



APPLICATION FOR EXEMPTION FROM SITE PLAN REVIEW

VERIZON WIRELESS UNUM
Applicant

02/08/07
Application Date

400 FREIBERG PARKWAY, WESTBOROUGH, MA
Applicant's Mailing Address 01581

IN-BUILDING CELL SERVICE
Project Name/Description

Sebast Technics/Charlie Brown/207-856-0277
Consultant/Agent/Phone Number

102 HUTCHINS DR, PORTLAND, ME
Address of Proposed Site

CBL: 240-A-2

Description of Proposed Development:

ROOFTOP INSTALLATION OF VERIZON WIRELESS EQUIPMENT
ON THE EXISTING UNUM BUILDING.

Please Attach Sketch/Plan of Proposal/Development

Criteria for Exemptions:

See Section 14-523 (4) on back side of form

- a) Within Existing Structures; No New Buildings, Demolitions or Additions
- b) Footprint Increase Less Than 500 Sq. Ft.
- c) No New Curb Cuts, Driveways, Parking Areas
- d) Curbs and Sidewalks in Sound Condition/Comply with ADA
- e) No Additional Parking/No Traffic Increase
- f) No Stormwater Problems
- g) Sufficient Property Screening
- h) Adequate Utilities

Applicant's Assessment (Yes, No, N/A)	Planning Office Use Only
YES	✓
YES	✓
YES	✓
N/A	✓
YES	✓
YES	✓
YES	✓
YES	✓

Planning Division Use Only

Exemption Granted Partial Exemption _____ Exemption Denied _____

The applicant is notifying FAA regarding antenna -

Planner's Signature Barbara Breydt Date 2/16/07

February 8, 2007
07017

Marge Schmuckal
Zoning Administrator
389 Congress Street
Portland, Maine 04101

Site Plan Review Exemption
Verizon Wireless, Unum

Dear Marge:

On behalf of Verizon Wireless, please find the attached application for exemption from site plan review for an antenna installation on the rooftop at the Unum office at 102 Hutchins Drive in Portland. The proposed Verizon Wireless equipment will consist of an external parabolic style antenna that is 68 inches long, 36 inches wide, and 18 inches high, with a 24-inch square external planar array style antenna. The antennas will be located on the existing utility platform on the roof and will face the Portland International Jetport. Internal equipment includes bi-directional amplifiers and six indoor antennas, which will be 6-inches in diameter and 3-inches deep. The internal equipment will be located in a facilities room on the second floor and antennas throughout the interior building, attached to the suspended ceiling tile system.

This is an unmanned facility and access to the facility will only be required for routine maintenance and repairs. Therefore, it is not anticipated that there will be any noticeable increase in traffic and no additional parking will be required. No additional utilities will be required for this equipment.

A Site Plan is attached showing the proposed equipment roof location. The following items on the City of Portland Site Plan Checklist were considered non-applicable for this application:

- (1) Standard boundary survey.
The boundaries are based on those shown on the Final Plan for Stroudwater Estates.
- (6) Topography.
No changes are proposed to the site.
- (8) Existing soil conditions.
No changes are proposed to the site.
- (9) Location of watercourses, marshes, rock outcroppings, and wooded areas.
None observed on the improved portion of the site; see attached photo and Site Plan NW corner.

- (10) Location, ground floor area and grade elevations of building and other structures existing and proposed, elevation drawings of exterior facades, and materials to be used.
No changes are proposed to the building.
- (13) Public utilities.
Public utilities currently exist.
- (14) Water and sewer mains.
Water and sewer mains currently exist.
- (15) Culverts, drains, existing and proposed, showing size and directions of flows.
No changes proposed.
- (16) Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed.
Access easement shown.
- (20) Design of ingress and egress of vehicles to and from the site onto public streets.
No changes proposed.
- (21) Curb and sidewalks.
No changes proposed.
- (22-29) Landscaping Plan.
No changes proposed.
- (30) Location and dimensions of all fencing and screening.
No changes proposed.
- (31) Location and intensity of outdoor lighting system.
No changes proposed.
- (32) Location of fire hydrants, existing and proposed.
No changes proposed.
- (35) Quantity and type of residential, if any.
Site is not residential.
- (38) General summary of existing and proposed easements or other burdens.
None known other than access easement.
- (39) Method of handling solid waste.
None anticipated.
- (40) Applicant's evaluation of availability to off-site public facilities, including sewer, water and streets.
Not required for this installation.
- (41) Description of problems of drainage or topography, or a representation that there are none.
None known.
- (44) The status of any pending applications.
None known.
- (45) Anticipated timeframe for obtaining such permits.
As soon as possible.
- (46) A letter of non-jurisdiction.
None anticipated.

To support this application, please find copies of the following documents:

- 1) System Layout Plan for the 1st & 2nd floors.
- 2) Three antenna specification sheets.
- 3) Updated Site Plan.
- 4) Site Plan Exemption Checklist.

Please contact me with any questions you have regarding this application. We look forward to speaking with you regarding this application for exemption from site plan review.

Sincerely,

SEBAGO TECHNICS, INC.



Amik Nadeau
Design Engineer

AN:an/kn
Encl.

cc: Bob Hogan, Verizon Wireless
Chuck Webberly, VSI



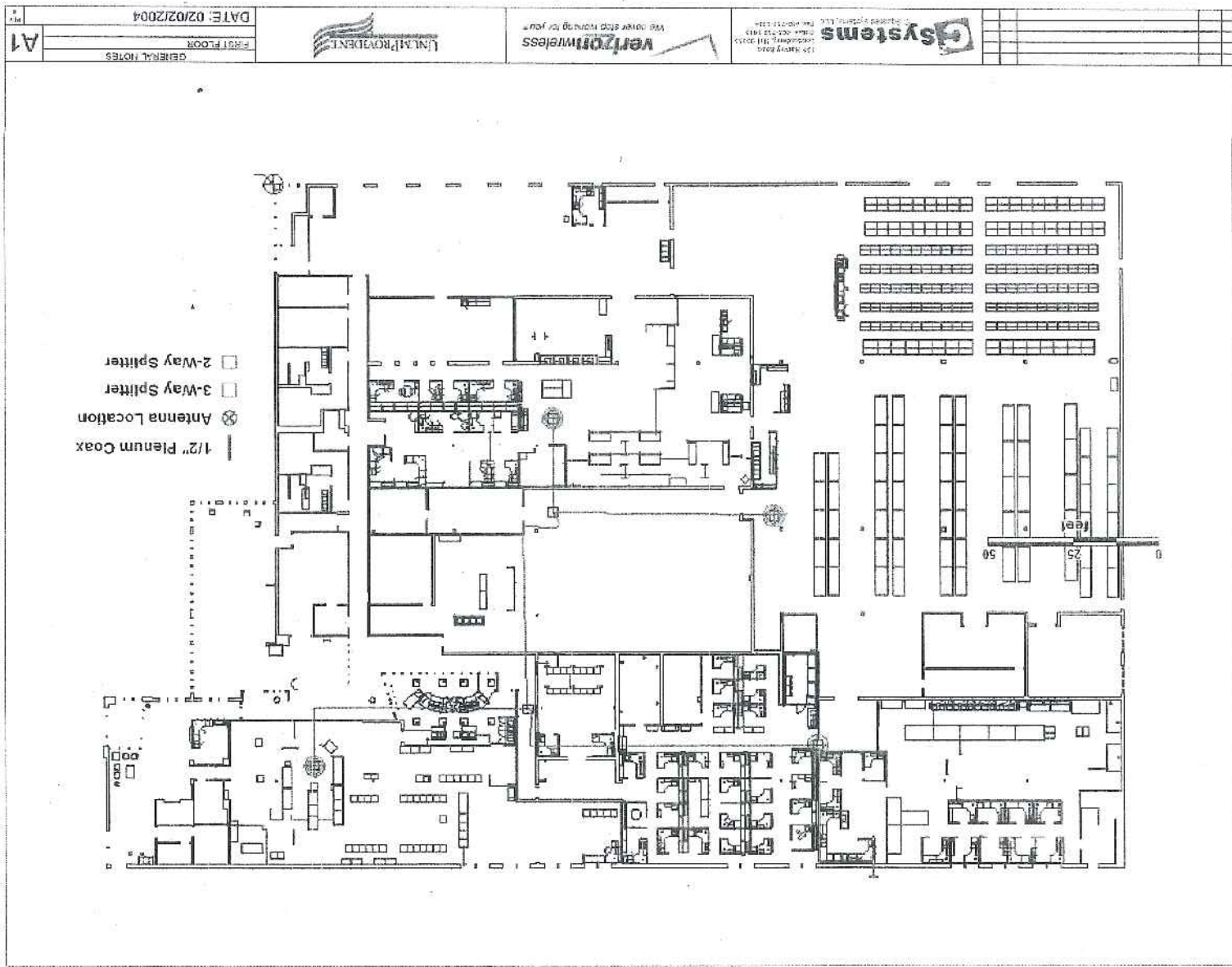


Figure 6: System Layout – First Floor

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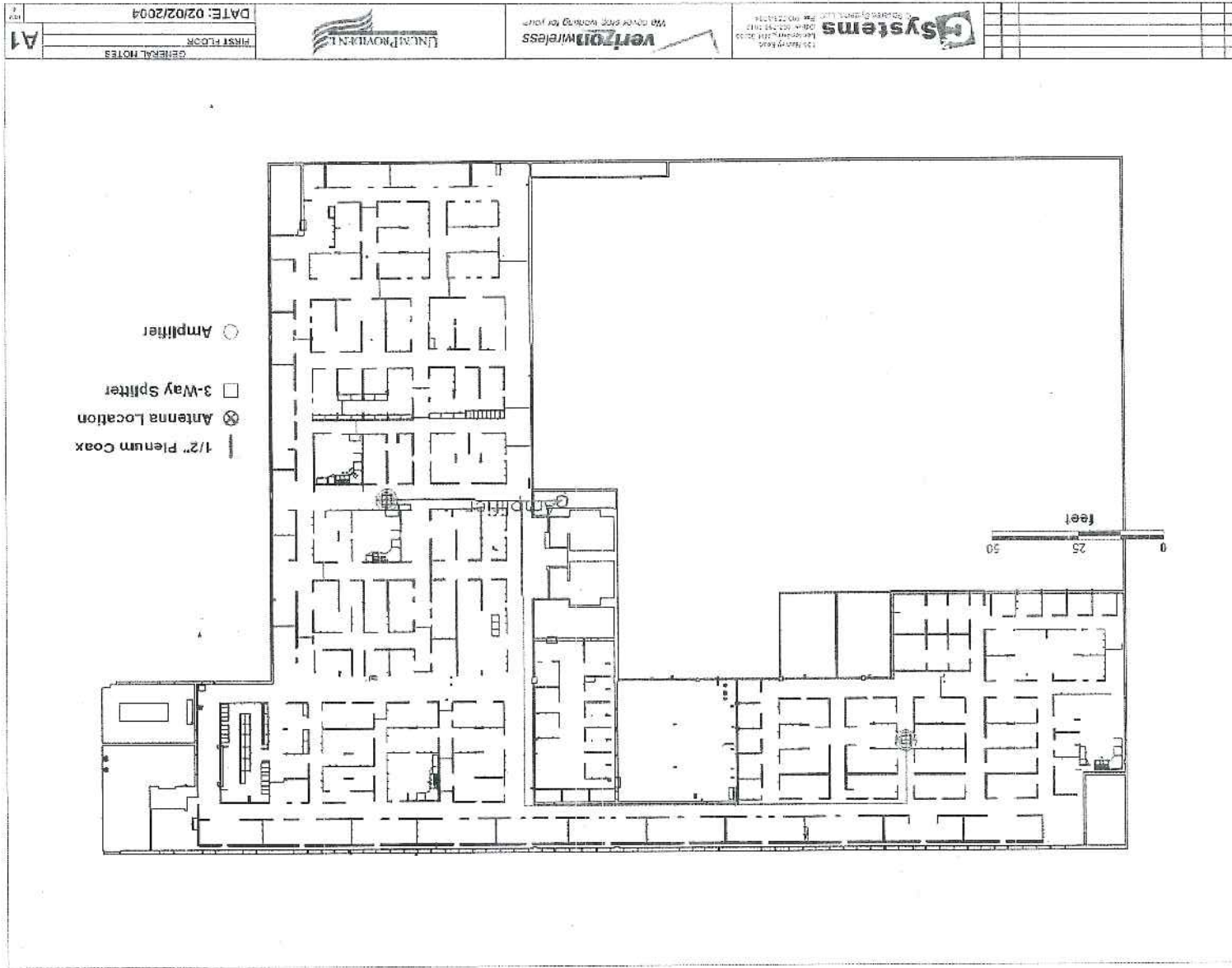


Figure 7: System Layout – Second Floor

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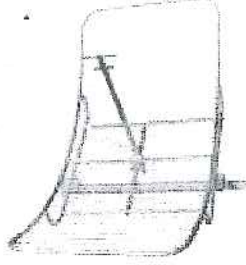
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ATTACHMENT A: Donor Antennas

VERIZON SCALA DIVISION

PR-850 High-Gain Half-Parabolic Antenna



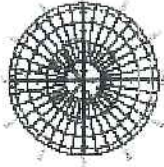
The Kathrein-Scala Parafector® is a high-gain half-parabolic antenna used in broadcast and communications systems around the world.

High front-to-back ratio for point-to-point relay system applications, as well as GSM cellular repeaters and MAS and GSM systems.

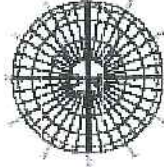
Fabricated from seamless drawn aluminum tubing and extruded pipe and heavy aluminum castings. Gold anodized for corrosion protection, plus stainless steel hardware and fastenings. Foam-filled broadband feed assembly requires no pressurization and can be easily replaced if necessary.

Specifications:

Frequency range	508-598 MHz (broadband)
Gain	18 dBd
Impedance	50 ohms
VSWR	< 1.5:1
Polarization	Horizontal or vertical
Front-to-back ratio	> 55 dB
Maximum input power*	100 watts (at 50°C)
H-plane beamwidth	12 degrees (half-power)
E-plane beamwidth	24 degrees (half-power)
Connector	N female
Weight	35 lb (17.2 kg)
Dimensions	36 x 26 x 16 inches (9127 x 614 x 407 mm)
Equivalent flat plate area	6.35 ft ² (595 dm ²)
Wind survival rating*	100 mph (160 km/h)
Shipping dimensions	40 x 35 x 7 inches (1016 x 814 x 178 mm)
Shipping weight	47 lb (21.3 kg)
Mounting	Mounting kits available for models of 2, 3, 75 to 4.5 inches (50 to 114 mm) OD.



H-plane
Horizontal pattern - V-polarization
Vertical pattern - H-polarization



E-plane
Horizontal pattern - H-polarization
Vertical pattern - V-polarization

* Mechanical design is based on environmental conditions as specified in EIA-320-F (June 1996) and/or EIA-320-D-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

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Point to Point Antennas

Model No. A-18A24*-x

1900 MHz Planar Array

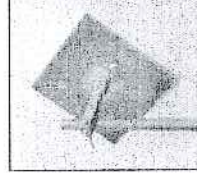
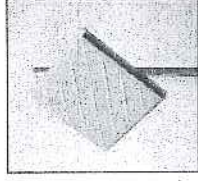
Electrical Specifications:

Frequency:	1850 - 1920 MHz
Gain:	20.0 dBi (17.9 dBC)
Azimuth Beamwidth:	14.2°
Elevation Beamwidth:	14.2°
Input Impedance:	50 ohms
VSWR:	< 1.5:1
Polarization:	Vertical or Horizontal
Electrical Downlink:	0*
Port to Port Ratio:	> 35 dB
Side-lobe Level (elevation):	> -47 dB (180° < θ < 9.5 100°)
Side-lobe Level (azimuth):	> -35 dB (80° < θ < 9.5 100°)
Intermodulation:	> 147 dBc for 2 x 20 W carriers
Input Power:	100 W
Input Connector (*):	(N)-Female or (E)7/16-DIN-Female

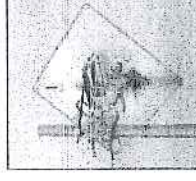
20.0 dBi

14.2° Az

V-Pol



C-Mount



U-Mount

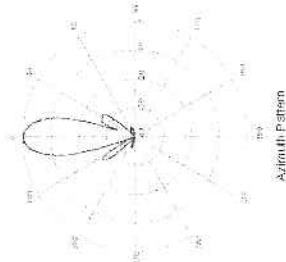
Mechanical Specifications:

Frontal Wind Load at 100mph (60 km/h, 45 m/s):	200 lbf (890 N)
Dimensions:	26 x 26 x 11.6 in (660 x 660 x 46 mm)
Weight:	Antenna: 18 lbs (8.2 kg) Pole: 2.0 - 4.5 in (48 - 115 mm) dia **
Mounting Hardware:	(N) = (C) C-Mount or (U) U-Mount
Mounting Bracket (included):	505-126-5-001
Survival Wind Speed:	125 mph (201 km/h)
Operating Wind Speed:	60 mph (97 km/h)
Weight:	6 lbs (2.7 kg)
*U-Mount Part Number:	505-110-5-016
Survival Wind Speed:	125 mph (201 km/h)
Operating Wind Speed:	75 mph (121 km/h)
Weight:	13 lbs (6.6 kg)

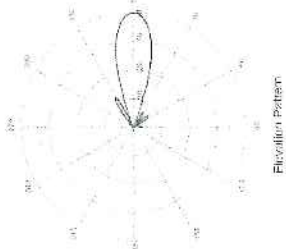
* 2004 CSA Wireless reserves the right to modify or change the specifications shown above.

** Mounting Extender Kit is available for up to 16 inch diameter pipe Part No. 505-157.5-001 (P-Foot Planar Array only)

Typical Radiation Patterns:



Azimuth Pattern



Elevation Pattern

International Office
Tel: +1 (833) 715-914 Fax: +1 (833) 694-7154
e-mail: international.sales@csa-wireless.com

Americas Office
Tel: +1 (833) 460-2412 Fax: +1 (833) 460-2412
e-mail: sales@csa-wireless.com

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ATTACHMENT E: Cell Max Dual Band Antenna

new product announcement

Cell-Max™

Omnidirectional In-Building Antennas for Wireless Applications

Andrew Corporation's Cell-Max™ series of in-building antennas are a uniquely effective and unobtrusive solution to enhancing your in-building wireless coverage.

Cell-Max antennas feature a unique multi-banded design that allows a wide range of frequencies to be covered by one small antenna. Created primarily for office environments, Cell-Max antennas are also ideally suited to parking garages, airports, shopping malls, and other difficult coverage areas.

Designed for simple installation and minimal visual impact, Cell-Max antennas support both existing and future wireless applications, including 3G and 802.11b wireless LAN.

An integral low-loss coaxial cable pigtail eliminates connectors, reducing overall system cost as well as the losses associated with connector junctions.

By combining Cell-Max antennas with other in-building products such as the InCall™ fiber optic distributed antenna system, RADMAX® cable, indoor repeaters, coaxial taps, and accessories, Andrew can provide a complete solution to your internal wireless coverage needs.

Features

- Aesthetically pleasing; compact and visually unobtrusive
- Multi-banded to cover future 3G applications
- VSWR <1.5 or better across all bands
- Installs easily in minutes with standard tools
- Part of a complete system solution
- Omnidirectional pattern provides flexibility in mounting locations

The unobtrusive solution to enhancing your in-building wireless coverage



Connecting the Wireless World

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Anik Nadeau

From: Charlie Brown
Sent: Tuesday, March 06, 2007 1:27 PM
To: 07017
Subject: FW: Verizon Antenna

From: Owens McCullough
Sent: Tuesday, March 06, 2007 11:44 AM
To: Charlie Brown
Cc: '07017'
Subject: FW: Verizon Antenna

Here you go. Send this onto the City.

Thanks,

Owens

-----Original Message-----

From: Darth1129@aol.com [mailto:Darth1129@aol.com]
Sent: Tuesday, March 06, 2007 11:42 AM
To: Owens McCullough
Subject: Re: Verizon Antenna

Owens-

Based on the proposed data, you are correct, the antenna will not penetrate any surface that would trigger the filing of FAA form 7460. Thanks for checking.

Artie Sewall
Director of Operations
Portland Int'l Jetport
1001 Westbrook St.
Portland, ME 04102
207 233-1733
207 772-0466
207 828-0991 Fax
darth1129@aol.com

AOL now offers free email to everyone. Find out more about what's free from AOL at <http://www.aol.com>.

SEBAGO TECHNICS, INC.
 One Chabot Street
 P.O. Box 1339
 WESTBROOK, ME 04098-1339

Phone (207) 856-0277 FAX (207) 856-2206

LETTER OF TRANSMITTAL
 15450

DATE	3-14-07	JOB NO.	07017
ATTENTION	BARBARA BAEHYOT		
RE:	VERIZON WIRELESS UNUM		

TO PLANNING DEPT. - DEVELOP. REVIEW
PORTLAND, ME
PROGRAM

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:
 Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
2	2-8-07		SITE PLAN EXEMPTION

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
- For your use Approved as noted Submit _____ copies for distribution
- As requested Returned for corrections Return _____ corrected prints
- For review and comment _____
- FOR BIDS DUE _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS PLEASE FIND ATTACHED 2 COPIES OF THE SITE PLAN
EXEMPTION APPLICATION. ADDITIONALLY, I HAVE SENT A COPY OF
THE E-MAIL FROM BETTIE SEWALL (PORTLAND JEFFREY) TO OWENS
MCCULLOUGH (STI) IN REGARDS TO FAA REQUIREMENTS. PLEASE
CALL IF THERE ARE ANY QUESTIONS.

COPY TO _____ SIGNED: Arik Nadeau

If enclosures are not as noted, kindly notify us at once.