



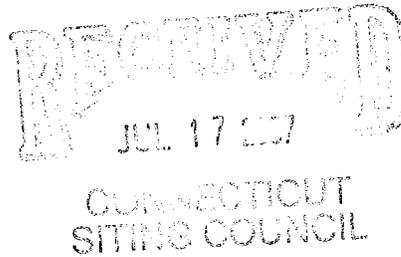
New Cingular Wireless PCS, LLC  
500 Enterprise Drive  
Rocky Hill, Connecticut 06067-3900  
Phone: (860) 513-7636  
Fax: (860) 513-7190

EM-CING-048-077-132-151-151-070717

Steven L. Levine  
Real Estate Consultant

HAND DELIVERED

July 17, 2007



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 5 existing tele-communications facilities located in Ellington, Manchester, South Windsor, and Waterbury (2)

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 each of the municipalities in which an affected cell site is locate.

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 are summary sheets detailing the planned changes, including power density calculations reflecting the change in the effect of Cingular's operations at each affected site. Also included is documentation of the structural sufficiency of each tower to accommodate the revised antenna configuration.

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

1. In each instance, the height of the overall structure will be unaffected. Modifications to the existing sites include all or some of the following as necessary to bring each 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 noted in the following 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 sites 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**

101 Burbank Road, Ellington, CT  
Site Number 1018  
Exempt Modification 11/20/03

**Tower Owner/Manager:** SBA

**Equipment configuration:** Self-supporting lattice tower

**Current and/or approved:** Nine CSS DUO1417 antennas @ 150 ft c.l. (approved for 12)  
Six TMA's / three diplexers @ 150 ft  
Nine runs 1 5/8 inch coax

**Planned Modifications:** Remove three existing antennas  
Install three Powerwave 7770 antennas at 150 ft c.l.  
Install three additional diplexers @ 150 ft (total of 6)  
Install three additional runs 1 5/8 inch coax (total of 12)

**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 11.7 % 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 13 % 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 *							8.95
Cingular GSM *	156	880 - 894	2	296	0.0087	0.5867	1.49
Cingular GSM *	156	1900 Band	2	427	0.0126	1.0000	1.26
<b>Total</b>							<b>11.7%</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 *							8.95
Cingular GSM	156	880 - 894	2	296	0.0087	0.5867	1.49
Cingular GSM	156	1900 Band	2	427	0.0126	1.0000	1.26
Cingular UMTS	156	880 - 894	1	500	0.0074	0.5867	1.26
<b>Total</b>							<b>13.0%</b>

\* Per CSC Records

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (FDH Engineering, dated July 10, 2007)



July 10, 2007

Mr. Mark Luther  
SBA Network Services, Inc.  
800 S. Washington Ave.  
Scranton, PA 18505

RE: 180' Self Support Tower  
Site Name: Ellington 1018  
SBA Site ID: CT10008-A  
FDH Project Number: 07-0706E

Dear Mark:

Per your request, FDH Engineering, Inc. has reviewed the original manufacturer's drawings and the proposed loading for the 180' self support tower located in Ellington, CT. The original design configuration by Rohn (File No. 42895AE dated May 30, 2000) stipulates the tower was designed to accommodate the appurtenance loading outlined in **Table 1** on the following page.

The load resulting from the current configuration (see **Table 2**) combined with Cingular's proposed (3) Powerwave 7770 panels and (3) diplexors with a centerline elevation at 157 ft. and corresponding (3) 1-5/8" coax lines (see **Table 3**) will be below that of the original design loading. Furthermore, provided the tower foundation was designed to support the tower at capacity, the foundation should meet *TIA-EIA-222-F* standards with both the proposed and existing appurtenances in place. The proposed coax should be installed double stacked with the existing coax.

Our assessment has been made assuming all information provided to FDH Engineering is accurate and that the tower as been properly erected and maintained.

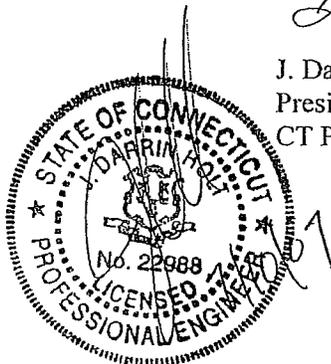
In conclusion, the Cingular installation should meet or exceed all applicable standards and should therefore be considered safe. Should you require additional information, please do not hesitate to contact our office.

Sincerely,

Jeremy D. Piner, EI  
Senior Project Engineer

Reviewed By:

J. Darrin Holt, PhD, PE  
President  
CT PE License No. 22988



**Table 1 – Design Appurtenance Loading**

No.	Centerline Elevation (ft)	Coax and Lines	Description
1-12	175	(12) 1-5/8"	(12) DAPA 2980.015 Antennas With 12' Mounting Frames
13-24	165	(12) 1-5/8"	(12) DAPA 2980.015 Antennas With 12' Mounting Frames
25-30	155	(6) 1-5/8"	(6) DAPA 2980.015 Antennas With 12' Mounting Frames
31-36	145	(6) 1-5/8"	(6) DAPA 2980.015 Antennas With 12' Mounting Frames
37-42	135	(6) 1-5/8"	(6) DAPA 2980.015 Antennas With 12' Mounting Frames

**Table 2 – Existing Appurtenance Loading**

No.	Centerline Elevation (ft)	Coax and Lines	Carrier	Description
1	189	(1) 1-1/4"	NE Site Mgmt	(1) Decibel DB222-A
2-7	186	(12) 1-5/8" <sup>1</sup>	T-Mobile	(6) EMS RR901702DP (6) Decibel DBE15501P64D TMAs
8-19	177	(12) 1-5/8"	Verizon	(6) Decibel 948F8ST2E-M (6) Swedcom ALP-E 9011-DIN
20-28	157	(12) 1-5/8" <sup>2,3</sup>	Cingular	(12) CSS DUO1417-8686-4-0 (6) ADC 1283019 TMAs (3) CSS 999002-ML Combiners
29	78	(1) 1/2"	Verizon	(1) GPS
30	32	(1) 1/2"	Cingular	(1) GPS

1. Currently, T-Mobile has (3) antennas, (6) TMAs, and (6) coax installed at 186'. According to information provided by SBA, T-Mobile may install (6) panels and (12) coax at 186 ft. Evaluation performed with full lease loading in place
2. Currently, Cingular has (9) antennas, (6) TMAs, (3) Combiners, and (9) coax installed at 157 ft. According to information provided by SBA, Cingular may install up to (12) antennas, (6) TMAs, (3) combiners, and (12) coax at 157'. Evaluation performed with full leased loading in place.
3. Cingular will alter their existing loading at 157'. See the proposed loading below.

**Table 3 – Proposed Appurtenance Loading**

No.	Centerline Elevation (ft)	Coax and Lines	Carrier	Description
1-12	157	(15) 1-5/8" <sup>1</sup>	Cingular	(9) CSS-DUO4-8670 Panels (3) Powerwave 7770 Panels (6) TMAs (3) Diplexors (3) Combiners

- 1 According to information provided by SBA, Cingular will remove (3) CSS-DUO4-8670 panels and install (3) Powerwave 7770 panels, (3) LGP 13519 diplexors, and (3) 1-5/8" coax at 157 ft.



**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

July 16, 2007

Honorable Michael P. Stupinski  
1<sup>st</sup> Selectman, Town of Ellington  
55 Main St. P.O. Box 187  
Ellington, CT 06029-0187

Re: Telecommunications Facility – 101 Burbank Road, Ellington

Dear Mr. Stupinski:

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

**CINGULAR WIRELESS  
Equipment Modification**

53 Slater Street, Manchester, CT  
Site Number 5307  
Former AT&T site  
Exempt Modification 4/3/02

**Tower Owner/Manager:** Crown Castle

**Equipment configuration:** Monopole

**Current and/or approved:** Three Allgon 7250 antennas @ 145 ft c.l.  
Six runs 1 1/4 inch coax

**Planned Modifications:** Remove all three existing antennas  
Install three Powerwave 7770 antennas @ 145 ft c.l.  
Install six TMA's @ 145 ft  
Install 5 x 6 ft concrete pad for new cabinets  
Install two additional outdoor cabinets

**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 19.8 % 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 23.8 % 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 *							18.05
Cingular GSM *	145	1900 Band	4	250	0.0171	1.0000	1.71
<b>Total</b>							<b>19.8%</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 *							18.05
Cingular GSM	145	1900 Band	4	631	0.0432	1.0000	4.32
Cingular UMTS	145	880 - 894	1	500	0.0086	0.5867	1.46
Total							23.8%

\* Per CSC Records

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (Tower Engineering Professionals, dated July 13, 2007)



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

July 16, 2007

Mr. Scott Shanley, General Manager  
Town of Manchester  
Town Hall, 41 Center Street  
Manchester, CT 06045-0191

Re: Telecommunications Facility – 53 Slater Street, Manchester, CT

Dear Mr. Shanley:

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



Date: July 13, 2007

Mrs. Maryellen Perrotta  
Crown Castle International  
9105 Monroe Road, Suite 150  
Charlotte, NC 28270  
(o) (704) 321-3819

Tower Engineering Professionals, Inc. (TEP)  
3703 Junction Boulevard  
Raleigh, NC 27603  
(o) (919) 661-6351 Phone  
[slucas@tepgroup.net](mailto:slucas@tepgroup.net)

**Subject:** Structural Analysis Report

**Carrier Designation:** Cingular Wireless Co-Locate  
Carrier Site Number: 5307  
Carrier Site Name: Manchester North

**Crown Castle Designation:** Crown Castle BU Number: 876347  
Crown Castle Site Name: Buckland Mall

Crown Castle JDE Job Number: 89015

**Engineering Firm Designation:** TEP Project Number: 070992

**Site Data:** 53 Slater Street  
Manchester, CT 06040  
Latitude 41°- 48'- 43.9", Longitude -72°-32'-3.2"  
155 Foot – Monopole Tower

Dear Mrs. Perrotta,

TEP is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the aforementioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 245403, in accordance with application 45855, revision 0.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

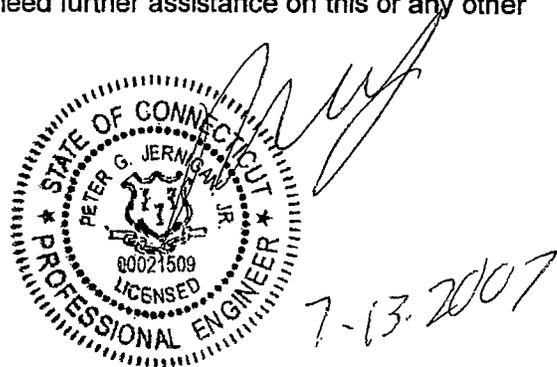
Existing + Reserved + Proposed Equipment Sufficient Capacity  
Note: See Table I and Table II for the proposed and existing/reserved loading.

This analysis has been performed in accordance with the TIA/EIA 222-F standard and the 2003 IBC based upon a wind speed of 80 mph fastest mile (100-mph 3-second gust).

We at TEP appreciate the opportunity of providing our continuing professional services to you and Crown Castle International. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted,

Pete G. Jernigan, P.E.



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## 1) INTRODUCTION

The subject tower is a 155-foot monopole tower manufactured by Valmont.

## 2) ANALYSIS CRITERIA

The existing, reserved, and proposed antennas, transmission lines, and mountings are shown in the following tables. The site is in Hartford County. The structural analysis was performed in accordance with the ANSI/TIA/EIA-222-F-1996 (TIA), Structural Standards for Steel Antenna Towers and Antenna Supporting Structures dated June 1996. The governing winds forces are derived from the TIA Standard using a fastest-mile wind speed of 80 mph for an Exposure C and Importance Factor of 1.00.

**Table 1 – Proposed Antenna and Cable Information**

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount	Number of Feed Lines	Feed Line Size (in)
145 (Proposed)	3	Powerwave Technologies	7770	Low Profile Platform	6	1 1/4"
145 (Proposed TMA)	6	Powerwave Technologies	LGP21401	-	-	-

**Table 2 – Existing and Reserved Antenna and Cable Information**

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount	Number of Feed Lines	Feed Line Size (in)
60 (Existing)	1	GPS	GPS	Low Profile Platform	13	1/2"
78 (Existing)	12	Decibel	DB844G65VTASX	Low Profile Platform	12	1 5/8
78 (Reserved)	-	-	-	-	3	1 5/8
113 (Existing)	12	Decibel	DB84H80	Low Profile Platform	12	1 5/8
133 (Existing)	6	EMS Wireless	RR90-17-02DP	Low Profile Platform	12	1 5/8
145 (Existing)	6	Allgon	7250.03	Low Profile Platform	6	1 1/4"
145 (Reserved)	-	-	-	-	6	1 5/8
155 (Existing MLA Loading)	9	EMS Wireless	RR90-18	Low Profile Platform	9	1 5/8

**Table 3 – Design Antenna and Cable Information**

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount	Number of Feed Lines	Feed Line Size (in)
155	12	Decibel	DB980H	14' Low Profile Platform	Unknown	Unknown
145	12	Unknown	Panel Antenna	14' Low Profile Platform	Unknown	Unknown
135	12	Unknown	Panel Antenna	14' Low Profile Platform	Unknown	Unknown
115	2	Unknown	Whip Antenna	6' Clamp Stiff Arms	Unknown	Unknown
50	1	GPS	GPS	Unknown	Unknown	Unknown

### 3) ANALYSIS PROCEDURE

**Table 4 – Documents Provided**

Document	Remarks	Crown Document ID
Geotechnical Reports	Clough, Harbour & Associates, Site ID no. CT03XC211, dated February 5, 1998, provided by Crown	1533476
Tower Foundation Drawings/Design/Specs	Piedmont Olsen Hensley Engineering, Project no.22597-01, dated September 28, 1995, provided by Crown	1615406
Design Drawings	Paul J. Ford and Co. Structural Engineers, Job no. 29298-597, dated September 11,1998, provided by Crown	1614661
Structural Analysis Report	Semaan Engineering Solutions, Site ID no. 3017666/CT03XC211, dated May 24, 2006, provided by Crown	1820204

#### 3.1) Analysis Method

RISA Tower (version 5.0.2.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix A.

#### 3.2) Assumptions

1. All feed lines are installed in the locations noted on the cable routing drawing in *Appendix B*.
2. When applicable, feed lines were considered to be structural components for calculating wind loads, as allowed by the industry standard.
3. Information in the original design drawings and specifications that could not be verified by TEP is assumed to be correct. For this analysis, TEP will assume conformance with the original design drawings and specifications.
4. TEP shall assume that all tower components are in sufficient condition to carry their full design capacity.

5. Serviceability with respect to antenna twist, tilt, roll, or lateral translation, is not checked and is left to the carrier or tower owner to ensure conformance.

#### 4) ANALYSIS RESULTS

**Table 5 – Tower Component Stresses vs. Capacity**

Existing + Reserved + Proposed Equipment

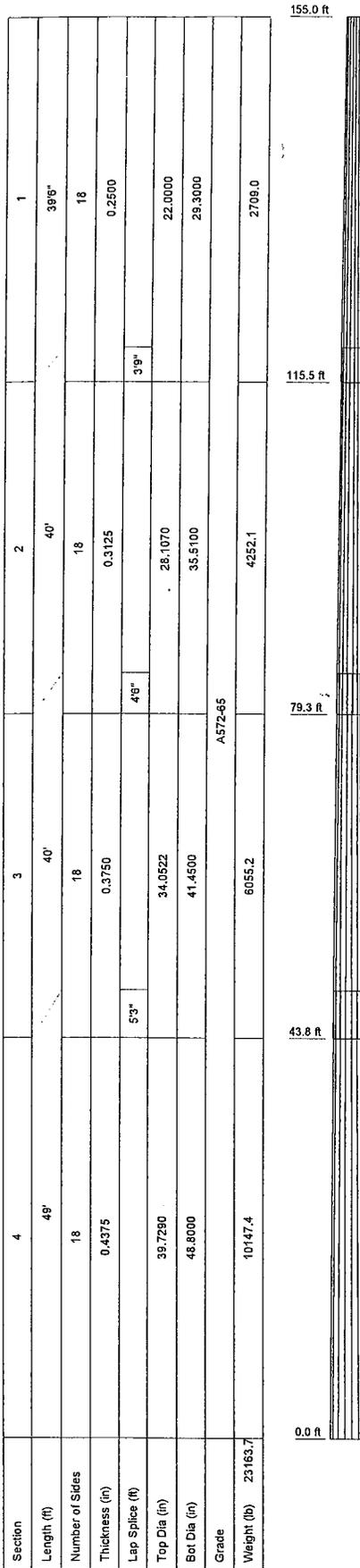
Notes	Component	Elevation (ft)	% Capacity	Pass/Fail
<b>RISA Tower Analysis Summary: (Monopole)</b>				
			<b>Summary</b>	
<b>Notes:</b>	<b>Component</b>	<b>Elevation</b>	<b>% Capacity</b>	<b>Pass/Fail</b>
	L1	155 – 115.5	26.0	Pass
	L2	115.5 – 79.25	42.9	Pass
	L3	79.25 – 43.75	51.2	Pass
	L4	43.75 – 0	55.2	Pass
	Anchor Bolts	0	56.4	Pass
	Base Plate	0	56.0	Pass
	<b>TOWER RATING =</b>		<b>56.4</b>	<b>Pass</b>
<b>Individual Components:</b>				
<b>Notes:</b>	<b>Component</b>	<b>Elevation</b>	<b>% Capacity</b>	<b>Pass/Fail</b>
	Base Foundation		67.1 <sup>1</sup>	Pass
<b>Structure Rating (max from all components) =</b>				<b>67.1%</b>

<sup>1</sup> – Based on shear capacity.

#### 4.1) Recommendations

It should be noted that in order for the tower to pass in the current load scenario, the proposed and reserved coax must be configured as shown in Appendix B.

**APPENDIX A**  
**RISA TOWER OUTPUT**



**DESIGNED APPURTENANCE LOADING**

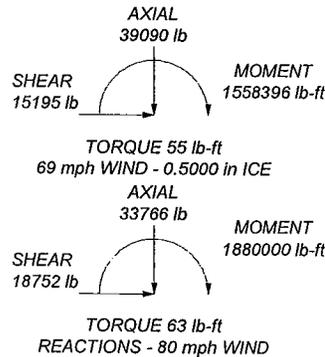
TYPE	ELEVATION	TYPE	ELEVATION
(3) RR90-18-DP (Sprint MLA)	155	(2) LGP214nn (cingular proposed)	145
(3) RR90-18-DP (Sprint MLA)	155	(2) RR90-17-02DP (t-mobile existing)	133
(3) RR90-18-DP (Sprint MLA)	155	12' Low Profile Platform (t-mobile existing)	133
5/8-in x 4-ft Lightning Rod (lightning rod)	155	(2) RR90-17-02DP (t-mobile existing)	133
12' Low Profile Platform (sprint existing)	155	(2) RR90-17-02DP (t-mobile existing)	133
(2) 7250.03 (cingular existing)	145	12' Low Profile Platform (verizon existing)	113
(2) 7250.03 (cingular existing)	145	(4) DB844H90 (verizon existing)	113
(2) 7250.03 (cingular existing)	145	(4) DB844H90 (verizon existing)	113
7770.00 (cingular proposed)	145	(4) DB844H90 (verizon existing)	113
7770.00 (cingular proposed)	145	(4) DB844G65ZAXY (nextel existing)	78
7770.00 (cingular proposed)	145	12' Low Profile Platform (nextel existing)	78
12' Low Profile Platform (cingular existing)	145	(4) DB844G65ZAXY (nextel existing)	78
(2) LGP214nn (cingular proposed)	145	(4) DB844G65ZAXY (nextel existing)	78
(2) LGP214nn (cingular proposed)	145	GPS (sprint existing)	60

**MATERIAL STRENGTH**

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

**TOWER DESIGN NOTES**

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 69 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 56%



<b>Tower Engineering Professionals</b>		Job: <b>BU876347 "Buckland Mall"</b>	
3703 Junction Boulevard Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350			
Project: <b>TEP# 070992</b>	Client: <b>CCI</b>	Drawn by: <b>Matt Lackey, E.I.</b>	App'd:
Code: <b>TIA/EIA-222-F</b>	Date: <b>07/13/07</b>	Scale: <b>NTS</b>	Dwg No. <b>E-1</b>
Path: H:\2007\0992_Buckland Mall\Tisa\876347.dwg			

**CINGULAR WIRELESS  
Equipment Modification**

391 Niederwerfer Road, South Windsor, CT  
Site Number 1003  
Docket 40.6; Exempt Modifications 4/24/89, 7/15/02, and 6/25/02

**Tower Owner/Manager:** American Tower

**Equipment configuration:** Monopole

**Current and/or approved:** Nine CSS DUO1417 antennas @ 77 ft c.l.  
Six TMA's  
Nine runs 7/8 inch coax

**Planned Modifications:** Remove three existing antennas  
Install three Powerwave 7770 antennas @ 77 ft c.l.  
Install three diplexers @ 77 ft  
Install GPS antenna @ 20 ft AGL  
Install three additional runs 7/8 inch coax (total of 12)

**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 27.1 % 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 16.9 % 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 *							0.00
Cingular TDMA *	78	880 - 894	16	100	0.0946	0.5867	16.12
Cingular GSM *	78	880 - 8 94	2	296	0.0350	0.5867	5.96
Cingular GSM *	78	1930 - 1970	2	427	0.0505	1.0000	5.05
<b>Total</b>							<b>27.1%</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 *							0.00
Cingular GSM	77	880 - 894	3	296	0.0539	0.5867	9.18
Cingular GSM	77	1900 Band	1	427	0.0259	1.0000	2.59
Cingular UMIS	77	880 - 894	1	500	0.0303	0.5867	5.17
<b>Total</b>							<b>16.9%</b>

\* Per CSC Records

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (American Tower, dated 6/4/07)



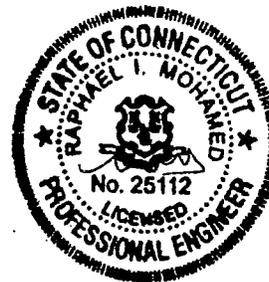
**AMERICAN TOWER**  
CORPORATION

Level 1 Structural Evaluation <sup>1</sup>		
ATC Site Number & Name	302474, South Windsor	Engineering ID: 40464112
Carrier Site Number & Name	1003-FA-10034966, South Windsor	
Site Address	391 Niederwerfer Road South Windsor, CT 06074, Hartford County	
Tower Description	75 ft ITT Meyer Type "L" Monopole	
Standards & Codes <sup>2</sup>	ANSI/TIA/EIA-222-F (1996) 80 mph w/ 0" radial ice 69 mph w/ 1/2" radial ice	2003 International Building Code 100 mph w/ 0" radial ice

Table 1: Existing and Proposed Antenna Configuration					
HEIGHT (ft)	ANTENNA	CARRIER	COAX	[I]/[O] <sup>a</sup>	STATUS
85	(1) Decibel 10' Omni on Platform w/ Handrails	USA Mobility	(1) 1-5/8"	I	Existing
80.5	(1) 6' Yagi on Platform w/ Handrails	USA Mobility	(1) 1/2"	I	Existing
78	(6) CSS DUO4-8670 (6) ADC Dual Band 850-1900 on Platform w/ Handrails	Cingular	(6) 7/8"	I	Existing
78	(3) Powerwave 7770-1 (3) LGP13519 on Platform w/ Handrails	Cingular	(6) 7/8"	I	Proposed
63	(1) Channel Master 1.2M Dish on Pipe Mount	USA Mobility	(1) RG6	I	Existing
19.8	(1) GPS on Side Arm Mount	Cingular	(1) 1/2"	O	Proposed

<sup>a</sup> [I] / [O] denotes coax installed inside or outside of monopole respectively.

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



6/5/07

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 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 Table 1.



The new



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Your world. Delivered.

**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

July 16, 2007

Mr. Matthew B. Galligan, Town Manager  
Town of South Windsor  
Town Hall 1540 Sullivan Ave.  
South Windsor, CT 06074-2786

Re: Telecommunications Facility – 391 Niederwerfer Road, South Windsor

Dear Mr. Galligan:

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

**CINGULAR WIRELESS  
Equipment Modification**

Farmdale Drive, Waterbury, CT  
Site Number 1005  
CSC Docket 44.5; Exempt Modifications 4/14/89, 9/9/92, and 8/15/02

**Tower Owner/Manager:** American Tower

**Equipment configuration:** Monopole

**Current and/or approved:** Ten CSS DUO1417 antennas @ 154 ft c.l.  
Six TMA's @ 154 ft  
Ten runs 1¼ inch coax

**Planned Modifications:** Remove four existing antennas @ 154 ft c.l.  
Install three Powerwave 7770 antennas @ 154 ft  
Install three diplexers @ 154 ft  
Install two new 1¼ inch coax (total of 12)  
“Decommissioning” of AT&T facility approved for 145 ft c.l.

**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 21.5 % 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 22.2 % of the standard.

**Existing / Approved**

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 *							14.41
Cingular TDMA*	153	880 - 894	16	100	0.0246	0.5867	4.19
Cingular GSM *	153	880 - 894	2	296	0.0091	0.5867	1.55
Cingular GSM *	153	1900 Band	2	427	0.0131	1.0000	1.31
<b>Total</b>							<b>21.5%</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 *							12.70
Cingular GSM	153	880 - 894	8	296	0.0364	0.5867	6.20
Cingular GSM	153	1900 Band	3	427	0.0197	1.0000	1.97
Cingular UMTS	153	880 - 894	1	500	0.0077	0.5867	1.31
<b>Total</b>							<b>22.2%</b>

\* Per CSC records.

### AT&T Site Approved for 145 ft on the Tower – “Decommissioning”

The AT&T installation at this site, which was approved by the Council on 10/29/03 for 145 ft on the tower, was never constructed owing to the merger with Cingular. Because the Cingular installation at 153 ft is probably adequate for future needs, we also give notice to the Council that the 145 ft AT&T installation may be deemed as “decommissioned” and eliminated from consideration in future power density evaluations of the site. The 145 ft level of the tower, however, does remain under lease from American Tower by Cingular; and, owing to American Tower’s engineering procedures, the leased tower loading will remain in their structural analyses until further notice. On the other hand, should Cingular require use of this empty tower space in the future, we will provide appropriate notice to the Council.

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (American Tower, dated 6/15/07)



302476-PAT  
6/15/2007

**AMERICAN TOWER<sup>®</sup>**  
CORPORATION

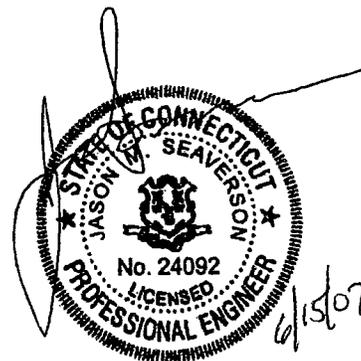
Level 1 Structural Evaluation <sup>1</sup>		
ATC Site Number & Name	302476, Wtbr - Waterbury	Engineering ID: 40464913
Carrier Site Number & Name	1005, Waterbury	
Site Address	Farndale Drive Waterbury, Connecticut 06704 New Haven County	
Tower Description	150 ft ITT Meyer Monopole	
Standards & Codes <sup>2</sup>	ANSI/TIA/EIA-222-F (1996) 85 mph w/ 0" radial ice 74 mph w/ 1/2" radial ice	2003 International Building Code w/ 2005 Connecticut Supplement 105 mph w/ 0" radial ice

**Table 1: Existing and Proposed Antenna Configuration**

HEIGHT (ft)	ANTENNA	CARRIER	COAX	I/O <sup>a</sup>	STATUS
154	(6) CSS DUO4-8670 (6) TTA's (3) ADC 850-1900 on Platform w/ Handrails	Cingular SBC	(6) 1-1/4"	I	Existing
154	(3) Powerwave 7770 (3) Powerwave LGP13519 on Platform w/ Handrails	Cingular SBC	(6) 1-1/4"	I	Proposed
145	(9) 72" x 12" Panels (3) 36" x 8" Panels (9) TTA's on Platform w/ Handrails	Cingular	(12) 1-5/8"	I	Existing
129	(9) Decibel DB844G65ZAXY (6) Decibel 948F65T2ZE-M on Platform w/ Handrails	Verizon	(15) 1-5/8"	O	Existing
38.8	(1) Nokia CS72187.01 on Standoff Mount	Cingular SBC	(1) 1/2"	I	Existing

<sup>a</sup> I / O denotes coax installed inside or outside of monopole respectively.

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 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 Table 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

July 16, 2007

Honorable Michael J. Jarjura, Mayor  
City of Waterbury  
City Hall 235 Grand St.  
Waterbury, CT 06702-1983

Re: Telecommunications Facility – Farmdale Drive, Waterbury

Dear Mayor Jarjura:

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

**CINGULAR WIRELESS  
Equipment Modification**

299 Sheffield Street, Waterbury, CT  
Site Number 1125  
Exempt Modifications 11/7/01 and 4/25/02

**Tower Owner/Manager:** SBA

**Equipment configuration:** Monopole

**Current and/or approved:** Nine CSS DUO1417 antennas @ 137 ft c.l.  
Six TMA's @ 137 ft  
Nine runs 1 5/8 inch coax

**Planned Modifications:** Remove three existing antennas  
Install three Powerwave 7770 antennas @ 137 ft c.l.  
Install three diplexers @ 137 ft  
Install three runs 1 5/8 inch coax (total of 12)

**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 18.4 % 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 15.8 %.

**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 *							9.65
Cingular TDMA *	137	880 - 894	16	100	0.0307	0.5867	5.22
Cingular GSM *	137	880 - 894	2	296	0.0113	0.5867	1.93
Cingular GSM *	137	1900 Band	2	427	0.0164	1.0000	1.64
<b>Total</b>							<b>18.4%</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 *							9.65
Cingular GSM	137	800 - 894	3	296	0.0170	0.5867	2.90
Cingular GSM	137	1900 Band	2	427	0.0164	1.0000	1.64
Cingular UMTS	137	800 - 894	1	500	0.0096	0.5867	1.63
Total							15.8%

\*  
Per CSC records.

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (FDH Engineering, dated July 10, 2007)



July 10, 2007

Mr. Mark Luther  
SBA Network Services, Inc.  
800 S. Washington Ave.  
Scranton, PA 18505

RE: 158' Monopole  
Site Name: Waterbury 1125  
SBA Site ID: CT02722-S  
FDH Project Number: 07-0709E

Dear Mark:

Per your request, FDH Engineering, Inc. has reviewed the original manufacturer's drawings and the proposed loading for the 158' monopole located in Waterbury, CT. The original design configuration by Summit LLC (Drawing No. 9302 dated August 23, 2000) stipulates the tower was designed to accommodate the appurtenance loading outlined in **Table 1** on the following page.

The load resulting from the current configuration (see **Table 2**) combined with Cingular's proposed (3) Powerwave 7770 panels and (3) LGP 13519 diplexors with a centerline elevation at 137 ft. and corresponding (3) 1-5/8" coax lines (see **Table 3**) will be below that of the original design loading. Furthermore, provided the tower foundation was designed to support the tower at capacity, the foundation should meet *TIA-EIA-222-F* standards with both the proposed and existing appurtenances in place. The proposed coax should be installed inside the poles shaft.

Our assessment has been made assuming all information provided to FDH Engineering is accurate and that the tower as been properly erected and maintained.

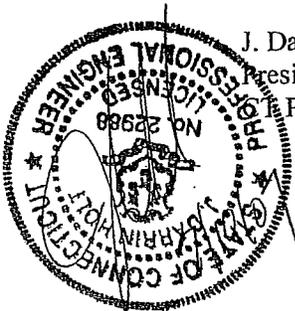
In conclusion, the Cingular installation should meet or exceed all applicable standards and should therefore be considered safe. Should you require additional information, please do not hesitate to contact our office.

Sincerely,

Jeremy D. Piner, EI  
Senior Project Engineer

Reviewed By:

J. Darrin Holt, PhD, PE  
President  
PE License No. 22988



**Table 1 – Design Appurtenance Loading**

No.	Centerline Elevation (ft)	Coax and Lines	Description
1-12	158	(12) 1-5/8" (Assumed)	(12) Decibel DB896H on a 14' Low Profile Platform
13-24	150	(12) 1-5/8" (Assumed)	(12) Decibel DB896H on a 14' Low Profile Clamp Platform
25-36	140	(12) 1-5/8" (Assumed)	(12) Decibel DB896H on a 14' Low Profile Clamp Platform
37-48	130	(12) 1-5/8" (Assumed)	(12) Decibel DB896H on a 14' Low Profile Clamp Platform
49-60	120	(12) 1-5/8" (Assumed)	(12) Decibel DB896H on a 14' Low Profile Clamp Platform
61-72	110	(12) 1-5/8" (Assumed)	(12) Decibel DB896H on a 14' Low Profile Clamp Platform

**Table 2 – Existing Appurtenance Loading**

No.	Centerline Elevation (ft)	Coax and Lines	Carrier	Description
---	150	---	---	(1) Empty Platform
1-12	148	(12) 1-5/8"	Verizon	(12) Decibel DB844H80
13-24	137	(12) 1-5/8" <sup>1</sup>	Cingular	(12) CSS 4' Panels (6) TMAs (3) Diplexors (6) Combiners
25-36	127	(12) 1-5/8"	Nextel	(12) Decibel DB844H65E-XY

<sup>1</sup> Cingular will alter their existing loading at 137'. See the proposed loading below.

**Table 3 – Proposed Appurtenance Loading**

No.	Centerline Elevation (ft)	Coax and Lines	Carrier	Description
1-12	137	(12) 1-5/8" <sup>1</sup>	Cingular	(9) CSS 4' Panels (3) Powerwave 7770 Panels (6) TMAs (6) Diplexors (6) Combiners

<sup>1</sup> According to information provided by SBA, Cingular will remove (3) CSS panels and install (3) Powerwave 7770 panels and (3) LGP 13519 diplexors, at 137 ft.



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

July 16, 2007

Honorable Michael J. Jarjura, Mayor  
City of Waterbury  
City Hall, 235 Grand Street  
Waterbury, Connecticut 06702

Re: Telecommunications Facility – 299 Sheffield Street, Waterbury

Dear Mayor Jarjura:

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