



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 1, 2012

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

RE: **EM-CING-115-120518** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 151 Waterbury Road, Prospect, 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 18, 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,

A handwritten signature in cursive script that reads "Linda Roberts".

Linda Roberts
Executive Director

LR/CDM/cm

- c: The Honorable Robert J. Chatfield, Mayor, Town of Prospect
- William J. Donovan, Zoning Enforcement Officer, Town of Prospect

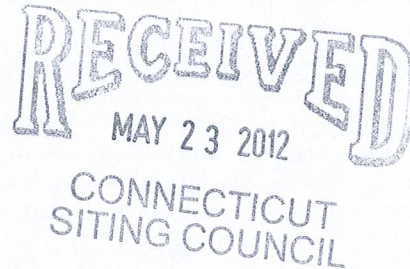


HPC Wireless Services
46 Mill Plain Rd.
Floor 2
Danbury, CT, 06811
P.: 203.797.1112

May 22, 2012

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
151 Waterbury Road, Prospect, Connecticut

Dear Ms. Roberts:

This letter and attachments are submitted on behalf of New Cingular Wireless PCS, LLC (“AT&T”) as a revision of and substitution for the package submitted by letter dated May 17, 2012. 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 Mayor of the Town of Prospect.

AT&T plans to modify the existing wireless communications facility owned by SFX Broadcasting of Connecticut, managed by Clear Channel Communications and located at 151 Waterbury Road in the Town of Prospect (coordinates 41°-31’-22.74” N, 72°-59’-51.99” 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 the top of

the tower, for a total of nine (9) antennas. The antenna center lines will range from 152' to 154', depending on the antenna model. Six (6) RRUs (remote radio units) will be mounted at the base level of the platform, and a surge arrester will be mounted below the base level of 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 inside the pole. The proposed modifications will not extend the height of the approximately 150' structure.

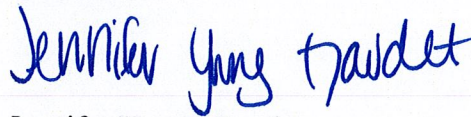
2. The proposed changes will not extend the site boundaries. AT&T will install related equipment in its existing shelter and will mount a GPS antenna on the shelter. These changes will be within the existing compound and will have no effect on the site boundaries.

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 1.78%; the combined site operations will result in a total power density of approximately 7.47%.

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.

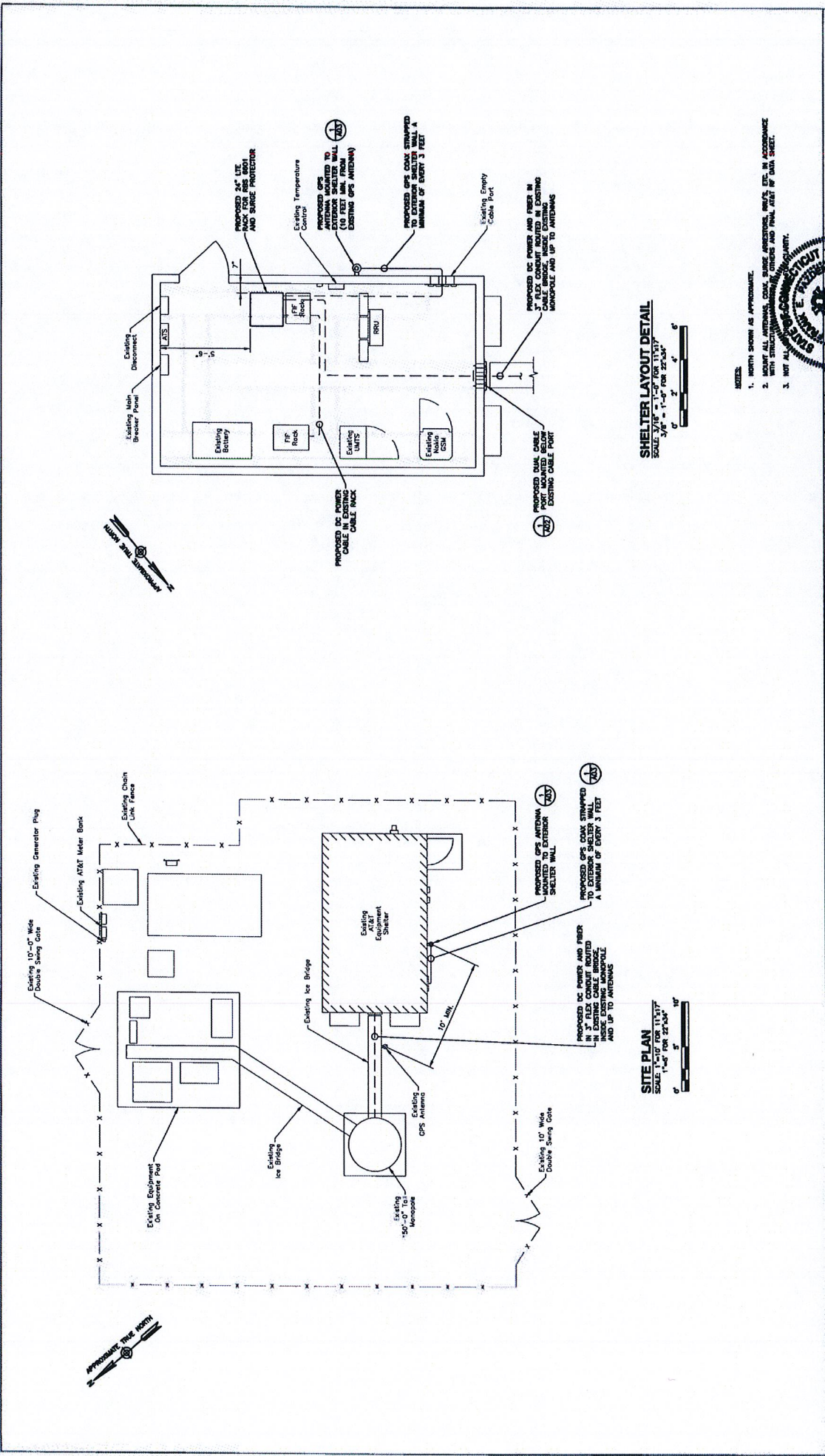
Respectfully yours,



Jennifer Young Gaudet

Attachments

cc: Honorable Robert J. Chatfield, Mayor, Town of Prospect
SFX Broadcasting of Connecticut, c/o Clear Channel Communications (underlying property owner)



NO.	DATE	REVISIONS	BY	CHK	APP'D
3	05/03/12	REVISED PER IFCORRELESS COMMENTS	DND	CHN	CHN
2	05/07/12	REVISED PER IFCORRELESS COMMENTS	JAC	CHN	CHN
1	04/25/12	ISSUED FOR SUBMITTAL	JAC	CHN	CHN
A	03/02/12	PRELIMINARY SUBMISSION	ROA	CHN	CHN

SCALE AS SHOWN DESIGNED BY: CHN DRAWN BY: RSA

at&t

500 ENTERPRISE DRIVE,
 SUITE 300
 ROCKY HILL, CT 06067

PROSPECT NORTH
 SITE NO. CT5626
 151 WATERBURY ROAD
 PROSPECT, CT 06712

NEALINK
 LOCAL SERVICES
 800 WASHINGTON WHEELS ROAD, VMA
 WASHINGTON, CT 06097

Dewberry
 Dewberry Engineers Inc.
 250 WATERBURY ROAD
 WATERBURY, CT 06705
 PHONE: 860 255 8800
 FAX: 860 255 8770

SITE PLAN & SHELTER LAYOUT
 DRAWING NUMBER: A01

DEWBERRY NO. 50048347/50048404

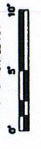
- NOTES:**
- NOTES SHOWN AS APPLICABLE.
 - NOTE ALL ANTENNA CABLES, BATTERIES, PMS, ETC. IN ACCORDANCE WITH STRUCTURAL CODES, ORDINANCES AND FINAL DATA SHEET.
 - NOT ALL ANTENNA CABLES SHOWN FOR SECURITY.



SHELTER LAYOUT DETAIL
 SCALE 3/16" = 1'-0" FOR 11'x17'
 1/16" = 1'-0" FOR 27'x34'



SITE PLAN
 SCALE 3/16" = 1'-0" FOR 11'x17'
 1/16" = 1'-0" FOR 27'x34'



SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing structure is capable of carrying the proposed loading configuration as specified by AT&T Mobility to Dewberry. This report was commissioned by Mr. Greg Nawrotzki of Dewberry.

The proposed coax shall be installed internal to the monopole for the analysis results to be valid.

No intermediate flange or bolt information was available or provided for this report. However, based on the reserve capacity of the tower sections, it is our opinion that the intermediate flange plate and flange bolt information will be adequate for the proposed loading configuration. A more thorough and accurate assessment of intermediate flange plate and flange bolt capacity will require a mapping of the tower be performed.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Monopole	52.3%	Pass
Anchor Rods	43.1%	Pass
Base Plate	43.3%	Pass
Foundation	51.4%	Pass

ANALYSIS METHOD

tnxTower (Version 6.0.4.0), a commercially available software program, was used to create a three-dimensional model of the tower and calculate primary member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix B. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information and is being completed without the benefit of a detailed site visit.

DOCUMENTS PROVIDED

Document	Remarks	Source
Equipment Modification Form	Not Provided	N/A
RF Data Sheet	AT&T Loading Document V01, dated 03/30/2012	Dewberry
Construction Drawings	Dewberry Job #: 50048347, dated 03/02/2012	Dewberry
Tower Design	ERI Project #: 25148/001, dated 11/13/2009	Dewberry
Foundation Design	ERI Project #: 25148/001, dated 11/13/2009	Dewberry
Geotechnical Report	FDH Project #: 09-10144E G1, dated 11/09/2009	Dewberry

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower shaft sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations.
6. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
7. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
8. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
9. All prior structural modifications are assumed to be as per data supplied/available and to have been properly installed.
10. Loading interpreted from photos is accurate to $\pm 5'$ AGL, antenna size accurate to ± 3.3 sf, and coax equal to the number of existing antennas without reserve.
11. All existing loading was obtained from the Construction Drawings by Dewberry Job #: 50048347, dated 03/02/2012, site photos, and the provided RF Data Sheet and is assumed to be accurate.
12. The existing loading elevation found in site photos was found to vary from the listed elevation within the provided RF Data Sheet. The existing and proposed elevations have been modeled based on the elevation reflected within the site photos.
13. The models of the proposed Demark and RRUs and the sizes of the proposed Power and Fiber Cables have been assumed based on experience with LTE projects.
14. The proposed coax shall be installed internal to the monopole for the analysis results to be valid.
15. Tower geometry has been determined through the tower design by ERI Project #: 25148/001, dated 11/13/2009 as well as email correspondence with Mr. John Robinson of ERI.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Group should be allowed to review any new information to determine its effect on the structural integrity of the tower.

DISCLAIMER OF WARRANTIES

GPD GROUP has not performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD GROUP in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

GPD GROUP does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD GROUP provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

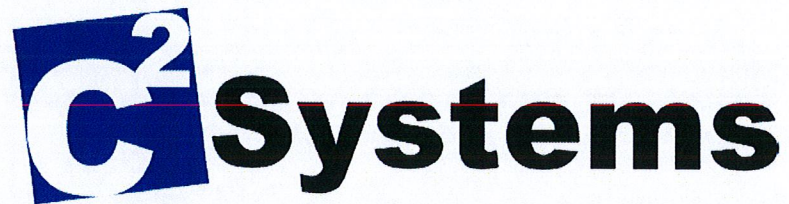
The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD GROUP, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

GPD GROUP makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD GROUP will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD GROUP pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form



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

Calculated Radio Frequency Emissions



CT5626

(Prospect North)

151 Waterbury Road, Prospect, CT 06712

May 15, 2012

Table of Contents

1. Introduction.....	1
2. FCC Guidelines for Evaluating RF Radiation Exposure Limits.....	1
3. RF Exposure Prediction Methods.....	2
4. Calculation Results	3
5. Conclusion.....	4
6. Statement of Certification.....	4
Attachment A: References.....	5
Attachment B: FCC Limits for Maximum Permissible Exposure (MPE).....	6
Attachment C: AT&T Antenna Data Sheets and Electrical Patterns.....	8

List of Tables

Table 1: Carrier Information.....	3
Table 2: FCC Limits for Maximum Permissible Exposure (MPE).....	6

List of Figures

Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE).....	7
---	---

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 151 Waterbury Road in Prospect, CT. The coordinates of the tower are 41-31-22.9 N, 72-59-52.5 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:

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

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

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
AT&T UMTS	148	880	1	500	0.0082	0.5867	1.40%
AT&T UMTS	148	1900	2	500	0.0164	1.0000	1.64%
AT&T GSM	148	1900	2	427	0.0140	1.0000	1.40%
AT&T GSM	148	880	4	296	0.0194	0.5867	3.31%
T-Mobile GSM	136	1945	8	183	0.0285	1.0000	2.85%
T-Mobile UMTS	136	2100	2	730	0.0284	1.0000	2.84%
AT&T UMTS	154	880	2	649	0.0020	0.5867	0.34%
AT&T UMTS	154	1900	2	1387	0.0042	1.0000	0.42%
AT&T LTE	152	734	1	1375	0.0021	0.4893	0.44%
AT&T GSM	154	880	1	324	0.0005	0.5867	0.08%
AT&T GSM	154	1900	4	832	0.0050	1.0000	0.50%
						Total	7.47%

Table 1: Carrier Information^{1 2 3}

¹ The existing CSC filing for 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 is in reference to the Dewberry Engineers, Inc. construction drawings dated 5/3/2012.

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 **7.47% 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 15, 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 Exposure⁴

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 Exposure⁵

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.

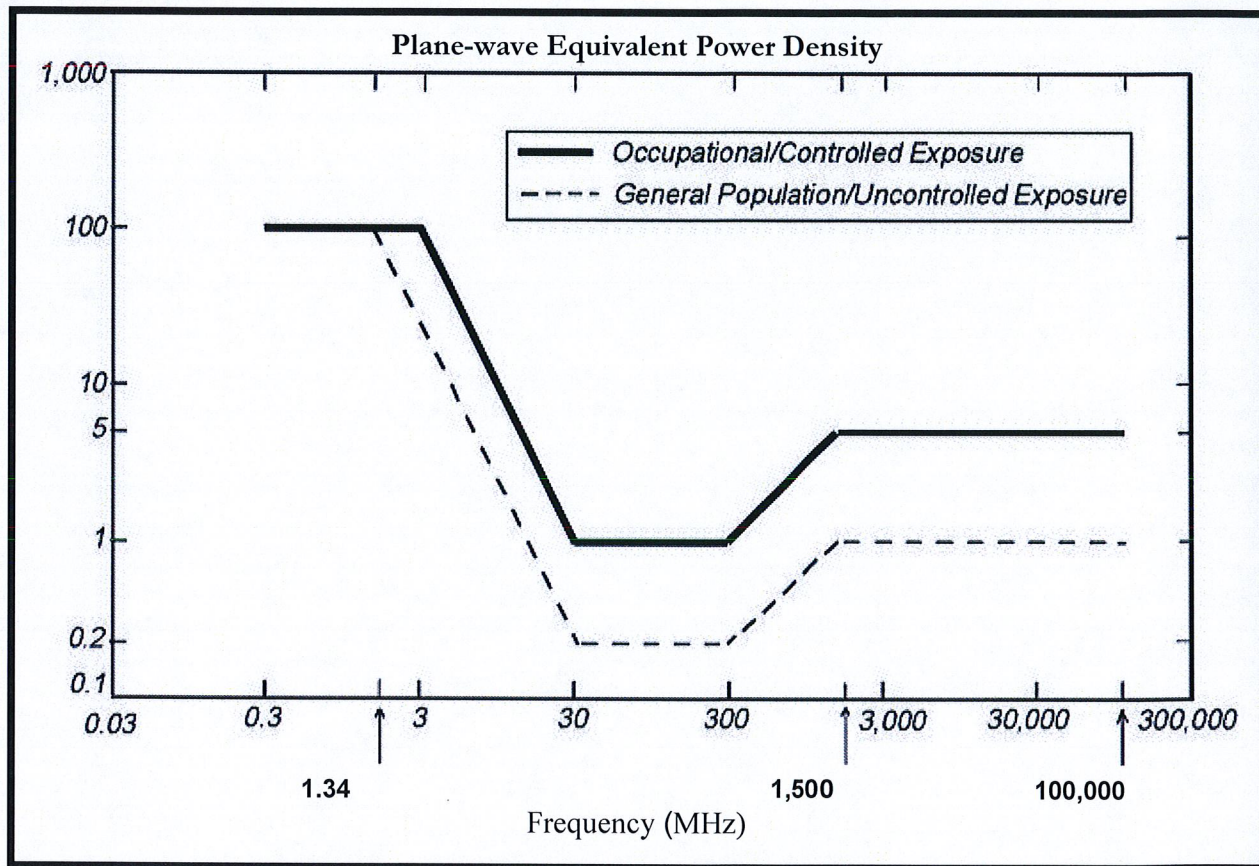
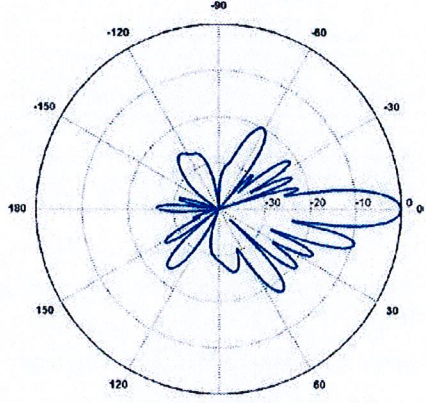
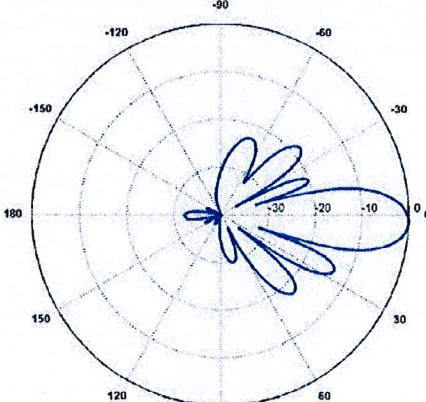
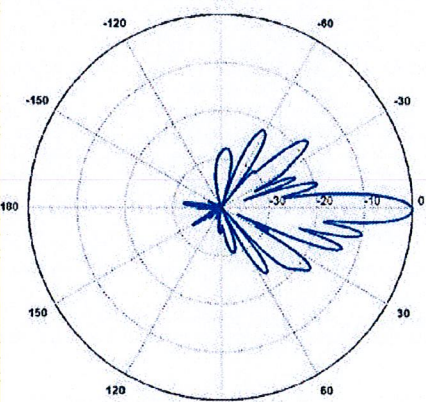


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

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

<p>700 MHz</p> <p>Manufacturer: Commscope Model #: SBNH-1D6565C Frequency Band: 698-806 MHz Gain: 13.6 dBd Vertical Beamwidth: 8.6° Horizontal Beamwidth: 71° Polarization: ± 45° Size L x W x D: 96.4" x 11.8" x 7.1"</p>	
<p>850 MHz</p> <p>Manufacturer: Powerwave Model #: 7750 Frequency Band: 824-896 MHz Gain: 12.5 dBd Vertical Beamwidth: 14.9° Horizontal Beamwidth: 69° Polarization: Dual Linear ±45° Size L x W x D: 63.0" x 11.0" x 4.0"</p>	
<p>1900 MHz</p> <p>Manufacturer: Powerwave Model #: 7750 Frequency Band: 1850-1990 MHz Gain: 15.6 dBd Vertical Beamwidth: 6.6° Horizontal Beamwidth: 65° Polarization: Dual Linear ±45° Size L x W x D: 63.0" x 11.0" x 4.0"</p>	



EM-CING-115-120518

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

May 17, 2012

VIA OVERNIGHT COURIER

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

RECEIVED
ORIGINAL
MAY 18 2012

ORIGINAL

CONNECTICUT
SITING COUNCIL

Re: New Cingular Wireless PCS, LLC – exempt modification
151 Waterbury Road, Prospect, 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 Mayor of the Town of Prospect.

AT&T plans to modify the existing wireless communications facility owned by SFX Broadcasting of Connecticut, managed by Clear Channel Communications and located at 151 Waterbury Road in the Town of Prospect (coordinates 41°-31’-22.74” N, 72°-59’-51.99” 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 the top of the tower, for a total of nine (9) antennas. The antenna center lines will range from 152’

to 154', depending on the antenna model. Six (6) RRUs (remote radio units) will be mounted at the base level of the platform, and a surge arrester will be mounted below the base level of 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 inside the pole. The proposed modifications will not extend the height of the approximately 150' structure.

2. The proposed changes will not extend the site boundaries. AT&T will replace one cabinet on the existing concrete pad, and will install one additional cabinet on a 4' x 13' extension of the concrete pad. A GPS antenna will be mounted on an ice bridge post. 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 1.78%; the combined site operations will result in a total power density of approximately 7.47%.

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,

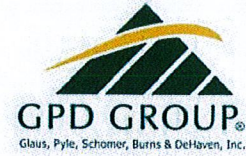
Jennifer Young Gaudet

Attachments

cc: Honorable Robert J. Chatfield, Mayor, Town of Prospect
SFX Broadcasting of Connecticut, c/o Clear Channel Communications (underlying property owner)



Dewberry
 600 Parispany Road
 Parsippany, NJ 07054
 (973) 576-8653



Brian Peterson
 520 S. Main Street; Suite 2531
 Akron, OH 44311
 (330) 572-2100
bpeterson@gpdgroup.com

GPD# 2012702.35
 May 17, 2012

STRUCTURAL ANALYSIS REPORT

SITE DESIGNATION: **Site USID:** **26038**
 Site FA: **10071211**
 Site Name: **PROSPECT NORTH**

ANALYSIS CRITERIA: **Codes:** **TIA-222-G, 2009 IBC & 2005 CBC**
 100-mph 3 second gust with 0" ice
 50-mph 3 second gust with 3/4" ice

SITE DATA: **151 Waterbury Road, Prospect, CT 06712, New Haven County**
 Latitude 41° 31' 22.051" N, Longitude 72° 59' 52.076" W
 Market: New England
 150' ERI Monopole

Mr. Greg Nawrotzki,

GPD is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the existing and proposed loading configuration detailed in the analysis report.

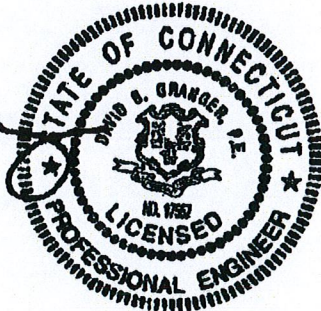
Analysis Results

Tower Stress Level with Proposed Equipment: 52.3% Pass
 Foundation Ratio with Proposed Equipment: 51.4% Pass

We at GPD appreciate the opportunity of providing our continuing professional services to you and Dewberry. If you have any questions or need further assistance on this or any other projects please do not hesitate to call.

Respectfully submitted,

David B. Granger, P.E.
 Connecticut #: 17557



SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing structure is capable of carrying the proposed loading configuration as specified by AT&T Mobility to Dewberry. This report was commissioned by Mr. Greg Nawrotzki of Dewberry.

The proposed coax shall be installed internal to the monopole for the analysis results to be valid.

No intermediate flange or bolt information was available or provided for this report. However, based on the reserve capacity of the tower sections, it is our opinion that the intermediate flange plate and flange bolt information will be adequate for the proposed loading configuration. A more thorough and accurate assessment of intermediate flange plate and flange bolt capacity will require a mapping of the tower be performed.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Monopole	52.3%	Pass
Anchor Rods	43.1%	Pass
Base Plate	43.3%	Pass
Foundation	51.4%	Pass

ANALYSIS METHOD

tnxTower (Version 6.0.4.0), a commercially available software program, was used to create a three-dimensional model of the tower and calculate primary member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix B. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information and is being completed without the benefit of a detailed site visit.

DOCUMENTS PROVIDED

Document	Remarks	Source
Equipment Modification Form	Not Provided	N/A
RF Data Sheet	AT&T Loading Document V01, dated 03/30/2012	Dewberry
Construction Drawings	Dewberry Job #: 50048347, dated 03/02/2012	Dewberry
Tower Design	ERI Project #: 25148/001, dated 11/13/2009	Dewberry
Foundation Design	ERI Project #: 25148/001, dated 11/13/2009	Dewberry
Geotechnical Report	FDH Project #: 09-10144E G1, dated 11/09/2009	Dewberry

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower shaft sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations.
6. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
7. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
8. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
9. All prior structural modifications are assumed to be as per data supplied/available and to have been properly installed.
10. Loading interpreted from photos is accurate to $\pm 5'$ AGL, antenna size accurate to ± 3.3 sf, and coax equal to the number of existing antennas without reserve.
11. All existing loading was obtained from the Construction Drawings by Dewberry Job #: 50048347, dated 03/02/2012, site photos, and the provided RF Data Sheet and is assumed to be accurate.
12. The existing loading elevation found in site photos was found to vary from the listed elevation within the provided RF Data Sheet. The existing and proposed elevations have been modeled based on the elevation reflected within the site photos.
13. The models of the proposed Demark and RRUs and the sizes of the proposed Power and Fiber Cables have been assumed based on experience with LTE projects.
14. The proposed coax shall be installed internal to the monopole for the analysis results to be valid.
15. Tower geometry has been determined through the tower design by ERI Project #: 25148/001, dated 11/13/2009 as well as email correspondence with Mr. John Robinson of ERI.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Group should be allowed to review any new information to determine its effect on the structural integrity of the tower.

DISCLAIMER OF WARRANTIES

GPD GROUP has not performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD GROUP in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

GPD GROUP does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD GROUP provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD GROUP, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

GPD GROUP makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD GROUP will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD GROUP pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form

Tower Analysis Summary Form

General Info	
Site Name	PROSPECT NORTH
Site Number	CT5626 (26038)
FA Number	10071211
Date of Analysis	5/17/2012
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info		Date
Tower Type (G, SST, MP)	MP	
Tower Height (top of steel AGL)	150'	
Tower Manufacturer	ERI	
Tower Model	n/a	
Tower Design	ERI Project #: 25148/001	11/13/2009
Foundation Design	ERI Project #: 25148/001	11/13/2009
Geotech Report	FDH Project #: 09-10144E G1	11/9/2009
Tower Mapping	n/a	
Previous Structural Analysis	n/a	

Design Parameters	
Design Code Used	TIA-222-G
Location of Tower (County, State)	2009 IBC & 2005 CBC New Haven, CT
Basic Wind Speed (mph)	100
Ice Thickness (in)	0.75
Structure Classification (I, II, III)	II
Exposure Category (B, C, D)	C
Topographic Category (1 to 5)	1

Analysis Results (% Maximum Usage)	
Tower (%)	52.3%
Tower Base (%)	48.3%
Foundation (%)	51.4%
Foundation Adequate?	Yes

Steel Yield Strength (ksi)

Pole	45
Base Plate	36
Anchor Rods (Ultimate)	105

Existing / Reserved Loading

Antenna				Mount				Transmission Line							
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Attachment	Quantity	Model	Size	Attachment
AT&T Mobility	148	154	6	Panel	Powerwave	7750.00 w/ RET's	100/230/350	1	Unknown	13' LP Platform on the same mount	Internal	12	Unknown	1-5/8"	Internal
AT&T Mobility	148	154	6	TMA	Powerwave	TT08-19DB111-001					Internal	1	RET Cable	3/8"	Internal
T-Mobile	138	140	6	Panel	Unknown	4' Panel	20/140/260	1	Unknown	13' LP Platform on the same mount	Internal	6	Unknown	1-5/8"	Internal
T-Mobile	138	140	6	TMA	Unknown	TMA					Internal				

Note: All existing loading shall remain.

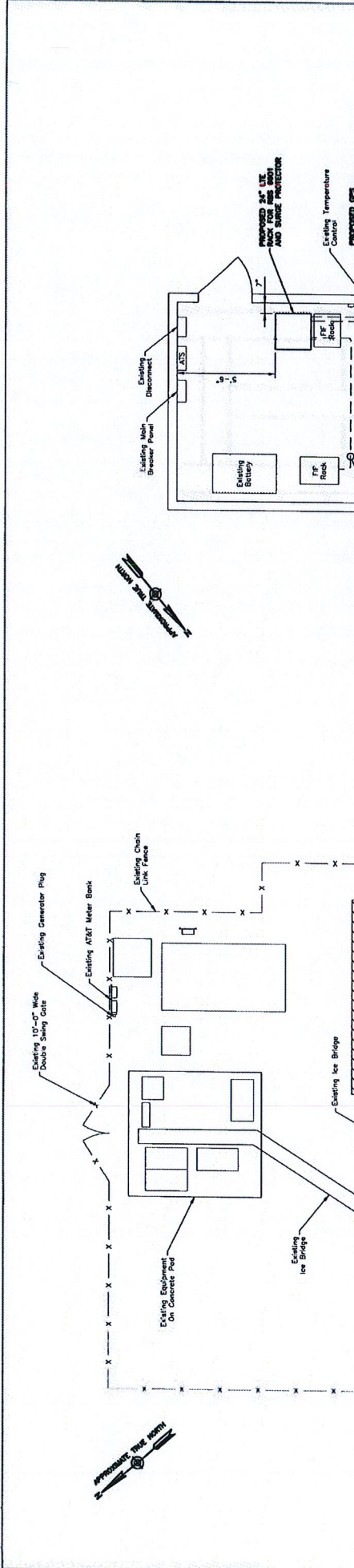
Proposed Loading

Antenna				Mount				Transmission Line							
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Attachment	Quantity	Model	Size	Attachment
AT&T Mobility	148	152.25	2	Panel	Andrew	SBNH-ID6565C	100/230			on the existing mount	Internal	2	Power Cable	7/8"	Internal
AT&T Mobility	148	153.25	1	Panel	KMW	AM-X-CD-16-65-00T-RET	350			on the existing mount	Internal	1	Fiber Cable	1/2"	Internal
AT&T Mobility	149	149	6	RRU	Ericsson	RRUS 11		1	Valmont	Tri-Bracket on the same mount	Internal	1	Flex Conduit	3"	Internal
AT&T Mobility	149	147	1	Demark	Raycap	DC8-48-60-18-3F					Internal				

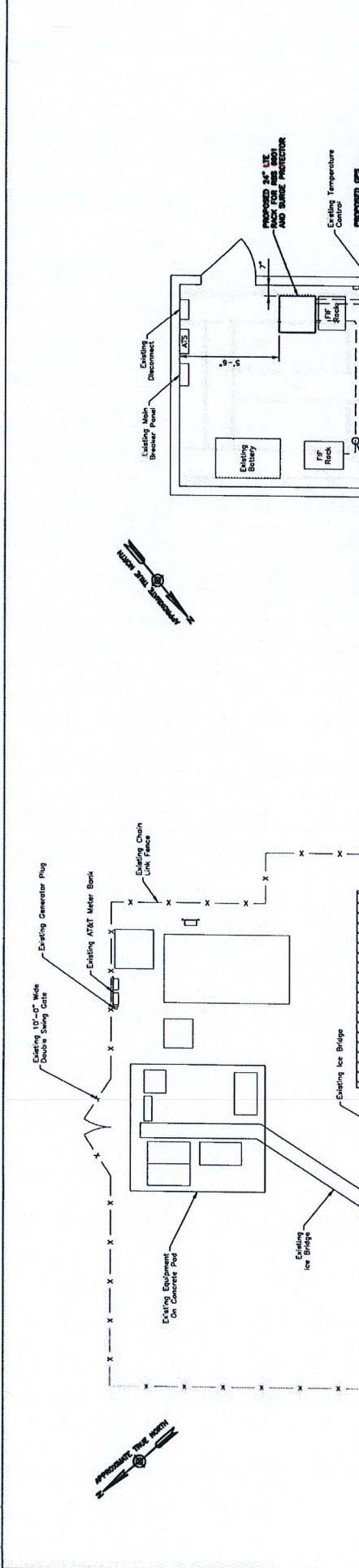
Note: Proposed loading is in addition to the remaining loading at the same elevation.

Future Loading

Antenna				Mount				Transmission Line							
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Attachment	Quantity	Model	Size	Attachment
											Internal/External				



SITE PLAN
 SCALE: 1" = 10' FOR 23.5x34"
 0' 5' 10'

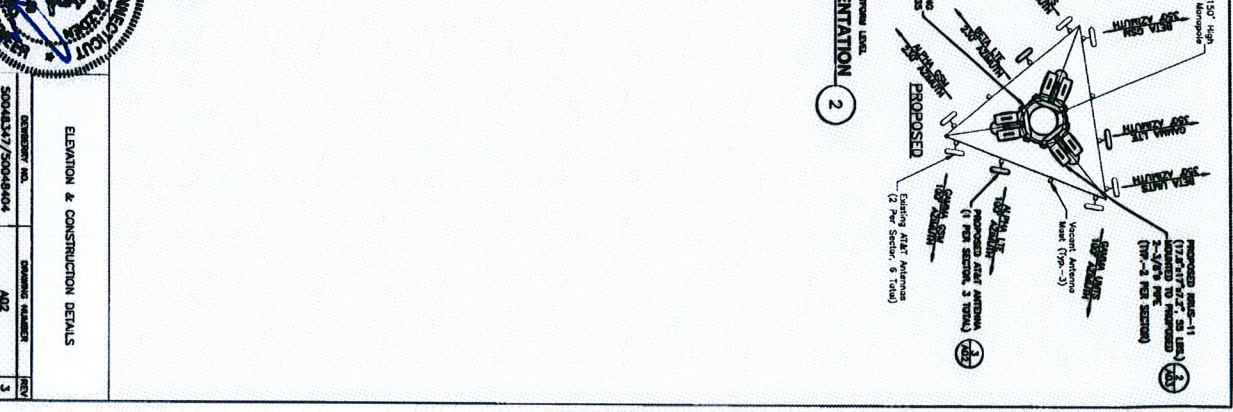
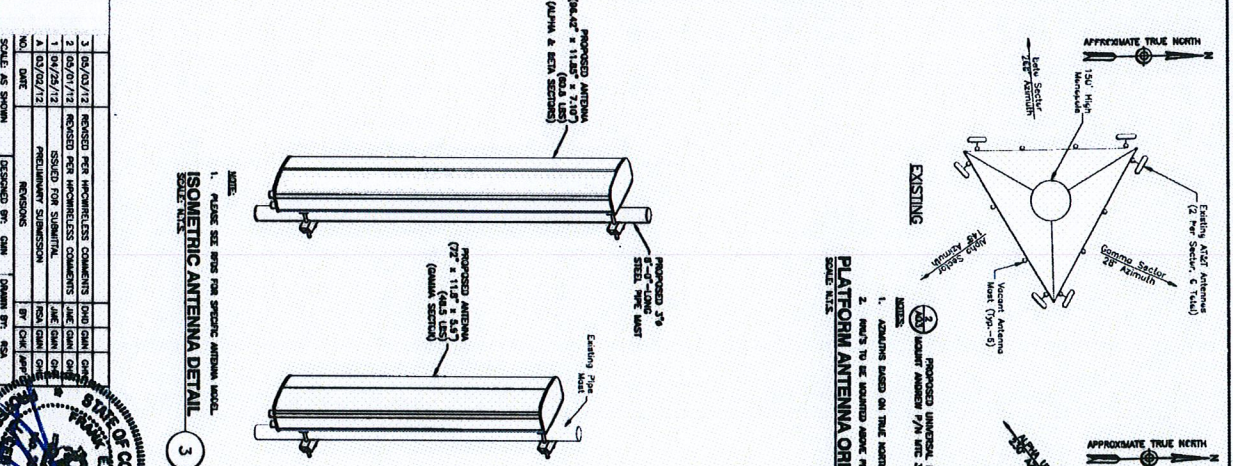
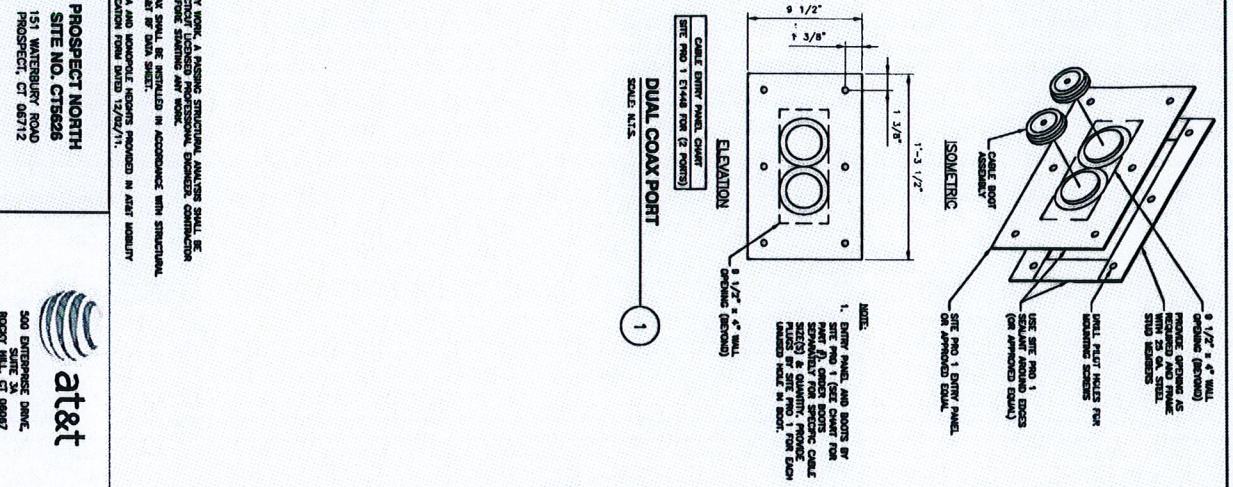
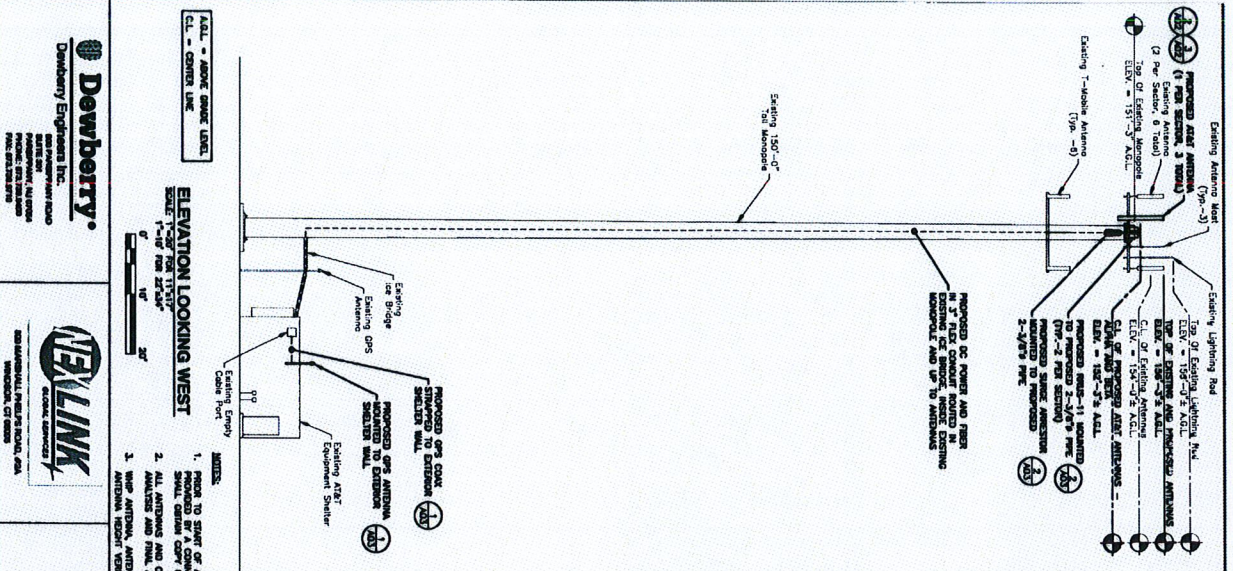


SHELTER LAYOUT DETAIL
 SCALE: 3/4" = 1'-0" FOR 23.5x34"
 0' 2' 4' 6'

- NOTES:**
1. DIMENSIONS SHOWN AS APPROXIMATE.
 2. MOUNT ALL ANTENNAS, COAX, SENSE ANTENNAS, HEATS, ETC. IN ACCORDANCE WITH SPECIFICATIONS AND PANEL SET OF THIS SHEET.
 3. NOT ALL ANTENNAS WILL BE INSTALLED.



SITE PLAN & SHELTER LAYOUT 500 ENTERPRISE DRIVE SUITE 2A ROCKY HILL, CT 06067	3/15/12 REVISIONS BR C/OK	03/02/12 PRELIMINARY SUBMISSION (ESA)	04/25/12 ISSUED FOR SUBMITTAL (JAKE)	05/01/12 REVISION PER MICROCELLS COMMENTS (JAKE)	05/03/12 REVISION PER MICROCELLS COMMENTS (DINO)	05/03/12 DESIGNED BY: GDM DRAWN BY: RSA	5004347/50048404 DRAWING NUMBER	A01	
	SCALE: AS SHOWN							NO. DATE BY REVISIONS	NO. DATE BY REVISIONS
	PROSPECT NORTH SITE NO. CT15626 151 WATERBURY ROAD PROSPECT, CT 06712			at&t 500 ENTERPRISE DRIVE SUITE 2A ROCKY HILL, CT 06067				NEWLINK 660 HARBOR VIEW AVE., SUITE 300 WATERBURY, CT 06722	
	Dewberry Dewberry Engineers Inc. 60 WATERBURY ROAD WATERBURY, CT 06722 PHONE: 860.291.3800 FAX: 860.291.2674								
	PROJECT NO. 5004347/50048404		SHEET NO. A01		TOTAL SHEETS: 3		DATE: 05/03/12		



Dewberry
Dewberry Engineers Inc.
ENGINEERING ARCHITECTURE
151 WATERGURY ROAD
PROSPECT, CT 06712
TEL: 860.289.8877

TEKLINK
LOCAL SERVICES
3800 WASHINGTON AVENUE
WINDSOR, CT 06095

PROSPECT NORTH
SITE NO. CTR5626
151 WATERGURY ROAD
PROSPECT, CT 06712

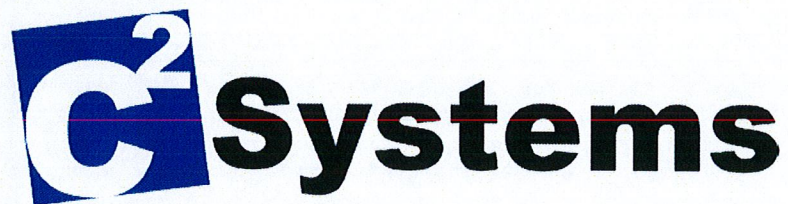
at&t
500 DUNBARRE DR.
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHECKED	DESIGNED BY	DRAWN BY	SCALE AS SHOWN
1	03/03/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
2	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
3	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
4	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
5	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
6	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
7	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
8	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
9	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	
10	03/07/12	ISSUED FOR PERMISSIVE COMMENTS	DM	DM	DM	DM	



ELEVATION & CONSTRUCTION DETAILS

DESIGNER: DM
DRAWING NO.: S0404347/S0404348
DATE: 03/07/12
DRAWING STATUS: A02
PAGE: 3



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

Calculated Radio Frequency Emissions



CT5626

(Prospect North)

151 Waterbury Road, Prospect, CT 06712

May 15, 2012

Table of Contents

1. Introduction.....	1
2. FCC Guidelines for Evaluating RF Radiation Exposure Limits.....	1
3. RF Exposure Prediction Methods.....	2
4. Calculation Results.....	3
5. Conclusion.....	4
6. Statement of Certification.....	4
Attachment A: References.....	5
Attachment B: FCC Limits for Maximum Permissible Exposure (MPE).....	6
Attachment C: AT&T Antenna Data Sheets and Electrical Patterns.....	8

List of Tables

Table 1: Carrier Information.....	3
Table 2: FCC Limits for Maximum Permissible Exposure (MPE).....	6

List of Figures

Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE).....	7
---	---

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 151 Waterbury Road in Prospect, CT. The coordinates of the tower are 41-31-22.9 N, 72-59-52.5 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:

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

Where:

EIRP = Effective Isotropic Radiated Power

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

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
AT&T UMTS	148	880	1	500	0.0082	0.5867	1.40%
AT&T UMTS	148	1900	2	500	0.0164	1.0000	1.64%
AT&T GSM	148	1900	2	427	0.0140	1.0000	1.40%
AT&T GSM	148	880	4	296	0.0194	0.5867	3.31%
T-Mobile GSM	136	1945	8	183	0.0285	1.0000	2.85%
T-Mobile UMTS	136	2100	2	730	0.0284	1.0000	2.84%
AT&T UMTS	154	880	2	649	0.0020	0.5867	0.34%
AT&T UMTS	154	1900	2	1387	0.0042	1.0000	0.42%
AT&T LTE	152	734	1	1375	0.0021	0.4893	0.44%
AT&T GSM	154	880	1	324	0.0005	0.5867	0.08%
AT&T GSM	154	1900	4	832	0.0050	1.0000	0.50%
Total							7.47%

Table 1: Carrier Information^{1 2 3}

¹ The existing CSC filing for 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 is in reference to the Dewberry Engineers, Inc. construction drawings dated 5/3/2012.

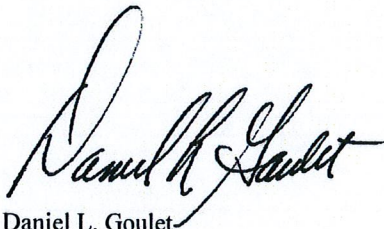
5. Conclusion

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 **7.47% 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.

A handwritten signature in black ink, appearing to read 'Daniel L. Goulet', written in a cursive style.

Daniel L. Goulet
C Squared Systems, LLC

May 15, 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 Exposure⁴

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 Exposure⁵

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.

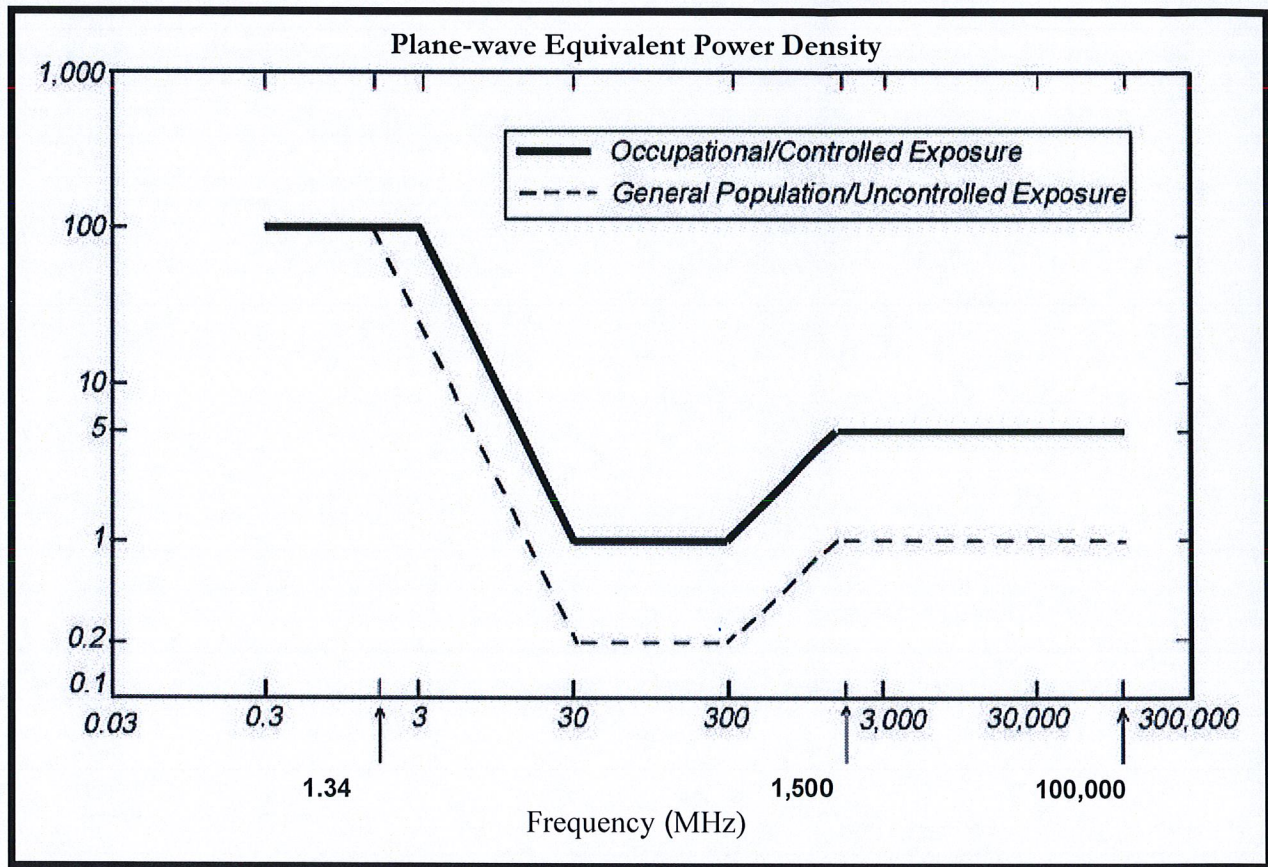
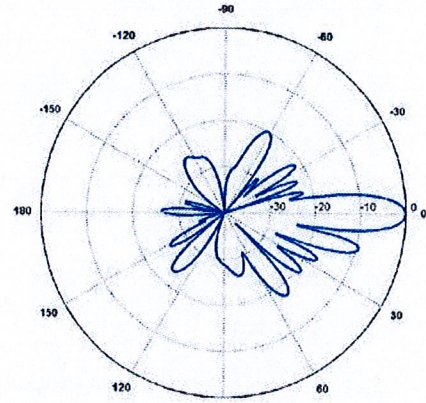
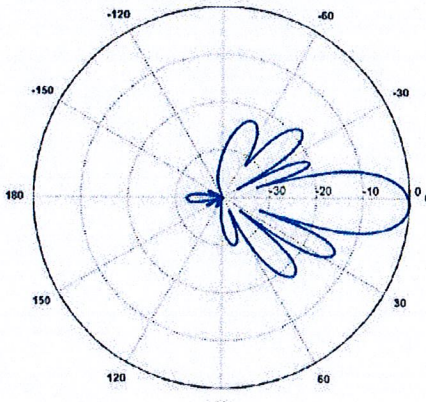
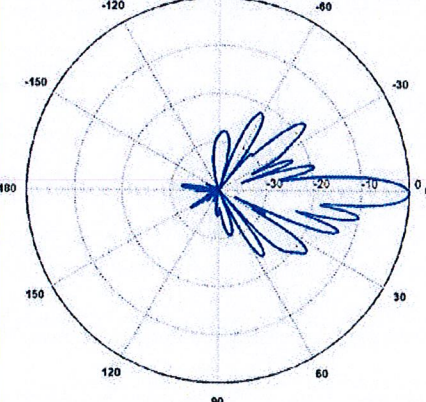


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

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

<p>700 MHz</p> <p>Manufacturer: Commscope Model #: SBNH-1D6565C Frequency Band: 698-806 MHz Gain: 13.6 dBd Vertical Beamwidth: 8.6° Horizontal Beamwidth: 71° Polarization: ± 45° Size L x W x D: 96.4" x 11.8" x 7.1"</p>	
<p>850 MHz</p> <p>Manufacturer: Powerwave Model #: 7750 Frequency Band: 824-896 MHz Gain: 12.5 dBd Vertical Beamwidth: 14.9° Horizontal Beamwidth: 69° Polarization: Dual Linear ±45° Size L x W x D: 63.0" x 11.0" x 4.0"</p>	
<p>1900 MHz</p> <p>Manufacturer: Powerwave Model #: 7750 Frequency Band: 1850-1990 MHz Gain: 15.6 dBd Vertical Beamwidth: 6.6° Horizontal Beamwidth: 65° Polarization: Dual Linear ±45° Size L x W x D: 63.0" x 11.0" x 4.0"</p>	

Rebecca Morits

From: Jennifer Gaudet
Sent: Thursday, May 17, 2012 3:08 PM
To: Rebecca Morits
Subject: CT5626 exempt mod filing
Attachments: CT5626 CSC exempt modification letter.docx; CT5626 structural excerpt.pdf; CT5626 CSC plans.pdf; CT5626 ATT LTE MPE Report 051512.pdf

Rebecca –

Attached documents for the next exempt mod (in that order for copying):

Letter
Plans
Structural excerpt
MPE report

Letter – please print and sign my name

Plans – make sure that the title blocks are to the right for collating/copying

Please send to:

Honorable Robert Chatfield
Mayor, Town of Prospect
36 Center Street
Prospect, CT 06712

SFX Broadcasting of Connecticut
c/o Clear Channel Communications
10 Columbus Boulevard
Hartford, CT 06106

Thanks!

Jennifer Young Gaudet

Project Manager

46 Mill Plain Rd., Floor 2, Danbury, CT 06811

Mobile: (860) 798-7454
Fax: (203) 797-1137
Office: (203) 797-1112
Email: jgaudet@hpcwireless.com



Please visit our website: www.hpcwireless.com