

## Press Information

Subject: AIA-WV Design Awards Program Entry - 2012  
Spring Mills Primary School  
Williamson Shriver Architects, Inc.

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### For Additional Information:

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### Photo Credits:

Micah Whitlow, Williamson Shriver Architects, Inc.

## Spring Mills Primary School

Martinsburg, West Virginia

### Berkeley County Schools – Owner

Manny P. Arvon II, Superintendent  
Don Zepp, Construction Project Manager

Grades Served:	K-2
Capacity:	575
Building Area:	63,380 SF
Total Project Cost	\$12,671,618
Project Cost / SF:	\$199.93 / SF
Space per Student	110 SF / Student
Length of Construction:	18 months
Occupancy:	August 2011

Spring Mills Primary School was awarded a Merit Award for Sustainable Design from the West Virginia Chapter of the American Institute of Architects Saturday Evening at the annual Design Awards Gala held in Charleston at the Embassy Suites. The new K-2 school, located in Martinsburg WV, was funded by the School Building Authority of WV and Berkeley County Schools in the spring of 2009. The project was designated by the SBA to become their first official "green" school, with a LEED Silver Certification target. While the building's exterior design follows with the preferred traditional theme of the other campus buildings, contained within the building are many unconventional features incorporated to conserve energy, natural resources and to enhance indoor environmental quality. These include...

Natural Daylighting - The floor plan of the building was largely derived by the desire to achieve daylighting opportunities in all classrooms, which studies show help improve student performance. Classroom orientation (due north or south), oversized windows with light shelves and sunscreens, high sloped ceilings, and light classroom wall colors, in conjunction with an electronic daylighting sensors all contribute to better natural lighting, and lighting energy savings.

Energy Savings - Through the use of an Insulated Concrete Form (ICF) wall system, enhanced roof insulation, a geo-thermal HVAC system, natural daylighting, and other energy saving features, Spring Mills Primary will use an estimated 33% less energy than a conventional school building of the same size.

Water Savings - Spring Mills Primary uses waterless urinals, dual-flush toilets, and reduced-flow kitchen equipment to utilize over 30% less water than a conventional elementary school.

Composting (LEED Innovation Credit) - Spring Mills Primary has a kitchen waste pulping system and decomposing unit that reduces the amount of food waste taken to landfills by 78% compared to other Berkeley County Elementary Schools. The remaining waste can be used as mulch or fertilizer for the school or community projects.

Green Cleaning (LEED Innovation Credit) - Berkeley County Schools has implemented a "green cleaning" program for the school, which will reduce the use of harsh, ecologically unfriendly chemicals.

School as a Teaching Tool - The project includes a wide-ranging program to teach environment stewardship to students, including both curriculum based elements as well as building design elements and signage.

The project is currently in final LEED certification review by the Green Building Certification Institute (GBCI). While LEED Silver Certification appears certain, LEED Gold Certification remains possible.

LEED (Leadership in Energy and Environmental Design) is a sustainable building evaluation program developed by the United States Green Building Council in Washington D.C. Design submissions are evaluated and scored by the Green Building Certification Institute, also in Washington D.C.

The American Institute of Architects - West Virginia Chapter is a organization of architects from all around WV with over three hundred members. The design awards program, which began in the 1980's, has two levels of awards, "Honor Award" - for excellence in architectural design, and "Merit Award" - for achievement in architectural design. A total of five projects were awarded this year out of seventeen entrants. The projects were juried by a group of three architects from Louisiana.

Williamson Shriver Architects, Inc. is an eighteen person architectural firm located in Charleston WV which was established in 1967. The firm has a portfolio of projects including schools, commercial facilities, and other institutional projects around West Virginia. The firm has been working on school projects in Berkeley County for nearly twenty years.

## Supplemental Information

# Curriculum Information / Features regarding The School as a Teaching Tool Innovation Credit

### LEED Curriculum

An environmentally focused K-2 curriculum was developed for this school by a committee of educators. This curriculum includes topics that have been tied back into state Science Learning Outcomes. Curriculum topics include energy, recycling, composting, water, gardening, healthy atmospheres, wildlife / nature, and outdoor adventures.

### Building Features to Support the Green Curriculum

In order to enhance the environmental curriculum, the Architect developed the following:

Interior and Exterior Signage Program - In order to enhance the learning opportunities for students, teachers, parents, and building visitors, a signage program highlighting 16 of the school's green features was developed by the architect. Since the students in this school are in Kindergarten through second grade, and many are not yet able to read well, the architect designed these signs with two distinct components. On the left side of each sign, each building feature is described with as few words as possible using a theme of recurring cartoon characters. On the right side of each sign, the feature is described more fully in words.

In addition to the interior signage, two exterior signs serve as markers for the bio-retention basin and the geothermal well field.

Building Logo - the Architect designed the building logo for the school, the design of which serves as a reminder of the environmentally responsive focus of the curriculum and building. A large three-dimensional version of this logo was placed in a prominent public location within the building.

Green Dashboard - To supplement the environmentally focused curriculum and to provide real time data about building energy and water usage, a 'Green Dashboard' was installed in the project. The system also includes a touch screen system that provides additional information about the school and four-school campus, as well as offers descriptions and photographs of many of the environmental features and systems in the building.

Insulated Concrete Form (ICF) Wall Display - Due to its enhanced thermal insulation and acoustical properties, an ICF wall system was selected for the exterior and many interior walls. As this system is unfamiliar to many people, and since this system is all but invisible in the finished building, the architect designed a display that features and explains this wall system.

Courtyard Gardens - As gardening is a component of the environmentally focused curriculum at Spring Mills Primary, garden plots were incorporated into the courtyard / light wells established by the school's rectilinear three-wing design. To minimize the amount of potable water needed for gardening projects,

an underground rainwater collection cistern stores water from the roof drains of one of the three classroom wings. Pumps and faucets in each courtyard complete the system.

Dining Room Labyrinth - Spurred by learning concepts espoused by Marge McCarthy and her published guide "Kids on the Path", the Owner requested an indoor labyrinth in the dining room floor design. Among the perceived benefits of labyrinths in schools are the calming emotional effect that it can have on children.

Geothermal Mural - Spring Mills Primary incorporates a geothermal heating and cooling system as an energy saving feature. In order to assist teachers in explaining this system to young students, a large mural was included in the dining room. This mural helps to describe both summertime and wintertime operation of the system to young students.

Compass Rose - Natural daylighting in classrooms was the primary organizing criteria for the floor plan, with nearly all classroom windows facing north and south. To call attention to this orientation, a compass rose was incorporated into the floor near the main entrance to the building.