

September 15, 2003

## HAND DELIVERED

Mr. S. Derek Phelps Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051



Re: Request of Site Acquisitions, Inc., d/b/a Metro Tower for an Order to Approve the Shared Use of a Tower Facility at 37 Bacon Road, Enfield, Connecticut

Dear Mr. Phelps:

Pursuant to Connecticut General Statutes §16-50aa, as amended, Site Acquisitions, Inc., d/b/a Metro Tower ("Metro") hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared use by Southwestern Bell Mobile Systems, LLC ("SBMS") and Omnipoint Holdings, Inc. ("Omnipoint") of a tower at the Shaker Pines Fire District ("SPFD") facility at 37 Bacon Road in Enfield, Connecticut. The tower, which is to be built in the near future on land owned by SPFD, will be owned by SPFD and leased and managed by Metro. Metro requests that the Council find that the proposed shared use of the tower satisfies the criteria stated in Connecticut General Statutes § 16-50aa and issue an order approving the proposed use.

#### **Background**

The SPFD tower is to be constructed at the Shaker Pines Fire District facility at 37 Bacon Road, pursuant to approval from the Town of Enfield obtained on July 31, 2002. The tower is a 180-foot monopole structure within a 70' by 70' facility compound. Coordinates for the tower are N 42° 0' 55", W 72° 31' 46" (NAD 83). SPFD antennas are to be mounted to the top of the tower.

SBMS and Omnipoint are licensed by the Federal Communications Commission (FCC) to provide wireless communications service in the State of Connecticut. Each company and Metro have agreed to the proposed shared use of this tower pursuant to mutually acceptable terms and conditions.

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The proposed SBMS and Omnipoint installations are depicted on the site plan, compound plan and tower elevation included with this filing. References to "Cingular" antennas and equipment indicate the proposed SBMS installation; references to "T-Mobile" indicate the proposed Omnipoint installation.

As shown, SBMS proposes to install up to twelve (12) panel-type antennas on the tower with an antenna center line of approximately 170°. Also located on the platform will be up to six (6) dual-band tower top amplifiers and up to three dual-band combiners. The radio transmission equipment associated with these antennas would be located within an 11.5° by 30° equipment shelter to be installed within the compound. The equipment shelter will contain a separate room in which SPFD's equipment will be located.

Also as shown, Omnipoint proposes to install up to nine (9) panel-type antennas on the tower at approximately the 160-foot level. The radio transmission equipment associated with these antennas would be located on a concrete pad within a 15' x 15' leased area within the compound.

#### Discussion

- C.G.S. § 16-50aa(c)(1) provides that, upon written request for approval of a proposed shared use, "if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such shared use." The shared use of the tower satisfies those criteria as follows:
- A. <u>Technical Feasibility</u>. As shown on the attached tower and foundation design drawings provided by Sabre Communications Corporation, the tower and foundation have been designed to accommodate the SPFD public safety antennas and up to four wireless carriers. The proposed shared use of this tower therefore is technically feasible.
- B. <u>Legal Feasibility</u>. Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the proposed shared use of a tower facility such as the facility at 37 Bacon Road in Enfield. In addition, § 16-50aa directs the Council to "give such consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of tower facilities.
- C. <u>Environmental Feasibility</u>. The proposed shared use would have a minimal environmental effect, for the following reasons:
  - 1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the planned site. In particular, the proposed installation would not increase the height of the approved

- tower, and would not extend the boundaries of the tower site outside the limits of the approved site compound.
- 2. The proposed installation would not increase the noise levels at the planned facility by six decibels or more.
- 3. Addition of SBMS' and Omnipoint's antennas at this site would not result in a total radio frequency (RF) electromagnetic radiation power density level in excess of that adopted by the Federal Communications Commission. As shown on the attached report prepared by David S. Malko, P.E., operation of the Fire District's, SBMS' and Omnipoint's antennas would result in a total "worst-case" power density of approximately 6.73% of the standard as calculated for a mixed frequency site.
- 4. The proposed installations would not require any water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is complete, the proposed installations would not generate any traffic other than for periodic maintenance visits.

The proposed use of this facility would therefore have a minimal environmental effect, and is environmentally feasible.

- **E.** <u>Economic Feasibility</u>. The parties have entered into agreements to share the use of the tower on terms mutually agreeable to the parties. The proposed tower sharing is therefore economically feasible.
- F. Public Safety Concerns. Metro is not aware of any public safety concerns relative to the proposed sharing of the tower. As stated above, the tower is structurally capable of supporting the wireless antennas as well as the public safety antennas of the Shaker Pines Fire District. The proposed shared use will not interfere with municipal public safety activities. In fact, improved wireless communications service realized through shared use of the tower will enhance the safety and welfare of area residents.

#### Conclusion

For the reasons set forth above, the proposed shared use of the tower at 37 Bacon Road in Enfield, Connecticut satisfies the criteria stated in C.G.S. § 16-50aa and advances the General Assembly's and the Council's goal of preventing the proliferation of towers in Connecticut. Metro therefore requests that the Council issue an order approving the proposed shared use.

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Please contact the undersigned at (860) 798-7454 if there are any questions with respect to this matter. Thank you for your consideration.

Respectfully yours,

Jennifer Young Gaudet

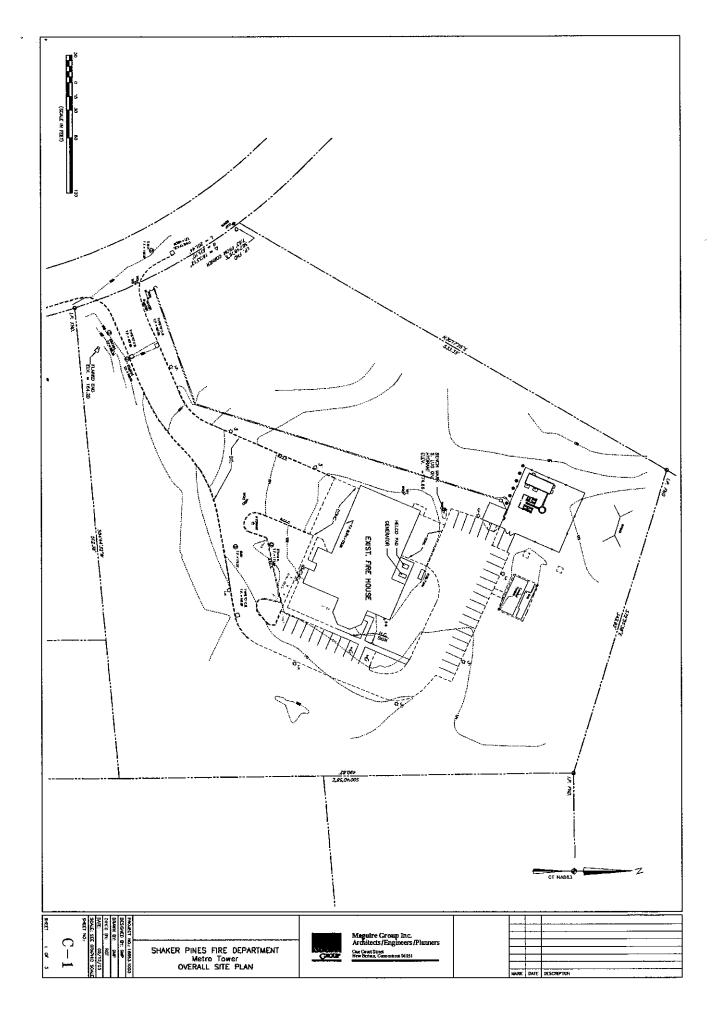
## Attachments

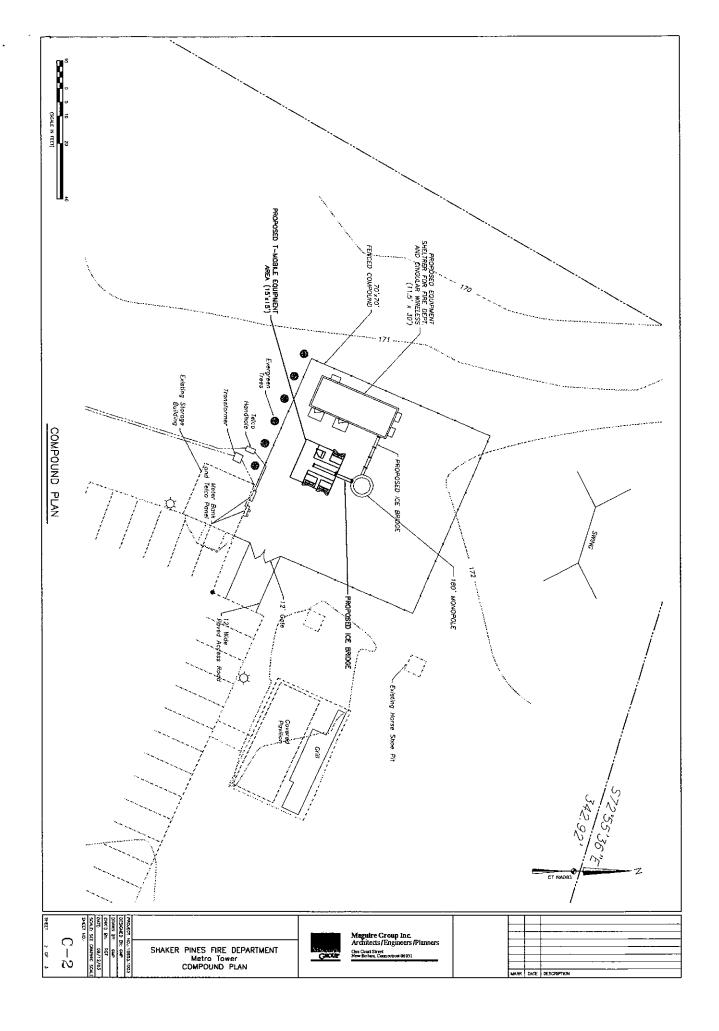
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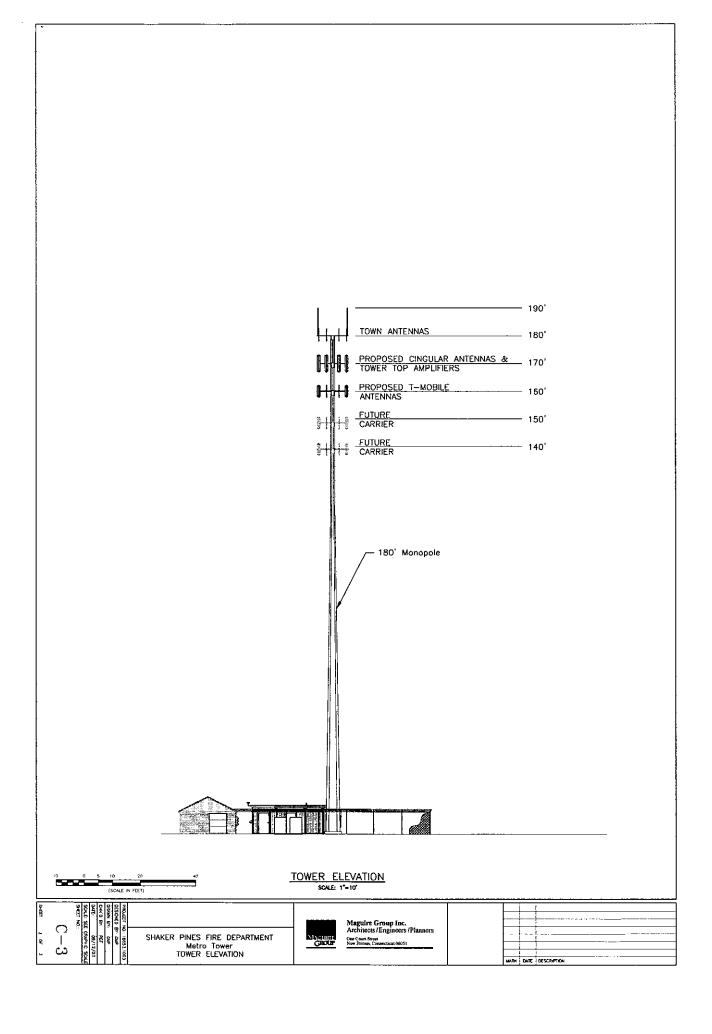
Honorable William R. Vayda, Mayor

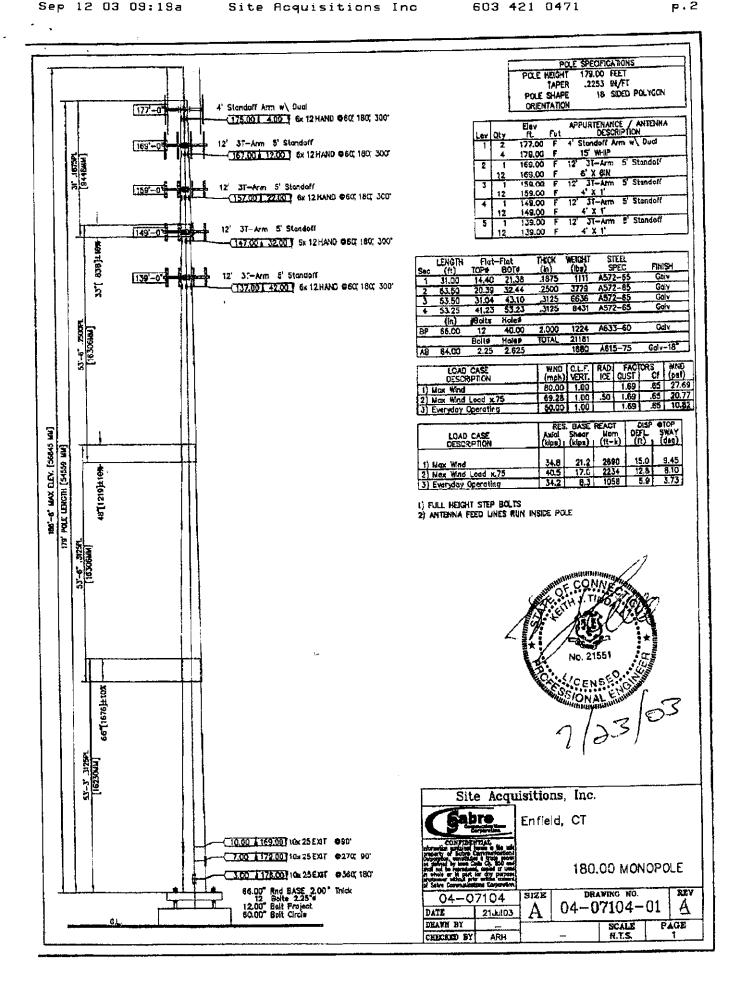
Mr. Scott A. Shanley, Town Manager Mr. Steven Levine, Cingular Wireless

Mr. Brad Gannon, Omnipoint Holdings







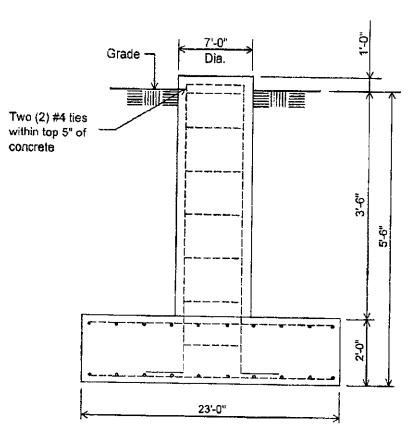




No.: 04-07104 Page: 3 Date: 7/23/03 By: ARH Revision A

# Customer: Site Acquisitions, Inc. Site: Enfield, CT

180' Monopole at 80 mph Wind + 0.5 in. Ice per ANSI/TIA/EIA-222-F-1996. Antenna Loading per Page 1



## Notes:

- 1). Concrete shall have a minimum 28-day compressive strength of 4000 PSI, in accordance with ACI 318-02
- 2). Rebar to conform to ASTM specification A615 Grade 60.
- 3). All rebar to have a minimum of 3" concrete cover.
- 4). All exposed concrete corners to be chamfered 3/4".
- 5). The foundation design is based on the geotechnical boring by Soil Exploration Corp., project no. 03-0649, dated July 1, 2003.
- 6). See the geotechnical report for compaction requirements, if specified.

(45.6 Cu. Yds. each) (1 REQUIRED)

	Rebar Schedule per Pad and Pier
Pier	(36) #8 vertical rebar w/hooks at bottom w/#4 ties, two within top 5" of top of pier then 12" C/C
Pad	(36) #8 horizontal rebar evenly spaced each way top and bottom (144 Total)

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#### Power Density for 180' Tower - Shaker Pines Fire District, Enfield, CT

The following is the calculated power density for the 180' tower at the Shaker Pines Fire District facility in Enfield, CT based on the formula contained in the FCC's Office of Engineering & Technology Bulletin 65. The results represent the calculated power density for a point corresponding to a location at the base of the proposed tower. The result for the total site is calculated as a sum of the percentages of the standard for each frequency interval, as further required by OET Bulletin 65. The calculations are considered "worst-case" because the vertical directionality of the antennas is not taken into account and the channels are assumed to operate at full power and on a continuous basis.

#### **INPUTS**

Carrier

Height on Tower (feet)
Antenna Output (ERP) (W/Ch)
Number of Channels
Frequency (MHz)
Ground Reflection Factor
MPE (mW/cm2)

SBMS	SBMS		Town	Town
(Cellular)	(PCS)	Omnipoint	(UHF)	(VHF)
170	170	160	180	180
296	427	199	250	60
2	2	8	2	1
880	1950	1950	450	34
1.6	1.6	1.6	1.6	1.6
0.587	1.000	1.000	0.300	0.200

RESULTS
Power Density (mW/cm2)
% of MPE

0.0074	0.0106	0.0224	0.0055	0.0007
1.25	1.06	2.24	1.85	0.33

Total worst-case power density at the base of the tower as a percent of the maximum permissible exposure:

6.73 %

Prepared by: David S. Malko, P.E., CT lic. # 14153 15-Sep-03