STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

June 8, 2012

Jennifer Young Gaudet
HPC Wireless Services
46 Mill Plain Road, Floor 2
Danbury, CT 06811

RE: **EM-CING-042-120524** – New Cingular Wireless PCS, LLC (AT&T) notice of intent to modify an existing telecommunications facility located at One Public Works Drive, East Hampton, Connecticut.

Dear Ms. Gaudet:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Not less than 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated May 23, 2012. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change

with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Linda Roberts

Linda Roberts
Executive Director

LR/CDM/cm

c: The Honorable Christopher J. Goff, Chairman Town Council, Town of East Hampton
Alan H. Bergren, Town Manager, Town of East Hampton
James Carey, Zoning Enforcement Officer, Town of East Hampton

EM-CING-042-120524

HPC Wireless Services
46 Mill Plain Rd.
Floor 2
Danbury, CT, 06811
P.: 203.797.1112

HPC WIRELESS SERVICES

May 23, 2012

ORIGINAL

RECEIVED
MAY 24 2012
CONNECTICUT
SITING COUNCIL

VIA OVERNIGHT COURIER

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051
Attn: Ms. Linda Roberts, Executive Director

Re: New Cingular Wireless PCS, LLC – exempt modification
One Public Works Drive, East Hampton, Connecticut

Dear Ms. Roberts:

This letter and attachments are submitted on behalf of New Cingular Wireless PCS, LLC ("AT&T"). AT&T is making modifications to certain existing sites in its Connecticut system in order to implement LTE technology. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction that constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the Chairperson of the Town Council of the Town of East Hampton.

AT&T plans to modify the existing wireless communications facility owned by Crown Castle and located at One Public Works Drive in the Town of East Hampton (coordinates 41°-33'-52.85" N, 72°-32'-35.17" W). Attached are a compound plan and elevation depicting the planned changes, and documentation of the structural sufficiency of the structure to accommodate the revised antenna configuration. Also included is a power density report reflecting the modification to AT&T's operations at the site.

The changes to the facility do not constitute a modification as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. AT&T will add three (3) LTE panel antennas to the existing platform at a center line of approximately 170'. Six (6) RRUs (remote radio units) will be mounted on the

pipe mounts directly behind the antennas, and a surge arrestor will be mounted to a new pipe mount on the platform. AT&T will also place a DC power and fiber run from the equipment to the antennas along the existing coaxial cable run. None of the changes will increase the height of the approximately 180' structure.

2. The proposed changes will not extend the site boundaries. AT&T will replace one (1) cabinet and add one (1) cabinet on the existing concrete pad. A GPS antenna will be mounted on the existing ice bridge. These changes will be within the existing compound and will have no effect on the site boundaries.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more. The incremental effect of the proposed changes will be negligible.

4. The changes to the facility will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site. As indicated on the attached report prepared by C Squared Systems, LLC, AT&T's operations at the site will result in a power density of approximately 1.11%; the combined site operations will result in a total power density of approximately 10.55%.

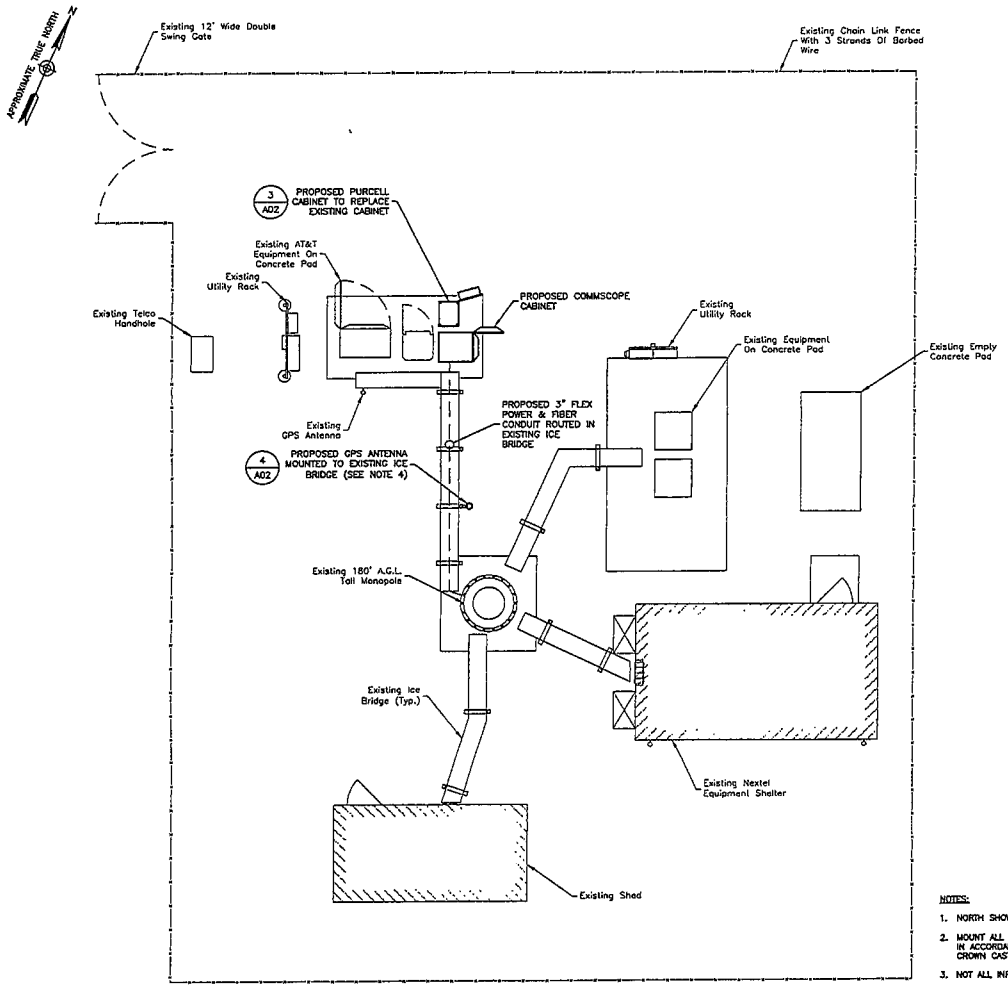
Please feel free to contact me by phone at (860) 798-7454 or by e-mail at jgaudet@hpcwireless.com with questions concerning this matter. Thank you for your consideration.

Respectfully yours,

Jennifer Young Gaudet

Attachments

cc: Honorable Susan B. Weintraub, Chairperson, East Hampton Town Council
John Weichsel, Interim Town Manager (also underlying property owner)



SITE PLAN

SCALE: 1"=10' FOR 11"x17"
1"=5' FOR 22"x34"

0' 5' 10'

NOTES:

1. NORTH SHOWN AS APPROXIMATE.
2. MOUNT ALL ANTENNAS, COAX, SURGE ARRESTORS, RRU'S, ETC. IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY CROWN CASTLE.
3. NOT ALL INFORMATION SHOWN FOR CLARITY.
4. PROPOSED GPS ANTENNA TO BE FIELD LOCATED A MINIMUM OF 10' HORIZONTALLY FROM EXISTING GPS ANTENNA.

Dewberry
Dewberry Engineers, Inc.
280 SUMMER ST.
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3310

NEXLINK GLOBAL SERVICES
800 MARSHALL PHELPS ROAD, #2A
WINDSOR, CT 06095

EAST HAMPTON CENTRAL
SITE NO. CT5838

1 PUBLIC WORKS DRIVE
EAST HAMPTON, CT 06424

at&t
500 ENTERPRISE DRIVE,
SUITE 3A
ROCKY HILL, CT 06067

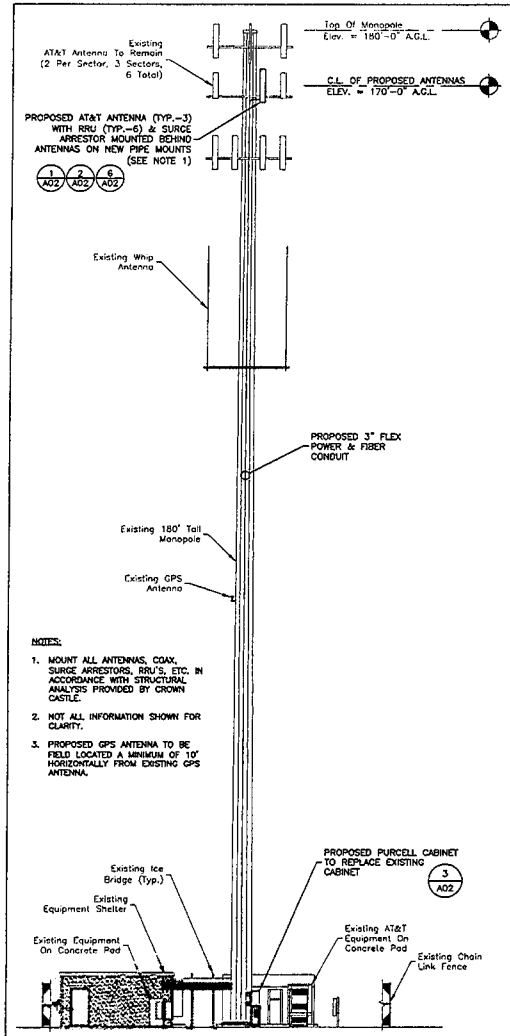
NO.	DATE	REVISIONS	BY	CHK	APP'D
2	05/11/12	ISSUED FOR CONSTRUCTION	DAS	GHN	GHN
1	04/30/12	ISSUED FOR CONSTRUCTION	DAS	GHN	GHN
0	04/23/12	PRELIMINARY SUBMISSION	DAS	GHN	GHN

SCALE: AS SHOWN | DESIGNED BY: DAS | DRAWN BY: SK

STATE OF CONNECTICUT
ADAM P. PLYSKI
No. 17240
LICENSED PROFESSIONAL ENGINEER
11MAY12

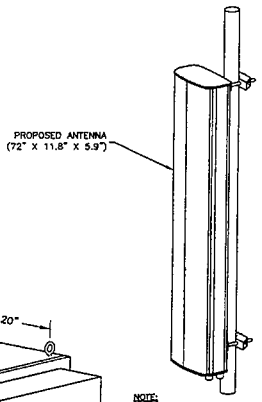
COMPOUND AND EQUIPMENT PLAN

DEWBERRY NO.	DRAWING NUMBER	REV.
50048347/50048391	A01	2



ELEVATION

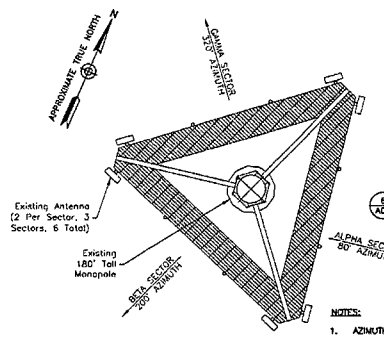
SCALE: 3/64"=1' FOR 11"x17"
3/32"=1' FOR 22"x34"



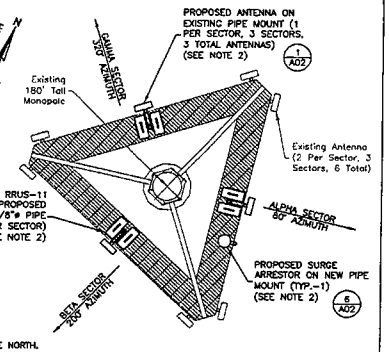
NOTE:
1. PLEASE SEE RFDS FOR SPECIFIC ANTENNA MODEL.

ISOMETRIC ANTENNA DETAIL 1

SCALE: N.T.S.



EXISTING

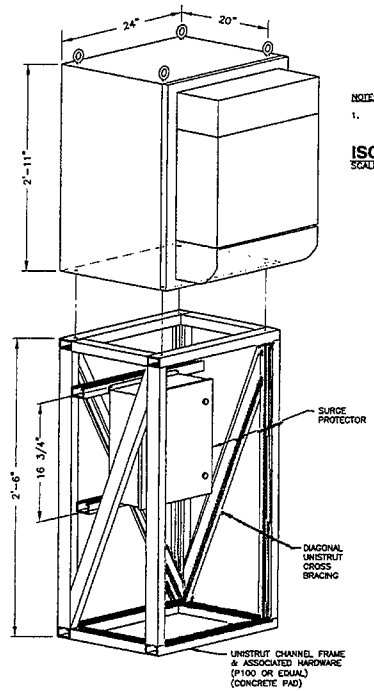


PROPOSED

NOTES:
1. AZIMUTHS BASED ON TRUE NORTH.
2. MOUNT ALL ANTENNAS, COAX, SURGE ARRESTORS, RRU'S, ETC. IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY CROWN CASTLE.

PLATFORM ANTENNA ORIENTATION 2

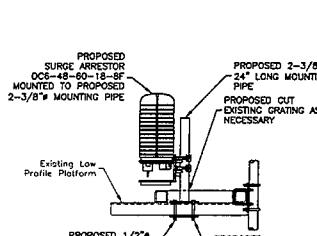
SCALE: N.T.S.



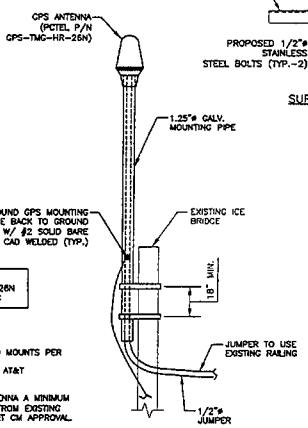
NOTE:
1. ALL MOUNTING HARDWARE TO BE GALVANIZED.

PURCELL LTE FLX12WS 3

SCALE: N.T.S.



SURGE ARRESTOR SIDE VIEW

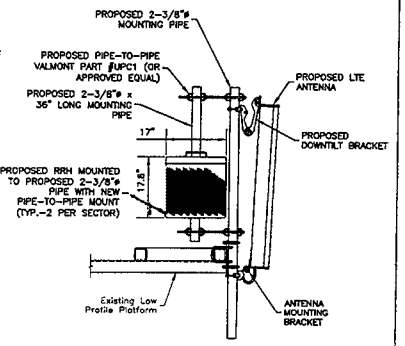


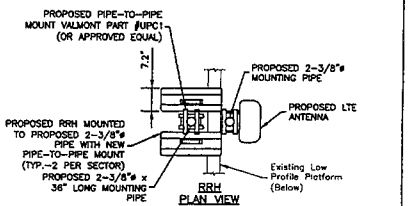
MANUFACTURER: PCTEL
MODEL: GPS-TMG-HR-26N
BRACKET: SITE SPECIFIC

GPS ANTENNA NOTES:
1. GROUND ANTENNAS AND MOUNTS PER MANUFACTURERS RECOMMENDATIONS AND AT&T STANDARDS.
2. FIELD LOCATE GPS ANTENNA A MINIMUM OF 10' HORIZONTALLY FROM EXISTING GPS ANTENNA WITH AT&T CM APPROVAL.

GPS ANTENNA MOUNT 4

SCALE: N.T.S.





NOTE:
1. ALL ANTENNAS, COAX AND ANTENNA SUPPORT EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS AND FINAL RF DATA SHEET.

RRH AND SURGE ARRESTOR MOUNTING DETAIL 5

SCALE: N.T.S.

Dewberry
Dewberry Engineers, Inc.
280 SUMMER ST.
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3310

NEXLINK GLOBAL SERVICES
800 MARSHALL PHELPS ROAD, #2A
WINDSOR, CT 06095

EAST HAMPTON CENTRAL
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1 PUBLIC WORKS DRIVE
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at&t
500 ENTERPRISE DRIVE,
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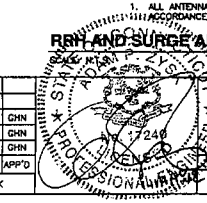
SCALE: AS SHOWN | DESIGNED BY: DAS | DRAWN BY: SK



ELEVATION & CONSTRUCTION DETAILS

DEWBERRY NO.	DRAWING NUMBER	REV
50048347/50048391	A02	2

April 25, 2012

Ms. Marianne Dunst
Crown Castle
3530 Toringdon Way Suite 300
Charlotte, NC 28277
(704) 405-6580

B&T Engineering
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
ctuttle@btengineering.com

Subject: **Structural Analysis Report**

Carrier Designation:

***AT&T Mobility* Co-Locate**
Carrier Site Number: CT5838
Carrier Site Name: AWE-East Hampton Central

Crown Castle Designation:

Crown Castle BU Number: 876368
Crown Castle Site Name: Yankee Lake/East Hampton/Town
Crown Castle JDE Job Number: 183552
Crown Castle Work Order Number: 484939
Crown Castle Application Number: 145190 Rev. 1

Engineering Firm Designation:

B&T Engineering Project Number: 79761.001

Site Data:

1 Public Works Dr., East Hampton, CT, Middlesex County
Latitude *41° 33' 53.14"*, Longitude *-72° 32' 35.18"*
180 Foot - Monopole Tower

Dear Ms. Dunst,

B&T Engineering is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 460721, in accordance with application 145190, revision 1.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC5: Existing + Proposed Equipment **Sufficient Capacity**
Note: See Table 1 and Table 2 for the proposed and existing/reserved loading, respectively.

This analysis has been performed in accordance with the TIA/EIA-222-F standard and 2005 CT State Building Code requirements based upon a wind speed of 90 mph fastest mile (105 mph 3 sec-gust).

We at *B&T Engineering* appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted by:

Zach Smith
Engineering Technician

Chad E. Tuttle, P.E
President

tnxTower Report - version 6.0.4.0

TABLE OF CONTENTS

1) INTRODUCTION

This is a 180 ft. Monopole tower designed by Valmont in April of 2003. The tower was originally designed for a wind speed of 100 mph per TIA/EIA-222-F.

2) ANALYSIS CRITERIA

The structural analysis was performed for this tower in accordance with the requirements of TIA/EIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures using a fastest mile wind speed of 90 mph with no ice, 37.6 mph with 0.75 inch ice thickness and 50 mph under service loads.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
168.0	170.0	3	KMW Communications	AM-X-CD-16-65-00T-RET	2 1	3/4 3/8	--
	168.0	1	Raycap	DC6-48-60-18-8F			
167.0	167.0	6	Ericsson	RRUS-11			
		1	--	Pipe Mount [601-3]			

Table 2 - Existing and Reserved Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
177.0	180.0	9(MLA)	Sprint MLA	SPRINT MLA_ANTENNA	9(MLA)	1 5/8	2
	178.0	6	Decibel	DB950F85E-M	6	1 5/8	1
	177.0	1	--	Platform Mount [LP 601-1]			
168.0	170.0	6	Powerwave Technologies	7770.00	18	1 5/8	1
	168.0	6	Powerwave Technologies	LGP21401			
		6	Powerwave Technologies	LGP21901			
		1	--	Platform Mount [LP 303-1]			
157.0	158.0	12	Andrew	844G45VTZASX	12	1 5/8	1
	157.0	1	--	Platform Mount [LP 304-1]			
119.0	131.0	5	Decibel	DB264-A	9	1 1/4	1
	128.0	1	Decibel	DB420			
	124.0	1	Decibel	DB225-K			
	122.0	1	Decibel	DB230-E			
	120.0	1	Decibel	DB230-E			
	119.0	1	--	Platform Mount [LP 303-1]			
77.0	78.0	1	Lucent	KS24019-L112A	1	1/2	1
	77.0	1	--	Side Arm [SO 301-1]			

Notes:
1) Existing Equipment
2) MLA Equipment; Not Considered in This Analysis

Table 3 - Design Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
177	177	1	--	Platform W/ Rails	--	--
		12	DAPA	48000		
167	167	1	--	Platform W/ Rails	--	--
		12	DAPA	48000		
157	157	1	--	Platform W/ Rails	--	--
		12	DAPA	48000		
147	147	1	--	Platform W/ Rails	--	--
		12	DAPA	48000		
127	127	1	--	Whip	--	--
125	125	1	--	Low Profile Platform	--	--
75	75	1	--	GPS	--	--

3) ANALYSIS PROCEDURE

Table 4 - Documents Provided

Document	Remarks	Reference	Source
Online Application	AT&T Mobility Co-Locate Revision#1	145190	CCI Sites
Tower Manufacturer Drawings	Valmont Order# 19739-83	1531979	CCI Sites
Design Calculations	Valmont Order# 19739-83	1615452	CCI Sites
Foundation Drawings	Valmont Order# 19739-83	2069183	CCI Sites
Geotech Report	Dr. Clarence Welti, P.E.,P.C.	1441254	CCI Sites
Antenna Configuration	Crown CAD Package	Date: 4/09/12	CCI Sites

3.1) Analysis Method

tnxTower (version 6.0.4.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
4) When applicable, transmission cables are considered as structural components for calculating wind loads as allowed by TIA/EIA-222-F.
5) Mount areas and weights are assumed based on photographs provided.

This analysis may be affected if any assumptions are not valid or have been made in error. B&T Engineering should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	180 - 140.083	Pole	TP31.67x24.16x0.219	1	-6.537	1108.661	58.0	Pass
L2	140.083 - 92.5	Pole	TP40.17x30.307x0.344	2	-16.037	2207.701	88.3	Pass
L3	92.5 - 45.5833	Pole	TP48.31x38.3548x0.438	3	-28.652	3382.767	95.5	Pass
L4	45.5833 - 0	Pole	TP56x46.1328x0.5	4	-47.720	4602.022	99.7	Pass
							Summary	
						Pole (L4)	99.7	Pass
						Rating =	99.7	Pass

Table 6 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	Base	81.0	Pass
1	Base Plate	Base	62.8	Pass
1	Base Foundation	Base	76.6	Pass

Structure Rating (max from all components) =	99.7%

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
2) Capacities up to 100% are considered acceptable based on analysis methods used.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the existing and proposed loads. No modifications are required at this time.

C Squared Systems, LLC
65 Dartmouth Drive, Unit A3
Auburn, NH 03032
(603) 644-2800
support@csquaredsystems.com

Calculated Radio Frequency Emissions

at&t

CT5838 – East Hampton Central

1 Public Works Drive, East Hampton, CT 06424

(a.k.a. Public Works Drive)

May 10, 2012

Table of Contents

List of Tables

List of Figures

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modifications to the existing AT&T antenna arrays mounted on the monopole tower located at 1 Public Works Drive in East Hampton, CT. The coordinates of the tower are 41-33-52.82 N, 72-32-35.21 W.

AT&T is proposing the following modifications:

1) Install three 700 MHz LTE antennas (one per sector).

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:

$$\text{Power Density} = \left(\frac{1.6^2 \times EIRP}{4\pi \times R^2} \right) \text{x Off Beam Loss}$$

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

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

These calculations assume that the antennas are operating at 100 percent capacity and power, and that all channels are transmitting simultaneously. 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 modifications.

4. Calculation Results

Table 1 below outlines the power density information for the site. Because the proposed AT&T antennas are directional in nature, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to Attachment C for the vertical pattern of the proposed AT&T antennas. The calculated results for AT&T in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	Number of Trans.	ERP Per Transmitter (Watts)	Power Density (mw/cm^2)	Limit	%MPE
Cingular AT&T	*170*	*880*	*1*	*500*	*0.0062*	*0.5867*	*1.06%*
Cingular AT&T	*170*	*1900*	*4*	*427*	*0.0213*	*1.0000*	*2.13%*
Cingular AT&T	*170*	*880*	*2*	*296*	*0.0074*	*0.5867*	*1.26%*
Sprint	178	1962.5	11	397	0.0496	1.0000	4.96%
Town (PD-455)	125	453.637	N/A	N/A	0.0001	0.3024	0.03%
Town (Austin APC)	125	46.18	N/A	N/A	0.0028	0.2000	1.40%
Nextel	158	851	12	100	0.0173	0.5673	3.05%
AT&T UMTS	170	880	2	565	0.0014	0.5867	0.24%
AT&T UMTS	170	1900	2	875	0.0022	1.0000	0.22%
AT&T LTE	170	734	1	1313	0.0016	0.4893	0.33%
AT&T GSM	170	880	1	283	0.0004	0.5867	0.06%
AT&T GSM	170	1900	4	525	0.0026	1.0000	0.26%
						Total	**10.55%**

Table 1: Carrier Information[1] [2] [3]

[1] The existing CSC filing for Cingular AT&T should be removed and replaced with the updated AT&T technologies and values provided in Table 1. The power density information for carriers other than AT&T was taken directly from the CSC database dated 3/29/2012. Please note that %MPE values listed are rounded to two decimal points. The total %MPE listed is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

[2] In the case where antenna models are not uniform across all 3 sectors for the same frequency band, the antenna model with the highest gain was used for the calculations to present a worse-case scenario.

[3] Antenna height listed for AT&T, Sprint, and Nextel is in reference to the B&T Engineering structural analysis report dated 4/25/2012.

5. Conclusion

The above analysis verifies that emissions from the existing site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Even when using conservative methods, the cumulative power density from the proposed transmit antennas at the existing facility is well below the limits for the general public. The highest expected percent of Maximum Permissible Exposure at ground level is **10.55% of the FCC limit**.

As noted previously, obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the finished modifications.

6. 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

May 10, 2012
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 Exposure[4]

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 Exposure[5]

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 2: FCC Limits for Maximum Permissible Exposure (MPE)

[4] 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.

[5] 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.

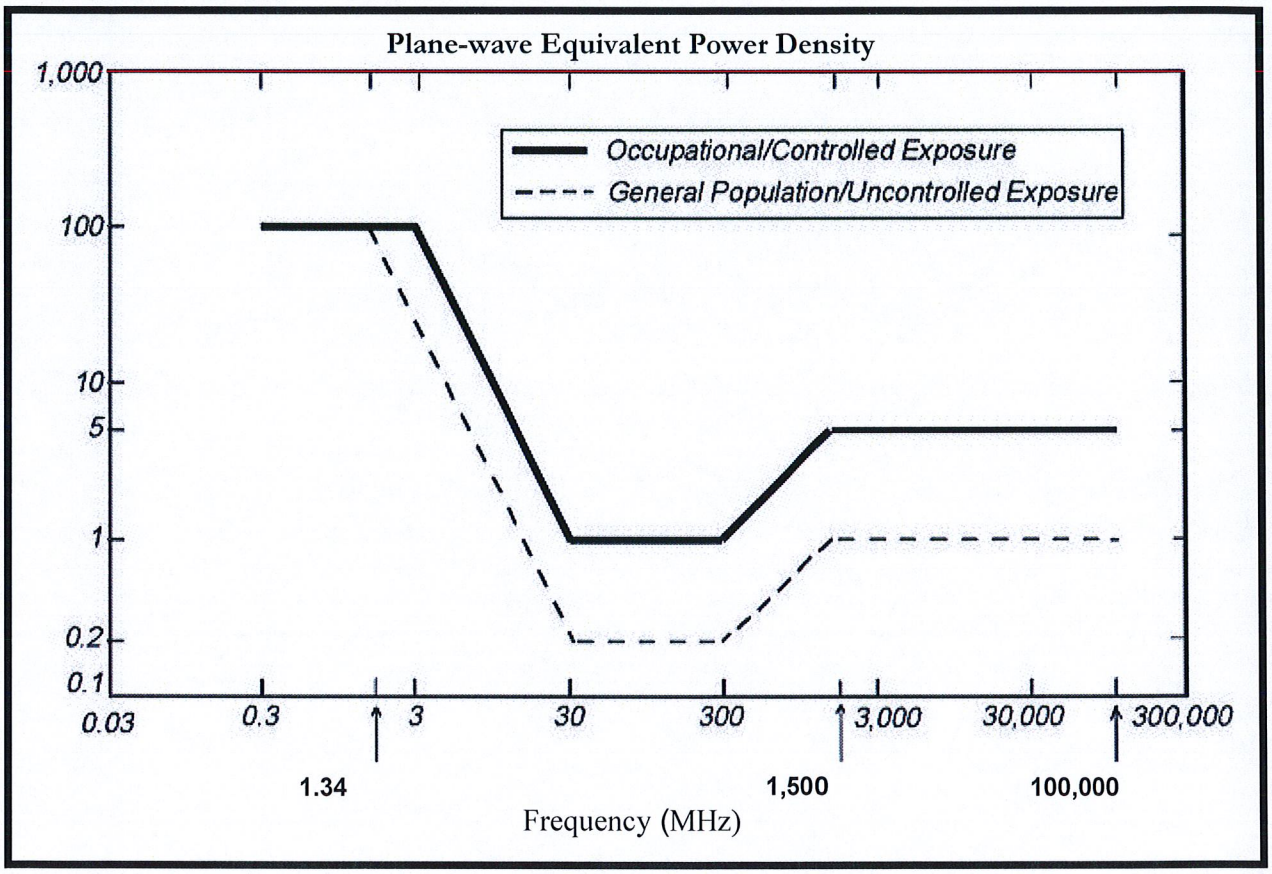
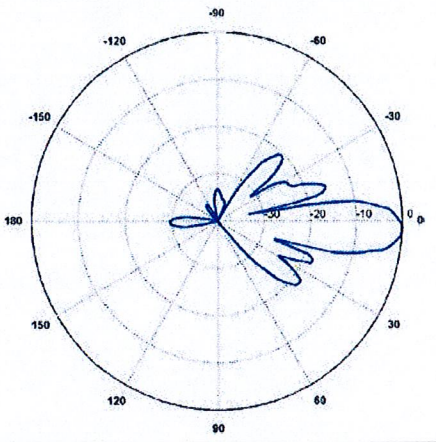


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: AT&T Antenna Data Sheets and Electrical Patterns

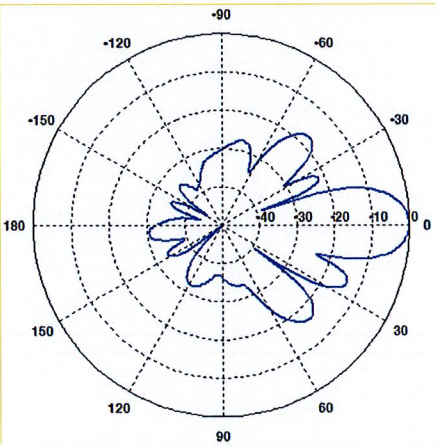
700 MHz

Manufacturer:	KMW
Model #:	AM-X-CD-16-65-00T-RET
Frequency Band:	698-806 MHz
Gain:	13.4 dBd
Vertical Beamwidth:	12.3°
Horizontal Beamwidth:	65°
Polarization:	Dual Slant ±45°
Size L x W x D:	72.0" x 11.8" x 5.9"



850 MHz

Manufacturer:	Powerwave
Model #:	7770.00
Frequency Band:	824-896 MHz
Gain:	11.5 dBd
Vertical Beamwidth:	15°
Horizontal Beamwidth:	82°
Polarization:	Dual Linear ±45°
Size L x W x D:	55.0" x 11.0" x 5.0"



1900 MHz

Manufacturer:	Powerwave
Model #:	7770.00
Frequency Band:	1850-1990 MHz
Gain:	13.4 dBd
Vertical Beamwidth:	7°
Horizontal Beamwidth:	86°
Polarization:	Dual Linear ±45°
Size L x W x D:	55.0" x 11.0" x 5.0"