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GreenBuilder

DEFINING GREEN

Green Tech

Sustainable housing and technology share common roots when it comes to treading lightly on Earth. Our special report highlights innovations that work! page 30

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Greenbrier Expands Its Healing Ways

Going green is neither new nor thorny for landmark resort.

West Virginia's famed Greenbrier has long symbolized the healing power of nature for an illustrious clientele. Even the golf course is a Certified Audubon Cooperative Sanctuary. Now the resort will include 56 green homes.

Taking both process and inspiration from the NAHB's Model Green Home Building Guidelines, the Greenbrier Sporting Club, will be an entirely green-certified neighborhood. The Greenbrier Resort is on 6,500 acres of mountains, forests, fields, and streams. The 56-lot Greenbrier Sporting Club is the newest neighborhood in the gated Summit community; 72 percent of its 213 acres will be dedicated to open space. Builder and developer DPS Sporting Club Development, N.Y., spent 11 years developing the White Sulphur Springs, W.V., the houses of which will be built with Timberpeg post-and-beam homes. The factory-made frames (fabricated of sustainable wood) are clad with SIPs clad in sustainable cedar. Even the cedar shingles are cut from smaller stock or fallen trees. Panelized foundations are similarly green and minimally invasive well-insulated prefabricated systems. New York–based architect/interior designer Campion Platt developed an entire palette of green finishes and complemented his color suites with complete eco-furniture packages for buyers seeking turnkey homes. Homes will capture and recycle rainwater.

DPS caps its commitment to smaller footprint development by limiting the total square footage of houses to less than 5,000 square feet.

WHAT'S SO GREEN ABOUT IT?

- Greenbrier Sporting Club pioneers use of NAHB Green Home Building Guidelines.
- Building materials are sourced within 300 miles of the site.
- The flooring is made from local reclaimed wood or indigenous, regionally harvested, sustainable oak.
- Countertops are made from regional soapstone, granite, or marble.
- Landscaping reuses/relocates indigenous plants and on-site materials, such as stone for retaining walls.
- Geothermal HVAC options.

Resources

Campion Platt Architect
www.campionplatt.com
Foundation system
www.superiorwalls.com
Green Homes at The Greenbrier
www.greenbriergreenhomes.com
NAHB's Model Green Home Building Guidelines www.nahb.org/generic.aspx?genericContentID=56077
Sterling Construction Management
www.scmwv.com
Timberpeg
www.timberpeg.com

PROJECT DPS Sporting Club Development, New York **SIZE** 3,055-4,880 square feet **NEIGHBORHOOD SIZE** 213 acres and 56 lots **PRICE** Homesites start at $650,000 **BUILDER** EarthWise Homes of Sterling Construction, White Sulpher Springs, W.V. **ARCHITECT/INTERIOR DESIGNER** Campion Platt, New York

Maximize Efficiency, Minimize Waste

Mixed-use green development harnesses, air, sun, water, and wind.

Project 12W is shooting for LEED Platinum. This 22-story mixed-use project features five floors of below-grade parking, a single floor of ground-level retail, four floors for Zimmer Gunsul Frasca Architects national headquarters and 17 floors of residential apartments. Structural steel and aluminum spandrel panels are among the recycled and reclaimed construction materials, say architects John Breshears and Craig Briscoe. Construction waste will be recycled. Stormwater management includes green roofs, and a 30,000-gallon tank (in the subterranean garage) to catch and recycle rainwater. The building also features passive solar hot water heating. Unlike many tall building, windows at 12W open and close. The architects' offices will feature an innovative HVAC technology popular in Germany and Denmark; employees can control their own comfort. Air circulates at low velocity under the floor with controllable vents at each work station; a Danish product will hang from the ceiling to heat and cool the circulating air. Individuals can control both the temperature and air-flow where they work. What intrigues the architects most are the four turbines on 40-foot masts. The design has been wind-tunnel tested, a process that Breshears says made something "invisible visible and comprehensible." Wind should provide roughly one percent of the building's power (making Wind slightly symbolic) but even one percent denotes a sense of purpose when it tops a 22-story building. 12W will monitor building systems. performance. GB

WHAT'S SO GREEN ABOUT IT?

- Mixed use means pedestrian friendly.
- LEED Platinum rated.
- Green roofs moderate climate and add decorative pleasure to the building's outdoor decks. 30,000-gallon rainwater catchment hides under the parking-garage stairs.
- Four turbines expected to produce one percent of the building's overall power. With 22 stories plus five of underground parking one percent is more than pocket change.
- Structural steel and aluminum spandrel panels are recycled material.
- Windows open for natural ventilation.

Resources

Energy Trust of Oregon
www.energytrust.org
Gerding Edlen Development
www.gerdingedlen.com
Portland Office of Sustainable Development
www.portlandonline.com/bes <http://www.portlandonline.com/bes>
Zimmer Gunsul Frasca Architects
www.zgf.com

PROJECT Project 12W, Portland, Ore. **SIZE** 22 above-ground floors, five floors underground parking **USE** Mixed use: first floor retail, four floors commercial (85,000 square feet), 17 floors expected to have 275 rental apartments, ranging in size from studios to one-, two- and three-bedrooms. **PRICE** $137 million **EXPECTED COMPLETION** May 2009 **BUILDER/DELELOPER** Gerdin Edlen Development Co., Portland; the Goodman family. **ARCHITECT** Zimmer Gunsul Frasca Architects, Portland