

with overhangs shading the south-facing openings. A unique accessory is a sundial of brick set into a concrete walk, which marks the time of day and also acts as a paving material.

Tapping the green market

As the market for environmentally conscious construction continues to grow, architects and contractors can take advantage of the opportunity to promote the use of brick, according to Brick SouthEast, whose supplier members participated in the Third Creek project.

There are several strong selling points for brick in the green market, according to the association.

- **Sustainability:** Offering a 100-year life cycle, brick buildings require minimal maintenance and repair. Buildings can later be refitted for a community's changing needs.
- **Natural ingredients:** Local area clays used to manufacture brick are less environmentally intrusive than other materials.
- **Fire Resistance:** Brick is fireproof and does not emit toxins into the environment when exposed to fire.
- **Conservation/thermal mass:** The makeup of brick slows the transfer of heat and cold, which reduces energy consumption.
- **Recycling ability:** Brick can be reclaimed and reused in future projects.



“School Passes Green” Test

Brick construction helped the Third Creek Elementary School, Statesville, N.C., earn a prestigious award from the environmental community. The 800-student facility was the world's first K-12 school to receive a Gold rating in the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental (LEED) program. USGBC works in partnership with many levels of government on programs that set forth “building green” principals.

To achieve an innovative “green building” design, the 92,500-square-foot Third Creek Elementary School combines traditional brick construction, features such as natural daylight in all classrooms and recycled content, and unconventional concepts such as incorporating a constructed wetland to serve as an outdoor classroom. The energy-efficient school was designed to exceed the ASHRAE 90.1 Energy Cost Budget by 20 - 25%, and achieved that goal during the first year of operation.

Design concept

“The school district was looking to design a sustainable building, and the LEED system was a tool to do that,” explained Chris Venable, Moseley Architects, Morrisville, N.C., designers

of the \$10 million project. A member of USGBC, Moseley Architects provides environmental sustainability planning services on all projects, and more than half the staff is LEED accredited professionals.

“We looked at every material in terms of its LEED rating system,” said Venable. LEED criteria include durability, long life

expectancy, low maintenance, energy efficiency, recycled content, and indoor air quality protection. As a bonus, brick is a locally supplied material, which reduces transportation costs and fuel use, Venable pointed out.

To protect the southern state classrooms from direct sun and heat, recessed windows were incorporated into the brick exterior,



Project Participants

Architect: Moseley Architects, Morrisville, N.C.
General Contractor: Brooks General Contractors, Greensboro, N.C.
Civil Engineer: Timmons Group, Richmond, Va.
Structural Engineer: Stroud Pence, and Associates Ltd., Raleigh, N.C.

