STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

136 Main Street, Suite 401
New Britain, Connecticut 06051-4225
Phone: 827-7682

March 7, 1995

Peter J. Tyrrell
Senior Attorney
Springwich Cellular Limited Partnership
227 Church Street
New Haven, CT 06510

RE: Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility and associated equipment located off Riversville Road in Greenwich, Connecticut.

Dear Attorney Tyrrell:

At a meeting held January 11, 1995, the Connecticut Siting Council (Council) acknowledged your notice of intent to modify an existing tower located off Riversville Road in Greenwich, Connecticut, pursuant to section 16-50j-73 of the Regulations of Connecticut State Agencies (RCSA).

The proposed modifications are to be implemented as specified in your notice dated December 28, 1994. The modifications are in compliance with the exception criteria in RCSA section 16-50j-72(b) 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 6 decibels, and increase the total radio frequency 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 section 22a-162 of the Connecticut General Statutes.

This shared use of an existing tower serves the public interest by avoiding proliferation of additional unnecessary tower structures.

Please notify the Council when all work is complete.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/ss

cc: Honorable John B. Margenot, Jr., First Selectman, Town of Greenwich
David S. Malko, Bell Atlantic Mobile
Susan C. Walsh, Nextel

siting\exmod\sprgwch\grenwich\dc011195.doc

Springwich Cellular Limited Partnership
227 Church Street
New Haven, Connecticut 06510
Phone (203) 771-7381

SNET

Peter J. Tyrrell
Senior Attorney

December 28, 1994

Mortimer A. Gelston, Chairman
Connecticut Siting Council
136 Main Street, Suite 401
New Britain, CT 06051

Dear Chairman Gelston:

Enclosed please find a Notice of Intent to Modify an Exempt Tower and Associated Equipment owned by the Springwich Cellular Limited Partnership (SCLP), for 1) the attachment of antennas and the addition of associated radio equipment within an existing building for Bell Atlantic Mobile (BAM), and 2) the attachment of antennas and the addition of a second radio equipment building for Nextel Communications, an Enhanced Specialized Mobile Radio (ESMR) provider. The tower is located off Riversville Road in Greenwich.

Please record my name as counsel for the Springwich Cellular Limited Partnership in this matter and in all correspondence from the Council.

Thank you for your cooperation.

Very truly yours,

Peter J Tyrrell

cc: Honorable John B. Margenot, Jr., First Selectman, Town of Greenwich, Town Hall, P. O. Box 2540, Greenwich, CT 06836-2540

Mr. David S. Malko, General Manager - Engineering, Bell Atlantic Mobile, P.O. Box 5029, Wallingford, CT 06492-5029

Ms. Susan C. Walsh, Project Manager, Nextel Communications, One N. Broadway, 11th Floor, White Plains, NY 10601

Attorney Charles E. Mosher, Bentley, Mosher, Babson & Lambert, P.C., P. O. Box 788, Greenwich, CT 06836-0788

Mr. Robert E. Willett, Scout Executive, Boy Scouts of America, 63 Mason Street, Greenwich, CT 06830-5368

STATE OF CONNECTICUT
SITING COUNCIL

NOTICE OF INTENT TO MODIFY AN EXEMPT TOWER
AND ASSOCIATED EQUIPMENT

Pursuant to Section 16-50i(a)(5) of the Connecticut General Statutes and pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies, the Springwich Cellular Limited Partnership (SCLP), a company which provides cellular radio telecommunications service in the State of Connecticut, hereby notifies the Connecticut Siting Council (Council) that it intends to modify an existing telecommunications tower and associated equipment to 1) add cellular antennas and associated cellular radio equipment within an existing building for Bell Atlantic Mobile (BAM), and 2) to add Enhanced Specialized Mobile Radio (ESMR) antennas and associated radio equipment within a new building to be installed by Smart SMR of New York, Inc., dba Nextel Communications (Nextel), as described herein. The site is located off Riversville Road in Greenwich, Connecticut.

The location will be shared with its current owner and operator, SCLP, and will be used by BAM as a cell site to provide cellular mobile telecommunications service, and by Nextel to provide ESMR telecommunications service, in the Greenwich area of Fairfield County. The proposed tower

modifications would contain directional transmit and receive antennas for both BAM and Nextel. The existing equipment building used by SCLP will be partitioned in half to accommodate BAM's equipment. Prior to this construction work, SCLP's radio equipment must be relocated within the existing building. This relocation will cause an undesirable delay to BAM to begin providing service in this area of Greenwich. In order to minimize this delay, BAM proposes to temporarily place two outdoor minicell equipment cabinets adjacent to the existing building in order to provide partial service while the existing building is being renovated. These cabinets will be removed after BAM's permanent equipment has been installed. A second equipment building will be required for Nextel's equipment. SCLP requests that the Council issue the necessary approvals for all the antennas and the additional building, subject only to the Town of Greenwich's issuance of a building permit for the second building.

BACKGROUND

The Council's past practice and current State Law encourages tower sharing. SCLP, BAM and Nextel have agreed to share certain locations for the mutual benefit of each party. Described below are the Council Dockets and local approvals received for the specific sites.

On April 15, 1985, SCLP's partner, the New York SMSA Limited Partnership (NYSMSA), filed an application with the Council for a cell site located off Riversville Road in Greenwich. This application was assigned Docket 50, and was ultimately approved on July 9, 1985. NYSMSA constructed a 21 foot x 24 foot equipment building and a 150 foot monopole tower at this location in compliance with the Council's Certificate of Environmental Compatibility and Public Need.

On June 17, 1992, Bell Atlantic Mobile's predecessor filed an application for a site in Darien off Ledge Road. This application was assigned Docket 155 and was ultimately approved by the Council on December 30, 1992. BAM constructed a 14 foot x 40 foot equipment building and a 100 foot monopole style tower at this location in compliance with the Council's Certificate of Environmental Compatibility and Public Need.

On September 17, 1993, Nextel Communications filed an application with the Milford Planning and Zoning Commission requesting approval to construct a 185 foot monopole style tower in Milford off Research Drive. They received approval for this location on October 12, 1993. Nextel constructed a 10 foot x 20 foot equipment building and a 185 foot tower at this location in compliance with their zoning certificate. Upon negotiating tower sharing agreements with both SCLP and BAM for use of this tower, Nextel subsequently reapplied and

received approval from the Commission on October 26, 1994 to replace the original lightweight monopole tower with a stronger three platform monopole tower for use by SCLP, BAM and themselves.

As the Council will recall, SCLP and BAM have previously submitted Notices of Exempt Modification to share sites in Old Saybrook, Stonington, Plainfield, Stamford North, Branford, Waterbury, Southbury, Fairfield, Clinton, Wilton, Milford, Guilford, Wolcott, Haddam and two sites in Newtown. These Notices have been acknowledged favorably by the Council as to their keeping with the Council's long term goal of sharing towers whenever possible.

SCLP and BAM have again agreed to share two additional locations, SCLP's Greenwich site and BAM's Darien site. At SCLP's Greenwich site, BAM will temporarily install two outdoor minicell equipment cabinets and then later install its permanent radio equipment within a 12 foot x 24 foot area of the existing SCLP building, which will be partitioned in half and a separate entrance door and utilities provided to accommodate BAM's radio equipment. The temporary equipment cabinets will then be removed.

At BAM's Darien site, SCLP will install its radio equipment within a 14 foot x 14 foot area of the existing BAM building, using the area previously reserved for the Town of

Darien, which has agreed to relinquish its space to SCLP in exchange for additional rental income.

SCLP and Nextel have also agreed to share two sites, SCLP's Greenwich site and Nextel's Milford site. At SCLP's Greenwich site, Nextel will install a 10 foot x 20 foot prefab equipment building within SCLP's leased property for its radio equipment. At Nextel's Milford site, SCLP will install a 12 foot x 26 foot prefab equipment building for its radio equipment.

This further demonstration of cooperation to jointly share sites obtained and certificated or approved by one of the companies has resulted in reciprocal agreements to use each others' Greenwich, Darien and Milford locations and the filing of this Exempt Modification request. SCLP is requesting approval for BAM's and Nextel's use of its Greenwich site, and BAM will request approval for SCLP's use of its Darien site. BAM will also file a joint Exempt Modification for SCLP's and BAM's use of Nextel's Milford site. The leases associated with the use of each others' sites are contingent upon these approvals being received from the Council.

DISCUSSION

The SCLP tower is located off Riversville Road in Greenwich, Connecticut. The proposed antennas for BAM and the proposed

antennas and second equipment building for Nextel are needed to supply cellular and ESMR services to a portion of Greenwich and the Merritt Parkway. This cell site location has been designed by BAM to properly interface with their existing adjacent cell sites. This location will be Nextel's initial ESMR site in the Greenwich area.

The existing tower has nine (9) directional antennas mounted on a platform 154 feet above the ground, providing cellular service by SCLP.

The proposed antenna addition for BAM consists of nine (9) directional antennas. The antennas to be used will be mounted at 132 feet on custom made brackets, below the existing SCLP cellular antennas located on the 150 foot monopole telecommunications tower, similar to what has been done at other SCLP monopole sites.

The proposed antenna addition for Nextel consists of two (2) directional antennas. The antennas to be used will be mounted at 107 feet on custom made brackets, below the proposed BAM antenna addition to the tower. A 10 foot x 15 foot prefab equipment building is required to house the radio equipment associated with Nextel's antennas. The building will be placed on the site within the existing leased area. Council approval is required to permit BAM to add its antennas and Nextel to add its antennas and second

equipment building, so that both BAM and Nextel will be able to use this location.

The maximum power density of SCLP's Greenwich facility is set forth below. It has been calculated in milliwatts per square centimeter. Power density calculations are detailed on Exhibit A.

Service	Power Density	Connecticut Standard	Percent of Standard
SCLP	0.00051	0.5867	0.09
BAM	0.00085	0.5793	0.15
Nextel	0.00042	0.5667	0.07

In 1984, the Connecticut Legislature adopted the safety levels of the American National Standards Institute (ANSI) in CGS Section 22a-162. The current ANSI standard for power density levels for non-ionizing radiation for the two cellular frequency and the ESMR bands is shown above, as is the percent of the applicable State standard.

CONCLUSION

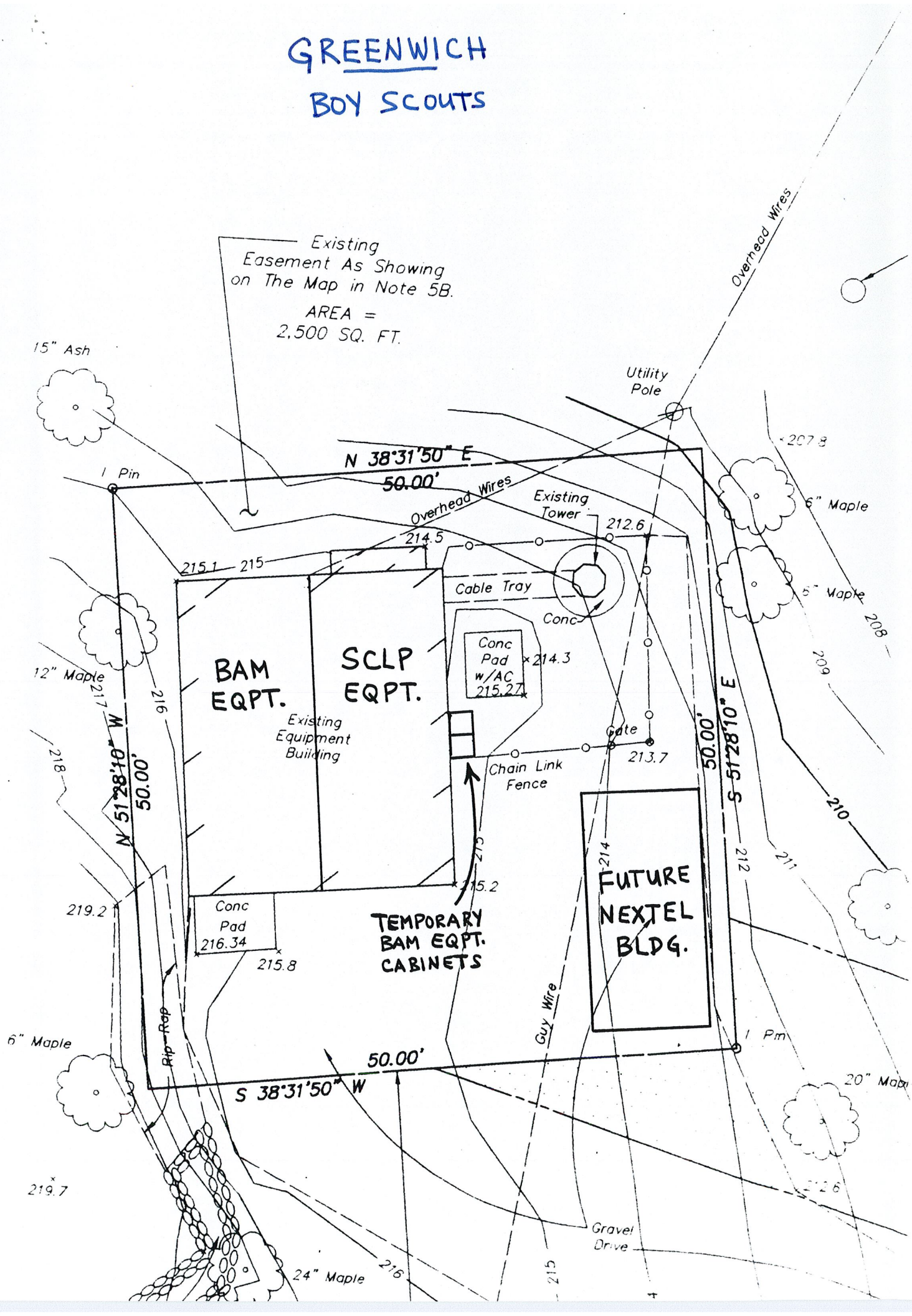
The proposed addition does not constitute a modification of an existing facility as defined in Connecticut General Statutes Section 16-50i(d). This is because there is no change in the height of the tower. There will be no increase in the boundaries of the site. There will be no increase in noise levels at the cell site's boundary by 6

decibels or more. The total radio frequency electromagnetic radiation power density is below the State standard. This addition will not have a substantial adverse environmental effect pursuant to Connecticut General Statutes Section 16-50j-72(b)(2), and is in the best interest of the public and the State.

The Connecticut State Legislature has adopted legislation directing tower sharing whenever technically, legally, environmentally and economically feasible. SCLP, BAM and Nextel have made great efforts to put aside their competitive differences in order to reach reciprocal agreements which would benefit each company without the need to construct new towers, thus ultimately benefiting the State. SCLP requests that the Council acknowledge and recognize this cooperation, and assist and support the companies by acting favorably on this request.

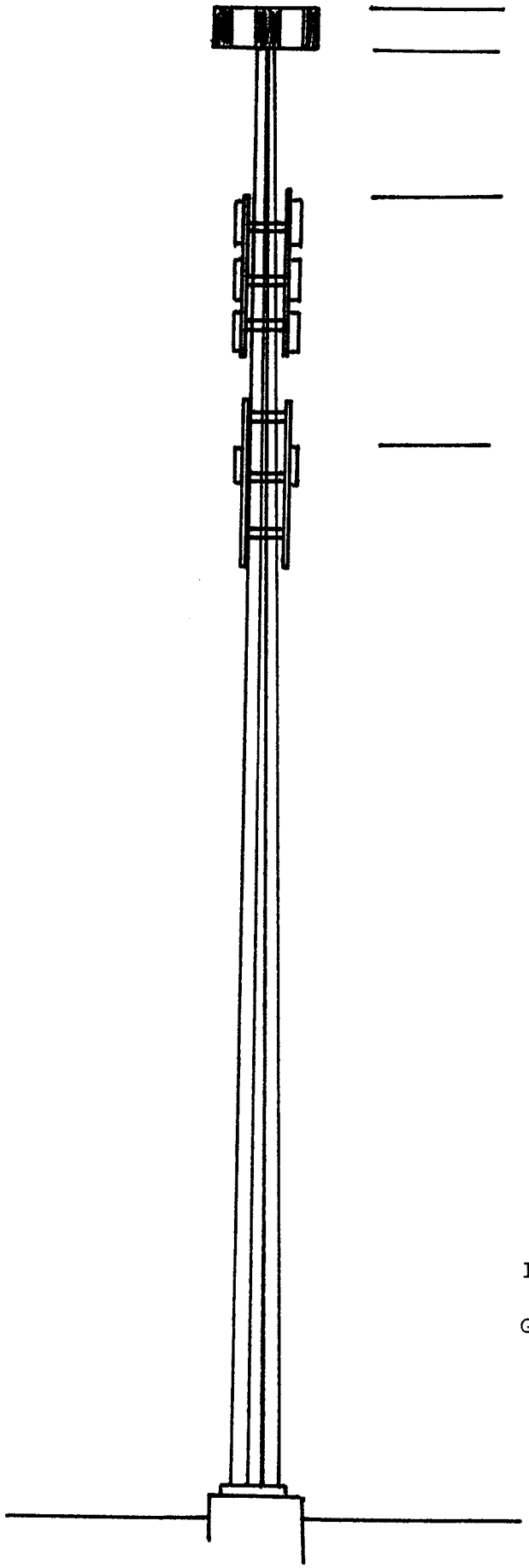
For the reasons discussed above, SCLP requests that the Council acknowledge that the Notice of Modification meets the Council's exemption criteria, and that the changes and additions requested at this location are not so substantial so as to deny this request, and in fact are in the public interest. Therefore, the Council should issue the necessary approvals to permit the tower modifications and second building as requested.

GREENWICH
BOY SCOUTS



GREENWICH

RIVERSVILLE ROAD



154' SPRINGWICH ANTENNAS

150' TOP OF MONOPOLE

132' BELL ATLANTIC ANTENNAS

107' NEXTEL ANTENNAS

150' MONOPOLE LOCATED
ON PROPERTY OF THE
GREENWICH BOY SCOUTS
RIVERSVILLE ROAD
GREENWICH

GREENWICH

All power density figures are calculated following the IEEE C95.1-1991 standard.

When the specific antenna type and transmission pattern are known, as in the case with the cellular and ESMR antennas to be used by SCLP, BAM and Nextel in Greenwich, SCLP uses a method of calculation which considers the type of antenna and the power that is emitted from the nearest lobe instead of the main horizontal beam. This results in a more realistic representation of the antennas radiating pattern and its orientation relative to a specific target location.

The formula for power density is:

$$S = EIRP/\pi R^2$$

where: S = power density.
EIRP = equivalent (or effective) isotropic radiated power.
R = distance to the center of radiation (antenna).

Cellular and ESMR power density calculations are based on fifty-six channels for an omni-directional antenna system, or nineteen channels per antenna face for a three faced directional antenna system, emitting 100 Watts ERP each.

Since power density is expressed in milliwatts per square centimeter, the following conversions must be made:

1 foot = 30.48 centimeters
1 Watt = 1,000 milliwatts (abbreviated as mW)
1 Watt ERP = 1.64 Watts EIRP (this is the gain of a half-wave dipole relative to an isotropic radiator)

At the Greenwich location, SCLP uses the directional Swedcom 11 dB gain antenna. The gain of the lobe nearest to the target location is 18.6 dB down from the main horizontal lobe or main beam (See page 4). While the main horizontal lobe emits the full 100 Watts ERP, the nearest secondary lobe emits only 1.38 Watts ERP. 1.38 Watts equals 1380 milliwatts, and is used in the power density formula.

Based on the location and orientation of the SCLP antennas (152 feet above the tower base), the nearest lobe is directed at a point 74 feet away from the base of the tower. This location is 169 feet away from the antenna, or 5151 centimeters (R).

Substituting all these values into the power density formula, we get:

$S = ((1.64)(19)(1380))/((\pi)(5151)^2) = 0.00051$ mW/cm^2, or 0.09 % of the ANSI and Connecticut Standard of 0.5867.

The power density at the nearest site boundary of the Greenwich site (approximately 115 feet from the tower) is actually lower as it is within the "null" between the main beam and secondary antenna lobe.

BAM proposes to use the directional Swedcom 9 dB gain antenna. The gain of the lobe nearest to the target location is 16.9 dB down from the main horizontal lobe or main beam (See page 5). While the main horizontal lobe emits the full 100 Watts ERP, the nearest secondary lobe emits only 2.04 Watts ERP. 2.04 Watts equals 2040 milliwatts, and is used in the power density formula.

Based on the location and orientation of the BAM antennas (132 feet above the tower base), the nearest lobe is directed at a point 87 feet away from the base of the tower. This location is 158 feet away from the antenna, or 4818 centimeters (R).

Substituting all these values into the power density formula, we get:

$S = ((1.64)(19)(2040))/((\pi)(4818)^2) = 0.00085$ mW/cm^2, or 0.15 % of the ANSI and Connecticut Standard of 0.5793.

The power density at the nearest site boundary of the Greenwich site (approximately 115 feet from the tower) is actually lower as it is within the "null" between the main beam and secondary antenna lobe.

Nextel proposes to use the directional Swedcom 16 dB gain antenna. The gain of the lobe nearest to the target location is 20 dB down from the main horizontal lobe or main beam (See page 6). While the main horizontal lobe emits the full 100 Watts ERP, the nearest secondary lobe emits only 1 Watt ERP. 1 Watt equals 1000 milliwatts, and is used in the power density formula.

Based on the location and orientation of the Nextel antennas (107 feet above the tower base), the nearest lobe is directed at a point 119 feet away from the base of the tower. This location is 160 feet away from the antenna, or 4877 centimeters (R).

Substituting all these values into the power density formula, we get:

$S = ((1.64)(19)(1000))/((\pi)(4877)^2) = 0.00042$ mW/cm^2, or 0.07 % of the ANSI and Connecticut Standard of 0.5667.

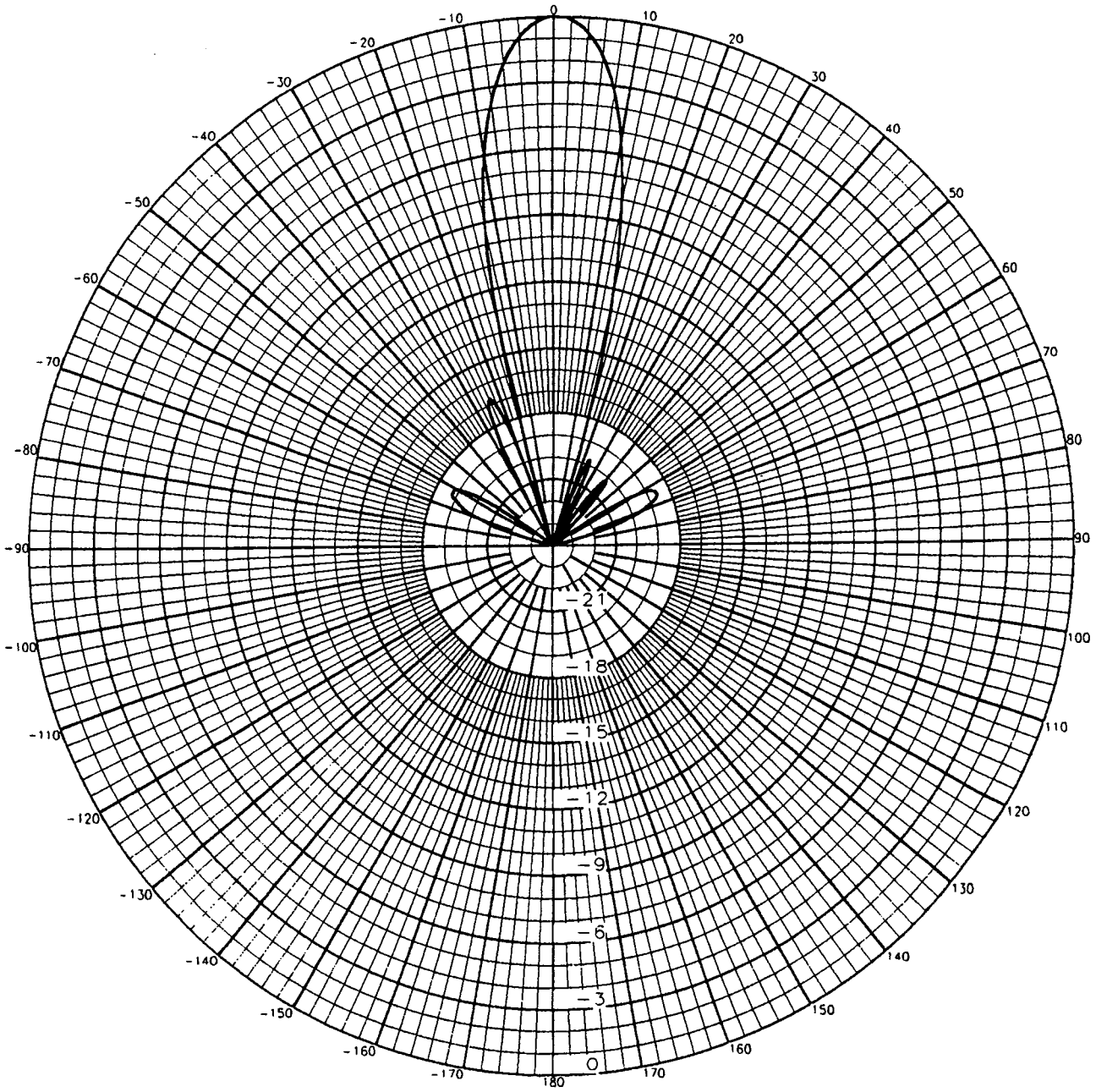
The power density at the nearest site boundary of the Greenwich site (approximately 115 feet from the tower) is actually lower as it is within the "null" between the main beam and secondary antenna lobe.

Swedcom Corporation

ALP 110 11-N

Log-Periodic Reflector Antenna

110 Degrees 11 dBd



Frequency: **880 MHz**
Plane: **E-Plane**

851 Burlway Road, Suite 300
Burlingame, California 94010

Telephone:
(415) 348-1190

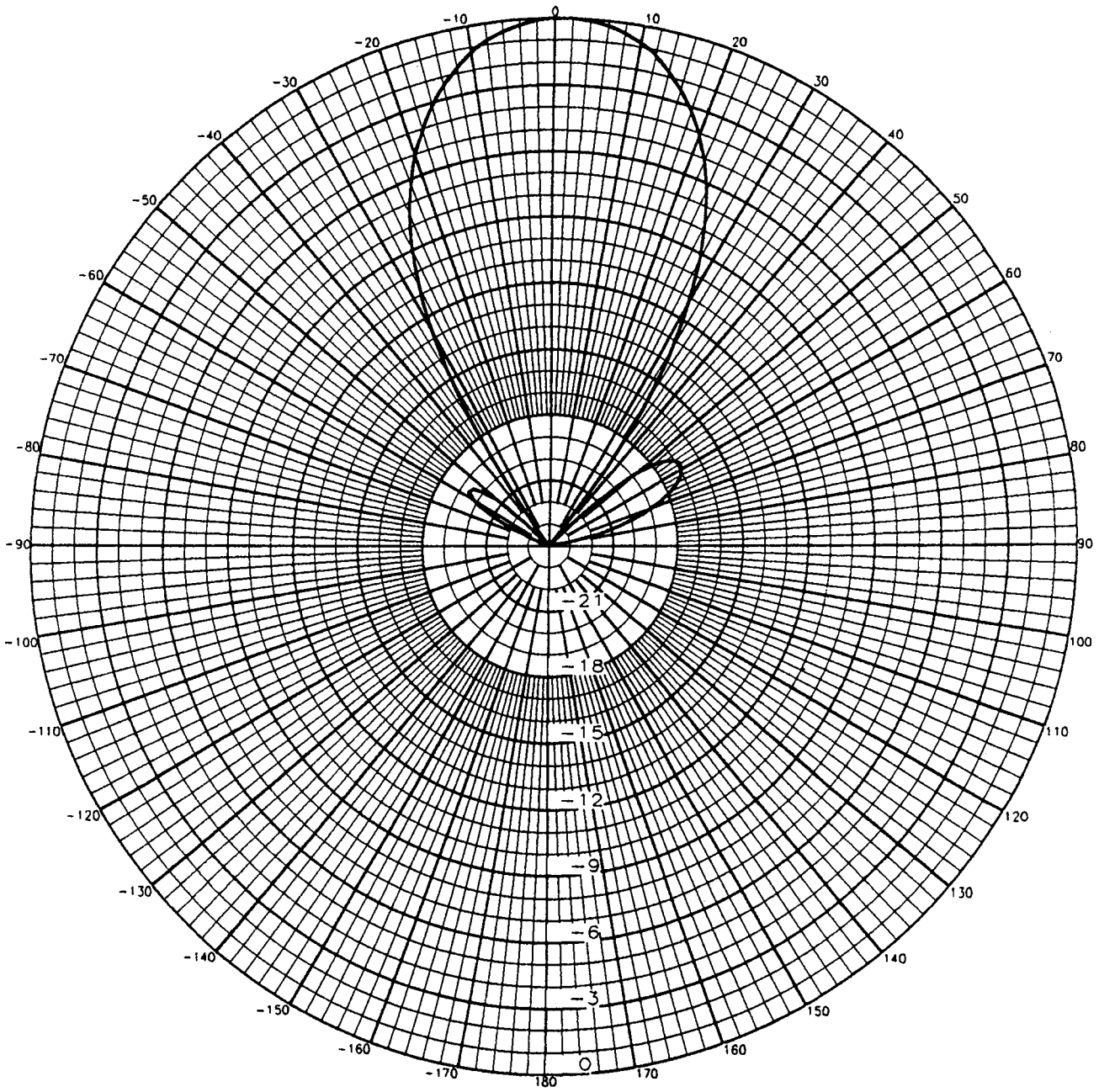
Fax:
(415) 348-1261

Swedcom Corporation

ALP 9209-N

Log-Periodic Reflector Antenna

92 Degrees 9 dBd



Frequency: **880 MHz**
Plane: **E-Plane**

851 Burlway Road, Suite 300
Burlingame, California 94010

Telephone:
(415) 348-1190

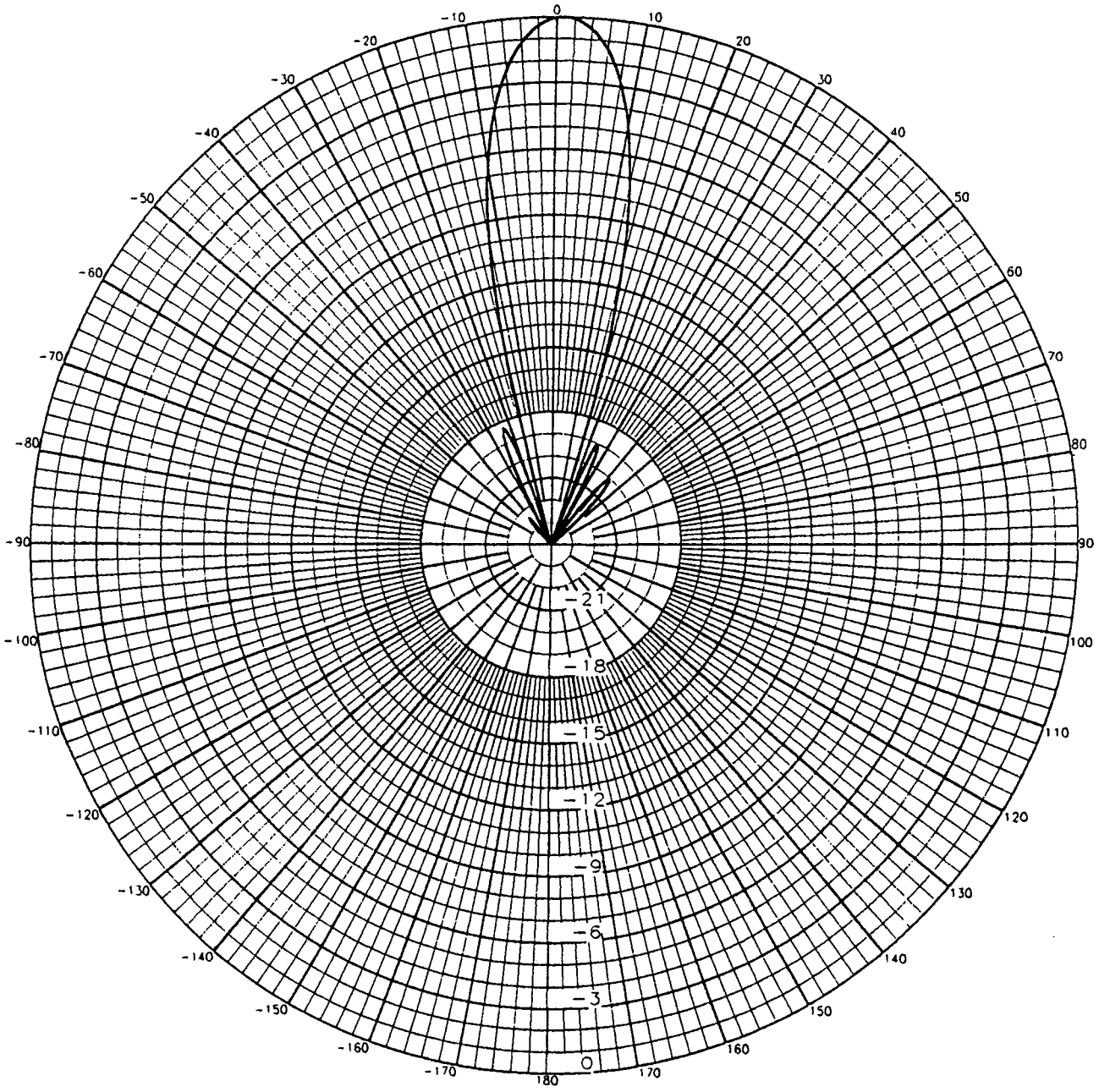
Fax:
(415) 348-1261

Swedcom Corporation

ALP 4016-N

Log-Periodic Reflector Antenna

40 Degrees 16 dBd



Frequency: **880 MHz**
Plane: **E-Plane**

851 Burlway Road, Suite 300
Burlingame, California 94010

Telephone:
(415) 348-1190

Fax:
(415) 348-1261

Springwich Cellular Limited Partnership
227 Church Street
New Haven, Connecticut 06510
Phone (203) 771-7381

SNET

Peter J. Tyrrell
Senior Attorney

December 28, 1994

The Honorable John B. Margenot, Jr.
First Selectman
Town of Greenwich
P. O. Box 2540
Greenwich, CT 06836

Dear Mr. Margenot:

The Springwich Cellular Limited Partnership, Bell Atlantic Mobile and Nextel Communications plan to install antennas and related radio equipment at the existing tower site leased by Springwich from the Greenwich Boy Scouts off Riversville Road in Greenwich.

As required by Section 16-50j-73 of the Regulations of State Agencies (RSA), please accept this letter and the attached package to the Connecticut Siting Council as Notice of Intent of our exempt modification to an existing tower pursuant to RSA Section 16-50j-72(b).

The attached package fully sets forth the Springwich proposal. However, if you have any questions or require further information on these plans or the Siting Council's procedures, please feel free to contact me, or Mr. Joel M. Rinebold, Executive Director, Connecticut Siting Council, at 827-7682.

Very truly yours,

Peter J Tyrrell

cc: Mr. David S. Malko, General Manager - Engineering, Bell Atlantic Mobile, P.O. Box 5029, Wallingford, CT 06492-5029

Ms. Susan C. Walsh, Project Manager, Nextel Communications, One N. Broadway, 11th Floor, White Plains, NY 10601

Attorney Charles E. Mosher, Bentley, Mosher, Babson & Lambert, P.C., P. O. Box 788, Greenwich, CT 06836-0788

Mr. Robert E. Willett, Scout Executive, Boy Scouts of America, 63 Mason Street, Greenwich, CT 06830-5368

SNET Mobility, Inc.
555 Long Wharf Drive - 8th Floor
New Haven, Connecticut 06511
Phone (203) 553-7615
FAX (203) 553-7563

SNET

Peter W. van Wilgen
Manager-Real Estate and Construction

March 6, 1995

Mr. Robert K. Erling
Senior Siting Analyst
Connecticut Siting Council
136 Main Street, Suite 401
New Britain, CT 06051

Dear Mr. Erling:

Attached is the information requested regarding our existing Greenwich Boy Scout tower located off Riversville Road, and its ability to support the additional antennas proposed for Bell Atlantic Mobile and Nextel Communications, as submitted in our Notice of Exempt Modification filed December 28, 1994.

The attached letter dated February 23, 1995 is from the Civil/Structural Engineering division of AT&T Network Systems from whom we purchase our towers, and certifies that the Greenwich tower will accommodate the antennas (or their equivalent) specified in our filing.

Should you require additional information, please feel free to contact me.

Very truly yours,

AT&T Network Systems

Transmission Products
Technical Support

Western Electric® products
1600 Osgood Street
North Andover, MA 01845
508 960-2000

February 23, 1995

Mr Bruce Woundy
SNET MOBILITY
8th Floor
555 Long Wharf Drive
New Haven, Connecticut 06511

RE: **Changes to Greenwich CT Monopole**

Dear Bruce,

Per your fax of February 16,1995, I have reanalyzed the 150' monopole at Greenwich to accommodate changing the NEXTEL antennas. The pole has been analyzed for the following loadings:

(9) ALP-1101 antennas mounted on the existing platform (without radome)
(2) ASP-951 antennas mounted on the existing platform
(6) SRL-410C4R130 antennas - (3) at 133' & (3) at 119' AGL
(2) ALP-4016 antennas at 108' AGL
1 5/8" coax strapped to the outside of the pole to 133' AGL.

The analysis was done in accordance with EIA/TIA-222-E "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures".

The results of the analysis indicate that the mast WILL meet the requirements of EIA/TIA-222-E.

If you have any questions please call me at (508)-960-3032.

Michael P. Comei
Civil/Structural Engineering
Merrimack Valley Works

Copy to:
J.E. Moran - NF93W8N00

Malcolm Baldrige National Quality Award
1992 Winner
AT&T Transmission Systems

(9) ALP-11011
3 @ 23°
3 @ 143°
3 @ 263°

(2) ASP-951

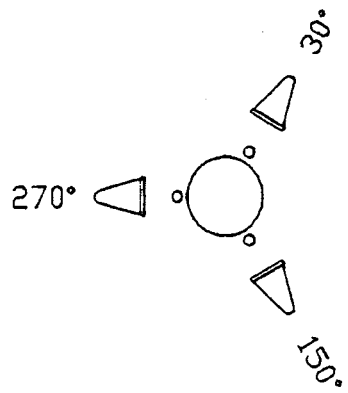
BAM ANTENNAS
(6) SINCLAIR
SRL410C4R130
SEE PLAN VIEW

NEXTEL ANTENNAS
(2) ALP-4016
SEE PLAN VIEW

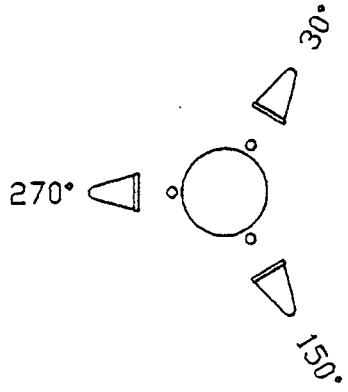
133'-0"
119'-0"
108'-0"
110'-0"
150'-0"

PLAN VIEW OF 150' MONOPOLE

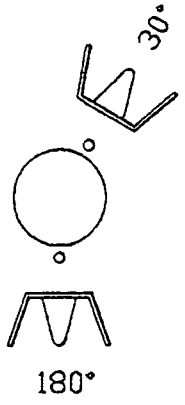
GREENWICH, CT



PLAN AT 133' AGL



PLAN AT 119' AGL



PLAN AT 108' AGL

SNET Mobility, Inc.
555 Long Wharf Drive - 8th Floor
New Haven, Connecticut 06511
Office (203) 553-7615
FAX (203) 553-7563

Peter W. van Wilgen
Manager-Contracts and Docket Administration

December 29, 1994

Mortimer A. Gelston, Chairman
Connecticut Siting Council
136 Main Street, Suite 401
New Britain, CT 06051

Dear Chairman Gelston:

As described in the Notice of Intent to Modify an Exempt Tower and Associated Equipment filed December 28, 1994 for the Connecticut Siting Council's (Council) certificated site located off Riversville Road in Greenwich owned by the Springwich Cellular Limited Partnership (SCLP), and pursuant to the Regulations of Connecticut State Agencies Section 16-50j-72 (b), this is to advise the Council that SCLP and Bell Atlantic Mobile (BAM) will immediately begin the attachment of antennas and the installation of temporary radio equipment cabinets within the boundaries of the existing certificated site in order for BAM to meet its corporate goal of placing this site in service in 1994.

This addition does not constitute a modification of the existing facility as there is no change in the height of the tower, there is no expansion of the site boundaries, there will be no increase in noise levels at the cell site boundary, the total power density is below the State standard, and the addition will not have an adverse environmental effect.

Thank you for your understanding and cooperation.

Very truly yours,