



*Via Overnight Delivery*

March 31, 2014

Melanie A. Bachman  
Acting Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**Re:** Tower Share Application  
**Property Address:** 100 Sunset Ridge, East Hartford, CT 06118 (the  
"Property")  
**Applicant:** New Cingular Wireless PCS, LLC d/b/a AT&T ("AT&T")

Dear Ms. Bachman:

On behalf of AT&T, enclosed in connection with the shared use of a tower located on the Property, please find an original and fifteen (15) copies of a tower sharing application package along with a check in the amount of six hundred and twenty five (\$625.00) dollars.

Sincerely,



Steven J. Quinn

Enclosures  
Cc w/enclosures:  
Marcia Leclerc, Mayor: Town of East Hartford

**SMARTLINK, LLC**  
1997 Annapolis Exchange Pkwy Suite 200  
Annapolis, MD 21401

**BRANCH BANKING AND TRUST COMPANY**  
65-330/550

0403

3/27/14

PAY TO THE  
ORDER OF

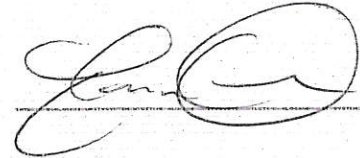
Connecticut Siting Council

\$ 625.00

Six hundred & twenty five <sup>00</sup>/<sub>100</sub>



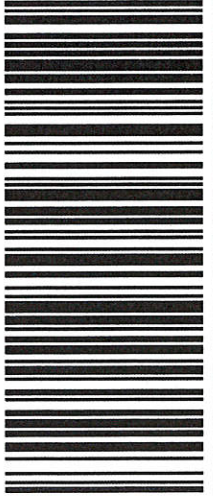

DOLLARS

MEMO S3438E Petition Filing Fee



⑈000403⑈ ⑆055003308⑆0005158694044⑈

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<p>STEVEN QUINN 7742198022 SMARTLINK, LLC - BOSTON 33 BOSTON POST RD MARLBOROUGH MA 01752</p> <p><b>3 LBS</b></p> <p><b>1 OF 1</b></p> <p><b>SHIP TO:</b> MELANIE A. BACHMAN 7742198022 CONNECTICUT SITING COUNCIL 10 FRANKLIN SQUARE NEW BRITAIN CT 06051</p>	<p><b>CT 067 9-06</b></p>  	<p><b>UPS NEXT DAY AIR SAVER 1P</b></p> <p>TRACKING #: 1Z R00 498 13 9711 6214</p>		<p><b>BILLING: P/P</b></p> <p>Trx Ref No.: S3438 Trx Ref No.: Shipment Reference #2 XOL140305 NV45 48.0A 01/2014</p> 
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# RECEIPT

**Thank you for shipping with Unishippers.**

**Waybill #: 1ZR004981397116214**

UPS standard terms and conditions apply.

To (Company):

Rate Estimate: 19.38 USD  
Protection: 0.00 USD

CONNECTICUT SITING COUNCIL

Weight (lbs): 3  
Dimensions: 0x0x0  
Ship Ref: S3438  
Service Level: UPS Next Day Air Saver®  
Special Svc:

10 FRANKLIN SQUARE

NEW BRITAIN, CT, 06051  
UNITED STATES

Attention To:

Shipment Date: 2014-03-31  
Bill Shipment To: Bill My Account  
Bill To Acct: R00498

MELANIE A. BACHMAN  
7742198022

Sent By:

Steven Quinn  
7742198022

Description:

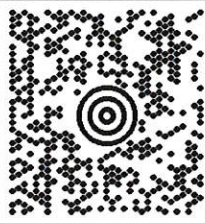
STEVEN QUINN  
7742198022  
SMARTLINK, LLC - BOSTON  
33 BOSTON POST RD  
MARLBOROUGH MA 01752

1.0 LBS LTR

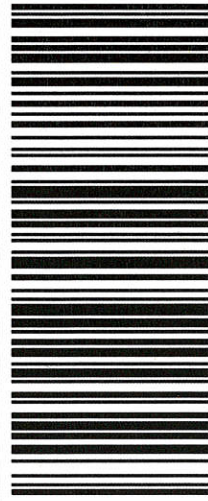
1 OF 1

**SHIP TO:**  
MARCIA A. LECLERK, MAYOR  
7742198022  
TOWN OF EAST HARTFORD  
740 MAIN STREET  
EAST HARTFORD CT 06108

CT 061 9-01



**UPS NEXT DAY AIR SAVER 1P**  
TRACKING #: 1Z R00 498 13 9540 0820



BILLING: P/P



Trx Ref No.: S3438  
Trx Ref No.: Shipment Reference #2  
XOL14.03.05  
NV45 48.0A 01/2014



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Rate Estimate: 16.88 USD  
Protection: 0.00 USD

Weight (lbs): 1  
Dimensions: 13x10x1  
Ship Ref: S3438  
Service Level: UPS Next Day Air Saver®  
Special Svc:

Shipment Date: 2014-03-31  
Bill Shipment To: Bill My Account  
Bill To Acct: R00498

Description:

# RECEIPT

Waybill #: 1ZR004981395400820  
To (Company):

TOWN OF EAST HARTFORD

740 MAIN STREET

EAST HARTFORD, CT, 06108  
UNITED STATES

Attention To:

MARCIA A. LECLERK, MAYOR  
7742198022

Sent By:

Steven Quinn  
7742198022

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APPLICATION TO THE CONNECTICUT SITING COUNCIL  
TO APPROVE THE SHARED USE OF AN EXISTING TOWER  
PURSUANT TO CONNECTICUT GENERAL STATUTE §16-50aa

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APPLICANT

New Cingular Wireless PCS, LLC (AT&T)  
500 Enterprise Drive, Suite 3A  
Rocky Hill, CT 06067

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TOWER/PROPERTY ADDRESS

100 Sunset Ridge  
East Hartford, CT 06118

---

PREPARED BY: Steven J. Quinn  
Real Estate and Land Use Specialist  
Smartlink, LLC  
33 Boston Post Road West  
Marlborough, Massachusetts 01752  
774-219-8022  
[steven.quinn@smartlinkllc.com](mailto:steven.quinn@smartlinkllc.com)

Date Submitted: March 31, 2014

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TABLE OF CONTENTS

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APPLICANT

New Cingular Wireless PCS, LLC (AT&T)  
500 Enterprise Drive, Suite 3A  
Rocky Hill, CT 06067

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TOWER/PROPERTY ADDRESS

100 Sunset Ridge  
East Hartford, CT 06118

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# TAB 1

March 31, 2014

Melanie A. Bachman  
Acting Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**Re:** Request for an Order to Approve the Shared Use of an Existing Tower  
**Property Address:** 100 Sunset Ridge Drive, East Hartford, CT 06108 (the "Property")  
**Applicant:** New Cingular Wireless PCS, LLC d/b/a AT&T ("AT&T")

Dear Ms. Bachman:

On behalf of AT&T, please accept this request pursuant to Connecticut General Statute §16-50aa, as amended (the "Statute"), for an order approving tower sharing at the above referenced tower site and facility.

## **I. The Facility**

The Facility is owned by the Town of East Hartford ("East Hartford") and consists of a 140' lattice style tower (the "Tower") located on the Property, which is located at latitude 41° 46' 18.99" N and longitude -72° 35' 25.27" W. The Tower is currently shared by T-Mobile at a height of 120', Metro PCS at a height of 110', Clearwire at a height of 100' and town communication equipment. The Facility also consists of a fenced compound, approximately 60' x 48', at the base of the tower housing the existing radio equipment.

## **II. The Proposal**

AT&T proposes to install a total of twelve (12) panel antennas (4 per sector) and twenty seven (27) remote radio heads ("RRHs") on the tower (see attached plans). The antennas and RRHs will be mounted on the Tower at a centerline of 84'. Further, AT&T proposes to install an 11'.5" x 16' equipment shelter and a generator at the base of the Tower. Because of the size of the existing compound, AT&T proposes to expand the compound by an additional 17' x 35' and fence in the expansion so that it becomes included as part of the existing compound. This expansion will not extend onto any undeveloped lands. The generator and equipment shelter



will be juxtaposed on a 12' x 24' concrete pad. The Tower will not be increased in height. No upgrades to the access road or parking area will be necessary.

### **III. Technical Feasibility**

It is technically feasible for AT&T to install its equipment on the Tower. To confirm the structural integrity of the Tower, AT&T and AEG performed a preliminary structural study of the Tower with AT&T proposed modifications (see Tab 4). The structural affidavit, dated March 31, 2014 and attached herewith concludes that the "the existing SST can safely support the proposed AT&T equipment without modification." Consequently, the shared use of the Facility is technically feasible. A formal structural analysis will be presented to the East Hartford building department at the time of filing of a building permit application.

### **IV. Legal Feasibility**

Pursuant to the Statute, the Council has the authority to issue an order approving the shared use of the Facility. By issuing an order approving AT&T's use of the Facility, AT&T will be able to proceed with obtaining a building permit from the Town of East Hartford for the proposed installation on the Facility. Therefore, the shared use of the Facility is legally feasible.

### **V. Economic Feasibility**

AT&T is a federally licensed telecommunications company providing service in areas of Connecticut, including the Town of East Hartford. AT&T has entered into an agreement with the Town of East Hartford for the purpose of locating AT&T equipment at the Facility. Consequently, the shared use of the Facility is economically feasible.

### **VI. Environmental Feasibility**

Pursuant to the Statute, AT&T's proposed sharing of the Facility will be environmentally feasible for the following reasons:

- a. The proposal will not increase the height of the Tower, nor expand to any currently undeveloped lands. Therefore, the proposed sharing of the Facility will have an insignificant incremental visual impact on the area surrounding the Tower and will no significant change or alter the physical or environmental characteristics of the Facility.
- b. The addition of AT&T equipment will not increase the noise levels by six (6) decibels or more.
- c. The addition of AT&T antennas will not exceed the RF emissions standard adopted by the Federal Communications Commission ("FCC"). The cumulative "worst-case" RF emissions for the operation of the existing antennas and the proposed AT&T antennas will be 36.35% of the FCC standards (see attached Power Density Table).

- d. The proposed installation will have no impact on the local wetlands or water resources.
- e. After installation, AT&T equipment will be unmanned and will only require monthly visits by maintenance personnel who will inspect the Facility to ensure it remains in good working order.
- f. AT&T's proposal will have no impact on water, sanitary or sewer systems or other municipal utilities. Additionally, the proposal complies with all applicable local, state and federal safety rules and regulations.

## **VII. Public Safety and Benefits**

As referenced in Section III above, AT&T has performed a preliminary structural study of the Tower confirming that the Tower is structurally feasible to hold AT&T's additional equipment. Further, as referenced in Section VI.c above, AT&T has performed an analysis of the radio frequency emanating from its proposed antennas to ensure compliance with FCC standards. The analysis indicates that the maximum level of radio frequency energy emitting from the Facility after the installation of AT&T's antennas will be well below the FCC's exposure limits. Moreover, AT&T proposal is expected to enhance safety by improving wireless communications in the area of the Facility

## **VII. Conclusion**

For the aforementioned reasons, AT&T proposed shared use of the Facility meet all of the requirements set forth in the Statute, and the proposal advances the Council's goal of preventing the unnecessary proliferation of towers in Connecticut. The proposal is technically, legally, economically and environmentally feasible and meets all public safety concerns. Consequently, AT&T respectfully requests that the Council issue an order approving the proposed sharing use of the Facility.

Sincerely,



Steven J. Quinn

**TAB 2**

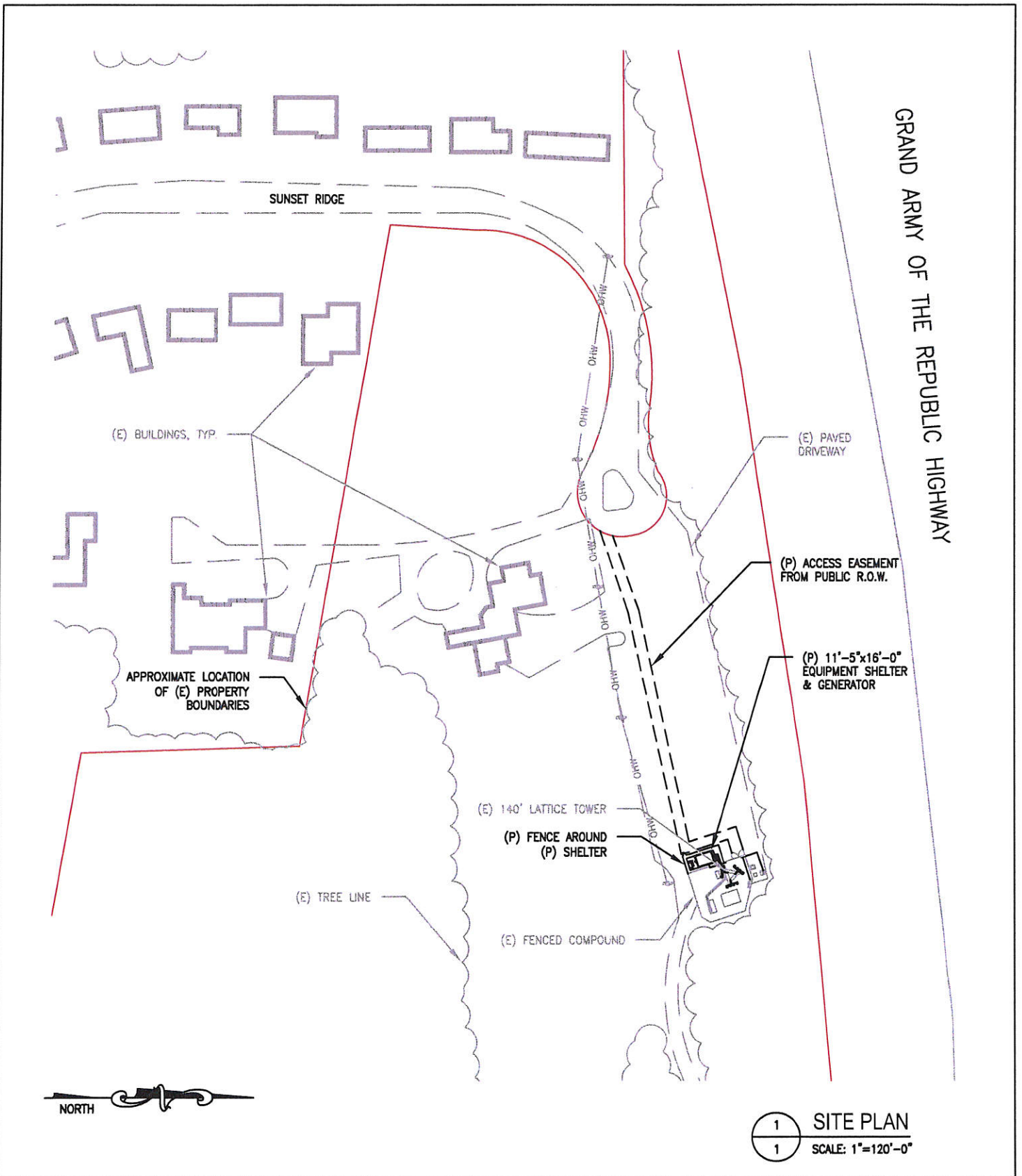
CERTIFICATE OF SERVICE

This is to certify that on the 31<sup>th</sup> day of March, 2014, the foregoing application by AT&T for an Order to Amend an Approved Shared Use of an Existing Tower was sent, via UPS, to the following:

Marcia Leclerc  
Mayor  
Town of East Hartford  
740 Main Street  
East Hartford, CT 06108

By:   
Steven J. Quinn

**TAB 3**



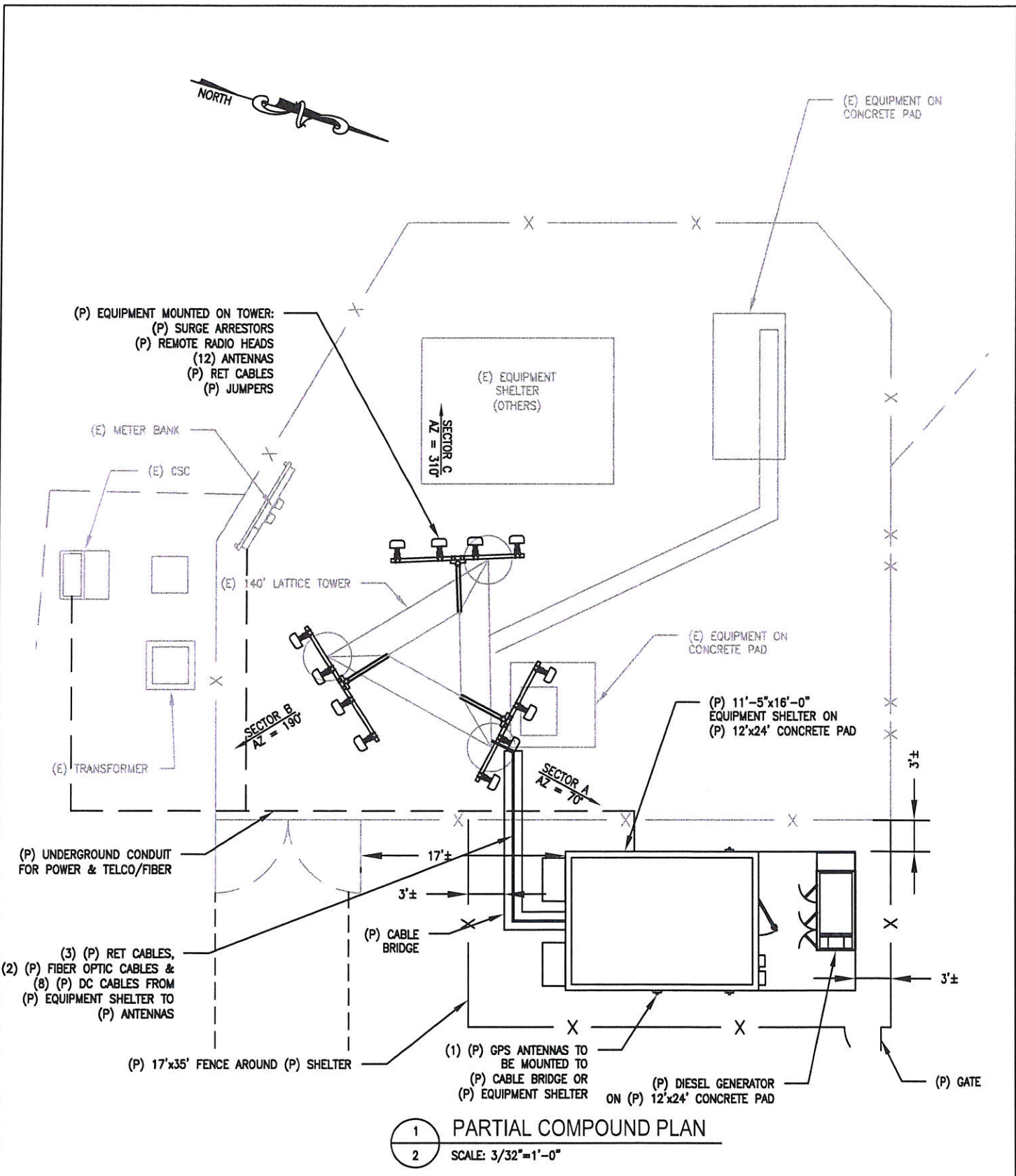
**EGADVANCED**  
 ENGINEERING GROUP, P.C.  
 Civil Engineering - Site Development  
 Surveying - Telecommunications  
 500 NORTH BROADWAY  
 EAST PROVIDENCE, RI 02914  
 PH: (401) 354-2403  
 FAX: (401) 633-6354

**at&t**  
 550 COCHITUATE ROAD, SUITE 13 & 14,  
 FRAMINGHAM, MA 01701-4681

**smartlink**  
 1997 ANNAPOLIS EXCHANGE PKWY, SUITE 200  
 ANNAPOLIS, MD 21401

TITLE: LEASE EXHIBIT  
 SITE NO: S3438A  
 SITE NAME: E HARTFORD SUNSET RIDGE  
 ADDRESS: 100 SUNSET RIDGE DRIVE  
 E HARTFORD, CT 06108

DATE: 03/25/14  
 DRAWN BY: SO  
 REVISION: 1  
 SCALE: NOTED  
 SHEET: 1 OF 3



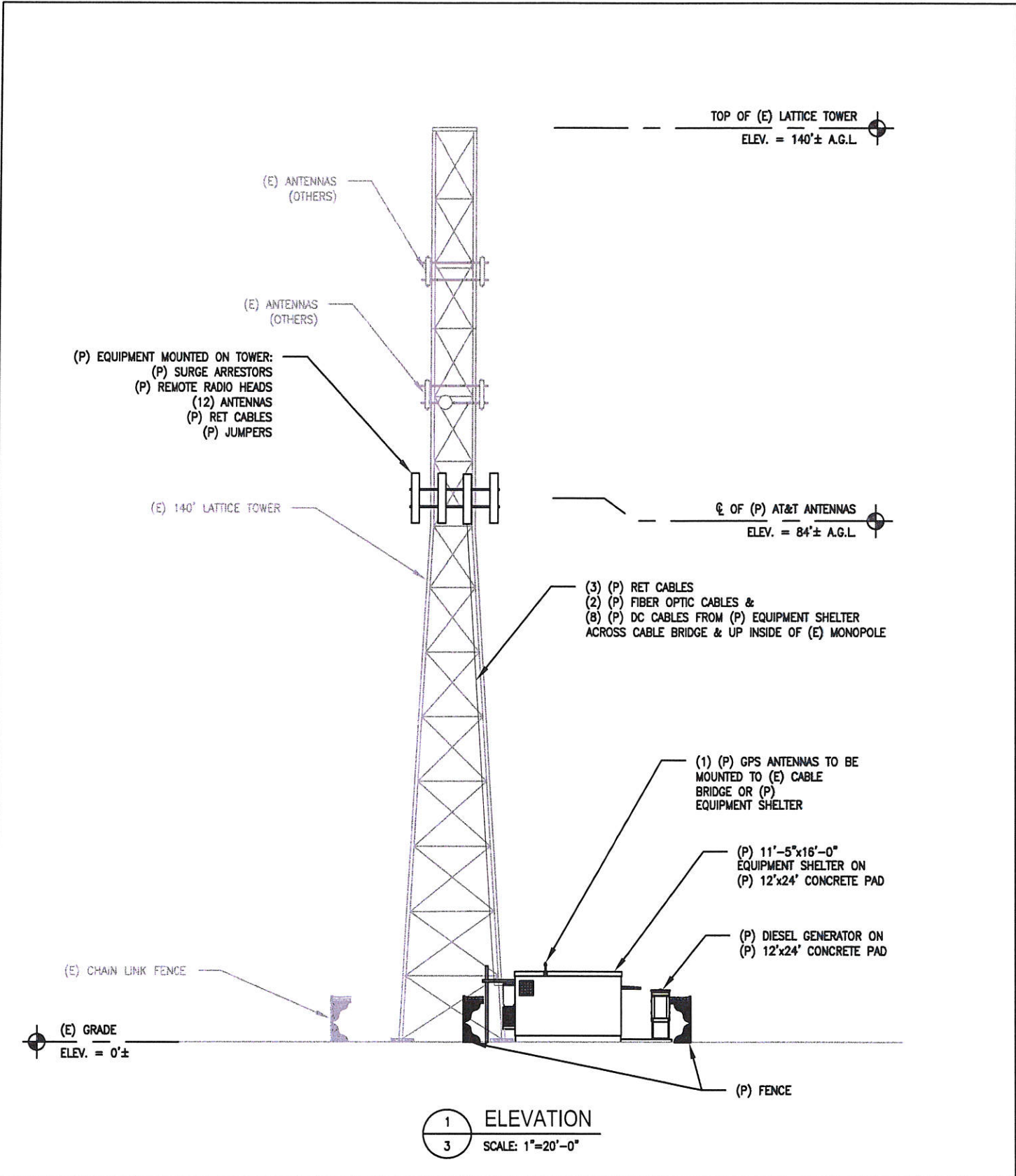
**ADVANCED**  
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 PH: (401) 354-2403  
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 E HARTFORD, CT 06108

**DATE:** 03/25/14  
**DRAWN BY:** SO  
**REVISION:** 1  
**SCALE:** NOTED  
**SHEET:** 2 OF 3



**EG ADVANCED**  
ENGINEERING GROUP, P.C.  
Civil Engineering - Site Development  
Surveying - Telecommunications  
500 NORTH BROADWAY  
EAST PROVIDENCE, RI 02914  
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ANNAPOLIS, MD 21401

TITLE: LEASE EXHIBIT  
SITE NO: S3438A  
SITE NAME: E HARTFORD SUNSET RIDGE  
ADDRESS: 100 SUNSET RIDGE DRIVE  
E HARTFORD, CT 06108

DATE: 03/25/14  
DRAWN BY: SO  
REVISION: 1  
SCALE: NOTED  
SHEET: 3 OF 3



**TAB 4**



500 North Broadway  
East Providence, RI 02914  
Ph: 401-354-2403  
Fax: 401-354-2397

To: Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

From: Marc R. Chretien, P.E., Advanced Engineering Group, P.C.

Date: March 31, 2014

Subject: AT&T Site S3438A (East Hartford Sunset Ridge)  
100 Sunset Ridge, East Hartford, CT 06108

### A F F I D A V I T

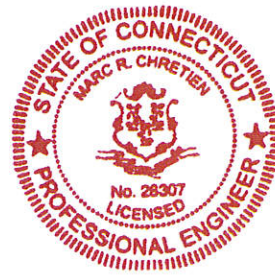
I, Marc R. Chretien under oath do depose and say:

1. My name is Marc R. Chretien. I am a licensed professional civil engineer in the state of Connecticut with registration number 28307.
2. I am a principal and owner of Advanced Engineering Group, P.C., an engineering consulting firm for the wireless industry located at 500 North Broadway, East Providence, RI. My professional services include providing engineering services for the design and construction of wireless facilities.
3. I am familiar with the design and construction of antenna support structures including monopoles, self-supported towers and guyed towers. I have been involved with the design and construction of wireless facilities throughout New England for over fifteen (15) years. My experience, as it relates to wireless facilities, includes foundation analysis and design, geotechnical analysis and reporting, drainage analysis and design, surveying, site design, and acoustical noise studies.
4. The installation proposed by AT&T will consist of co-locating on an existing 140-foot tall self-supporting tower (SST), located at the above-referenced address, at approximately 84' AGL. The AT&T tower-mounted inventory will consist of twelve (12) antennas, twenty-seven (27) remote radio heads (RRHs), four (4) surge suppressors, and associated cables and mounting hardware.
5. A site inspection by this office on February 24, 2014 indicates that the existing 140' SST presently supports antennas for T-Mobile, MetroPCS, Clearwire, and various town-owned dish and whip antennas. The T-Mobile installation consists of six (6) panel antennas mounted on three (3) sector frames at approximately 120' AGL. The MetroPCS installation consists of three (3) antennas flush-mounted to the legs of the tower at approximately 110' AGL. The Clearwire installation consists of three (3) panel antennas mounted on three (3) dual mounts at approximately 100' AGL. The town of East Hartford has six (6) whip antennas mounted at various locations on the tower. The base of the tower has a spread of approximately 15'-6" and is anchored to a concrete foundation. The tower appeared structurally sound and well construction with no evidence of failed members or connections.
6. Telecommunications SSTs and monopoles are designed and fabricated in accordance with a national code that is referenced in the Connecticut State Building Code. ANSI/TIA/EIA-222-G represents the latest refinement of a national tower code that establishes standards for tower engineers and manufacturers to follow for the design, fabrication and erection of tower structures and foundations.
7. Prior to the installation of the AT&T antennas, the existing tower will be analyzed by a Connecticut registered professional engineer to ensure that the existing tower is structurally capable of supporting the additional wind loads resulting from the proposed AT&T equipment. If the tower, in its existing condition, is found to be structurally incapable of supporting the proposed AT&T equipment, the existing tower and foundation, if necessary, will be reinforced prior to the installation of the AT&T

equipment. All aspects of the analysis and design of the modifications will be performed by a Connecticut registered professional engineer in accordance with the Connecticut State Building Code and the national tower code ANSI/TIA/EIA-222-G to withstand the most severe wind and icing conditions that can be reasonably expected to occur at the site.

8. Since a previous structural analysis report by URS Corporation dated 3/18/09 indicates that the existing tower, when analyzed for the existing tower inventory, is at approximately 58% of its structural capacity, it is the opinion of this office that the existing SST can safely support the proposed AT&T equipment without modification.

Marc R. Chretien, P.E.



Signed under the pains and penalties of perjury this, 31st day of March, 2014.

**TAB 5**

## Power Density Calculations

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Applicant: New Cingular Wireless PCS, LLC d/b/a AT&T

Site ID: S3438

Site Type: Existing 140' Lattice Tower

Address: 100 Sunset Ridge Drive, East Hartford, CT 06108

Date: March 31, 2014

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## 1. Existing Power Density <sup>1</sup>

Carrier	#Channels	ERP/Ch	Ant Ht	Power Density (mW/cm <sup>2</sup> )	Frequency MHz	Limit	%MPE
T-Mobile PCS (GSM/UMTS)	2	12.0815	120	0.0006	1950	1.0000	0.06%
T-Mobile AWS (UMTS)	2	12.0815	120	0.0006	2100	1.0000	0.06%
T-Mobile LTE (AWS)	2	24.16301	120	0.0012	2100	1.0000	0.12%
MetroPCS CDMA	3	727	110	0.0648	2135	1.0000	6.48%
MetroPCS LTE	1	1200	110	0.0357	2130	1.0000	3.57%
Clearwire	2	153	100	0.0110	2496	1.0000	1.10%
Clearwire	1	211	100	0.0076	11 GHz	1.0000	0.76%
Public Works	(all town antenna PD percentages provided by T-Mobile; no other informaton provided)						0.62%
Fire							0.41%
Fire Admin							0.41%
Police Channels 1&2							1.02%
Parks & Rec							0.17%
Health							0.25%
800							0.24%
<b>Total</b>							<b>15.27%</b>

## Proposed AT&T Power Density <sup>2</sup>

Carrier	#Channels	ERP/Ch	Ant Ht	Power Density (mW/cm <sup>2</sup> )	Frequency MHz	Limit	%MPE
AT&T UMTS	2	500	84'	0.0510	800 Band	0.5867	8.69
AT&T UMTS	1	500	84'	0.0255	1900 Band	1.0000	2.55
AT&T LTE	1	500	84'	0.0255	700 Band	0.4667	5.46
AT&T LTE	1	500	84'	0.0255	1900 Band	1.0000	2.55
AT&T LTE	1	500	84'	0.0255	2300 Band	1.0000	2.55
<b>TOTAL</b>							<b>21.08%</b>

<sup>1</sup> This Power Density information was taken from the Connecticut Siting Council database dated October 1, 2013.

<sup>2</sup> This Power Density information is based on worse case assumptions from AT&T's radio frequency engineers.

## 2. Cumulative Power Density Calculation Results

Carrier	#Channels	ERP/Ch	Ant Ht	Power Density (mW/cm <sup>2</sup> )	Frequency MHz	Limit	%MPE
T-Mobile PCS (GSM/UMTS)	2	12.0815	120	0.0006	1950	1.0000	0.06%
T-Mobile AWS (UMTS)	2	12.0815	120	0.0006	2100	1.0000	0.06%
T-Mobile LTE (AWS)	2	24.16301	120	0.0012	2100	1.0000	0.12%
MetroPCS CDMA	3	727	110	0.0648	2135	1.0000	6.48%
MetroPCS LTE	1	1200	110	0.0357	2130	1.0000	3.57%
Clearwire	2	153	100	0.0110	2496	1.0000	1.10%
Clearwire	1	211	100	0.0076	11 GHz	1.0000	0.76%
Public Works	(all town antenna PD percentages provided by T-Mobile; no other informaton provided)						0.62%
Fire							0.41%
Fire Admin							0.41%
Police Channels 1&2							1.02%
Parks & Rec							0.17%
Health							0.25%
800							0.24%
AT&T UMTS	2	500	84'	0.0510	800 Band	0.5867	8.69
AT&T UMTS	1	500	84'	0.0255	1900 Band	1.0000	2.55
AT&T LTE	1	500	84'	0.0255	700 Band	0.4667	5.46
AT&T LTE	1	500	84'	0.0255	1900 Band	1.0000	2.55
AT&T LTE	1	500	84'	0.0255	2300 Band	1.0000	2.55
<b>Total</b>							<b>36.35%</b>

## 3. Conclusion:

The addition of AT&T's antennas on the existing tower will result in the cumulative maximum permissible exposure (MPE) level of 36.35%. The proposal complies with the National Council on Radiation Protection and Measurements standard for MPE adopted by the Federal Communications Commission ("FCC"). Moreover, the maximum level of radio-frequency energy emitted from AT&T's installation will be well below the FCC's mandated radio frequency exposure limits.