STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Internet: ct.gov/csc

Daniel F. Caruso
Chairman

August 7, 2007

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

RE: **EM-CING-017-105-107-129-130-130-134-070627** - New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunication facilities located at 371 Terryville Avenue, Bristol; 38 Hatchetts Hill Road, Old Lyme; 800 Ogg Meadow Road, Orange; 400 Main Street, Somers; 1432 Old Waterbury Road, Southbury; Russian Village Road, Southbury; and 33 South Road, Stafford, Connecticut.

Dear Mr. Levine:

At a public meeting held on July 26, 2007, the Connecticut Siting Council (Council) acknowledged your notice to modify these existing telecommunications facilities, 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 27, 2007, including the placement of all necessary equipment and shelters within the tower compounds. 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 existing facility sites that would not increase tower heights, extend the boundaries of the tower sites, increase noise levels at the tower site boundaries by six decibels, and increase the total radio frequencies electromagnetic radiation power densities measured at the tower site boundaries to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. These facilities have also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on these towers.

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 any of these facilities 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/laf

c: The Honorable William T. Stortz, Mayor, City of Bristol
Alan Weiner, Planner/Dev. Coordinator, City of Bristol
The Honorable Timothy C. Griswold, First Selectman, Town of Old Lyme
Ann Brown, Zoning Enforcement Officer, Town of Old Lyme
The Honorable James M. Zeoli, First Selectman, Town of Orange
Paul Dinice, Zoning Enforcement Officer, Town of Orange
The Honorable Mark A. R. Cooper, First Selectman, Town of Southbury
Mark D. Cody, Zoning Enforcement Officer, Town of Southbury
The Honorable David A. Pinney, First Selectman, Town of Somers
Patrice Carson, Town Planner, Town of Somers
The Honorable Allen Bacchiochi, First Selectman, Town of Stafford
Wendell Avery, Zoning Enforcement Officer, Town of Stafford
Christopher B. Fisher, Esq., Cuddy & Feder LLP
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels, LLP
Kenneth C. Baldwin, Esq., Robinson & Cole LLP
Jeffrey W. Barbadora, Crown Atlantic Company LLC
Robert Francis, Cordless Data Transfer, Inc.

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

EM-CING-017-105-107-129-130-130-134-070627

HAND DELIVERED

June 27, 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 7 existing telecommunications facilities located in Bristol, Old Lyme, Orange, Somers, Southbury (2), and Stafford.

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

371 Terryville Avenue, Bristol, CT
Site Number 5833
Former AT&T Site
CSC Docket 250 dated 10/14/03

Tower Owner/Manager: Cingular

Equipment configuration: Monopole

Current and/or approved: Three Allgon 7250 antennas @ 169 ft c.l.
Six runs 1 5/8 inch coax
Two outdoor cabinets on existing 8 x 18 ft pad

Planned Modifications: Remove all three existing antennas
Install three Powerwave 7770 antennas @ 169 ft c.l.
Install six TMA's @ 169 ft
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 15.6 % 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 decrease to approximately 15.3 % 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 *							11.80
Cingular GSM	169	1900 Band	12	250	0.0378	1.0000	3.78
Total							15.6%

* 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 *							11.80
Cingular GSM	169	1900 Band	4	490	0.0247	1.0000	2.47
Cingular UMTS	169	880 - 894	1	500	0.0063	0.5867	1.07
Total							15.3%

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the existing tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (URS Corporation, dated 12/12/05).

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 27, 2007

Honorable William T. Stortz, Mayor
City of Bristol
City Hall 111 North Main St.
Bristol, CT 06010

Re: Telecommunications Facility – 371 Terryville Avenue, Bristol

Dear Mayor Stortz:

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

5833

DETAILED STRUCTURAL ANALYSIS AND EVALUATION OF EXISTING 170' MONOPOLE FOR NEW ANTENNA ARRANGEMENT

Bristol West 2
371 Terryville Avenue
Bristol, Connecticut

prepared for

verizonwireless

Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

prepared by

URS

URS CORPORATION
500 ENTERPRISE DRIVE, SUITE 3B
ROCKY HILL, CT 06067
TEL. 860-529-8882

36930978.00000
VZ1-163

December 12, 2005

1. EXECUTIVE SUMMARY

This report summarizes the structural analysis of the existing 170' steel monopole structure located at 371 Terryville Avenue in Bristol, Connecticut. The analysis was conducted in accordance with the TIA/EIA-222-F standard for wind velocity of 80 mph and 69 mph concurrent with ½" ice. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined in the Introduction Section of this report. The proposed Verizon Wireless modification is as follows:

Proposed Antenna and Mount	Carrier	Antenna Center Elevation
Install (6) Antel LPD-6513 and (6) Antel LPD 185063/8CFx2 antennas on a new 12' Low-Profile Platform with (12) 1 5/8" coax cables within the monopole.	**Verizon Wireless (Proposed)**	**@ 140'**

The results of the analysis indicate that the tower structure is in compliance with the proposed loading conditions. **The tower and its foundation are considered structurally adequate with the TIA/EIA-222-F wind load classification specified above and all the existing and proposed antenna loading.**

This analysis is based on:

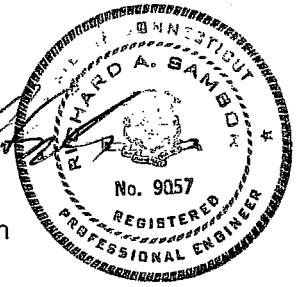
1) The tower structure's theoretical capacity, not including any assessment of the condition of the tower.
2) Tower geometry and structural member sizes taken from original construction drawings (EEI Job #: 12027 rev 1) prepared by Engineered Endeavors, Inc., signed and sealed November 26, 2003.
3) Antenna and mount configuration as specified on the following page of this report.

This report is only valid as per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables. The user of this report shall field verify the assumption of the antenna and mount configuration. Notify the engineer in writing immediately if any of the information in this report is found to be other than specified.

If you should have any questions, please call.

Sincerely,

URS Corporation



Richard A. Sambor, P.E.
Manager Facilities Design

RAS/jek

cc: AA, DR, IA – URS
CF/Book

2. INTRODUCTION

The subject tower is located at 371 Terryville Avenue in Bristol, Connecticut. The structure is a 170' steel monopole designed by EEI, Inc.

The tower geometry and structure member sizes were taken from the original construction drawings (EEI Job #: 12027 rev 1) prepared by Engineered Endeavors, Inc., signed and sealed November 26, 2003.

The inventory is summarized in the table below:

Antenna Type	Carrier	Mount	Antenna Centerline Elevation	Cable
(12) Powerwave 7770.00 antennas and (12) TMA's	Cingular (existing and future)	Low-Profile Platform	169'	(18) 1 5/8" coax cables (within monopole)
(9) Decibel DB980F90E-M antennas	Sprint (existing)	Low-Profile Platform	160'	(9) 1 5/8" coax cables (within monopole)
(6) Antel LPD-6513 and (6) Antel LPD 185063/8CFx2 antennas	**Verizon (proposed)**	**Low-Profile Platform**	**140'**	**(12) 1 5/8" coax cables (within monopole)**

This structural analysis of the communications tower was performed by URS Corporation (URS) for Verizon Wireless. The purpose of this analysis was to investigate the structural integrity of the existing tower with its existing and proposed antenna loads. This analysis was conducted to evaluate stress on the tower and the effect of forces to the foundation of the tower resulting from existing and proposed antenna arrangements.

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

The structural analysis was done in accordance with TIA/EIA-222-F, Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, and the American Institute of Steel Construction (AISC) Manual of Steel Construction, Allowable Stress Design (ASD).

The analysis was conducted using ERI Tower 3.0. Two load conditions were evaluated as shown below which were compared to allowable stresses according to AISC and TIA/EIA.

Load Condition 1 = 80 mph Wind Load (without ice) + Tower Dead Load
Load Condition 2 = 69 mph Wind Load (with ice) + Ice Load + Tower Dead Load

Please note that wind pressure is a function of velocity squared. Under Load Condition 2, a 25 percent reduction in wind pressure is allowed by code to account for the unlikelihood of the full wind pressure and ice load occurring at the same time. The same results may be achieved by utilizing a lower wind pressure without taking the 25 percent reduction, as shown above.

The TIA/EIA standard permits a one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For the purposes of this analysis, in computing the load capacity the allowable stresses of the tower members were increased by one-third.

4. FINDINGS AND EVALUATION

Combined axial and bending stresses on the steel monopole structure were evaluated to compare with allowable stresses in accordance with AISC. The calculated stresses under the proposed loading were below the allowable stresses. Detailed analysis and calculations for the proposed load condition are provided in section 6 of this report. Additionally, the anchor bolts and base plate were found to be structurally adequate. No further analysis was conducted on the foundation since the reactions at the top of the foundation were below the original design.

5. CONCLUSIONS

The results of the analysis indicate that the tower structure is in compliance with the proposed loading conditions. **The tower and its foundation are structurally adequate under the TIA/EIA-222-F wind load classification specified above and the proposed antenna loadings.**

Limitations/Assumptions:

This report is based on the following:

1. Tower inventory as listed in this report.
2. Tower is properly installed and maintained.
3. All members are as specified in the original design documents and are in good condition.
4. All required members are in place.
5. All bolts are in place and are properly tightened.
6. Tower is in plumb condition.
7. All member protective coatings are in good condition.
8. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
9. Foundations were properly constructed to support original design loads as specified in the original design documents.
10. All coaxial cable is installed within the monopole unless specified otherwise.

URS is not responsible for any modifications completed prior to or hereafter in which URS is not or was not directly involved. Modifications include but are not limited to:

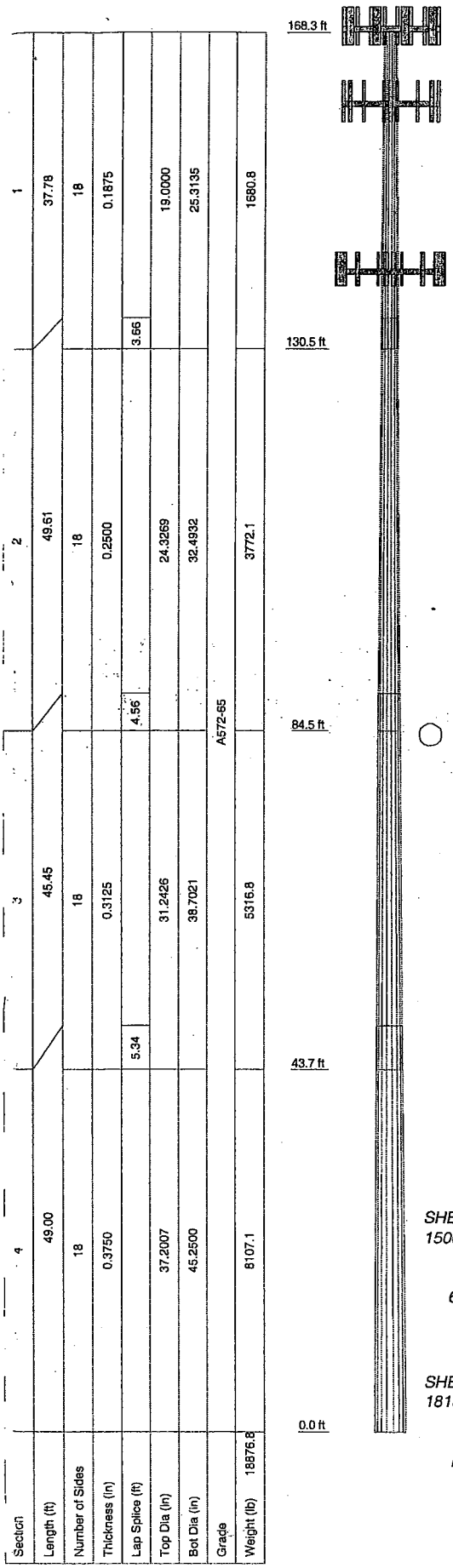
A. Adding antennas
B. Removing/replacing antennas
C. Adding coaxial cables

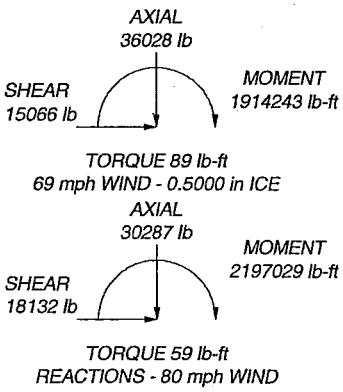
URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Ongoing and Periodic Inspection and Maintenance:

After the Contractor has successfully completed the installation and the work has been accepted, the owner will be responsible for the ongoing and periodic inspection and maintenance of the tower.

The owner shall refer to TIA/EIA-222-F for recommendations for maintenance and inspection. The frequency of the inspection and maintenance intervals is to be determined by the owner based upon actual site and environmental conditions. It is recommended that a complete and thorough inspection of the entire tower structural system be performed at least yearly and more frequently as conditions warrant. According to TIA/EIA-222-F section 14.1, Note 1: It is recommended that the structure be inspected after severe wind and/or ice storms or other extreme loading conditions.





APPURTENANCES

TYPE	ELEVATION	TYPE	ELEVATION
12' Low Profile Platform (Cingular)	169	LPD-6513 (Verizon)	140
(4) 7770.00 (Cingular)	169	LPA-185063/8CFx2 (Verizon)	140
(4) 7770.00 (Cingular)	169	LPA-185063/8CFx2 (Verizon)	140
(4) 7770.00 (Cingular)	169	LPD-6513 (Verizon)	140
(4) TMA (Cingular)	169	LPD-6513 (Verizon)	140
(4) TMA (Cingular)	169	LPA-185063/8CFx2 (Verizon)	140
(4) TMA (Cingular)	169	LPA-185063/8CFx2 (Verizon)	140
12' Low Profile Platform (Sprint)	160	LPD-6513 (Verizon)	140
(3) DB980F90E-M (Sprint)	160	LPD-6513 (Verizon)	140
(3) DB980F90E-M (Sprint)	160	LPA-185063/8CFx2 (Verizon)	140
(3) DB980F90E-M (Sprint)	160	LPA-185063/8CFx2 (Verizon)	140
12' Low Profile Platform (Verizon)	140	Side Arm Mount (Sprint)	75
LPD-6513 (Verizon)	140	GPS (Sprint)	75

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: 99.6%

URS Corporation
500 Enterprise Drive, Suite 3B
Rocky Hill, CT 06067
Phone: (860) 529-8882
FAX: (860) 529-3991

Job: ***170' EEI Monopole***
Project: ***Bristol, CT***
Client: Verizon Wireless | Drawn by: Jed Kiernan | App'd:
Code: TIA/EIA-222-F | Date: 12/12/05 | Scale: N
Path: P:\F08\ERI Files\170' EEI-Bristol.eri | Dwg No. E

ENGINEERED ENDEAVORS INCORPORATED

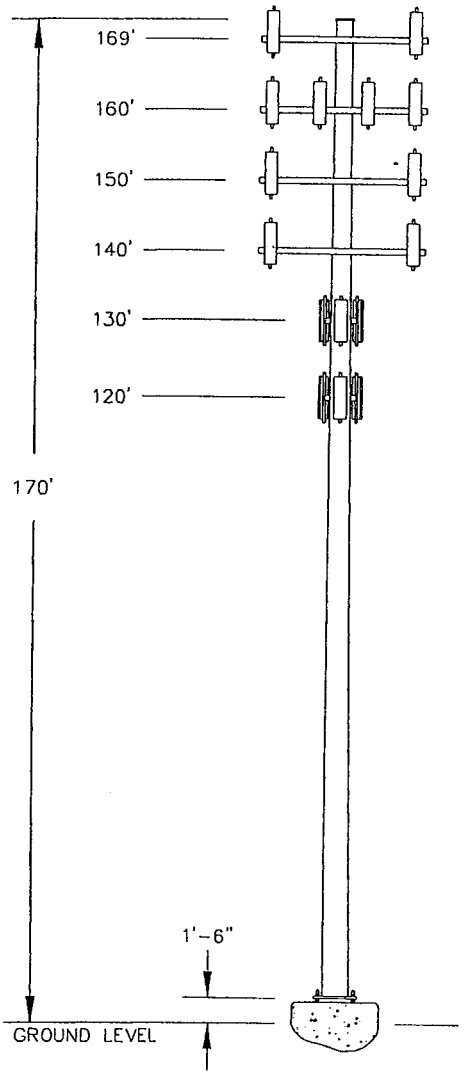
Customer AT&T WIRELESS By JAY PARR 11/19/03 (Date)

Structure 170' MONOPOLE Checked ____ 12027 (Job/Quote No.)

SITE LOCATION: HARTFORD COUNTY, CT

SITE NAME: BRISTOL CENTER/CT-833

REVISION 1



ANTENNA LOADING:

(6) 7920.00 PANEL ANTENNAS AT 169'
(3) 10 ft UNIVERSAL T-ARMS AT 169'

(12) DB980 PANEL ANTENNAS AT 160'
12 ft LOW PROFILE PLATFORM AT 160'

(6) 4 ft PANEL ANTENNAS AT 150'
(3) 10 ft UNIVERSAL T-ARMS AT 150'

(6) 4 ft PANEL ANTENNAS AT 140'
(3) 10 ft UNIVERSAL T-ARMS AT 140'

(3) 4 ft PANEL ANTENNAS AT 130'
(3) 6 ft 8 in LOW VISIBILITY MOUNTS AT 130'

(3) 4 ft PANEL ANTENNAS AT 120'
(3) 6 ft 8 in LOW VISIBILITY MOUNTS AT 120'

INITIALLY, (3) 7920.00 PANEL ANTENNAS WILL BE MOUNTED FLUSH TO THE POLE AT 169'

DESIGN NOTES:

DESIGNED IN ACCORDANCE WITH TIA/EIA 222-F
80 MPH FASTEST-MILE WIND SPEED
1/2" RADIAL ICE

CASE I - 80 MPH FASTEST-MILE WIND SPEED

CASE II - 75% OF 80 MPH FASTEST-MILE WIND LOAD WITH 1/2" RADIAL ICE

NOTE: IT IS THE RESPONSIBILITY OF THE PURCHASER TO VERIFY THAT THE WIND LOADS AND DESIGN CRITERIA SPECIFIED MEET THE REQUIREMENTS OF ALL LOCAL BUILDING CODES

Michael R. Morel

11/19/03

ENGINEERED ENDEAVORS, INC.

7610 Jenther Drive • Mentor, Ohio 44060
Telephone: (440) 918-1101 • Telefax: (440) 918-1108

CINGULAR WIRELESS
Equipment Modification

38 Hatchetts Hill Road, Old Lyme
Cell Site 2196
Exempt Modifications 3/22/00 and 8/15/02

Tower Owner/Manager: T-Mobile

Equipment configuration: Monopole

Current and/or approved: Nine CSS DUO1417 antennas @ 165 ft c.l.
Nine runs 1 ¼ inch coax
Six TMA's / three diplexers @ 165 ft

Planned Modifications: Remove three existing antennas
Install three Powerwave 7770 antennas @ 165 ft c.l.
Install three additional diplexers @ 165 ft (total of 6)
Install three additional runs 1 ¼ 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 11.4 % 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 8.9 % 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 *							5.32
CingularTDMA *	165	880 - 894	16	100	0.0211	0.5867	3.60
Cingular GSM *	165	880 - 894	2	296	0.0078	0.5867	1.33
Cingular GSM *	165	1900 Band	2	427	0.0113	1.0000	1.13
Total							**11.4%**

* 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 *							5.32
Cingular GSM	165	880 - 894	2	296	0.0078	0.5867	1.33
Cingular GSM	165	1900 Band	2	427	0.0113	1.0000	1.13
Cingular UMTS	165	880 - 894	1	500	0.0066	0.5867	1.13
Total							8.9%

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the existing tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (GEM Engineering Co., Job 460554, dated 7/3/02)

The 2002 structural analysis includes AT&T antennas at 155 ft AGL on the tower. These antennas and associated coax cables, however, have been removed per a notice of exempt modification approved March 13, 2007. (See attached photographs.)

The 2002 structural analysis does not include the 3 additional diplexers that Cingular now proposes to install.

Cingular respectfully submits that the loading created by the new diplexers is more than offset by the AT&T antennas and coax removed subsequent to the 2002 structural analyses.

For the reasons stated above, Cingular respectfully submits that no new structural analysis is required to evaluate the proposed modifications and that the 2002 analysis remains valid.

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 27, 2007

Honorable Timothy C. Griswold
1st Selectman, Town of Old Lyme
Town Hall 52 Lyme St.
Old Lyme, CT 06371

Re: Telecommunications Facility – 38 Hatchetts Hill Road, Old Lyme

Dear Mr. Griswold:

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


2005


2007

2196

GEM ENGINEERING COMPANY

2500 Wilcrest, Suite 100
Houston, Texas 77042

Phone 713-339-1550
Fax 713-339-9922

July 3, 2002

A Subsidiary of Quanta Services, Inc.

Quanta Services

Mr. Richard Johanson
Bechtel Telecommunications
175 Capital Boulevard
Suite 100
Rocky Hill, CT 06067

RECEIVED
JUL 08 2002
By Bechtel (Sy)

Re: Structural Re-Analysis of Existing Tower

Bechtel Site Number:	2196
GEM Project No.:	460554
Site Location:	38 Hatchets Hill Road Old Lyme, CT

Dear Richard,

The following tower, located in Connecticut, was re-analyzed for the loads from new antennas in addition to the existing loading on the tower, per TIA/EIA 222-F:

- Old Lyme – Hatchets Hill – 191' Monopole Tower

The re-analysis (per revision 1) shows that the above referenced tower and its foundation are **structurally adequate** to support the nine (9) new antennas with six (6) new TMA and three (3) new Diplexer at 165' above ground level in addition to all existing loading. Nine (9) existing antennas at elevations 165' shall be replaced with nine (9) new antennas at elevation 165'.

If I can be of any further assistance or if you have any question, please do not hesitate to contact me at (713) 339-1550, extension 127.

Sincerely,

Corey D. Green, P.E.
A&E Department Manager

GEM ENGINEERING COMPANY

2500 Wilcrest, Suite 100
Houston, Texas 77042

Phone 713-339-1550
Fax 713-339-9922

A Subsidiary of Quanta Services, Inc.

Quanta Services

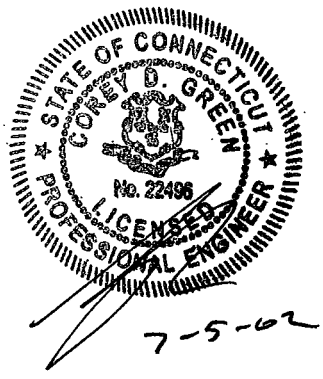
TOWER ANALYSIS REPORT

BECHTEL TELECOMMUNICATIONS

Site Name: Old Lyme – Hatchets Hill
Site Number: 2196
Old Lyme, CT

Revision 1

(191' Monopole Tower)



GEM Engineering Company, Inc.
July 3, 2002

TOWER INFORMATION

Tower Height:	**191'**
Tower Type:	**Monopole**
Tower Manufacturer:	**Pirod Inc.**
Tower Model Number:	**MP60 x 190'**
Location:	**Old Lyme, CT**
Report Prepared for:	**Bechtel Telecomm.**
Report Prepared by:	**Tommy Dao**
Report Checked by:	
GEM Project Number:	**460554**
Site Name:	**Old Lyme-Hatchets Hill**
Site Number:	**2196**
Report Date:	**July 3, 2002**

Section 1 Introduction

The purpose of this report is to investigate the structural adequacy of an existing monopole, to support the new proposed antennas, in addition to the existing ones. This tower was analyzed by using "ERITower" computer program.

The existing tower is a 191' tapered monopole designed by "Pirod, Inc.". Information on this tower and original base reaction were obtained from "Pirod Inc." design drawing, file number A-115008, drawing number 204163-B, dated 12/09/1998. "Bechtel Telecommunications" supplied information on the new antennas and existing antennas.

The new and existing antennas are listed in the "Tower Loading & Criteria" section. The main forces that are considered in the analysis of the monopole are those resulting from wind. Per TIA/EIA-222-F, the basic wind speed for the New London County in Connecticut is 85 mph with ½" ice.

The monopole was analyzed for the following load combinations:

- Dead Load + Wind Load
- Dead Load + Wind Load + Ice

Allowable stresses were increased by 1/3 for the above load combinations. This is according to TIA/EIA code. Dead Load consists of the loads due to the weight of all existing and future antennas, coaxes, monopole members, and all related appurtenances.

Section 2 Tower Loading Information & Criteria

Customer Name: Bechtel Telecommunications

Site: Old Lyme – Hatchets Hill

TOWER ANALYSIS DATA:

Monopole Analysis Criteria: TIA-EIA-222-F

Monopole Height: 191'

Wind Load: 85 mph

Ice Load: ½"

Frequency: -

ANTENNAS:

Model	Carrier Name	Level	Azimuth	Existing / New	Ice Shield	Coaxial Cables
(12) RR65-00DP		185'		E		Not exposed
(12) DB844H90		175'		E		Not exposed
(9) Allgon 7120.16 *		165'		E		Not exposed
(9) CSS DUO4-8670 with (6) new TMA and (3) new Diplexer		**165'**		**N**		Not exposed
(9) RR90-17-00NP		155'		E		Not exposed

*** Nine (9) existing antennas at elevations 165' shall be replaced with nine (9) at elevation 165'.**

DO

Section 3 Results

Structural Element	Stress	Maximum Ratio	Notes
Monopole Shaft	O.K.	1.050	-
Legs	-	-	-
Leg Bolts	-	-	-
Diagonals	-	-	-
Diagonal Bolts	-	-	-
Girts	-	-	-
Girt Bolts	-	-	-
Guy Wires	-	-	-

N/A = Not Applicable, N.G. = Not Good (Structurally)

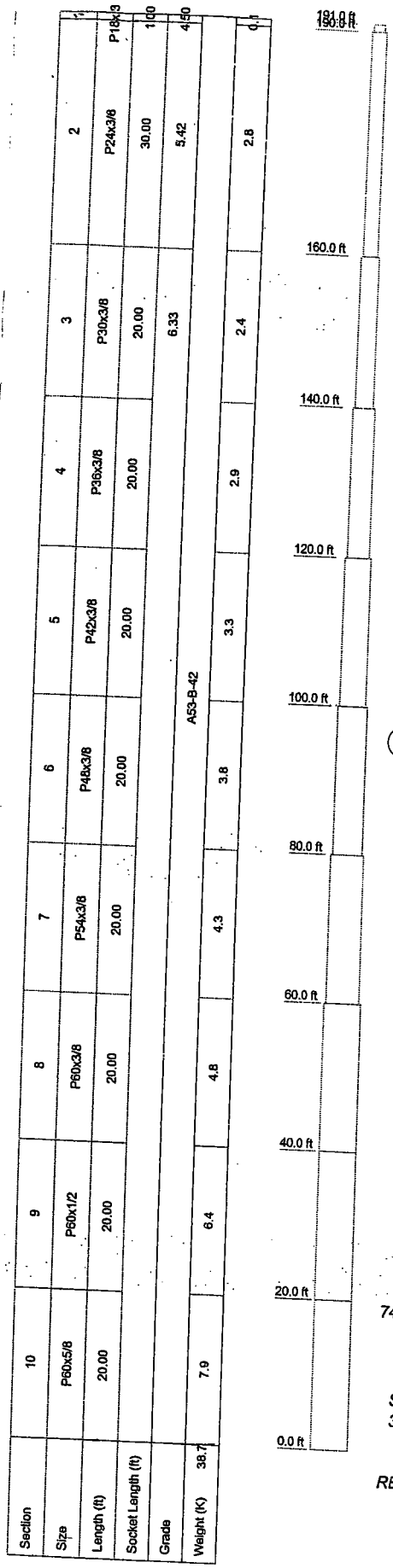
Acceptable Maximum Ratio is 1.05

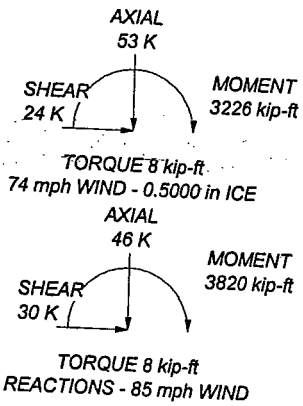
BASE REACTIONS	Moment (ft.k)	Shear (k)	Axial (k)
Original Base Reactions *	3556.9	28.3	69.7
New Foundation Loads	**3820**	**30**	53

* The original reactions were taken from "Pirod Inc." design drawing, file number A-115008, drawing number 204163-B, dated 12/09/1998. The new foundation loads are slightly higher than original base reactions (less than 8%). Base on engineering judgment, the existing foundation is **structurally adequate** to support the new and existing antennas.

Section 4 Conclusions

The existing 191' monopole was analyzed for a wind speed of 85 mph and ½" ice, with the existing and proposed antennas, and their coaxial cables. The analysis shows that **the existing monopole and its foundation are structurally adequate** to support the nine (9) new antennas with six (6) new TMA and three (3) new diplexer at 165' above ground elevation, in addition to all existing antennas. Nine (9) existing antennas at elevations 165' shall be replaced with nine (9) new antennas at elevation 165'.





DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
(4) RR65-19-00DP	185	(3) New CSS DU04-8670 with (2) new TMA and (1) new Diplexer	165
(4) RR65-19-00DP	185	(3) New CSS DU04-8670 with (2) new TMA and (1) new Diplexer	165
(4) RR65-19-00DP	185	Platform	165
Platform	185	(3) RR90-17-00NP	155
(4) DB844H90	175	(3) RR90-17-00NP	155
(4) DB844H90	175	(3) RR90-17-00NP	155
(4) DB844H90	175	Platform	155
Platform	175		
(3) New CSS DU04-8670 with (2) new TMA and (1) new Diplexer	165		

MATERIAL STRENGTH

GRADE	YIELD	GRADE	YIELD
A53-B-42	42 ksi		

TOWER DESIGN NOTES

1. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
2. Tower is also designed for a 74 mph basic wind with 0.50 in ice.
3. Deflections are based upon a 50 mph wind.

GEM Engineering

GEM Engineering, Inc.
2500 Wilcrest Drive
Houston, Texas 77042-2759
Phone: (713) 339-1550
FAX: (713) 339-9922

Job: 460554 (Revision 1)			
Project: 191' Old Lyme - Hatchets Hill, CT			
Client: Bechtel - Cingular	Drawn by: Tommy Dao	App'd:	
Code: TIA/EIA-222-F	Date: 07/03/02	Scale: NTS	
Path: X:\GEMSys\Users\TDao\Eriztower files\Old Lyme - Hatchetts Hill\(460554)-rev1-190mo.er		Dwg No. E-1	

CINGULAR WIRELESS
Equipment Modification

800 Ogg Meadow Road, Orange, CT
Site Number 2159
CSC Docket 177A.2; Exempt Modification 8/15/02

Tower Owner/Manager: Crown Castle

Equipment configuration: Monopole

Current and/or approved: Nine CSS DUO1417 antennas @ 152 ft c.l.
Nine runs 1 ¼ inch coax
Six TMA's @ 152 ft

Planned Modifications: Remove three existing antennas
Install three Powerwave 7770 antennas @ 152 ft c.l.
Install three runs 1 ¼ inch coax (total of 12)
Install three diplexers @ 152 ft

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 24.1 % of the standard.

Existing / Approved

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 *							19.74
Cingular TDMA*	150	880 - 894	16	100	0.0256	0.5867	4.36
Cingular GSM *	150	880 - 894	2	296	0.0095	0.5867	1.61
Cingular GSM *	150	1900 Band	2	427	0.0136	1.0000	1.36
Total							**27.1%**

* 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 *							19.74
Cingular GSM	152	880 - 894	3	296	0.0138	0.5867	2.36
Cingular GSM	152	1900 Band	1	427	0.0066	1.0000	0.66
Cingular UMTS	152	880 - 894	1	500	0.0078	0.5867	1.33
Total							24.1%

* Per CSC records.

Structural information:

The attached structural analysis demonstrates that the existing tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (GDP Associates, Proj. Number 2007185.53, dated 6/12/07)

The new  at&t
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

June 27, 2007

Honorable James M. Zeoli
1st Selectman, Town of Orange
Town Hall 617 Orange Center Rd.
Orange, CT 06477-2423

Re: Telecommunications Facility – 800 Ogg Meadow Road, Orange

Dear Mr. Zeoli:

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

GPD ASSOCIATES

Date: June 12, 2007

Eva Morales
Crown Castle International
46 Broadway
Albany, New York 12204
(518) 433-6250

GPD Associates
520 South Main St., Suite 2531
Akron, Ohio 44311
(330) 572-2114
tbowman@gpdgroup.com

Subject:	**Structural Analysis Report**	
Carrier Designation	**Cingular Co-locate**	
	Cingular Site Name:	**Orange North-Ogg Meadow Rd**
	Cingular Site Number:	**2159**
Crown Castle Designation	**Crown Castle BU Number:**	**806939**
	Crown Castle Site Name:	**NHV 2071 143137**
	Crown Castle JDE Number:	**88768**
GPD Associate Designation	**GPD Associates Project Number:**	**2007185.53**
Site Data	**Off Ogg Meadow Road, Orange, CT 06477** **Latitude 41° 18' 28.36", Longitude 73° 1' 56.22"** **160' Valmont Monopole**	

Dear Ms. Morales,

GPD 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 242009, in accordance with application 45412, revision 0. The purpose of the analysis is to determine the suitability of the tower with the existing and reserved loading configurations and the addition of the following proposed loading configuration:

Elev. 152' (3) Powerwave Tech 7770.00 Antennas on an existing 13' Platform w/ (6) 1-1/4" internal coax
(6) CSS DUO1417-8686 Antennas on the same platform w/ (6) 1-1/4" internal coax
(6) Powerwave Tech LGP13519 Diplexers mounted behind the antennas

This analysis has been performed in accordance with the TIA/EIA-222-F standard based upon a wind speed condition of 85 mph. Based on our analysis we have determined the **tower and its foundation are sufficient** for the proposed, existing, and reserved loadings as referenced in Tables 1 and 2.

We at GPD appreciate the opportunity of providing our continuing professional services to you and Crown Castle International. If you have any questions please do not hesitate to call.

Respectfully submitted,

David B. Granger, P.E.
Connecticut #: 17557

STATE OF CONNECTICUT
DAVID B. GRANGER, P.E.
NO. 17557
LICENSED
PROFESSIONAL ENGINEER

EXECUTIVE SUMMARY

The purpose of this analysis was to verify that the existing structure is capable of carrying the proposed loading configuration as specified by Cingular Wireless to Crown Castle International. This report was commissioned by Ms. Eva Morales of Crown Castle International.

The existing tower is structurally satisfactory for the proposed loading configuration for a basic wind speed of 85 mph with ½" radial ice (25% reduction) in accordance with TIA/EIA-222-F. The tower rating/capacity is 94.8%.

Foundation reactions, with the proposed loads, were found to be less than the capacity of the existing foundation. Therefore, the foundation will be adequate. The foundation rating/capacity is 50.0%.

The existing antennas at 152' shall be removed prior to the installation of the proposed loading and were not considered in the analysis. The existing coax shall be reused for the proposed loading. Refer to Appendix C for the proposed coax layout.

ANALYSIS CRITERIA

The current requirements of TIA/EIA-222-F are for a basic wind speed of 85 mph with ½" of radial ice. A 25% reduction in wind load is allowed when wind and ice are applied simultaneously. TIA/EIA-222-F requires towers within New Haven County, Connecticut be analyzed with an 85 mph wind speed.

Table 1 – Proposed Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount Type	Number Of Feed Lines	Feed Line Size (inches)
152	3 6 6	Powerwave CSS Powerwave	7770 DUO1417-8686 LGP13519 Diplexers		3	1-1/4

Note: See Appendix C for proposed coax layout

Table 2 – Existing and Reserved Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount Type	Number Of Feed Lines	Feed Line Size (inches)
170	3 4	EMS Wireless Nokia	RR90-17-00DP CS72993.07 TMA's	Pipe	6	1-5/8
161	6 6	Decibel Decibel	DB844H90 DB948F85T2E-M	13' Platform w/ rails	6 6 1	1-5/8 1-5/8 1/2
152	9* 6	CSS ADC	DUO4-8670 DB 800/1900 FB MSTHD	13' Platform w/ rails	9	1-1/4
140	6 3 (Reserved)	Decibel Decibel	DB980H90E-M DB980H90E-M	13' Platform w/ rails	6 3 1	1-5/8 1-5/8 1/2
129 120	6 12	EMS Wireless Swedcom	RR90-17-02DP ALP 9212-N	13' Platform w/ rails	12 12	1-5/8 1-1/4

* See Executive Summary

TOWER DESCRIPTION

The existing monopole has twelve sides and is evenly tapered from 53.0" (flat-flat) at the base to 21.65" (flat-flat) at the top. It has four major sections connected with slip joints. The structure is galvanized and has no tower lighting.

The tower was originally designed for Crown Castle by Valmont/Microflect of Salem, Oregon for an 85 mph wind speed with 1/2" (25% reduction) radial ice in accordance with EIA/TIA-222-F.

ANALYSIS PROCEDURE

Table 3 – Documents Provided

Document	Remarks	Reference	Source
Original Tower Drawings	Valmont Order #: 19126-69, dated 9/16/99	Doc ID # 822032	Crown DMZ
Foundation Drawing	Valmont Order #: 19126-69, dated 9/16/99	Doc ID # 1060127	Crown DMZ
Geotechnical Report	FDH Engineering Project #: 06-0939G, dated 9/26/06	Doc ID # 1257473	Crown DMZ

Analysis Methods

RISA Tower (Version 4.7.0.2), a commercially available software program, was used to create a three-dimensional model of the tower and calculate member stresses for various dead, live, wind, and ice load cases. All loads were computed in accordance with the ANSI/EIA/TIA-222-F and all local building code requirements. Selected output from the analysis is included in Appendix A.

Assumptions

1. Tower and structures were built in accordance with the manufacturer's specifications.
2. The tower and structures have been maintained in accordance with manufacturer's specifications.
3. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 & 2 and the referenced drawings.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Associates should be allowed to review any new information to determine its effect on the structural integrity of the tower.

ANALYSIS RESULTS

Table 4 – Tower Summary

Notes	Member	Strength (KSI)	Capacity	Elevation (feet)	Results
	Pole (L1)	65	56.1%	121.3 – 160	Pass
	Pole (L2)	65	83.5%	81.3 – 121.3	Pass
	Pole (L3)	65	80.9%	41.4 – 81.3	Pass
	Pole (L4)	65	82.2%	0 – 41.4	
	Base Plate	60	94.8%		Pass
	Anchor Bolts	100	74.5%		Pass
1	Foundation	O.T.M.	50.0%		Pass
Structure Rating: 94.8%					

1) See additional documentation in Appendix D for calculations supporting the % capacity used.

Recommended Modifications

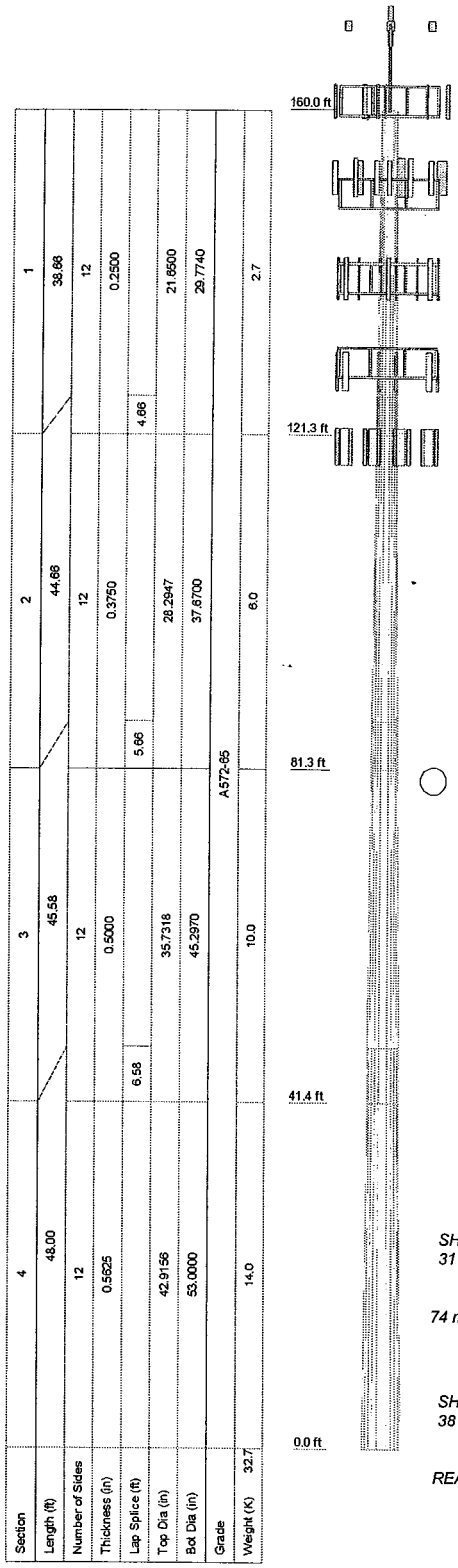
The tower and its foundation are satisfactory for the proposed loads and do not require modifications.

DISCLAIMER OF WARRANTIES

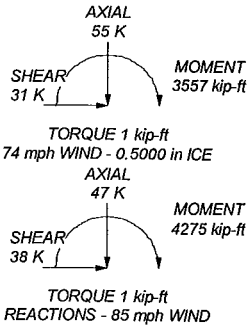
The engineering services rendered by GPD ASSOCIATES in connection with this Structural Analysis are limited to a computer analysis of the tower structure, size and capacity of its members. GPD ASSOCIATES does not analyze the fabrication, including welding, except as included in this report.

The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD ASSOCIATES, but are beyond the scope of this report.

GPD ASSOCIATES makes no warranties, expressed or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD ASSOCIATES will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD ASSOCIATES pursuant to this report will be limited to the total fee received for preparation of this report.



Section	4	3	2	1
Length (ft)	48.00	45.58	44.66	38.66
Number of Sides	12	12	12	12
Thickness (in)	0.5625	0.5000	0.3750	0.2500
Lap Splice (ft)	6.58	5.66	4.66	
Top Dia (in)	42.9156	35.7318	28.2947	21.6500
Bot Dia (in)	53.0000	45.2970	37.6700	29.7740
Grade	A572-65			
Weight (K) 32.7	14.0	10.0	6.0	2.7



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
(2) DB844H90	161	(2) 13519 Diplexer	150
(2) DB948F85T2E-M	161	(2) 13519 Diplexer	150
(2) DB844H90	161	(2) DUO1417-8686 w/Mount Pipe	150
(2) DB948F85T2E-M	161	(2) DUO1417-8686 w/Mount Pipe	150
(2) DB844H90	161	(2) DUO1417-8686 w/Mount Pipe	150
(2) DB948F85T2E-M	161	7770.00 w/Mount Pipe	150
Valmont 13' Platform w/Rails	161	Valmont 13' Platform w/Rails	150
RR90-17-00DP	160	7770.00 w/Mount Pipe	150
RR90-17-00DP	160	(3) DB980H90E-M	140
RR90-17-00DP	160	(3) DB980H90E-M	140
(2) CS72993.08	160	Valmont 13' Platform w/Rails	140
CS72993.08	160	(3) DB980H90E-M	140
CS72993.08	160	(2) RR90-17-02DP w/Mount Pipe	130
10'6"x4" Pipe Mount	160	(4) ALP 9212-N w/Mount Pipe	130
7770.00 w/Mount Pipe	150	Valmont 13' Platform w/Rails	130
(2) Dual 800/1900 Full Band TMA	150	(2) RR90-17-02DP w/Mount Pipe	130
(2) Dual 800/1900 Full Band TMA	150	(4) ALP 9212-N w/Mount Pipe	130
(2) Dual 800/1900 Full Band TMA	150	(2) RR90-17-02DP w/Mount Pipe	130
(2) 13519 Diplexer	150	(4) ALP 9212-N w/Mount Pipe	130

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in New Haven 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: 94.8%

GPD Associates
520 South Main St. Suite 2531
Akron, OH 44311
Phone: (330) 572-2100
FAX: (330) 572-2101

Job: NHV 2071, BU#: 806939			
Project: 2007185.53			
Client: Crown Castle	Drawn by: tbowman	App'd:	
Code: TIA/EIA-222-F	Date: 06/12/07	Scale: NTS	
Path: G:\Telecom\2007185\53\RISA\806939.eri		Dwg No. E-1	

CINGULAR WIRELESS
Equipment Modification

400 Main Street, Somers, CT
Site Number 5857
Former AT&T Wireless Cell Site
Exempt Modification 8/1/02

Tower Owner/Manager: Crown Castle

Equipment configuration: Monopole

Current and/or approved: Three Allgon 7250 antennas @ 160 ft c.l.
Six runs 1 5/8 inch coax
Existing concrete pad with three outdoor cabinets

Planned Modifications: Remove three existing antennas
Install three Powerwave 7770 antennas at 160 ft c.l.
Install six TMA's @ 160 ft
Remove one existing outdoor cabinet
Install one new outdoor cabinet for UMTS

Power Density:

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 15.6 % 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 17.3 % 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 *							14.25
Cingular GSM *	165	1900 Band	4	250	0.0132	1.0000	1.32
Total							15.6%

* 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 *							14.25
Cingular UMTS	160	880 - 894	1	500	0.0070	0.5867	1.20
Cingular GSM	160	1900 Band	2	655	0.0184	1.0000	1.84
Total							17.3%

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the existing tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (GPD Associates, Job 2007186.17, dated 6/20/07)

The new  at&t
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

June 27, 2007

Honorable David A. Pinney
1st Selectman, Town of Somers
Town Hall 600 Main St.
Somers, CT 06071-0308

Re: Telecommunications Facility – 400 Main Street, Somers

Dear Mr. Pinney:

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

GPD ASSOCIATES

Date: June 20, 2007

Ronnie Harris
Crown Castle International
1200 Macarthur Blvd.
Mahwah, New Jersey 07430
(201) 236-9094

GPD Associates
520 South Main St., Suite 2531
Akron, Ohio 44311
(330) 572-2257
lbaughn@gpdgroup.com

Subject:	**Structural Analysis Report**	
Carrier Designation	**Cingular Wireless Co-locate**	
	Cingular Wireless Site Name:	**Somers-Main Street**
	Cingular Wireless Site Number:	**5857**
Crown Castle Designation	**Crown Castle BU Number:**	**803934**
	Crown Castle Site Name:	**CT Somers FD**
	Crown Castle JDE Number:	**88766**
GPD Associate Designation	**GPD Associates Project Number:**	**2007186.17**
Site Data	**400 Main Street, Somers, Connecticut 06071** **Latitude 41° 59' 1.48", Longitude 72° 27' 56.87"** **188' Summit Monopole**	

Dear Ms. Harris,

GPD 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 243073, in accordance with application 45601, revision 0. The purpose of the analysis is to determine the suitability of the tower with the existing and reserved loading configurations and the addition of the following proposed loading configuration:

Elev. 160'	(3) Powerwave Tech 7770.00 Antennas, pipe mounted, w/ (6) existing 1-5/8" internal coax
	(3) Powerwave Tech 7770.00 Antennas, pipe mounted (Reserved)
	(6) Powerwave Tech LGP21401 Tower Mounted Amplifiers mounted behind the antennas

This analysis has been performed in accordance with the TIA/EIA-222-F standard based upon a wind speed condition of 85 mph and the Connecticut Building Code based on a 100 mph 3 second gust. Based on our analysis we have determined the **tower and its foundation are sufficient** for the proposed, existing, and reserved loadings as referenced in Tables 1 and 2.

We at GPD appreciate the opportunity of providing our continuing professional services to you and Crown Castle International. If you have any questions please do not hesitate to call.

Respectfully submitted,

David B. Granger, P.E.
Connecticut #: 17557

STATE OF CONNECTICUT
DAVID B. GRANGER, P.E.
NO. 17557
LICENSED
PROFESSIONAL ENGINEER

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The purpose of this analysis was to verify that the existing structure is capable of carrying the proposed loading configuration as specified by Cingular Wireless to Crown Castle International. This report was commissioned by Ms. Ronnie Harris of Crown Castle International.

The existing tower is structurally satisfactory for the proposed loading configuration for a basic wind speed of 85 mph with ½" radial ice (25% reduction) in accordance with TIA/EIA-222-F. The tower rating/capacity is 65.1%.

The foundation reactions, with the proposed loading, were found to be 64.7% of the original design reactions. If the existing foundation was properly designed for the original reactions, then it is our opinion that the foundation is adequate.

The existing antennas and TMA's at 160' shall be removed prior to the installation of the proposed configuration and were not considered in this analysis. The existing coax supplying the antennas at 160' shall be reused for the proposed configuration. Refer to Appendix C for the proposed coax layout.

ANALYSIS CRITERIA

The current requirement of TIA/EIA-222-F is for a basic wind speed of 85 mph with ½" of radial ice. A 25% reduction in wind load is allowed when wind and ice are applied simultaneously. TIA/EIA-222-F requires towers within Tolland County, Connecticut be analyzed with an 85 mph wind speed. The Connecticut Building Code requires structures within the vicinity of the tower be analyzed using a 100 mph 3 second gust. In this case, the 85 mph wind speed controls.

Table 1 – Proposed Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount Type	Number Of Feed Lines	Feed Line Size (inches)
160	3 3 (Reserved) 6	Powerwave Tech Powerwave Tech Powerwave Tech	7770.00 7770.00 LGP21401 TMA's			

Table 2 – Existing and Reserved Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount Type	Number Of Feed Lines	Feed Line Size (inches)
193 190	1 (Reserved) 6 6 (Reserved)	Andrew Decibel Decibel	DB404L-B DB980F65T2E-M DB980F65T2E-M	13' LP Platform	1 6 6	7/8 1-5/8 1-5/8
178	6 6	Decibel Swedcom	DB948F85T2E-M ALP 9212-N	13' LP Platform	6 6	1-5/8 1-5/8
169	3 3 (Reserved) 6	EMS Wireless EMS Wireless Ericsson	RR65-19-00DP RR65-19-00DP KRY 112 71/1	13' LP Platform	6 6	1-5/8 1-5/8
160	3* 2*	Allgon Nokia	7250.00 CS72993.07 TMA's	Pipe	6*	1-5/8
131	1 (Reserved)	Sinclair	SD212-SF2P2SNM	Pipe	1	7/8
122	1 (Reserved)	Sinclair	SD110-SFXPASNM	Pipe	1	7/8

*See Executive Summary

TOWER DESCRIPTION

The existing 188' monopole has an 18-sided cross-section and is evenly tapered from 61.28" (flat-flat) at the base to 26.00" (flat-flat) at the top. It has four major sections connected with slip joints. The structure is galvanized and has no tower lighting.

The tower was originally designed for Crown Castle USA by Summit Manufacturing, LLC of West Hazelton, Pennsylvania for an 80 mph basic wind speed with ½" radial ice (25% reduction) in accordance with TIA/EIA-222-F 1996.

ANALYSIS PROCEDURE

Table 3 – Documents Provided

Document	Remarks	Reference	Source
Original Tower Drawings	Summit Manufacturing, LLC Job #: 13785, dated 4/5/01	Doc ID # 419873	Crown DMZ

Analysis Methods

RISA Tower (Version 4.7.0.2), a commercially available software program, was used to create a three-dimensional model of the tower and calculate member stresses for various dead, live, wind, and ice load cases. All loads were computed in accordance with the ANSI/EIA/TIA-222-F and all local building code requirements. Selected output from the analysis is included in Appendix A.

Assumptions

1. Tower and structures were built in accordance with the manufacturer's specifications.
2. The tower and structures have been maintained in accordance with manufacturer's specifications.
3. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 & 2, and the referenced drawings.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Associates should be allowed to review any new information to determine its effect on the structural integrity of the tower.

ANALYSIS RESULTS

Table 5 – Tower Summary

Notes	Member	Strength (KSI)	Capacity	Elevation (feet)	Results
	Pole (L1)	65	54.1%	137 – 188	Pass
	Pole (L2)	65	60.9%	91 – 137	Pass
	Pole (L3)	65	65.1%	45 – 91	Pass
	Pole (L4)	65	65.0%	1 – 45	Pass
	Base Plate	55	58.5%	1	Pass
	Anchor Bolts	100	64.9%		Pass
	Foundation	O.T.M.	64.7% of Original Design		Pass
Structure Rating: 64.9%					

Recommended Modifications

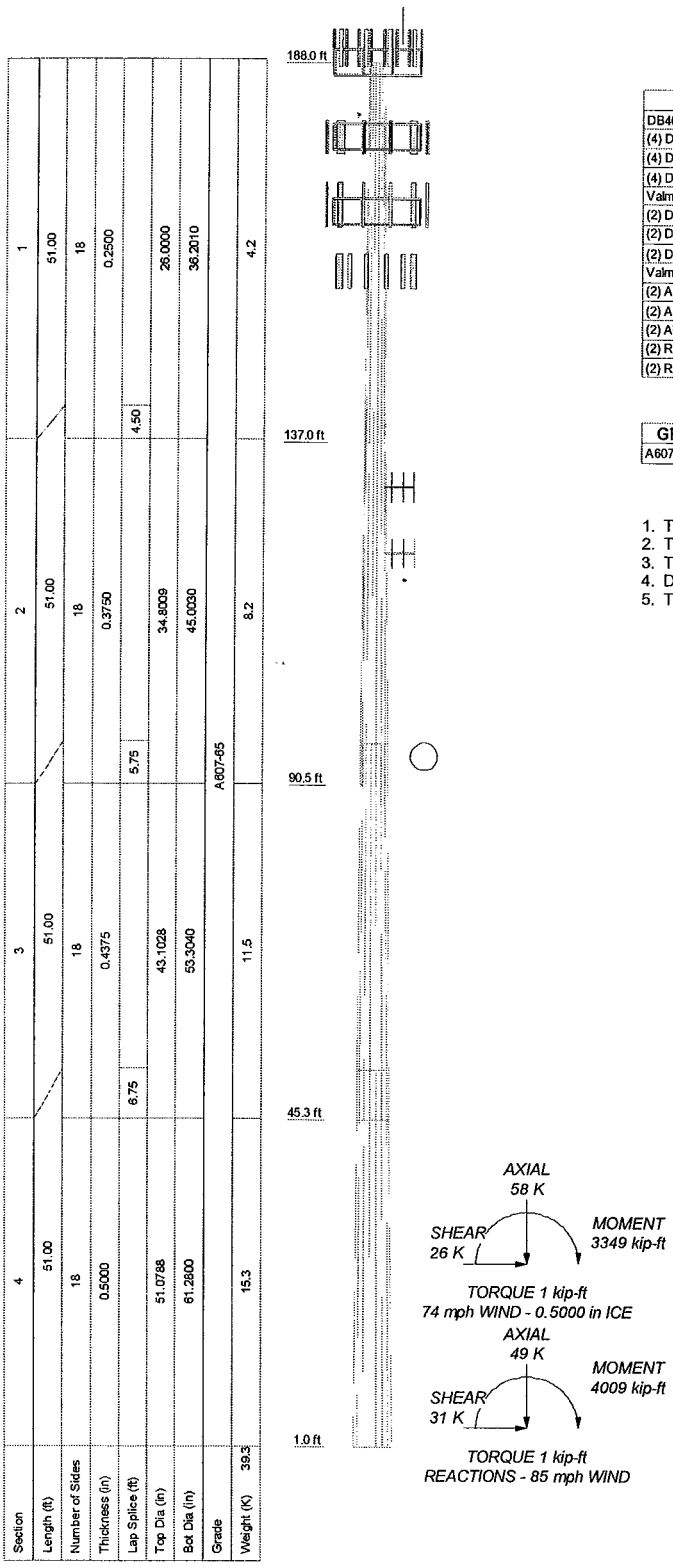
The tower and its foundation are sufficient for the proposed loads and do not require modifications.

DISCLAIMER OF WARRANTIES

The engineering services rendered by GPD ASSOCIATES in connection with this Structural Analysis are limited to a computer analysis of the tower structure, size and capacity of its members. GPD ASSOCIATES does not analyze the fabrication, including welding, except as included in this report.

The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD Associates, but are beyond the scope of this report.

GPD ASSOCIATES makes no warranties, expressed or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD ASSOCIATES will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD ASSOCIATES pursuant to this report will be limited to the total fee received for preparation of this report.



TORQUE 1 kip-ft
74 mph WIND - 0.5000 in ICE

TORQUE 1 kip-ft
REACTIONS - 85 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
DB404-B	188	(2) RR65-19-00DP w/Mount Pipe	168
(4) DB980F65T2E-M w/Mount Pipe	188	(2) KRY 112 71	168
(4) DB980F65T2E-M w/Mount Pipe	188	(2) KRY 112 71	168
(4) DB980F65T2E-M w/Mount Pipe	188	(2) KRY 112 71	168
Valmont 13' Platform w/o Rails	188	Valmont 13' Platform w/o Rails	168
(2) DB948F85T2E-M w/Mount Pipe	178	(2) 7770.00	160
(2) DB948F85T2E-M w/Mount Pipe	178	(2) 7770.00	160
(2) DB948F85T2E-M w/Mount Pipe	178	(2) 7770.00	160
Valmont 13' Platform w/o Rails	178	(2) LGP2140X	160
(2) ALP 9212-N w/Mount Pipe	178	(2) LGP2140X	160
(2) ALP 9212-N w/Mount Pipe	178	(2) LGP2140X	160
(2) ALP 9212-N w/Mount Pipe	178	SD212-SF2P2SNM	128
(2) RR65-19-00DP w/Mount Pipe	168	SD110-SFXPASNM	115
(2) RR65-19-00DP w/Mount Pipe	168		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A607-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Tolland 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 60 mph wind.
5. TOWER RATING: 65.1%

GPD GROUP
Consulting Engineers
GPD Group
520 South Main St.
Akron, OH 44311
Phone: 330-572-2100
FAX: 330-572-2102

Job:	***CT SOMERS FD, BU #: 803934***
Project:	***2007186.17***
Client: Crown Castle	Drawn by: tbaughn App'd:
Code: TIA/EIA-222-F	Date: 06/20/07 Scale: NTS
Path: G:\Telecom\2007186\17\RISA\Revised\803934.eri	Dwg No. E-1

CINGULAR WIRELESS
Equipment Modification

1432 Old Waterbury Road, Southbury, CT
Site Number 2087
Exempt Modifications 6/16/99 and 8/15/02

Tower Owner/Manager: Crown Castle

Equipment configuration: Monopole

Current and/or approved: Nine CSS DUO1417 antennas @ 195 ft c.l.
Nine runs 1 ¼ inch coax
Six TMA's & three diplexers @ 195 ft

Planned Modifications: Remove three existing antennas
Install three Powerwave 7770 antennas @ 195 ft c.l.
Install three additional diplexers @ 195 ft (total of 6)
Install three additional runs 1 ¼ 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 16.0 % 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 14.2 % 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 *							11.63
CingularTDMA *	195	880 - 894	16	100	0.0151	0.5867	2.58
Cingular GSM *	195	880 - 894	2	296	0.0056	0.5867	0.95
Cingular GSM *	195	1900 Band	2	427	0.0081	1.0000	0.81
Total							16.0%

* 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 *							11.63
Cingular GSM	195	880 - 894	2	296	0.0056	0.5867	0.95
Cingular GSM	195	1900 Band	2	427	0.0081	1.0000	0.81
Cingular UMTS	195	880 - 894	1	500	0.0047	0.5867	0.81
Total							**14.2%**

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the existing tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (Paul J. Ford & Co., #37507-0649, dated 5/29/07)

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 27, 2007

Honorable Mark A. R. Cooper
1st Selectman, Town of Southbury
Town Hall 501 Main St. South
Southbury, CT 06488-2295

Re: Telecommunications Facility – 1432 Old Waterbury Road, Southbury

Dear Mr. Cooper:

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 43215-3708

May 29, 2007

Veronica Harris
Crown Castle International
1200 McArthur Blvd.
Mahwah, NJ 07430
(201) 236-9094

Existing Structure is Adequate
Existing Monopole is Adequate
Existing Foundation is Adequate

Subject: Structural Analysis Report of 226 Foot Monopole

Carrier Designation	**Cingular Wireless Co-Locate**	
	Carrier Site Number:	**2087**
	Carrier Site Name:	**Southbury-Waterbury Road**
Crown Castle Designation	**Crown Castle BU Number:**	**806358**
	Crown Castle Site Name:	**NHV 109 943107**
	Crown Castle JDE Job Number:	**87956**
	Crown Castle PO Number:	**239703**
	Crown Castle WO Number:	**140627**
Engineering Firm Designation	**Paul J. Ford and Company**	**37507-0649**
Site Data	**Waterbury Road, Southbury, New Haven County, CT**	
	Latitude 40° 29' 36.92", Longitude -73° 9' 54.98"	

Dear Veronica Harris,

Paul J. Ford and Company is pleased to submit this "Structural Analysis Report" to determine the structural adequacy of the above monopole. This analysis has been performed in accordance with the Crown Castle Structural "Statement of Work", the terms of the Purchase Order, and the TIA/EIA-222-F Standard for the following Basic Wind Speeds: 85 mph without ice, 74 mph with 0.5" radial ice, and 50 mph (Operational) without ice.

The monopole was analyzed with the addition of the proposed antenna loading shown in the table below combined with the existing and reserved loading on the structure:

Elevation, ft	Count	Antenna Description
195	6	CSS DUO1417-8686 w/Mount Pipe
	3	Powerwave 7700.00 w/ mount pipe
	6	Powerwave LGP13519
196	9	DB 800/1900 Full Band Masthead

Based on our analysis, we have determined that the existing monopole structure and foundation have sufficient capacity to adequately support the existing, reserved, and proposed loading. Modifications are not required at this time.

Respectfully submitted,

Aaron M. Schmidlin
Structural Engineer
aschmidlin@pjfweb.com

STATE OF CONNECTICUT
JOSEPH PACHICARAH JACOBS
No. PEN 22731
LICENSED PROFESSIONAL ENGINEER
JUN 06 2007

COLUMBUS, OHIO (614) 221-6679 • ATLANTA, GEORGIA (404) 266-2407 • ORLANDO, FLORIDA (407) 898-9039
Founded in 1965 • www.PJFweb.com • Employee-Owned Since 1994

TABLE OF CONTENTS

INTRODUCTION

At the request of Crown Castle International, Paul J. Ford and Company has analyzed the monopole at the NHV 109 943107 site located in Southbury, New Haven County, CT. This structural analysis has been performed in accordance with the TIA/EIA-222-F-1996 Standard, "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures" to determine if the monopole structure has adequate capacity to support the existing, reserved, and proposed antenna loading.

ANALYSIS CRITERIA

The existing monopole has been analyzed for the antenna and coax loading listed in Tables 1A, 1B, 2A, and 2B below. The monopole has been analyzed in accordance with the TIA/EIA-222-F-1996 Standard for the following fastest-mile Basic Wind Speeds: 85 mph without ice, 74 with 0.5" radial ice, and 50 mph without ice as recommended for New Haven County, CT.

. Table 1A - Proposed Antenna Information

Elevation - ft	Count	Antenna Description	Status
195	6	CSS DUO1417-8686 w/Mount Pipe	Proposed
	3	Powerwave 7700.00 w/ mount pipe	Proposed
	6	Powerwave LGP13519	Proposed
196	9	DB 800/1900 Full Band Masthead	Existing

Table 1B - Proposed Cable Information

Elevation - ft	Count	Cable Description	Location	Status
195 - 0	12	1 5/8" Foam	Internal	Proposed

Table 2A - Existing and Reserved Antenna Information

Elevation - ft	Count	Antenna Description	Status
228	6	Swedcom ALP-9212-N	Existing
	3	Swedcom ALP-9212-N	Reserved
	6	DB948F85T2E-M w/Mount Pipe	Existing
226	1	14' Platform w/ Handrail	Existing
220	8	DB846G90A-XY w/Mount Pipe	Existing
	4	DB846F65ZAXY w/Mount Pipe	Reserved
	1	14' Low Profile Platform	Existing
207	3	RR65-18-02DP w/Mount Pipe	Existing
	3	RR65-18-02DP w/Mount Pipe	Reserved
	6	Nokia CS72993.07	Existing
	6	Nokia CS72993.07	Reserved
205	1	14' Low Profile Platform	Existing
195	1	14' Low Profile Platform	Existing
187	9	DB980H90E-M w/Mount Pipe	Existing
	3	978QNB120E-M w/Mount Pipe	Existing
	3	978QNB120E-M w/Mount Pipe	Reserved
185	1	14' Low Profile Platform	Existing
	1	GPS	Existing
176	6	DB978H90E-M w/Mount Pipe	Existing
	3	DB978H90E-M w/Mount Pipe	Reserved
175	1	14' Low Profile Platform	Existing

Table 2B - Existing and Reserved Cable Information

Elevation - ft	Count	Cable Description	Location	Status
226 - 0	12	1 5/8" Foam	Internal	Existing
	3	1 5/8" Foam	Internal	Reserved
205 - 0	6	1 5/8" Foam	Internal	Reserved
	6	1 5/8" Foam	Internal	Existing
175 - 0	3	1 5/8" Foam	Internal	Reserved
	6	1 5/8" Foam	Internal	Existing
60 - 0	1	1/2" Foam	Internal	Existing
185 - 0	12	1 5/8" Foam	Internal	Existing
220 - 0	12	1 5/8" Foam	Internal	Existing
185 - 0	3	1/2" Foam	External	Existing
	12	1 5/8" Foam	External	Existing

Information for the existing monopole and foundation is based on the available drawings, documents, and/or information listed in Table 3 below:

Table 3 - Reference Documents Provided

Document	Source	Reference	Remarks
Proposed Antenna Loading	Crown Castle	806358	CCI
Existing Antenna Loading	Crown Castle	806358	CCI
Original Tower Drawings	Crown Castle	821494	EEI
Foundation Drawings	Crown Castle	821496	EEI
Geotechnical Report	Crown Castle	217688	East Coast Drilling & Boring, Inc.

ANALYSIS PROCEDURE

ANALYSIS METHODS

RISA Tower (Version 4.7.2.1), a commercially available software program, was used to create a three-dimensional model of the monopole and calculate member stresses for various dead, live, wind, and ice load cases. The analysis was performed in accordance with the TIA/EIA-222-F Standard. Selected output from the analysis is included in Appendix A.

ASSUMPTIONS

1. Monopole was fabricated and installed in accordance with the manufacturer's specifications.
2. Monopole has been properly maintained in accordance with manufacturer's specifications.
3. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1A, 1B, 2A, and 2B and the referenced drawings.

If any of the above assumptions are not valid or have been made in error, then the results of this analysis may be affected. In that case, please notify Paul J. Ford and Company immediately so that we can review any new and/or modified information and determine its affect on the analysis results regarding the structural adequacy of the monopole and foundation.

ANALYSIS RESULTS

Our structural analysis indicates that the existing monopole structure and foundation have sufficient capacity to adequately support the existing, reserved, and proposed loading.

Table 4 - Component Stresses vs. Capacity

Notes	Component	Elevation ft	% Capacity	Pass / Fail
Risa Tower Analysis Summary:				
	L1	225.686 - 197.772	67.7	Pass
	L2	197.772 - 162.746	79.5	Pass
	L3	162.746 - 120.146	94.5	Pass
	L4	120.146 - 79.075	92.2	Pass
	L5	79.075 - 39.004	86	Pass
	L6	39.004 - 0	88.9	Pass
Additional Components:				
	Anchor Rods	0 - 0	93.7	Pass
	Base Plate (Bending Only)	0 - 0	56.7	Pass
	Foundation (Soil) - PJF Pole	0 - 0	44.5	Pass
	Foundation (Structural) - PJF Pole	0 - 0	92.3	Pass
		Structural Rating (maximum capacity of all components) =		**94.5**

As summarized in Table 4 above, our analysis indicates that the existing monopole structure and foundation have sufficient capacity to adequately support the existing, reserved, and proposed loading. Modifications are not required at this time.

CINGULAR WIRELESS
Equipment Modification

Russian Village Road, Southbury, CT
Site Number 5183
Former AT&T Wireless Cell Site
Exempt Modifications 9/19/00, 2/14/02, and 3/11/03

Tower Owner/Manager: Crown Castle

Equipment configuration: Monopole w/ Pole Mounted Antennas

Current and/or approved: Three FR90 - 16 antennas @ 131 ft c.l.
Six runs 1 5/8 inch coax

Planned Modifications: Remove all three existing antennas
Install three Powerwave 7770 antennas at 131 ft c.l.
Install six TMA's @ 131 ft

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 11.4 % 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 13.2 % 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 *							9.65
Cingular GSM *	130	1900 Band	8	100	0.0170	1.0000	1.70
Total							11.4%

* Per Council 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 *							9.65
Cingular UMTS	131	880 - 894	1	500	0.0105	0.5867	1.79
Cingular GSM	131	1900 Band	2	427	0.0179	1.0000	1.79
Total							13.2%

* Per Council Records

Structural information:

The attached structural analysis demonstrates that the existing tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (Clough Harbour & Associates, dated 6/14/07)

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 27, 2007

Honorable Mark A. R. Cooper
1st Selectman, Town of Southbury
Town Hall 501 Main St. South
Southbury, CT 06488-2295

Re: Telecommunications Facility – Russian Village Road, Southbury

Dear Mr. Cooper:

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

CLOUGH HARBOUR & ASSOCIATES LLP

June 14, 2007

Mr. Alex Harris
Crown Castle International
9105 Monroe Road
Suite 150
Charlotte, NC 28270

Subject:	**Structural Analysis Report**
Carrier Designation:	**Cingular Wireless Co-Locate** **Carrier Site Name: Southbury-Russian Village Road**
Crown Castle Designation:	**Crown Castle BU Number: 876314** **Crown Castle Site Name: Horse Hill** **Crown Castle JDE Job Number: 88769**
Engineering Firm Designation:	**CHA Project Number: 14552.1070.1203.R0**
Site Data:	**133 Horse Fence Road** **Southbury, CT 06488 – New Haven County** **Latitude: 41° 27' 7.97" Longitude: -73° 15' 1.25"** **130' Monopole Tower**

Dear Mr. Harris:

Clough Harbour & Associates LLP (CHA) is pleased to submit this "Structural Analysis Report" to determine the structural adequacy of the aforementioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and Crown Castle Work Order Number 146968. The purpose of the analysis is to determine the 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:

LC1: Existing + Reserved + Proposed Equipment Note: See Table 1 or Table 2 for the proposed and existing/ reserved loading	Sufficient Capacity

The analysis has been performed in accordance with the TIA/EIA-222-F standard and local code requirements based upon a wind speed of 85 mph fastest mile (100 mph 3-second gust).

We at Clough Harbour & Associates LLP 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,

CLOUGH HARBOUR & ASSOCIATES LLP

STATE OF CONNECTICUT
ANTHONY P. STELLATO, JR.
No. 18217
LICENSED
PROFESSIONAL ENGINEER

Anthony P. Stellato Jr., P.E.
Partner

Table of Contents

1) Introduction

The Horse Hill monopole was originally designed by Summit Manufacturing Inc. in 1997 using a basic wind speed of 90 mph in accordance with EIA 222-F and with 1/2" radial ice.

2) Analysis Criteria

Clough Harbour & Associates has been asked to provide a structural analysis of the existing 130-ft tower located in New Haven County, CT. This structural analysis of this tower was completed according to the recommendations of the "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", TIA/EIA-222-F.

Table 1 – Proposed Antenna and Cable Information

Center Line Elevation (feet)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount Type	Number of Feed Lines	Feed Line Size (inches)
130	3	Powerwave Tech.	7770.00	Flush Mounted	*	*
	6		LGP21401		12 MLA	1-5/8"

*** Existing Coax to remain and to be used for proposed equipment.**

Table 2 – Existing and Reserved Antenna, Dish and Cable Information

Center Line Elevation (feet)	Number of Antennas	Antenna Manufacturer	Antenna Model / Type	Mount Type	Number of Feed Lines	Feed Line Size (inches)
130	3 Installed	EMS	FR90-16-XXXC	Flush Mounted	6*	1-5/8*
120	6 Installed	Decibel	DB980H90A-M	14' LP Platform	6	1-5/8"
	3 Reserved				3	
110	12 Installed	Swedcom	ALP 9212-N	14' LP Platform	12 Installed	7/8"
100	6 Installed	EMS	RR90-17-02DP	14' LP Platform	8 Installed	1-5/8"
	2 Reserved				4 Installed	7/8"
					16 SLA	1-5/8"

*** Existing Coax to remain and to be used for proposed equipment.**

Table 3 – Design Antenna and Cable Information

Center Line Elevation (feet)	Number of Antennas	Antenna Manufacturer	Antenna Model / Type / Size	Mount Type	Number of Feed Lines	Feed Line Size (inches)
120	1	Unknown	5/8" Lightning Rod	Std. Mount	Unknown	Unknown
120	12	Swedcom	ALP-9212-N	14' LP Platform	Unknown	Unknown
110	12	Swedcom	ALP-9212-N	14' LP Platform	Unknown	Unknown
115	12	Swedcom	ALP-9212-N	14' LP Platform	Unknown	Unknown

3) Analysis Procedure

Table 4 – Documents Provided

Document	Remarks	Reference	Source
Proposed Antenna Loading	Dated 5/04/2007	Crown Castle Application	Application ID 45819
Tower & Foundation Design Drawings	Dated 12/30/1997	Summit Manufacturing Inc.	Job # 29297-836
Structural Analysis	Dated 5/3/2001	Semaan Engineering Solutions	Site #CT03XC017
Configuration Change Checklist	WO 147198	Crown Castle	875090

3.1) Analysis Methods

RISA Tower (version 4.7.2.1) a commercially available software program, was used to create a three-dimensional model of the tower and calculate member stresses for various dead, live, wind, and ice load cases. All loads were computed in accordance with the ANSI/EIA/TIA-222F or the local building code requirements. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1. The tower and structures have been maintained in accordance with the manufacturer's specifications.
2. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
3. When applicable, transmission cables are considered to be structural components for calculating wind loads, as allowed by TIA/EIA-222F
4. The base plate is neither grouted nor stiffened.

If any of these assumptions are not valid or have been made in error, this analysis may be affected and Clough Harbour & Associates LLP should be allowed to review any new information to determine its effect on the structural integrity of the tower.

4) Analysis Results

Our results indicate that under critical loading the maximum allowable stress in any tower member is 99.1%

Table 5 – Tower Component Stresses vs. Capacity

Section Capacity Table

Section No.	*Elevation ft*	*Component Type*	*Size*	*Critical Element*	*P K*	*SF*P$_{allow}$ K*	*% Capacity*	*Pass Fail*
L1	130 - 91.5	Pole	TP22.982x13.55x0.1875	1	-7.755	67.943	92.5	Pass
L2	91.5 - 64.5	Pole	TP29.221x21.872x0.25	2	-11.471	186.296	99.1	Pass
L3	64.5 - 42.5	Pole	TP34.111x27.8024x0.3125	3	-15.552	370.790	90.7	Pass
L4	42.5 - 20.25	Pole	TP38.937x32.4448x0.3438	4	-20.445	605.575	88.6	Pass
L5	20.25 - 0	Pole	TP43.21x37.0245x0.375	5	-23.597	776.647	91.7	Pass
							Summary	
						Pole (L2)	99.1	Pass
						Base Plate	85.0	Pass
						Anchor Bolts	85.0	Pass
						RATING =	**99.1**	**Pass**

4.1) Recommended Modifications:

NONE

4.2) Foundation Results:

Foundation Reaction	Original Design Loads	Actual Load	Ratio (between actual and original)
Moment	2,100 kips-ft	1,923 kips	91.6%
Shear	23 kips	22 kips	95.7%

CINGULAR WIRELESS
Equipment Modification

33 South Road, Stafford, CT
Site Number 5817
Former AT&T Wireless Cell Site
Exempt Modification 9/5/02

Tower Owner/Manager: Cordless Data Transfer

Equipment configuration: Guyed lattice tower

Current and/or approved: Three Allgon 7250 antennas @ 150 ft c.l.
Six runs 1 ¼ inch coax
Existing concrete pad with three outdoor cabinets

Planned Modifications: Remove three existing antennas
Install three Powerwave 7770 antennas at 150 ft c.l.
Install six TMA's @ 150 ft
Remove one existing outdoor cabinet
Install one new outdoor cabinet for UMTS

Power Density:

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 5.6 % 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 7.5 % 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 *							4.05
Cingular GSM *	150	1900 Band	4	250	0.0160	1.0000	1.60
Total							5.6%

* 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 *							4.05
Cingular UMTS	150	880 - 894	1	500	0.0080	0.5867	1.36
Cingular GSM	150	1900 Band	2	640	0.0205	1.0000	2.05
Total							7.5%

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the existing tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (Fred A. Nudd Corporation, dated 6/26/02)

Cingular proposes to remove all three existing Allgon antennas and replace them with three Powerwave antennas. We also propose to install six TMA's on the tower. The 2002 structural does not include TMA's.

However, the tower is designed to support nine antennas at several levels, including the 150 ft level. Cingular's three antennas and six TMA's represent loading roughly equivalent to nine antennas. Moreover, the three antennas are mounted directly to the legs of the tower rather than on design-included booms. This represents substantial reduction in weight and wind loading.

Only three levels of the tower are presently occupied, and they support design capacity loading (or lower). The tower is designed to support far more than it now holds.

For the reasons stated above, Cingular respectfully submits the attached 2002 structural as still valid and adequate to support the proposed modifications.

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 27, 2007

Honorable Allen Bacchiochi
1st Selectman, Town of Stafford
Warren Memorial Town Hall 1 Main St.
Stafford Springs, CT 06076-0011

Re: Telecommunications Facility – 33 South Road, Stafford

Dear Mr. Bacchiochi:

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

5811

FRED A. NUDD CORPORATION

1743 ROUTE 104, BOX 577
ONTARIO, NY 14519
(315) 524-2531 FAX (315) 524-4249

www.nuddtowers.com

June 26, 2002

Bob Francis
Cordless Data Transfer, Inc.
P.O. Box 363
Marlborough, CT 06447

Bob,

In consideration of AT&T's proposed co-location on your Stafford-Tumel tower (Nudd 7063), the following is submitted.

The subject tower is a 180' G42WPAR that was designed for the following antenna loading:

QTY	Description	Elevation
9	Sinclair SRL 411C9 on (3) 12' Booms	178
10	PD 10017	180
9	ALP 9212 on (3) 12' Booms	170
9	Sinclair SRL 411C9 on (3) 12' Booms	160
9	ALP 9212 on (3) 12' Booms	150
1	6' MHP Dish each	140, 130, 120

The proposed antenna loading is as follows:

QTY	Description	Elevation	Status
9	DB980H90 on (3) 12' booms	180'	(E) Sprint
9	DB844 on (3) 12' booms	170'	(E) Nextel
6	Allgon 7250 on (3) 8' antenna booms	150'	(P) AT&T

It can be shown that the proposed antenna loading is less than the design loading and is therefore an acceptable load combination for the tower.

If you have any questions concerning this, please contact me.

Sincerely,

Fred A. Nudd Corporation

Patrick Botimer
Engineer