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

October 1, 2007

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

RE: **EM-CING-094-145-145-146-155-070914** – New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunications facilities located at 605 Willard Avenue, Newington; 107 Stickney Hill Road, Union; 1050 Buckley Highway, Union; 197 South Street, Vernon; and 3114 Albany Avenue, West Hartford, Connecticut.

Dear Mr. Levine:

At a public meeting held on September 25, 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 September 12, 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

Daniel F. Caruso
Chairman

DFC/MP/cm

c: The Honorable Rodney Burt Mortensen, Mayor, Town of Newington
Edmund Meehan, Town Planner, Town of Newington
The Honorable Ellen L. Marmer, Mayor, Town of Vernon
Gene F. Bolles, Zoning Enforcement Officer, Town of Vernon
The Honorable Scott Slifka, Mayor, Town of West Hartford
Mila Limson, Town Planner, Town of West Hartford
The Honorable Thomas L. Fitzgerald, First Selectman, Town of Union
Planning & Zoning Official, Town of Union
Marcus Group
Cox Communications
New England Site Management
Crown Castle
Marlin Tower

EM-CING-094-145-145-146-155-070914

cingular raising the bar

The new at&t Your world. Delivered.

gular 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

HAND DELIVERED

September 12, 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 telecommunications facilities located in Newington, Union (2), Vernon, and West Hartford

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

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

605 Willard Avenue, Newington, CT
Site Number 5403
Former AT&T site
Exempt Modification 4/25/02

Tower Owner/Manager: Marcus Group

Equipment configuration: Monopole

Current and/or approved: Three Allgon 7250 antennas @ 160 ft c.l.
Six runs 1 5/8 inch coax

Planned Modifications: Remove all three existing antennas
Install 3 Powerwave 7770 antennas (or equivalent) @ 160 ft
Install six TMA's @ 160 ft
Install additional 4 x 5 ft concrete slab for 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 22.2 % 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 24.9 % 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 *							19.92
Cingular GSM *	140	1900 Band	5	250	0.0229	1.0000	2.29
Total							**22.2%**

* Per CSC Records

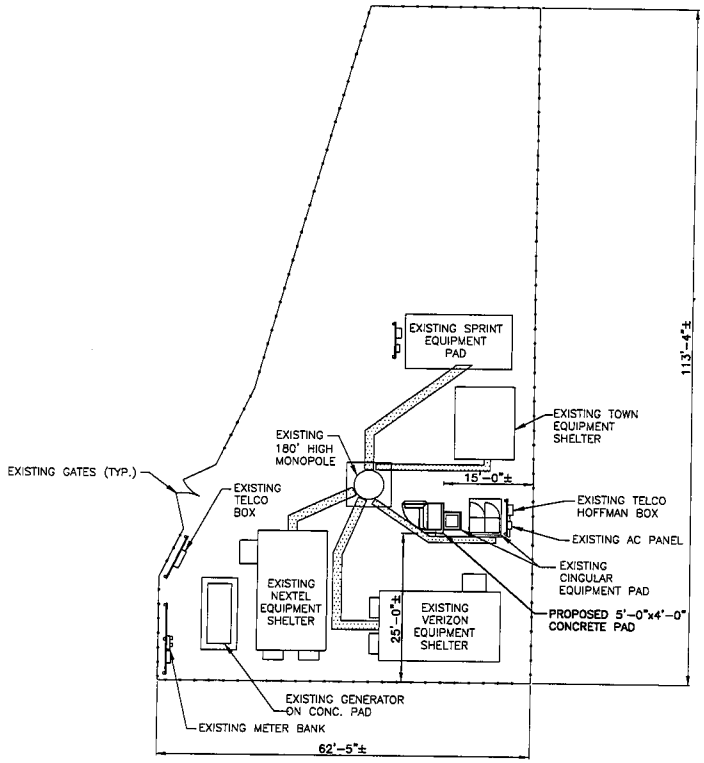
Proposed

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 *							19.92
Cingular GSM	140	1900 Band	3	625	0.0344	1.0000	3.44
Cingular UMTS	140	880 - 894	1	500	0.0092	0.5867	1.56
Total							**24.9%**

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (All-Points Technology Corporation, dated 8/21/07)



COMPOUND PLAN
OUTDOOR UMTS

SCALE: 1"=10'-0"

0 5'-0" 10'-0" 20'-0" 30'-0"

Hudson Design Group LLC
44 RESERVOIR DR.
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-3386

SAT communications
184 ROCKINGHAM ROAD, UNIT A
LONDONDERRY, NH 03053

SITE NUMBER: 5403
SITE NAME: NEWINGTON CENTRAL
605 WILLARD AVE.
NEWINGTON, CT 06111
HARTFORD COUNTY

cingular WIRELESS
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 01740

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	08/16/07	CONSTRUCTION FINAL	BT	DC	DPB
1	04/30/07	REVISED PER CLIENT COMMENTS	DP	DC	DPB
0	04/13/07	ISSUED FOR CONSTRUCTION	DP	DC	DPB

SCALE: NOT SHOWN | DESIGNED BY: DC | DRAWN BY: DP

STATE OF CONNECTICUT
No. 24178
LICENSED PROFESSIONAL ENGINEER

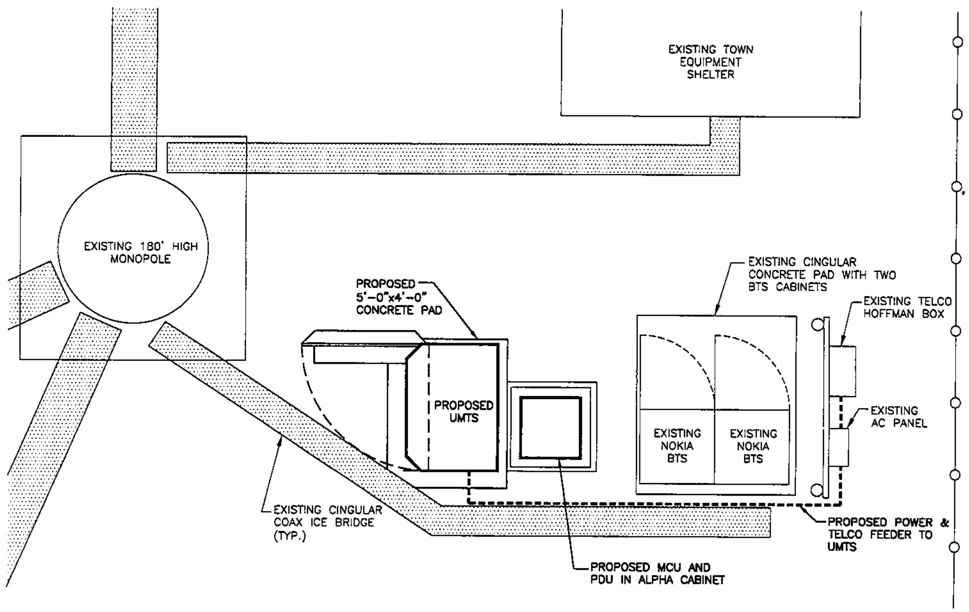
CINGULAR WIRELESS

COMPOUND PLAN
UMTS (OUTDOOR)

JOB NUMBER	DRAWING NUMBER	REV
5403.01	C-1	2

13.38°
MAGNETIC NORTH
TRUE NORTH

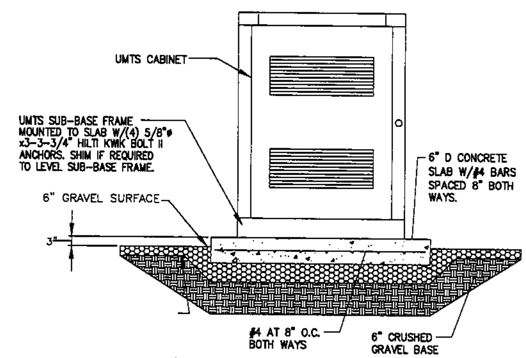
NEW CONC. PAD NOTES:
- REINF. W/ #4's @ 8" O.C. EA. WAY (MID-DEPTH).
- DOWEL NEW CONC. TO EXIST. W/ #4's @ 8" O.C. x 8" LONG. DRILL & EPOXY GROUT 4" INTO EXIST. CONC.
- REINF. SHALL BE ASTM A615-GRADE 60. SECURE IN PLACE.
- REINFORCEMENT IN EQUIPMENT SLAB TO BE WELDED AND BONDED TO GROUND RING



EQUIPMENT PLAN
OUTDOOR UMTS

SCALE: 1/2"=1'-0"

0 1'-0" 2'-0" 4'-0" 6'-0"



SECTION AT EQUIPMENT PAD

N.T.S.

Hudson Design Group LLC
45 BEECHWOOD DR. N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586

SAI communications
184 ROCKINGHAM ROAD, UNIT A
LONDONDERRY, NH 03053

SITE NUMBER: 5403
SITE NAME: NEWINGTON CENTRAL
605 WILLARD AVE.
NEWINGTON, CT 06111
HARTFORD COUNTY

cingular WIRELESS
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 01740

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	08/18/07	CONSTRUCTION FINAL	BT	DC	DPB
1	04/30/07	REVISED PER CLIENT COMMENTS	DP	DC	DPB
0	04/13/07	ISSUED FOR CONSTRUCTION	DP	DC	DPB

SCALE: NOT SHOWN | DESIGNED BY: DC | DRAWN BY: DP

STATE OF CONNECTICUT No. 24178 LICENSED PROFESSIONAL ENGINEER

CINGULAR WIRELESS
EQUIPMENT PLAN
UMTS (OUTDOOR)

JOB NUMBER	DRAWING NUMBER	REV
5403.01	A-1	2

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

September 12, 2007

Marian Amodeo, Acting Town Manager
Town of Newington
Town Hall, 131 Cedar Street
Newington, CT 06111-2644

Re: Telecommunications Facility – 605 Willard Avenue, Newington

Dear Ms. Amodeo:

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

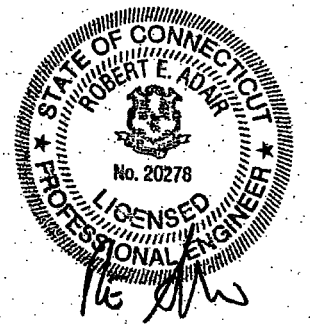
ALL-POINTS TECHNOLOGY CORPORATION, P.C.

STRUCTURAL ANALYSIS REPORT
180' MONOPOLE TOWER
NEWINGTON, CONNECTICUT

Prepared for
Hudson Design Group, LLC

Cingular Site #5403

August 21, 2007



APT Project #CT198410

☐ 3 SADDLEBROOK DRIVE • KILLINGWORTH, CONNECTICUT 06419 • PHONE: 860-663-1697 • FAX: 860-663-0935
☒ 150 OLD WESTSIDE ROAD • NORTH CONWAY, NEW HAMPSHIRE 03860 • PHONE/FAX: 603-356-5214

STRUCTURAL ANALYSIS REPORT
180' MONOPOLE TOWER
NEWINGTON, CONNECTICUT
prepared for
Hudson Design Group, LLC

EXECUTIVE SUMMARY:

All-Points Technology Corporation, P.C. (APT) performed a structural analysis of this 180-foot monopole tower located at 605 Willard Avenue in Newington, Connecticut. The analysis was performed for Cingular Wireless's replacement of three panel antennas currently installed on existing sidearm mounts at 160'. Existing mounts and feed lines will remain.

Our analysis indicates the tower meets the requirements of the Connecticut State Building Code and TIA-222 with the proposed changes. The tower foundation could not be evaluated, as complete information on its design or construction was not available to APT. Since the tower has significant remaining capacity, the foundation is likely to be adequate.

INTRODUCTION:

A structural analysis of this communications tower was performed by APT for Hudson Design Group, LLC. The tower is located at 605 Willard Avenue in Newington, Connecticut.

APT did not visit the tower site. This analysis relied solely on information provided by others, which included recent photographs, a structural analysis report by Tectonic/Keyes Associates dated May 25, 2004, and proposed antenna changes.

The structure is a 180-foot galvanized steel monopole tower manufactured by PiROD. The analysis was conducted using the following antenna inventory (proposed antenna changes shown in **bold** text):

Antenna	Elev.	Mount	Feed Lines
16-bay dipole	180'	16' low-profile platform	7/8"
(3) 7770.0 panels, (6) LGP 21401 TMAs [1]	160'	(3) 3' sidearms	(6) 1-5/8"
(9) DB980F65T2E panels [2]	140'	13' low-profile platform	(9) 1-5/8"
(12) 4' x 1' panels	120'	13' low-profile platform	(12) 1-5/8"
(6) 4' x 1' panels, (6) 4' x 6" panels	110'	13' low-profile platform	(12) 1-5/8"

[1] Currently three ALP7250.03 panel antennas installed.
[2] Currently six antennas and lines installed.

STRUCTURAL ANALYSIS:

Methodology:

The structural analysis was done in accordance with TIA/EIA-222, Revisions F and G (TIA), Structural Standards for Steel Antenna Towers and Antenna Supporting Structures; and the American Institute of Steel Construction (AISC), Manual of Steel Construction, Allowable Stress Design, Ninth Edition. The more stringent of the two TIA revisions, Revision F, was used to compute the tower capacity values shown below.

The analysis was conducted using a 85 mph fastest mile wind speed (equivalent to 105 mph 3-second gust) and one-half inch of radial ice over the structure and associated appurtenances. The TIA Standard requires a basic wind speed of 80 miles per hour for Hartford County, Connecticut.

Two loading conditions were evaluated in accordance with TIA/EIA-222-F to determine tower capacity. The more demanding of the two cases is used to calculate tower capacity:

- Case 1 = Wind Load (without ice) + Tower Dead Load
- Case 2 = 0.75 Wind Load (with ice) + Ice Load + Tower Dead Load

The TIA/EIA standard permits a one-third increase in allowable stresses for towers less than 700-feet tall. Allowable stresses of tower members were increased by one-third when computing the tower capacity values shown below.

Analysis Results:

The following table summarizes the capacity of the tower based on combined axial and bending stresses:

Elevation	Capacity
168'-180'	8%
134'-168'	17%
101'-134'	29%
69'-101'	40%
38'-69'	47%
0'-38'	55%

The existing base foundation could not be evaluated, as complete information on its design or construction was not available to APT.

Base reactions imposed with the proposed changes were calculated to be as follows:

Compression:	40.6 kips
Total Shear:	24.4 kips
Overturning Moment:	2499 ft-kips

CONCLUSIONS AND SUGGESTIONS:

As detailed above, our analysis indicates that the existing 180' monopole tower located at 605 Willard Avenue in Newington, Connecticut meets the requirements of the Connecticut State Building Code and TIA-222 with Cingular Wireless's proposed antenna changes.

The tower foundation could not be evaluated, as information on its design or construction was not available to APT. Since the tower has significant remaining capacity, the foundation is likely to be adequate.

LIMITATIONS:

This report is based on the following:

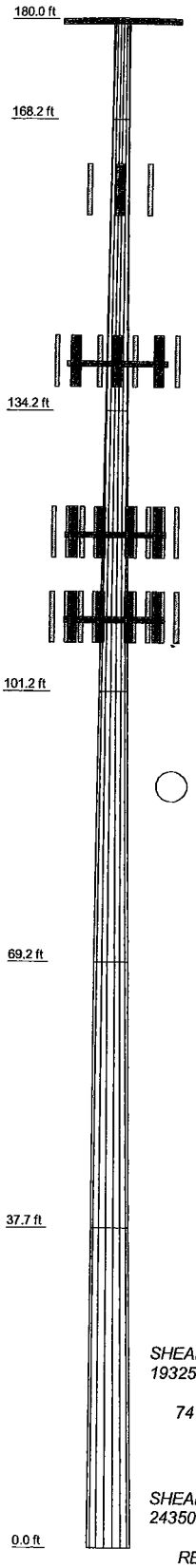
1. Tower is properly installed and maintained.
2. All members are in new condition.
3. All bolts are in place and are properly tightened.
4. Tower is in plumb condition.

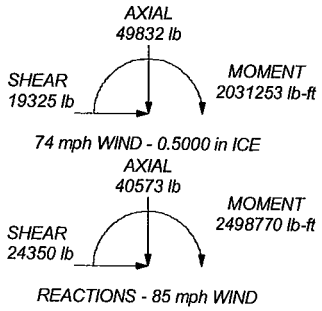
All-Points Technology Corporation, P.C. (APT) is not responsible for any modifications completed prior to or hereafter which APT is not or was not directly involved. Modifications include but are not limited to:

1. Adding or relocating antennas.
2. Installing antenna mounts or waveguide cables.
3. Extending tower.

APT 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 the 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 APT. APT disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Section	1	2	3	4	5	6
Length (ft)	11.83	34.00	33.00	32.00	31.50	37.67
Number of Sides	18	18	18	18	18	18
Thickness (in)	0.2500	0.3125	0.3750	0.3750	0.3750	0.3750
Top Dia (in)	22.3100	24.9800	32.6537	40.1017	47.3240	54.4335
Bot Dia (in)	24.9800	32.6537	40.1017	47.3240	54.4335	62.9355
Grade	A572-65					
Weight (lb) 29786.6	747.3	3271.0	4811.9	5616.8	6443.3	8896.2





74 mph WIND - 0.5000 in ICE

REACTIONS - 85 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
20' 16-Bay Di-Pole	180	(3) DB980F65T2E-M	140
16' low-profile platform	180	13' low-profile platform	140
7770.00	160	(4) 4' x 1' x 6" panel	120
7770.00	160	(4) 4' x 1' x 6" panel	120
7770.00	160	(4) 4' x 1' x 6" panel	120
LGP2140X TMA	160	13' low-profile platform	120
LGP2140X TMA	160	(2) 4' x 1' x 3" panel	110
LGP2140X TMA	160	(2) 4' x 1' x 3" panel	110
3' sidearm	160	(2) 4' x 1' x 3" panel	110
3' sidearm	160	(2) 4' x 6" x 3" panel	110
3' sidearm	160	(2) 4' x 6" x 3" panel	110
(3) DB980F65T2E-M	140	(2) 4' x 6" x 3" panel	110
(3) DB980F65T2E-M	140	13' low-profile platform	110

MATERIAL STRENGTH

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

All-Points Technology Corp.
150 Old Westside Road
North Conway, NH 03860
Phone: 603-496-5853
FAX: 603-356-5214

Job: ***180' Monopole Tower***		
Project: ***CT198410 Newington***		
Client: HDG; Cingular Site #5403	Drawn by: Robert E. Adair, P.E.	App'd:
Code: TIA/EIA-222-F	Date: 08/21/07	Scale: NTS
Path: C:\Documents and Settings\Robert Adair\My Documents\Job\Hudson - Cingular Project\CT198410 Newington\CT198410 Newington.prt		Dwg No. E-1

CINGULAR WIRELESS
Equipment Modification

107 Stickney Hill Road, Union, CT
Site Number 1048
Exempt Modification 10/7/02

Tower Owner/Manager: Cox Communications

Equipment configuration: Self-supporting lattice tower

Current and/or approved: Nine CSS DUO1417 antennas (6 @ 113 ft & 3 @ 119 ft)
Nine runs 1 ¼ inch coax
Six TMA's / three duplexers

Planned Modifications: Remove three CSS antennas @ 119 ft
Install 3 Powerwave 7770 antennas (or equivalent) at 119 ft
Install three diplexers @ 119 ft
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 12.2% 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 7.4 % 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 *							0.00
Cingular TDMA *	119	880 - 894	10	100	0.0254	0.5867	4.33
Cingular GSM *	119	880 - 894	1	296	0.0075	0.5867	1.28
Cingular GSM *	119	1900 Band	1	427	0.0108	1.0000	1.08
Cingular TDMA *	113	880 - 894	6	100	0.0169	0.5867	2.88
Cingular GSM *	113	880 - 894	1	296	0.0083	0.5867	1.42
Cingular GSM *	113	1900 Band	1	427	0.0120	1.0000	1.20
Total							12.2%

* 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 *							0.00
Cingular UMTS	119	880 - 894	1	500	0.0127	0.5867	2.16
Cingular GSM	113	1900 Band	2	427	0.0240	1.0000	2.40
Cingular GSM	113	880 - 894	2	296	0.0167	0.5867	2.84
Total							7.4%

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (Malouf Engineering Intl, dated 8/31/07)

MALOUF ENGINEERING INTL., INC.

STRUCTURAL CONSULTANTS

August 31, 2007

Mr. Derek Creaser
HUDSON DESIGN GROUP, LLC
representing **AT&T**
46 Beechwood Drive
North Andover, MA 01845

SUBJECT	**FEASIBILITY STRUCTURAL EVALUATION**			
Structure:	110 ft **Self-Supporting**		Rohn	
Client/ Site Name /#:	**Hudson D.G./ AT&T**	**Union**		**# 1048**
Owner/Site Name /#:	Cox Communications	Union		
MEI Project ID:	**CT00892S-07V0**			
Location:	107 Stickney Hill Rd Union, CT 06076		Tolland County FCC ASR #	
	LAT	41-59-7.4 N	LON	72-11-31.8 W

Malouf Engineering Int'l (MEI), as requested, has performed a feasibility structural evaluation of the above mentioned structure to assess the impact of the changed condition as noted below.

The structural evaluation performed used the following criteria:

CODE / STANDARD	ANSI/TIA-222-F-96 Standard / IBC 2003 Code – CT Building Code	
LOADING CASES	*Full Wind*:	85 Mph (with No Radial Ice)
	Iced Case:	74 Mph + 0.50" Radial Ice
	Service:	50 Mph

Table 1: Proposed Changed Condition Appurtenances

Elev (ft)	Tenant	Ant Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
119/ 113*	AT&T	3	LGP Allgon 7770 Panels	[exist frame mounts]	3	1-1/4" [in addition to exist (9) 1-1/4"]
		3	LGP 13519 Diplexers			
		3	Powerwave 7020 RET's			
		6	Powerwave 7060 CiLOC			

* Note: AT&T replacing existing (1) panel/sector with new panel and adding (1) 1-5/8" dia. & (1) Diplexer per sector.

Table 2: Previous Analysis Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
122	Cox Comm.	1	4' Dipole		1	7/8" Coax
119/ 113	AT&T	9 6 3	DUO1417-8686 Panels TMA's Duplexers	(3) T-Frame Mounts	9	7/8" Coax
106.5	Cox Comm.	1	4' Grid Dish		1	1/2" Coax
106	Cox Comm.	1	8' Dish		1	EW52
104	Cox Comm.	1	8' Wire Grid Dish in Sq. Frame		1	1/2" Coax
103	Cox Comm.	1	6' Yagi		1	1/2" Coax
95	Cox Comm.	1	10' Yagi		1	1/2" Coax
89	Cox Comm.	1	4' Grid Dish		1	1/2" Coax
81	Cox Comm.	1	20' Omni	12" Stand-off Mount	1	7/8" Coax
78	Cox Comm.	1	12' Yagi	12" Stand-off Mount	1	1/2" Coax

The information used as source data to represent the existing structure and the related appurtenances is as follows:

Structure & Current Appurtenances	Structure data and design appurtenances loading as per previous analysis data by URS, ref. job # 36911789, dated 09/18/02 – Tower analysis *Max. Stress at 70%.*
Changed Condition	As per AT&T /Cingular Wireless RF approval email, dated 04/27/07 Version 2007-02, Supplied by Hudson Design Group, LLC on 08/27/07.

The subject structure is evaluated for the feasibility of the installation of the proposed changed condition previously noted. The data records furnished were reviewed and the appurtenances loading was evaluated (no computer analysis performed, only relative loading magnitude comparison), in accordance with the TIA-222 Standard provisions and with the agreed limited scope of work terms and the results of this feasibility evaluation are reported. This evaluation is based on information supplied, and therefore, its results are based on and as accurate as that supplied data. MEI has made no independent determination of its accuracy. This existing structure is assumed, for the purpose of this evaluation, to have been properly maintained and to be in good condition with no structural defects and with no deterioration to its capacity ('as-new').

Based on the feasibility structural evaluation of the data provided, the subject structure would meet the minimum requirements of ANSI/TIA 222-F Standard for the proposed changed condition as stated above when considering the structure to have been properly designed for the stated appurtenances. The proposed loading would stress the structure about the same or less than the previous structural analysis.

Therefore, **the installation of the noted proposed changed condition is structurally acceptable** on this existing structure in accordance with the ANSI/TIA **222-F** Standard for the loading considered under the criteria listed and referenced.

MEI appreciates the opportunity of providing our continuing professional services to you. If you have any questions or need further assistance on this or other projects please contact us.

Respectfully submitted,

MALOUF ENGINEERING INT'L, INC.

E. Mark Malouf, PE
Connecticut #17715
972-783-2578 ext. 106
mmalouf@maloufengineering.com

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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

September 12, 2007

Honorable Thomas L. Fitzgerald
1st Selectman, Town of Union
Town Hall 1043 Buckley Highway
Union, CT 06076-9520

Re: Telecommunications Facility – 107 Stickney Hill Road, Union

Dear Mr. Fitzgerald:

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

1050 Buckley Highway, Union, CT
Site Number 5453
Former AT&T Wireless Cell Site
Exempt Modification 6/25/02

Tower Owner/Manager: New England Site Management

Equipment configuration: Self-supporting lattice tower

Current and/or approved: Three Allgon 7250 antennas @ 120 ft c.l.
Six runs 1 ¼ inch coax
Existing concrete pad with three outdoor cabinets

Planned Modifications: Remove three existing antennas
Install 3 Powerwave 7770 antennas (or equivalent) at 120 ft
Install six TMA's @ 120 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 19.3 % 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 22.1 % 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 *							16.77
Cingular GSM *	120	1900 Band	4	250	0.0250	1.0000	2.50
Total							**19.3%**

* 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 *							16.77
Cingular UMTS	120	880 - 894	1	500	0.0125	0.5867	2.13
Cingular GSM	120	1900 Band	2	640	0.0320	1.0000	3.20
Total							22.1%

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (Malouf Engineering Intl, dated 8/21/07)

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500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

September 12, 2007

Honorable Thomas L. Fitzgerald
1st Selectman, Town of Union
Town Hall 1043 Buckley Highway
Union, CT 06076-9520

Re: Telecommunications Facility – 1050 Buckley Highway, Union

Dear Mr. Fitzgerald:

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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

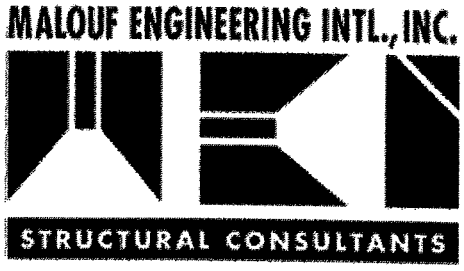
Structural Analysis Report

at&t Union Central Site #5453

1050 Buckley Hwy, Union, Connecticut

August 21, 2007

MEI PROJECT ID: CT00875S-07V0



7950 PRESTON ROAD, SUITE 720 ▪ DALLAS, TEXAS 75252-5635 ▪ TEL. 972 -783-2578 FAX 972-783-2583
www.maloufengineering.com

MALOUF ENGINEERING INTL., INC.

STRUCTURAL CONSULTANTS

Aug 21, 2007

STRUCTURAL ANALYSIS

Structure:	168ft **SST**		Rohn / SSV	
Client/ Site Name /#:	**Hudson D.G. / AT&T**	**Union Central**		**#5453**
Owner/Site Name /#:	NE Site Mgmnt	Union		
MEI Project ID:	**CT00875S-07V0**			
Location:	1050 Buckley Hwy, Union, CT 06076		Tolland County FCC #	
	LAT	41-59-56.8 N	LON	72-9-7.9 W

EXECUTIVE SUMMARY:

Malouf Engineering Int'l (MEI), as requested, has performed a structural analysis of the above mentioned structure to assess the impact of the changed condition as noted in Table 1.

Based on the stress analysis performed, the existing structure is **in conformance** with the ANSI/TIA **222-F** Standard for the loading considered under the criteria listed and referenced in the report sections.

The installation of the proposed changed condition *of the replacement of (3) existing AT&T panels with new (3) LGP Allgon 7770 Panels, (3) Powerwave 21401 TMA's, (3) Powerwave 7020 RET's onto existing frame mounts at Elev. 120 ft c.l. [no new Lines]* ***is structurally acceptable.***

MEI appreciates the opportunity of providing our continuing professional services to you. If you have any questions or need further assistance on this or any other projects please contact us.

Respectfully submitted,

MALOUF ENGINEERING INT'L, INC.

Analysis performed by:

Krishna Manda, PE
Project Engineer

Reviewed & Approved by:

STATE OF CONNECTICUT
No. 17715
LICENSED PROFESSIONAL ENGINEER

E. Mark Malouf, PE
Connecticut # 17715
972-783-2578 ext. 106
mmalouf@maloufengineering.com

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1. INTRODUCTION & SCOPE

A structural analysis was performed by Malouf Engineering Int'l (MEI), as requested and authorized by Mr. Derek Creaser, Hudson Design Group, LLC, on behalf of AT&T to determine the acceptance of the proposed changed conditions in conformance with the ANSI/TIA-222-F Standard, *"Structural Standards for Steel Antenna Towers and Antenna Supporting Structures"*.

The scope of this independent analysis is to determine the overall stability and the adequacy of structural members, foundations, and member connections, as available and stated. This analysis considers the structure to have been properly installed and maintained with no structural defects. Installation procedures and related loading are not with the scope of this analysis and should be performed and evaluated by a competent person of the erection contractor.

The different report sections detail the applicable information used in this evaluation, relating to the tower data, the appurtenances configuration and the wind and ice loading considered.

2. SOURCE OF DATA

The following information has been used in this evaluation as source data that accurately represent the existing structure and the related appurtenances:

	Source	Information	Reference
STRUCTURE			
Tower	Hudson D.G. / Derek Creaser	Previous Structural Analysis report	URS Corporation job #36924768.00000 Dated 4/18/2003
Foundation		Not Available	
Material Grade	Partial information is available from supplied documents noted above and assumed as per typical towers of this type – refer to Appendix.		
CURRENT APPURTENANCES			
	Hudson D.G. / Derek Creaser	Previous Analysis Report/ Recent Photos	URS Corporation job #36924768.00000 Dated 4/18/2003
CHANGED CONDITION			
	Hudson D.G. / Derek Creaser	Cingular RF Data sheet	Cingular RF Data sheet Rev. 2007-02 Dated 4/25/2007

Background Information:

Based on available information, the following is known regarding this structure:

DESIGNER / FABRICATOR	EEI (Project #4795 dated 3/26/1999)
DESIGN CRITERIA	TIA/EIA 222-E –Unknown
PRIOR STRUCTURAL MODIFICATIONS	All previous reinforcement details as per URS Corporation job #36924768.00000 Dated 4/18/2003 & other prev. modif. Are considered.

3. ANALYSIS CRITERIA

The structural analysis performed used the following criteria:

CODE / STANDARD	ANSI/TIA-222-F Standard	
LOADING CASES	*Full Wind*:	85 Mph (with No Radial Ice)
	Iced Case:	73.6 Mph + 0.5" Radial Ice
	Service:	50 Mph

Appurtenances Configuration

The following appurtenances configuration has been considered:

Table 1: Proposed Changed Condition Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
120[4]	AT&T	3	LGP Allgon 7770 Panels	[exist frame mounts]	1	RET Cable
		6	Powerwave LGP 21401 TMA's			
		3	Powerwave 7020 RET's			

Table 2: Current and Reserved/Future Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
168		1	DB224 Dipole antenna		1	1 1/4" (FZ)
168		1	PD1150 Omni antenna		1	7/8" (FZ)
168		2	DB586 Omni ants		2	7/8" (FZ)
153	Nextel-Sprint	4	DB809K-XC (3"x12.2') Omni	(3) 3' Side Arm Mounts 20" Side Arm Mount	6	1 1/4" (FZ)
150	Verizon	8	7125.16.33.00 Panels	(3) Sector Mounts	8	1 5/8" (FZ)
150	Verizon	4	ALP-E 9011 Panels		4	1 5/8" (FZ)
150	Verizon	1	GPS antenna		1	½" (FZ)
140	T-Mobile	6	RR90-17-DP Panels	(3) 3' Side Arm Mounts	6	1 1/4" (FZ)
131	Nextel – Sprint	12	DB980H90 Panels	(3) Frame Mounts	12	1 5/8" (FZ)
120	AT&T			(3) T-Frame Mounts	6	1 1/4" (FZ)
105		1	10' Omni Antenna	20" Side Arm Mount	1	7/8" (FZ)
85		1	GPS	Standoff	1	1/2" (FZ)
85		1	GPS	Standoff	1	1/2" (FZ)
80		1	GPS	Standoff	1	1/2" (FZ)

Notes:

1. *Please note appurtenances not listed above are to be removed/not present as per data supplied.*
2. (I) = internal; (E) = External; (FZ) = Within Face Zone & (OFZ) = Outside Face Zone - as per TIA-222-G.
3. The above antennas, mounts, and lines represent MEI's understanding of the appurtenances configuration. If different than above, the analysis is invalid. Please refer to Appendix 2 for EPA wind areas used in the calculations. Please contact MEI if any discrepancies are found.
4. AT&T replacing existing (1) panel antenna/sector with proposed panels and adding (2) TMA's per sector.

4. ANALYSIS PROCEDURE

The subject structure is analyzed for feasibility of the installation of the proposed changed condition previously noted. The data records furnished were reviewed and a computer stress analysis was performed in accordance with the TIA-222 Standard provisions and with the agreed scope of work terms and the results of this analysis are reported.

Analysis Program

The computer program used to model the structure is a rigorous Finite Element Analysis program, RISATower (ver.5.02.2), a commercially available program developed by C-Concepts, WI and now maintained by RISA Technologies. The latticed structures members are modeled using beam/truss and cable members and the pole members using tubular beam elements. The structural parameters and geometry of the members are included in the model. The dead and temperature loads and the wind loads are internally calculated by the program for the different wind directions and then applied as external loads on the structure.

Assumptions

This engineering study is based on the theoretical capacity of the members and is not a condition assessment of the structure. This analysis is based on information supplied, and therefore, its results are based on and as accurate as that supplied data. MEI has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural stress analysis:

- This existing tower is assumed, for the purpose of this analysis, to have been properly maintained and to be in good condition with no structural defects and with no deterioration to its member capacities ('as-new' condition).
- The tower member sizes and configuration are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated.
- The appurtenances configuration is as supplied and/or as stated in the report. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
- Some assumptions are made regarding antennas and mounts sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type & industry practice.
- Mounts/Platforms are considered adequate to support the loading. No actual analysis of the platform/mount itself is performed, with the analysis being limited to analyzing the structure.
- The soil parameters are as per data supplied or as assumed and stated in the calculations. Refer to the Appendix. If no data is available, the foundation system is assumed to support the structure with its new reactions.
- All welds and connections are assumed to develop at least the member capacity, unless determined otherwise and explicitly stated in this report. All guy cable assemblies, as applicable, are assumed to develop the rated breaking strength of the wire.
- All prior structural modifications, if any, are assumed to be as per data supplied/available, and to have been properly installed and to be fully effective.

If any of the above assumptions are not valid or have been made in error, this analysis results may be invalided, MEI should be contacted to review any contradictory information to determine its effect.

5. ANALYSIS RESULTS

The results of the structural stress analysis based on data available and with the previous listed criteria, indicated the following:

Table 3: Stress Analysis Results

Member Type	Maximum Stress Ratio	Controlling Elevation / Component	Pass/Fail	Comment
LEGS	104.1%	110 – 105ft	**Acceptable**	See Note 3
DIAGONALS	69.9%	20 – 0ft	**Pass**	
HORIZONTAL	**104.5%**	66.67 – 60ft	**Pass**	See Note 3
FOUNDATION	80.0%	Uplift	**Pass**	

Notes:
1. The Maximum Stress Ratio is the percentage that the maximum load in the member is relative to the allowable load as determined by Code requirements.
2. Refer to the Appendix 2 for more details on the member loads.
3. A maximum stress ratio between 100% to 105% may be considered as *Acceptable* according to industry standard practice.

6. FINDINGS & RECOMMENDATIONS

- Based on the rigorous stress analysis results, the subject structure is **rated at 104.5%** of its support capacity (controlling component: Horiz. bracing) with the proposed changed condition considered. Please refer to Table 3 and to Appendix 2 for more details of the analysis results.

- Based on the stress analysis performed, the existing structure is **in conformance** with the ANSI/TIA **222-F** Standard for the loading considered under the criteria listed and referenced in the report sections.

- ***The installation of the proposed changed condition*** *of the replacement of (3) existing AT&T panels with new (3) LGP Allgon 7770 Panels, (3) Powerwave 21401 TMA's, (3) Powerwave 7020 RET's onto existing frame mounts at Elev. 120 ft c.l. [no new Lines]* ***is structurally acceptable***.

- This structure is at its maximum support capacity for the appurtenances and loading criteria considered. Therefore, No changes to the configuration considered should be made without performing a new proper evaluation.

Rigging and temporary supports required for the erection/modification shall be determined, documented, furnished and installed by the erector/contractor accounting for the loads imposed on the structure due to the proposed construction method.

7. REPORT DISCLAIMER

The engineering services rendered by **M**alouf **E**ngineering **I**nternational, Inc. *('MEI') in connection with this Structural Analysis are limited to a computer analysis of the tower structure, size and capacity of its members. MEI does not analyze the fabrication, including welding and connection capacities, except as included in this Report.*

The analysis performed and the conclusions contained herein are based on the assumption that the tower has been properly installed and maintained, including, but not limited to the following:

1. Proper alignment and plumbness.
2. Correct guy tensions, as applicable.
3. Correct bolt tightness or slip jacking of sleeved connections.
4. No significant deterioration or damage to any structural component.

Furthermore, the information and conclusions contained in this Report were determined by application of the current "state-of-the-art" engineering and analysis procedures and formulae. MALOUF ENGINEERING INTERNATIONAL, INC. Assumes no obligation to revise any of the information or conclusions contained in this Report in the event that such engineering and analysis procedures and formulae are hereafter modified or revised. In addition, under no circumstances will MALOUF ENGINEERING INTERNATIONAL, INC. Have any obligation or responsibility whatsoever for or on account of consequential or incidental damages sustained by any person, firm or organization as a result of any information or conclusions contained in the Report, and the maximum liability of MALOUF ENGINEERING INTERNATIONAL, INC., if any, pursuant to this Report shall be limited to the total funds actually received by MALOUF ENGINEERING INTERNATIONAL, INC. For preparation of this Report.

Customer has requested MALOUF ENGINEERING INTERNATIONAL, INC. To prepare and submit to Customer an engineering analysis with respect to the Subject Tower and has further requested MALOUF ENGINEERING INTERNATIONAL, INC. to make appropriate recommendations regarding suggested structural modifications and changes to the Subject Tower. In making such request of MALOUF ENGINEERING INTERNATIONAL, INC., Customer has informed MALOUF ENGINEERING INTERNATIONAL, INC. that Customer will make a determination as to whether or not to implement any of the changes or modifications which may be suggested by MALOUF ENGINEERING INTERNATIONAL, INC. and that Customer will have any such changes or modifications made by riggers, erectors and other subcontractors of Customer's choice. MALOUF ENGINEERING INTERNATIONAL, INC. shall have the right to rely upon the accuracy of the information supplied by the customer and shall not be held responsible for the Customer's misrepresentation or omission of relevant fact whether intentional or otherwise.

Customer hereby agrees and acknowledges that MALOUF ENGINEERING INTERNATIONAL, INC. shall have no liability whatsoever to Customer or to others for any work or services performed by any persons other than MALOUF ENGINEERING INTERNATIONAL, INC. in connection with the implementation of services including but not limited to any services rendered for Customer or for others by riggers, erectors or other subcontractors. Customer acknowledges and agrees that any riggers, erectors or subcontractors retained or employed by Customer shall be solely responsible to Customer and to others for the quality of work performed by them and that MALOUF ENGINEERING INTERNATIONAL, INC. shall have no liability or responsibility whatsoever as a result of any negligence or breach of contract by any such rigger, erector or subcontractor and that Customer and rigger, erector, or subcontractor will provide MALOUF ENGINEERING INTERNATIONAL, INC. with a Certificate of Insurance naming MALOUF ENGINEERING INTERNATIONAL, INC. as additional insured.

Section	T20	T19	T18	T17	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	ROHN 6 EH	ROHN 6 EHS	ROHN 5 EH	ROHN 4 EH	ROHN 3.5 EH	3" Pipe Reinforced	ROHN 2.5 STD													
Leg Grade	A572-50																			
Diagonals	L3 1/2x3 1/2x1/4		L3x3x1/4	L2 1/2x2 1/2x1/4		L2 1/2x2 1/2x3/16					L2x2x3/16							L1 3/4x1 3/4x3/16		
Diagonal Grade	A572-50			A36																
Top Girts	N.A.									B			A							
Sec. Horizontals	N.A.			D	C	N.A.	L2x2x3/16		N.A.	C								N.A.		
Face Width (ft)	18.8542	16.8542	14.7708	12.7604	12.0807	11.3984	10.7188	10.0417	9.36458	8.6875	8.1875	7.6875	7.1875	6.6875						
# Panels @ (ft)	15.5	3.1	4 @ 10	2.7	9 @ 6.66667	2.6	0.8	0.8	0.6	0.5	0.4	0.3	0.3	0.2	4 @ 5	0.2	0.2	0.2	0.9	12 @ 4
Weight (K)	3.1	2.7	2.6	0.7	0.8	0.6	0.8	0.5	0.5	0.4	0.3	0.3	0.2	0.2		0.2	0.2	0.2	0.9	0.4

168.0 ft
160.0 ft
140.0 ft
136.0 ft
132.0 ft
128.0 ft
124.0 ft
120.0 ft
115.0 ft
110.0 ft
105.0 ft
100.0 ft
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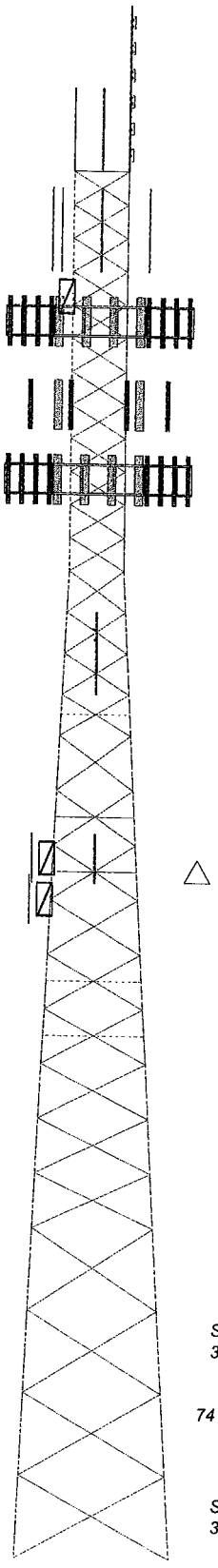
60.0 ft
40.0 ft
20.0 ft
0.0 ft



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
DB224	168	(4) DB980H90A-M w/Mount Pipe (Nextel-Sprint/E)	131
PD1150	168	(4) DB980H90A-M w/Mount Pipe (Nextel-Sprint/E)	131
DB586-X	168	Frame Mounts (3) (Nextel-Sprint/E)	131
DB586-X	168	7770.00 w/ Pipe Mount (ATI/P)	120
DB809K-XC (Nextel-Sprint/E)	153	7770.00 w/ Pipe Mount (ATI/P)	120
DB809K-XC (Nextel-Sprint/E)	153	7770.00 w/ Pipe Mount (ATI/P)	120
DB809K-XC (Nextel-Sprint/E)	153	(2) Powerwave/LGP 21401 TMA (ATI/P)	120
DB809K-XC (Nextel-Sprint/E)	153	(2) Powerwave/LGP 21401 TMA (ATI/P)	120
3' Side Arm Mounts (3) (Nextel-Sprint/E)	153	(2) Powerwave/LGP 21401 TMA (ATI/P)	120
20" Side Arm (Nextel-Sprint/E)	153	7020 RET (ATI/P)	120
(4) 7125.16.33.00 w/Mount Pipe (Verizon/E)	150	7020 RET (ATI/P)	120
(4) ALP-E 9011-DIN w/Mount Pipe (Verizon/E)	150	7020 RET (ATI/P)	120
(4) 7125.16.33.00 w/Mount Pipe (Verizon/E)	150	Frame Mounts (3) (ATI/E)	120
GPS (Verizon/E)	150	10' Omni	105
Sector Mounts (3) (Verizon/E)	150	20" Side Arm	105
(2) RR90-17-00DP w/Mount Pipe (T-Mobile/E)	140	GPS	85
(2) RR90-17-00DP w/Mount Pipe (T-Mobile/E)	140	Standoff	85
(2) RR90-17-00DP w/Mount Pipe (T-Mobile/E)	140	GPS	85
3' Side Arm Mounts (3)	140	Standoff	85
(4) DB980H90A-M w/Mount Pipe (Nextel-Sprint/E)	131	GPS	80
		Standoff	80

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	2.5" Pipe Reinforced	C	L3x3x3/16
B	L1 3/4x1 3/4x3/16	D	L2x2x3/16

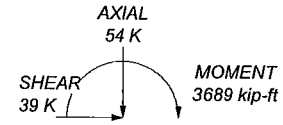
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

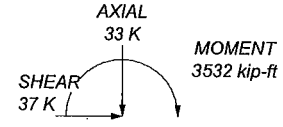
TOWER DESIGN NOTES

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 50 mph wind.
5. TOWER RATING: 104.5%

MAX. CORNER REACTIONS AT BASE:
DOWN: 244 K
UPLIFT: -197 K
SHEAR: 23 K



TORQUE 3 kip-ft
74 mph WIND - 0.5000 in ICE



TORQUE 3 kip-ft
REACTIONS - 85 mph WIND

MALOUF ENGINEERING INTL. INC. STRUCTURAL CONSULTANTS
Structural Consultants
Malouf Engineering Int'l
17950 Preston Rd, Ste 720
Dallas, TX 75252
Phone: 972-783-2578
FAX: 972-783-2583

Job: *168ft SST, Union Central #5453, Union, CT*			
Project: *CT00875S-07V0*			
Client: Hudson Design Group/AT&T	Drawn by: MMalouf	App'd:	
Code: TIA/EIA-222-F	Date: 08/21/07	Scale: NTS	
Path:		Dwg No. E-1	

CINGULAR WIRELESS
Equipment Modification

197 South Street, Vernon, CT
Site Number 1082
Petition 355 on 6/18/96; Exempt Modifications 8/1/02

Tower Owner/Manager: Crown Castle

Equipment configuration: Self-supporting lattice tower

Current and/or approved: Nine CSS DUO1417 antennas @ 109 ft c.l.
Nine runs 7/8 inch coax
Six TMA's / six diplexers @ 109 ft

Planned Modifications: Remove three existing antennas
Install 3 Powerwave 7770 antennas (or equivalent) at 109 ft
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 45.6 % 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 37.5 % 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 *							29.06
Cingular TDMA *	100	880 - 894	16	100	0.0575	0.5867	9.81
Cingular GSM *	100	880 - 894	2	296	0.0213	0.5867	3.63
Cingular GSM *	100	1900 Band	2	427	0.0307	1.0000	3.07
Total							**45.6%**

* Per CSC Records. The actual height should be 109 ft AGL; 100 ft was an error on the part of Cingular in the 2002 filing.

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 *							29.06
Cingular GSM	109	880 - 894	3	296	0.0269	0.5867	4.58
Cingular GSM	109	1900 Band	1	427	0.0129	1.0000	1.29
Cingular UMTS	109	880 - 894	1	500	0.0151	0.5867	2.58
Total							**37.5%**

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (IETS Engineering Service, dated 8/31/07)

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

September 12, 2007

Honorable Ellen L. Marmer, Mayor
Town of Vernon
Memorial Bldg. 14 Park Pl.
Vernon, CT 06066

Re: Telecommunications Facility – South Road, Vernon

Dear Mayor Marmer:

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: **August 31, 2007**

Ms. Veronica Harris
Crown Castle International
1200 Macarthur Blvd
Suite 200
Mahwah, NJ 07430
(201) 236-9094

IETS, P.C.
129 Greenwich Road
Charlotte, NC 28211
(704) 522-1131 Phone
(704) 522-1280 Fax
towerdata@iets.com

Subject: **Analysis Structural Report**

Carrier Designation	**Cingular Co-Locate**	
	Cingular Site Number:	**1082**
	Cingular Site Name:	**Vernon (H2O)**
Crown Castle Designation	**Crown Castle BU Number:**	**806377**
	Crown Castle Site Name:	**HRT 084 943242**
	Crown Castle JDE Job Number	**87960**
Engineering Firm Designation	**IETS Project Number:**	**2007-71094**
Site Data	**South Street, Vernon, Connecticut, Tolland County** **Latitude 41° 51' 12", Longitude -72° 27' 09"** **132 Foot – Self Support Tower**	

Dear Ms. Harris,

IETS 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 239855, in accordance with application 45236, revision 1.

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:

LC1: Existing + Reserved + Proposed Equipment **Sufficient Capacity**

Note: See Table I and Table II for the proposed and existing/reserved loading.

The analysis has been performed in accordance with the TIA/EIA 222-F standard and the 2003 IBC based upon a fastest mile wind speed of 85 mph.

All equipment proposed in this report shall be installed in accordance with the attached drawings for the determined available structural capacity to be effective.

We at IETS 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,

Mark J. Stewart
Project Engineer

National Society of Professional Engineers®
Signatory, NSPE Licensed Member

William A. Griswold, Jr., P.E.
Chief Engineer

NATE NATIONAL ASSOCIATION OF TOWER ERECTORS

STATE OF CONNECTICUT WILLIAM A. GRISWOLD, JR. No. 23955 REGISTERED PROFESSIONAL ENGINEER

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Additional Calculations

1) INTRODUCTION

The subject tower is a 132' self-supported lattice tower manufactured by Rohn. The tower was originally designed for E.I.A. Zone 'A'.

2) ANALYSIS CRITERIA

- TIA/EIA-222-F
- 85 mph wind speed with no radial ice and a 74 mph wind speed with ½" of radial ice
- 2003 IBC
- Crown Castle provided proposed, existing, and reserved antenna and transmission line information.

Table 1 – Proposed Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount Information	Number of Feed Lines	Feed Line Size (in)
109	3	Powerwave	7770.00	Existing	3	7/8

Refer to IETS drawing 2007-71094-01 for existing and proposed cable routing.

Table 2 – Existing and Reserved Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
137	3	Andrew	UMWD-06516-XD	6	1-5/8
****130	1 (Existing) 1 (SLA)	CSA Wireless Andrew	HP60A72DL-S HP6-107	1 (Existing) 1 (SLA)	EW52 7/8
*121	2 (SLA) 1 (Existing) 1 (Existing)	Andrew CSA Wireless Andrew	HP8-59 HP-60A72DL-S HP4-107	2 (SLA) 1 1	EW52 EW52 1-1/4
*117	6 (Existing) 6 (Reserved) 6 (MLA)	Swedcom Decibel BAM MLA	ALP 9212-N DB948F85T2E-M BAM MLA_Antenna	12 (Reserved) 12 (MLA)	1-5/8
*109	6 (Existing) **3 (Existing) 6 (Existing) 6 (Existing) 9 (SLA) 6 (SLA	CSS CSS ADC Powerwave CSS LGP Telecom	DUO1417-8686 DUO1417-8686 DB 800/1900 LGP13519 DUO4-8670 TMA-DD 850/1900	9 (Existing) 9 (SLA)	7/8 1-5/8
102	1	Scala	PR-460	1	7/8
***84	3	Allgon	7250.03	6	7/8
69	1	Decibel	DB420-A	2	1/2
61	1	-	GPS	1	1/2
60	1 (Reserved)	Telewave	ANT450D6-9	1 (Reserved)	7/8
56	1	Scala	PR-460	1	1/2
49	1	-	GPS	1	1/2

*MLA/SLA loading used at this level
**To be replaced by proposed loading
***Abandoned equipment to be removed
****Existing equipment used at this level

Table 3 – Design Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Model
127	4	PD10017
124	2	8' Dia. Std. Dish
112	6	PD1132
80	1	PD1109

3) ANALYSIS PROCEDURE

Table 4 – Documents Provided

Document	Remarks	Reference	Source
Tower Drawings	Rohn	529704	CCI Sites
Foundation Drawings	IETS	1014812	CCI Sites
Soils Report	FDH	1014866	CCI Sites

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. 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. All proposed and future transmission cables are installed in the locations noted on the cable routing drawing in *Appendix B.*
2. When applicable, transmission cables were considered to be structural components for calculating wind loads, as allowed by TIA/EIA-222-F.
3. Information in the original design drawings and specifications that could not be verified by IETS personnel is assumed to be correct. For this analysis, IETS will assume conformance with the original design drawings and specifications.
4. IETS shall assume that all tower components are in sufficient condition to carry their full design capacity.
5. We have not based the adequacy of the tower on limitations for antenna twist, tilt, roll, or lateral translation.

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

4) ANALYSIS RESULTS

Table 5 – Tower Component Stresses vs. Capacity – LC1

Notes	Component	Elevation (ft)	% Capacity	Pass/Fail
RISA Tower Analysis Summary:(Self Support)				
			Summary	
Notes:	**Component**	**Elevation**	**% Capacity**	**Pass/Fail**
	Leg (T4)	80-60	92.7	Pass
	Diagonal (T2)	120-100	88.3	Pass
	Top Girt (T1)	132-120	0.5	Pass
	Bottom Girt (T1)	132-120	15.8	Pass
	Bolt Checks	20-0	77.0	Pass
Individual Components:				
Notes:	**Component**	**Elevation**	**% Capacity**	**Pass/Fail**
1	Base Foundation	-	52.8	Pass
Structure Rating (max from all components) =				**92.7%**

*Notes:

1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity listed.
2) The percent capacities shown above (excluding foundations) include the 1/3 increase in allowable stresses as allowed by TIA/EIA-222-F.
3) Capacities up to 105% are considered acceptable based on the analysis procedures.

CINGULAR WIRELESS
Equipment Modification

3114 Albany Avenue, West Hartford, CT
Site Number 1154
Exempt Modification 2/18/04

Tower Owner/Manager: Marlin Tower

Equipment configuration: Guyed Lattice Tower

Current and/or approved: Nine CSS DUO1417 antennas @ 115 ft c.l.
Nine runs 1 5/8 inch coax
Six TMA's

Planned Modifications: Remove three existing antennas
Install 3 Powerwave 7770 antennas (or equivalent) @ 115 ft
Install three additional runs 1 5/8 inch coax (total of 12)
Install three diplexers @ 115 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 46.0 % 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 47.1 % 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 *							40.90
Cingular GSM *	115	880 - 894	2	296	0.0161	0.5867	2.74
Cingular GSM *	115	1930 - 1970	2	427	0.0232	1.0000	2.32
Total							**46.0%**

* 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 *							40.90
Cingular GSM	115	880 - 894	2	296	0.0161	0.5867	2.74
Cingular GSM	115	1900 Band	1	427	0.0116	1.0000	1.16
Cingular UMTS	115	880 - 894	1	500	0.0136	0.5867	2.32
Total							**47.1%**

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the tower and foundation have sufficient structural capacity to accommodate the proposed modifications (Malouf Engineering Intl, dated 8/20/07)

MALOUF ENGINEERING INTL., INC.

STRUCTURAL CONSULTANTS

August 20, 2007

Mr. Derek Creaser
HUDSON DESIGN GROUP, LLC
representing **AT&T**
46 Beechwood Drive
North Andover, MA 01845

SUBJECT	**FEASIBILITY STRUCTURAL EVALUATION**			
Structure:	346 ft **Guyed**		PiRod	
Client/ Site Name /#:	**Hudson D.G./ AT&T**	**West Hartford Route 44**		**# 1154**
Owner/Site Name /#:	Gtr Hartford Comm	West Hartford Route 44		
MEI Project ID:	**CT00870G-07V0**			
Location:	3114 Albany Ave West Hartford, CT 06117		Hartford County FCC ASR # 1046246	
	LAT	41-47-48.5 N	LON	72-47-48.6 W

Malouf Engineering Int'l (MEI), as requested, has performed a feasibility structural evaluation of the above mentioned structure to assess the impact of the changed condition as noted below.

The structural evaluation performed used the following criteria:

CODE / STANDARD	ANSI/TIA-222-F-96 Standard / IBC 2003 Code – CT Building Code	
LOADING CASES	*Full Wind*:	80 Mph (with No Radial Ice)
	Iced Case:	69 Mph + 0.50" Radial Ice
	Service:	50 Mph

Table 1: Proposed Changed Condition Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
115*	AT&T	3	LGP Allgon 7770 Panels	[exist frame mounts]	3	1-5/8" [In addition to exist]
		3	LGP 13519 Diplexers			
		3	Powerwave 7020 RET's			
		3	Powerwave 7060 CILOC			

* Note: AT&T replacing existing (1) panel/sector with new panel and adding (1) 1-5/8" dia. & (1) Diplexer per sector.

Table 2: Previous Analysis Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
346		1	Flash Beacon Lighting			
335	WCCC-FM	1	ERI SHPX3AE-3-Bay CP FM Antenna	Top Pole	1	3" flex
298	Ch 38	1	LPTV Antenna		1	3" Flex
275		1	DB420-B Antenna	Leg mount	1	1"
235	STL	1	PR-450U antenna		1	1"
211		1	DB420-B Antenna	Leg mount	1	1"
165	WMNR	1	Shively 6810 1-Bay FM		1	1"
160	T-Mobile	9	DR65-19-00DPQ Panels	(3) 15' T-Frame Mounts	36	1-5/8"-FZ
145	AT&T	6	Allgon 7250.xx Panels	(3) 2" Standoff T-Arm (5' face width)	6	1-5/8"-FZ
130	Verizon Wireless	4	DB848F65E-SX Panels	(3) 15' T-Frame mounts	8	1-5/8"-FZ
		4	DB950G65E-M Panels			
115	Cingular	12	DUO1417-8686 Panels		12	1-5/8"-FZ
		12	TMA's	(3) 15' T-Frame Mounts		

The information used as source data to represent the existing structure and the related appurtenances is as follows:

Structure & Current Appurtenances	Structure data and design appurtenances loading as per previous analysis data by URS, ref. job # 36929370, dated 11/23/04 – Tower analysis *Max. Stress at 65.6%.*
Changed Condition	As per AT&T /Cingular Wireless RF approval email, dated 04/26/07 Version 2007-02, Supplied by Hudson Design Group, LLC on 08/15/07.

The subject structure is evaluated for the feasibility of the installation of the proposed changed condition previously noted. The data records furnished were reviewed and the appurtenances loading was evaluated (no computer analysis performed, only relative loading magnitude comparison), in accordance with the TIA-222 Standard provisions and with the agreed limited scope of work terms and the results of this feasibility evaluation are reported. This evaluation is based on information supplied, and therefore, its results are based on and as accurate as that supplied data. MEI has made no independent determination of its accuracy. This existing structure is assumed, for the purpose of this evaluation, to have been properly maintained and to be in good condition with no structural defects and with no deterioration to its capacity ('as-new').

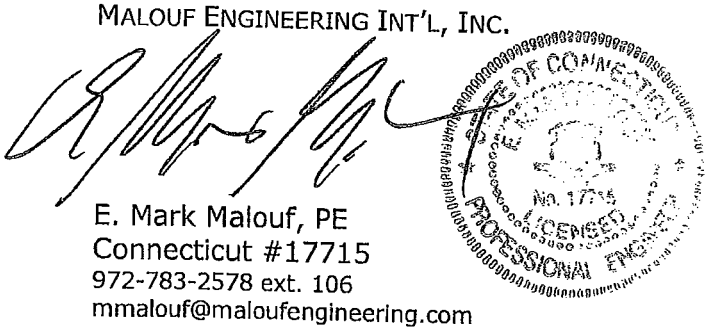
Based on the feasibility structural evaluation of the data provided, the subject structure would meet the minimum requirements of ANSI/TIA 222-F Standard for the proposed changed condition as stated above when considering the structure to have been properly designed for the stated appurtenances. The proposed loading would stress the structure about the same or less than the previous structural analysis.

Therefore, **the installation of the noted proposed changed condition is structurally acceptable** on this existing structure in accordance with the ANSI/TIA **222-F** Standard for the loading considered under the criteria listed and referenced.

MEI appreciates the opportunity of providing our continuing professional services to you. If you have any questions or need further assistance on this or other projects please contact us.

Respectfully submitted,

MALOUF ENGINEERING INT'L, INC.



E. Mark Malouf, PE
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mmalouf@maloufengineering.com

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

September 12, 2007

Mr. James Francis, Town Manager
Town of West Hartford
Town Hall 50 South Main St.
West Hartford, CT 06107

Re: Telecommunications Facility – 3114 Albany Avenue, West Hartford

Dear Mr. Francis:

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