STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

August 6, 2002

Peter W. van Wilgen
SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-003-110-112-116-141-145-020718** - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Ashford, Plainfield, Pomfret, Putnam, Thompson, and Union, Connecticut.

Dear Mr. van Wilgen:

At a public meeting held on August 1, 2002, 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 with the condition that the monopole tower in Putnam be modified in accordance with recommendations made in the tower analysis and that a professional engineer certify the satisfactory completion of these modifications to the Council before any additional antennas are installed on the tower.

The proposed modifications are to be implemented as specified here and in your notice dated July 18, 2002. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility sites that would not increase tower heights, extend the boundaries of the tower site, increase noise levels at the tower site boundaries by six decibels, and increase the total radio frequencies electromagnetic radiation power density 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. Any additional change to 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,

Mortimer A. Gelston
Chairman

MAG/laf

c: See attached list

I:\siting\em\cing\multiple\020718e\dc080102.doc

List Attachment

c: Honorable John M. Zulick, First Selectman, Town of Ashford
Stephen Lowry, Zoning Enforcement Officer, Town of Ashford
Honorable David C. Allard, First Selectman, Town of Plainfield
Planning and Zoning Official, Town of Plainfield
Honorable David I. Patenaude, First Selectman, Town of Pomfret
Walter P. Hinchman, Planning and Zoning Chairman, Town of Pomfret
Honorable Daniel S. Rovero, Mayor, Town of Putnam
Gerard Cotnoir, Planning Chairman, Town of Putnam
Honorable Douglas J. Williams, First Selectman, Town of Thompson
John E. Mahon, Jr., Zoning Enforcement Officer, Town of Thompson
Honorable Albert L. Goodhall, Jr., First Selectman, Town of Union
Planning and Zoning Official, Town of Union

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

July 25, 2002

Honorable Douglas J. Williams
First Selectman
Town of Thompson
Town Office Building
815 Riverside Drive
P. O. Box 899
North Grosvenordale, CT 06255

RE: **EM-CING-003-110-112-116-141-145-020718** - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Ashford, Plainfield, Pomfret, Putnam, Thompson, and Union, Connecticut.

Dear Mr. Williams:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for August 1, 2002, at 2:30 p.m. in Hearing Room Two, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

SDP/ekz

S. Derek Phelps
Executive Director

SDP/laf

Enclosure: Notice of Intent

c: John E. Mahon, Jr., Zoning Enforcement Officer, Town of Thompson

l:\siting\em\cing\multiple\020718e\williams.doc

cingular WIRELESS

FACSIMILE TRANSMITTAL SHEET

TO: DAVID MARTIN
FROM: JENNIFER GAUDET
COMPANY: CSC
DATE: 7/22/02
FAX NUMBER: 860 827-2950
TOTAL NO. OF PAGES INCLUDING COVER: 9
PHONE NUMBER: 860 827-2935
SENDER'S REFERENCE NUMBER:
RE: THOMPSON -
YOUR REFERENCE NUMBER:

RECEIVED
JUL 22 2002
CONNECTICUT
SITING COUNCIL

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

David -

Attached are additional pages provided by Mr. Green for the Thompson site. His stamp appears in two places. Please let me know if you need anything further. Thank you.

Jennifer

500 ENTERPRISE DRIVE 3RD FLOOR ROCKY HILL, CT 06067-3900
PHONE 860-513-7600 FAX 860-513-7190

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

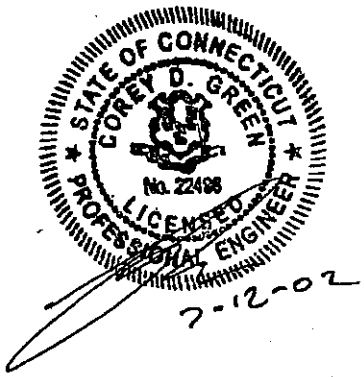
BECHTEL TELECOMMUNICATIONS

Site Name: Thompson
Site Number: 1052
Thompson, CT

(250' Guyed Tower)

GEM Engineering Company, Inc.
July 8, 2002

TABLE OF CONTENTS



TOWER INFORMATION

Tower Height:	**250'**
Tower Type:	**Guyed**
Tower Manufacturer:	**-**
Tower Model Number:	**-**
Location:	**Thompson, CT**
Report Prepared for:	**Bechtel Telecomm.**
Report Prepared by:	**Sue Lee**
Report Checked by:	Ahmad Coguri
GEM Project Number:	**460569**
Site Name:	**Thompson**
Site Number:	**1052**
Report Date:	**July 8, 2002**

Section 1 Introduction

The purpose of this report is to investigate the structural adequacy of an existing tower, 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 250' guyed tower. Information on the existing tower was obtained from "L&W Engineering" structural analysis and report, project no. 2188-01, dated June 10, 1998. "Bechtel Telecommunications" supplied information on the new 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 are those resulting from wind and ice. Per TIA/EIA-222-F, the basic wind speed for the Windham County in Connecticut is 85 mph with ½" ice.

The tower 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, and all related appurtenances.

Section 2 Tower Loading Information & Criteria

Customer Name: Bechtel Telecommunications

Site: Thompson, CT

TOWER ANALYSIS DATA:

Monopole Analysis Criteria: TIA-EIA-222-F

Monopole Height: 250'

Wind Load: 85 mph

Ice Load: ½"

Frequency: -

ANTENNAS:

Model	Carrier Name	Level	Azimuth	Existing / New	Ice Shield	Coaxial Cables
(1) FAA Beacon		252'		E		N/A
(2) AO9210		232.6'		E		(2) 1 5/8"ϕ
(2) AO9210		232.6'		E		(2) 1 5/8"ϕ
(1) PD1109		205'		E		(1) 7/8"ϕ
(1) PCN9-2		200'		E		(1) 1 ¼"ϕ
(1) PD1109		190'		E		(1) 7/8"ϕ
(1) PD1109		190'		E		(1) 7/8"ϕ
(1) DB254		172'		E		(1) ½"ϕ
(1) PD320		160'		E		(1) ½"ϕ
(2) Obstruction Lights		128'		E		N/A
(1) 0.75m Dish		75'		E		N/A
(9) Allgon 7120.16 *		205'		E		(9) 1 1/4"ϕ
(9) CSS DUO w/ (6) new TMA and (3) new Diplexers		**205'**		**N**		**(9) 1 1/4"ϕ**

*** Nine (9) existing antennas and their associated coax at elevations 205' shall be replaced with nine (9) new CSS DUO antennas and coax at elevation 205'.**

Section 3 Results

Structural Element	Stress	Maximum Ratio	Notes
Legs	O.K.	0.680	-
Leg Bolts	O.K.	0.252	-
Diagonals	O.K.	0.620	-
Diagonal Bolts*	O.K.	N/A	Welded
Horizontals	O.K.	0.936	-
Girt Bolts*	O.K.	N/A	Welded
Guy Wires	O.K.	0.948	-

N/A = Not Applicable, N.G. = Not Good (Structurally) Acceptable Maximum Ratio is 1.05

BASE REACTIONS	Down (k)	Horizontal (k)
Original Design Loads	-	-
New Foundation Loads	**70.45**	**1.145**

GUY ANCHOR REACTIONS @ 192 ft.	Up (k)	Horizontal (k)
Original Design Loads	-	-
New Foundation Loads	**27.859**	**34.443**

* A detailed analysis of the welded end connections has not been performed, as this was not a part of the scope of work. Based on engineering judgment and the acceptable stress ratios of the girts and diagonals, the welded end connections have been assumed to be adequate.

The soil report and foundation drawings are required to determine the structural adequacy of the existing foundations.

Section 4 Conclusions

The existing 250' tower 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 tower is structurally adequate** to support the nine (9) new antennas with six (6) new TMA and three (3) new diplexers at 205' above ground elevation, in addition to all existing antennas. Nine (9) existing antennas at elevations 205' shall be replaced with nine (9) new antennas at elevation 205'.

The soil report and foundation drawings are required to determine the structural adequacy of the existing foundations.

The existing guy wire tension for this tower has not been provided to GEM Engineering Inc. for this analysis. Therefore, for the purpose of this analysis, GEM Engineering Inc. has assumed that the existing guy wire tensions are within acceptable limits for the corresponding guy wire size. It is Gem Engineering Inc. recommendation, that prior to the addition of the new antennas the tension of all the guy wires on the tower be checked for the proper tension and if needed adjusted as necessary according to the TIA/EIA-222-F requirements.

Section 5 Analysis Summary

LEG
CONNECTIONS: Structural Grade (Assumed) : A-325

Elevation	Member Force, K	Allowable Force, K	Stress Ratio	Member Stress
220'	8.18115	77.406	0.106	O.K.
200'	19.5262	77.406	0.252	O.K.
180'	15.9926	77.406	0.207	O.K.
160	7.17127	77.406	0.093	O.K.
140'	7.07394	77.406	0.091	O.K.

Allowable Stress Ratio is between 0% - 1.05%
N.G. = Not Good (Structurally), N/A = Not Applicable

EM-CING-003-110-112-116-141-145-020718

SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7730
Fax: (860) 513-7190

Peter W. van Wilgen
Senior Manager – Construction

HAND DELIVERED

July 18, 2002

Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Ashford, Pomfret, Putnam, Union, Thompson and Plainfield

Dear Mr. Gelston:

In order to accommodate technological changes, implement E-911 capability and enhance system performance, SNET Mobility, LLC ("SNET" or "Cingular Wireless") plans to modify the antenna configurations at 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 located.

Attached are summary sheets detailing the planned changes, including power density calculations reflecting the change in the effect of Cingular's operations at each 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. The height of the overall structure will be unaffected. At almost all sites, new panel antennas approximately the same size will replace those previously installed. Tower mount amplifiers, approximately 5" x 9" x 13", will be added to the platform on which the panel antennas are mounted to enhance signal reception at the cell site. In addition, the mandated provision of E-911 capability will require installation of one LMU ("location measurement unit"), approximately 5 inches high, on either the tower, the equipment shelter or the ice bridge. One GPS receive-only antenna will be attached to the equipment shelter at each site. None of the 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.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.

4. Radio frequency power density will increase due to use of additional channels broadcasting at higher power. 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) 513-7730 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Peter W. van Wilgen

Peter W. van Wilgen
Senior Manager - Construction

Enclosures

CINGULAR WIRELESS
Antenna Modification

Site Address: 61 Lowell Davis Road, Thompson
exempt modification (4/30/90)

Tower Owner/Manager: Charter Communications

Antenna configuration Antenna center line – 205'

Current and/or approved: 9 Allgon 7120.16 or comparable

Planned: 9 CSS DUO4-8670 or comparable
6 tower mount amplifiers
3 diplexers

Power Density:

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 2.8% of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 3.9%, or an additional 1.1% of the standard.

Cingular Current

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
SNET	205	880 - 894	19	100	0.0163	0.5867	2.8

Cingular Planned

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
SNET TDMA	205	880 - 894	16	100	0.0137	0.5867	2.3
SNET GSM	205	880 - 894	2	296	0.0051	0.5867	0.9
SNET GSM	205	1930 - 1935	2	427	0.0073	1.0000	0.7
Total							3.9%

Structural information: Please see attached.

GEM ENGINEERING COMPANY

2500 Wilcrest, Suite 100
Houston, Texas 77042

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

July 8, 2002

A Subsidiary of Quanta Services, Inc.

Quanta Services

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

Re: Structural Analysis of Existing Tower

Bechtel Site Number:	1052
GEM Project No.:	460569
Site Location:	Thompson, CT

Dear Richard,

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

- Thompson – 250' Guyed Tower

The analysis shows that the above referenced tower is **structurally adequate** to support the nine (9) new antennas with six (6) new TMA and three (3) new Diplexers at 205' above ground level in addition to all existing loading. Nine (9) existing antennas at elevations 205' shall be replaced with nine (9) new antennas at elevation 205'.

The soil report and foundation drawings are required to determine the structural adequacy of the existing foundations

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

Sincerely,

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