

# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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

July 23, 2002

Honorable Howard R. Beetham, Jr.  
Mayor  
Town of Montville  
Town Hall  
310 Norwich New London Turnpike  
Uncasville, CT 06382

RE: **TS-AT&T-086-020703** - AT&T Wireless PCS, LLC d/b/a AT&T Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 57 Cook Road, Montville, Connecticut.

Dear Mayor Beetham:

The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

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/laf*

S. Derek Phelps  
Executive Director

SDP/laf

Enclosure: Notice of Tower Sharing

c: Marcia Vlaun, Town Planner, Town of Montville

**CUDDY & FEDER & WORBY LLP**

90 MAPLE AVENUE  
WHITE PLAINS, NEW YORK 10601-5196

**CUDDY & FEDER  
1971-1995**

NEIL J. ALEXANDER (also CT)  
CHARLES T. BAZYDLO (also NJ)  
THOMAS R. BEIRNE (also DC)  
THOMAS M. BLOOMER  
JOSEPH P. CARLUCCI  
KENNETH J. DUBROFF  
ROBERT FEDER  
CHRISTOPHER B. FISHER (also CT)  
ANTHONY B. GIOFFRE III (also CT)  
SUSAN E.H. GORDON  
KAREN G. GRANIK  
JOSHUA J. GRAUER  
WAYNE E. HELLER (also CT)  
KENNETH F. JURIST  
MICHAEL L. KATZ (also NJ)  
JOSHUA E. KIMERLING (also CT)  
DANIEL F. LEARY (also CT)  
BARRY E. LONG

(914) 761-1300  
TELECOPIER (914) 761-5372/6405  
www.cfwlaw.com

500 FIFTH AVENUE  
NEW YORK, NEW YORK 10110  
(212) 944-2841  
TELECOPIER (212) 944-2843

WESTAGE BUSINESS CENTER  
300 SOUTH LAKE DRIVE  
FISHKILL, NEW YORK 12524  
(845) 896-2229  
TELECOPIER (845) 896-3672

STAMFORD, CONNECTICUT  
NORWALK, CONNECTICUT

WILLIAM S. NULL  
DAWN M. PORTNEY  
ELISABETH N. RADOW  
NEIL T. RIMSKY  
RUTH E. ROTH  
JENNIFER L. VAN TUYL  
CHAUNCEY L. WALKER (also CA)  
ROBERT L. WOLFE  
DAVID E. WORBY

Of Counsel  
MICHAEL R. EDELMAN  
ANDREW A. GLICKSON (also CT)  
ROBERT L. OSAR (also TX)  
MARYANN M. PALERMO  
ROBERT C. SCHNEIDER  
LOUIS R. TAFFERA

July 1, 2002

VIA FEDERAL EXPRESS

Hon. Mortimer Gelston, Chairman and Members  
of the Siting Council  
Connecticut Siting Council  
10 Franklin Square  
New Britain, Connecticut 06051

**RECEIVED**

JUL 03 2002

**CONNECTICUT  
SITING COUNCIL**

Re: Tower Sharing Request by AT&T Wireless  
Existing Tower at 57 Cook Road, Montville, Connecticut

Hon. Mortimer Gelston, Chairman and Members of the Siting Council:

Pursuant to Connecticut General Statutes (C.G.S.) § 16-50aa, AT&T Wireless PCS, LLC d/b/a AT&T Wireless ("AT&T Wireless") hereby petitions and requests an order from the Connecticut Siting Council (the "Council") to approve the proposed shared use of an existing non-certificated communications tower, located at 57 Cook Road in the Town of Montville, owned by Wireless Solutions (the "Cook Road Facility"). AT&T and the tower owner have agreed to share the use of the Cook Road Facility, as detailed below.

The Cook Road Facility

The Cook Road Facility consists of a 180' lattice tower<sup>1</sup> and other equipment at grade within a fenced compound. Current users of the tower include Nextel, Verizon, Sprint and Cingular. Land uses surrounding the Cook Road Facility are predominantly rural residential and the site is well buffered by natural vegetation.

<sup>1</sup> The tower owner received approval from the Montville Planning and Zoning Commission for a seventeen (17) foot tower extension on November 23, 1999, which was never built. See Site Plan Report and Legal Notice evidencing the approval annexed hereto as Exhibit A.

July 1, 2002

Page 2

AT&T Wireless' Facility

As shown on the enclosed plans prepared by Natcomm, LLC, including a site plan and elevation, AT&T Wireless proposes shared use of the facility to provide FCC licensed services. AT&T Wireless will install six panel antennas on a mounting frame on a 10' tower extension to an overall height approximately 197' AGL (previously approved by the municipality) and will install equipment cabinets (2 proposed, 2 future, each 76"H x 30" W x 30" D) on a concrete pad within the existing fenced compound.

Connecticut General Statutes § 16-50aa provides that, upon written request for shared use approval, an order approving such use shall be issued, "if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns." (C.G.S. § 16-50aa(c)(1).) Further, upon approval of such shared use, it is exclusive and no local zoning or land use approvals are required C.G.S. § 16-50x. Shared use of the Cook Road Facility satisfies the approval criteria set forth in C.G.S. § 16-50aa as follows:

- A. Technical Feasibility AT&T has confirmed that the tower is structurally capable of supporting the extension and addition of AT&T Wireless' antennas as set forth in the structural analysis prepared by Walker Engineering, Inc., annexed hereto as Exhibit A. The proposed shared use of this tower is therefore technically feasible.
- B. Legal Feasibility Pursuant to C.G.S. § 16-50aa, the Council has been authorized to issue an order approving shared use of the existing Cook Road Facility. (C.G.S. § 16-50aa(c)(1)). Under the authority vested in the Council by C.G.S. § 16-50aa, an order by the Council approving the shared use of a tower would permit the Applicant to obtain a building permit for the proposed installation.
- C. Environmental Feasibility The proposed shared use would have a minimal environmental effect, for the following reasons:
  1. The proposed installation would have a de minimis visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing facility;

July 1, 2002

Page 3

2. The proposed installation by AT&T Wireless would increase the height of the tower in accordance with prior approval by the municipality and would not extend the tower boundaries;
  3. The proposed installation would not increase the noise levels at the existing facility boundaries by six decibels or more;
  4. As set forth in Exhibit B annexed hereto, the total radio frequency electromagnetic radiation power density at the Tower site's boundary will not be increased to or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission;
  5. The proposed shared use of the Cook Road Facility would not require any water or sanitary facilities, or generate air emissions or discharges to water bodies. Further, the installation will not generate any traffic other than for periodic maintenance visits.
- D. Economic Feasibility The Applicant and the tower owner have entered into a mutual agreement to share use of the Cook Road Facility on terms agreeable to both parties. The proposed tower sharing is therefore economically feasible.
- E. Public Safety As stated above and evidenced in Exhibit B, the operation of AT&T Wireless' antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the FCC and Connecticut Department of Health. Additionally, the compound is completely fenced for security purposes. Further, the addition of AT&T Wireless' telecommunications service in the Montville area through shared use of the Cook Road Facility is expected to enhance the safety and welfare of local residents and travelers through the area resulting in an improvement to public safety in this area of Montville.

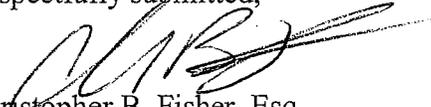
July 1, 2002

Page 4

Conclusion

As delineated above, the proposed shared use of the Cook Road Facility satisfies the criteria set forth in C.G.S. § 16-50aa, and advances the General Assembly's and the Siting Council's goal of preventing the proliferation of towers in the State of Connecticut. AT&T Wireless therefore requests the Siting Council issue an order approving the proposed shared use of the Cook Road Facility.

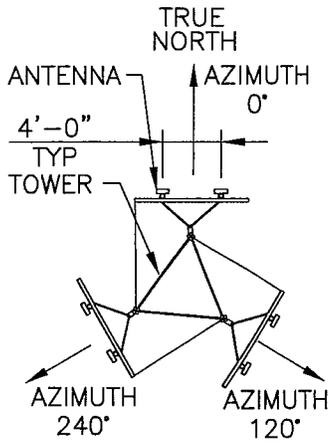
Respectfully submitted,



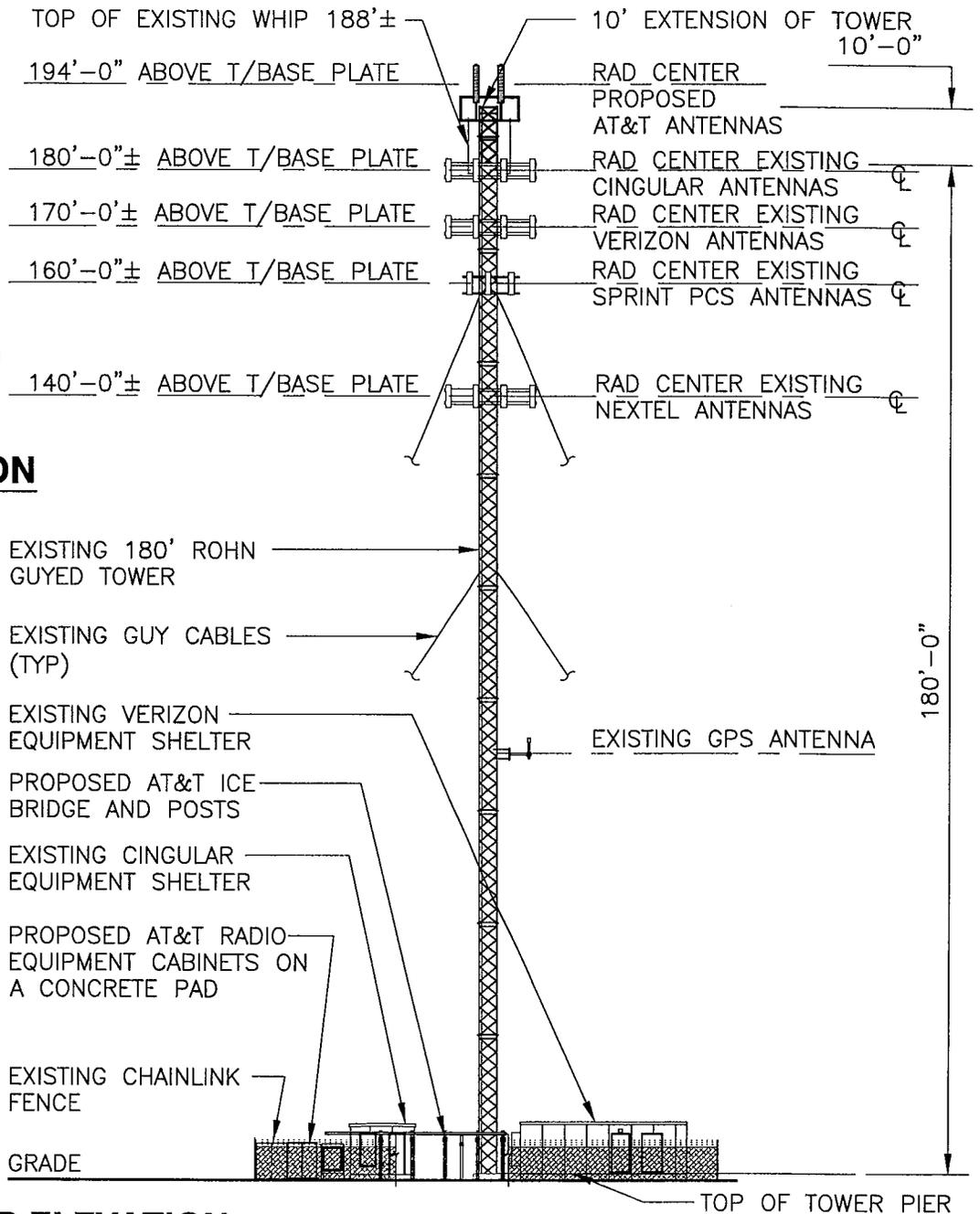
Christopher B. Fisher, Esq.

On behalf of AT&T Wireless

cc: Mayor, Town of Montville  
RJ Wetzel, Bechtel



**ANTENNA CONFIGURATION**



**2**

**TOWER ELEVATION**

SCALE: 1" = 30'-0"

NOTE:  
 STRUCTURAL ANALYSIS BY WALKER ENGINEERING, INC.  
 OF A 180' ROHN 80 GUY TOWER MONTVILLE-COOK  
 ROAD, 57 COOK ROAD, MONTVILLE, CT 06351 (CT-237)  
 DATED JUNE 11, 2002 BY J. L. WALKER LICENSE NO.  
 21197

**"ISSUED FOR SITING COUNCIL"**



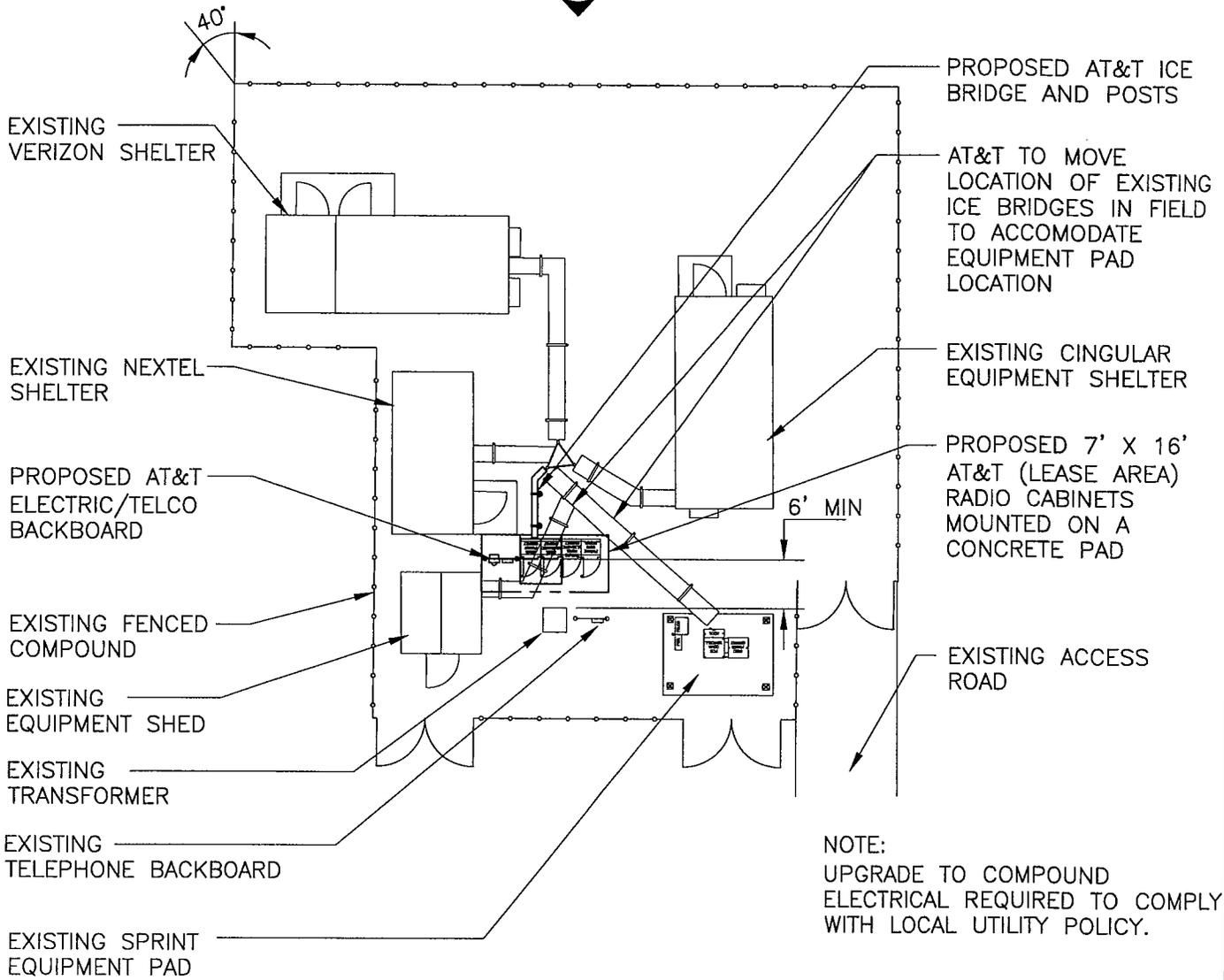
**Natcomm, LLC**  
 83-2 North Branford Road  
 Branford, Connecticut 06405  
 Tel. (203) 488-0580  
 Fax (203) 488-8587  
 Consulting Engineers - Project Management  
 Civil - Structural - Mechanical - Electrical



**DRAWING TITLE:** SITING COUNCIL  
**PROJECT INFORMATION:**  
 MONTVILLE  
 CT-237  
 57 COOK ROAD  
 MONTVILLE, CT 06351  
**LESSOR:**  
 WIRELESS SOLUTIONS  
 P.O. BOX 284  
 OLD LYME, CT 06371

<b>DRAWING NO.</b>	
<b>907-009-237A-SC2</b>	
REVISION NO. 0	DRAWN BY: CMS
DATE ISSUED: 06/18/02	CHECKED BY: JWP
SCALE: AS NOTED	APPROVED BY: CFC
SHEET NO. 2 OF 2	
A/E PROJECT NO: 552A	

2



1

**COMPOUND PLAN**

SCALE: 1" = 30'-0"

NOTE:  
LATITUDE: 41° 28' 30"  
LONGITUDE: 72° 06' 19"

**"ISSUED FOR SITING COUNCIL"**



**Natcomm, LLC**

63-2 North Branford Road  
Branford, Connecticut 06405

Tel. (203) 488-0580  
Fax (203) 488-8587

Consulting Engineers - Project Management  
Civil - Structural - Mechanical - Electrical



**AT&T**

AT&T WIRELESS PCS LLC  
12 OMEGA DRIVE  
STAMFORD, CONNECTICUT 06907

DRAWING TITLE:

SITING COUNCIL

PROJECT INFORMATION:

MONTVILLE  
CT-237  
57 COOK ROAD  
MONTVILLE, CT 06351

LESSOR:

WIRELESS SOLUTIONS  
P.O. BOX 284  
OLD LYME, CT 06371

DRAWING NO.

**907-009-237A-SC1**

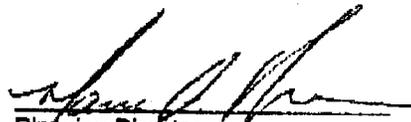
REVISION NO. 0	DRAWN BY: CMS
DATE ISSUED: 06/18/02	CHECKED BY: JJP
SCALE: AS NOTED	APPROVED BY: CFC
SHEET NO. 1 OF 2	
A/E PROJECT NO: 552A	

**TOWN OF MONTVILLE  
PLANNING & ZONING COMMISSION**

310 NORWICH-NEW LONDON TPKE.  
UNCASVILLE, CONNECTICUT 06382-2599

**SITE PLAN REPORT**

At its meeting of November 23, 1999, the Montville Planning & Zoning Commission found the request of Wireless Solutions, LLC. to install an additional seventeen (17) feet to an existing 180 foot radio tower for wireless communication purposes on property located at 57 Cook Road, to be consistent with the findings of Section 18 as well as Section 12.A.2.9 and voted to approve the site plan.

  
Planning Director

**TOWN OF MONTVILLE  
PLANNING & ZONING COMMISSION**

310 NORWICH-NEW LONDON TPKE.  
UNCASVILLE, CONNECTICUT 06382-2599

**L E G A L   N O T I C E**

The Montville Planning and Zoning Commission at its meeting held on November 23, 1999, took the following action:

**Wireless Solutions:** Application for a modification of a site plan to increase height of tower and two additional buildings for equipment on property located at 57 Cook Road, Montville, Ct. Shown on Assessor's Map 98, Lot 2. **APPROVED**

**Montville Auto, Inc.:** Application for a site plan review for removal of ledge and grading to level a portion of the parcel, including the construction of a new rock retaining wall along the northwesterly line of the property located at 341 Norwich-New London Tpke., Montville, Ct. Shown on Assessor's Map 74, Lot 62. **APPROVED**

Maps and documentation concerning the above applications are on file in the office of the Town Planner, Town Hall Annex, Montville, Ct.

Dated at Montville, Ct. this day of.

**MONTVILLE PLANNING AND ZONING COMMISSION**

Gregory Majewski, Chairman

PUBLISH IN THE NEW LONDON DAY December 1, 1999

PLEASE REFERENCE PURCHASE ORDER 6100 I 1 ON INVOICE.

# WALKER ENGINEERING, INC.

8451 DUNWOODY PLACE

NORTHRIDGE 400, BLDG. 8

DUNWOODY, GA 30350

(770) 641-7306 FAX (770) 587-2196

CIVIL • STRUCTURAL

N 33° 59' 13.6" W 84° 20' 26.8"

Mr. Jason J. Pintek

**Natcomm, LLC**

63-2 North Branford Road  
Branford, CT 06405

06/11/02

**CT-237.1**

**Montville II**

Sub: Structural Analysis of 180-ft ROHN 80 Guy Tower  
57 Cook Road, Montville, CT 06351

Dear Mr. Pintek:

Walker Engineering has performed a Level-Two finite element, P-Δ structural re-analysis of the above noted tower in accordance with your Authorization for Services for the addition of the **AT&T Wireless** proposed antennas outlined below. This analysis consists of determining the forces on the tower caused by existing, proposed, and future loads. The existing, proposed, and future loads were provided by your office.

The subject tower is a 180-ft, three face, guyed-tower, designed and manufactured by ROHN in 1997. The tower manufacturer's drawings, ROHN engineering File No.: 35489PH, Drawing No.: D970811, dated 04/02/97, were provided by your office. The tower geometry, member sizes, and foundation design loads were obtained from these data and are assumed to be accurate. The tower has also been assumed to be in good condition and capable of supporting its original full design capacity. This analysis is based on extending the existing guy tower to an elevation of 190-ft AGL (Above Ground Level).

Our analysis was performed in accordance with TIA/EIA-222-F for an 85 mph<sup>1</sup> base windload, and 75% of the base windload with ½" radial ice, as specified by Natcomm, LLC.

**Existing and proposed loads consist of the following:**

at 194 ft

**AT&T (Proposed):** Six Allgon 7250 panel antennas on three T-frame sector mounts, fed by twelve 1-5/8"Ø coax cables.

<sup>1</sup> The minimum windspeed specified by EIA-222-F for New London County, CT is 85 mph.

- at 180 ft Cingular: Nine ALP 11011-N panel antennas on three gateboom mounts, fed by nine 1-5/8"Ø coax cables.
- at 170 ft Verizon: Twelve ALP 11011-N panel antennas on three gateboom mounts, fed by twelve 1-5/8"Ø coax cables.
- at 162 ft Torque arm assembly.
- at 160 ft Sprint: Twelve (six existing, six future) DB980H65 panel antennas on three gateboom mounts, fed by twelve (six existing, six future) 1-5/8"Ø coax cables.
- at 140 ft Nextel: Nine DB844H90 panel antennas on three gateboom mounts, fed by nine 1-5/8"Ø coax cables.
- at 102 ft Torque arm assembly.

**Note:** Placement of coax cables ***is critical***. The analysis ***assumes*** that the coax cables (existing, future, and proposed) are installed on the tower per the Elevation and Cable Plan Drawing EL-1. Additional waveguide ladders may be required. *Please notify the undersigned prior to altering the cable routing configuration or if the coax configuration is different than the following chart.* Placement of small cables for beacons, ground rods, etc. are not critical.

<b><u>Existing:</u></b>	<b><u>Proposed/Future:</u></b>
<b><u>Face A:</u></b> 9ea 1-5/8"Ø to 180' (Cingular)	12ea 1-5/8"Ø to 194' (AT&T) (Install per drawing EL-1)
<b><u>Face B:</u></b> 6ea 1-5/8"Ø to 160' (Sprint) 9ea 1-5/8"Ø to 140' (Nextel)	6ea 1-5/8"Ø to 160' (Sprint) (Install per drawing EL-1)
<b><u>Face C:</u></b> 12ea 1-5/8"Ø to 170' (Verizon)	None

**Tower Summary:**

This analysis shows that the subject tower **is adequate** to support the existing, future, and proposed loads.

A copy of the full analysis is enclosed. A summary of the controlling load cases is provided below:

<u>Guys</u>	<u>Allowable</u>	<u>Existing/Proposed</u>	<u>% of Design</u>
at 162'	29.15 k	<u>20.51</u> k	70 %
at 102'	21.20 k	<u>13.68</u> k	65 %

<u>Tower Element</u>	<u>Combined Stress Index</u> <sup>2</sup>
Legs (Max)	<u>0.998</u>
Diagonal Bracing (Max)	0.605

**Foundation Summary:**

The forces at the tower mast base and guy anchor foundations are less than the original design loads. The existing tower mast base and guy anchor foundations **are adequate** to support the existing, future, and proposed loads.

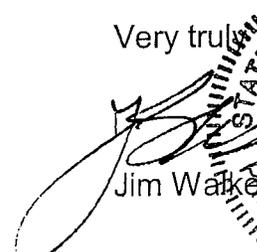
<u>Foundation Loads</u>	<u>Design</u> <sup>3</sup>	<u>Existing/Proposed</u>	<u>% of Capacity</u>
Mast	164.8 k (vert.)	<u>132.05</u> k	80 %
Guy	59.2 k (vert.)	<u>45.76</u> k	77 %
Anchor	66.1 k (horiz.)	<u>48.48</u> k	73 %

As future loads are installed, the tower should be re-evaluated on a case-by-case basis.

The analysis is based on information provided to this office by Natcomm, LLC. If the existing conditions are different than the information in this report, Walker Engineering should be contacted for resolution of any issues.

Walker Engineering appreciates the opportunity to be of service in this matter. Please do not hesitate to give me a call if you have any questions or comments.

encl.

Very truly yours,  
  
 Jim Walker  


<sup>2</sup> Ratio of calculated loads verses total allowable loads; should be less than, or equal to, 1.00.

<sup>3</sup> Original foundation reactions from ROHN Drawing No.: D970811, dated 04/02/97.

L

TABLE IIA-1  
EMF LEVELS IN MICROWATTS/CM.SQ./ PERCENTAGE OF STANDARDS

AT&T WIRELESS INSTALLATION ON EXISTING GUYED TOWER  
57 COOK ROAD, MONTVILLE, CONNECTICUT

Field Point - Any point in the community-16 feet above ground  
Antenna System Elevation Power Standard Calculated Percent of  
Feet WERP FCC/NCRP EMF Density Standard  
Residential

<u>AT&amp;T GSM (3) - 1900-2000 MHz</u>					
(Proposed)	194	150	1000	0.123	0.01
<u>CINGULAR TDMA(9) - 800-900 MHz</u>					
(Existing)	178	40	550	0.110	0.02
<u>PAGENET (3) - 940 MHz</u>					
(Existing)	182	200	600	0.072	0.01
<u>SPRINT PCS (9) - 1950-1965 MHz</u>					
(Proposed)	160	200	1000	0.182	0.02
<u>NEXTEL (12) - 806-900 MHz</u>					
(Existing)	140	100	550	0.218	0.04
<u>VERIZON CDMA (9) - 806-900 MHz</u>					
(Existing)	170	50	550	0.248	0.04
<u>NORTHCOAST (9) - 1950-1965 MHz</u>					
(Proposed)	130	223	1000	0.145	0.02
Total Percentage Of All Antenna Sources					0.16%

- NOTE:
1. N/A is less than 0.001.
  2. Unless Indicated - Total Percentage of All Antenna Sources = less than 0.01%.
  3. WERP - power output per channel

\*\* EMF emissions contributed by transmitting antennas in differing frequency bands are regulated by MPE Standards for the specific bands in which the emissions are analyzed. When adding the emissions resulting from transmissions in differing frequency bands, the resulting percentages of the emissions compared to the governing MPE standards are added. Per the FCC, percentages of EMF Density levels of applicable Standards, as specified by the FCC OET Bulletin No. 65 Edition 97.01, are addressed as follows:

"Therefore, in mixed or broad band fields, where a number of different frequencies are involved, the contributing of all RF sources must be considered. When different limits are recommended for different frequencies, the fraction of (or percentages) the limit incurred within each frequency interval should be determined, and the sum of all such fractions (or percentages) should not exceed 1.0 (or 100 percent)". See section 4.1 in Appendix A).