

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@po.state.ct.us Web Site: www.state.ct.us/csc/index.htm

September 9, 2002

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

RE:

EM-CING-026-027-045-076-106-152-020702 - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Chester, Clinton, East Lyme, Madison, Old Saybrook, and Waterford.

Dear Mr. van Wilgen:

At a public meeting held on September 5, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify an existing telecommunications facility at 15 Minor Lane, Waterford, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies. The Chester, Clinton, East Lyme, Madison, and Old Saybrook sites were previously approved on July 11, 2002.

The proposed modifications are to be implemented as specified here and in your notice dated July 2, 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 site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. 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 this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65.

Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours.

Mortimer A. Gelston

Chairman

MAG/laf

c: Honorable Paul B. Eccard, First Selectman, Town of Waterford Thomas V. Wagner, Planning Director, Town of Waterford



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July 15, 2002

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

RE:

EM-CING-026-027-045-076-106-152-020702 - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Chester, Clinton, East Lyme, Madison, Old Saybrook, and Waterford.

Dear Mr. Greene:

At a public meeting held on July 11, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify five of the proposed six existing telecommunications facilities, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies. The 15 Minor Lane, Waterford site will be presented at a future Council meeting after requested information is received.

The proposed modifications are to be implemented as specified here and in your notice dated July 2, 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 site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. 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 this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston

Chairman

MAG/laf

c: See attached list

Honorable Martin L. Heft, First Selectman, Town of Chester Larry Gilliam, Zoning Enforcement Officer, Town of Chester Honorable James M. Mccusker, Jr., First Selectman, Town of Clinton Thomas Lane, Zoning Enforcement Officer, Town of Clinton Honorable Wayne L. Fraser, First Selectman, Town of East Lyme L. Jean Davis, Town Planner, Town of East Lyme Honorable Thomas S. Scarpati, First Selectman, Town of Madison William H. McMinn, Zoning Enforcement Officer, Town of Madison Honorable Michael A. Pace, First Selectman, Town of Old Saybrook Christine Rosenthal, Town Planner, Town of Old Saybrook Honorable Paul B. Eccard, First Selectman, Town of Waterford Thomas V. Wagner, Planning Director, Town of Waterford



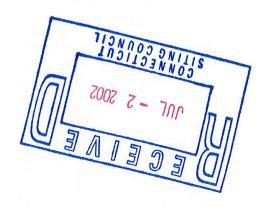
SNET Mobility, LLC 500 Enterprise Drive Rocky Hill, Connecticut 06067-3900 Phone: (860) 513-7730 Fax: (860) 513-7190

Peter W. van Wilgen Senior Manager – Construction

#### HAND DELIVERED

July 2, 2002

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



Re: <u>SNET Mobility, LLC notice of intent to modify existing telecommunications facilities</u> located in Waterford, East Lyme, Old Saybrook, Chester, Clinton and Madison

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

Senior Manager - Construction

Peter W. van Wilgen

**Enclosures** 

Site Address:

15 Minor Lane, Waterford

Docket No. 67

Tower Owner/Manager:

Springwich Cellular Limited Partnership;

managed by SpectraSite Communications, Inc.

Antenna configuration

Antenna center line – 153'

Current and/or approved: 9 Allgon 7120.16 or comparable

Planned:

9 CSS DUO4-8670 or comparable

6 tower mount amplifiers

1 LMU (at 38.25')

#### **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 5.0% 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 7.1%, or an additional 2.1% of the standard.

#### Cingular Current

|   | Company | Centerline Ht<br>(feet) | Frequency (MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density<br>(mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|---|---------|-------------------------|-----------------|-----------------------|---------------------------------|---------------------------|--------------------------------|---------------------|
| ľ | SNET    | 153                     | 880 - 894       | 19                    | 100                             | 0.0292                    | 0.5867                         | 5.0                 |

#### Cingular Planned

| Company   | Centerline Ht<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density (mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of Limit |
|-----------|-------------------------|--------------------|-----------------------|---------------------------------|------------------------|--------------------------------|------------------|
| SNET TDMA | 153                     | 880 - 894          | 16                    | 100                             | 0.0246                 | 0.5867                         | 4.2              |
| SNET GSM  | 153                     | 880 - 894          | 2                     | 296                             | 0.0091                 | 0.5867                         | 1.5              |
| SNET GSM  | 153                     | 1930 - 1935        | 2                     | 427                             | 0.0131                 | 1.0000                         | 1.3              |
| Total     |                         | 1                  |                       |                                 | 1                      | 10                             | 7.1%             |

Structural information:



CT-0027 [Waterford]
Structural Evaluation of 152' Monopole
15 Minor Lane
Waterford, CT 06385
New London County

Date: May 15, 2002

SpectraSite Engineering has performed a *Level 1 evaluation*<sup>1</sup> for the above-noted tower. The evaluation was based on the requirements of the TIA/EIA-222-F Standard for a basic wind speed of **85 mph** without ice and 75% of the wind load with ½ radial ice.

Table 1. Existing and Proposed Antennas

| ELEVATION<br>(Ft-AGL)  | ANTENNA  | CARRIER    | COAX*                                | NOTES                   |
|--|--|------------|--------------------------------------|-------------------------|
| 158 4<br>35 153 to 153<br>153 153 153<br>144 178 154                           | (1)1 Celwave 3167A<br>(1) 3 Element Yagi<br>(9) Allgori 7120 16 05 00<br>on Platform Mount with Handrails      | Gingular 1 | (1) 7/87<br>(1) 1/2"<br>(12) 1-5/8"  | Remove<br>Existing      |
| 158 ka 2 2 2 3 153 2 153 2 153 2 1 3 153 2 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 | (1) Celwave 3167A (1) 3 Element Yagi (9) CSS DU04-8670 (6) CSS ADC Amplifiers on Platform Mount with Handrails | Cingular   | (1) 7/88<br>(1) 1/22<br>(12) 12-5/82 | Proposed<br>Replacement |
| 38.25  | (1) Nokia ES72187 01<br>on Standoff Mount  | Cingular * |                                      | # Proposed              |

<sup>\*</sup>Coax installed inside monopole.

The subject tower and foundation are *adequate* to support the above stated loads and *in conformance* with the requirements of TIA/EIA-222-F Standard.

The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in Table 1.

Should any questions arise concerning this report please contact the undersigned.

06-13-2002

Calvin J. Payne, P.E.

Chief Engineer

Raphael Mohamed, P. Eng.

Project Engineer

1 Level 1 evaluation means:

• the applied (existing and proposed) loads (Table 1) on the tower are compared to the original design loads,

the design wind criteria is compared to the recent code requirements.

**Site Address:** 

2 Scott Road, East Lyme

Docket No. 67

Tower Owner/Manager:

Springwich Cellular Limited Partnership;

managed by SpectraSite Communications, Inc.

Antenna configuration

Antenna center line – 151'

Current and/or approved: 10 Swedcom ALP 110 11

Planned:

10 CSS DUO4-8670 or comparable

9 tower mount amplifiers

1 LMU (at 38.5)

#### **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 5.1% 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 7.2%, or an additional 2.1% of the standard.

#### Cingular Current

| Company | Centerline Ht<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density<br>(mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|---------|-------------------------|--------------------|-----------------------|---------------------------------|---------------------------|--------------------------------|---------------------|
| SNET    | 151                     | 880 - 894          | 19                    | 100                             | 0.0300                    | 0.5867                         | 5.1                 |

#### Cingular Planned

| Company   | Centerline Ht<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density<br>(mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|-----------|-------------------------|--------------------|-----------------------|---------------------------------|---------------------------|--------------------------------|---------------------|
| SNET TDMA | 151                     | 880 - 894          | 16                    | 100                             | 0.0252                    | 0.5867                         | 4.3                 |
| SNET GSM  | 151                     | 880 - 894          | 2                     | 296                             | 0.0093                    | 0.5867                         | 1.6                 |
| SNET GSM  | 151                     | 1930 - 1935        | 2                     | 427                             | 0.0135                    | 1.0000                         | 1.3                 |
| Total     | 1 (A. 1)                | 4.2                |                       |                                 | 77.3                      | 9                              | 7.2%                |

**Structural information:** 



RE:

CT-0026 [East Lyme]

Structural Evaluation of 154' Monopole

2 Scott Road

East Lyme, CT 06333 New London County

SpectraSite Engineering has performed a *Level 1 evaluation*<sup>1</sup> for the above-noted tower. The evaluation was based on the requirements of the TIA/EIA-222-F Standard for a basic wind speed of **85 mph** without ice and 75% of the wind load with ½ radial ice.

Table 1. Existing and Proposed Antennas

| ELEVATION<br>(Ft-AGL)           | ANTENNA  | CARRIER  | COAX*                                 | NOTES                   |
|---------------------------------|--|----------|---------------------------------------|-------------------------|
| 157<br>151<br>151<br>151        | (1) 5' Omni<br>f (1) Yagi<br>(10) Swedcom ALP [10] I<br>on Platform Mount with Handrails           | Cingular | (1) 7/8"<br>(1) ½2'<br>(10) 1-1/4"    | Remove,<br>Existing     |
| 157<br>151<br>151<br>151<br>151 | (1) 5° Offini: (1) Yagi (10) CSS DUO4-8670 (9) CSS ADC Amplifiers on Platform Mount with Handrails | Cingular | (1) 7/8"<br>1 (1) 1/2"<br>(10) 1 1/4" | Proposed<br>Replacement |
| 38.5                            | (1) Nokia CS72187.01<br>on Standoff Mount  | Cingular | (1) 1/2 (1) 1/2 (1)                   | - Proposed)             |

<sup>\*</sup>Coax installed inside monopole.

The subject tower and foundation are *adequate* to support the above stated loads and *in conformance* with the requirements of TIA/EIA-222-F Standard.

The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in Table 1.

Should any questions arise concerning this report please contact the undersigned.

Raphael Mohamed, P. Eng.

Project Engineer

Calvin J. Payne, P.E.

Date: May 15, 2002

Chief Engineer

- the applied (existing and proposed) loads (Table 1) on the tower are compared to the original design loads.
- the design wind criteria is compared to the recent code requirements.

<sup>1</sup> Level 1 evaluation means:

**Site Address:** 

170 Ingham Hill Road, Old Saybrook

Docket No. 51

Tower Owner/Manager:

Springwich Cellular Limited Partnership;

managed by SpectraSite Communications, Inc.

Antenna configuration

Antenna center line – 154'

Current and/or approved: 9 Allgon 7120.16 or comparable

Planned:

9 CSS DUO4-8670 or comparable

6 tower mount amplifiers

1 LMU (at 38.75')

#### **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 4.9% 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 7.0%, or an additional 2.1% of the standard.

#### Cingular Current

| Соптрану | Centerline Ht<br>(feet) | Frequency (MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density (mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|----------|-------------------------|-----------------|-----------------------|---------------------------------|------------------------|--------------------------------|---------------------|
| SNET     | 154                     | 880 - 894       | 19                    | 100                             | 0.0288                 | 0.5867                         | 4.9                 |

#### Cingular Planned

| Company   | Centerline Ht<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density (mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|-----------|-------------------------|--------------------|-----------------------|---------------------------------|------------------------|--------------------------------|---------------------|
| SNET TDMA | 154                     | 880 - 894          | 16                    | 100                             | 0.0243                 | 0.5867                         | 4.1                 |
| SNET GSM  | 154                     | 880 - 894          | 2                     | 296                             | 0.0090                 | 0.5867                         | 1.5                 |
| SNET GSM  | 154                     | 1930 - 1935        | 2                     | 427                             | 0.0129                 | 1.0000                         | 1.3                 |
| Total     | 4 1                     |                    |                       |                                 | 200 A                  |                                | 7.0%                |

Structural information:



RE:

CT-0023 [Old Saybrook]

Structural Evaluation of 151' ITT Meyer Monopole

170 Ingham Hill Road Old Saybrook, CT 06475 Middlesex County

SpectraSite Engineering has performed a *Level 1 evaluation*<sup>1</sup> for the above-noted tower. The evaluation was based on the requirements of the TIA/EIA-222-F Standard for a basic wind speed of 85 mph without ice and 75% of the wind load with ½ radial ice.

Table 1. Existing and Proposed Antennas

| ELEVATION (Ft-AGL) | ANTENNA                                   | CARRIER                                | COAX*             | NOTES       |
|--------------------|---|--|-------------------|-------------|
| 166                | (1) Accelerator<br>on Pole Mount          | Voicestream                            | (6) 1-1/4"<br>[I] | Existing    |
| 159                | (1) 6' Omni                               | 10000000000000000000000000000000000000 | *(1), 7/8"        |             |
| 1157               | # (1) Andrew 26T-2400                     |  | (1) 7/8           | D           |
| 157                | (1) Yagi                                  | Cingular                               | * (1) 1/27        | Remove      |
| 1154               | (9) Allgon 7120.16                        | 0.45                                   | (9) 1-1/4"        | Existing    |
| 4                  | on Platform Mount with Handrails          |  | $\Pi^{s_{s+1}}$   | 11          |
| 159                | (1) 6' Omni                               |  | Carrier and       | 100         |
| 157                | (1) Andrew 26T-2400                       |  | (1) 7/8"          |             |
| <u>1</u> 57        | (1) Yagi                                  | G. 15                                  | (1) 7/8"          | Proposed    |
| 154                | (9) CSS DUO4-8670                         | Cingular                               | (1) 1/2           | Replacement |
| 154                | (6) CSS ADC Amplifiers                    |  | (9) 1-1/4"        |             |
|                    | on Platform Mount with Handrails          |  |                   |             |
| 134                | (3) Swedcom ALP-E9011-DIN                 |  |                   |             |
| 126                | (3) Swedcom ALP-E9011-DIN                 |  | (9) 7/8"          |             |
| 119                | (3) Swedcom ALP-E9011-DIN                 | Verizon                                | ) [I]             | Existing    |
|                    | on Pipe Mounts                            |  |                   |             |
| 70                 | (1) FM Antenna                            | WA O ID                                | (1) ½"            | T           |
| 70                 | on Standoff Mount                         | WMNR                                   | [0]               | Existing    |
| onine.             | (1) Nokia CS72187.01                      |  | (1) /2"           |             |
| 38'75              | on Standoff Mount                         | Cingular                               | [0]               | Proposed    |
| 22                 | (1) Yagi                                  | VID O.D.                               | (1) 3/8"          | <b></b>     |
| 22                 | on Standoff Mount                         | WMNR                                   | [0]               | Existing    |
| */OI / III         | convinctalled outside or juside weavender |  | [~]               | L           |

<sup>\*[</sup>O] / [I] represents coax installed outside or inside monopole, respectively.

Date: May 21, 2002

<sup>1</sup> Level 1 evaluation means:

the applied (existing and proposed) loads (Table 1) on the tower are compared to the original design loads,

the design wind criteria is compared to the recent code requirements.

The subject tower and foundation are *adequate* to support the above stated loads and *in conformance* with the requirements of TIA/EIA-222-F Standard.

The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in Table 1.

Should any questions arise concerning this report please contact the undersigned.

Raphael Mohamed, P. Eng.

Project Engineer

Calvin J. Payne, P.E.

Chief Engineer

**Site Address:** 

Wig Hill Road, Chester

Docket No. 181

Tower Owner/Manager:

Crown Atlantic Company LLC

Antenna configuration

Antenna center line – 130'

Current and/or approved: 12 ALP 7120.16 or comparable

Planned:

9 CSS DUO4-8670 or comparable

9 tower mount amplifiers

1 diplexer

1 LMU (at 25')

#### **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 6.9% 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 9.8%, or an additional 2.9% of the standard.

#### Cingular Current

|   | Company | Centerline Ht<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density<br>(mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|---|---------|-------------------------|--------------------|-----------------------|---------------------------------|---------------------------|--------------------------------|---------------------|
| Ĺ | SNET    | 130                     | 880 - 894          | 19                    | 100                             | 0.0404                    | 0.5867                         | 6.9                 |

#### Cingular Planned

| Company  | Centerline Ht<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density (mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|----------|-------------------------|--------------------|-----------------------|---------------------------------|------------------------|--------------------------------|---------------------|
| SNETTDMA | 130                     | 880 - 894          | 16                    | 100                             | 0.0340                 | 0.5867                         | 5.8                 |
| SNET GSM | 130                     | 880 - 894          | 2                     | 296                             | 0.0126                 | 0.5867                         | 2.1                 |
| SNET GSM | 130                     | 1930 - 1935        | 2                     | 427                             | 0.0182                 | 1.0000                         | 1.8                 |
| Total    |                         | 24                 |                       |                                 |                        | Property Co.                   | 9.8%                |

Structural information:



## MAX ENGINEERING LLC

9000 Southwest Freeway, Suite 410 Houston, Texas 77074-1522

E-mail: hak@maxengr.com Phone: (713) 776-0629 Fax: (713) 776-9599

To:

Lincoln Erhard

Crown Castle International

500 W. Cummings Park, Suite 6500

Woburn, MA 01801

Subject:

150' Monopole at CT Chester Site, CT (BU#800515) Certification Letter

Dear Mr. Erhard,

Per your request, Max Engineering has performed a structural analysis on the above referenced monopole tower. The analysis is performed for Cingular Wireless's proposed change-out of antennas at elevation 130'. The new proposed antennas are: (9) CSS DU04-8670 panel antennas with TMAs, 9"x6"x3" diplexers and E-911 antennas. The monopole tower is analyzed in accordance with TIA/EIA-222-F, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures for 90 mph basic design wind.

Based on the information received from Crown Castle and the analysis results documented in our report dated 6-21-02, the existing tower monopole with the existing plus the new proposed Cingular Wireless's change-out of antennas & appurtenances is found to be structurally adequate.

If you have any questions or comments, please do not hesitate to call me, fax me, write me or e-mail me at the number or address as shown in the letterhead.

Sincerely Yours

No. 22402

Sold State of State

DEGEIVED JUN 2 7 2002 By Bochfel

Hak-Fong Ma, PE CT PE# 22402

(President, Max Engineering LLC)

Date: 06-21-2002

# **Section 3** Tower Loading Information

## A) Existing Tower Loadings

| Level | Antenna Center<br>Elevation | Antenna Description,<br>Count, (size) (Azimuth) | Feedline Size<br>Count &<br>Location | Mount Type              | Carrier           | Notes |
|-------|-----------------------------|---|--------------------------------------|-------------------------|-------------------|-------|
| 148'  | 150'                        | (12) ALP 9212 antennas (52"x11.4"x11.4")        | (12) 1+5/8";<br>Inside pole          | Low Profile<br>Platform | BAM               | 1     |
| 138'  | 140'                        | (9) DB980H90E-M antennas (60"x6.1"x2.8")        | (9) 1+5/8";<br>Inside monopole       | Low Profile<br>Platform | Sprint            | 1     |
| 128'  | 130'                        | (12) ALP 7120.16 antennas (52"x6.3"x9.8")       | (12) 1+5/8";<br>Inside monopole      | Low Profile<br>Platform | SNET<br>/Cingular | 1,2   |
| 116'  | 118'                        | (12) ALP 9212 antennas<br>(52"x11.4"x11.4")     | (12) 1+5/8";<br>Inside monopole      | Low Profile<br>Platform | Nextel            | 1     |
| 106'  | 109'                        | (6) Dapa 59212X antennas (70.3"x6.3"x2.7")      | (6) 1+5/8";<br>Inside monopole       | Low Profile<br>Platform | Omnipoint         | 1     |
| 96'   | 96'                         | (6) Allgon 7250.03 antennas<br>(52"x11.4")      | (6) 1+5/8";<br>Inside monopole       | Low Profile<br>Platform | AT&T              |       |
|       |                             |   |                                      |                         |                   |       |

Note 1: Cable size and/or quantity is estimated. Insignificant impact on results.

Note 2: Antennas listed will be changed to the ones shown in Table B.

# B) Proposed Loadings

| Level | Center<br>Elevation | Antenna Description,<br>Count, (size),<br>(Azimuth)         | Feedline                     | Mount Type &<br>(Carrier)          | Status                                  | Notes |
|-------|---------------------|---|------------------------------|------------------------------------|---|-------|
| 130'  | 130'                | (9) CSS DU04-8670<br>antennas (48"x14"x9"),<br>(23,143,263) | (9) 1+5/8" φ;<br>Inside pole | Low Profile Platform<br>(Cingular) | Replace<br>existing<br>SNET<br>antennas |       |
| 130'  | 130'                | (9) TMA Model ADC<br>850/1900<br>(13.05"x9.17"x5.98")       |                              | Cingular                           | New                                     | 1     |
| 130'  | 130'                | Diplexer<br>(9'x6'')  |                              | Cingular                           | New                                     | 1     |
| 25'   | 25'                 | Kathrein omni antenna (9"x1")                               | GPS                          | Cingular                           | New                                     |       |

<sup>(1)</sup> TMAs and duplexters to be mounted on the same Cingular antenna platform

**Site Address:** 

48 Cow Hill Road, Clinton

Docket No. 148

Tower Owner/Manager:

Crown Atlantic Company LLC

Antenna configuration

Antenna center line – 190'

Current and/or approved: 12 ALP 9212 or comparable

Planned:

9 CSS DUO4-8670 or comparable

6 tower mount amplifiers

3 diplexers 1 LMU (at 25')

#### **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 3.2% 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 4.6%, or an additional 1.2% of the standard.

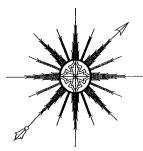
#### Cingular Current

|   | Company | Centerline Ht<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density<br>(mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|---|---------|-------------------------|--------------------|-----------------------|---------------------------------|---------------------------|--------------------------------|---------------------|
| Г | SNET    | 190                     | 880 - 894          | 19                    | 100                             | 0.0189                    | 0.5867                         | 3.2                 |

#### Cingular Planned

| Company   | Centerline Hr<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density (mW/cm²) | Standard Limits (mW/cm²) | Percent of<br>Limit |
|-----------|-------------------------|--------------------|-----------------------|---------------------------------|------------------------|--------------------------|---------------------|
| SNET TDMA | 190                     | 880 - 894          | 16                    | 100                             | 0.0159                 | 0.5867                   | 2.7                 |
| SNET CSM  | 190                     | 880 - 894          | 2                     | 296                             | 0.0059                 | 0.5867                   | 1.0                 |
| SNET GSM  | 190                     | 1930 - 1935        | 2                     | 427                             | 0.0085                 | 1.0000                   | 0.9                 |
| Total     | A Comment               |                    |                       |                                 |                        |                          | 4.6%                |

Structural information:



# ALL-POINTS TECHNOLOGY CORPORATION, P.C.

June 24, 2002

Crown Castle Atlantic 500 West Cummings Park Suite 3400 Woburn, MA 01801

Attn: Lincoln Erhard

Re: Cingular Wireless Antenna Change

212' ROHN SSMW Tower

Clinton, Connecticut

BU #806363

Dear Lincoln,

I am writing with regard to Cingular Wireless' proposed antenna changes to be installed on the 212' ROHN SSMW tower located at 48 Cow Hill Road in Clinton, Connecticut. I evaluated the tower in accordance with EIA/TIA-222-F, <u>Structural Standards for Steel Antenna Towers and Antenna Supporting Structures</u>. My evaluation consisted of re-analysis of the tower with the proposed replacement antennas and appurtenances.

According to information provided by Crown Castle, antenna loading consists of the following:

| Antenna                                     |      | Mount                   | Coax.                |
|---|------|-------------------------|----------------------|
| Beacon                                      | 212' | Top plate               | 1" conduit           |
| (12) ALP9212 panels                         | 206' | (3) 15' sector mounts   | (12) 1-5/8"          |
| (9) DB980H90 panels                         | 195' | (3) 15' sector mounts   | (9) 1-5/8"           |
| (9) CSS DU04-8670 panels; (6) ADC           | 190' | (3) existing 15' sector | (9) existing 7/8"    |
| <b> 850/1900 TMAs and (3) ADC Diplexers</b> |      | mounts                  |                      |
| (12) ALP7184 panels                         | 180' | (3) 15' sector mounts   | (12) 1-5/8"          |
| (12) ALP9212 panels                         | 170' | (3) 15' sector mounts   | (12) 1-1/4"          |
| (2) Celwave PD1142 whips                    | 165' | (2) 4' sidearms         | (2) 7/8"             |
| (6) DAPA48010 & (3) Ericsson dishes         | 155' | (3) 15' sector mounts   | (6) 1-5/8", (3) 3/8" |
| (2) Celwave PD1142 whips                    | 145' | (2) 4' sidearms         | (2) 7/8"             |
| (3) APN199015 panels                        | 135' | (3) 2' sidearms         | (6) 1-5/8"           |
| 6' dish with radome                         | 133' | Leg                     | EW-52                |
| Celwave PD1142 whip                         | 125' | 4' sidearm              | 7/8"                 |
| Sidelights                                  | 110' | Leg                     | 1" conduit           |
| GPS   | 50'  | 4' sidearm              | 1/2"                 |
| Kathrein 738449 LMU omni                    | 25'  | 2' sidearm (assumed)    | 1/2"                 |

My evaluation indicates the tower and foundation are capable of supporting Cingular's proposed antenna changes. TMAs and diplexers should be installed on the antenna mounting pipes behind the panel antennas.

We appreciate this opportunity to provide our services to you. Please call if you have any questions.

Sincerely,

All-Points Technology Corporation, P.C.

Robert E. Adair, P.E.

Principal

C:\Docs\Jobs\CT105391 Clinton 6-24-02 ltr.doc



**Site Address:** 

Old Route 79, Madison

tower share

Tower Owner/Manager:

SpectraSite Communications, Inc.

Antenna configuration

Antenna center line – 130'

Current and/or approved: 9 Allgon 7120.16 or comparable

Planned:

9 CSS DUO4-8670 or comparable

6 tower mount amplifiers

1 LMU (at 37')

#### **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 6.9% 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 9.8%, or an additional 3.2% of the standard.

## Cingular Current

| ( | Company | Centerline Ht<br>(feet) | Frequency (MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density (mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of<br>Limit |
|---|---------|-------------------------|-----------------|-----------------------|---------------------------------|------------------------|--------------------------------|---------------------|
|   | SNET    | 130                     | 880 - 894       | 19                    | 100                             | 0.0404                 | 0.5867                         | 6.9                 |

#### Cingular Planned

| Company   | Centerline Ht<br>(feet) | Frequency<br>(MHz) | Number of<br>Channels | Power Per<br>Channel<br>(Watts) | Power Density<br>(mW/cm²) | Standard<br>Limits<br>(mW/cm²) | Percent of Limit |
|-----------|-------------------------|--------------------|-----------------------|---------------------------------|---------------------------|--------------------------------|------------------|
| SNET TDMA | 130                     | 880 - 894          | 16                    | 100                             | 0.0340                    | 0.5867                         | 5.8              |
| SNET GSM  | 130                     | 880 - 894          | 2                     | 296                             | 0.0126                    | 0.5867                         | 2.1              |
| SNET GSM  | 130                     | 1930 - 1935        | 2                     | 427                             | 0.0182                    | 1.0000                         | 1.8              |
| Total     | Page 1                  |                    |                       | 111                             |                           |                                | 9.8%             |

Structural information:



RE:

CT-1030 [Madison]

Structural Evaluation of 148' Monopole

Old Rte 79/8 Meetinghouse Lane

Madison, CT 06443 New Haven County Date: May 22, 2002

SpectraSite Engineering has performed a *Level 1 evaluation*<sup>1</sup> for the above-noted tower. The evaluation was based on the requirements of TIA/EIA-222-F Standards for a basic wind speed of **85 mph** without ice and 75% of the wind load with ½ radial ice.

Table 1. Existing and Proposed Antennas

| Elevation<br>(Ft.AGL) | Antenna   | Carrier                                      | Transmission<br>Lines*             | Notes                |
|-----------------------|---|--|------------------------------------|----------------------|
| 155<br>153<br>149     | (1) 13' Dipole<br>(2) 10' Omni<br>(12) Swedcom ALP-9212N<br>on Low Profile Platform Mount | Town of Madison<br>Town of Madison<br>Nextel | (1)7/8"<br>(2)1-1/4"<br>(12)1-1/4" | Existing             |
| 140                   | (12) Allgon 7129.16<br>on Low Profile Platform Mount                                      | BAM  | (12) 1-5/8"                        | Proposed             |
| 130                   | (9) Allgon 7120.16:<br>on Low Profile Platform Mount                                      | Cingular                                     | (9) 1-5/8?                         | Remove<br>Existing   |
| 130                   | (9) CSS DUO4-8670  (6) CSS ADC Amplifiers  on Low Profile Platform Mount                  | Cingular                                     | (9) 1-5/8                          | Proposed Replacement |
| 120                   | (6) EMS RV90-17-02DP<br>on Low Profile Platform Mount                                     | Voicestream                                  | (12) 1-5/8"                        | Existing             |
| . 110                 | (6) Allgon 7250<br>on T-Arm Mounts  | AT&T   | (12)7/8"                           | Proposed             |
| ± 37                  | (1) Nokia CS72187 (1)<br>on Standoff Mount  | Cingular                                     | (1)1/22                            | Proposed             |

\*Coax installed inside monopole.

The subject tower, and it's foundation, are *adequate* to support the above stated loads and *in conformance* with the requirements of TIA/EIA-222-F Standard.

The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in Table 1.

Please do not hesitate to give me a call if you have any questions or concerns.

Raphael Mohamed, P. Eng.

Project Engineer

Calvin J. Payne, P. E.

Chief Engineer

• the applied (existing and proposed) loads (Table 1) on the tower are compared to the original design loads,

• the design wind criteria is compared to the recent code requirements.

<sup>1</sup> Level 1 evaluation means:



#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@po.state.ct.us Web Site: www.state.ct.us/csc/index.htm

July 9, 2002

Honorable Paul B. Eccard First Selectman Town of Waterford Town Hall 15 Rope Ferry Road Waterford, CT 06385

RE:

EM-CING-026-027-045-076-106-152-020702 - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Chester, Clinton, East Lyme, Madison, Old Saybrook, and Waterford.

Dear Mr. Eccard:

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 July 11, 2002, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Hi Paul!

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.

. Derek Phelps

Executive Director

SDP/laf

Enclosure: Notice of Intent

c: Thomas V. Wagner, Planning Director, Town of Waterford



#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@po.state.ct.us Web Site: www.state.ct.us/csc/index.htm

July 9, 2002

Honorable Michael A. Pace First Selectman Town of Old Saybrook 302 Main Street Old Saybrook, CT 06475

RE:

EM-CING-026-027-045-076-106-152-020702 - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Chester, Clinton, East Lyme, Madison, Old Saybrook, and Waterford.

Dear Mr. Pace:

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 July 11, 2002, at 1:30 p.m. in Hearing Room One, 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.

Executive Director

SDP/laf

Enclosure: Notice of Intent

c: Christine Rosenthal, Town Planner, Town of Old Saybrook

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#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@po.state.ct.us Web Site: www.state.ct.us/csc/index.htm

July 9, 2002

Honorable Thomas S. Scarpati First Selectman Town of Madison Madison Town Campus 8 Campus Drive Madison, CT 06443-2563

RE:

EM-CING-026-027-045-076-106-152-020702 - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Chester, Clinton, East Lyme, Madison, Old Saybrook, and Waterford.

Dear Mr. Scarpati:

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 July 11, 2002, at 1:30 p.m. in Hearing Room One, 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

Executive Director

SDP/laf

Enclosure: Notice of Intent

c: William H. McMinn, Zoning Enforcement Officer, Town of Madison

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#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
Web Site: www.state.ct.us/csc/index.htm

July 9, 2002

Honorable Wayne L. Fraser First Selectman Town of East Lyme Town Hall 108 Pennsylvania Avenue P. O. Box 519 Niantic, CT 06357

RE:

EM-CING-026-027-045-076-106-152-020702 - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Chester, Clinton, East Lyme, Madison, Old Saybrook, and Waterford.

Dear Mr. Fraser:

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 July 11, 2002, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Mi Wayal.

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 muly yours,

B. Derek Phelps'
Executive Director

SDP/laf

Enclosure: Notice of Intent

c: L. Jean Davies, Town Planner, Town of East Lyme

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#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@po.state.ct.us Web Site: www.state.ct.us/csc/index.htm

July 9, 2002

Honorable James M. Mccusker, Jr. First Selectman Town of Clinton 54 East Main Street Clinton, CT 06413

RE:

EM-CING-026-027-045-076-106-152-020702 - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Chester, Clinton, East Lyme, Madison, Old Saybrook, and Waterford.

Dear Mr. Mccusker:

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 July 11, 2002, at 1:30 p.m. in Hearing Room One, 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.

S. Derek Pheips Executive Director

SDP/laf

Enclosure: Notice of Intent

c: Thomas Lane, Zoning Enforcement Officer, Town of Clinton



#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@po.state.ct.us/ Web Site: www.state.ct.us/csc/index.htm

July 9, 2002

Honorable Martin L. Heft First Selectman Town of Chester Town Office Building 65 Main Street P.O. Box 328 Chester, CT 06412-0328

RE:

EM-CING-026-027-045-076-106-152-020702 - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Chester, Clinton, East Lyme, Madison, Old Saybrook, and Waterford.

Dear Mr. Heft:

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 July 11, 2002, at 1:30 p.m. in Hearing Room One, 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

S. Derek Phelps Executive Director

SDP/laf

Enclosure: Notice of Intent

c: Larry Gilliam, Zoning Enforcement Officer, Town of Chester

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