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24 September, 1999

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

**Re: Request by Omnipoint Communications, Inc. for an
 Order to Approve the Shared Use of a Tower Facility
 352 Main Street, Newtown, Connecticut**

Dear Chairman Gelston and Members of the Council:

Pursuant to Connecticut General Statutes §16-50aa, Omnipoint Communications, Inc. ("Omnipoint") hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared use by the Applicant of an existing tower located at 352 Main Street in Newtown, Connecticut. The tower is owned and operated by Sprint Spectrum, L.P. ("Sprint"). Omnipoint proposes to install antennas on the existing tower located within Sprint's leased compound area, and the equipment associated with this facility would be located near the base of the tower within the existing compound (see "Exhibit A"). The Applicant requests that the Council find that the proposed shared use of the tower satisfies the criteria stated in §16-50aa and issue an order approving the proposed use.

Background

Omnipoint Communications, Inc. is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telephone service in the State of Connecticut, which includes the area to be served by Omnipoint's proposed installation.

The Sprint tower at 352 Main Street in Newtown is a 150-foot monopole located on a 40' x 40', or 1,600 sq. ft. compound. Omnipoint and Sprint have agreed to the proposed shared use of this tower pursuant to mutually acceptable terms and conditions. Sprint has also authorized Omnipoint to act on its behalf to apply for all necessary local, state and federal permits, approvals, and authorizations which may be required for the proposed shared use of this facility.

Omnipoint proposes to install three (3) EMS Dual-Pol antennas, Model No. RR-90-1702DP, in a cluster mount with the top of the antennas at 140 feet Above Grade Level ("AGL"). The radio transmission equipment associated with these antennas, a Nortel S8000 cabinet, would be located near the base of the tower on a 7' x 5.5' concrete pad. Exhibit B contains specifications for the proposed antennas and equipment cabinet.

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. Technical Feasibility The existing tower was designed to accommodate multiple carriers, and Omnipoint is the first carrier to propose co-location on the tower. Therefore, the tower is structurally sound and capable of supporting the proposed Omnipoint antennas. The proposed shared use of this tower therefore is technically feasible.

B. Legal Feasibility Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the proposed shared use of an existing tower facility such as the facility on Main Street/Route 25 in Newtown. (Public Acts 93-268, Section 2; and 94-242, Section 6 (c)). This authority complements the Council's prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. C.G.S. § 16-50x (a) vests exclusive jurisdiction over these facilities in the Council, which shall "give such consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing towers facilities. Under this statutory authority vested in the Council, an order by the Council approving the shared use would permit the applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility 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 existing site. In particular, the proposed installations would not increase the height of the existing tower, and would not extend the boundaries of the existing Sprint compound area.
2. The proposed installations would not increase the noise levels at the existing facility by six decibels or more.
3. Operation of antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the American National Standards Institute ("ANSI"). The "worst-case" exposure calculated for operation of this facility (i.e., calculated at the base of the tower, which represents the closest publicly accessible point within the broadcast field of the antennas), with both the Sprint and Omnipoint antennas, would be 0.016668 mW/cm² (1.67% of the ANSI standard). These calculations are attached as Exhibit C.

4. The proposed installations, would not require any water or sanitary facilities, or generate air emissions or discharges to water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is complete (approximately two weeks), the proposed installations would not generate any traffic other than periodic maintenance visits.

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

E. Economic Feasibility As previously mentioned, Sprint and Omnipoint have entered into a mutual agreement to share the use of the existing tower on terms agreeable to the parties. The proposed tower sharing is therefore economically feasible.

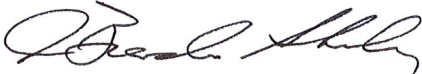
F. Public Safety Concerns As stated above, the existing tower is structurally capable of supporting the proposed Omnipoint antennas. The tower stands on an existing commercial compound off Main Street/Route 25 and is accessed from the existing driveway at the site. The size and location of the tower has also been approved by the Newtown Planning and Zoning Commission. Omnipoint is not aware of any other public safety concerns relative to the proposed sharing of the existing tower. In fact, the provision of new or improved phone service through shared use of the existing tower is expected to enhance the safety and welfare of area residents.

Conclusion

For the reasons discussed above, the proposed shared use of the existing tower facility at Main Street/Route 25 in Newtown, Connecticut satisfies the criteria stated 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 Connecticut. The Applicant therefore requests that the Siting Council issue an order approving the proposed shared use.

Thank you for your consideration of this matter.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. Brendan Sharkey", written in a cursive style.

J. Brendan Sharkey
for Omnipoint Communications, Inc.

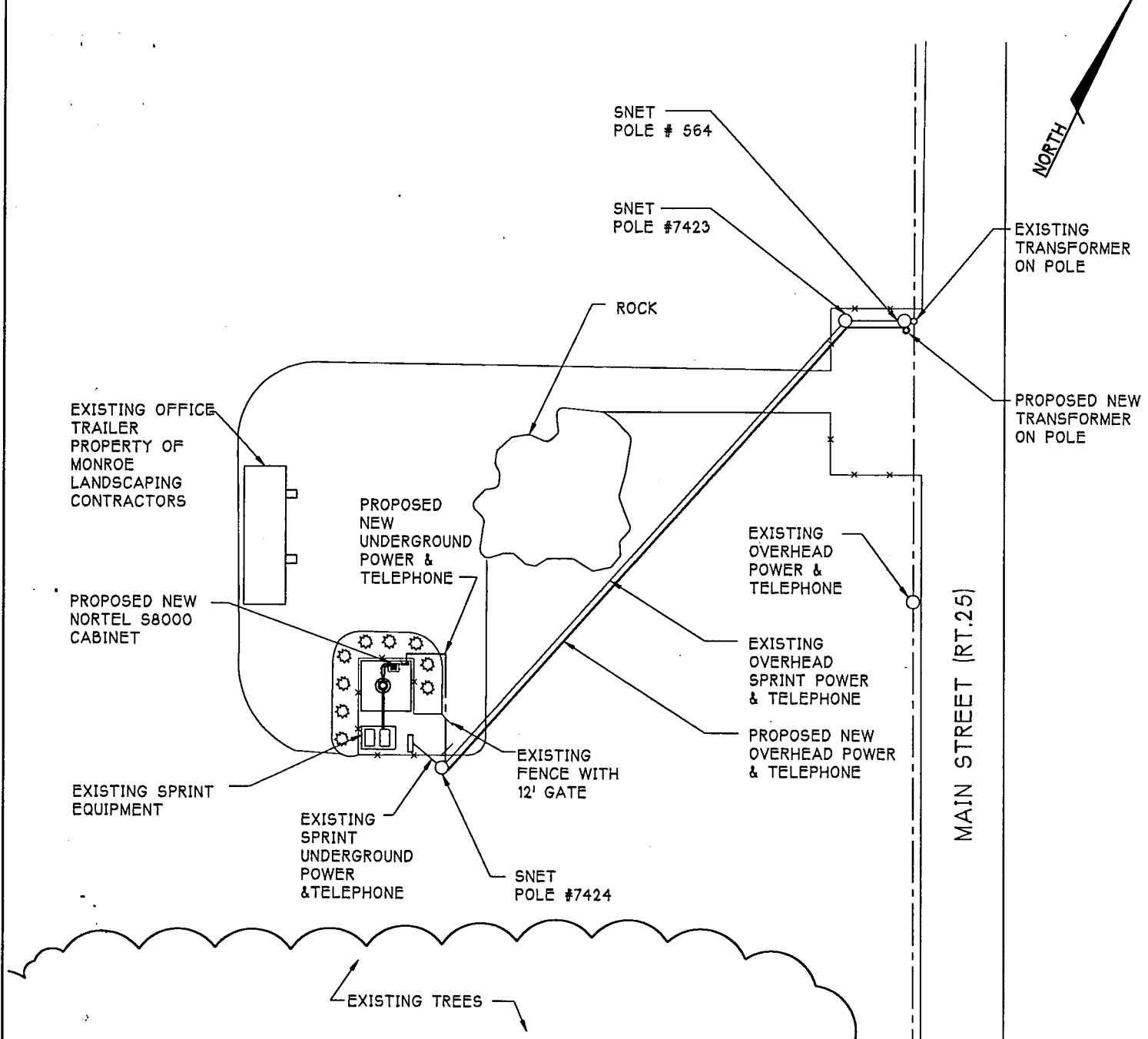
Attachments

Exhibit A

Design Drawings

352 Main Street

Newtown, CT



1 SITE LAYOUT
 LE-1 SCALE: NOT TO SCALE

NOTE: EXHIBITS SUBMITTED ARE A CONCEPTUAL REPRESENTATION OF THE LEASE AGREEMENT ONLY. ACTUAL CONSTRUCTION DOCUMENTATION MAY VARY TO COMPLY WITH ALL APPLICABLE CODES.

<p>670 North Beers Street, Building 2, Holmdel, NJ 07733 Tel: 732.739.3200 Fax: 732.739.0440</p>	Drawing Title: SITE LAYOUT		Project: SPRINT MONOPOLE		Revision No. Date: Drawing No. LE-1		
	Client: OCS		Address: 352 MAIN ST.(RT.25) NEWTOWN, CT				
Search Area: MONROE2/ RT. 25 Site ID No.: CT11216B	P.C.: RVa	P.C. Chkd: 	Chkd. by: 	ARCNET Project No.: A99506845A	Drawn: RSa	Date: 3-30-99	Approved By: PROJ. MGR: _____ DATE: _____ R.F. ENGR: _____ DATE: _____ SAC: _____ DATE: _____ OWNER: _____ DATE: _____

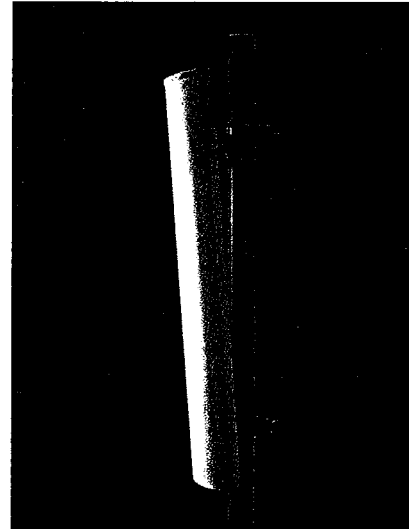
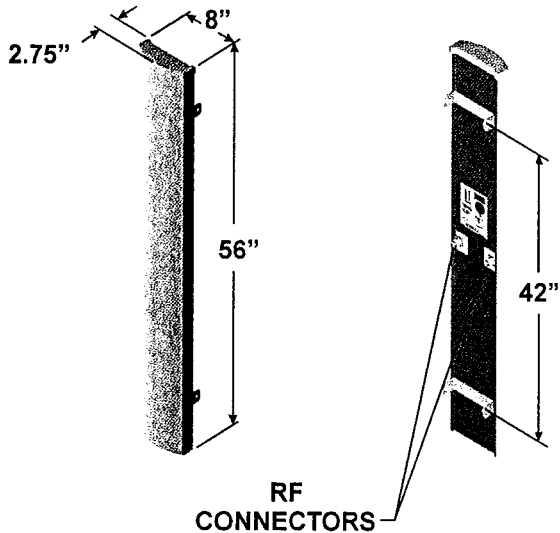
Exhibit B

Equipment Specifications

352 Main Street

Newtown, CT

1850 MHz - 1990 MHz (P)



- 90° beamwidth
- 16.5 dBi gain
- ±45° DualPol™
- 56 inch

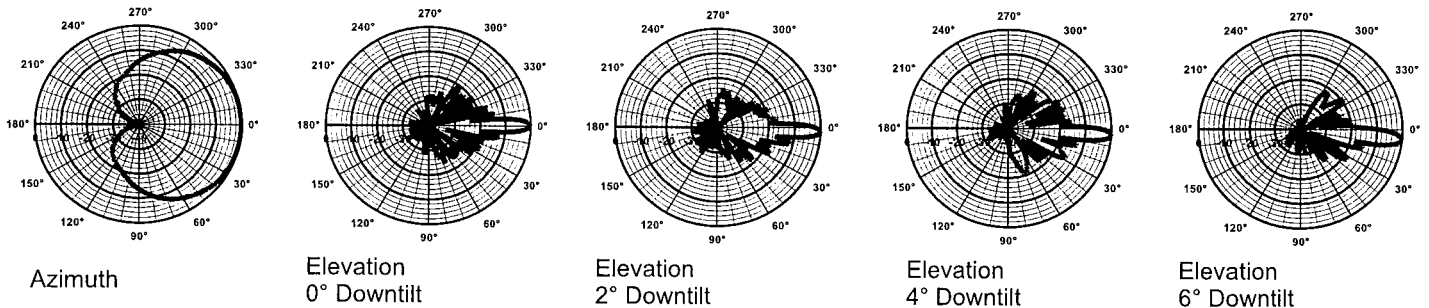
SPECIFICATIONS

Electrical		Mechanical	
Azimuth Beamwidth	90°	Dimensions (L x W x D)	56in x 8in x 2.75in (142 cm x 20.3 cm x 7.0 cm)
Elevation Beamwidth	6°	Rated Wind Velocity	150 mph (241 km/hr)
Gain	16.5 dBi (14.4 dBd)	Equivalent Flat Plate Area	3.1ft ² (.29 m ²)
Polarization	Slant, ±45°	Front Wind Load @ 100 mph (161 kph)	90 lbs (400 N)
Port-to-Port Isolation	≥ 30 dB	Side Wind Load @ 100 mph (161 kph)	31 lbs (139 N)
Front-to-Back Ratio	≥ 25 dB (≥ 30 dB Typ.)	Weight	18 lbs (8.2 kg)
Electrical Downtilt Options	0°, 2°, 4°, 6°	<p>Note: Patent Pending and US Patent number 5, 757, 246.</p> <p>Values and patterns are representative and variations may occur. Specifications may change without notice due to continuous product enhancements. Digitized pattern data is available from the factory or via the web site www.emswireless.com and reflect all updates.</p>	
VSWR	1.35:1 Max		
Connectors	2; Type N or 7-16 DIN (female)		
Power Handling	250 Watts CW		
Passive Intermodulation	<-147 dBc (2 tone @ +43 dBm (20W) ea.)		
Lightning Protection	Chassis Ground		

MOUNTING OPTIONS

Model Number	Description	Comments
MTG-P00-10	Standard Mount (Supplied with antenna)	Mounts to Wall or 1.5 inch to 5.0 inch O.D. Pole (3.8 cm to 12.7 cm)
MTG-S02-10	Swivel Mount	Mounting kit providing azimuth adjustment.
MTG-DXX-20*	Mechanical Downtilt Kits	0° - 10° or 0° - 15° Mechanical Downtilt
MTG-CXX-10*	Cluster Mount Kits	3 antennas 120° apart or 2 antennas 180° apart
MTG-C02-10	U-Bolt Cluster Mount Kit	3 antennas 120° apart, 4.5" O.D. pole.
MTG-TXX-10*	Steel Band Mount	Pole diameters 7.5" - 45"

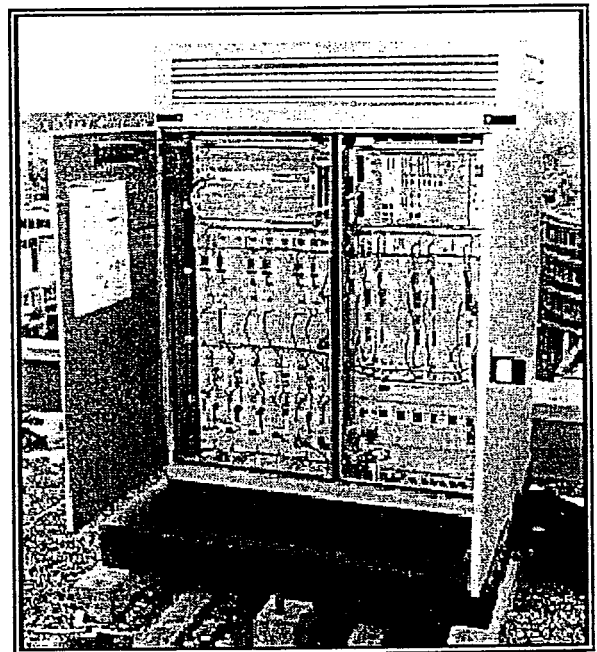
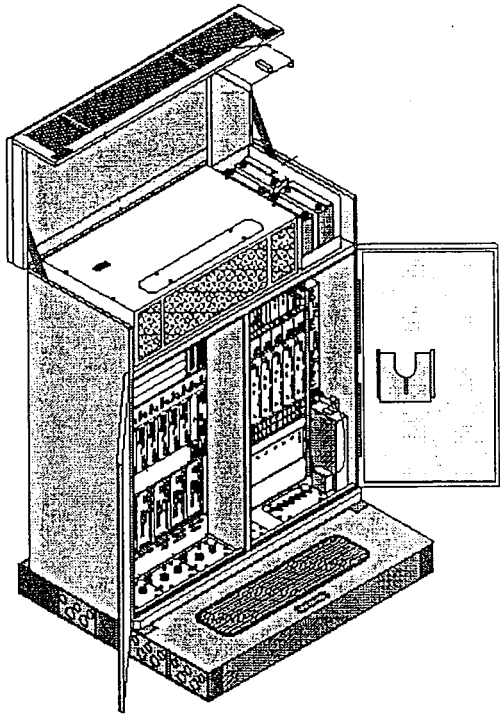
* Model number shown represents a series of products. See mounting options section for specific model number.

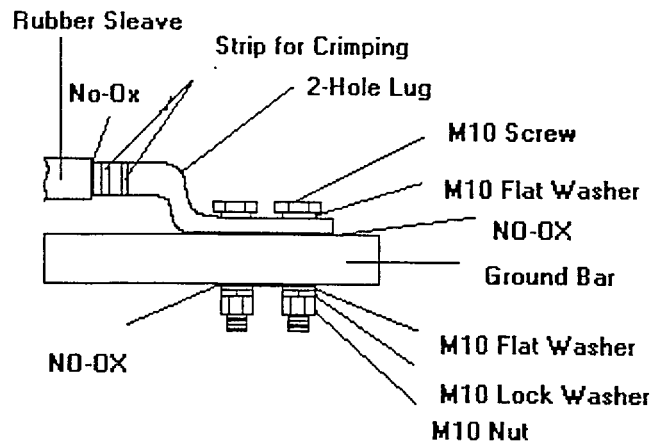
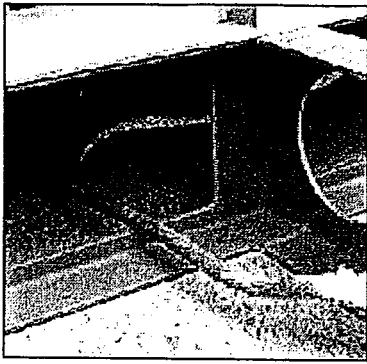




S8000 BTS

Site Specifications





Apply a light coating of No Oxidation (NO-OX) to the ground bar area.

Dimensions, Weights & Clearances

BTS

Weight: 915 pounds
 Dimensions: 53.2"W x 26"D x 63"H

Clearances while transporting in building:

Door Access:

Height: 6.6 feet
 Width 3 feet

Corridor Access:

Height: 6.6 feet
 Width: 3.6 feet (straight), 6.6 feet (right angle)

Clearances when installed:

Above: 28 inches for opening of hood
 Rear: 8 inches for installation of outer skin
 Sides: 8 inches for adjustment of door hinges
 Front: 54 inches to open door and technician access

Plinth

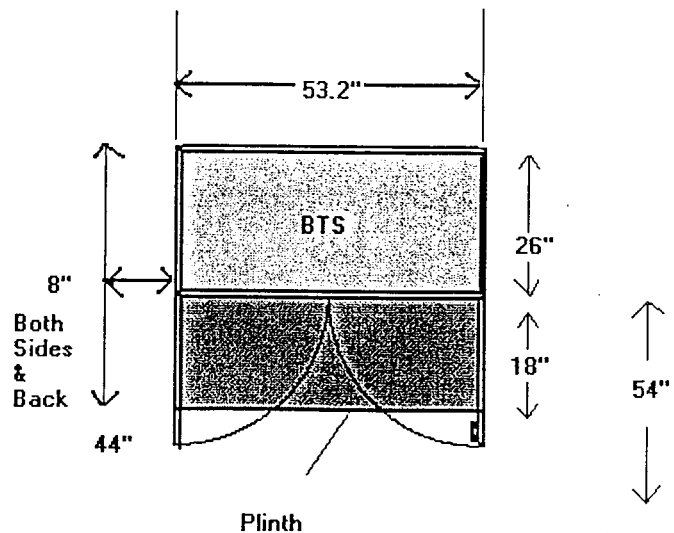
Weight:
 87 pounds

Dimensions:
 53.2"W x 44"D x 10.2"H

Floor Characteristics

Minimum Floor Resistance:
 123 pounds/foot²

Flatness:
 ¼ inch over 78 inches



Electrical Specifications

Split Single-Phase

3 wires plus ground

L1: Black 6 gauge

L2: Red 6 gauge

Neutral: White 6 gauge

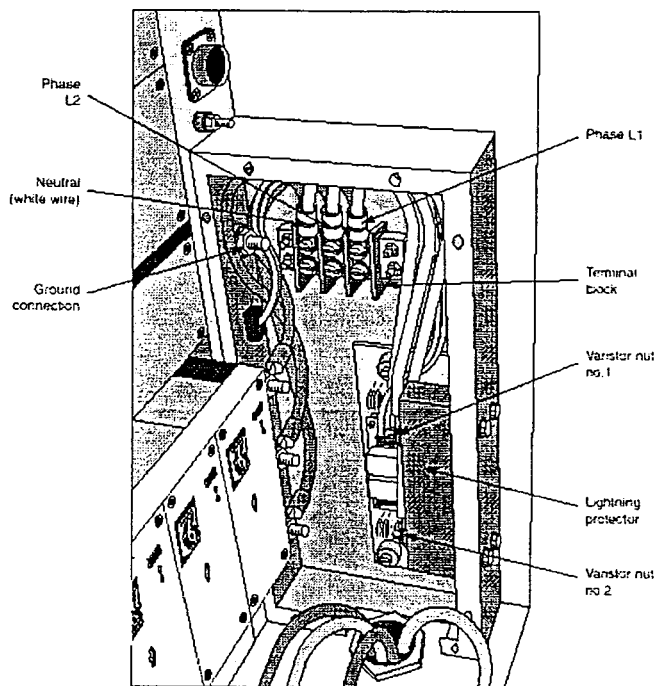
Ground: Yellow/Green 6 gauge

Maximum distance between AC box and BTS: 105 feet

187 ~ 254 VAC between L1 and L2

99 ~ 127 VAC between Neutral and L1 or L2

45 ~ 65 Hertz



AC connection to BTS located at the front, lower, right-hand side of BTS

Circuit Breaker in AC Box

Up to 4 transmitters

30 A, bipolar, C curve

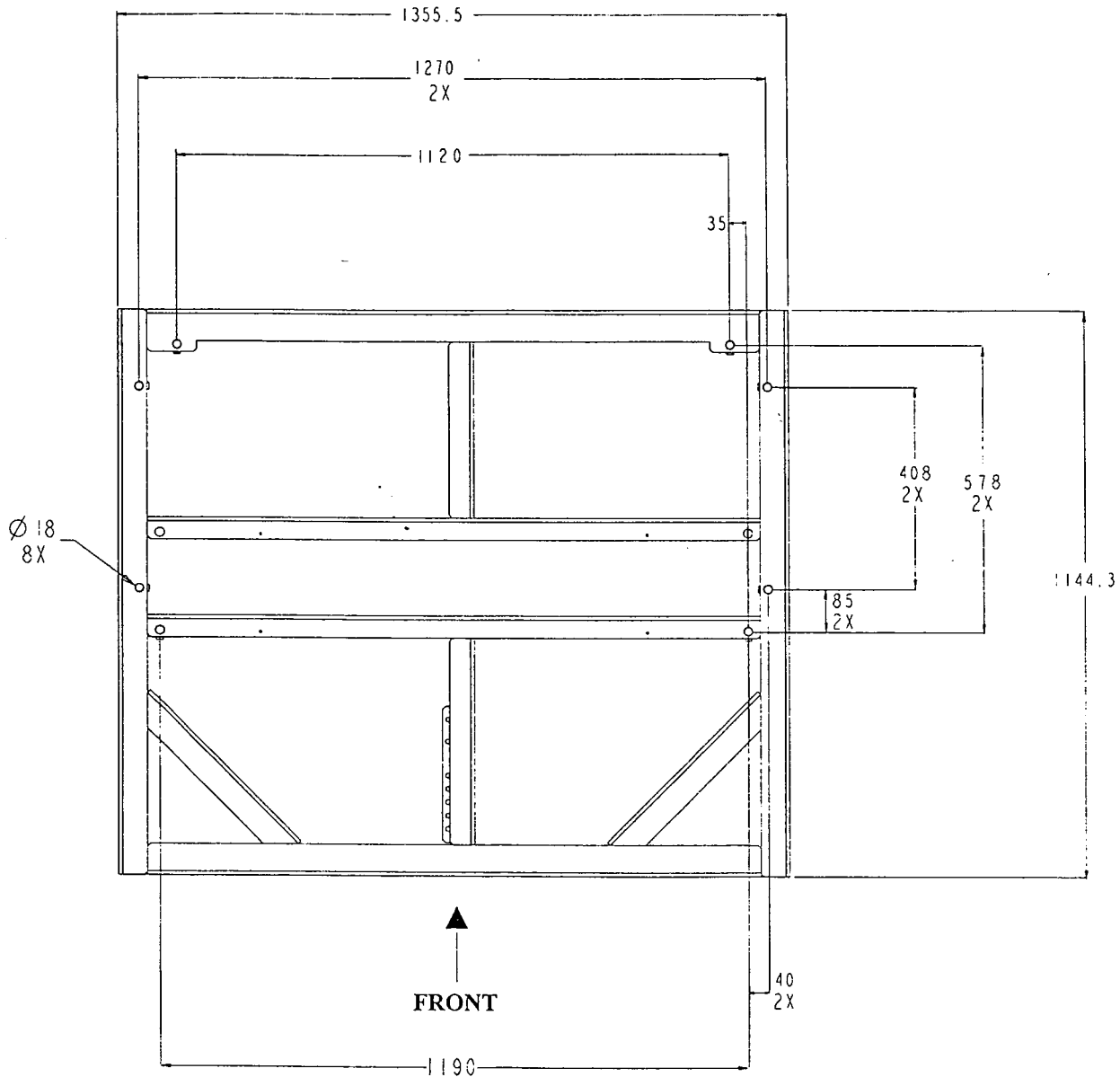
5 or more transmitters

40A, bipolar, C curve

BTS to Ground connection

Minimum 2 AWG, run in most direct route as possible towards true earth, minimizing bends. No bend shall be less than 90 degrees.

Appendix 3 BTS plinth type 1 floor print



BTS Plinth type 1 Top View

The BTS plinth type 1 floor print can be directly deducted from the dimensions given above for the top view.

All dimensions are expressed in mm.

Mention '2X' or '8X' means that the same dimension applies to another part of the print (symmetrical part).

Exhibit C

Power Density Calculations

352 Main Street

Newtown, CT

Exhibit C

Power Density Calculations

352 Main Street

Newtown, CT

Worst Case Power Density for installation on Sprint Facility @ 352 SOUTH MAIN STREET, NEWTOWN, CT

Region 11 - Connecticut	
Power Density Calculation - Worst Case	
Base Station TX output	20 W 43.01
Number of channels	2
Antenna Model	EMS: RR-90-17/ RV-90-17 ▼
Antenna Gain	16.5 dBi
Cable Size	1 5/8" ▼
Cable Length	150 ft
Jumper & Connector loss	1 dB
Cable Loss per foot	0.0116
Total Cable Loss	1.74 dB
Total Attenuation	2.74 dB
Total EIRP per channel	56.77 dB 475.37 W
Total EIRP per sector	59.78 dB 950.74 W
Ground Reflection	1.6
Frequency	1930 MHz
Antenna Height	138 ft 4206.24 cm
nsg	13.76
Power Density (S) =	0.010953 mW / cm²
% MPE =	1.0953%

Equation Used :

Total combined percentage for Maximum Permissible Exposure after Omnipoint will be as follows:

Sprint PCS 0.5715 %
 Omnipoint 1.0953 %
 Total 1.6668 %

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

7 October, 1999

Steve Levine
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

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**CONNECTICUT
SITING COUNCIL**

RE: TS-OCI-097-990924
352 Main Street, Newtown

Dear Mr. Levine:

Attached please find the supplemental information you requested for the above-referenced tower sharing application. Specifically, I have included the following:

1. The wattage of the existing Sprint equipment as provided in Sprint's original zoning application to the town;
2. A statement from Sprint, also from their original zoning application, indicating that the tower is designed to accommodate at least three carriers in total (see page 11 of the attached narrative). As discussed in Omnipoint's tower sharing application and as confirmed by Sprint's testimony, this tower has been built to specifications which will accommodate multiple carriers. Prior to any construction on the site, Omnipoint's structural engineers will confirm these tower specifications, and we will be happy to provide the Council with those results upon request.

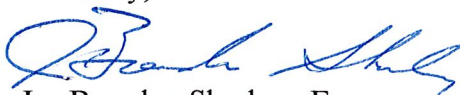
In addition, the coordinates for the site are:

41-21-24 N
73-15-52 W

Finally, please be advised that a copy of the application has been sent to Newtown First Selectman Herbert C. Rosenthal.

If you have any additional questions, please don't hesitate to contact me.

Sincerely,



J. Brendan Sharkey, Esq.
for Omnipoint Communications, Inc.

enclosures

ENGINEERING EXHIBIT
HUMAN EXPOSURE TO
RADIO-FREQUENCY EMISSIONS
SPRINT PCS
352 SOUTH MAIN STREET SITE
NEWTON, CONNECTICUT

Tabulation of Calculated Exposure Level at Monopole Base
(General Population/Uncontrolled Exposure)

<u>Transmitter</u> <u>Type</u>	<u>Number of</u> <u>Transmitters</u>	<u>Effective</u> <u>Radiated</u> <u>Power Per</u> <u>Transmitter</u> <u>(watts)</u>	<u>Operating</u> <u>Frequency</u> <u>(MHz)</u>	<u>Total</u> <u>Effective</u> <u>Radiated</u> <u>Power</u> <u>(watts)</u>	<u>Distance</u> <u>to</u> <u>Target</u> <u>(feet)</u>	<u>Calculated</u> <u>Power</u> <u>Density^a</u> <u>(mW/cm²)</u>	<u>Maximum</u> <u>Permissible</u> <u>Exposure^b</u> <u>(mW/cm²)</u>	<u>Fraction</u> <u>of MPE^c</u> <u>(%)</u>
PCS	33	100	1950	3300	144	0.005715	1.00	0.57

Abbreviations:

MHz = megahertz
mW/cm² = milliwatt per square centimeter

Calculated using EPA-recommended ground reflection coefficient of 1.6 and a vertical plane relative field factor of 0.316.
MPE was obtained from the *Report and Order* in FCC ET Docket Number 93-62.
The MPE for general population/uncontrolled exposure for the operating frequency indicated was used as a reference.

I. INTRODUCTION

Sprint is a telecommunications venture in conjunction with Tele-Communications, Inc. ("TCI"), Cox Communications, Comcast Corporation and Sprint Corporate created to provide innovative, easy-to-use, nationally branded wireless communication services known as Personal Communications Services ("PCS"). In March, 1995, the Sprint PCS (Sprint) venture acquired wireless licenses from the Federal Communications Commission (FCC) in 32 major U.S. trading areas, including Connecticut, to provide service to a population of 182.4 million people. Sprint, as a provider of PCS, has the goal to become the low cost provider in the marketplace.

Sprint's Connecticut office is located at 9 Barnes Industrial Drive, Wallingford, Connecticut 06492 and as part of the purchase of the FCC license, Sprint is charged with the responsibility of providing wireless telephone service throughout Connecticut, including the area in and around the Town of Newtown.

Sprint is making this application to construct a 150 foot monopole structure and associated base station equipment for use as a PCS communications facility at 352 South Main Street, Newtown, Connecticut. The proposed site currently contains a concrete business. The leased parcel consists of approximately 1,600 square feet. Access to the site will be provided from an existing gravel driveway from South Main Street. Utility service will be available from existing service located on the property. A site plan is attached as Exhibit A.

The proposed PCS facility at the site will be an essential part of Sprint's telecommunications network throughout Connecticut in order to provide wireless communications for emergency services, businesses and individuals in the Newtown area and is necessary to provide adequate service to emergency and other vehicles traveling along the main thoroughfares of Newtown, including Routes 6, 34, 25 and 302. Additionally, construction of the proposed PCS facility will allow Sprint to fulfill its obligations under its FCC license to provide PCS service throughout the State of Connecticut.

II. PROJECT NEED

Sprint is providing a new, advanced technology in wireless communication services called Personal Communication Services ("PCS"). In November of 1995 Sprint became the first provider of PCS in the United States with service to the Washington D.C./Baltimore area. PCS is a digital, wireless technology that converts voice, data and images into numeric code and transfers them over radio frequencies. PCS offers a digital technology far advanced over traditional cellular service. This new technology combines greater capacity, clarity, security and lower power than earlier services. PCS can also be used for data transmission and will incorporate voice, pager, answering machine, fax and modem capabilities in the lightweight handset. Other services such as call waiting and caller ID will also be available to the PCS subscriber.

Wireless communication use has burgeoned since the technology was introduced in the mid-1980s. There are currently more than 20 million cellular telephone users in the United States, with approximately 10,000 more being added each day and the availability of PCS technology will further increase this demand. Wireless technology provides a critical link for emergency services, such as ambulances, which use wireless service to transmit vital signs and medical information via medical telemetry. Police forces are increasingly relying on wireless technology to communicate with dispatch and receive calls for assistance. Businesses and individuals rely heavily on wireless services not only for the convenience they provide but for the increased safety provided by wireless communications.

Presently, cellular telephones operate by transmitting a very low power radio signal between the cellular telephone and antenna mounted on a tower, pole, building or other structure. The antenna feeds the signal to electronic apparatus housed on a small equipment deck near the antenna, where it is connected to an ordinary telephone line, and is then routed anywhere in the world. The antenna and equipment deck are known as a "cell site."

Sprint's PCS, although similar to conventional, analog cellular, has far greater quality and capability. The PCS system is a digital state of the art system which will combine answering machine, page, voice mail, text messaging and many other services. This system also allows for increased capacity over analog cellular, which will allow it to handle more calls than cellular. Another difference between Sprint's system and traditional cellular is that PCS works on a higher frequency than cellular service which allows it to transmit at lower power than the earlier cellular service. Because of the low power of the system, a cell site is capable of transmitting to and from PCS phones only within a limited geographic area. This limited

geographic area is called a "cell". A cell site must be located within a prescribed area in order to provide reliable coverage for the entire cell.

Although the Telecommunications Act of 1996 has preempted any state or local determination of public need for PCS service, there are two reasons why any new cell is needed. Each of these reasons apply to the proposed Newtown cell:

1. To provide or improve PCS coverage to specific areas. Without the proposed cell site 352 South Main Street, the coverage in the Town of Newtown and the surrounding areas, including the main thoroughfares of Newtown, including Routes 6, 34, 25 and 302 would be insufficient to provide reliable service to residents, businesses and visitors of Newtown.

2. To improve coverage for hand-held phones. The trend in cellular telephone equipment is moving away from the traditional vehicle-installed, 3 watt, mobile phone and toward small hand-held 0.6 watt phones. These phones have a shorter range due to the lower power and therefore place additional demands on the design and operation of the network.

III. PROJECT DESCRIPTION

Exhibit A

A PCS system is initially designed by the creation of a grid consisting of "honeycomb-like" cells. When a call is placed using PCS service, it will be transmitted via a radio frequency to the nearest cell site. Each cell covers a specific geographic area which reaches out from approximately 2 to 6 miles in diameter. As a result of this limited geographic coverage, in order to provide service to the PCS user, there must be a continuous interconnected series of cells which must overlap in a grid pattern approximating a honeycomb. When the PCS user moves into a new cell, the transmission is automatically transferred to the cell site in the new cell without interruption in service, this is called "handing off" the service. In order for this system to work effectively, there must be some overlap between adjoining cells.

The PCS facility must be located as near to the center of the cell as possible to insure adequate and reliable coverage. Also, the antenna must be located at a height to allow for sufficient transmission above trees, buildings or other structures that may obstruct the transmission. The system is only useful if there is adequate coverage in the service area. Areas that lack cells will create "holes" in the system and make it useless. Each cell in the network is critical and services a specific diameter, the exact location is very crucial to the overall functioning of the PCS network.

As each cell site must be placed in such a manner as to provide service within a particular area, and to provide overlapping (but not duplicate) coverage with the existing or proposed cells around it, there is limited flexibility as to where a PCS facility can be placed. In the case of the proposed site at 352 South Main Street, Sprint has done a thorough engineering study, using an elaborate computer program known as a propagation study in order to determine the ideal location for a PCS facility within the Town of Newtown. A propagation study provides, based on cell boundaries, topography and other factors such as vegetation density, where a PCS site needs to be located in order to provide maximum coverage in a particular cell. Using this information, Sprint has identified the proposed site at 352 South Main Street, as a technologically feasible location in the "Newtown cell site".

In urban and suburban areas Sprint designs its systems to provide complete coverage to the area. In order to meet this demand Sprint's Network Engineers perform a "drive test" to measure how reliable a proposed site will be in the cell it is designed to cover. The drive test is conducted by elevating PCS antenna which have been attached to a crane, to a proposed height, at a proposed location to measure the intensity of the signal at that particular height and location.

The proposed Newtown PCS facility will be a 150 foot monopole structure located on the property at 352 South Main Street. Sprint will also construct a metal equipment frame on which to locate the base station equipment. This equipment is necessary to provide the PCS service. The monopole structure and base station equipment will be completely surrounded by a six foot high chain link security fence topped with barbed wire. Sprint will obtain access to the site utilizing an existing gravel driveway from South Main Street. A Sprint employee will visit the site at least once a month for equipment checks and routine maintenance. The proposed PCS facility is more specifically described and shown on the site plan prepared by Good, Kind and O'Dea, Inc. and submitted as Exhibit A to this application.

Sprint's corporate policy is to work with municipalities in the planning and siting process of proposed PCS facilities. Whenever possible, Sprint will place its antenna on existing structures, rooftops, and water tanks. New structures for PCS facilities are constructed only when no other suitable existing structures are found within a cell in which Sprint must provide coverage. In the Newtown cell, Sprint was unable to identify a suitable existing structure for the co-location of its antenna.

On July 15, 1996, Sprint Spectrum Limited Partnership, entered into a Lease Agreement with Maureen Julian for a part of Ms. Julian's property at 352 South Main Street. Sprint PCS intends to use the property as an antenna site for its Personal Communication System including an access way and utility easement extending from South Main Street to the site. Sprint PCS proposes to construct, operate and maintain a public utility communications facility consisting of a 150 foot monopole with associated antenna. The antenna will consist of nine panel antennas configured in a three sector array and will be mounted on top of the monopole. Extending above the highest antenna will be a five foot lighting rod. Also to be located on the site will be base station equipment associated with the PCS facility, consisting of three refrigerator-sized cabinets (approximately 60" x 31" x 30") which will be mounted on a metal support frame. The monopole and base station equipment will be surrounded by a six foot chain link fence the top of which will contain barbed wire. A gravel driveway will provide access to a gravel parking area and turnaround near the site. The proposed facility will be unmanned; there will be no employees at the site and there will be no water or sewer facilities. Sprint PCS personnel will visit the site approximately once per month for regular maintenance. A site plan package prepared for Sprint PCS details the location and dimensions of the proposed improvements and is attached as Exhibit A.

The site is located in a M-5 zone and contains a current industrial use, a concrete facility. Section 4.18.510 of the

Newtown Zoning Regulations states that "the following structures, whether principal or accessory, are permitted in all industrial zones subject to obtaining a special permit from the Zoning Board Appeals." Section 4.18.511 of the Newtown Zoning Regulations permits towers over 30' in height for the reception or transmission of radio, microwave and TV signals. Therefore, Sprint PCS is seeking a special permit for the construction, operation and maintenance of the proposed PCS facility.

Section 4.18 of the Zoning Regulations states that "no land, building or structure shall be erected, altered or added to which is arranged, designed, intended to be or is capable of being used for one of the following principle uses provided that site development plan approval has been granted in accordance with Article X hereof, if so required." Because the site is located in an M-5 zone and contains a current industrial use, concrete operations, any additional proposed industrial use allowed under the Regulations requires a variance of Section 4.18. Therefore, a variance of Section 4.18 of the Regulations is also being sought.

Sprint has chosen this particular site at Julian Enterprises for the location of its PCS facility for many reasons. The proposed PCS facility is located within the M-5 Industrial Zone. Sprint felt strongly that this was an exceptional location of a PCS facility, as Sprint wishes to avoid, wherever possible, placing a communications facility in a residential zone. Additionally, this particular site also meets required ground level elevation standards.

In addition to providing wireless PCS service by Sprint, this PCS communications facility will also be equipped to accommodate two additional wireless carriers for future use. This design complies with Sprint's corporate policy of encouraging co-location of wireless carriers coming into the market after Sprint. This policy and design is intended to eliminate the proliferation of communications structures throughout the Town of Newtown.

PCS facility requirements for the site were defined and the associated system designed completed. The primary design consideration for all PCS facilities is the location and number of antenna. PCS antenna on this site will be comprised of nine panel antenna in a 3 sector array (1 transmit and 2 receive antenna in each array). Exhibit A depicts an elevational view of the proposed facility.

The PCS facility at 352 South Main Street is designed to meet and exceed the current 85 mph with a half (1/2) inch of radial ice recommended load standards in the State of Connecticut. The proposed PCS facility is designed to withstand any major storm or natural disaster.

The proposed site will be powered with a 100 amp electrical service and it will have a battery back-up for short term power outages. Ultimately the site may be equipped with a generator back-up for longer term outages. Back-up power sources are extremely important for site operations during catastrophic events such as hurricanes, tornadoes, ice storms, etc. The back-up power source will ensure that emergency service agencies as well as the general public, will have communications services during such events.

Finally, Sprint has conducted a visual impact analysis of the site. In this situation a weather balloon was flown at the 158 foot elevation at the proposed facility location and then photographed from different locations to provide a complete visual context of the project. This study concludes that the design of the monopole and the character of the surrounding landform will greatly contribute to the lack of visibility within most of the viewshed. Additionally, the vegetation within the area, typically 60 to 80 feet in height, will help to obscure most views to the proposed PCS facility. The study is attached as Exhibit B.

In addition, Sprint PCS has commissioned a health safety study, entitled "Human Exposure to Radio-Frequency Emissions", which demonstrates that proposed operation of the antenna on the site will have no impact on the health, safety and welfare of the surrounding area or the community as a whole. The health safety study is attached as Exhibit C.

The Federal Aviation Administration (FAA), requires an analysis of the proposed PCS facility for its relation to Federal Aviation Regulation (FAR) Part 77 surfaces. In short, FAR Part 77 surfaces are imaginary surfaces surrounding airports which must remain free of obstructions. Based on the evaluation of the proposed site, it was determined that the 352 S. Main Street PCS facility will not penetrate these surfaces, therefore, painting and/or lighting the monopole structure will not be required. A copy of the FAA Review is attached as Exhibit D.



Consultants in Planning, Engineering, Architecture,
Construction Management, and Related Services

October 25, 1999

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CONNECTICUT
SITING COUNCIL

Mr. Ken MacMaster
Sprint PCS
One International Boulevard, Suite 800
Mahwah, NJ 07595

Regarding: Omnipoint Site CT-11216B
Sprint Monopole
352 Main St.
Newtown, CT
Carter Burgess Project # 99017

Dear Mr. MacMaster

At Omnipoint's request, I reviewed the existing monopole and the monopole foundation analysis. UNR-Rohm, of Peoria, Illinois, performed the original analysis on October 19, 1996. The designing loads of the monopole and monopole foundation includes:

1. 12- ALP-9212 antennas on cellular platform at elevation of 150'.
2. 12- ALP-9212 antennas on 14' low profile platform at elevation of 130'.

The analysis was performed in accordance with the ANSI/EIA-222-E-1991 as per these standards the structure was analyzed for two (2) loading cases:

1. 100% wind and gravity load
2. 75% of wind and load with 1/2" radial icing and gravity load

At present the only equipment installed on the monopole is the platform and equipment at elevation of 150'. A new 14' low profile platform, by Summit and three (3) new EMS-RR90-02DP antennas are being proposed by Omnipoint at elevation 136'-6".

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It is our opinion that the proposed Omnipoint installation will not compromise the existing monopole and its foundations structural integrity, provided its construction was performed in accordance with the design documents.

Presently there is no loading at elevation of 130' and the Omnipoint loading at elevation of 136'-6" will be less than the designed load at this level.

Please call me at (617) 374-4467 if you have any questions.

Regards,

CARTER & BURGESS, INC.

Dov Kirsztajn P.E.

