



2000 EARTH DAY TOP TEN

**ARCHITECTS SELECT BEST EXAMPLES OF
ENVIRONMENTALLY RESPONSIBLE DESIGN SOLUTIONS**

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For Immediate Release

WASHINGTON, D.C., April 18, 2000– In recognition of Earth Day 2000, The American Institute of Architects (AIA) has selected 10 examples of viable architectural design solutions that protect and enhance the environment. The facilities, selected by the executive committee of the AIA Committee on the Environment (COTE), address one or more significant environmental challenges that have a lasting and positive impact on the built and unbuilt environment such as energy and water conservation, use of recycled construction materials, and design that improves indoor air quality. The COTE represents more than 1,600 AIA architects committed to making environmental considerations and sustainable design integral to the practice of architecture.

Committee members selected the facilities for a variety of reasons, including environmentally responsible use of building materials, use of daylight over artificial lighting, designs that create efficiency in heating or cooling, and overall sensitivity to local environmental issues.

For more information on the facilities or to obtain images, contact the architects directly (email addresses are included for each). For information on how to “green” your home, contact housing expert Gail Lindsey, AIA, at (919) 562-7085. (e-mail:

Glindsey@ipass.net.

The projects selected for the 2000 Earth Day Top Ten are (listed in alphabetical order):

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AIA Earth Day Top Ten -2-

Bainbridge Island City Hall

Bainbridge Island, Washington

The Miller|Hull Partnership; Kathleen O'Brien (Green Consultant); Jeff Wartelle (Forest Stewardship Council)

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The new City Hall will bring five departments together under one roof, resulting in a more efficient operation for this newly incorporated city. The project features non-toxic or non-ozone depleting materials, including the region's first major installation of Certified Wood. Recycled content or reused materials have been applied, and the City's stormwater management system was significantly upgraded as part of site preparation. Daylighting, optimized natural ventilation, and non-toxic finishes will provide a healthier and safer indoor environment for City Hall employees and others using the building.

C.K. Choi Building for The Institute of Asian Research, University of British Columbia

Vancouver, British Columbia, Canada

[Matsuzaki Wright Architects Inc.](#)

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Primary features include:

Maximization of daylight and natural ventilation. Fifty-seven percent below Ashrae 90.1 energy consumption. Occupancy and daylight sensors control lighting. Atria facilitate natural ventilation by inducing a stack effect. Ventilation strips under windows ensure continuous air change. Double glazed windows have low conductivity insulating frames.

Reused, Recycled Materials. Exterior bricks are recycled from Vancouver city streets. 60% of timber beams are salvaged from a demolished 1930's building. All doors and frames are reused from demolished buildings. Drywall contains 17 - 26% recycled gypsum and 100% recycled paper for the face boards. The carpet is laid without adhesives. The underlay is a felt made from 100% recycled fibers.

No Sewer Connection. Nine composting toilets and 3 urinals require no water. Gray water from all sinks is recycled and used for irrigation. Rainwater is collected from the roof and used for summer irrigation.

The Emeryville Resourceful Building Project

Emeryville, California

Siegel & Strain Architects

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This three-unit affordable project, which won a 1999 Progressive Architecture Research Award, "proved that affordable housing and environmental sustainability are not mutually exclusive goals," according to that award's jury. The project focused on increasing energy efficiency, lowering operating costs, reducing resource consumption and creating healthy indoor environments using only conventional means of construction common to builders of affordable housing projects. "Addressing disciplines that ranged from design to life-cycle assessment to energy analysis," a jury member commented, "and conducting research in the office as well as in the field, the team discovered that the cumulative effect of small environmental improvements combined with selected cost-saving measures can generate significant results."

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AIA Earth Day Top Ten –3-

The Green Institute's Phillips Eco-Enterprise Center (PEEC)

Minneapolis, Minnesota

Master Planning: Sirny Architects; Architects, Workplace Designers, Engineers: LHB Engineers & Architects; Restoration Ecology: Applied Ecology; Energy Analysis: The Weidt Group; Contractor: Kraus-Anderson Construction Co.; Leasing: Welsh Companies

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The Phillips Eco-Enterprise Center (PEEC) connects an under-employed labor force to employers in ecologically sound businesses. Rooted in community resistance to the county's plans to construct a solid-waste transfer station at this site, local activists succeeded in building a base for better employment opportunities. The PEEC is seen as an expression of the Green Institute's mission, which is to "create community-based models to protect and nurture our natural and urban environment through education and sustainable economic development." Sustainable design elements on the 3.4 acre inner-city brownfield site redevelopment project include geo-exchange heating and cooling, sun-tracking daylighting, air-to-air energy recovery, and salvaged steel joists, wood and brick.

Hanover House

Hanover, New Hampshire

Energysmiths

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The Hanover House is a solar heated, superinsulated home that is one of the lowest energy use houses in North America. Indoor environmental quality, durability, and material resource efficiency were as important as low energy consumption. Key features include superinsulation, superglass, heat recovery ventilation, airtight construction, and passive solar design. Durable and healthy materials include certified cedar shingles, linoleum, tile, and local hardwood floors. The house is extremely comfortable, with even temperatures and proper humidity, and features a very low maintenance design and a low water usage.

Lady Bird Johnson Wildflower Center

Austin, Texas

Overland Partners, Inc.

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This new facility accommodates research, education and visitor needs on a 40-acre site. The Center is designed as a series of outdoor spaces and facilities, including visitors' galleries, a 250 seat auditorium, classrooms. Features include a gift shop and tea room, botanical library and research labs with a focus on the education of visitors about the use of native plants and demonstrating an ecologically sensitive approach to the development of a site with fragile environmental conditions. The facilities and the program they support model "total resource conservation" while showing the beauty of native landscape. Uniting the entire complex is a rainwater capture and reuse system, the largest of its kind conceived in the United States at the time of construction. Passive solar heating, pragmatic building orientation, use of recycled and reclaimed materials, and use of excavated material, is integrated in the design.

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AIA Earth Day Top Ten –4-

New South Jamaica Branch Library

Queens, New York
Stein White Architects
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The energy performance of the Library is integral to the basic architectural design, supported by a sophisticated mechanical/electrical/control system. The building's relationship to the sun drives the architectural form, and the changing effects of natural light are significant to the quality of the interior space. Automated controls regulate shades, lights and ventilation dampers depending on the time of day and year. In the summer, daylight levels are limited to those required for library operation. In the winter, the building captures maximum daylight with the excess heat being introduced into the building mass for storage. The building also uses construction materials efficiently including recycled products.

Department of Environmental Protection (DEP) Ebensburg

Ebensburg, Pennsylvania
Kulp Boecker Architects, P.C.
Miller Bros. Construction, Inc. (contractor/developer)
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“Green” highlights include a 16 KW PV array (the second largest in PA), underfloor supply air plenum air distribution coupled with ground source heat pump supply, PowerDOE modeling that indicates annual energy consumption at under 25,000 btu/sf or 60% better performance than ASHRAE 90.1, and an initial pass through LEED Version 2.0, which indicates that the project might be capable of achieving a platinum rating. The project, upon completion, will successfully address the following environmental issues: site sustainability; improved energy efficiency; sustainable materials and resource conservation; enhanced air quality; copious natural daylighting; and reduced water consumption.

McLean Environmental Living and Learning Center (ELLC)

Northland College, Ashland, Wisconsin
LHB Engineers & Architects, Architect of Record & Sustainable Building Design Consultant
HGA, Design Architect/Engineers
The Weidt Group, Energy Analysis
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This 40,000-square foot student-housing complex is used in curriculum for 114 residents learning about energy performance, materials, building life cycles and sustainability. Computers monitor the building's renewable systems- a 20-kilowatt Jacobs Wind Turbine, a solar domestic hot water system, and three photovoltaic panels. LHB designed and specified systems and materials and involved students in throughout the design process. Features include: operable windows instead of air conditioning and using products such as linoleum and low VOC finishes ensured exceptional indoor air quality, which is being monitored. Low-flow showers and toilet fixtures and composting toilets, high efficiency gas boilers and light fixtures were installed, reducing resource consumption. Resource efficiency was addressed with recycled content materials, biocomposite counter surfaces, low maintenance masonry, and regionally harvested wood.

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AIA Earth Day Top Ten -5-

World Resources Institute Headquarters Office

Washington, D.C.

Sandra Mendler, AIA, for HOK

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The goal of the project was to express WRI's values in physical terms. Every material was chosen because it uses natural resources efficiently; many were chosen because they are alternatives to conventional, but less environmentally friendly, products. The design also focused on recognizing the manufacturers of materials and systems that are moving towards sustainable business practices. All wood is sustainably harvested or salvaged, and many alternatives have been used such as bamboo flooring and biocomposites made from wheat straw, soy, and sunflower seeds for doors, cabinetry, and substrates. The result of these and other sustainable materials is elegantly minimal, with a soft curvilinear form and eased edge. Lighting fixtures save 70 percent of the electrical energy that is typically used by energy efficient recessed fluorescent fixtures. Photos, audio, and additional background information on WRI can be found on its web site at www.wri.org/wri/office.

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Note to editors: To obtain images electronically, please contact Mike Janes at (202) 626-7467, email mjanes@aia.org, or contact the architect directly.