

LINDA CROUSE

Off-the-Grid School Collaboration in Haiti

Following the devastating earthquake in Haiti in January 2010, a unique collaboration developed between BAR Architects and Architecture for Humanity in response to the disaster.

WHEN LISA VICTOR, a senior associate at BAR Architects in San Francisco, saw the devastation in Haiti following the January 2010 earthquake, she felt compelled to do something to help.

"The suffering was so great and the conditions so awful, I wanted to do something substantive," she says. Victor proposed to the principals of BAR that interested staff donate personal vacation time to provide professional services to support Architecture for Humanity's efforts to rebuild schools in Haiti. The response from within the firm was both positive and impressive: three-quarters of the 75-person office volunteered in some capacity, relinquishing vacation time as well as donating unpaid work hours for the cause. BAR Architects is covering the cost of flights and all associated administrative expenses.

Simultaneously, John Engle, cofounder and president of the nonprofit foundation Haiti Partners, had approached Architecture for Humanity after the quake to secure design assistance for a new school in an impoverished region outside Port-au-Prince. Now BAR, Architecture for Humanity, and Haiti Partners are collaborating to design and build

a 450-student school for children in pre-kindergarten through 13th grade on a three-acre (1.2-ha) site in the hills near Mariaman. Plans call for a groundbreaking this fall for Phase I-A, serving pre-kindergarten through first grade, to open in fall 2012. Depending on availability of funding, four additional classrooms for second to fifth graders will be completed in Phase I-B the following year. Twenty-five to 30 students will be in each grade.

Small teams from BAR Architects, totaling nine architects and designers, are now spending seven months of nonbillable time working in rotating teams on site in Haiti. Enough time

was generated to provide professional design services for seven months. "We will see this project through conceptual design and construction documents through Phase I," says Chris Haeggund, principal at BAR.

The rough-terrain site occupies an undeveloped part of Haiti, 2,500 feet (760 m) above sea level. Because no infrastructure exists in the area for water, electricity, sewage, or transportation, the new school will be entirely off the grid and self-sustaining. Plans call for solar power, rainwater collection for irrigation and potable water, and composting toilets for waste. An on-site garden is to be tended and operated by the students, who will sell the fruits and vegetables.

The 38,000-square-foot (3,500-sq-m) group of structures will be built of reinforced concrete and concrete block, locally made steel trusses, local limestone, and artisan-made metal doors; a Haitian contractor will do all the work with supervision from Architecture for Humanity and Haiti Partners. "We're using simple building systems that are locally available. And when materials are imported, such as the steel for the trusses, we are using the opportunity to train Haitian builders in new construction methods—in this case proper welding techniques," says Victor.

Architecture for Humanity is working with about ten schools in Haiti. "The Mariaman facility is to be a model school, built to international standards, and thus will allow us to add elements that most likely would not have been part of a locally conceived project," says Stacey McMahan, Architecture for Humanity's U.S. Green Building Council-sponsored design fellow. The finished project will include a computer lab, to be completely powered by the photovoltaic roof panels. "The quality of design will likely affect the quality of learning. This is very much a case of better learning, better operations, and better materials," McMahan adds.

Following the seven months of services provided by BAR, Architecture for Humanity will oversee the project through to completion. If funding comes through, plans call for the school to be completed for all 450 students by 2014, McMahan says. **UL**



BAR ARCHITECTS

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LINDA CROUSE is a principal with BAR Architects responsible for leading the firm's overall marketing and strategic business planning efforts.