verizon Wireless  
99 East River Drive  
East Hartford, Connecticut 06108

Date: September 22, 2010

Project No.: 41240.26

From: Dean Gustafson  
Senior Environmental Scientist

Re: Coastal Consistency Analysis  
Proposed Verizon Wireless Facility  
36 Ritch Avenue  
Greenwich, Connecticut

---

Vanasse Hangen Brustlin, Inc. (VHB) provides the following assessment to demonstrate that the proposed Verizon Wireless project meets the requirements of the Connecticut Coastal Management Act (CGS Section 22a-90 through 22a-112) and is adequately protective of the interests of these regulations and the State's coastal resources.

VHB understands that Verizon Wireless proposes to replace the current 70-foot wireless telecommunications flagpole facility located at 36 Ritch Avenue in Greenwich, Connecticut with an 84-foot tall stealth "monopine", designed to resemble a coniferous tree (Facility). The proposed replacement Facility would be located approximately 15 feet to the northwest of the existing flagpole. Verizon's Facility would also include the installation of a single shelter designed to house Verizon's and other wireless service provider's equipment. The replacement Facility would be located within a new, fence-enclosed compound area with access to the project area following the existing gravel driveway proposed to be improved with a bituminous concrete surface.

The proposed Facility location is within the coastal boundary; refer to the enclosed Coastal Boundary and Tidal Wetlands Map, which depicts 1990 state-mapped tidal wetlands data with respect to the proposed Facility location. No federal or state-regulated coastal resources (e.g., tidal wetlands, beaches, estuary, etc.) are located on the subject property. The nearest coastal resources consist of developed shorefronts, beaches, intertidal flats, tidal wetlands and an estuary area associated with Byram Harbor.

Due to the distance separating nearby coastal resources from the proposed Facility (900 feet and beyond) and considering this project is a replacement of an existing facility, no likely adverse impact to coastal resources will result from the proposed Verizon Wireless project. The project's consistency with the State's coastal policies and goals are detailed below.

## Coastal Consistency Review

The proposed Verizon Wireless project will not result in adverse impacts to coastal resources as defined in the Connecticut Coastal Management Act (CCMA). The CCMA identifies eight potential adverse impacts to coastal resources. This section provides a definition of the potential adverse impacts associated with each resource area and why the proposed project would not adversely affect the resources.

- 1) *Degrading water quality of coastal waters by introducing significant amounts of suspended solids, nutrients, toxics, heavy metals or pathogens, or through the significant alteration of temperature, pH, dissolved oxygen or salinity.*

The proposed project will not affect water quality within Byram Harbor or associated coastal resources. Since the proposed wireless telecommunications compound creates minimal impervious surface and is underlain by a gravel surface, no significant stormwater runoff will be generated by the proposed project. In addition, erosion and sedimentation controls will be installed and maintained during construction in accordance with the CTDEP 2002 *Connecticut Guidelines For Soil Erosion and Sediment Control* to avoid discharge to nearby coastal resources.

- 2) *Degrading existing circulation patterns of coastal waters by impacting tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours.*

The proposed project is located outside of tidally influenced coastal water areas and as such will not impact current drainage or circulation patterns to tidally influenced areas.

- 3) *Degrading natural erosion patterns by significantly altering littoral transport of sediments in terms of deposition or source reduction.*

The proposed project would not affect littoral transport of sediments since the Facility location is not on a shoreline.

- 4) *Degrading natural or existing drainage patterns by significantly altering groundwater flow and recharge and volume of runoff.*

Existing drainage patterns, groundwater flow and recharge and stormwater runoff will not be significantly altered by the proposed Facility due to its small size (2,420 square foot compound) and limited impervious surfaces.

- 5) *Increasing the hazard of coastal flooding by significantly altering shoreline configurations or bathymetry, particularly within high velocity flood zones.*

The proposed project will not significantly alter shoreline configurations or bathymetry and will not increase coastal flooding. Based on the most recent available digital flood hazard mapping data, the proposed project is located outside of the 100-year flood hazard zone.

- 6) *Degrading visual quality by significantly altering the natural features of vistas and viewpoints.*

Similar to current conditions, the proposed 84-foot tall monopole would be visible from Byram Harbor, but it would not significantly obstruct views of coastal resources from scenic overlooks or publically accessible areas. Refer to VHB's visual assessment memorandum, dated September 22, 2010, provided under separate cover. Based on this analysis, no appreciable difference in overall

visibility would occur as a result of the proposed Facility replacement. The proposed stealth monopine design would soften perceived visual intrusions from nearby receptor locations, including Byram Harbor.

- 7) *Degrading or destroying essential wildlife, finfish or shellfish habitat by significantly altering the composition, migration patterns, distribution, breeding or other population characteristics of the natural species or significantly altering the natural components of the habitat.*

The proposed facility will not degrade or destroy essential coastal wildlife, finfish or shellfish habitat. The proposed facility would be located in a developed upland area (currently occupied by the existing telecommunications facility) and surrounded by residential development and Interstate 95, with the nearest coastal resource 900± feet to the southeast.

- 8) *Degrading tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments by significantly altering their natural characteristics or function.*

The proposed project will not alter the natural characteristics of any coastal resource area. The proposed facility would be located in a developed upland area (currently occupied by the existing telecommunications facility) and surrounded by residential development and Interstate 95, with the nearest coastal resource 900± feet to the southeast.

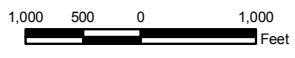
Enclosure



Source: U.S.G.S. Quads: Glenville, CT (1971) and Mamaroneck, NY (1975)

**Legend**

- Proposed Facility Location
- Coastal Boundary
- Tidal Wetland 1990s



**Vanasse Hangen Brustlin, Inc.**

**Coastal Boundary and Tidal Wetlands Map  
 Proposed Verizon Wireless Facility  
 36 Ritch Avenue  
 Greenwich, Connecticut**



BYRAMPARK.SRP  
\*\*\*\*\*  
\* Federal Airways & Airspace \*  
\* Summary Report: New Construction \*  
\*\*\*\*\*

Airspace Specialist: Your Nmae

File: BYRAMPARK

Location: Stamford, CT  
Distance: 8.1 Statute Miles  
Direction: 38° (true bearing)

Latitude: 41°-00'-18:08" Longitude: 73°-38'-53.93"

SITE ELEVATION AMSL..... 54 ft.  
STRUCTURE HEIGHT..... 90 ft.  
OVERALL HEIGHT AMSL.....144 ft.

NOTICE CRITERIA

FAR 77.13(a)(1): NNR (DNE 200 ft AGL)  
FAR 77.13(a)(2): NNR (DNE Notice Slope)  
FAR 77.13(a)(3): NNR (Not a Traverse Way)  
FAR 77.13(a)(4): PNR (Circling Approach Area)  
FAR 77.13(a)(4): NNR FAR 77.13(a)(4) Notice Criteria for HPN  
FAR 77.13(a)(4): NNR FAR 77.13(a)(4) Notice Criteria for 7N3  
FAR 77.13(a)(5): NNR (Off Airport Construction)

NR = Notice Required

NNR = Notice Not Required

PNR = Possible Notice Required (depends upon actual IFR procedure)

Notice to the FAA is not required at the analyzed location and height.

OBSTRUCTION STANDARDS

FAR 77.23(a)(1): DNE 500 ft AGL  
FAR 77.23(a)(2): DNE - Airport Surface  
FAR 77.25(a): DNE - Horizontal Surface  
FAR 77.25(b): DNE - Conical Surface  
FAR 77.25(c): DNE - Primary Surface  
FAR 77.25(d): DNE - Approach Surface  
FAR 77.25(e): DNE - Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: HPN: WESTCHESTER COUNTY

Type: A RD: 24814.85 RE: 379.8

FAR 77.23(a)(1): DNE  
FAR 77.23(a)(2): DNE - Height Less Than 200 feet AGL.  
VFR Horizontal Surface: DNE  
VFR Conical Surface: DNE  
VFR Approach Slope: DNE  
VFR Transitional Slope: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: LGA: LA GUARDIA

Type: A RD: 100895.4 RE: 11.5

FAR 77.23(a)(1): DNE  
FAR 77.23(a)(2): DNE - Greater Than 6 NM.  
VFR Horizontal Surface: DNE  
VFR Conical Surface: DNE  
VFR Approach Slope: DNE  
VFR Transitional Slope: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)

FAR 77.23(a)(3) Departure Surface Criteria (40:1)

BYRAMPARK.SRP

DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)  
 FAR 77.23(a)(4) MOCA Altitude Enroute Criteria  
 The Maximum Height Permitted is 1355 ft AMSL

PRIVATE LANDING FACILITIES

| FACIL<br>IDENT TYP NAME                                                                                           | BEARING<br>To FACIL | RANGE<br>IN NM | DELTA ARP<br>ELEVATION | FAA<br>IFR |
|-------------------------------------------------------------------------------------------------------------------|---------------------|----------------|------------------------|------------|
| NK84 HEL SAFE FLIGHT INSTRUMENT CORP.<br>No Impact to Private Landing Facility<br>Structure 0 ft below heliport.  | 327.12              | 5.43           | -271                   |            |
| 5CT8 HEL CANAL STREET<br>No Impact to Private Landing Facility<br>Structure is beyond notice limit by 30181 feet. | 66.21               | 5.79           | +94                    |            |

AIR NAVIGATION ELECTRONIC FACILITIES

| FAC<br>IDNT | TYPE      | ST<br>AT | FREQ   | VECTOR | DIST<br>(ft) | DELTA<br>ELEVA | ST | LOCATION       | ANGLE |
|-------------|-----------|----------|--------|--------|--------------|----------------|----|----------------|-------|
| HPN         | LOCALIZER | ON       | 0109.7 | 323.59 | 23824        | -229           | NY | WESTCHESTER CO | -.55  |

FCC AM PROOF-OF-PERFORMANCE

NOT REQUIRED: Structure is not near a FCC licensed AM  
 radio station Proof-of-Performance is not required.  
 Please review AM Station Report for details.

Nearest AM Station: WGCH @ 2777 meters.

Airspace® Summary Version 2010.9

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 Copyright © 1989 - 2010

10-14-2010  
 14:55:34

Site Name: Byram Park, CT  
Atty./Date: C. Saunders 2009

### OPTION AND LAND LEASE AGREEMENT

This Agreement, made this 19<sup>th</sup> day of February, 2009 between 36 Ritch Avenue, LLC, a Connecticut limited liability company with its principal offices located at 16B Arther Street, Greenwich, Connecticut 06831, Tax ID# [REDACTED] hereinafter designated LESSOR, and Cellco Partnership d/b/a Verizon Wireless, with its principal offices located at One Verizon Way, Basking Ridge, New Jersey 07920, hereinafter designated LESSEE. The LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party".

LESSOR is the owner of that certain real property located at 36 Ritch Avenue in the Town of Greenwich, County of Fairfield, State of Connecticut, as shown on the Tax Map 182 of the Greenwich Assessor as Block N/A, Lot 5 and being further described in Deed Book 3786 at Page 114 as recorded in the Office of the Greenwich Town Clerk (the entirety of LESSOR's property is referred to hereinafter as the "Property"). LESSEE desires to obtain an option to lease a portion of said Property, being described as a 35' by 50' parcel containing approximately 1,750 square feet (the "Land Space"), together with the non exclusive right (the "Rights of Way") for ingress and egress, seven (7) days a week twenty four (24) hours a day, on foot or motor vehicle, including trucks, over or along a twenty (20) foot wide right of way extending from the nearest public right of way, Ritch Avenue, to the land space and for the installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along one or more rights of way from the Land Space, said Land Space and Rights of Way (hereinafter collectively referred to as the "Premises") being substantially as described herein in Exhibit "A" attached hereto and made a part hereof.

NOW THEREFORE, in consideration of the sum of [REDACTED] to be paid by LESSEE to the LESSOR, which LESSEE will provide upon its execution of this Agreement, the LESSOR hereby grants to LESSEE the right and option to lease said Premises, for the term and in accordance with the covenants and conditions set forth herein.

The option may be exercised at any time on or prior to twelve (12) months after the date of this Agreement. If the option has not been so exercised, it shall be automatically extended for one additional period of twelve (12) months, unless LESSEE gives written notice to the LESSOR of the intent not to extend prior to the end of the initial option period. If the option is extended, LESSEE shall make an additional payment of [REDACTED] to LESSOR. If the option has not been so exercised during the first additional period, it shall be automatically extended for another additional period of twelve (12) months, unless LESSEE gives written notice to LESSOR of the intent not to extend prior to the end of the first additional period. If the option is extended for the second additional period, LESSEE shall make an additional payment of [REDACTED] to LESSOR. The time during which the option may be exercised may be further extended by mutual agreement in writing. If during said option period, or during the term of the lease, if the option is exercised, the LESSOR decides to subdivide, sell or change the status of the Property or his property contiguous thereto, he shall immediately notify LESSEE in writing so that LESSEE can take steps necessary to protect LESSEE's interest in the Premises.



This option may be sold, assigned or transferred by the LESSEE without any approval or consent of the LESSOR to the LESSEE's principal, affiliates, subsidiaries of its principal; to any entity which acquires all or substantially all of LESSEE's assets in the market defined by the Federal Communications Commission in which the Property is located by reason of a merger, acquisition or other business reorganization; or to any entity which acquires or receives an interest in the majority of communication towers of the LESSEE in the market defined by the Federal Communications Commission in which the Property is located. As to other parties, this Agreement may not be sold, assigned or transferred without the written consent of the LESSOR, which such consent will not be unreasonably withheld, delayed or conditioned. No change of stock ownership, partnership interest or control of LESSEE or transfer upon partnership or corporate dissolution of LESSEE shall constitute an assignment.

Should LESSEE fail to exercise this option or any extension thereof within the time herein limited, all rights and privileges granted hereunder shall be deemed completely surrendered, this option terminated, and LESSOR shall retain all money paid for the option, and no additional money shall be payable by either Party to the other.

LESSOR shall cooperate with LESSEE in its effort to obtain all certificates, permits and other approvals that may be required by any Federal, State or Local authorities which will permit LESSEE use of the Premises. LESSOR shall take no action which would adversely affect the status of the Property with respect to the proposed use by LESSEE.

The LESSOR shall permit LESSEE, during the option period, free ingress and egress to the Premises to conduct such surveys, inspections, structural strength analysis, subsurface soil tests, and other activities of a similar nature as LESSEE may deem necessary, at the sole cost of LESSEE.

LESSOR agrees to execute a Memorandum of this Option to Lease Agreement which LESSEE may record with the appropriate Recording Officer. The date set forth in the Memorandum of Option to Lease is for recording purposes only and bears no reference to commencement of either term or rent payments.

Notice of the exercise of the option shall be given by LESSEE to the LESSOR in writing by certified mail, return receipt requested. Notice shall be deemed effective on the date it is posted. On the date of such notice the following agreement shall take effect:

## LAND LEASE AGREEMENT

This Agreement, made this \_\_\_\_ day of \_\_\_\_\_, 2009 between 36 Ritch Avenue, LLC, a Connecticut limited liability company with its principal offices located at 16B Arther Street, Greenwich, Connecticut 06831, Tax ID# [REDACTED] hereinafter designated LESSOR, and Cellco Partnership d/b/a Verizon Wireless, with its principal office located at 180 Washington Valley Road, Bedminster, New Jersey, 07921, hereinafter designated LESSEE. The LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party".

1. **PREMISES.** LESSOR hereby leases to LESSEE a portion of that certain real property located at 36 Ritch Avenue in the Town of Greenwich, County of Fairfield, State of Connecticut, as shown on the Tax Map 182 of the Greenwich Assessor as Lot 5 and being further described in Deed Book 3786 at Page 114 as recorded in the Office of the Greenwich Town Clerk (the entirety of LESSOR's property is referred to hereinafter as the "Property"). LESSEE desires to obtain an option to lease a portion of said Property, being described as a 35' by 50' parcel containing approximately 1,750 square feet (the "Land Space"), together with the non exclusive right (the "Rights of Way") for ingress and egress, seven (7) days a week twenty four (24) hours a day, on foot or motor vehicle, including trucks over or along a twenty (20) foot wide right of way extending from the nearest public right of way, Ritch Avenue, to the Land Space, and for the installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along one or more rights of way from the Land Space, said Land Space and Rights of Way (hereinafter collectively referred to as the "Premises") being substantially as described herein in Exhibit "A" attached hereto and made a part hereof. The property is also shown on the Tax Map 182 of the Town of Greenwich as Block N/A, Lot 5 and is further described in Deed Book 3786 at Page 114 as recorded in the office of the Greenwich Town Clerk.

In the event any public utility is unable to use the rights of way, the LESSOR hereby agrees to grant an additional right of way either to the LESSEE or to the public utility at no cost to the LESSEE.

LESSOR hereby grants permission to LESSEE to install, maintain and operate the communications equipment, antennas and appurtenances shown on Exhibit "A" attached hereto and associated wires, cables, conduits and pipes to be utilized in connection therewith (hereinafter referred to as the "Facilities").

2. **SURVEY.** LESSOR also hereby grants to LESSEE the right to survey the Property and the Premises, and said survey shall then become Exhibit "B" which shall be attached hereto and made a part hereof, and shall control in the event of boundary and access discrepancies between it and Exhibit "A". Cost for such work shall be borne by the LESSEE.

3. **TERM.** This Agreement shall be effective as of the date of execution by both Parties, provided, however, the initial term shall be for five (5) years and shall commence on the Commencement Date (as hereinafter defined) at which time rental payments shall commence and

be due at a total annual rental of [REDACTED] to be paid in equal monthly installments on the first day of the month, in advance, to LESSOR or to such other person, firm or place as LESSOR may, from time to time, designate in writing at least thirty (30) days in advance of any rental payment date by notice given in accordance with Paragraph 22 below. Upon agreement of the Parties, LESSEE may pay rent by electronic funds transfer and in such event, LESSOR agrees to provide to LESSEE bank routing information for such purpose upon request of LESSEE. The Agreement shall commence upon notice of the exercise of the option, as set forth above, by LESSEE to the LESSOR in writing by certified mail, return receipt requested and shall be deemed effective on the date it is posted. In the event the date LESSEE gives notice of the exercise of the option between the 1st and the 15th of the month, the Agreement shall commence on the 1st of that month and if the notice is given between the 16th and the 31st of the month, then the Agreement shall commence on the 1st day of the following month (either the "Commencement Date").

4. EXTENSIONS. This Agreement shall automatically be extended for five (5) additional five (5) year terms unless LESSEE terminates it at the end of the then current term by giving LESSOR written notice of the intent to terminate at least six (6) months prior to the end of the then current term.

5. EXTENSION RENTALS. The annual rental shall be increased by [REDACTED] upon each anniversary of the Commencement Date during the initial term and all extension terms.

6. ADDITIONAL EXTENSIONS. If at the end of the fifth (5th) five (5) year extension term this Agreement has not been terminated by either Party by giving to the other written notice of an intention to terminate it at least three (3) months prior to the end of such term, this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of five (5) years and for five (5) year terms thereafter until terminated by either Party by giving to the other written notice of its intention to so terminate at least three (3) months prior to the end of such term. Annual rental for each such additional five (5) year term shall be equal to [REDACTED] of the annual rental payable with respect to the immediately preceding five (5) year term. The initial term and all extensions shall be collectively referred to herein as the "Term".

7. USE; GOVERNMENTAL APPROVALS. LESSEE shall use the Premises for the purpose of constructing, maintaining, repairing and operating a communications facility and uses incidental thereto. A security fence consisting of chain link construction or similar but comparable construction may be placed around the perimeter of the Premises at the discretion of LESSEE (not including the access easement). All improvements, equipment antennas, and conduits shall be at LESSEE's expense and their installation shall be at the discretion and option of LESSEE. LESSEE shall have the right to replace, repair, add or otherwise modify its utilities, equipment, antennas and/or conduits or any portion thereof and the frequencies over which the equipment operates, whether the equipment, antennas, conduits or frequencies are specified or not on any exhibit attached hereto, during the Term. It is understood and agreed that LESSEE's ability to use the Premises is contingent upon its obtaining after the execution date of this Agreement all of the certificates, permits and other approvals (collectively the "Governmental

Approvals") that may be required by any Federal, State or Local authorities as well as satisfactory soil boring tests which will permit LESSEE use of the Premises as set forth above. LESSOR shall cooperate with LESSEE in its effort to obtain such approvals and shall take no action which would adversely affect the status of the Property with respect to the proposed use thereof by LESSEE. In the event that (i) any of such applications for such Governmental Approvals should be finally rejected; (ii) any Governmental Approval issued to LESSEE is canceled, expires, lapses, or is otherwise withdrawn or terminated by governmental authority; (iii) LESSEE determines that such Governmental Approvals may not be obtained in a timely manner; (iv) LESSEE determines that any soil boring tests are unsatisfactory; (v) LESSEE determines that the Premises is no longer technically compatible for its use, or (vi) LESSEE, in its sole discretion, determines that it will be unable to use the Premises for its intended purposes, LESSEE shall have the right to terminate this Agreement. Notice of LESSEE's exercise of its right to terminate shall be given to LESSOR in writing by certified mail, return receipt requested, and shall be effective upon the mailing of such notice by LESSEE, or upon such later date as designated by LESSEE. All rentals paid to said termination date shall be retained by LESSOR. Upon such termination, this Agreement shall be of no further force or effect except to the extent of the representations, warranties and indemnities made by each Party to the other hereunder. Otherwise, the LESSEE shall have no further obligations for the payment of rent to LESSOR.

8. INDEMNIFICATION. Subject to Paragraph 9 below, each Party shall indemnify and hold the other harmless against any claim of liability or loss from personal injury or property damage resulting from or arising out of the negligence or willful misconduct of the indemnifying Party, its employees, contractors or agents, except to the extent such claims or damages may be due to or caused by the negligence or willful misconduct of the other Party, or its employees, contractors or agents.

9. INSURANCE.

a. The Parties hereby waive and release any and all rights of action for negligence against the other which may hereafter arise on account of damage to the Premises or to the Property, resulting from any fire, or other casualty of the kind covered by standard fire insurance policies with extended coverage, regardless of whether or not, or in what amounts, such insurance is now or hereafter carried by the Parties, or either of them. These waivers and releases shall apply between the Parties and they shall also apply to any claims under or through either Party as a result of any asserted right of subrogation. All such policies of insurance obtained by either Party concerning the Premises or the Property shall waive the insurer's right of subrogation against the other Party.

b. LESSOR and LESSEE each agree that at its own cost and expense, each will maintain commercial general liability insurance with limits not less than \$1,000,000 for injury to or death of one or more persons in any one occurrence and \$500,000 for damage or destruction to property in any one occurrence. LESSOR and LESSEE each agree that it will include the other Party as an additional insured.

10. **LIMITATION OF LIABILITY.** Except for indemnification pursuant to Paragraphs 8 and 28, neither Party shall be liable to the other, or any of their respective agents, representatives, employees for any lost revenue, lost profits, loss of technology, rights or services, incidental, punitive, indirect, special or consequential damages, loss of data, or interruption or loss of use of service, even if advised of the possibility of such damages, whether under theory of contract, tort (including negligence), strict liability or otherwise.

11. **ANNUAL TERMINATION.** Notwithstanding anything to the contrary contained herein, provided LESSEE is not in default hereunder beyond applicable notice and cure periods, LESSEE shall have the right to terminate this Agreement upon the annual anniversary of the Commencement Date provided that three (3) months prior notice is given to LESSOR.

12. **INTERFERENCE.** LESSEE agrees to install equipment of the type and frequency which will not cause harmful interference which is measurable in accordance with then existing industry standards to any equipment of LESSOR or other lessees of the Property which existed on the Property prior to the date this Agreement is executed by the Parties. In the event any after-installed LESSEE's equipment causes such interference, and after LESSOR has notified LESSEE in writing of such interference, LESSEE will take all commercially reasonable steps necessary to correct and eliminate the interference, including but not limited to, at LESSEE's option, powering down such equipment and later powering up such equipment for intermittent testing. In no event will LESSOR be entitled to terminate this Agreement or relocate the equipment as long as LESSEE is making a good faith effort to remedy the interference issue. LESSOR agrees that LESSOR and/or any other tenants of the Property who currently have or in the future take possession of the Property will be permitted to install only such equipment that is of the type and frequency which will not cause harmful interference which is measurable in accordance with then existing industry standards to the then existing equipment of LESSEE. The Parties acknowledge that there will not be an adequate remedy at law for noncompliance with the provisions of this Paragraph and therefore, either Party shall have the right to equitable remedies, such as, without limitation, injunctive relief and specific performance.

13. **REMOVAL AT END OF TERM.** LESSEE shall, upon expiration of the Term, or within ninety (90) days after any earlier termination of the Agreement, remove its building(s), antenna structure(s) (except footings), equipment, conduits, fixtures and all personal property and restore the Premises to its original condition, reasonable wear and tear and casualty damage excepted. LESSOR agrees and acknowledges that all of the equipment, conduits, fixtures and personal property of LESSEE shall remain the personal property of LESSEE and LESSEE shall have the right to remove the same at any time during the Term, whether or not said items are considered fixtures and attachments to real property under applicable Laws (as defined in Paragraph 32 below). If such time for removal causes LESSEE to remain on the Premises after termination of this Agreement, LESSEE shall pay rent at the then existing monthly rate or on the existing monthly pro-rata basis if based upon a longer payment term, until such time as the removal of the building, antenna structure, fixtures and all personal property are completed.

14. **HOLDOVER.** LESSEE has no right to retain possession of the Premises or any part thereof beyond the expiration of that removal period set forth in Paragraph 13 herein, unless the Parties are negotiating a new lease or lease extension in good faith. In the event that the Parties

are not in the process of negotiating a new lease or lease extension in good faith, LESSEE holds over in violation of Paragraph 13 and this Paragraph 14, then the rent then in effect payable from and after the time of the expiration or earlier removal period set forth in Paragraph 13 shall be increased to one hundred and ten percent (110%) of the rent applicable during the month immediately preceding such expiration or earlier termination.

15. INTENTIONALLY DELETED.

16. RIGHTS UPON SALE. Should LESSOR, at any time during the Term decide (i) to sell or transfer all or any part of the Property to a purchaser other than LESSEE, or (ii) to grant to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE, or a larger portion thereof, for the purpose of operating and maintaining communications facilities or the management thereof, such sale or grant of an easement or interest therein shall be under and subject to this Agreement and any such purchaser or transferee shall recognize LESSEE's rights hereunder under the terms of this Agreement. To the extent that LESSOR grants to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE for the purpose of operating and maintaining communications facilities or the management thereof and in conjunction therewith, assigns this Agreement to said third party, LESSOR shall not be released from its obligations to LESSEE under this Agreement, and LESSEE shall have the right to look to LESSOR and the third party for the full performance of this Agreement.

17. QUIET ENJOYMENT. LESSOR covenants that LESSEE, on paying the rent and performing the covenants herein, shall peaceably and quietly have, hold and enjoy the Premises.

18. TITLE. LESSOR represents and warrants to LESSEE as of the execution date of this Agreement, and covenants during the Term that LESSOR is seized of good and sufficient title and interest to the Property and has full authority to enter into and execute this Agreement. LESSOR further covenants during the Term that there are no liens, judgments or impediments of title on the Property, or affecting LESSOR's title to the same and that there are no covenants, easements or restrictions which prevent or adversely affect the use or occupancy of the Premises by LESSEE as set forth above.

19. INTEGRATION. It is agreed and understood that this Agreement contains all agreements, promises and understandings between LESSOR and LESSEE and that no verbal or oral agreements, promises or understandings shall be binding upon either LESSOR or LESSEE in any dispute, controversy or proceeding at law, and any addition, variation or modification to this Agreement shall be void and ineffective unless made in writing signed by the Parties or in a written acknowledgment in the case provided in Paragraph 3. In the event any provision of the Agreement is found to be invalid or unenforceable, such finding shall not affect the validity and enforceability of the remaining provisions of this Agreement. The failure of either Party to insist upon strict performance of any of the terms or conditions of this Agreement or to exercise any of its rights under the Agreement shall not waive such rights and such Party shall have the right to enforce such rights at any time and take such action as may be lawful and authorized under this Agreement, in law or in equity.

20. **GOVERNING LAW.** This Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the Laws of the State in which the Property is located.

21. **ASSIGNMENT/SUBLEASE.** This Agreement may be sold, assigned or transferred by the LESSEE without any approval or consent of the LESSOR to the LESSEE's principal, affiliates, subsidiaries of its principal or to any entity which acquires all or substantially all of LESSEE's assets in the market defined by the Federal Communications Commission in which the Property is located by reason of a merger, acquisition or other business reorganization. As to other parties, this Agreement may not be sold, assigned or transferred without the written consent of the LESSOR, which such consent will not be unreasonably withheld, delayed or conditioned. No change of stock ownership, partnership interest or control of LESSEE or transfer upon partnership or corporate dissolution of LESSEE shall constitute an assignment hereunder. Upon notice to LESSOR, LESSEE may sublet the Premises within its sole discretion, upon terms and conditions within its sole discretion. Said notice shall indicate the rental amount payable by Sublessee to LESSEE and the date of commencement of the rental amounts. Any sublease that is entered into by LESSEE shall be subject to the provisions of this Agreement and shall be binding upon the successors, assigns, heirs and legal representatives of the respective parties hereto. The term "Sublease", "Sublet", "Sublessee" and any other similar term shall apply to any situation by which LESSEE allows a non-affiliated or non-related third party use of the Premises for co-location, whether it be by sublease, license or other agreement. For the purposes of this Agreement an affiliated party and/or related party shall include any and all entities in which the LESSEE, its principals, affiliates, subsidiaries of its principal holds or otherwise has an ownership interest in.

In the event LESSEE Subleases any portion of the Premises, in accordance with this Agreement, any rental, if any, paid by any Sublessee(s) and received by LESSEE shall be divided between the LESSOR and LESSEE in the following manner: [REDACTED] to LESSOR and [REDACTED] to LESSEE; and shall be payable to LESSOR the latter of the first day of the month following receipt of any rental amount by LESSEE or thirty (30) days following receipt by LESSEE.

LESSEE shall have no liability of any kind or nature to the LESSOR for failure to sublet all or any part of the Premises to any or all potential Sublessees. Notwithstanding any other provision of this Agreement, the LESSEE shall not be required to obtain approval from the LESSOR for the Subletting of the Property or any part thereof. The LESSEE has the sole right to determine whether it will Sublet any portion of the Premises and whether it will Sublease to any specific Sublessee.

22. NOTICES. All notices hereunder must be in writing and shall be deemed validly given if sent by certified mail, return receipt requested or by commercial courier, provided the courier's regular business is delivery service and provided further that it guarantees delivery to the addressee by the end of the next business day following the courier's receipt from the sender, addressed as follows (or any other address that the Party to be notified may have designated to the sender by like notice):

LESSOR: 36 Ritch Avenue, LLC  
16B Arther Street  
Greenwich, CT 06851

LESSEE: Cellco Partnership  
d/b/a Verizon Wireless  
180 Washington Valley Road  
Bedminster, New Jersey 07921  
Attention: Network Real Estate

Notice shall be effective upon actual receipt or refusal as shown on the receipt obtained pursuant to the foregoing.

23. SUCCESSORS. This Agreement shall extend to and bind the heirs, personal representative, successors and assigns of the Parties hereto.

24. SUBORDINATION AND NON-DISTURBANCE. LESSOR shall obtain not later than fifteen (15) days following the execution of this Agreement, a Non Disturbance Agreement, as defined below, from its existing mortgagee(s), ground lessors and master lessors, if any, of the Property. At LESSOR's option, this Agreement shall be subordinate to any future master lease, ground lease, mortgage, deed of trust or other security interest (a "Mortgage") by LESSOR which from time to time may encumber all or part of the Property or right-of-way; provided, however, as a condition precedent to LESSEE being required to subordinate its interest in this Agreement to any future Mortgage covering the Property, LESSOR shall obtain for LESSEE's benefit a non disturbance and attornment agreement for LESSEE's benefit in the form reasonably satisfactory to LESSEE, and containing the terms described below (the "Non Disturbance Agreement"), and shall recognize LESSEE's right to remain in occupancy of and have access to the Premises as long as LESSEE is not in default of this Agreement beyond applicable notice and cure periods. The Non Disturbance Agreement shall include the encumbering party's ("Lender's") agreement that, if Lender or its successor in interest or any purchaser of Lender's or its successor's interest (a "Purchaser") acquires an ownership interest in the Property, Lender or such successor in interest or Purchaser will (1) honor all of the terms of the Agreement, (2) fulfill LESSOR's obligations under the Agreement, and (3) promptly cure all of the then existing LESSOR defaults under the Agreement. Such Non Disturbance Agreement must be binding on all of Lender's participants in the subject loan (if any) and on all successors and assigns of Lender and/or its participants and on all Purchasers. In return for such Non Disturbance Agreement, LESSEE will execute an agreement for Lender's benefit in which LESSEE (1) confirms that the Agreement is subordinate to the Mortgage or other real property interest in favor of Lender, (2) agrees to attorn to Lender if Lender becomes the owner of the Property, (3)



agrees to give Lender copies of whatever notices of default LESSEE must give LESSOR, (4) agrees to accept a cure by Lender of any of LESSOR's defaults, provided such cure is completed within the deadline applicable to LESSOR, (5) agrees to not pay rent more than one month, or one year in the event the rent is paid annually, in advance and (6) agrees that no material modification or material amendment of the Agreement will be binding on Lender unless it has been consented to in writing by Lender. LESSOR and LESSEE agree that, for the purposes of Paragraph 24, nonmaterial amendments or modifications shall include, but shall not be limited to, the following: (i) any extension of the term of the Agreement, (ii) any addition to, alteration, modification, or replacement of LESSEE's equipment, (iii) any relocation of LESSEE's equipment, (iv) any increase in the rent, and (v) any decrease in the rent, provided however, that such an amendment shall become material should the decrease in rent result in rent lower than the amount then prescribed by the unamended Agreement. In the event LESSOR defaults in the payment and/or other performance of any mortgage or other real property interest encumbering the Property, LESSEE, may, at its sole option and without obligation, cure or correct LESSOR's default and upon doing so, LESSEE shall be subrogated to any and all rights, titles, liens and equities of the holders of such mortgage or other real property interest and LESSEE shall be entitled to deduct and setoff against all rents that may otherwise become due under this Agreement the sums paid by LESSEE to cure or correct such defaults.

25. RECORDING. LESSOR agrees to execute a Memorandum of this Agreement which LESSEE may record with the appropriate recording officer. The date set forth in the Memorandum of Lease is for recording purposes only and bears no reference to commencement of either the Term or rent payments.

26. DEFAULT.

a. In the event there is a breach by LESSEE with respect to any of the provisions of this Agreement or its obligations under it, including the payment of rent, LESSOR shall give LESSEE written notice of such breach. After receipt of such written notice, LESSEE shall have fifteen (15) days in which to cure any monetary breach and thirty (30) days in which to cure any non-monetary breach, provided LESSEE shall have such extended period as may be required beyond the thirty (30) days if the nature of the cure is such that it reasonably requires more than thirty (30) days and LESSEE commences the cure within the thirty (30) day period and thereafter continuously and diligently pursues the cure to completion. LESSOR may not maintain any action or effect any remedies for default against LESSEE unless and until LESSEE has failed to cure the breach within the time periods provided in this Paragraph.

b. In the event there is a breach by LESSOR with respect to any of the provisions of this Agreement or its obligations under it, LESSEE shall give LESSOR written notice of such breach. After receipt of such written notice, LESSOR shall have thirty (30) days in which to cure any such breach, provided LESSOR shall have such extended period as may be required beyond the thirty (30) days if the nature of the cure is such that it reasonably requires more than thirty (30) days and LESSOR commences the cure within the thirty (30) day period and thereafter continuously and diligently pursues the cure to completion. LESSEE may not maintain any action or effect any remedies for default against LESSOR unless and until LESSOR has failed to cure the breach within the time periods provided in this Paragraph. Notwithstanding the

foregoing to the contrary, it shall be a default under this Agreement if LESSOR fails, within five (5) days after receipt of written notice of such breach, to perform an obligation required to be performed by LESSOR if the failure to perform such an obligation interferes with LESSEE's ability to conduct its business on the Property; provided, however, that if the nature of LESSOR's obligation is such that more than five (5) days after such notice is reasonably required for its performance, then it shall not be a default under this Agreement if performance is commenced within such five (5) day period and thereafter diligently pursued to completion.

27. REMEDIES. Upon a default, the non-defaulting Party may at its option (but without obligation to do so), perform the defaulting Party's duty or obligation on the defaulting Party's behalf, including but not limited to the obtaining of reasonably required insurance policies. The costs and expenses of any such performance by the non-defaulting Party shall be due and payable by the defaulting Party upon invoice therefor. In the event of a default by either Party with respect to a material provision of this Agreement, without limiting the non-defaulting Party in the exercise of any right or remedy which the non-defaulting Party may have by reason of such default, the non-defaulting Party may terminate the Agreement and/or pursue any remedy now or hereafter available to the non-defaulting Party under the Laws or judicial decisions of the state in which the Premises are located; provided, however, LESSOR shall use reasonable efforts to mitigate its damages in connection with a default by LESSEE. If LESSEE so performs any of LESSOR's obligations hereunder, the full amount of the reasonable and actual cost and expense incurred by LESSEE shall immediately be owing by LESSOR to LESSEE, and LESSOR shall pay to LESSEE upon demand the full undisputed amount thereof with interest thereon from the date of payment at the greater of (i) ten percent (10%) per annum, or (ii) the highest rate permitted by applicable Laws. Notwithstanding the foregoing, if LESSOR does not pay LESSEE the full undisputed amount within thirty (30) days of its receipt of an invoice setting forth the amount due from LESSOR, LESSEE may offset the full undisputed amount, including all accrued interest, due against all fees due and owing to LESSOR until the full undisputed amount, including all accrued interest, is fully reimbursed to LESSEE.

28. ENVIRONMENTAL.

a. LESSOR will be responsible for all obligations of compliance with any and all environmental and industrial hygiene laws, including any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene conditions or concerns as may now or at any time hereafter be in effect, that are or were in any way related to activity now conducted in, on, or in any way related to the Property, unless such conditions or concerns are caused by the specific activities of LESSEE in the Premises.

b. LESSOR shall hold LESSEE harmless and indemnify LESSEE from and assume all duties, responsibility and liability at LESSOR's sole cost and expense, for all duties, responsibilities, and liability (for payment of penalties, sanctions, forfeitures, losses, costs, or damages) and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding which is in any way related to: a) failure to comply with any environmental or industrial hygiene law, including without limitation any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing

standards of liability or standards of conduct with regard to any environmental or industrial hygiene concerns or conditions as may now or at any time hereafter be in effect, unless such non-compliance results from conditions caused by LESSEE; and b) any environmental or industrial hygiene conditions arising out of or in any way related to the condition of the Property or activities conducted thereon, unless such environmental conditions are caused by LESSEE.

29. CASUALTY. In the event of damage by fire or other casualty to the Premises that cannot reasonably be expected to be repaired within forty-five (45) days following same or, if the Property is damaged by fire or other casualty so that such damage may reasonably be expected to disrupt LESSEE's operations at the Premises for more than forty-five (45) days, then LESSEE may, at any time following such fire or other casualty, provided LESSOR has not completed the restoration required to permit LESSEE to resume its operation at the Premises, terminate this Agreement upon fifteen (15) days prior written notice to LESSOR. Any such notice of termination shall cause this Agreement to expire with the same force and effect as though the date set forth in such notice were the date originally set as the expiration date of this Agreement and the Parties shall make an appropriate adjustment, as of such termination date, with respect to payments due to the other under this Agreement. Notwithstanding the foregoing, the rent shall abate during the period of repair following such fire or other casualty in proportion to the degree to which LESSEE's use of the Premises is impaired.

30. CONDEMNATION. In the event of any condemnation of all or any portion of the Property, this Agreement shall terminate as to the part so taken as of the date the condemning authority takes title or possession, whichever occurs first. If as a result of a partial condemnation of the Premises or Property, LESSEE, in LESSEE's sole discretion, is unable to use the Premises for the purposes intended hereunder, or if such condemnation may reasonably be expected to disrupt LESSEE's operations at the Premises for more than forty-five (45) days, LESSEE may, at LESSEE's option, to be exercised in writing within fifteen (15) days after LESSOR shall have given LESSEE written notice of such taking (or in the absence of such notice, within fifteen (15) days after the condemning authority shall have taken possession) terminate this Agreement as of the date the condemning authority takes such possession. LESSEE may on its own behalf make a claim in any condemnation proceeding involving the Premises for losses related to the equipment, conduits, fixtures, its relocation costs and its damages and losses (but not for the loss of its leasehold interest. Any such notice of termination shall cause this Agreement to expire with the same force and effect as though the date set forth in such notice were the date originally set as the expiration date of this Agreement and the Parties shall make an appropriate adjustment as of such termination date with respect to payments due to the other under this Agreement. If LESSEE does not terminate this Agreement in accordance with the foregoing, this Agreement shall remain in full force and effect as to the portion of the Premises remaining, except that the rent shall be reduced in the same proportion as the rentable area of the Premises taken bears to the total rentable area of the Premises. In the event that this Agreement is not terminated by reason of such condemnation, LESSOR shall promptly repair any damage to the Premises caused by such condemning authority.

31. **SUBMISSION OF AGREEMENT/PARTIAL INVALIDITY/AUTHORITY.** The submission of this Agreement for examination does not constitute an offer to lease the Premises and this Agreement becomes effective only upon the full execution of this Agreement by the Parties. If any provision herein is invalid, it shall be considered deleted from this Agreement and shall not invalidate the remaining provisions of this Agreement. Each of the Parties hereto warrants to the other that the person or persons executing this Agreement on behalf of such Party has the full right, power and authority to enter into and execute this Agreement on such Party's behalf and that no consent from any other person or entity is necessary as a condition precedent to the legal effect of this Agreement.

32. **APPLICABLE LAWS.** During the Term, LESSOR shall maintain the Property in compliance with all applicable laws, rules, regulations, ordinances, directives, covenants, easements, zoning and land use regulations, and restrictions of record, permits, building codes, and the requirements of any applicable fire insurance underwriter or rating bureau, now in effect or which may hereafter come into effect (including, without limitation, the Americans with Disabilities Act and laws regulating hazardous substances) (collectively "Laws"). LESSEE shall, in respect to the condition of the Premises and at LESSEE's sole cost and expense, comply with (a) all Laws relating solely to LESSEE's specific and unique nature of use of the Premises (other than general office use); and (b) all building codes requiring modifications to the Premises due to the improvements being made by LESSEE in the Premises.

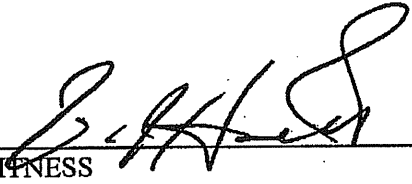
33. **SURVIVAL.** The provisions of the Agreement relating to indemnification from one Party to the other Party shall survive any termination or expiration of this Agreement. Additionally, any provisions of this Agreement which require performance subsequent to the termination or expiration of this Agreement shall also survive such termination or expiration.

34. **CAPTIONS.** The captions contained in this Agreement are inserted for convenience only and are not intended to be part of the Agreement. They shall not affect or be utilized in the construction or interpretation of the Agreement.


35. **REVISED FACILITY.** Notwithstanding the foregoing provisions of Paragraph 1 herein, in the event any condition of a Governmental Approval requires LESSEE to install, construct, maintain and/or operate a communications facility including, but not limited to, a tower, which differs from the communications facility and/or tower as depicted on Exhibit "A" (a "Revised Facility"), LESSOR hereby agrees that this Agreement shall be automatically amended to reflect the Revised Facility and authorizes LESSEE to install, construct, maintain and/or operate such Revised Facility on the Premises.

IN WITNESS WHEREOF, the Parties hereto have set their hands and affixed their respective seals the day and year first above written.

LESSOR: 36 Ritch Avenue, LLC

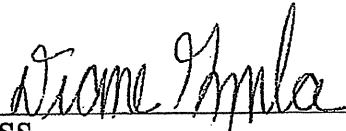
  
WITNESS


  
WITNESS

By:   
BRIAN KELLY  
Its Member

LESSEE:

Cellco Partnership d/b/a Verizon Wireless

  
WITNESS

By:   
David R. Heverling  
Its: Network Vice President  
Northeast Area  
21909

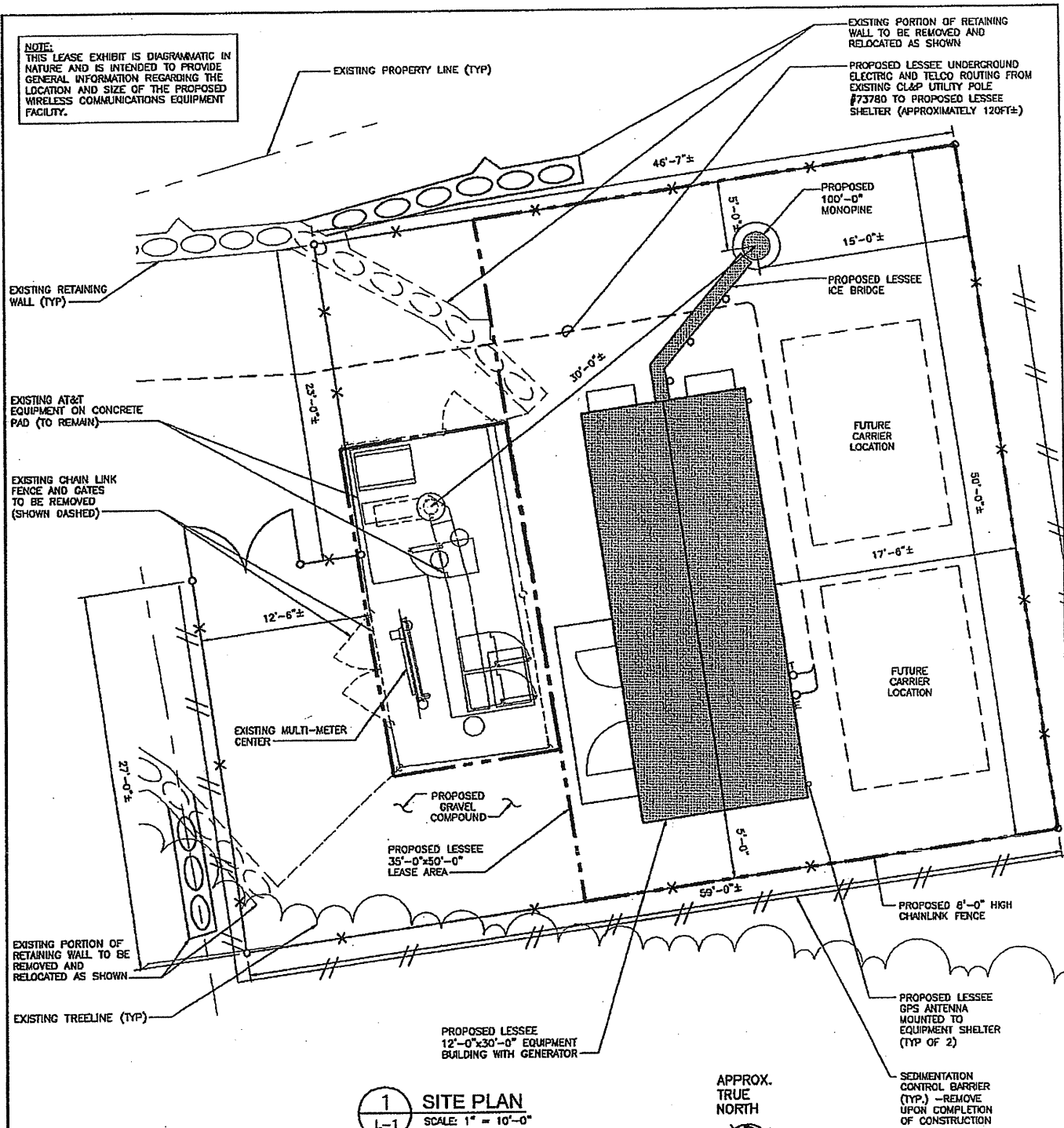
All that certain piece, parcel or tract of land, together with the buildings and improvements thereon, situated in the Town of Greenwich, County of Fairfield and State of Connecticut, being Lot No. 3 on a certain map entitled "Subdivision Property of Catalano Brothers et al Greenwich, Conn." on file in the Greenwich Land Records as Map No. 6558, and being more particularly bounded and described as follows:

Beginning at a point on the northerly line of Ritch Avenue formed by the intersection of the division line between said Lot No. 3 and Lot No. 2 on said map, and running thence along the said northerly line of Ritch Avenue South  $53^{\circ} 28'$  West 20.05 feet, and running thence along Lot No. 4 on said map North  $32^{\circ} 37'$  West 45.0 feet, North  $9^{\circ} 51' 54''$  West 76.28 feet, North  $31^{\circ} 12' 21''$  East 190.92 feet, and running thence along land now or formerly of McIlinggaard South  $36^{\circ} 38'$  East 101.20 feet, and running thence along Lot No. 1 on said map South  $53^{\circ} 28'$  West 73.24 feet, and running thence along Lot No. 2 on said map North  $52^{\circ} 28' 15''$  West 53.18 feet, South  $31^{\circ} 12' 21''$  West 80.0 feet, South  $9^{\circ} 51' 54''$  East 64.78 feet, South  $32^{\circ} 32'$  East 39.59 feet to the point and place of beginning.

Together with an undivided one-fourth interest in and to the area shown on said map as "Reserved for Parks and Recreation".

Together with all right, title and interest of the Grantors in and to Ritch Avenue in front of and adjoining said premises to the center line thereof.

**NOTE:**  
THIS LEASE EXHIBIT IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATIONS EQUIPMENT FACILITY.



**1** SITE PLAN  
L-1  
SCALE: 1" = 10'-0"  
0 5 10 20

SITE NAME: BYRAM PARK  
PROJECT ID: 2005095543  
PROJECT TYPE: PCSCA  
LOCATION CODE: 161633  
SITE ADDRESS:  
36 RITCH AVENUE  
GREENWICH, CONNECTICUT  
06830

OW NO:  
36931133  
Designed by:  
MJE  
Drawn by:  
KAP  
Checked by:  
MJE  
Approved by:  
ICA

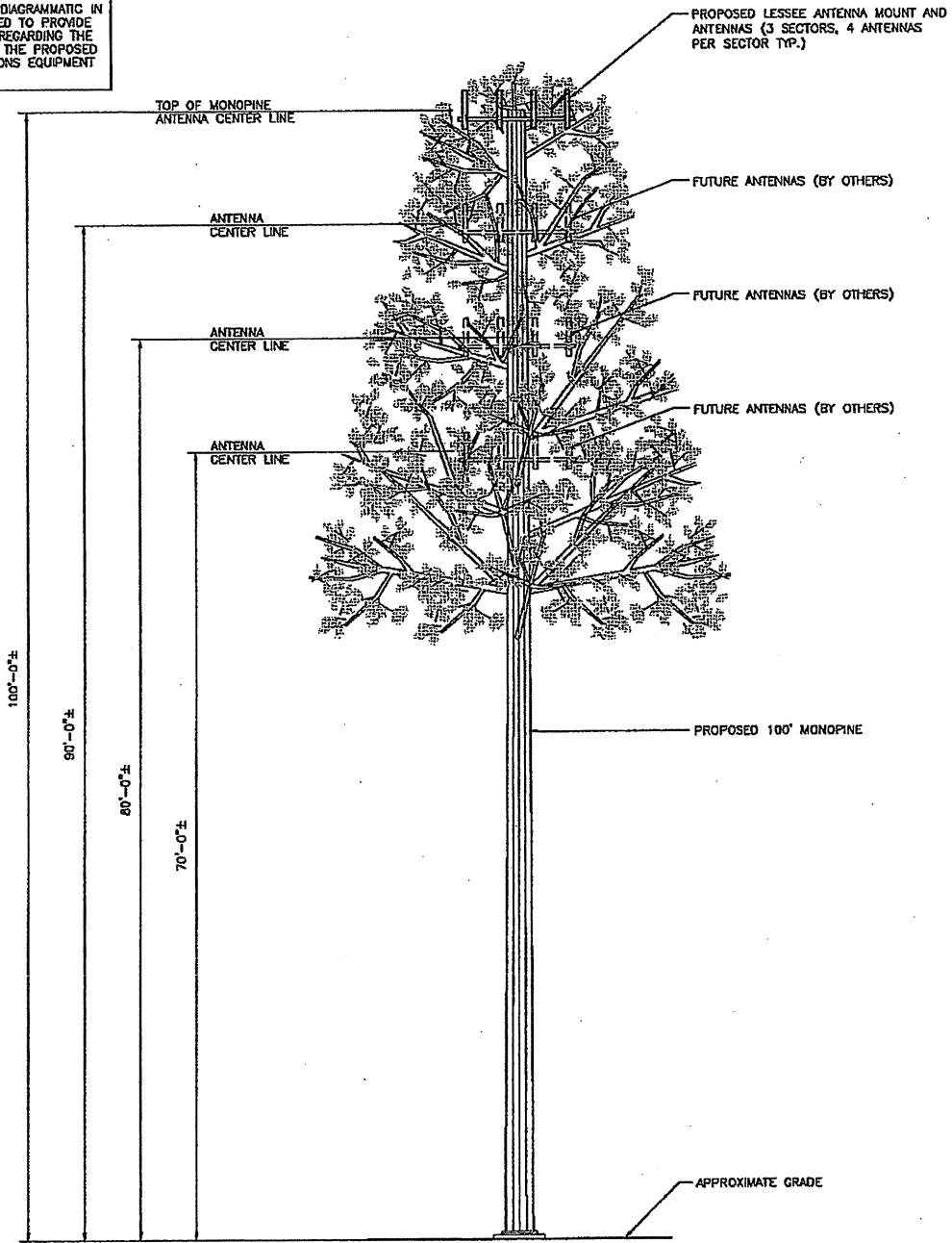
**URS CORPORATION AES**  
500 ENTERPRISE DRIVE  
ROCKY HILL, CONNECTICUT  
1-(860)-529-8882

CELLCO PARTNERSHIP DBA  
VERIZON WIRELESS  
WIRELESS COMMUNICATIONS FACILITY  
SITE ADDRESS:  
BYRAM PARK  
36 RITCH AVENUE  
GREENWICH, CONNECTICUT 06830

|                 |                |             |
|-----------------|----------------|-------------|
| REV.            | DATE           | DESCRIPTION |
| 11-10-08        | REVISED        |             |
| Scale:          | Date: 11-06-08 |             |
| Job No. VZ4-057 | File No.       |             |

Dwg. No.  
**L-1**  
Dwg. 1 of 2

**NOTE:**  
THIS LEASE EXHIBIT IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATIONS EQUIPMENT FACILITY.



SITE NAME: BYRAM PARK  
PROJECT ID: 2005095543  
PROJECT TYPE: PCSCA  
LOCATION CODE: 161633  
SITE ADDRESS:  
36 RITCH AVENUE  
GREENWICH, CONNECTICUT  
06830

**1 MONOPINE ELEVATION**  
L-2 SCALE: 1" = 15'-0"



OW No:  
38931133  
Designed by:  
MJE  
Drawn by:  
KAP  
Checked by:  
MJE  
Approved by:  
KCA

**URS CORPORATION AES**  
500 ENTERPRISE DRIVE  
ROCKY HILL, CONNECTICUT  
1-(860)-529-8882

CELLCO PARTNERSHIP DBA  
VERIZON WIRELESS  
WIRELESS COMMUNICATIONS FACILITY  
SITE ADDRESS:  
BYRAM PARK  
36 RITCH AVENUE  
GREENWICH, CONNECTICUT 06830

|                 |          |                |
|-----------------|----------|----------------|
| REV.            | DATE:    | DESCRIPTION    |
| △               | 11-10-08 | REVISED        |
| Scale:          |          | Date: 11-08-08 |
| Job No. VZ4-057 |          | File No.       |

Dwg. No.  
**L-2**  
Dwg. 2 of 2



FIRST AMENDMENT TO  
OPTION AND LAND LEASE AGREEMENT

This First Amendment to Option and Land Lease Agreement 2010 ("First Amendment") is made as of February 1, 2009, by and between 36 Ritch Avenue, LLC, a Connecticut limited liability company with its principal offices located at 16B Arther Street, Greenwich, Connecticut 06831, hereinafter designated LESSOR and Cellco Partnership d/b/a Verizon Wireless, with its principal offices located at One Verizon Way, Basking Ridge, New Jersey 07920-1025, hereinafter designated LESSEE.

WITNESSETH:

WHEREAS, LESSOR and LESSEE entered into a certain Option and Land Lease Agreement dated February 19, 2009 (the "Lease"), for certain ground space located on a portion of property known 36 Ritch Avenue, Greenwich, Connecticut (the "Property"); and

WHEREAS, LESSEE desires to expand that certain portion of the Property which LESSEE has the option to lease in exchange for a one-time lump sum payment.

NOW THEREFORE, in consideration of the promises and intending to be legally bound hereby, LESSOR and LESSEE agree as follows:

1. Pages 2 and 3 of Exhibit "A" attached to the Lease shall be replaced with Exhibit "A-1" attached hereto and made a part hereof. All references in the Lease to Exhibit "A" shall now include the site drawings depicted in Exhibit "A-1."
2. The definition of Land Space, as set forth in the Lease shall be modified to be approximately 2,420 square feet.
3. As consideration for this First Amendment, LESSEE agrees to pay LESSOR the non-refundable sum of [REDACTED] as additional rent due and payable 45 days from the date of execution of this First Amendment by the Parties.
4. Capitalized terms used in this First Amendment shall have the same meaning described for them in the Lease.
5. In the event of a conflict between the terms of the Lease and the terms of this First Amendment, the terms hereof shall control.
6. In all other respects, the Lease shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment to Option and Land Lease Agreement as of the day and year first written above.

LESSOR: 36 Ritch Avenue, LLC

WITNESS:

Dallene Ely  
Harold F Kelly


By: 

Name: Brian Kelly  
Its: member

LESSEE: Cellco Partnership d/b/a  
Verizon Wireless

WITNESS:

Diome Imbila  
Karin Paul

By: 

David R. Heverling  
Area Vice President Network -  
Northeast

2110

Exhibit A-1

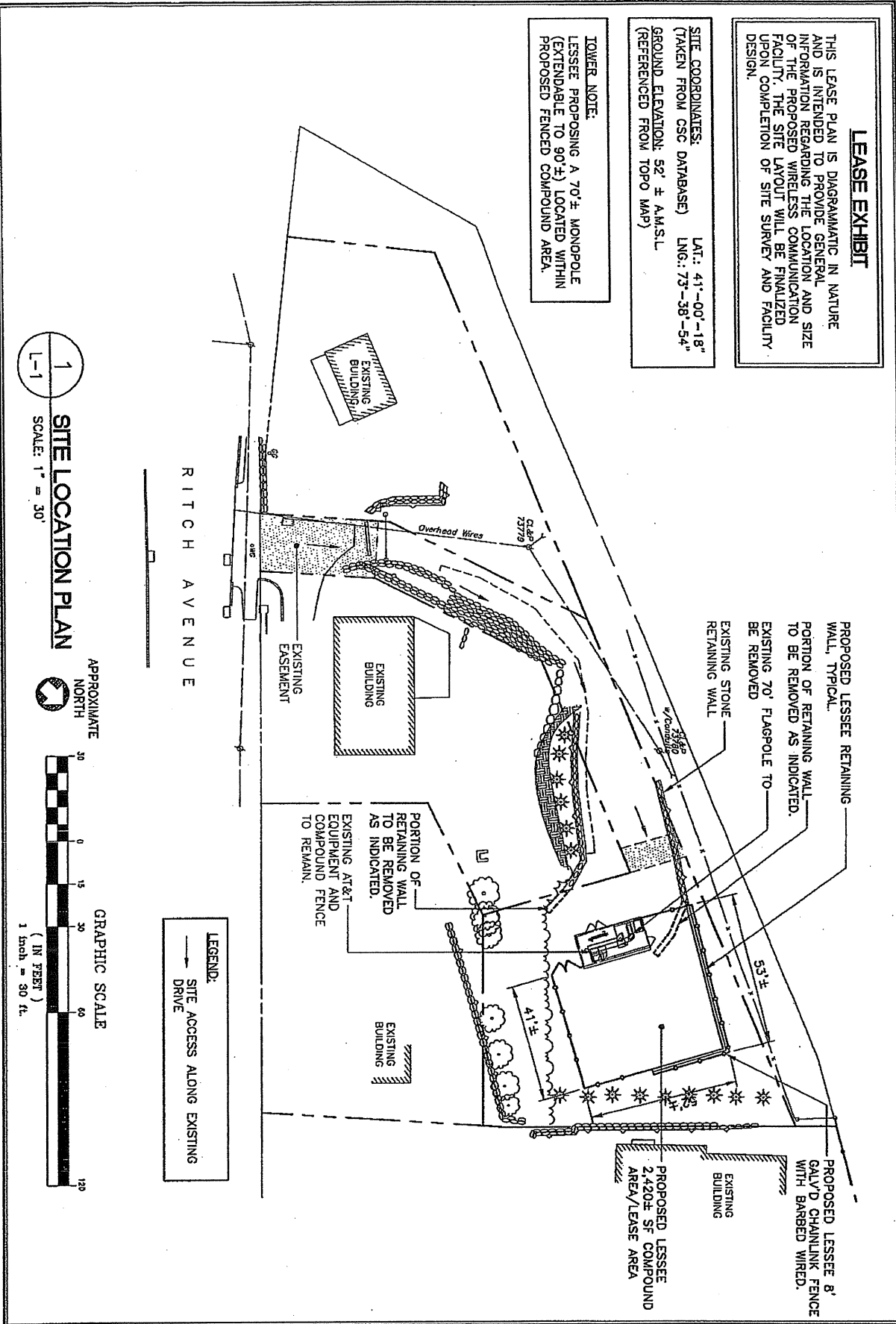
{W1757708}

### LEASE EXHIBIT

THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

**SITE COORDINATES:**  
 (TAKEN FROM CSC DATABASE)    LAT: 41°-00'-18"  
 GROUND ELEVATION: 52' ± A.M.S.L.    LNG: 73°-38'-54"  
 (REFERENCED FROM TOPO MAP)

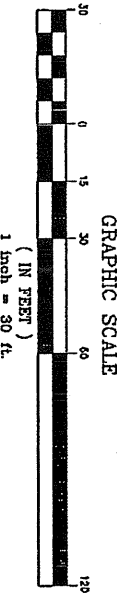
**TOWER NOTE:**  
 LESSEE PROPOSING A 70' ± MONOPOLE (EXTENDABLE TO 90' ±) LOCATED WITHIN PROPOSED FENCED COMPOUND AREA.



1  
L-1

### SITE LOCATION PLAN

SCALE: 1" = 30'  
 APPROXIMATE NORTH



**LEGEND:**  
 — SITE ACCESS ALONG EXISTING DRIVE

| Celco Partnership d/b/a Verizon Wireless<br><b>BYRAM PARK</b><br>36 RITCH AVENUE<br>GREENWICH, CT 06830 |          | NATCOMM<br>CONSULTING ENGINEERS<br>P: 203.488.0589 F: 203.488.8567<br>www.natcomm.com or info@natcomm.com<br>63-2 N. Branford Rd. Branford, CT 06405 | PROFESSIONAL ENGINEER SEAL<br>[Blank space for seal] | <table border="1"> <thead> <tr> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>12/18/08</td> <td>MD</td> <td>LEASE EXHIBIT</td> </tr> <tr> <td>12/18/08</td> <td>MD</td> <td>LEASE EXHIBIT - ISSUED FOR CLIENT REVIEW</td> </tr> </tbody> </table> | DATE | BY | DESCRIPTION | 12/18/08 | MD | LEASE EXHIBIT | 12/18/08 | MD | LEASE EXHIBIT - ISSUED FOR CLIENT REVIEW | <table border="1"> <thead> <tr> <th>ISSUED BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DRYAN BN</td> <td>08/16/08</td> </tr> <tr> <td>CHD BN</td> <td>08/16/08</td> </tr> </tbody> </table> | ISSUED BY | DATE | DRYAN BN | 08/16/08 | CHD BN | 08/16/08 |
|---------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|----------|----|---------------|----------|----|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------|----------|----------|--------|----------|
| DATE                                                                                                    | BY       | DESCRIPTION                                                                                                                                          |                                                      |                                                                                                                                                                                                                                                                                    |      |    |             |          |    |               |          |    |                                          |                                                                                                                                                                                                       |           |      |          |          |        |          |
| 12/18/08                                                                                                | MD       | LEASE EXHIBIT                                                                                                                                        |                                                      |                                                                                                                                                                                                                                                                                    |      |    |             |          |    |               |          |    |                                          |                                                                                                                                                                                                       |           |      |          |          |        |          |
| 12/18/08                                                                                                | MD       | LEASE EXHIBIT - ISSUED FOR CLIENT REVIEW                                                                                                             |                                                      |                                                                                                                                                                                                                                                                                    |      |    |             |          |    |               |          |    |                                          |                                                                                                                                                                                                       |           |      |          |          |        |          |
| ISSUED BY                                                                                               | DATE     |                                                                                                                                                      |                                                      |                                                                                                                                                                                                                                                                                    |      |    |             |          |    |               |          |    |                                          |                                                                                                                                                                                                       |           |      |          |          |        |          |
| DRYAN BN                                                                                                | 08/16/08 |                                                                                                                                                      |                                                      |                                                                                                                                                                                                                                                                                    |      |    |             |          |    |               |          |    |                                          |                                                                                                                                                                                                       |           |      |          |          |        |          |
| CHD BN                                                                                                  | 08/16/08 |                                                                                                                                                      |                                                      |                                                                                                                                                                                                                                                                                    |      |    |             |          |    |               |          |    |                                          |                                                                                                                                                                                                       |           |      |          |          |        |          |