



January 29, 2015

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

Regarding: Notice of Exempt Modification – Addition of 3 radio heads previously approved  
Property Address: 125 Washington Avenue, North Haven, CT (the “Property”)  
Applicant: AT&T Mobility (“AT&T”)

Dear Ms. Bachman:

AT&T currently maintains a wireless telecommunications facility on an existing 120 foot monopole tower (“tower”) location on the Property. AT&T’s facility consists of nine (9) wireless telecommunications antenna at 122.8 feet. The tower is controlled by Candid Communications. The Council approved the previous application on August 10, 2012, reference number EM-CING-101-120720. This application (attached) granted AT&T the use of 6 radio heads at this location. The approval expired one year from the issue date. During that time AT&T made the changes to the site per the approval but only installed three (3) of the six (6) radio heads that they received approval. AT&T would now like to install the additional three (3) radio heads that were originally approved under EM-CING-101-120720.

Please accept this application as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72 (b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the First Selectman for the Town of North Haven. A copy of this letter is also being sent to AT&T Towers, the owner of the structure that AT&T is located.

The planned modifications to AT&T’s facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The planned modifications will not result in an increase in the height of the existing structure. AT&T’s additional, previously approved 3 radio heads will be installed at 118 foot level of the 120 foot monopole.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore will not require an extension of the site boundary.
3. The proposed modification will not increase the noise level at the facility by six decibel or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety



standard. An RF emissions calculation (attached) for AT&T's modified facility was provided in the application which led to the August 10, 2012 Decision.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (Please see attached Structural analysis completed by Global Tower Services, LLC, dated June 19, 2012).

For the foregoing reasons AT&T respectfully requests that the proposed addition of 3 radio heads previously approved be allowed within the exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

David P. Cooper  
Director of Site Acquisition  
Empire Telecom

CC: Michael Freda, First Selectman, Town of North Haven  
Candid Communications



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](mailto:siting.council@ct.gov)  
[www.ct.gov/csc](http://www.ct.gov/csc)

CT 2209

August 10, 2012

Douglas Talmadge  
New Cingular Wireless PCS, LLC  
147 Austin Ryer Lane  
Branford, CT 06405

RE: **EM-CING-101-120720** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 125 Washington Avenue, North Haven, Connecticut.

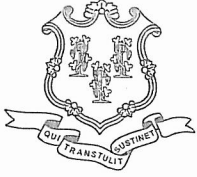
Dear Mr. Talmadge:

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 July 19, 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



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](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

July 23, 2012

The Honorable Michael J. Freda  
First Selectman  
Town of North Haven  
Town Hall  
18 Church Street  
North Haven, CT 06473

RE: **EM-CING-101-120720** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 125 Washington Avenue, North Haven, Connecticut.

Dear First Selectman Freda:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by August 6, 2012.

Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts  
Executive Director

LR/cm

Enclosure: Notice of Intent

c: Arthur Hausman, Zoning Enforcement Officer, Town of North Haven



EM-CING-101-120720

Cingular Wireless PCS, LLC  
147 Austin Ryer Ln  
Branford, CT 06405  
Phone: (203)-410-4531  
Douglas Talmadge  
Real Estate Consultant

July 19, 2012

**Hand Delivered**

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

RECEIVED  
JUL 20 2012  
CONNECTICUT  
SITING COUNCIL  
ORIGINAL

RE: New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 125 Washington Ave, North Haven, CT 06473 known to New Cingular Wireless PCS, LLC as CT2209.

Dear Ms. Roberts:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System (“UMTS”) and/or Long Term Evolution (“LTE”) capabilities, and enhance system performance in the state of Connecticut, New Cingular Wireless PCS, LLC (“AT&T”) plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which 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 its attachments is being sent to the chief elected official of the municipality in which affected cell site is located.

UMTS offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (“GSM”) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

LTE is a new high-performance air interface for cellular mobile communications. It is designed to increase the capacity and speed of mobile telephone networks.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

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

1. The height of the overall structure will not be affected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound as all proposed equipment will be located in the existing AT&T equipment shelter.
3. The proposed changes will not increase the noise level at the existing facility by 6 decibels or more.
4. Radio Frequency power density may increase due to the use of one or more GSM channels for UMTS transmissions. Moreover, LTE will utilize additional radio frequencies newly licensed by the FCC for cellular mobile communications. However, the changes 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.

For the foregoing reasons New Cingular Wireless PCS, LLC respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (203)-410-4531 or email [DTalmadge@Transcendwireless.com](mailto:DTalmadge@Transcendwireless.com) with questions concerning this matter. Thank you for your consideration.

Sincerely,



Douglas Talmadge  
Real Estate Consultant



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

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Calculated Radio Frequency Emissions



CT2015

(Branford 6)

405 Brushy Plain Rd, Branford, CT 06405

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July 13, 2012

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## 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 405 Brushy Plain Rd in Branford, CT. The coordinates of the tower are 41-19-0.49 N, 72-49-11.6 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 ( $\text{mW}/\text{cm}^2$ ). 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

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

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 <sup>2</sup> )	Limit	%MPE
<i>Cingular UMTS</i>	153	830	1	500	0.0077	0.5867	1.31%
<i>Cingular GSM</i>	153	880	3	296	0.0136	0.5867	2.32%
<i>Cingular GSM</i>	153	1900	2	427	0.0131	1.0000	1.31%
Clearwire	130	2496	2	153	0.0065	1.0000	0.65%
Clearwire	130	11000	1	211	0.0045	1.0000	0.45%
Verizon cellular	113	869	9	280	0.0710	0.5793	12.25%
Verizon PCS	113	1970	7	190	0.0375	1.0000	3.75%
Verizon AWS	113	2145	1	475	0.0134	1.0000	1.34%
Verizon LTE	113	698	2	821	0.0462	0.4653	9.94%
Branf PD	N/A	N/A	N/A	N/A	0.0055	0.2000	2.75%
PageNet	N/A	N/A	N/A	N/A	0.0633	0.6210	10.19%
T-Mobile UMTS	140	2100	2	646	0.0237	1.0000	2.37%
T-Mobile GSM	140	1945	8	162	0.0238	1.0000	2.38%
AT&T UMTS	153	880	2	565	0.0017	0.5867	0.30%
AT&T UMTS	153	1900	2	875	0.0027	1.0000	0.27%
AT&T LTE	153	734	1	1313	0.0020	0.4893	0.41%
AT&T GSM	153	880	1	283	0.0004	0.5867	0.07%
AT&T GSM	153	1900	4	525	0.0032	1.0000	0.32%
						<b>Total</b>	<b>47.43%</b>

Table 1: Carrier Information<sup>1 2 3</sup>

<sup>1</sup> The existing CSC filing for Cingular 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.

<sup>2</sup> 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.

<sup>3</sup> Antenna height listed for AT&T is in reference to the American Tower Corp Structural Analysis dated July 2, 2012.

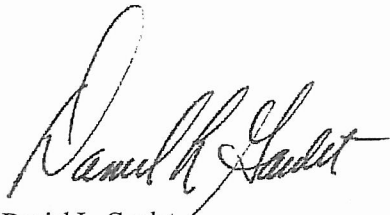
## 5. Conclusion

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 **47.43% 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

July 13, 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<sup>4</sup>**

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

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	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)**

<sup>4</sup> 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

<sup>5</sup> 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

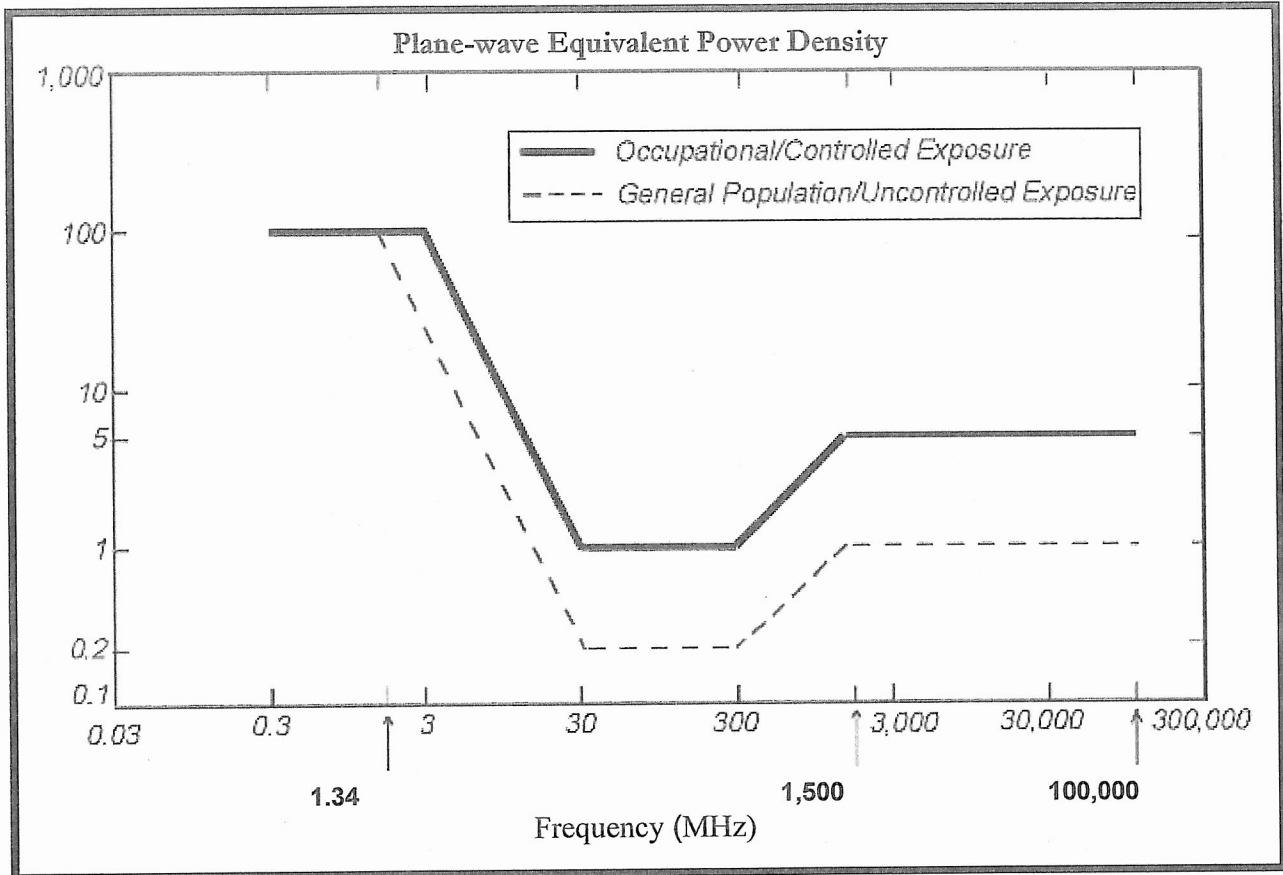
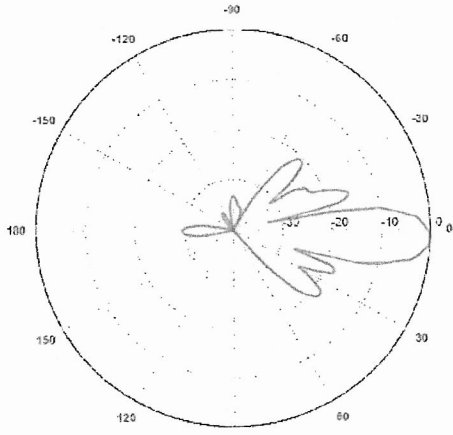
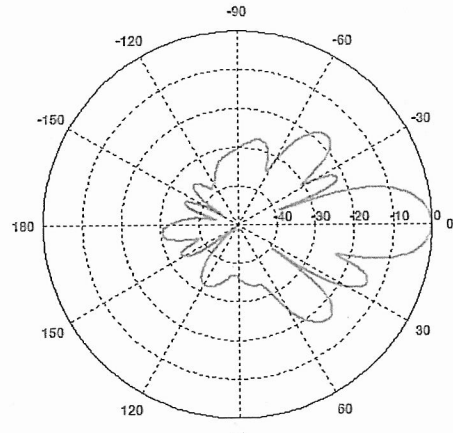
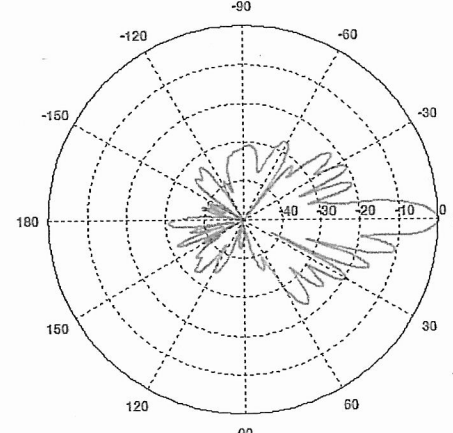


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

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

<p><b>700 MHz</b></p> <p>Manufacturer: KMW Communications            Model #: AM-X-CD-16-65-00T            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"</p>	
<p><b>850 MHz</b></p> <p>Manufacturer: Powerwave            Model #: 7770.00            Frequency Band: 824-896 MHz            Gain: 11.4 dBd            Vertical Beamwidth: 15°            Horizontal Beamwidth: 85°            Polarization: Dual Linear ±45°            Size L x W x D: 55.4" x 11.0" x 5.0"</p>	
<p><b>1900 MHz</b></p> <p>Manufacturer: Powerwave            Model #: 7770.00            Frequency Band: 1850-1990 MHz            Gain: 13.4 dBd            Vertical Beamwidth: 7°            Horizontal Beamwidth: 90°            Polarization: Dual Linear ±45°            Size L x W x D: 55.4" x 11.0" x 5.0"</p>	





## **Structural Analysis Report**

### **120 ft. Tapered Monopole**

Global Tower Services

750 Park of Commerce Boulevard  
Suite 300  
Boca Raton, FL 33487-3612

P: 605.422.1548  
F: 605.422.1550

**125 Washington Ave., North Haven, CT 06473  
New Haven County  
(CT-5040, Northhaven I)**

**New Cingular Wireless PCS, LLC (AT & T)  
AT & T Site Number: CT2209  
AT & T Site Name: North Haven- CANDID Tower**

**Prepared by:  
Global Tower Services, LLC  
Michael T. De Boer, P.E.  
Senior Director of Engineering**

**June 19, 2012**

Global Tower Services, LLC  
June 19, 2012  
Northhaven I  
CT-5040

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Appendix A - Monopole Profile.....Attached

Appendix B - Calculations.....Attached

Appendix C – Collocation Application.....Attached

Global Tower Services, LLC  
June 19, 2012  
Northhaven I  
CT-5040

## INTRODUCTION

We have completed the structural analysis for the existing 120 ft. tapered monopole located in New Haven County (125 Washington Ave., North Haven), CT. The objective of the analysis is to determine if the existing tapered monopole design is in conformance / compliance with the current codes and standards for the proposed equipment installation.

TSTower written by TowerSoft was utilized in performing the analysis. This program is a commercially available software program which was used to create a non-linear three-dimensional beam model and calculate member stresses for various loading conditions.

## DESCRIPTION OF STRUCTURE

The existing structure is a 120 ft. tapered monopole. The original monopole manufacturer is Valmont Industries, Valley, NE. The existing monopole consists of three (3) sections with slip connections.

Tower drawing provided by Valmont were used to model the tower steel. (Valmont order No. 179433-98, January 5, 2003) The monopole shaft is manufactured from 65 ksi steel, the base plate is 50 ksi steel and the anchor bolts are A615 Grade 75 steel. (Monopole is designed to be extended to 180')

The monopole, for the purpose of analysis, is considered to be in good condition with no defects.

## DESIGN PARAMETERS

- Standard:	ANSI/TIA-222-F-1996
- Basic Wind Speed:	85 mph (fastest mile) 105 mph (3-sec gust)
- Serviceability Wind Speed:	50 mph (fastest mile)
- Basic Wind Speed with Ice:	73.95 mph (fastest mile)
- Design Ice Thickness:	0.50 (inch)
- Allowable Stress Increase:	1/3 for wind loading conditions

Global Tower Services, LLC  
 June 19, 2012  
 Northhaven I  
 CT-5040

**ANTENNA LOADING INFORMATION**

Existing and Reserved Loading Information

Antenna Description/Mount	Qty	Elev. (ft.)	TX Lines	Qty	Customer
Powerwave 7770 / Platform	6	122.67	1 5/8"	12	ATT
Powerwave TMA / Platform	12	122.67			ATT
APX16DWV-16DWVS-E-A20 / Low Profile Platform	9	110	1 5/8"	18	T-Mobile
ATMAA1412D-1A20 / Low Profile Platform	9	110			T-Mobile

**Note-** Existing loading was taken from leasing rights and verified with a site audit.

Proposed Loading Information

Antenna Description/Mount	Qty	Elev. (ft.)	TX Lines	Qty	Customer
KMW AM-X-CD-16-65-00T-RET / Low Profile Platform	3	122.67	5/16" 3/8"	1 2	AT & T
Ericsson RRUS11 / Collar Mount	6	118			AT & T
Raycap DC6-48-60-18-8F / Collar Mount	1	118			AT & T

**Note:** Final configuration for ATT to include: nine (9) antennas, twelve (12) TMA's, six (6) RRU's, one (1) surge suppressor, twelve (12) 1 5/8" lines, one (1) 5/16" line, and two (2) 3/8" lines. (A 3" flex conduit will be used for the DC/Fiber cables)

**ANALYSIS RESULTS**

**Structure**

The existing 120 ft. tapered monopole is structurally capable of supporting the proposed equipment. (See table below)

Monopole Member	% Capacity	Results
Monopole Shaft	50	Pass
Monopole Base Plate	39	Pass
Anchor Bolts	43	Pass

(105 percent is considered acceptable.)

Global Tower Services, LLC  
June 19, 2012  
Northhaven I  
CT-5040

ANALYSIS RESULTS continued

Foundation

The existing foundation has also been evaluated. The existing foundation was found to be **acceptable** with the proposed equipment installed. (See table below)

Foundation Component	Analysis Reactions	Original Reactions	% Capacity	Results
Overturning Moment	2089.01 Ft-Kips	4149.00 Ft-Kips	50	Pass
Shear	25.95 Kips	37.07 Kips	70	Pass

**Monopole Rating: 70 %**

SUMMARY AND CONCLUSIONS

The existing 120 ft. tapered monopole located in New Haven County (125 Washington Ave., North Haven), CT is **structurally acceptable** based upon the EIA-222-F 1996 Standard and the local building code with the proposed equipment installed.


If any other changes are proposed, another structural analysis should be performed to assure the tower is in compliance / conformance with the applicable codes and standards.

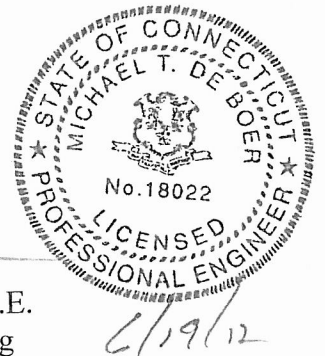
Should any further questions arise, please contact the Global Tower Services, LLC Engineering Department at 605-422-1308.

Global Tower Services, LLC

Reviewed By:

Cory Blake, E.I.T.  
GTS Engineering

  
Michael T. De Boer, P.E.  
Director of Engineering



Global Tower Services, LLC  
June 19, 2012  
Northhaven I  
CT-5040

### Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but not necessarily limited to:

- Information supplied by the client regarding the structure itself, the antenna and transmission line loading on the structure and its components, or relevant information.
- Information from drawings in possession of Global Tower Services, LLC, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to Global Tower Services, LLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we consider that all structures were constructed in accordance with the drawings and specifications and are in an uncorroded condition and have not deteriorated; and we, therefore consider that their capacity has not significantly changed from the original design condition.

All services will be performed to the codes and standards specified by the client, and we do not imply to meet any other code and standard requirements unless explicitly agreed to in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes and standards, the client shall specify the exact requirements. In the absence of information to the contrary, all work will be performed in accordance with the revision of ANSI/TIA/EIA-222 requested.

All services are performed, results obtained and recommendations made in accordance with the generally accepted engineering principles and practices. Global Tower Services, LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Global Tower Services, LLC  
June 19, 2012  
Northhaven I  
CT-5040

**Disclaimer of Warranties**

The engineering services by **Global Tower Services, LLC** in connection with this Structural Analysis are limited to a computer analysis of the tower structure, size and capacity of its members. **Global Tower Services, LLC** does not analyze the fabrication, including welding, except as included in this report.

The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines. Any mention of structural modifications are reasonable estimates and should not be used a precise construction document. Precise modification drawings are obtainable from **Global Tower Services, LLC** but are beyond the scope of this report.

**Global Tower Services, LLC** makes no warranties, expressed or implied, in connection with this report and disclaim any liability arising from material, fabrication and erection of this tower. **Global Tower Services, LLC** 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 **Global Tower Services, LLC** pursuant to this report will be limited to the total fee received for preparation of this report.

## APPENDIX A

### Monopole Profile



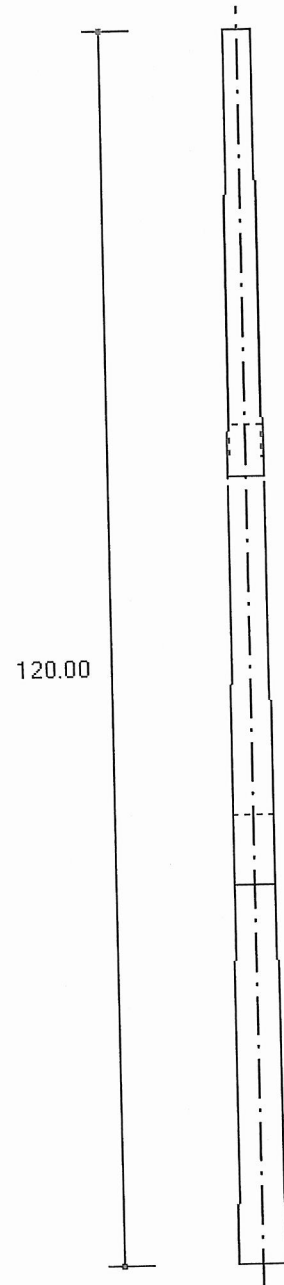
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Contract:  
Project: Structural Analysis for a 120' Monopole tower  
Date and Time: 6/19/2012 2:32:32 PM

Revision: 1  
Site: CT-5040 (Northaven 1)  
Engineer: Mike De Boer

**DESIGN SPECIFICATION**

Design Standard: TIA/EIA-222-F-1996  
Basic Wind speed = 85.0 (mph)  
Service Wind speed = 50.0 (mph)  
Ice thickness = 0.50 (in)

Sct.	Length (ft)	Overlap (ft)	Top Dia. (in)	Bot Dia. (in)	Thick. (in)
1	44.00	6.75	45.93	54.50	0.4375
2	44.75	5.92	38.91	47.62	0.3750
3	43.92	0.00	31.88	40.43	0.3125



MAXIMUM BASE REACTIONS

Download (Kips)	38.2
Shear (Kips)	26.0
Moment (Kipsft)	2089.0

## **APPENDIX B**

### **Calculations**

File: C:\TSTower\TSTOWER Input\CT-5040\_SA\_ATT\_061912.out  
Contract:  
Project: Structural Analysis for a 120' Monopole tower  
Date and Time: 6/19/2012 2:32:32 PM

Revision: 1  
Site: CT-5040 (Northaven 1)  
Engineer: Mike De Boer

**Section A: PROJECT DATA**

Project Title: Structural Analysis for a 120' Monopole tower  
Customer Name: AT&T  
Site: CT-5040 (Northaven 1)  
Contract No.:  
Revision: 1  
Engineer: Mike De Boer  
Date: Jun 19 2012  
Time: 02:29:04 PM  
Design Standard: TIA/EIA-222-F-1996

**GENERAL DESIGN CONDITIONS**

Start Wind direction: 0.00 (Deg)  
End Wind direction: 330.00 (Deg)  
Increment wind direction: 30.00 (Deg)  
Elevation above ground: 0.00(ft)  
Gust Response Factor Gh: 1.69  
Material Density: 490.1(lbs/ft^3)  
Young's Modulus: 29000.0(ksi)  
Poisson Ratio: 0.3  
Weight Multiplier: 1.00  
Allowable Stress Incr. Factor: 1.333  
Increase allowable stress: Yes

**WIND ONLY CONDITIONS:**  
Basic Wind Speed: 85.00 (mph)

**WIND AND ICE CONDITIONS:**  
Basic Wind Speed: 85.00 (mph)  
Ice Thickness: 0.50 (in)  
Ice density: 56.19 (lbs/ft^3)  
Wind pressure reduction for iced conditions: 0.75

**WIND ONLY SERVICEABILITY CONDITIONS:**  
Operational Wind Speed: 50.00 (mph)

Analysis performed using: TowerSoft Finite Element Analysis Program

File: C:\TSTower\TSTOWER Input\CT-5040\_SA\_ATT\_061912.out  
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Date and Time: 6/19/2012 2:32:32 PM

Revision: 1  
Site: CT-5040 (Northaven 1)  
Engineer: Mike De Boer

**Section B: STRUCTURE GEOMETRY**

Total Height (ft)		Bottom Diameter (in)		Top Diameter (in)						
120.00		54.50		31.88						
Sect. No	Length (ft)	Overlap (ft)	Bot Dia. (in)	Top Dia. (in)	Thick. (in)	Sides	Joint Type	Yield Stress (ksi)	Mass (lbs)	Calculated Taper (in/ft)
1	44.00	6.75	54.50	45.93	0.4375	12-sided	Flange	65.0	10485.3	0.19475
2	44.75	5.92	47.62	38.91	0.3750	12-sided	Telescopic	65.0	7875.4	0.19475
3	43.92	0.00	40.43	31.88	0.3125	12-sided	Telescopic	65.0	5383.2	0.19475
Total Mass:									23744.0	

File: C:\TSTower\TSTOWER Input\CT-5040\_SA\_ATT\_061912.out  
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Date and Time: 6/19/2012 2:32:32 PM

Revision: 1  
Site: CT-5040 (Northaven 1)  
Engineer: Mike De Boer

**Section D: TRANSMISSION LINE DATA**

Transmission Lines Position

No.	Bot El (ft)	Top El (ft)	Desc.	Radius (ft)	Az.	Orient.	No.	Shielded	Shielded Lines	Antenna
1	0.00	120.00	LDF7P-50A	0.00	0.00	0.00	12	Yes	12	
2	0.00	120.00	RC3.125	0.00	0.00	0.00	1	Yes	1	
3	0.00	110.00	LDF7P-50A	0.00	0.00	0.00	18	Yes	18	

Transmission Lines Details

No.	Desc.	Width (in)	Depth (in)	Unit Mass (lb/ft)
1	LDF7P-50A	2.01	2.01	0.92
2	RC3.125	3.11	3.11	3.00
3	LDF7P-50A	2.01	2.01	0.92

Utilization of the cross-section for TX Lines: 11.07%

File: C:\TSTower\TSTOWER Input\CT-5040\_SA\_ATT\_061912.out  
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Revision: 1  
Site: CT-5040 (Northaven 1)  
Engineer: Mike De Boer

**Section F: POINT LOAD DATA**

Structure Azimuth from North:0.00

POINT LOADS

No.	Description	Elev. (ft)	Radius (ft)	Azim. (Deg)	Orient. (Deg)	Vertical Offset (ft)	Tx Line	Comments
1	(6) Powerwave 7770	122.67	0.00	0.0	0.0	0.00		ATT (0.85)
2	(12) Powerwave 850 bypass	122.67	0.00	0.0	0.0	0.00		ATT (0.75)
3	(3) KMW AM-X-CD-16-65-00T-R122.67ET0.00	122.67	0.00	0.0	0.0	0.00		ATT
4	(1) Platform	120.00	0.00	0.0	0.0	0.00		ATT
5	(6) ERICCSO RRUS-11	118.00	0.00	0.0	0.0	0.00		ATT (0.85)
6	(1) RAYCAP DC6-48-60-18-8F	118.00	0.00	0.0	0.0	0.00		ATT
7	Collar Mount	118.00	0.00	0.0	0.0	0.00		ATT
8	(9) RFS APX16DWV-16DWVS-E-A110.00200.00	110.00	200.00	0.0	0.0	0.00		T-MOBILE (0.8)
9	(9) RFS ATMAA1412D-1A20	110.00	0.00	0.0	0.0	0.00		T-MOBILE (0.8)
10	(1) LP Platform	110.00	0.00	0.0	0.0	0.00		T-MOBILE

POINT LOADS WIND AREAS AND WEIGHTS

No.	Description	Frontal Bare Area (ft^2)	Lateral Bare Area (ft^2)	Frontal Iced Area (ft^2)	Lateral Iced Area (ft^2)	Weight Bare (Kips)	Weight Iced (Kips)
1	(6) Powerwave 7770	29.99	29.99	33.30	33.30	0.21	0.41
2	(12) Powerwave 850 bypass	11.61	11.61	13.77	13.77	0.17	0.26
3	(3) KMW AM-X-CD-16-65-00T-R23.10ET	23.10	23.10	25.56	25.56	0.15	0.28
4	(1) Platform	30.00	30.00	40.00	40.00	2.00	2.50
5	(6) ERICCSO RRUS-11	12.85	12.85	14.48	14.48	0.26	0.36
6	(1) RAYCAP DC6-48-60-18-8F	2.22	2.22	2.55	2.55	0.03	0.05
7	Collar Mount	10.00	10.00	15.00	15.00	0.50	0.75
8	(9) RFS APX16DWV-16DWVS-E-A52.0620	52.06	52.06	56.95	56.95	0.37	0.67
9	(9) RFS ATMAA1412D-1A20	8.42	8.42	10.01	10.01	0.12	0.19
10	(1) LP Platform	24.00	24.00	30.00	30.00	1.50	2.00

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Date and Time: 6/19/2012 2:32:32 PM

Revision: 1  
Site: CT-5040 (Northaven 1)  
Engineer: Mike De Boer

**Section K: POLE OUTPUT LOAD DATA**

Load Combination	Max Envelope			
Wind Direction	Maximum			
Elev. (ft)	Axial Ld. (kips)	Shear Ld. (kips)	Torque (kipsft)	Bend Mom. (kipsft)
120.00	4.70	5.72	0.00	7.90
112.58	4.70	5.72	0.00	50.22
112.58	7.94	9.51	0.00	50.35
105.17	7.94	9.51	0.00	120.69
105.17	10.14	11.85	0.01	120.85
97.75	10.14	11.85	0.01	208.58
97.75	11.45	12.90	0.01	208.75
90.34	11.45	12.90	0.01	304.21
90.34	12.80	13.96	0.01	304.37
82.92	12.80	13.96	0.01	407.65
82.92	14.06	14.91	0.02	407.78
77.00	14.06	14.91	0.01	496.17
77.00	15.85	15.82	0.02	496.29
70.40	15.85	15.82	0.02	600.43
70.40	17.83	16.78	0.02	600.54
63.80	17.83	16.78	0.02	710.97
63.80	19.36	17.72	0.02	711.07
57.20	19.36	17.72	0.02	827.67
57.20	20.94	18.64	0.02	827.77
50.60	20.94	18.64	0.02	951.12
50.60	22.56	19.56	0.02	951.20
44.00	22.56	19.56	0.02	1079.99
44.00	24.25	20.47	0.02	1080.05
37.25	24.25	20.47	0.02	1218.19
37.25	26.78	21.34	0.02	1218.25
31.04	26.78	21.34	0.02	1350.38
31.04	29.39	22.15	0.02	1350.43
24.83	29.39	22.15	0.02	1487.65
24.83	31.27	22.97	0.02	1487.69
18.63	31.27	22.97	0.02	1629.98
18.63	33.19	23.80	0.02	1630.01
12.42	33.19	23.80	0.02	1778.26
12.42	35.15	24.64	0.02	1778.27
6.21	35.15	24.64	0.02	1930.98
6.21	37.17	25.49	0.02	1930.98
0.00	37.17	25.49	0.02	2089.01
Base	38.16	25.95	0.02	2089.01

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Revision: 1  
Site: CT-5040 (Northaven 1)  
Engineer: Mike De Boer

**Section L: STRENGTH ASSESSMENT DATA**

Elev. (ft)	Load Combination Bending Stress (ksi)	Max Envelope Axial Stress (ksi)	Shear Stress (ksi)	Total Stress (ksi)	Allowable Stress (ksi)	Assess. (ksi)
120.00	0.38	0.11	0.18	0.58	52.00	0.011
112.58	2.22	0.10	0.17	2.34	52.00	0.045
112.58	2.23	0.17	0.28	2.45	52.00	0.047
105.17	4.90	0.17	0.27	5.09	52.00	0.098
105.17	4.91	0.21	0.34	5.16	52.00	0.099
97.75	7.81	0.21	0.33	8.03	52.00	0.154
97.75	7.81	0.24	0.36	8.07	52.00	0.155
90.34	10.52	0.23	0.34	10.77	51.54	0.209
90.34	10.53	0.26	0.37	10.80	51.54	0.210
82.92	13.07	0.25	0.36	13.33	50.57	0.264
82.92	13.07	0.28	0.38	13.37	50.57	0.264
77.00	12.92	0.26	0.33	13.20	52.00	0.254
70.40	14.66	0.25	0.32	14.92	52.00	0.287
70.40	14.66	0.29	0.34	14.96	52.00	0.288
63.80	16.31	0.28	0.33	16.60	52.00	0.319
63.80	16.31	0.31	0.35	16.63	52.00	0.320
57.20	17.87	0.30	0.34	18.18	52.00	0.350
57.20	17.87	0.33	0.36	18.21	52.00	0.350
50.60	19.37	0.32	0.35	19.69	51.76	0.380
50.60	19.37	0.34	0.36	19.72	51.76	0.381
44.00	20.77	0.33	0.35	21.11	51.04	0.414
44.00	20.77	0.36	0.37	21.14	51.04	0.414
37.25	19.36	0.34	0.32	19.71	52.00	0.379
31.04	20.39	0.33	0.32	20.73	52.00	0.399
31.04	20.39	0.37	0.33	20.76	52.00	0.399
24.83	21.37	0.36	0.32	21.73	52.00	0.418
24.83	21.37	0.38	0.33	21.76	52.00	0.418
18.63	22.30	0.37	0.32	22.68	52.00	0.436
18.63	22.30	0.40	0.34	22.70	52.00	0.437
12.42	23.19	0.39	0.33	23.59	51.97	0.454
12.42	23.20	0.41	0.34	23.61	51.97	0.454
6.21	24.04	0.40	0.33	24.45	51.39	0.476
6.21	24.04	0.43	0.34	24.48	51.39	0.476
0.00	24.86	0.42	0.34	25.28	50.81	0.498



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**Section M: SECTION PROPERTIES DATA**

Elev. (ft)	Diam. (in)	Width (in)	Thick. (in)	W/t	Area (in^2)	S (in^3)
120.0	32.1	8.0	0.313	25.5	31.9	248.00
112.6	33.5	8.4	0.313	26.7	33.4	271.18
112.6	33.5	8.4	0.313	26.7	33.4	271.18
105.2	34.9	8.7	0.313	28.0	34.8	295.41
105.2	34.9	8.7	0.313	28.0	34.8	295.41
97.8	36.4	9.1	0.313	29.2	36.3	320.67
97.8	36.4	9.1	0.313	29.2	36.3	320.67
90.3	37.8	9.5	0.313	30.4	37.7	346.96
90.3	37.8	9.5	0.313	30.4	37.7	346.96
82.9	39.3	9.9	0.313	31.7	39.2	374.30
82.9	39.3	9.9	0.313	31.7	39.2	374.30
77.0	40.4	10.2	0.313	32.7	40.3	396.86
77.0	39.9	9.9	0.375	26.5	47.6	460.92
70.4	41.2	10.3	0.375	27.4	49.2	491.55
70.4	41.2	10.3	0.375	27.4	49.2	491.55
63.8	42.4	10.6	0.375	28.3	50.7	523.16
63.8	42.4	10.6	0.375	28.3	50.7	523.16
57.2	43.7	11.0	0.375	29.2	52.3	555.76
57.2	43.7	11.0	0.375	29.2	52.3	555.76
50.6	45.0	11.3	0.375	30.2	53.8	589.35
50.6	45.0	11.3	0.375	30.2	53.8	589.35
44.0	46.3	11.7	0.375	31.1	55.4	623.92
44.0	46.3	11.7	0.375	31.1	55.4	623.92
37.3	47.6	12.0	0.375	32.0	57.0	660.29
37.3	47.2	11.8	0.438	26.9	65.8	755.10
31.0	48.5	12.1	0.438	27.7	67.5	794.80
31.0	48.5	12.1	0.438	27.7	67.5	794.80
24.8	49.7	12.4	0.438	28.4	69.2	835.51
24.8	49.7	12.4	0.438	28.4	69.2	835.51
18.6	50.9	12.8	0.438	29.2	70.9	877.24
18.6	50.9	12.8	0.438	29.2	70.9	877.24
12.4	52.1	13.1	0.438	29.9	72.6	919.98
12.4	52.1	13.1	0.438	29.9	72.6	919.98
6.2	53.3	13.4	0.438	30.6	74.4	963.75
6.2	53.3	13.4	0.438	30.6	74.4	963.75
0.0	54.5	13.7	0.438	31.4	76.1	1008.53

Note: w/t values marked with \* (asterisk) indicate width to thickness exceeding maximum allowable values by standards.

TowerSoft Tower - v 5.2.1 Monopole Analysis Program  
 Licensed to: Global Tower Partners, Boca Raton FL  
 (c) 1997-2012 TowerSoft, Mississauga, Ontario.

Project: Structural Analysis for a 120' Monopole tower  
 Site: CT-5040 (Northaven 1)  
 Contract:  
 Engineer: Mike De Boer

**BASE PLATE DETAILS**

**Maximum Base Reactions**

Axial Load(Kips) = 32.66  
 Shear Load(Kips) = 25.95  
 Bending Moment(Kipsft) = 2089.01  
 Torque(Kipsft) = 0.02

**Anchor Rod Data**

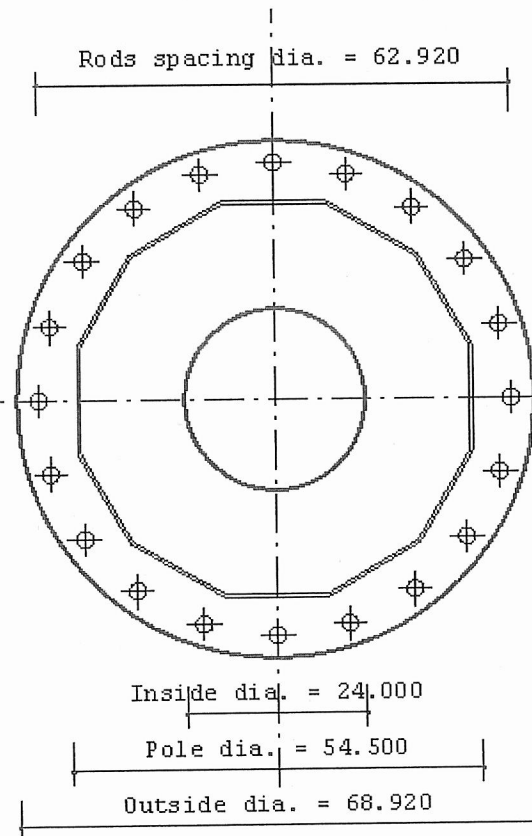
No of rods = 20  
 Grade = A615 Gr.75  
 Size = 2 1/4 in  
 Lar \* (in) = 3.000  
 Shear Load(Kips) = 1.30  
 Axial Load(Kips) = 81.32  
 Shear Cap.(Kips) = 90.12  
 Axial Cap.(Kips) = 194.85  
 Assessment Ratio = 0.43  
 Allow. Stress Increase= 1.33

**Plate Data**

Thickness(in) = 2.750  
 Grade = A572 gr.60  
 Max. Stress(ksi) = 23.2  
 Allow. Stress(ksi) = 60.0  
 Assessment Ratio = 0.4  
 Allow. Stress Increase= 1.33

Plate Bottom above Concrete

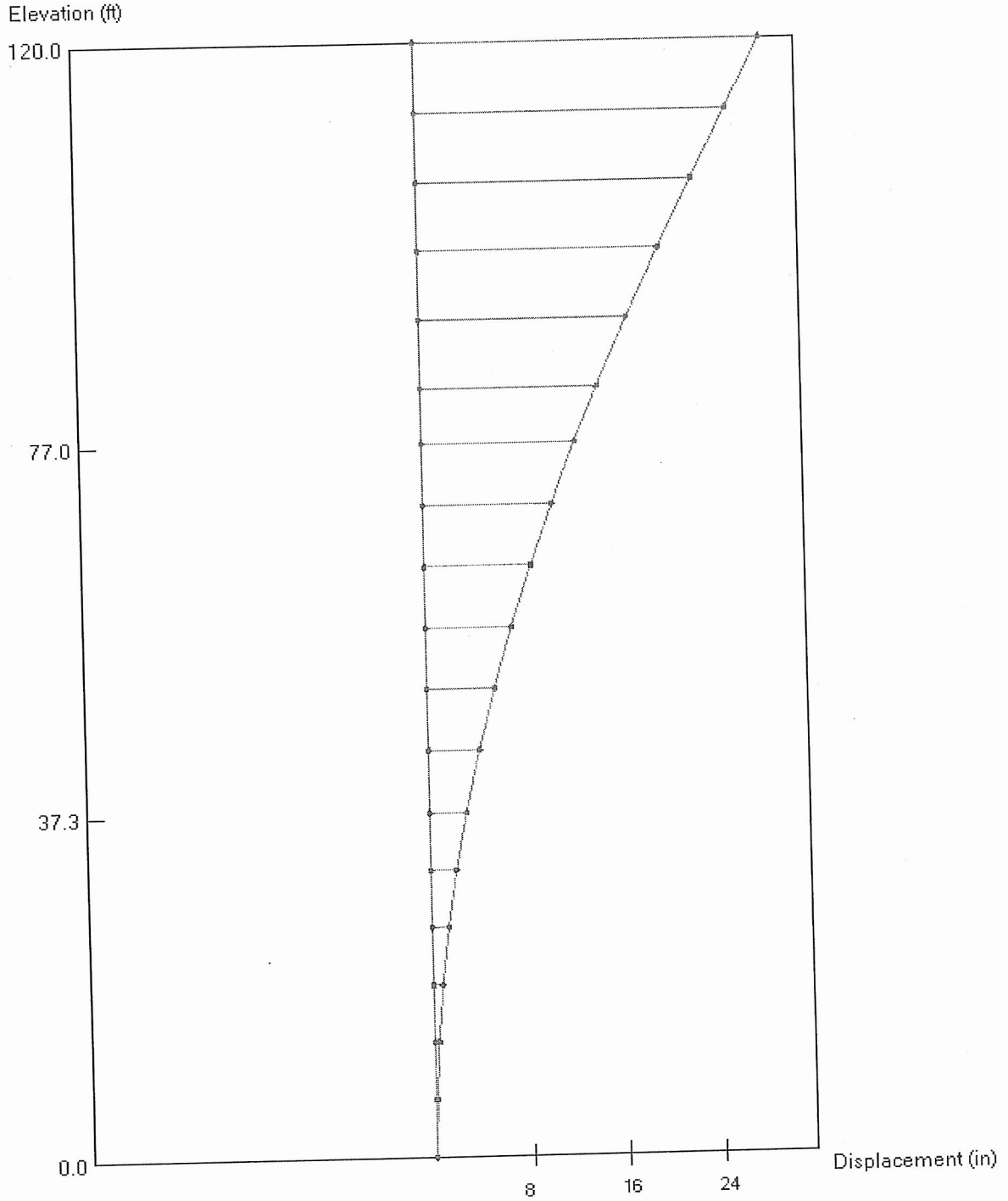
\* Lar = Length from top of concrete  
 to bottom of anchor rod leveling nut.



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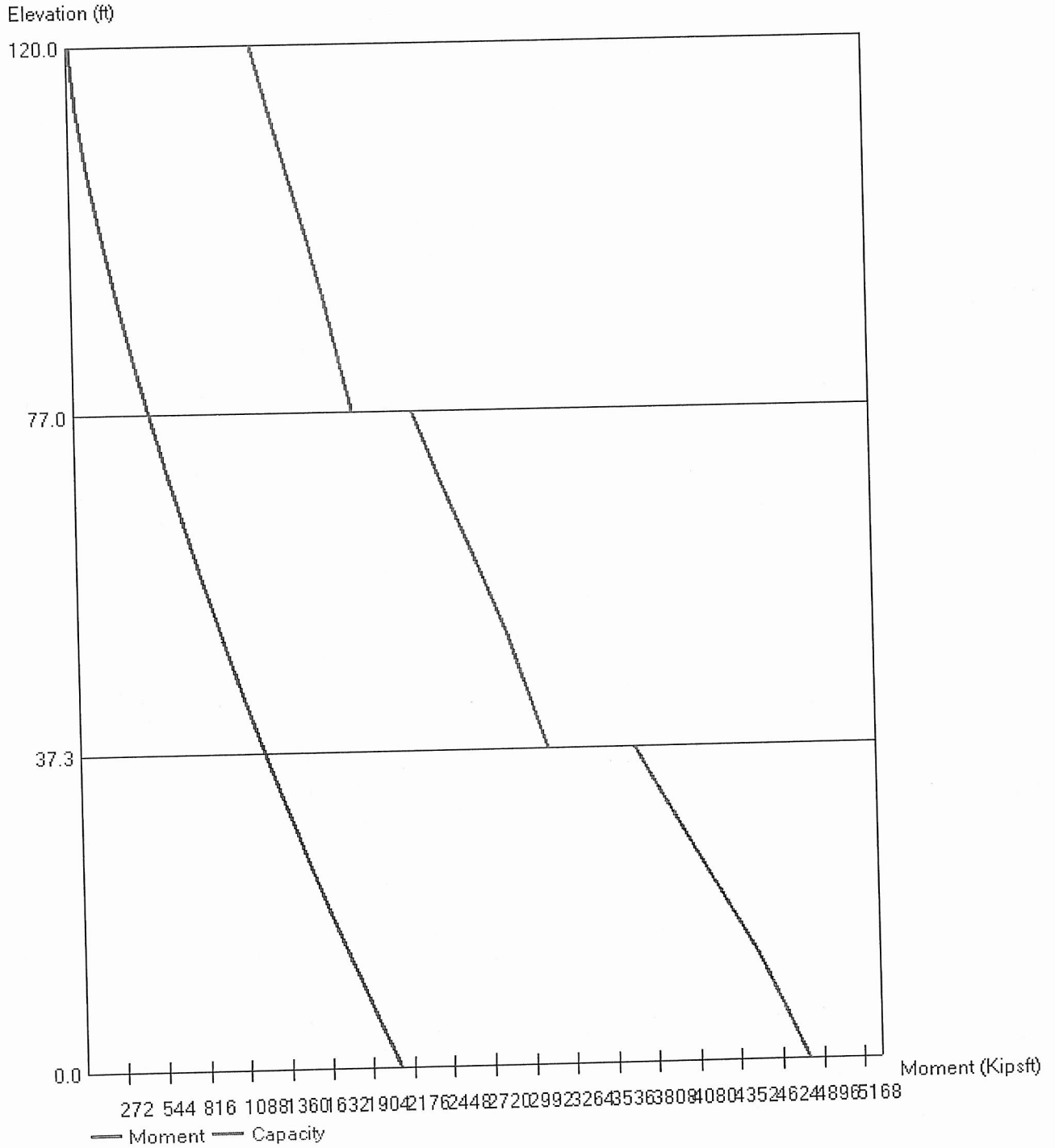
**Horizontal Displacement Diagram**  
Max. Envelope (All Loading Cases)



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Site: CT-5040 (Northaven 1)  
Engineer: Mike De Boer

**Bending Moment Diagram**  
Max. Envelope (All Loading Cases)



**APPENDIX C**

**Collocation Application**



# GLOBAL TOWER PARTNERS Collocation Application

Check one:    New <input type="checkbox"/> Addition to Existing <input type="checkbox"/> Modification <input checked="" type="checkbox"/>	<b>LEASE # 11551</b>
<b>PLEASE RETURN THIS APPLICATION TO: rcrews@gtpsites.com</b> <b>GTP</b> 750 Park of Commerce Blvd                      E-Mail:    rcrews@gtpsites.com Suite 300 Boca Raton, FL 33487-3612                      Office:    (561) 843-8416 Attn: Leasing    Fax:        (561) 982-7032	GTP Site #:    CT-5040 GTP Site Name:                                        Northaven 1 GTP Date Received:                                3-14-12 Revision Dates:                                      3-14-12, 3-24-12, 3-27-12, 5-14-12 <b>RSM Approval:</b> Anthony Cillo 3/27/12

### APPLICANT/CARRIER INFORMATION

<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%;">Carrier Name:</td><td>AT&amp;T</td></tr> <tr><td>Carrier Site Name:</td><td>North Haven – CANDID Tower</td></tr> <tr><td>Carrier Site Number:</td><td>CT2209</td></tr> <tr><td>Carrier Legal Entity Name,</td><td>New Cingular Wireless PCS, LLC</td></tr> <tr><td>State of registration:</td><td>CT</td></tr> <tr><td>Type of entity (LP, LLC, Corp)</td><td>LLC</td></tr> <tr><td>d/b/a/ (If applicable)</td><td></td></tr> <tr><td>Notice Address for Lease:</td><td>Attn: Network Real Estate Administration RE: Cell Site No. CT2209; FA#10035221 12555 Cingular Way, Suite 1300 Alpharetta, GA 30004</td></tr> <tr><td>With copies to:</td><td>New Cingular Wireless PCS, LLC Atm: Legal Department RE: Cell Site No. CT2209; FA#10035221 340 Mt. Kemble Ave. Morristown, NJ 07960-6656</td></tr> <tr><td>Carrier Invoice Address:</td><td>500 Enterprise Drive, Suite 3A Rocky Hill, CT 06067</td></tr> <tr><td>Carrier Invoice Contact - Name, Title, Phone No.</td><td>500 Enterprise Dr. Rocky Hill, CT 06067 (860) 513-7791</td></tr> </table>	Carrier Name:	AT&T	Carrier Site Name:	North Haven – CANDID Tower	Carrier Site Number:	CT2209	Carrier Legal Entity Name,	New Cingular Wireless PCS, LLC	State of registration:	CT	Type of entity (LP, LLC, Corp)	LLC	d/b/a/ (If applicable)		Notice Address for Lease:	Attn: Network Real Estate Administration RE: Cell Site No. CT2209; FA#10035221 12555 Cingular Way, Suite 1300 Alpharetta, GA 30004	With copies to:	New Cingular Wireless PCS, LLC Atm: Legal Department RE: Cell Site No. CT2209; FA#10035221 340 Mt. Kemble Ave. Morristown, NJ 07960-6656	Carrier Invoice Address:	500 Enterprise Drive, Suite 3A Rocky Hill, CT 06067	Carrier Invoice Contact - Name, Title, Phone No.	500 Enterprise Dr. Rocky Hill, CT 06067 (860) 513-7791	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Contact Name:</td><td>Chris Bisson</td></tr> <tr><td>Contact Number:</td><td>203-217-6200</td></tr> <tr><td>Contact Fax:</td><td>201-684-0066</td></tr> <tr><td>Contact Address:</td><td>18 Industrial Ave. Mahwah, NJ 07430</td></tr> <tr><td>Contact E-mail:</td><td>cbisson@transcendwireless.com</td></tr> <tr><td>Additional E-mail:</td><td>David.cooper@nexlinkgs.com</td></tr> <tr><td>Other:</td><td></td></tr> <tr><td>Carrier NOC#</td><td></td></tr> </table>	Contact Name:	Chris Bisson	Contact Number:	203-217-6200	Contact Fax:	201-684-0066	Contact Address:	18 Industrial Ave. Mahwah, NJ 07430	Contact E-mail:	cbisson@transcendwireless.com	Additional E-mail:	David.cooper@nexlinkgs.com	Other:		Carrier NOC#	
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Other:																																							
Carrier NOC#																																							

### ADDITIONAL CARRIER INFORMATION

Leasing Contact Name/Number:	Chris Bisson / 203-217-6200
RF Contact Name/Number:	Radu Alecsandru / 860-513-7598
Construction Contact Name/Number:	Mark Roberts / (860) 420-8562
Emergency Contact Name/Number:	NOC / 1 (800) 832-6662

### SITE INFORMATION

Latitude:	41	23	52.169	N	Existing Structure Type:	Monopole
Longitude:	72	51	54.094	W	Existing Structure Height:	120'
Site Address:	125 Washington Ave. North Haven, CT					

### Antenna Equipment Specifications

Sectors (1, 2, 3 etc. - if applicable)	Alpha/Beta/Gamma	Alpha/Beta/Gamma	Alpha/Beta/Gamma	Alpha/Beta/Gamma	Alpha/Beta/Gamma
<b>Equipment Type</b> (Panel, Omni, RRU, TMA, RET, MW Dish etc.)	Panel	TMA	Panel	RRU	Surge Arrestor
<b>Installation Status</b> (Existing, Proposed etc.)	Existing and Remaining	Existing and Remaining	<b>Proposed</b>	<b>Proposed</b>	<b>Proposed</b>
<b>Rad Center AGL (ft)</b>	122' 8"	122' 8"	122' 8"	118'	118'
<b>Equipment Mount Height (ft)</b>	122' 8"	122' 8"	122' 8"	118'	118'
<b>Equipment Mount Type</b>	Pipe		Pipe	Collar Mount	Collar Mount
<b>Equipment Quantity</b>	6 (2/Sector)	12 (4/Sector)	3 (1/Sector)	6 (2/sector)	1
<b>Equipment Manufacturer</b>	Powerwave	Powerwave	KMW	Ericsson	RAYCAP
<b>Equipment Model #</b>	7770	850 BYPASS	AM-X-CD-16-65-00T-RET	RRUS-11	DC6-48-60-18-8F
<b>Equipment Weight (per item in lbs)</b>	35 lbs.	14.1 lbs.	36.4 lbs.	50 lbs.	31.8 lbs.



## GLOBAL TOWER PARTNERS Collocation Application

Equipment Dimensions (HxWxD) (Indicate feet or inches)	55.0"x11.0"x5.0"	9.2"x 14.4" x 2.6"	48.0"x11.8"x5.9"	17.6" x 17.3" x 7.2"	24"x11"	
TOTAL # of LINES for equipment in column	12		1 - @ 3"	N/A	N/A	
Line Type	Coax-Andrews		1 Fiber Optic and 2 DC w/ RAYCAP Kit			
Line Diameter/Size	1 5/8"		One (1) 5/16" Fiber, Two (2) 3/8" DC			
Orientation/Azimuth (degrees from true north)	147/264/24		40/160/270			
Mechanical Tilt (degrees)	0		0			
TX Frequency	880-894 1930-1940 1965-1970		700-850			
RX Frequency	835-849 1850-1860 1885-1890		700-850			
ERP (watts)	TBD		TBD			
Type of Technology (i.e. 3G, LTE, CMDA etc)	UMTS/GSM		LTE			

Will RRU's be installed behind Antennas  Yes  No

If no, please explain:

FIBER:  Yes  No Who is Provider? AT&T

PLEASE NOTE - All Equipment Lines are required to be installed inside the tower when space is available. Carriers will be charged an additional \$25.00 per line per month if equipment lines are installed on the outside of the tower even though there is available space inside the tower. GTP must approve any installation of lines on the outside of towers prior to installation commencement.

### GROUND SPACE REQUIREMENTS

Total Ground Area Dimensions Required (length x width x height in ft.)	12' x 26'	Generator: <input type="checkbox"/> Diesel <input type="checkbox"/> Propane <input type="checkbox"/> Natural Gas	
Cabinet Pad Dimensions		Pad Dimension (L X W, ft.):	
Shelter Pad Dimensions	12' x 20'	Cabinet Manufacturer	
		Shelter Manufacturer	

### AC POWER REQUIREMENTS

Voltage: 240	Total Amperage: 200
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Comments:

Scope of work:  
**add (3) LTE (KMW AM-X-CD-16-65-00T-RET) antennas, (1) per sector, all azimuths to match LTE Antennas.**  
**A total of two (2) RRU's to be added to each sector for a total of six (6) to be mounted to proposed collar mount.**  
**Add (1) RAYCAP Surge Arrestor to be mounted to proposed collar mount.**  
 (1) RBS 6601 unit will be added inside existing shelter.



GLOBAL TOWER PARTNERS  
**Collocation Application**

**Final Configuration on Tower:**

- 9 panel antennas  
Six (6) Powerwave (7770), Three (3) KMW (AM-X-CD-16-65-00T-RET) as referenced above.  
All azimuths to match new LTE antennas.
- 6 7/8" coax cables
- 12 TMA's
- 6 RRU's
- 1 3" Flex Conduit for DC/Fiber Cables
- 1 Ray Cap Surge Arrestor





# WIRELESS COMMUNICATIONS FACILITY

## CT2209

# NORTH HAVEN RAILROAD TRACKS 127 WASHINGTON AVENUE NORTH HAVEN, CT 06473

### SITE DIRECTIONS

**FROM:** 500 BRIMMER DRIVE  
ROCKY HILL, CONNECTICUT

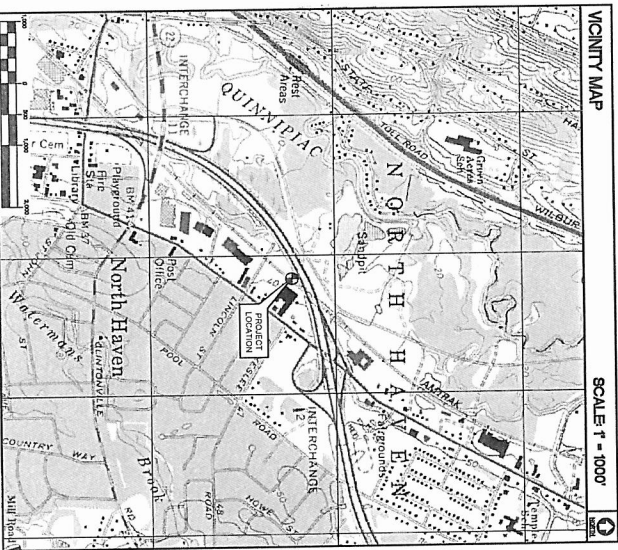
**TO:** 127 WASHINGTON AVENUE  
NORTH HAVEN, CT 06473

Total time left for I-91 South  
At exit 12, take ramp right and follow signs for US-5  
Bear left onto US-5 / Washington Ave  
Arrive at 127 Washington Ave, North Haven, CT 06473

20.6 mi  
0.2 mi  
0.4 mi

### GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2005 INTERNATIONAL BUILDING CODE AS ADOPTED BY THE 2009 CONNECTICUT SUPERIOR COURT. ALL STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2009 INTERNATIONAL MECHANICAL, ELECTRICAL, AND PLUMBING (M.E.P.) CODE AND 2009 AMENDMENTS. MINOR ELECTRICAL CODE AND LOCAL ORDINANCES.
- THE CONTRACTOR SHALL PROVIDE THE NECESSARY PERMITS TO THE DEPARTMENT OF TRANSPORTATION AND THE DEPARTMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR THE COSTS OF THE PERMITS.
- CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL CONDUCT VISUAL SURVEYS TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PROFESSIONALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF THE SURVEYS AND FOR THE COSTS OF THE INFORMATION THAT AFFECTS THEIR WORK.
- CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHED, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND FINISHED SURFACES OF THE FACILITY AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS.
- CONTRACTOR SHALL FINISH ALL INTERIOR, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FINISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND ALL APPLICABLE REGULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF THE INTERIOR FINISHES AND FOR THE COSTS OF THE EQUIPMENT.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND FOR THE NECESSARY INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF THE PERMITS AND FOR THE COSTS OF THE INSURANCE.
- CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND SHALL BE RESPONSIBLE FOR AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED FOR AND REMOVED FROM THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF THE MARKING AND REMOVAL OF THE OLD DRAWINGS.
- LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DEEMED NECESSARY TO BE INDICATED ON THE DRAWINGS SHALL BE CLEARLY AND UNAMBIGUOUSLY INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF THE MARKING AND FOR THE COSTS OF THE EQUIPMENT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE, AND TO SECURE THE NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF THE PERMITS AND FOR THE COSTS OF THE INSURANCE. THE CONTRACTOR SHALL INCLUDE THE ADICTION OF WALKWAY SIGNING, BRACKING, UNDERPINNING, ETC. THAT MAY BE NECESSARY MAINTAIN EXISTING BUILDINGS/SUBSTRUCTURES OPERATIONS, COORDINATE WORK WITH BUILDING/PROPERTY OWNERS.



VICINITY MAP

SCALE 1" = 1000'

### PROJECT SUMMARY

- THE PROPOSED SCOPE OF WORK GENERALLY CONSISTS OF THE INSTALLATION OF ONE (1) LTE ANTENNA PER SECTOR FOR EACH OF THE 127 WASHINGTON AVENUE TRACKS. THE ANTENNAS WILL BE INSTALLED WITHIN THE EXISTING TOWER EQUIPMENT SHEDS.
- ADDITIONALLY, (2) ROAD ROAD LIGHTS (RRL) PER SECTOR WILL BE INSTALLED AT THE TRACK ENDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR THE COSTS OF THE PERMITS.

### PROJECT INFORMATION

**ALAT SITE NUMBER:** CT2209  
**ALAT SITE NAME:** NORTH HAVEN RAILROAD TRACKS  
**SITE ADDRESS:** 127 WASHINGTON AVENUE NORTH HAVEN, CT 06473

**LESSOR/PLUM:** AT&T MOBILITY  
CENTER ENGINEERING, INC.  
ROCKY HILL, CT 06067

**DRAWN:** CENTER ENGINEERING, INC.  
ROCKY HILL, CT 06067

**PROJECT COORDINATES:** LATITUDE: 41°-23'-49"N  
LONGITUDE: 72°-55'-00"W  
GROUND ELEVATION: 455 MSL

### SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
M-1	NOTES AND SPECIFICATIONS	1
C-1	PLANS AND ELEVATION	1
E-1	ELECTRICAL DETAILS AND NOTES	1
E-2	ELECTRICAL DETAILS	1

**AT&T MOBILITY**

WIRELESS COMMUNICATIONS FACILITY LTE UPGRADE

**CT2209**

**NORTH HAVEN RAILROAD TRACKS**

127 WASHINGTON AVENUE  
NORTH HAVEN, CT 06473

www.CenterEng.com

DATE: 07/16/12

SCALE: AS SHOWN

DWG. NO.: 1118.0030

TITLE SHEET

T-1

Sheet No. 1 of 4

127 WASHINGTON AVENUE  
NORTH HAVEN, CT 06473

127 WASHINGTON AVENUE  
NORTH HAVEN, CT 06473

PROFESSIONAL DESIGN SEAL

DESIGNED BY:	DRG
DRAWN BY:	DRG
CHECKED BY:	DRG
DATE:	07/16/12
SCALE:	AS SHOWN
DWG. NO.:	1118.0030

# STRUCTURAL SPECIFICATIONS

## DESIGN BASIS

CONNECTIONS SHALL BE DESIGNED TO THE 2005 CONNECTICUT STATE BUILDING CODE AND 2009 AMENDMENTS.

- DESIGN BASIS:
  - WIND LOAD: PER 61/01 203 F-68 (MINIMUM HEIGHT): 90 MPH (FASTEST MILE); EQUIVALENT TO 110 MPH (2 SECOND DURATION).
  - BASE WIND SPEED (OTHER STRUCTURES): 110 MPH (2 SECOND DURATION) (EXPOSURE B)/IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-02) PER 2005 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2005 CONNECTICUT SUPPLEMENT AND 2009 AMENDMENT.
  - SEISMIC LOAD (CASES NOT CONTROL): PER ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.

## GENERAL NOTES

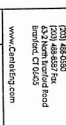
- IF ANY FIELD CONDITIONS EXIST WHICH REQUIRE ADJUSTMENTS WITH THE DRAWINGS, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER AND SHALL PROCEED WITH AGREED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.
- DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST THE PRE MANUFACTURED EQUIPMENT BUILDING SHOP DRAWINGS.
- THE CONTRACTOR SHALL VERIFY AND CORROBORATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.
- REFER TO DRAWING T1 FOR ADDITIONAL NOTES AND REQUIREMENTS.

## STRUCTURAL STEEL

- ALL STRUCTURAL STEEL IS DESIGNED BY ALLOWABLE STRESS DESIGN (ASD)
  - STRUCTURAL STEEL (V SHAPES)---ASTM A992 (F<sub>y</sub> = 50 KSI)
  - STRUCTURAL STEEL (OTHER SHAPES)---ASTM A36 (F<sub>y</sub> = 36 KSI)
  - STRUCTURAL STEEL (ROUND SHAPES)---ASTM A500 GRADE B (F<sub>y</sub> = 42 KSI)
  - PIPE---ASTM A53 (F<sub>y</sub> = 35 KSI)
  - U-BOLTS---ASTM A325-N
  - ANCHOR RODS---ASTM F 1554
  - ANCHOR BOLTS---ASTM F 1554
- CONNECTIONS TO BE MADE BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. DRAWINGS SHALL INCLUDE THE FOLLOWING SECTION DETAILS, STRESS CONNECTION DETAILS, MEMBER END CONNECTIONS AND DETAILS AND TYPE OF FABRICATORS AND ASSUMPTIONS, MEMBER END CONNECTIONS, MEMBER END CONNECTIONS AND DETAILS.
- STRUCTURAL STEEL SHALL BE DELIVERED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF AISC MANUAL OF STEEL CONSTRUCTION.
- REMOVE ALL PLATES, CLIP ANGLES, CLOSURE PIECES, STRAP ANCHORS, MISCELLANEOUS PIECES AND HOLES REQUIRED TO COMPLETE THE STRUCTURE.
- FIT AND SHOP ASSEMBLE FABRICATIONS IN THE LARGEST PRACTICAL SECTIONS FOR DELIVERY TO SITE.
- INSTALL FABRICATIONS PLUMB AND LEVEL, ACCIDENTLY FITTED, AND FREE FROM DISTORTIONS OR DEFECTS.
- AFTER ERECTION OF STRUCTURES, TOUCHUP ALL WELDS, ABRASIONS AND NON-DALVANIZED SURFACES WITH A 95% DRYING ZINC RICH PAINT IN ACCORDANCE WITH AISC 150.
- ALL STEEL MATERIAL (EXCEPT FOR WEATHERING) SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AISC 153 ZINC (HOT DIPPED GALVANIZED) COATING ON FRESH AND STEEL SURFACES.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH AISC 153 ZINC COATING (HOT-DIP) OR MECHANICAL COATING FOR PROLONGED EXPOSURE AND QUALITY OF WELDS.
- CONTRACTOR SHALL COMPLETE WITH ALL WELDS FOR PROLONGED EXPOSURE AND QUALITY OF WELDS. PROCEDURES: ALL WELDING SHALL BE DONE USING EPOXY ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AISC WELDING CODES. WELDING SHALL BE DONE IN ACCORDANCE WITH AISC WELDING CODES. ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
- THE ENGINEER SHALL BE NOTIFIED OF ANY INADEQUATELY FABRICATED, DAMAGED OR OTHERWISE LISTING OR NON CONFORMING MATERIALS OR CONNECTIONS TO REPAIR OR CORRECT THE ACTION. ANY SUCH ACTION SHALL BE RECORDED.
- CONNECTION ANGLES SHALL HAVE A MINIMUM THICKNESS OF 1/4 INCHES.
- STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM AND SHALL HAVE A MINIMUM OF TWO BOLTS. REFER TO THE DRAWINGS FOR THE LATEST EDITION.
- CONNECTIONS SHALL CONFORM TO ALL REQUIREMENTS OF THE LATEST SPECIFICATIONS FOR THE DESIGN, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", LATEST EDITION.
- LOCK WASHER ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES.
- SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTS.
- WELD BEARING ENDS OF COLUMNS, STRUTTERS, AND OTHER BEARING SURFACES TO TRANSMIT LOAD OVER BRIDGE CROSS SECTION.
- FABRICATE BEAMS WITH HULL CURVED UP.
- LEVEL AND PLUMB INDIVIDUAL MEMBERS OF THE STRUCTURE TO AN ACCURACY OF 1/800, BUT NOT TO EXCEED 1/4" IN THE FULL HEIGHT OF THE STRUCTURE. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- COMPLETION OF STRUCTURE SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION.
- INSPECTION AND TESTING OF ALL WELDING AND HIGH STRENGTH BOLTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY.
- FOUR COPIES OF ALL INSPECTION TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN TEN (10) WORKING DAYS OF THE DATE OF INSPECTION.

DESIGNED BY:	CHC
DRAWN BY:	SHR
CHECKED BY:	CHC

NO.	DATE	BY	REVISION
1	07/16/12	HR	CONSTRUCTION - CLIENT REVIEW
2	07/16/12	HR	CONSTRUCTION
3	07/16/12	HR	CONSTRUCTION
4	07/16/12	HR	CONSTRUCTION
5	07/16/12	HR	CONSTRUCTION
6	07/16/12	HR	CONSTRUCTION
7	07/16/12	HR	CONSTRUCTION
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20	07/16/12	HR	CONSTRUCTION
21	07/16/12	HR	CONSTRUCTION
22	07/16/12	HR	CONSTRUCTION



AT&T MOBILITY  
WIRELESS COMMUNICATIONS FACILITY LTE UPGRADE  
CT2209  
NORTH HAVEN RAILROAD TRACKS

127 WASHINGTON AVENUE  
NORTH HAVEN, CT 06473

DATE: 07/16/12  
SCALE: AS SHOWN  
CIG NO.: 11162003

NOTES AND SPECIFICATIONS

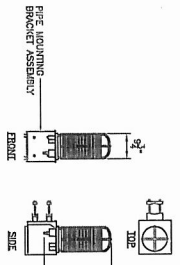
N-1

Sheet No. 2 of 5



SITE TYPE	ARRESTOR MAKE/MODEL	QTY REQUIRED	ARRESTOR LOCATION	WEIGHT
TOWER	RAYCAP (SOUND) MODEL: DCC-48-60-18-9F	(1) PER SITE	TOWER, ADJACENT TO RADIO ANTENNA AND RADIO PLATFORM	20 LBS. (WITHOUT MOUNT)

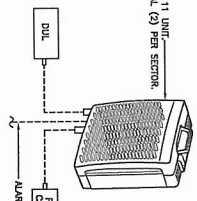
NOTES:  
1. CONTRACTOR TO COORDINATE FULL SURGE ARRESTOR MODEL SELECTION(S) WITH  
ENGINEERING AND MANUFACTURER.  
2. CONTRACTOR TO INSTALL ARRESTOR IN CONFORMANCE WITH MANUFACTURERS  
RECOMMENDATIONS.



**9 SURGE ARRESTOR DETAIL**  
SCALE: 1/2" = 1'-0"

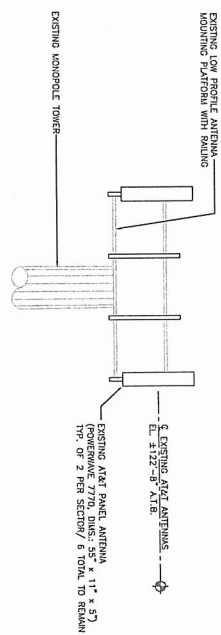
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: 17A7L	17A7L x 17.2" W x 7.2" D	BAND 4: 44 LBS. BAND 12: 50 LBS.	18" MIN. BELOW 12" MIN. SIDE

NOTES:  
1. CONTRACTOR TO COORDINATE RRU EQUIPMENT MODEL SELECTION WITH AT&T  
ENGINEERING AND MANUFACTURER.  
2. CONTRACTOR TO COORDINATE RRU MODEL SELECTION WITH AT&T  
ENGINEERING AND MANUFACTURER.

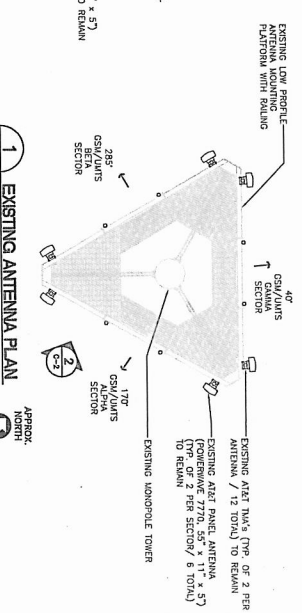


**8 RRU DETAIL**  
SCALE: 1/2" = 1'-0"

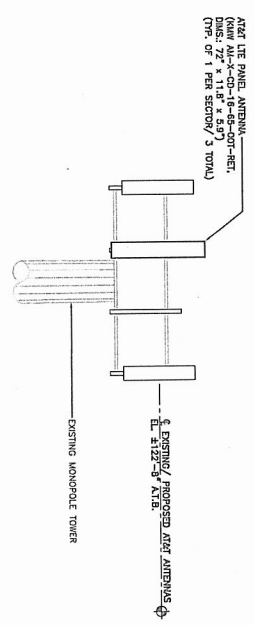
**2 EXISTING ANTENNA SECTOR ELEVATION**  
SCALE: 1/4" = 1'-0"



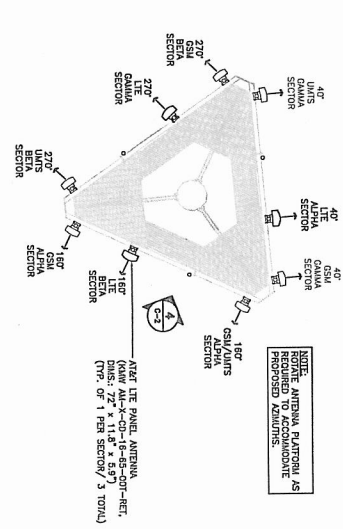
**1 EXISTING ANTENNA PLAN**  
SCALE: 1/4" = 1'-0"



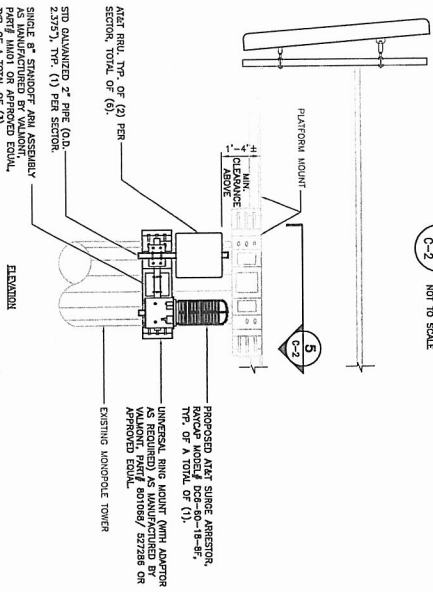
**4 PROPOSED ANTENNA SECTOR ELEVATION**  
SCALE: 1/4" = 1'-0"



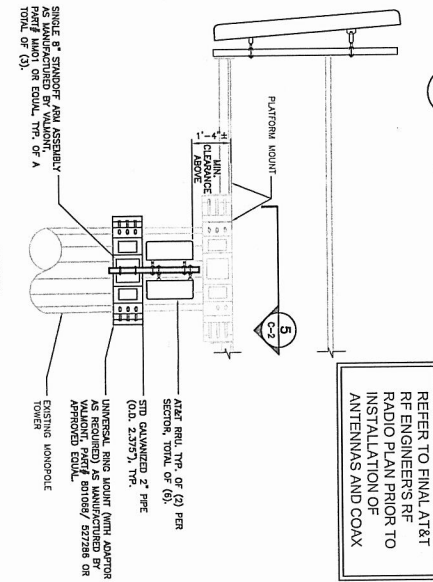
**3 PROPOSED ANTENNA PLAN**  
SCALE: 1/4" = 1'-0"



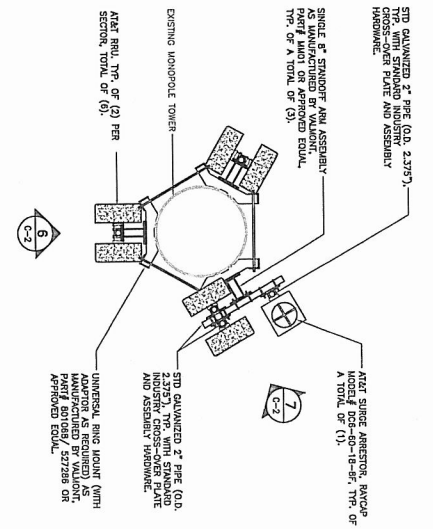
**7 RRU AND SURGE ARRESTOR MOUNTING DETAIL**  
SCALE: 1/2" = 1'-0"



**6 RRU MOUNTING DETAIL**  
SCALE: 1/2" = 1'-0"



**5 RRU AND SURGE ARRESTOR MOUNTING PLAN**  
SCALE: 1/2" = 1'-0"



<p>AT&amp;T MOBILITY</p> <p>WIRELESS COMMUNICATIONS FACILITY UPGRADE</p> <p><b>CT2209</b></p> <p>NORTH HAVEN RAILROAD TRACKS</p> <p>127 WASHINGTON AVENUE NORTH HAVEN, CT 06473</p>	<p>DATE: 07/16/12</p> <p>SCALE: AS SHOWN</p> <p>DWG NO.: 111818309</p>	<p>ISSUED BY: NHA</p> <p>DESIGN BY: CHD</p> <p>CHECK BY: CHD</p>	<p>APPROX. NORTH</p>	<p>REVISIONS:</p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td>1</td> <td>07/16/12</td> <td>ISSUED FOR CONSTRUCTION</td> </tr> <tr> <td>2</td> <td>04/15/10</td> <td>ISSUED FOR CLIENT REVIEW</td> </tr> </table>	NO.	DATE	DESCRIPTION	1	07/16/12	ISSUED FOR CONSTRUCTION	2	04/15/10	ISSUED FOR CLIENT REVIEW
NO.	DATE	DESCRIPTION											
1	07/16/12	ISSUED FOR CONSTRUCTION											
2	04/15/10	ISSUED FOR CLIENT REVIEW											

**C-2**







February 27, 2015

Mr. John Igoe  
American Tower  
10 Presidential Way  
Woburn, MA 01801

Dear Mr. Igoe:

This letter is to inform you that an application for modification to the cell tower located at 159 Weingart Road, Harwinton CT has been sent to the Connecticut Siting Council for review and also to AT&T Mobility, the owner of the structure.

Thank you,

A handwritten signature in blue ink that reads "Kerry Sethares".

Kerry Sethares  
Site Acquisition Coordinator  
Empire Telecom

cc: Mr. Michael Criss  
First Selectman, Town of Harwinton



March 3, 2015

Mr. Edward F. Jaconette, Jr.  
Ms. Kristen L. Jaconette  
405 Brushy Plain Road  
Branford, CT 06405

Dear Mr. and Ms. Jaconette:

This letter is to inform you that an application for modification to the cell tower located at 405 Brushy Plain Road, Branford CT has been sent to the Connecticut Siting Council for review and also to AT&T Mobility, the owner of the structure.

Thank you,

A handwritten signature in blue ink that reads "Kerry Sethares". The signature is written in a cursive, flowing style.

Kerry Sethares  
Site Acquisition Coordinator  
Empire Telecom

cc: Mayor, James B. Cosgrove, Town of Branford  
Mr. Jose Giner, Director, Planning and Zoning Town of Branford  
Mr. John Igoe, American Tower





February 27, 2015

Candid Associates, LLC  
110 Washington Avenue  
North Haven, CT 06473

To Whom It May Concern:

This letter is to inform you that an application for modification to the cell site located at 125 Washington Avenue, North Haven, CT has been sent to the Connecticut Siting Council for review and also to AT&T Mobility, the owner of the structure.

Thank you,

A handwritten signature in blue ink that reads "Kerry Sethares". The signature is written in a cursive, flowing style.

Kerry Sethares  
Site Acquisition Coordinator  
Empire Telecom

cc: Michael Freda  
First Selectman, Town of North Haven



February 27, 2015

Mr. Stephen B. Tripp  
23 Wayne Road  
Wallingford, CT 06492

Dear Mr. Tripp:

This letter is to inform you that an application for modification to the cell site located at 23 Wayne Road, Wallingford CT has been sent to the Connecticut Siting Council for review and also to AT&T Mobility, the owner of the structure.

Thank you,

A handwritten signature in blue ink that reads "Kerry Sethares". The signature is written in a cursive style.

Kerry Sethares  
Site Acquisition Coordinator  
Empire Telecom

cc: William W. Dickinson, Mayor, Town of Wallingford  
Kacie Costello, Town Planner



March 3, 2015

Mr. Charles Dunn  
69 Wheeler Street  
New Haven, CT 06512

Dear Mr Dunn:

This letter is to inform you that an application for modification to the cell tower located at 69 Wheeler Street, New Haven, CT has been sent to the Connecticut Siting Council for review and also to AT&T Mobility, the owner of the structure.

Thank you,

A handwritten signature in blue ink that reads "Kerry Sethares".

Kerry Sethares  
Site Acquisition Coordinator  
Empire Telecom

cc: Toni Harp, Mayor, City of New Haven  
Ms. Karyn Gilvarg, A.I.A. Executive Director, City of New Haven