

EM-CING-098-091221



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
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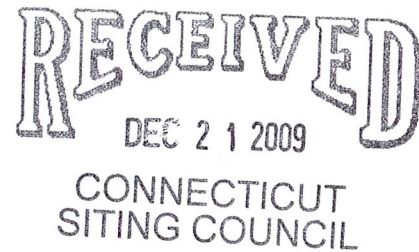
Steven L. Levine
Real Estate Consultant

ORIGINAL

HAND DELIVERED

December 18, 2009

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 tele-communications facility located at 435 Loon Meadow Road, Norfolk (owner, AT&T Corporation)

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**

435 Loon Meadow Road, Norfolk
Site Number 1006
Pet 87.1 apprvd 11/82; Pet. 106 apprvd 7/84;
EM's apprvd 7/91, 8/02

Tower Owner/Manager: AT&T Corporation

Equipment Configuration: Guyed Lattice Tower

Current and/or Approved: Nine CSS panel antennas @ 142 ft AGL
Six TMA's and three diplexers @ 142 ft
Nine runs 1¼ inch coax cable
Equipment shelter

Planned Modifications: Remove existing antennas, TMA's, diplexers, and coax
Install six Powerwave 7770 antennas (or equivalent) @ 142 ft
Install six TMA's and six diplexers @ 142 ft
Install 12 runs 1 5/8 inch coax

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 20.6 % 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 20 % 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 *							12.45
AT&T TDMA *	142	880 - 894	16	100	0.0285	0.5867	4.86
AT&T GSM *	142	1900 Band	2	427	0.0152	1.0000	1.52
AT&T GSM *	142	880 - 894	2	296	0.0106	0.5867	1.80
Total							20.6%

* 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 *							12.45
AT&T UITS	142	880 - 894	1	500	0.0089	0.5867	1.52
AT&T UITS	142	1900 Band	1	500	0.0089	1.0000	0.89
AT&T GSM *	142	1900 Band	2	427	0.0152	1.0000	1.52
AT&T GSM *	142	880 - 894	4	296	0.0211	0.5867	3.60
Total							20.0%

* Per CSC records

Structural information:

The attached structural analysis demonstrates that the tower has sufficient structural capacity to accommodate the proposed equipment modifications. (CSEI, 12/8/09)



Communication Structures Engineering, Inc.

Mr. Larry Montee
AT&T Corporation National Tower Engineering
1200 Peachtree Street, Atlanta, GA 30309

December 08, 2009

Re: Structural Analysis of AT&T's Existing 161-ft Lattice Steel Guyed Tower near Norfolk, CT
AT&T Corp. Site I.D: Norfolk, CT; AT&T Mobility Site #1006; Norfolk, Loon Meadow Rd.; Litchfield County, CT
Location: 435 Loon Meadow Road, Norfolk, CT 06058; Latitude N 42° 00' 33", Longitude W 73° 10' 51"

Dear Mr. Montee,

Communication Structures Engineering, Inc. has completed a structural review of the existing 161-ft Lattice Steel Guyed Tower located at this AT&T Corporation site known as Norfolk, CT. Per your request, we have performed a structural analysis of this tower to check its capability to support the existing loads as well as the new loads from the proposed **AT&T Mobility Inc.** panel antennas & transmission line additions. Per AT&T's Requirements the specific loading criteria that we utilized for this analysis were those prescribed by "2003 International Building Code" and "ANSI/TIA/EIA-222-F", "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures." In accordance with this Code & Standards the wind speed that we utilized for the analysis of this structure was the "3 second gust wind speed" of 100-mph (equivalent to a "fastest-mile wind speed" of 80-mph) as specified for Litchfield County, CT.

EXISTING TOWER INFORMATION & DATA

The 161-ft Lattice Steel Guyed Tower at this site was originally built for Southern New England Telephone (SNET). The original year of construction & fabricator of the tower are not known. The tower structure was field mapped by All-Points Technology Corp. on 12/2/09. The antenna & transmission line configuration was also documented at that time. A condition inspection of the structure was not included.

CSEI used the All-Points tower mapping to perform the structural modeling and analysis of this tower. The existing antenna information, provided to us by AT&T Corp., as well as the All-Points mapping were used to determine the existing tower & equipment loads for our analysis. AT&T's *Tenant Specification Document*, submitted by AT&T Mobility, was utilized to determine the new proposed antenna & cable requirements for this tower. We have assumed that the tower & guy cables have been maintained in good condition.

DESIGN CRITERIA

See the attached page for the applicable Design Criteria and Antenna Configuration that were used for this structural analysis.

STRUCTURAL ANALYSIS PROCEDURE

The referenced design criteria combined with wind tunnel test data from tests conducted on AT&T towers and antenna platforms were utilized to determine the applicable loads for this structure. A frame analysis was performed utilizing the stated wind loads and a computer model of the tower framing modeled on Power Line Systems' "Tower Program". The load carrying frame members of this structure were then checked for compliance with the AISC ASD "Specification for Structural Steel Buildings".

RESULTS OF STRUCTURAL ANALYSIS

Existing Steel Tower: As a result of our structural analysis, we determined that this tower **will require that some existing connection bolts be replaced with new A325 High Strength Bolts** in order to be capable of supporting proposed additions in compliance with the referenced design criteria. The specific tower members that will require stronger bolted connections are depicted on CSEI Drawing TS-1, which is included with this letter. Our structural analysis found that all other structural tower members had maximum stress levels & connection loads levels that were less than 82 % of the allowable stresses permitted by the AISC ASD Specification. Consequently, after the existing bolts that connect the tower members designated on Drawing TS-1 have been replaced, this existing steel tower will be capable of supporting the proposed additions in compliance with "IBC 2003" and "ANSI/TIA/EIA-222-F" requirements.

Existing Tower Foundation: The Tower Foundation Drawing was not available to us for this analysis. The maximum force in any of the guy cables was 81% of the allowable cable load. The maximum leg loading at the tower base was 48% of the allowable leg load.

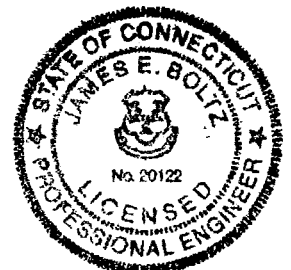
In order to complete our analysis and to minimize the required new tower strengthening, the following conditions were assumed for our current structural analysis. All of these conditions need to be satisfied or the results of this structural analysis will be invalid:

- 1.) The twelve new AT&T Mobility 1 5/8" dia. coax cables must be stacked in two rows, with one row directly behind the other, such that a maximum of six new cables are exposed to wind loads and six new cables are shielded from wind loading.
- 2.) The existing tower steel & guy cables must be in good condition. The mounting steel for the new antennas & cables must be properly engineered & installed by the firms responsible for that work.

If AT&T Mobility or any other carriers add any future equipment to this tower, this structure should be re-analyzed at that time.
CSEI would be happy to respond to any questions regarding this structural analysis.

Sincerely,

James E. Boltz, P.E. (CT P.E. #20122)



- Attachments: 1.) Design Criteria for Existing 161-ft AT&T Guyed Tower at Norfolk, CT
2.) Drawing TS-1 "Tower Strengthening for Norfolk, CT" dated 12/08/09
3.) Structural Calculations for Existing 161-ft Guyed Tower at Norfolk, CT

DESIGN CRITERIA

AT&T Tower Site: Norfolk, CT

LOCATION: 435 Loon Meadow Road, Norfolk, CT 06058

Latitude N 42° 00' 33", Longitude W 73° 10' 51"

Litchfield County, CT

DESIGN STANDARDS

2003 INTERNATIONAL BUILDING CODE ~ 100 MPH (3 Second Gust Wind Speed)

&

ANSI/TIA/EIA-222-F~ 80 MPH (Fastest Mile Wind Speed)

In addition to the loads from the existing tower framing and platforms the loads from the following antennas and their associated transmission lines were considered in the analysis.

ANTENNA CONFIGURATION (Used for Structural Analysis)

Existing Antennas - To Remain on Tower

- 1.) (Undesignated Customer) One 10' X 2" 4-bay dipole antenna at 164-ft above tower base plate and one associated run of 0.875 inch diameter coaxial cable.
- 2.) (Undesignated Customer) One 2' X 3" omni antenna at 162-ft above tower base plate.
- 3.) (Sprint/Nextel) Six DB980H90T3E-M panel antennas at 157-ft above tower base plate and six associated runs of 1.625 inch diameter coaxial cable.
- 4.) (Undesignated Customer) One 6' X 1 1/4" yagi antenna at 148-ft above tower base plate and one associated run of 0.50 inch diameter coaxial cable.
- 5.) (T-Mobile) Six RR90-17-02DP panel antennas at 123-ft above tower base plate and six associated runs of 1.25 inch diameter coaxial cable.
- 6.) (T-Mobile) Six Ericsson 14" X 6" TMA's at 123-ft above tower base plate.
- 7.) (Undesignated Customer) One GPS antennas at 76-ft above tower base plate and one associated run of 0.50 inch diameter coaxial cable.
- 8.) (Undesignated Customer) One GPS antennas at 13-ft above tower base plate and one associated run of 0.50 inch diameter coaxial cable.

Existing AT&T Mobility Antennas - To be Removed from Tower

- 1.) (AT&T Mobility) Nine CSSDU01417-8686 Panel Antennas at approximately 142-ft above tower base plate and nine associated runs of 1.25 inch diameter coaxial cable.
- 2.) (AT&T Mobility) Nine Tower Mounted Amplifiers at 142-ft above tower base plate

New (Proposed) AT&T Mobility Antennas - To Be Added on Tower

- 1.) (AT&T Mobility) Six Powerwave 7750 (57" X 11" X 5") Panel Antennas at 142-ft above tower base plate and twelve associated runs of 1.625 in. dia. coax cable. Three runs (or less) of 5/16" dia. RET cables.
- 2.) (AT&T Mobility) Six TMA's (Tower Mounted Amplifiers) & Six Diplexers at 142-ft above tower base plate.

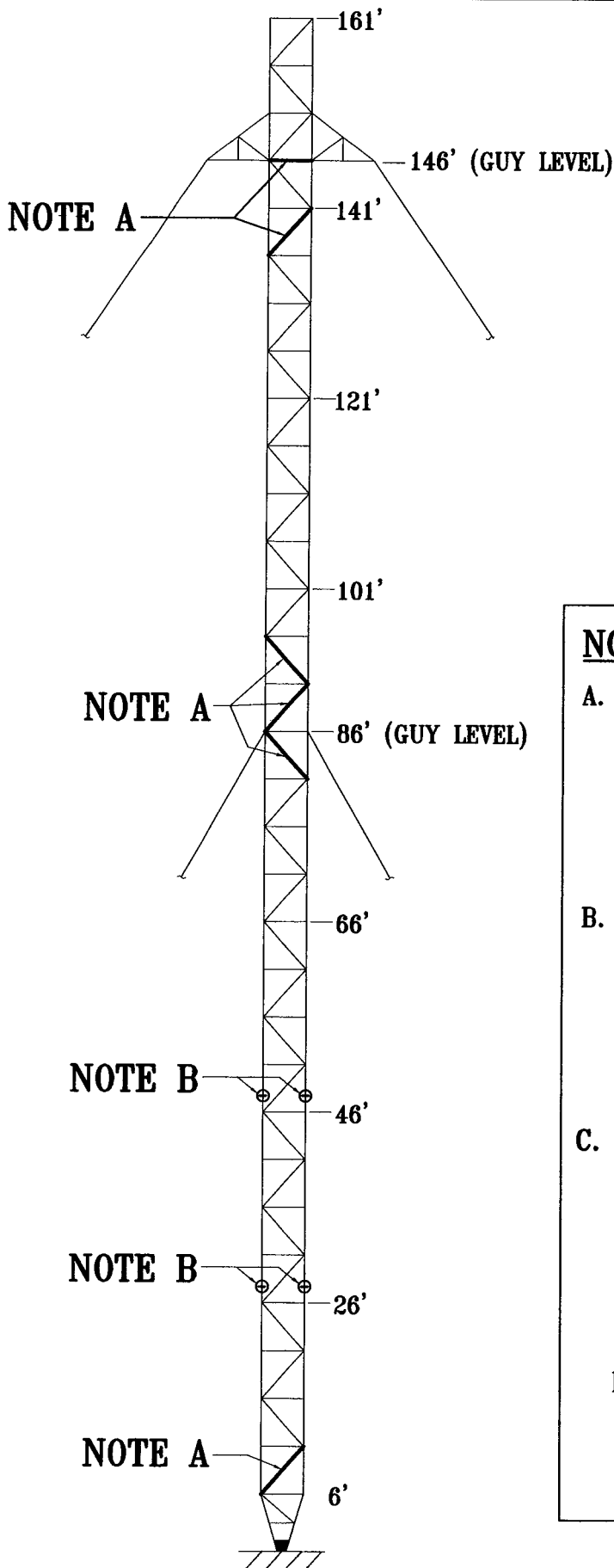
Note: The twelve new AT&T Mobility 1.625 inch diameter coaxial cables must be stacked in two rows with one row directly behind the other such that six coaxial cables are exposed to wind loading and six coaxial cables are effectively shielded from wind loading.



Communication Structures Engineering, Inc.

NORFOLK, CT

**161'-0" GUYED TOWER
TOWER STRENGTHENING
REQUIRED FOR ADDITIONS
PROPOSED BY AT&T MOBILITY**



NOTES

- A. FOR ALL FACE BRACING MEMBERS SHOWN IN BOLD, REPLACE THE EXISTING BOLT (5/8" DIA.) AT EACH END OF MEMBER WITH SAME DIA. A325 HIGH STRENGTH BOLT. (TYPICAL ALL THREE (3) FACES)**
- B. AT ALL TOWER LEG SPLICES INDICATED THUS \oplus , REPLACE ALL TWELVE (12) EXISTING BOLTS (5/8" DIA.) AT EACH LEG SPLICE WITH SAME DIA. A325 HIGH STRENGTH BOLTS. (TYPICAL ALL THREE (3) LEGS)**

C. CAUTION NOTE TO TOWER ERECTOR

ALL BOLT REPLACEMENTS MUST BE COMPLETED ONE BOLT AT A TIME AND PER ADDITIONAL SEQUENCE & WIND CONDITIONS SPECIFIED BY TOWER ENGINEER.

DO NOT BEGIN STRENGTHENING WORK UNTIL ERECTORS M.O.P. (METHOD OF PROCEDURE) HAS BEEN APPROVED BY AT&T TOWER ENGINEERING.

DO NOT REMOVE ANY FRAMING MEMBERS FROM THIS TOWER AT ANY TIME.

ORIGINAL ISSUE WITH STRUCTURAL REPORT	12/08/09
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Communication Structures Engineering, Inc.
5579-B Chamblee Dunwoody Rd. / Suite 517
Dunwoody, Georgia 30338
(770) 951-8080

Designed by: A. K. PADMAN
Drawn by: A. K. PADMAN
Checked by: J. E. BOLTZ

NORFOLK, CT
435 LOON MEADOW ROAD
TOWER STRENGTHENING

Date: DECEMBER 2009
Project No: 09124
Scale: NO SCALE
SHEET No: TS-1



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

December 18, 2009

Honorable Susan M. Dyer
1st Selectman, Town of Norfolk
Town Hall 19 Maple Ave.
Norfolk, CT 06058

Re: Telecommunications Facility – 435 Loon Meadow Road

Dear Ms. Dyer:

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