# 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
Internet: ct.gov/csc

*Daniel F. Caruso*
*Chairman*


April 6, 2009

Steven L. Levine
Real Estate Consultant
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-086-090121** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 1334 Route 85, Montville, Connecticut.

Dear Mr. Levine:

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:

- The applicant shall take steps to reduce the post-construction tower rating to not more than 100 percent; and

- A signed letter from a Professional Engineer duly licensed in the State of Connecticut shall be submitted to the Council to certify that a post-construction tower rating of not more than 100 percent has been achieved.

The proposed modifications are to be implemented as specified here and in your notice dated January 21, 2009 and additional information dated April 1, 2009, including the placement of all necessary equipment and shelters within the tower compound. 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. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/MP/laf

c: The Honorable Joseph W. Jaskiewicz, Mayor, Town of Montville
Marcia Vlaun, Town Planner, Town of Montville
American Tower Corporation

**Perrone, Michael**

**From:** Levine, Steven [SL3764@att.com]
**Sent:** Wednesday, April 01, 2009 8:19 AM
**To:** Perrone, Michael
**Subject:** 1334 Route 85, Montville -- Corrections to EM Notice filed 1/21/09
**Attachments:** UMTS Data Form - 5737 - Montville.doc

Mike,

Here are correction pages for the Montville EM we discussed yesterday afternoon.

There were indeed two typos on the notice. First, the number of antennas AT&T will operate at the site is 3, and this matches the structural analysis submitted earlier. Second, the number of 1 5/8 inch coax runs is 6, rather than 12. Both items have been corrected in the attachment.

Thanks for bringing these matters to my attention and affording me the opportunity to make corrections.

**AT&T Mobility / New Cingular Wireless PCS, LLC**
*Steve Levine* 500 Enterprise Drive, 3rd Fl., Rocky Hill, CT 06067
Real Estate Consultant Office 860-513-7636 Mobile 203-556-1655 Fax 860-513-7190

**NEW CINGULAR WIRELESS**
**Equipment Modification**

1334 Route 85, Montville
Site Number 5737
Former AT&T cell site
Exempt Modification approved 9/02

**Tower Owner/Manager:** American Tower

**Equipment Configuration:** Guyed Lattice Tower

**Current and/or Approved:** Three Allgon 7250 panel antennas @ 190 ft AGL
Six runs 1 5/8 inch coax cable
Concrete foundation with outdoor cabinets

**Planned Modifications:** Remove all existing antennas
Install three Powerwave 7770 antennas (or equivalent) @ 190 ft
Install six TMA's @ 190 ft
Remove one outdoor cabinet
Install one new outdoor cabinet for UMTS

**Power Density:**

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 1.7 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 4.4 % of the standard.

**Existing**

| Company | Centerline Ht (feet) | Frequency (MHz) | Number of Channels | Power Per Channel (Watts) | Power Density ($mW/cm^2$) | Standard Limits ($mW/cm^2$) | Percent of Limit |
|---|---|---|---|---|---|---|---|
| Other Users * | | | | | | | 0.67 |
| AT&T GSM * | 190 | 1900 Band | 4 | 250 | 0.0100 | 1.0000 | 1.00 |
| **Total** | | | | | | | **1.7%** |

* Per CSC records

**Proposed**

| Company | Centerline Ht (feet) | Frequency (MHz) | Number of Channels | Power Per Channel (Watts) | Power Density ($mW/cm^2$) | Standard Limits ($mW/cm^2$) | Percent of Limit |
|---|---|---|---|---|---|---|---|
| Other Users * | | | | | | | 0.67 |
| AT&T UMTS | 190 | 880 - 894 | 1 | 500 | 0.0050 | 0.5867 | 0.85 |
| AT&T GSM | 190 | 1900 Band | 2 | 427 | 0.0085 | 1.0000 | 0.85 |
| AT&T GSM | 190 | 880 - 894 | 4 | 296 | 0.0118 | 0.5867 | 2.01 |
| **Total** | | | | | | | **4.4%** |

* Per CSC records

## Structural information:

The attached structural analysis demonstrates that the tower and foundation will have adequate structural capacity to accommodate the proposed equipment modifications. (Stainless LLC, 1/14/09)

Please note that the attached structural analysis refers to overstresses and repair recommendations given in an earlier analysis. The analysis states that these references are *specific to the top segment* of the tower. Since the tower is 1,089 feet tall, and AT&T has its antennas at a mere 190 feet AGL, the recommendations are *not relevant to AT&T's equipment modifications* at this much lower level of the tower.

# STATE OF CONNECTICUT
## *CONNECTICUT SITING COUNCIL*

Ten Franklin Square, New Britain, CT 06051
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*Daniel F. Caruso*
*Chairman*


January 23, 2009

The Honorable Joseph W. Jaskiewicz
Mayor
Town of Montville
Town Hall
310 Norwich New London Turnpike
Uncasville, CT 06382

RE: **EM-CING-086-090121** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 1334 Route 85, Montville, Connecticut.

Dear Mayor Jaskiewicz:

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 February 6, 2009.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Marcia Vlaun, Town Planner, Town of Montville

EM-CING-086-090121

The new at&t Your world. Delivered.

raising the bar

**New Cingular Wireless PCS, LLC**
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

**Steven L. Levine**
Real Estate Consultant

HAND DELIVERED

ORIGINAL

January 21, 2009

RECEIVED
JAN 21 2009
CONNECTICUT
SITING COUNCIL

Honorable Daniel F. Caruso, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 1334 Route 85, Montville (owner, American Tower)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, 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 attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

UMTS technology 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.

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 modifications 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 or altered. 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. The height of the overall structure will be unaffected.

2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.

4. Radio frequency power density may increase due to use of one or more GSM channel for UMTS transmissions. 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 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 (860) 513-7636 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Steven L. Levine
Real Estate Consultant

Attachments

**NEW CINGULAR WIRELESS**
**Equipment Modification**

1334 Route 85, Montville
Site Number 5737
Former AT&T cell site
Exempt Modification approved 9/02

**Tower Owner/Manager:** American Tower

**Equipment Configuration:** Guyed Lattice Tower

**Current and/or Approved:** Three Allgon 7250 panel antennas @ 190 ft AGL
Twelve runs 1 5/8 inch coax cable
Concrete foundation with outdoor cabinets

**Planned Modifications:** Remove all existing antennas
Install six Powerwave 7770 antennas (or equivalent) @ 190 ft
Install six TMA's @ 190 ft
Remove one outdoor cabinet
Install one new outdoor cabinet for UMTS

**Power Density:**

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 1.7 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 4.4 % of the standard.

**Existing**

| Company | Centerline Ht (feet) | Frequency (MHz) | Number of Channels | Power Per Channel (Watts) | Power Density ($mW/cm^2$) | Standard Limits ($mW/cm^2$) | Percent of Limit |
|---|---|---|---|---|---|---|---|
| Other Users * | | | | | | | |
| AT&T GSM * | 190 | 1900 Band | 4 | 250 | 0.0100 | 1.0000 | 0.67 |
| Total | | | | | | | 1.00 |
| | | | | | | | 1.7% |

* Per CSC records

**Proposed**

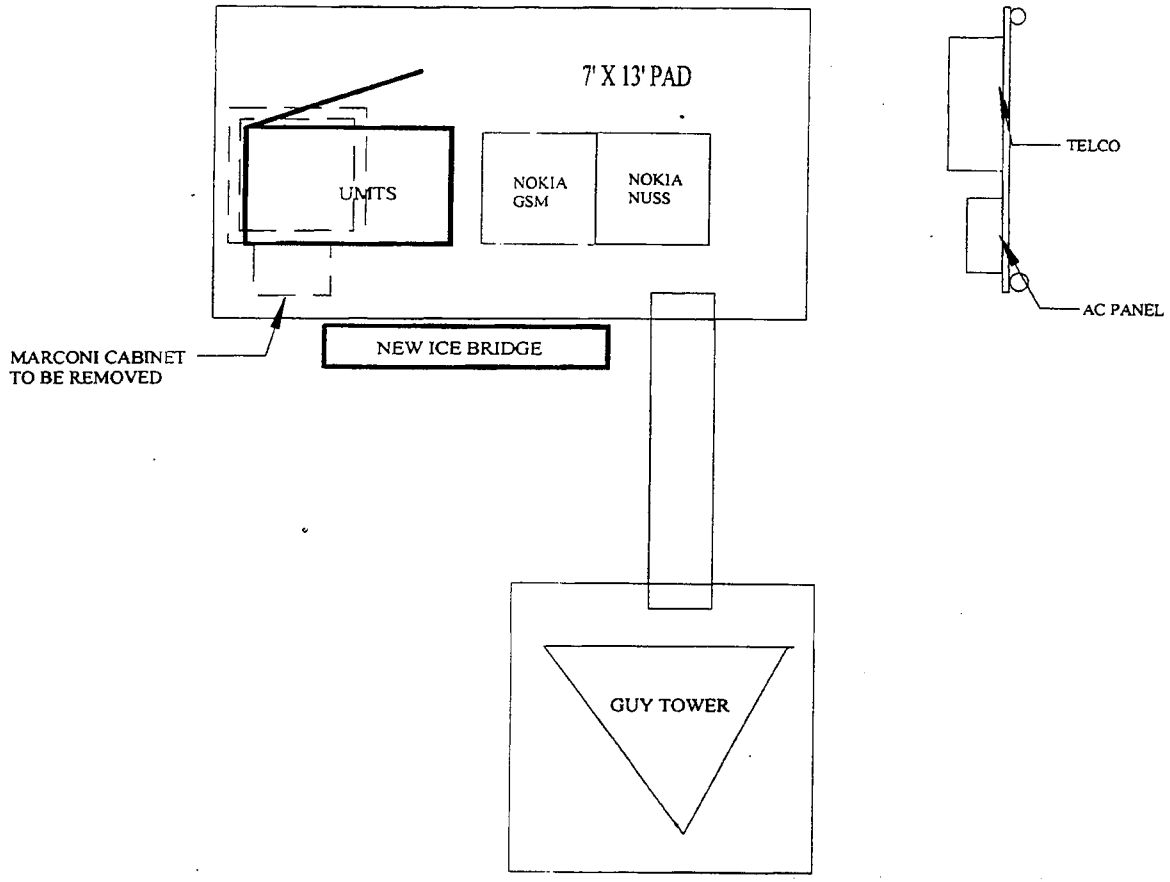
| Company | Centerline Ht (feet) | Frequency (MHz) | Number of Channels | Power Per Channel (Watts) | Power Density ($mW/cm^2$) | Standard Limits ($mW/cm^2$) | Percent of Limit |
|---|---|---|---|---|---|---|---|
| Other Users * | | | | | | | |
| AT&T UMTS | 190 | 880 - 894 | 1 | 500 | 0.0050 | 0.5867 | 0.67 |
| AT&T GSM | 190 | 1900 Band | 2 | 427 | 0.0085 | 1.0000 | 0.85 |
| AT&T GSM | 190 | 880 - 894 | 4 | 296 | 0.0118 | 0.5867 | 0.85 |
| Total | | | | | | | 2.01 |
| | | | | | | | 4.4% |

* Per CSC records

## Structural information:

The attached structural analysis demonstrates that the tower and foundation will have adequate structural capacity to accommodate the proposed equipment modifications. (Stainless LLC, 1/14/09)

Please note that the attached structural analysis refers to overstresses and repair recommendations given in an earlier analysis. The analysis states that these references are *specific to the top segment* of the tower. Since the tower is 1,089 feet tall, and AT&T has its antennas at a mere 190 feet AGL, the recommendations are *not relevant to AT&T's equipment modifications* at this much lower level of the tower.




at&t

SAI communications

SITENUMBER:
5737
SITE NAME
East Lyme North

| | |
|---|---|
| TITLE: | EQUIPMENT PLAN |
| MISC. INFO: | |
| DWG. BY: | SGB |
| DATE: | 07/07/08 |
| SCALE: | N.T.S. |
| SHEET: | 1 OF 1 |

The new at&t Your world. Delivered. cingular raising the bar

**New Cingular Wireless PCS, LLC**
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

**Steven L. Levine**
Real Estate Consultant

January 21, 2009

Mayor Joseph W. Jaskiewicz
Town of Montville
Town Hall 310 Norwich-New London Tpke.
Uncasville, CT 06382

Re: Telecommunications Facility – 1334 Route 85

Dear Mayor Jaskiewicz:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review AT&T's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes AT&T's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine
Real Estate Consultant

Enclosure

Stainless LLC

# REPORT T017208

**ATC SITE NAME: Hartford CT 2**
**ATC SITE NO: 302534**

DATE: 1/14/09

# 5737
1334 RTE 85, MONTVILLE

STRUCTURAL ANALYSIS

FOR A 1090' GUYED TOWER

NEW LONDON, CT

PREPARED BY: AP

CHECKED BY: TL

APPROVED: GAE 1/19/09

STATE OF CONNECTICUT
THOMAS J. HOERNINGER
No. 18128
LICENSED
PROFESSIONAL ENGINEER

1/20/09

| Date | Pages | Remarks |
|---|---|---|

| Rev. | Date | Description |
|---|---|---|
| | | |

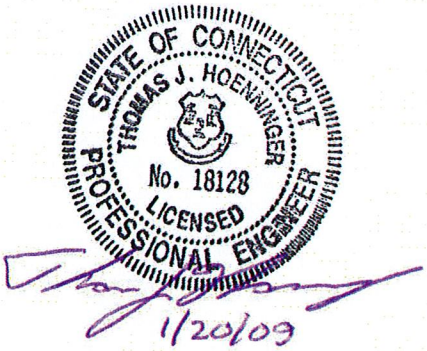
SECTION

PAGE



APPENDIX





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## A. AUTHORIZATION/PURPOSE

As authorized by Bert Brown of American Tower Corporation, a structural analysis was performed to investigate the adequacy of a 1089.8' guyed tower in New London, Connecticut to support specified equipment.

## B. TOWER HISTORY

The tower was originally designed and furnished in 2000 by Central Tower, Inc. It was designed in accordance with ANSI/EIA/TIA Standard 222-F for a wind speed rating of 90 mph with ½" radial ice while supporting the following equipment:

1. One (1) top mounted TFU 18 DSC-R antenna, fed with one (1) 6-1/8" rigid line.
2. One (1) TFU-31JTT-R antenna top mounted on the top of TFU DSC-R, fed with one (1) DTW1500.
3. One (1) DB809 antenna at the 1001' level, fed with one (1) 7/8" heliax.
4. One (1) ASP705 antenna at the 1001' level, fed with one (1) 7/8" heliax.
5. One (1) 4' dish with ice shield at the 875' level, fed with one (1) EW63 waveguide.
6. Two (2) HMD24VO antennas at the 850' level, each fed with one (1) EW20 waveguide.
7. One (1) DB809 antenna at the 850' level, fed with one (1) 1-1/4" heliax.
8. One (1) ASP705 antenna at the 850' level, fed with one (1) 1-1/4" heliax.
9. Eighteen (18) whip antennas between the 400' and 800' levels, each fed with one (1) 1-5/8" heliax.
10. One (1) DB809 antenna at the 708' level, fed with one (1) 1-1/4" heliax.
11. One (1) SRL210 antenna at the 708' level, fed with one (1) 1/2" heliax.
12. Two (2) 8' dishes with ice shields at the 500' level, each fed with one (1) 1-5/8" heliax.
13. Two (2) 8' dishes with ice shields at the 350' level, each fed with one (1) 1-5/8" heliax.
14. One (1) 8' dish with ice shield at the 350' level, fed with one (1) EW63 waveguide.
15. Four (4) ASP950 antennas at the 270' level, each fed with one (1) 1-1/4" heliax.
16. Twelve (12) panel antennas at the 200' level, each fed with one (1) 1-5/8" heliax.

| Rev. | Date | Description |
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17. Twelve (12) panel antennas at the 150' level, each fed with one (1) 1-5/8" heliax.
18. Two (2) 8' dishes with ice shields at the 125' level, each fed with one (1) 1-5/8" heliax.
19. One (1) waveguide rack on the tower face to 1001' level.
20. One (1) 2" conduit for lighting system for the full height of the tower.
21. One (1) climbing ladder with safety device for the full height of the tower.

***Notes:***

- In 2005 Stainless LLC conducted a site inspection of the vertical leg flange connections to investigate possible design/fabrication defects. The results and conclusions from the inspection were detailed in Stainless LLC report T017206, and specific recommendations were made for the strengthening several of the flange connections within the top span of the tower.
- A recommendation was also made in the same report to field drill all double angle bracing members and install additional stitch connectors to conform to AISC requirements.
- There is no record of these or any other modification being performed on the tower since its original erection.

## C. CONDITIONS INVESTIGATED

The analysis was performed for the tower supporting equipment based on the following sources:

- Stainless LLC Report No. T017206, dated 09/10/03.
- Email from Bert Brown to Tom Hoenninger of Stainless LLC containing details of proposed equipment, dated 1/12/09.
- Email from Bert Brown to Gregg Fehrman of Stainless LLC clarifying the existing equipment configuration, dated 1/14/09.

1. One (1) top mounted TFU 18 DSC-R antenna, fed with one (1) 6-1/8" rigid line.
2. One (1) TFU-31JTT-R antenna top mounted on the top of TFU DSC-R, fed with one (1) DTW1500.
3. One (1) MRC ProScan III at the 1075' level, fed with one (1) 7/8" heliax and one (1) 1" cable.

| Rev. | Date | Description |
|---|---|---|
| | | |

4. Four (4) whip antennas and two (2) boxes at the 1007' level, fed with one (1) 1/2" and one (1) 7/8" heliax.

5. One (1) MRC ProScan DR III at the 1000' level, fed with one (1) 7/8" heliax and one (1) 1" cable.

6. One (1) 10' dish with radome and ice shield at the 880' level, fed with one (1) EW63 waveguide.

7. Two (2) whip antennas at the 850' level, fed with one (1) 1-1/4" heliax.

8. One (1) whip antenna at the 705' level, fed with one (1) 1-5/8" heliax from 690' level.

9. One (1) 20' 4-bay trombone antenna at the 690' level, fed with one (1) 1-5/8" heliax.

10. One (1) 10' dish with radome and ice shield at the 340' level, fed with one (1) EW63 waveguide.

11. One (1) 8' 2-bay trombone antenna at the 280' level, fed with one (1) 1/2" heliax.

12. Three (3) Powerwave Model 7770 panel antennas and six (6) Powerwave Model LGP21401 TMAs at the 190' level. The panel antennas are fed with six (6) of the total of twelve (12) existing 1-5/8" heliax, two lines to each panel. (NOTE: These panel antennas replace the existing (6) Allgon 7250.03 antennas at the same level) **(Proposed)**

13. One (1) whip antenna at the 150' level, fed with one (1) 7/8" heliax.

14. One (1) small yagi antenna at the 140' level, fed with one (1) 1/4" heliax.

15. One (1) whip antenna at the 102' level, fed with one (1) 1/2" heliax.

16. One (1) small yagi antenna at the 95' level, fed with one (1) 1/2" heliax.

17. Remove the waveguide rack from the tower face to 1001' level.

18. One (1) 2" conduit for lighting system for the full height of the tower.

19. One (1) 2" conduit to the 1000' level.

20. One (1) 2" conduit to the 190' level.

21. One (1) 1-1/2" conduit to the 880' level.

| Rev. | Date | Description |
|---|---|---|
| | | |

22. One (1) 1" conduit to the 1075' level.

23. One (1) 2-1/2" conduit to the 190' level.

24. One (1) climbing ladder with safety device for the full height of the tower.

***Note:***

- The balance of six (6) unused 1-5/8" lines to the 190' level are assumed to remain on the tower. The transmission line arrangement is summarized on page A-2 of this report. Deviating from this arrangement will affect the accuracy of this analysis.

## D. LOADS AND STRESSES

The analysis was performed using a basic wind speed of 85 mph with no ice and 74 mph with 1/2" ice. This load was calculated and applied in accordance with the provisions of ANSI/TIA/EIA Standard 222-F, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, effective March 29, 1996.

Allowable unit stresses and minimum safety factors used to evaluate the adequacy of the structure were also in accordance with this ANSI/TIA/EIA Standard.

## E. METHOD OF ANALYSIS

The analysis was performed using Stainless LLC's Beam-Column Analysis Program, a computer operation which idealizes the tower as a continuous beam-column on non-linear, elastic supports (guys) subject to simultaneous transverse (wind) and axial (dead, ice and vertical components of guy tensions) loads.

## F. RESULTS

The results of the analysis show no overstresses in any tower component or foundation, excluding the leg flange and stitch bolt connections as presented in Structural Analysis Report T017206, dated 3/14/05.

The proposed configuration of equipment does not significantly increase the stress distributions on the tower.

| Rev. | Date | Description |
|---|---|---|
| | | |

## G. CONCLUSIONS AND RECOMMENDATIONS

Based on the preceding results, the following conclusions may be drawn:

1. The tower, excluding the leg flange connections and double angle stitch bolt configuration, is adequate to achieve a wind speed rating of 85 mph with no ice and 74 mph with 1/2" radial ice in accordance with ANSI/TIA/EIA Standard 222-F.

2. This report excludes any results and conclusions with regard to the leg flange connection strengths and the configurations of the double angle stitch bolts. See Stainless LLC's Report T017206 for detailed recommendations.

3. Several assumptions were made in order to complete this analysis:

   a. Fan plates and lug connections are adequate to achieve the full capacity of the guys presently connected to them. The original details are not available.

   b. The leg, horizontal and diagonal member connections are adequate to achieve the full capacity of these members. The original details are not available.

4. It should be noted that **Revision G of ANSI/TIA Standard 222 became effective January 1, 2006**. This revision contains substantial changes from previous 222 standards. It is our opinion that the existing tower structure, with equipment as specified in section C of this report, would not be adequate for the minimum recommended requirements shown below for the New London, Connecticut area:

   Structure Classification II
   3-second gust basic wind speed of 120 MPH with no ice.
   3-second gust basic wind speed of 50 MPH with 3/4" design ice thickness
   Exposure Category C
   Topographic Category 1
   0.27 earthquake spectral response acceleration at short periods ($S_s$)
   Earthquake Site Class D

The estimated 3-second gust basic wind speed and basic design ice thickness at which no overstresses occur are 95 MPH with no ice and 50 MPH with 3/4" design ice thickness.

Please note that the opinion stated above is based on a preliminary review to identify the overall impact and/or feasibility of the proposed changed condition. Final acceptance of this changed condition must be based upon a rigorous structural analysis. Do not proceed with implementing this changed condition without first performing a rigorous structural analysis.

| Rev. | Date | Description |
|---|---|---|
| | | |

## H. PROVISIONS OF ANALYSIS

The analysis performed and the conclusions contained herein are based on the assumption that the tower has been properly installed and maintained, including, but not limited to the following:

1. Proper alignment and plumbness.
2. Correct guy tensions.
3. Correct bolt tightness.
4. No significant deterioration or damage to any component.

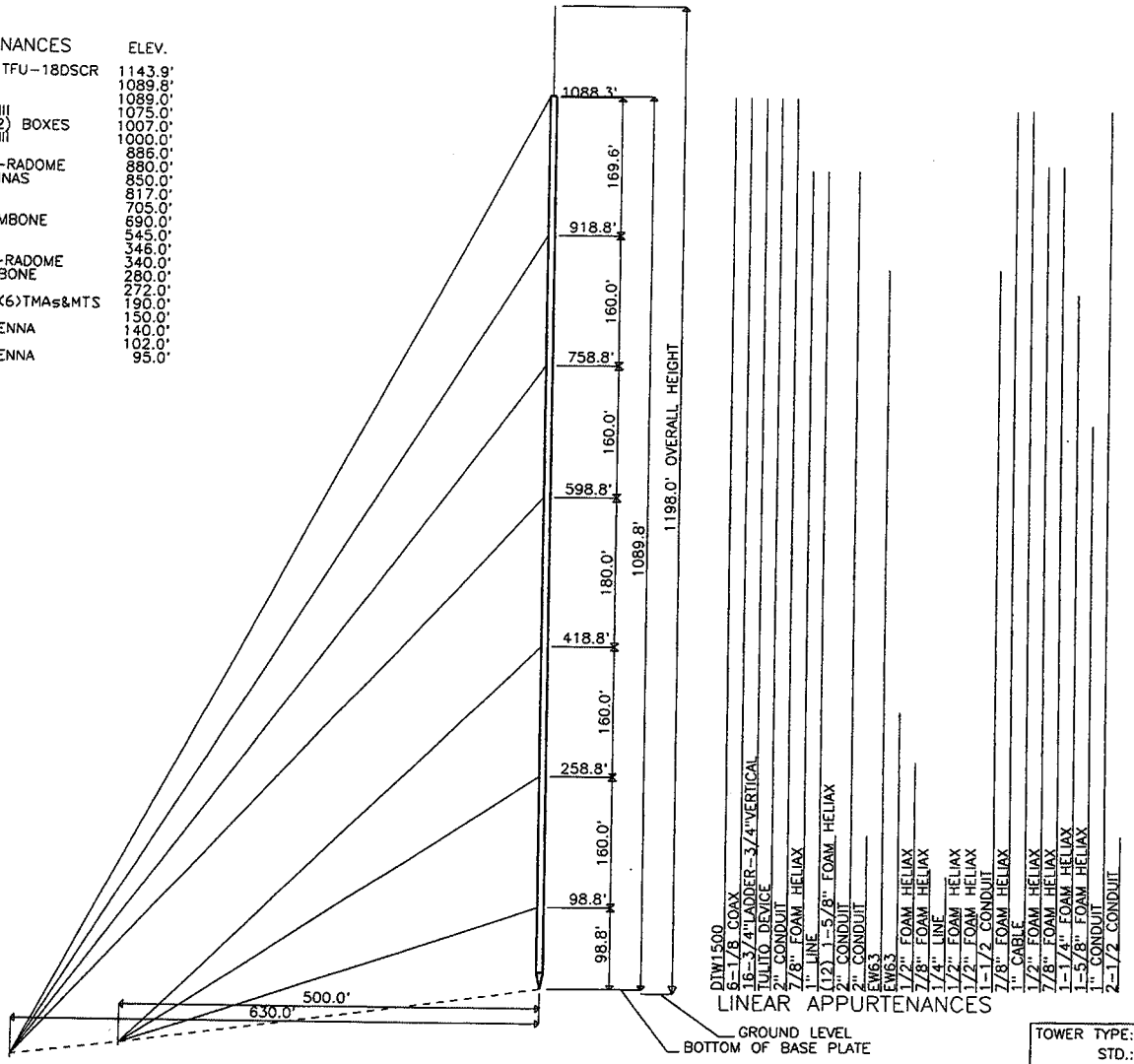
Furthermore, the information and conclusions contained in this Report were determined by application of the current "state-of-the-arts" engineering and analysis procedures and formulae, and Stainless LLC assumes no obligations to revise any of the information or conclusions contained in this Report in the event that such engineering and analysis procedures and formulae are hereafter modified or revised. In addition, under no circumstances will Stainless LLC have any obligation or responsibility whatsoever for or on account of consequential or incidental damages sustained by any person, firm or organization as a result of any information or conclusions contained in the Report, and the maximum liability of Stainless LLC, if any, pursuant to this Report shall be limited to the total funds actually received by Stainless LLC for preparation of this Report.

Customer has requested Stainless LLC to prepare and submit to Customer an engineering analysis with respect to the Subject Tower and has further requested Stainless LLC to make appropriate recommendations regarding suggested structural modifications and changes to the Subject Tower. In making such request of Stainless LLC, Customer has informed Stainless LLC that Customer will make a determination as to whether or not to implement any of the changes or modifications which may be suggested by Stainless LLC and that Customer will have any such changes or modifications made by riggers, erectors and other subcontractors of Customer's choice.

Customer hereby agrees and acknowledges that Stainless LLC shall have no liability whatsoever to Customer or to others for any work or services performed by any persons other than Stainless LLC in connection with the implementation of any structural changes or modifications recommended by Stainless LLC including but not limited to any services rendered for Customer or for others by riggers, erectors or other subcontractors. Customer acknowledges and agrees that any riggers, erectors or subcontractors retained or employed by Customer shall be solely responsible to Customer and to others for the quality of work performed by them and that Stainless LLC shall have no liability or responsibility whatsoever as a result of any negligence or breach of contract by any such rigger, erector or subcontractor.

## DISCRETE APPURTENANCES

| | | | ELEV. |
|---|---|---|---|
| 1. | 1 | TFU31JTT-R & TFU-18DSCR | 1143.9' |
| 2. | 1 | TOP PLATE | 1089.8' |
| 3. | 1 | STROBES | 1089.0' |
| 4. | 1 | MRC PROSCAN III | 1075.0' |
| 5. | 1 | (4) WHIPS & (2) BOXES | 1007.0' |
| 6. | 1 | MRC PROSCAN III | 1000.0' |
| 7. | 1 | ICE SHIELD | 886.0' |
| 8. | 1 | (1)10'DIA. DISH-RADOME | 880.0' |
| 9. | 1 | (2) WHIP ANTENNAS | 850.0' |
| 10. | 1 | STROBES | 817.0' |
| 11. | 1 | WHIP ANTENNA | 705.0' |
| 12. | 1 | 20' 4-BAY TROMBONE | 690.0' |
| 13. | 1 | STROBES | 545.0' |
| 14. | 1 | ICE SHIELD | 346.0' |
| 15. | 1 | (1)10'DIA. DISH-RADOME | 340.0' |
| 16. | 1 | 8' 2-BAY TROMBONE | 280.0' |
| 17. | 1 | STROBES | 272.0' |
| 18. | 1 | (3)PANEL ANTS,(6)TMAs&MTS | 190.0' |
| 19. | 1 | WHIP ANTENNA | 150.0' |
| 20. | 1 | SMALL YAGI ANTENNA | 140.0' |
| 21. | 1 | WHIP ANTENNA | 102.0' |
| 22. | 1 | SMALL YAGI ANTENNA | 95.0' |




## LINEAR APPURTENANCES

DTW1500
6-1/8" COAX
16-3/4"LADDER-3/4"VERTICAL
TULITO DEVICE
2" CONDUIT
7/8" FOAM HELIAX
1" LINE
(12) 1-5/8" FOAM HELIAX
2" CONDUIT
2" CONDUIT
EW63
EW63
1/2" FOAM HELIAX
7/8" FOAM HELIAX
1/4" LINE
1/2" FOAM HELIAX
1-1/2" CONDUIT
7/8" FOAM HELIAX
1" CABLE
1/2" FOAM HELIAX
7/8" FOAM HELIAX
1-1/4" FOAM HELIAX
1-5/8" FOAM HELIAX
1" CONDUIT
2-1/2" CONDUIT

TOWER TYPE: G-84
STD.: TIA/EIA-222-F
LOAD CASE(S)
85 MPH NO ICE
74 MPH WITH 1/2" ICE

**Stainless LLC**

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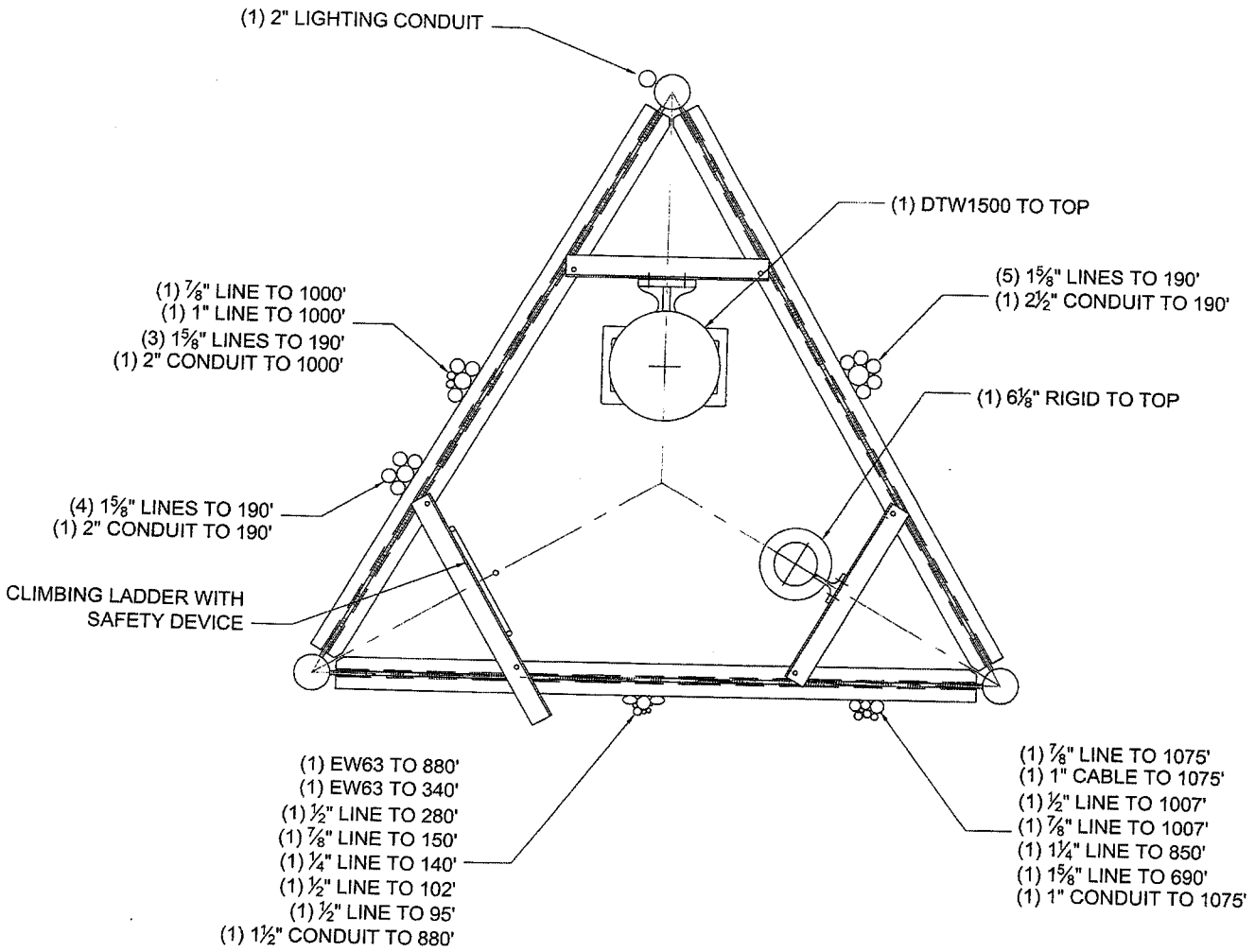


| PREPARED BY | PCC/AP | 1/13/09 |
|---|---|---|
| CHECKED BY | | |
| ENGINEER REVIEW | | |
| PROJECT NUMBER | T017208 | |
| DRAWING NUMBER | A-2 | |

| REV | BY | DATE | REVISION DESCRIPTION | D.CK | DATE | E.CK | DATE |
|---|---|---|---|---|---|---|---|

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APPURTENANCE CROSS SECTION
NEW LONDON, CT