

# 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)

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

Daniel F. Caruso

Chairman

March 17, 2008

Steven L. Levine

Real Estate Consultant

New Cingular Wireless PCS, LLC

500 Enterprise Drive

Rocky Hill, CT 06067-3900

RE: **EM-CING-049-080206** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at Town Farm Road, Enfield, Connecticut.

Dear Mr. Levine

At a public meeting held on February 28, 2008, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated February 6, 2008, 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,

Daniel F. Caruso

Chairman

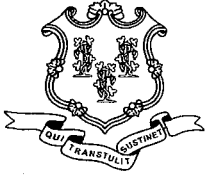
DFC/MP

- c: Honorable Patrick L. Tallarita, Mayor, Town of Enfield
- Matthew W. Coppler, Town Manager, Town of Enfield
- Jose Giner, Director of Planning and Community Development, Town of Enfield
- American Tower Corporation



CONNECTICUT SITING COUNCIL

Affirmative Action / Equal Opportunity Employer



Daniel F. Caruso  
Chairman

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February 7, 2008

The Honorable Patrick L. Tallarita  
Mayor  
Town of Enfield  
820 Enfield Street  
Enfield, CT 06082

RE: **EM-CING-049-080206** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at Town Farm Road, Enfield, Connecticut.

Dear Mayor Tallarita:

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.

The Council will consider this item at the next meeting scheduled for February 28, 2008, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the Council by February 27, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps  
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Jose Giner, Director of Planning and Community Development, Town of Enfield  
Matthew W. Coppler

EM-CING-049-080206



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

ORIGINAL

RECEIVED  
FEB 6 - 2008

CONNECTICUT  
SITING COUNCIL

HAND DELIVERED

February 6, 2008

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 Town Farm Road, Enfield (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 ("Cingular") 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 Cingular'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

ORIGINAL



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. Modifications to the existing site include all or some of the following as necessary to bring the site into conformance with the plan:

- Replacement of existing panel antennas with new antennas of similar size, shape, and weight, or, installation of additional antennas of similar size, shape, and weight.
- Installation of small tower mount amplifiers (“TMA’s”) and/or diplexers to the platform on which the panel antennas are mounted to enhance signal reception.
- Installation of additional or larger coaxial cables as required.
- Installation of an additional equipment cabinet in existing shelters, or on existing or enlarged concrete pads.

None of these modifications will extend the height of the tower.

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 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, 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

**CINGULAR WIRELESS  
Equipment Modification**

Town Farm Road, Enfield, CT  
Site Number 1021  
Docket 51.1; Exempt Mods 4/22/89, 7/15/92, and 10/7/02

**Tower Owner/Manager:** American Tower

**Equipment configuration:** Monopole

**Current and/or approved:** Nine CSS DUO1417 antennas @ 154 ft c.l.  
Nine runs 7/8 inch coax  
Six TMA's / three diplexers @ 154 ft

**Planned Modifications:** Remove nine existing antennas  
Install 6 Powerwave 7770 antennas or equivalent at 154 ft c.l.  
Remove three diplexers  
Install six new diplexers  
Remove existing coax  
Install twelve 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 14.0 % 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 12.7 % of the standard.

**Existing**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							7.05
Cingular TDMA *	154	880 - 894	16	100	0.0243	0.5867	4.13
Cingular GSM *	154	880 - 894	2	296	0.0090	0.5867	1.53
Cingular GSM *	154	1900 Band	2	427	0.0129	1.0000	1.29
<b>Total</b>							<b>14.0%</b>

\* Per CSC Records

### Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							7.05
Cingular GSM	154	880 - 894	4	296	0.0180	0.5867	3.06
Cingular GSM	154	1900 Band	2	427	0.0129	1.0000	1.29
Cingular UMTS	154	880 - 894	1	500	0.0076	0.5867	1.29
Total							12.7%

\* Per CSC Records

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (Am. Tower, 1/28/08)

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Job Information	
Pole: 302489	Code: TIA/EIA-222 Rev F
Description: 150' ITT Meyer Type "B" Monopole	
Client: ATT Mobility	
Location: Enfd - Enfield, CT	
Shape: 12 Sides	Base Elev (ft): 0.00
Height: 150.00 (ft)	Taper: 0.156700(in/ft)

Sections Properties								
Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in)	Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
		Accross Top	Flats Bottom					
1	35.667	31.79	37.38	0.375		0.000	0.156700	65
2	42.000	26.48	33.06	0.313	Slip Joint	50.000	0.156700	65
3	40.000	21.26	27.53	0.250	Slip Joint	42.000	0.156700	65
4	40.000	15.00	21.26	0.188	Butt Joint	0.000	0.156700	65

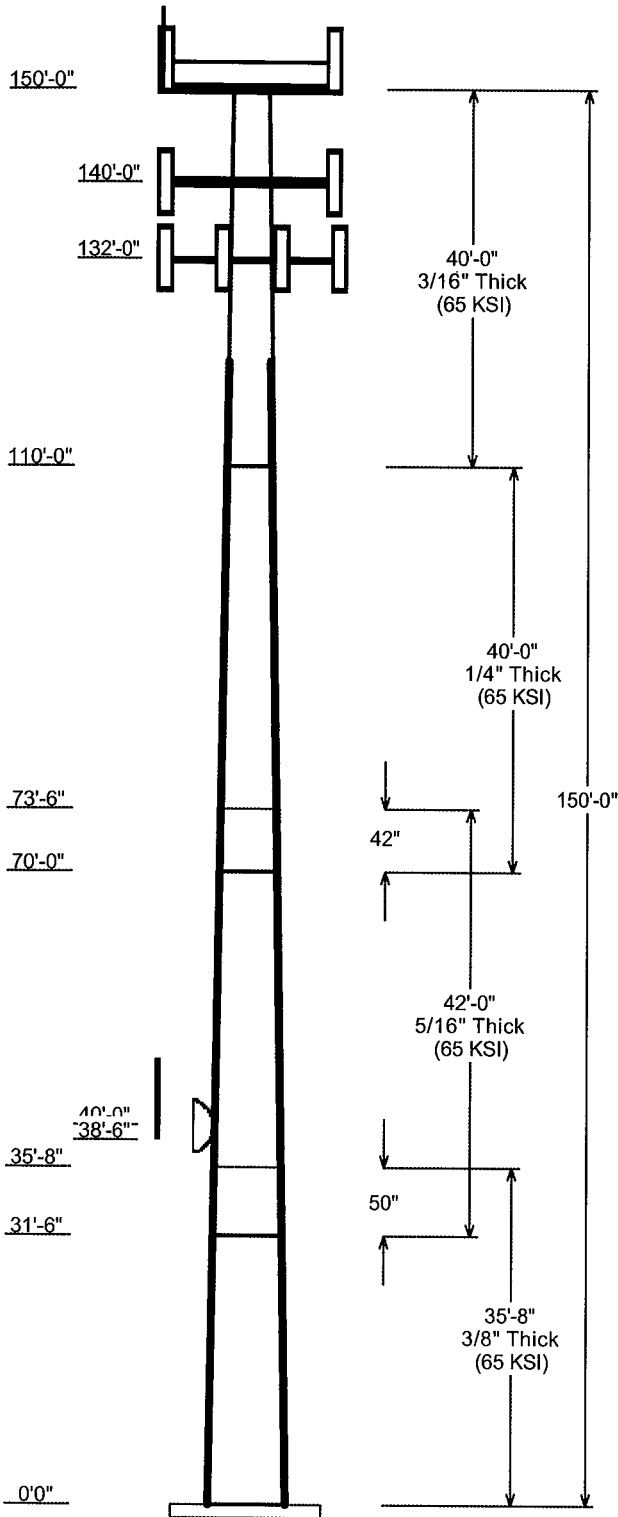
Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	154.000	6	Powerwave LGP-13519
150.000	154.000	6	Powerwave 7770-2
150.000	159.710	1	Decibel DB809-Y
150.000	153.000	1	Platform w/ Handrails
140.000	140.000	6	EMS RR90-17-02D
140.000	140.000	1	Low Profile Platform
132.000	132.000	3	Round T-Arm
132.000	132.000	6	Andrew PCS1900
132.000	132.000	6	Antel LPA-185080/12CF
132.000	132.000	6	Antel LPA-80080/6CF
40.000	40.000	1	Channel Master 1.2 M Dish
38.500	38.750	1	GPS

Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
110.0	140.0	1 5/8" Coax	Yes
0.000	150.0	1 5/8" Coax	No
0.000	150.0	1 5/8" Coax	No
0.000	40.000	RG6	No
0.000	110.0	1 5/8" Coax	No
0.000	125.0	#20 Dywidag bars	Yes
0.000	130.0	1 5/8" Coax	No

Load Cases	
No Ice	80.00 mph Wind with No Ice
Ice	69.28 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	2498.59	25.40	30.49
Ice	1870.10	17.17	36.21
Twist/Sway	977.68	9.92	30.54

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
Twist/Sway	40.00	3.615	0.860







**AMERICAN TOWER**  
CORPORATION

Level 1 Structural Evaluation <sup>1</sup>		
ATC Site Number & Name	302489, Enfd - Enfield	Engineering ID: 40464614
Carrier Site Number & Name	1021, Enfield Town Farm rd.	
Site Address	820 Enfield Street Enfield, Connecticut 06082, Hartford County	
Tower Description	150 ft ITT Meyer Monopole	
Standards & Codes <sup>2</sup>	TIA/EIA-222-F 80 mph w/ 0" radial ice 69 mph w/ 1/2" radial ice	2003 IBC w/ 2005 Connecticut Supplements 90 mph w/ 0" radial ice

**Table 1: Existing Antenna Configuration**

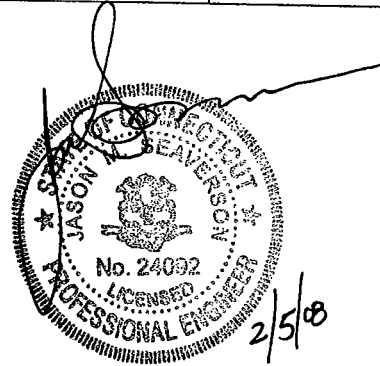
EL. (ft)	QTY	ANTENNAS	MOUNT	COAX (in)	CARRIER
162	1	Decibel DB809-Y	Platform w/ Handrails	(1) 1 5/8	US Mobility
140	6	EMS RR901702DP	Low Profile Platform	(12) 1 5/8	T-Mobile
132	6	Antel LPA-80080/6CF	T-Arm	(12) 7/8	Verizon
	6	Antel LPA-185080-			
	6	Andrew PCS1900			
40	1	Channel Master 1.2 Meter	Flush	(1) RG6	US Mobility

**Table 2: Proposed Antenna Configuration**

EL. (ft)	QTY	ANTENNAS	MOUNT	COAX (in)	CARRIER
154	6	Powerwave 7770-2	Platform w/ Handrails	(12) 1 5/8	ATT Mobility
	6	Powerwave LGP 13519		--	
	6	ADC 850/1900		--	
38.5	1	GPS	--	--	

*Coax to be installed inside monopole.*

The subject tower and foundation *are adequate* to support the above stated loads in conformance with specified requirements. <sup>3</sup>



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Connecticut.

<sup>1</sup>The existing and proposed loads of Table 1 and Table 2 are compared to the tower's current design capacity or previous analysis.

<sup>2</sup>The design wind criteria are compared to the current code requirements.

<sup>3</sup>The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in the above tables.



**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

February 6, 2008

Mr. Matthew Coppler, Town Manager  
Town of Enfield  
Town Hall 820 Enfield St.  
Enfield, CT 06082-2997

Re: Telecommunications Facility – Town Farm Road, Enfield

Dear Mr. Coppler:

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 (“Cingular”) 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 Cingular’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 Cingular’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