



Daniel F. Caruso  
Chairman

# 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)

July 25, 2008

Steven Levine  
New Cingular Wireless PCS, LLC  
500 Enterprise Drive  
Rocky Hill, CT 06067-3900

RE: **EM-CING-034-080612** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 66 Sugar Hollow Road, Danbury, Connecticut.

Dear Mr. Levine:

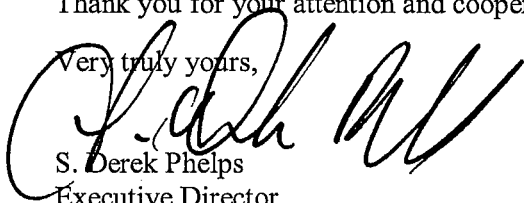
The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated June 12, 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,

  
S. Derek Phelps  
Executive Director

SDP/MP/cm

c: The Honorable Mark D. Boughton, Mayor, City of Danbury  
Dennis Elpern, City Planner, City of Danbury



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

**EM-CING-034-080612**

**Steven L. Levine**  
Real Estate Consultant

HAND DELIVERED

June 12, 2008

ORIGINAL



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 tele-communications facility located at 66 Sugar Hollow Road, Danbury (owner, New Cingular Wireless)

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

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**

66 Sugar Hollow Road, Danbury  
Site Number 5069  
Former AT&T Cell Site  
City of Danbury Zoning & Bldg Permit 5/2000

**Tower Owner/Manager:** New Cingular Wireless

**Equipment configuration:** Monopole

**Current and/or approved:** Nine Allgon 7184 panel antennas @ 110 ft c.l.  
Nine runs 1 ¼ inch coax

**Planned Modifications:** Remove all existing antennas  
Install six Powerwave 7770 antennas @ 110 ft c.l.  
Install six TMA's and six diplexers @ 110 ft  
Install three additional runs 1 ¼ inch coax

**Power Density:**

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 28.5 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 37.2 % 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 *							26.17
Cingular GSM *	110	1900 Band	8	100	0.0238	1.0000	2.38
<b>Total</b>							<b>28.5%</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 *							26.17
Cingular GSM	110	880 - 894	4	296	0.0352	0.5867	6.00
Cingular GSM	110	1900 Band	2	427	0.0254	1.0000	2.54
Cingular UMTS	110	880 - 894	1	500	0.0149	0.5867	2.53
<b>Total</b>							<b>37.2%</b>

\* Per CSC records.

### Structural information:

The attached structural analysis demonstrates that the tower and foundation has sufficient capacity to accommodate the proposed modifications (Paul J. Ford & Company, 6/10/08)

POST THIS PERMIT CONSPICUOUSLY

**DEPARTMENT OF BUILDINGS, DANBURY, CONNECTICUT**

Phone 797-4581

**BUILDING PERMIT**

No 029794 Issued 5/5/00 Expires 5/5/01  
 Owner Sugar Hollow Park Inc  
 Building Telephone Exchange Tower & Bldg  
 Located 166 Sugar Hollow Rd "A" & T Wireless Dr Zone LC140  
 Builder Brais Construction Co.  
 Electrical Contractor Take out own permit License No. —  
 Plumbing & Heating Contractor nila License No. —

In accordance with application, plans and specifications on file, and subject to ordinances and Building Code of the City of Danbury, otherwise this permit is void. Occupancy of this new building or addition prior to issuance of a Certificate of Occupancy will be considered a violation of the Building Code Regulations.

Leo P. Null (as)  
Building Inspector

**NOTICE:**

Changes, regardless of size, from stamped approved plans must be submitted to Building Inspector before they are made.

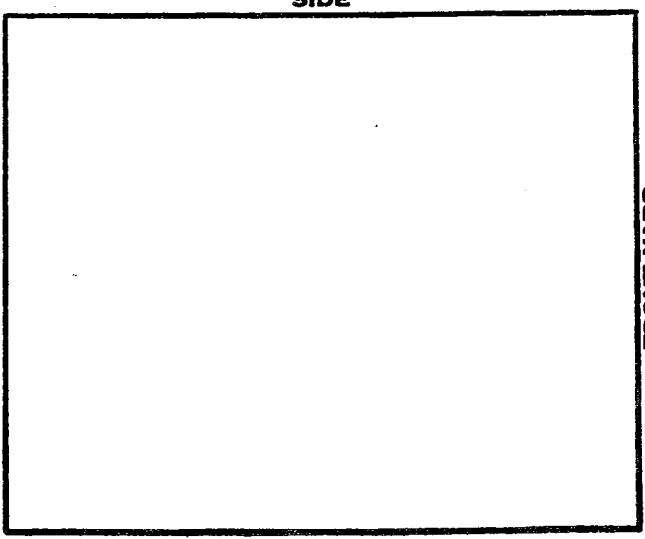
Prompt notification by the Plumbing, Electrical, and General contractors of completion of their respective portions of the work will avoid delay in issuance of the Certificate of Occupancy.

This Application is null and void if the building is not completed in one year from the date of issue, except by extension of application.

**INSPECTIONS:**

Normally there are nine or more required inspections of a new building, and as many as apply on alterations and additions:

1. ZONING
2. SOIL CONDITIONS—before foundation footings
3. FOOTING—drain inspection
4. ELECTRICAL—wiring roughing
5. PLUMBING—roughing
6. FRAMING—before insulation or lathing
7. INSULATION—inspection
8. GAS OR OIL BURNER—installation and wiring
9. ELECTRICAL—final when fixtures have been hung
10. PLUMBING—final when fixtures have been set
11. FINAL—fire divisions, exits, etc.



NO 29



**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

June 12, 2008

Hon. Mark D. Boughton, Mayor  
City of Danbury  
City Hall, 155 Deer Hill Ave.  
Danbury, CT 06810-7726

Re: Telecommunications Facility – 36 Sugar Hollow Road, Danbury

Dear Mayor Boughton:

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



PAUL J. FORD AND COMPANY  
STRUCTURAL ENGINEERS  
250 East Broad Street • Suite 1500 • Columbus, Ohio 43215

## Structural Analysis Report

PJF Project No.: **A00008-T083**  
Structure: Existing 108-ft Monopole

Manufacturer: Summit Manufacturing, LLC.  
Location: Danbury South, CT  
Site Number: 5069  
Site Name: Danbury South – Bennet Pond

Prepared For:

**Hudson Design Group, LLC.**  
1600 Osgood St. Building 20 North, Suite 2-101  
North Andover, MA 01845  
*Attn: Zac Osgood*

June 10, 2008

Analyzed by:  
Thomas J. Dehnke *KS*  
Structural Engineer  
tdehnke@pjfweb.com



Reviewed by:  
Kevin Bauman, P.E.  
Department Manager

COLUMBUS, OHIO • ORLANDO, FLORIDA • ATLANTA, GEORGIA • ATHENS, GEORGIA  
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### Executive Summary

#### Design Standard:

Paul J. Ford and Company has analyzed the existing monopole in accordance with the Telecommunications Industry Association Standard TIA/EIA-222-F for the following *fastest mile* design wind velocities:

*85 mph Basic Wind Velocity without ice*  
*74 mph Basic Wind Velocity with 1/2" radial ice*  
*50 mph (Operational) Basic Wind Velocity without ice*

#### Antenna Loads:

The existing monopole was analyzed for the following antenna loading:

Elevation	Description	Owner
106'	(6) Powerwave 7770.00, (6) TMA (6) Diplexors 14' Low Profile Platform	AT&T
90'	(12) DB980F65E-M [(6) Reserve + (6) Existing] 14' Low Profile Platform	Sprint
75'	(1) GPS (1) 3' Sidearm	

#### Results:

The monopole and foundation have sufficient capacity to support the above antenna loading while meeting the local minimum wind requirements.



**Project Description:**

Paul J. Ford and Company has analyzed the existing monopole for Hudson Design Group, LLC. in accordance with the Telecommunications Industry Association / Electronic Industry Association, TIA/EIA-222-F, "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures." The TIA/EIA standard was developed by professional engineers experienced in the design of communication structures.

**Pole History:**

The monopole was manufactured by Summit Manufacturing, LLC. in 2000 for AT&T per job #6336. Paul J. Ford and Company designed the pole and foundation for Summit Manufacturing, reference PJF# 29200-230. The monopole was originally designed in accordance with TIA/EIA-222-F for an 85 mph design wind for the following antenna loading:

Elevation	Description
106'	(12) Allgon 7148.03 Sector 14' Low Profile Platform
100'	(12) Allgon 7148.03 Sector 14' Clamp-On Low Profile Platform
90'	(12) Allgon 7148.03 Sector 14' Clamp-On Low Profile Platform

**Structural Analysis:**

Our analysis was completed according to the recommendations of the TIA/EIA-222-F 1996. This standard recommends a minimum design wind velocity of 85 mph (no ice) for Tolland County. If ice accumulation is considered, the TIA/EIA standard allows the design wind pressure reduced by 25% in conjunction with 1/2" radial ice. Our analysis was completed in compliance with the minimum wind requirements under the following load cases:

- 85 mph Basic Wind Velocity without ice*
- 74 mph Basic Wind Velocity with 1/2" radial ice*
- 50 mph (Operational) Basic Wind Velocity without ice*



**Existing & Proposed Antenna Loading:**

Our analysis was completed using the following existing and proposed antenna loading:

Status	Elevation	Description	Coax	
Proposed	106'	(6) Powerwave 7770.00, (6) TMA (6) Diplexors 14' Low Profile Platform	(12)	1-1/4"
Existing	90'	(12) DB980F65E-M [(6) Reserve + (6) Existing] 14' Low Profile Platform	(12)	1-5/8"
Existing	75'	(1) GPS (1) 3' Sidearm	(1)	1/2"

Coaxial cable for this analysis was assumed internally mounted and not exposed to the wind.

**Results:**

When the new antenna configuration is considered, the monopole has sufficient capacity to safely support the new loading while maintaining the minimum wind rating:

Member	Elevation	Percent Capacity
Shaft #1	106.00'	33.5%
Shaft #2	72.25'	60.1%
Shaft #3	35.75'	73.0%
Base Plate	0.00'	61.3%
Anchor Bolts	0.00'	60.6%

The existing drilled pier foundation has sufficient capacity to support the new loading while maintaining the minimum required safety factors.



**PAUL J. FORD AND COMPANY**  
STRUCTURAL ENGINEERS  
250 East Broad Street · Suite 1500 · Columbus, Ohio 43215

Page 5 of 6  
June 10, 2008  
PJF Project #A00008-T076  
Danbury South -- Bennet Pond  
Hudson Design Group, LLC.

**Conclusion:**

The existing monopole and foundation have sufficient capacity to support the new antenna loading while meeting the minimum wind requirements of this analysis.

If you have any questions concerning our analysis, or if we can be of further service to you, please feel free to contact us at (614) 221-6679.

Sincerely,

Paul J. Ford and Company

Thomas J. Dehnke  
Structural Engineer

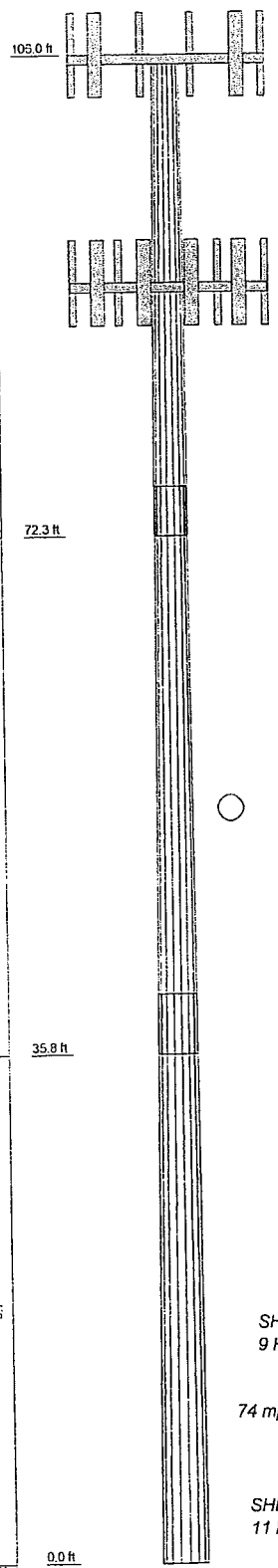


**STANDARD CONDITIONS FOR FURNISHING OF PROFESSIONAL ENGINEERING SERVICES ON EXISTING STRUCTURES BY PAUL J. FORD AND COMPANY**

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1. Paul J. Ford and Company has not made a field inspection to verify the monopole dimensions or the antenna/coax loading. If the existing conditions are not as represented on these sketches, we should be contacted immediately to reevaluate any conclusions stated in this report.
2. No allowance was made for any damaged, missing, or rusted monopole parts. The analysis of this pole assumes that no physical deterioration has occurred in any of the structural components of the pole and that all the pole members have the same capacity as the day the pole was erected.
3. It is not possible to have all of the very detailed information to perform a thorough analysis of every structural sub-component of an existing monopole. The structural analysis provided by Paul J. Ford and Company verifies the adequacy of the main structural members of the monopole. Paul J. Ford and Company provides a limited scope of service in that we cannot verify the adequacy of every weld, plate, connection detail, etc.
4. It is the owner's responsibility to determine the amount of ice accumulation, if any, that shall be used in the structural analysis.
5. The monopole has been analyzed according to the minimum basic design wind velocity recommended by the Electronics Industry Association Standard ANSI/EIA-222-F. If the owner or local or state agencies require a higher design wind velocity, Paul J. Ford and Company should be made aware of this requirement.
6. The enclosed sketches are a schematic representation of the monopole we have analyzed. If any material is fabricated from these sketches, the fabricator shall be responsible for field verifying the existing conditions and for proper fit and clearance in the field.
7. Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.
8. Installation of new hand hole ports and/or cable access ports will not reduce the structural capacity of the monopole shaft, if the hand hole frames and/or cable access ports are properly designed and installed in accordance to proper procedures. Paul J. Ford and Company recommends that new hand holes and/or cable access port hole frames be purchased from the original pole manufacturer. The new hand hole and/or cable access frames shall be installed per the original manufacturer's installation procedures. Paul J. Ford and Company will design and provide installation procedures for new hand holes and/or cable access ports if required, as an additional scope of services.

Section	1	2	3
Length (ft)	33.75	40.00	40.00
Number of Slides	18	18	18
Thickness (in)	0.1875	0.2188	0.2500
Lap Splice (ft)			4.25
Top Dia (in)	22.3000	26.6117	31.7125
Bot Dia (in)	27.5230	32.0000	37.9100
Grade	A572-65	A572-65	A572-65
Weight (K)	1.7	2.8	3.7



**DESIGNED APPURTENANCE LOADING**

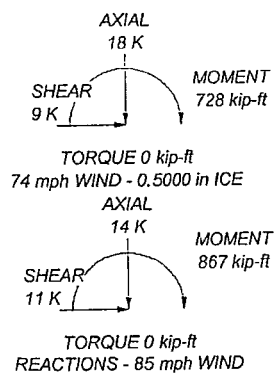
TYPE	ELEVATION	TYPE	ELEVATION
(2) Powerwave 7770	105	(2) Diplexer	105
(2) Powerwave 7770	106	(2) Diplexer	105
(2) Powerwave 7770	105	(4) Decibel DB980F65E-M	90
14' Low Profile Platform	105	(4) Decibel DB980F65E-M	90
(2) TMA	106	(4) Decibel DB980F65E-M	90
(2) TMA	106	14' Low Profile Platform	90
(2) TMA	105	GPS	75
(2) Diplexer	105	3' Side Arm Mount	75

**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

**TOWER DESIGN NOTES**

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 74 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 73%



<p><b>Paul Ford and Company</b> 250 E. Broad Street Suite 1500 Columbus, OH 43215 Phone: 614.221.6679 FAX: 614.448.4108</p>	Job: <b>Ex 108 Danbury South-Bennet Pond: 5069</b>		
	Project: <b>A00008-T083</b>		
	Client: <b>Hudson Design Group, LLC</b>	Drawn by: <b>Thomas Dehnke</b>	App'd:
	Code: <b>TIA/EIA-222-F</b>	Date: <b>06/05/08</b>	Scale: <b>NTS</b>
	Path: <b>T:\000_Misc\2005\A00008-T083.dwg</b>	Dwg No: <b>E-1</b>	