

PROJECT PROFILE



FERNALD PRESERVE VISITORS CENTER HARRISON, OH

77% of site restored with native and/or adaptive plantings

91% of existing storage building reused

48% reduced energy use compared to standard ASHRAE code



LEED® Facts

Fernald Preserve Visitors Center
Harrison, OH

LEED for New Construction
Certification awarded September 20, 2008

Platinum **53***

Sustainable Sites 10/14

Water Efficiency 5/5

Energy & Atmosphere 13/17

Materials & Resources 8/13

Indoor Environmental Quality 12/15

Innovation & Design 5/5

*Out of a possible 69 points

FERNALD PRESERVE VISITORS CENTER

From Weapons to Wetlands

Warehouse on site of a former uranium foundry transformed into Ohio's first LEED Platinum

PROJECT BACKGROUND

Fernald began operations in 1951 as a uranium ore processing facility that served as the first link in America's nuclear weapon's production cycle. The contributions of the many pioneering men and women who worked there helped bring the Cold War to a peaceful end. Production ceased in 1989 and a commitment was made by the U.S. Department of Energy to do three things at Fernald: close it, clean it up, and give it back to the community. The \$4.4-billion cleanup was one of the largest undertaken in the nation's history. The site has been cleaned to the standards established by the community and approved by the U.S. and Ohio Environmental Protection Agencies as being protective of human health and the environment.

IMPORTANT HISTORICALLY AND EDUCATIONALLY

From a desire to create a community asset and tell the story of Fernald, the Department of Energy committed to developing the Fernald Preserve and the Visitors Center. The exhibits in the Center depict the diverse history of the site and tell the story from the time of Native Americans, to the arrival of settlers and farmers, to the uranium-processing years, to the environmental cleanup, and the legacy management period that continues today.

STRATEGIES AND RESULTS

Unique sustainable site solutions – the transformation of the brownfield site was reinforced at the Visitors Center by an integrated landscape management program restoring 77% with native and/or adaptive plantings that will require no irrigation. Water use efficiency is demonstrated by reducing use 41% by installing low-flow/low-flush urinals, toilets and lavatories. A unique bio-treatment constructed wetland system treats 100% of the wastewater to the highest tertiary standards.

Superior energy efficiency and reduced atmospheric pollution solutions resulted in energy performance 48% better than ASHRAE 90.1-2004 Appendix G baseline by using high efficiency windows, reduced lighting power densities and high efficiency HVAC equipment. A ground source heat-pump system installed in a 14' deep lake on site provides heating and cooling to the Center. All of the building's annual electric usage comes from the purchase of Green-e Certified renewable energy credits.

Exemplary, sustainable material conservation efforts included: 91% usage of an existing storage building, 75% of construction waste was diverted from landfills, 23% of the total value of materials was recycled, 43% of the project's materials was manufactured within 500 miles of the site, and 51% of wood used was made of recycled content.

Creating a healthy environment for staff and visitors by increased ventilation and use of materials that don't emit harmful chemicals were design goals throughout the Center. Window placements were designed to optimize daylight in all seasons.

Innovation in design objectives were achieved with a Green Cleaning program and Green Educational exhibits' exemplary performances.

ABOUT FERNALD PRESERVE VISITORS CENTER

The primary purpose of the Visitors Center is to provide information and context on the remediation of the Fernald site, including information on site restrictions, ongoing maintenance and monitoring, residual risk information, and to fulfill an informational and educational function within the surrounding community. The ecological restoration is transforming the site into a haven for wildlife. Over 170 varieties of birds including waterfowl, shorebirds, and songbirds have been observed.

“Fernald Preserve Visitors Center points toward a greater understanding of the world around us and a future that will depend upon increased energy efficiency and enhanced environmental responsibility across all sectors as we seek to secure our energy future.”

Acting Department of Energy, Deputy Secretary Jeffrey F. Kupfer



Owner: Department of Energy's Office of Legacy Management

Prime Contractor: S.M. Stoller Corporation

Architect: glaserworks Architecture and Urban Design

Builder: Megen Construction Company

Engineering: BC&E Engineering, KLH Engineers, RPC Mechanical, Southwest Services, URS, and Water Quality Systems Inc.

Exhibit Design: University of Cincinnati's College of Design, Architecture, Art, and Planning (DAAP)

Project Size: 10,800 square feet

Total Construction Cost: \$3 million

Cost Per Square Foot: \$278

Location: 7400 Willey Road, Crosby Township, Harrison, OH 45013-9402, Hrs: Wed. thru Sat. 9 a.m. to 5 p.m.
Phone: (513) 648-6000
Email: fernald@lm.doe.gov

ABOUT LEED

The LEED® Green Building Rating System™ is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S. Green Building Council's Web site at www.usgbc.org to learn more about LEED and green building.



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