Green Schools

green school / a school building or facility that creates a healthy environment that is conducive to learning while saving energy, resources and money
-- U.S. Green Building Council

Ohio School Facilities Commission

Why green schools?

A high performing school building has a positive impact on the local community. School facilities that are built according to the Ohio School Design Manual standards have long been recognized for the positive impact on academic achievement. The Green Schools Initiative will enhance the benefits of Ohio's public school facilities and support schools that run even more efficiently. By promoting the design and construction of green schools, we can make a tremendous impact on student health, test scores, teacher retention, school operational costs and the environment.

OSFC elected to use the U.S. Green Building Council's LEED® for Schools rating system as our roadmap for documenting and measuring the progress of our Green Schools Initiative. The LEED Green Building Rating System is the national benchmark for high performance green buildings. The LEED for Schools certification provides parents, teachers and the community with a "report card" for their school buildings – verifying that the school has been built to meet a high level of energy and environmental performance. LEED Gold or Silver Certification is proof the project achieved its green goals.

Schools in districts that were approved for funding after September 2007 are required to meet at least LEED Silver Certification, with a goal of meeting the LEED Gold level. Participation in this program is voluntary for school districts that were approved for funding prior to the adoption of the new energy and environmental standards.

Better Places to Learn

Green schools are healthy for kids and conducive to getting the best out of their educational experience. Studies have shown that green schools promote a healthy learning environment:

- Natural light and outside views boost attention
- Good indoor air quality improves health
- Proper acoustics increase learning potential
- Moisture and mold prevention decrease asthma and allergy related illness
- Comfortable and balanced indoor temperatures increase comfort and ability to concentrate

Green Schools provide:

- *A healthy, productive learning environment*
- *Improved teacher retention*
- *Reduced utility costs*
- *Best practices in environmental and resource stewardship*

Standard construction materials such as paints, coatings, adhesives, sealants, flooring materials, insulation and composite woods can emit harmful gases. By using low-emitting versions of these products and designing to prevent mold, the health effects of allergies and asthma can be reduced or eliminated. Daylighting, acoustics and ventilation design supports student health and performance.

Healthy Places to Teach & Work

Green schools aren't just good for kids. Excellent indoor air quality means improved health for everyone. Our teachers deserve healthy spaces in which to teach our children.

Healthy, satisfied staff save our schools money. Green schools commonly report reductions in staff absenteeism and turnover.

Green Schools

Hands On Learning: Schools As A Learning Laboratory

Students learn best when they are engaged and inspired. Imagine the learning potential when the school building itself becomes an interactive teaching tool, educating the next generation of sustainable leaders through hands-on learning. For example:

- High school students learning about alternative energy from the solar panels on their roof.
- Middle school students studying ecosystems in their constructed wetland.
- Kindergartners learning how recycling keeps our precious resources out of the waste stream.

Students can learn concepts such as energy, recycling and natural sciences by turning off lights, conducting classroom energy audits, composting food waste, studying the natural environment right outside the door and more.

Lower Operating Costs

Energy efficient schools save money by conserving energy resources while they improve indoor environmental quality. A building that is oriented to make use of light and heat gain from the sun is optimal. Even when the building's orientation can't be optimal, you can still have a high performance building. Efficient heating and cooling systems are those that are properly sized for the facility, include control systems that monitor and optimize building systems, and are serviced on a regular basis to maintain performance. A school's lighting systems may use high efficiency lamps; however, it is also important to maintain constant lighting levels in a room by integrating electronic lighting with daylighting strategies. The building envelope—the roof, exterior walls, interior walls, windows, and entry ways—all contribute to the efficiency of a building. Learning how your building uses and optimizes shading, insulation levels, thermal mass, glazing, air flow, and surface reflectivity is an important step to determining how it uses energy.

Environmentally Responsible

Green schools lessen environmental impacts through responsible approaches to site, reduced demand on municipal infrastructure and recycling during and after construction. Like other green buildings, green schools decrease our reliance on fossil fuels, thus decreasing carbon dioxide emissions and other forms of harmful pollution.

According to the U.S. Green Building Council, an average green school will:

- Use 33% less energy
- Save 32% more water
- Reduce solid waste by 74%

OSFC's Green Schools Inititative will result in school facilities that are healthier for students, teachers and staff, plus cost less to operate.

About The Commission

Established in 1997, the Ohio School Facilities Commission administers the state's comprehensive Kindergarten through 12th grade public school construction program. The agency helps school districts fund, plan, design, and build or renovate schools. OSFC is a Member of the U.S. Green Building Council.

Ohio School Facilities Commission • 10 West Broad Street, Suite 1400 • Columbus, OH 43215
(614) 466-6290 • (614) 466-7749 fax • program.info@osfc.state.oh.us • osfc.ohio.gov

Rev: 0408

Printed on Recycled Paper