

Build a School, Inspire a Community

By Mary Bowen-Eggebraaten and Paul J. Hoffman



When River Crest Elementary School opened on September 2, 2008, it was clear that the effect of a “green” school would extend beyond the students who walked through the doors for class each day.

The 93,450-square-foot facility in Hudson, Wisconsin, serves as a catalyst for sustainable change and has been an educational tool for ecofriendly behavior in the community. River Crest’s role goes beyond being “just a school” and offers a blueprint worthy of duplication.

The Hudson School District Board of Education and administration chose to incorporate sustainability into the design and construction of their new elementary school. They knew it was the right thing to do.

From this inaugural decision, they launched a green movement and commitment to sustainability. The enthusiasm expressed by River Crest staff, students, and parents spread across the district as greater emphasis was placed on learning about and practicing sustainability. The “tipping point” came as the Hudson community began to recognize River Crest as the standard or model for construction in the area.

Built for 588 students, River Crest received the certification of Leadership in Energy and Environmental Design (LEED®) Gold under the new LEED for Schools Rating System. This esteemed designation, awarded by the U.S. Green Building Council (www.usgbc.org), certifies that the school meets high standards for indoor air quality, energy and water

use, recycling of building materials, and other important factors.

Students and Teachers Benefit

From the beginning, the Hudson School District had a vision for creating a 21st-century, hands-on learning environment. Primary to that vision was the commitment to make a positive effect on the future of its students—on their learning, on their health and well-being, and on the earth they would inherit. The challenge was to create this kind of learning environment and pair it with a highly sustainable elementary school that combined a smart, logical floor plan with a distinctive design.

The school layout includes four sections per grade with two early childhood classrooms. Teachers favored a small learning community layout with a shared resource and storage room between classrooms, providing space for curriculum kits and other teaching aids, as well as a room for tutoring, testing, and small-group activities.

“My first thought when I saw River Crest is that it had a very smart design,” recalls Kathleen Mullvain, a teacher at the new school. “I’m really passionate about keeping grade levels together so teachers and students can work together within their grade-level teams. So, my first thought was how wonderful that all the fifth-grade classrooms would be right together and that we can share resources and rooms.”

Pat Hodges, River Crest’s principal, agrees that there is something special about the architecture of the school: “I was very impressed with the design of the school. People really



A mural in the brightly lit hall welcomes students and visitors to River Crest.

like the feel of the building, the flow of the building, the details that were looked into when we designed the building.”

The design not only facilitates cooperation between classes but also provides more natural light and fresh air. The overall project provides a platform to focus on green principles. John Muller, a fifth-grade teacher at River Crest, adds that the focus on sustainability has become the norm because of the lessons that are in all the school’s features. But the effect doesn’t stop with just the students and teachers.

Lower Costs Communicate Volumes

The community watched with great anticipation as the new facility grew from a concept to a functioning place for learning. It was obvious that the school was going to be attractive and highly sustainable. But some wondered about the cost. They were pleasantly surprised when the project was completed.

River Crest was designed and built for \$166 per square foot, which included the design, site work, construction, furnishings, fixtures, and equipment. That total project cost is \$57 per square foot less than, or

29% below, the average cost of public elementary schools built in Illinois, Minnesota, and Wisconsin in 2008 as reported by *School Planning & Management* magazine in its “2009 Construction Report.” Community residents’ enthusiasm for the design of their new elementary school was exceeded only by their delight in the total cost of building the award-winning school.

The school provides a model of green construction practices, demon-

strating that one can truly build an attractive, highly sustainable building for less than conventional construction costs. That means not only lower overall initial project costs but also lower utility expenses for the life of the building.

Partnerships Paved the Way

Partnerships and stories of collaboration paved the way for this high level of success. The relationships that set the stage for all others included the unified spirit among members of the board of education. Board members took the risk to endorse building sustainably, and members worked to ensure that the district pushed itself for LEED Gold throughout the entire project.

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Another significant partnership grew between the Hudson School District and its planning, design, and construction management partner. These two groups were instrumental in developing the vision and exploring the many highly sustainable solutions.



The River Crest cafeteria is clean, bright, and welcoming.

Another community partner, a national window manufacturer, worked with the architectural firm to design a new wood window product for River Crest that would maximize natural light but would reduce glare and provide energy savings with its design and construction. Additionally, to help meet LEED requirements, the window manufacturer used Forest Stewardship Council–approved wood.

“I love the number of windows and the fact that we don’t have curtains on them—that we’re able to look out into that beautiful environment,” Hodges says. By working with a local company, the district supported its business community while avoiding the expense and emissions of transporting materials.

The location of the school provided yet another strategic relationship. River Crest is located directly across from YMCA Camp St. Croix. An underpass was constructed beneath a county highway, permitting safe access between the school grounds and the camp property. After forming a partnership with the camp, the trails at Camp St. Croix were linked to the paved walking/bike trail that winds around the 43-acre school site.

These and many other partnerships provided not only enhanced opportunities for sustainability but greater excitement and enthusiasm throughout the community. Simply put, many more community members know, understand, and have a part in the success of River Crest.

Facility and Features Tell Their Own Stories

River Crest is the Hudson School District’s sixth elementary school but its first to be designed and constructed using sustainability principles. The following are a few of the sustainable highlights of the design and construction:

Daylight harvesting and views. High ceilings, strategic placement of gray low-emissivity windows, and photosensors control the direct and indirect lighting, add daylight to classrooms, and provide a connection to the outdoors—potentially improving student performance and how students feel about school.

Water efficiency. Water-reducing bathroom fixtures, including dual-flush valves and waterless urinals, provide water savings in excess of 40% over a conventionally designed building. The smart use of water teaches students that one area of their lives really can have a powerful effect on the environment.

Sustainable site. Designed to retain storm water on site, the landscaping employs native species to reduce irrigation and minimize maintenance. A portion of the site is protected from future development to preserve open space and wildlife habitat.

Local materials. More than half (by cost) of the materials used were manufactured within 500 miles of the construction site to reduce fuel consumption and pollution associated with transporting them and to support the regional economy.

Recycling of construction waste. An impressive 94% of construction waste materials (measured by weight) were reused or recycled, thus avoiding landfills.

The Benefits Abound

Through River Crest Elementary, the Hudson School District has seen sustainability awareness extend to the broader community. River Crest Elementary students are promoting green practices at home. More community members are beginning to think differently about their daily choices—choices that affect the environment. As more and more people are educated about the ongoing benefits that are provided by sustainable planning, design, and construction—as well as green lifestyle choices—green practices will continue to flourish and grow.

Any school district can have this type of effect if it has the willingness and tenacity to begin making responsible, sustainable choices.

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