

Executive Report

02.13.06

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PROJECT OF THE WEEK

Brooklyn Courthouse Links Security with Aesthetics

Known as the Link Structure, the recently completed U.S. Courthouse in Brooklyn, N.Y., exemplifies the use of concrete to achieve the stringent security requirements established by the General Services Administration since 9-11. The 16-story, 623,000-square-foot facility, houses 25 courtrooms, 28 judicial chambers, and the U.S. Marshall Service offices. More than 15,000 cubic yards of concrete were used in this facility designed by Cesar Pelli Architects of NYC and engineered by Urbitran of NYC.



The project received an award by the Concrete Industry Board of NYC.
Contact [Mike Mota](#)

SUSTAINABLE DEVELOPMENT

Student Architecture Competition Draws International Interest

Students from 73 colleges and universities in six countries have registered to participate in the PCA-sponsored Sustainable Concrete Design Competition. Member schools of the Association of Collegiate Schools of Architecture (ACSA) have received a second mailing of PCA Competition posters and program guides early this week.

Winning students, their faculty sponsors, and schools will receive cash prizes and software totaling nearly \$40,000. The prize includes a complete package of [pcaStructurePoint©](#), concrete design software, a retail value of \$9,745, for each winning school. The design jury will convene in May 2006 to select winning projects and honorable mentions.

Contact [David Shepherd](#)
Visit www.acsa-arch.org

MANUFACTURING

Siemens joins MTC

The newest member of PCA's Manufacturing Technical Committee (MTC) is Siemens Energy & Automation. Patrick Brady will represent Siemens as an associate member of MTC.

PCA's Manufacturing Technical Committee represents the technical interests of portland cement producers in the United States and Canada and has a special Associate Member category. Associate Members are manufacturers of cement process equipment, material suppliers, and cement industry consultants.

Contact [Rick Bohan](#)
Visit the [MTC Web site](#)

BUILDINGS

Staggered Steel Truss Stumbles in California

The influential Structural Engineering Association of California (SEAOC) recommended against the use of staggered steel truss—a relatively novel steel lateral framing system—in zones of significant seismic activity.

Developed at the Massachusetts Institute of Technology in the 1960s, the framing system arranges story-deep steel trusses in a staggered pattern, which allows very large column-free areas and low floor-to-floor heights. With fewer columns than other framing systems, the staggered truss promises faster fabrication and erection schedules and reduced foundation costs. It has been used on a number of prominent projects in areas of low seismic hazard. Because of the system's apparent benefits, the steel industry has expressed interest in using the system in California and other places where seismic performance is a major consideration.

The SEAOC Seismology Committee's position is that the staggered steel truss system, in absence of supporting test results, lacks the adequate performance qualities that would allow it to be used as one of the seismic force-resisting systems permitted for zones of high seismic risk.

Contact [Attila Beres](#)

MANUFACTURING

Cement Companies Urged to Adopt a Kiln

The Saylor Cement Kiln Preservation Society has received 501 (C) nonprofit status, which permits donors to receive tax write-offs for their contributions. The group hopes to restore century-old brick vertical kilns built by David O. Saylor, the first American producer of portland cement. The nine kilns operated from 1892 to 1904 in Lehigh County, Pa. Cement from these kilns helped build famous structures such as the Lincoln Memorial.



Lou Jany, Essroc Cement, is president of the Saylor Cement Kilns Preservation Society. Jany hopes to raise \$500,000 to complete restoration of the kilns that began in 2000. "Our plan is to create a new museum and possibly add a brick walkway dedicated to . . . all who worked in the Lehigh Valley cement industry," says Jany. "We're still looking for major cement companies to adopt a kiln."

Contact [Lou Jany](#) at Essroc Cement
Visit www.saylorcementkilns.org

BRIDGES

Bridge Research Spans TRB Sessions

PCA's bridge group helped keep concrete at the forefront of the recent 85th Annual Meeting of the Transportation Research Board in Washington, D.C. In cooperation with the Federal Highway Administration, PCA's Shri Bhidé presented a workshop, "Load Resistance Factor Design (LRFD) of Concrete Bridge Superstructures," attended by approximately 60 engineers. PCA also organized and presided over two technical sessions in which eight papers on the design and performance of concrete bridges were presented.

Contact [Shri Bhidé](#)

NEW TITLES FROM PCA

Chemical Path of Ettringite Formation in Heat-Cured Mortar and Its Relationship to Expansion: To provide a better understanding of the DEF phenomenon, the present study investigated mortar systems made with various mixing and curing parameters for detailed changes in pore solution chemistry and solid phase development, while corresponding changes in physical properties were also closely monitored. This holistic approach enabled the development of a correlation between the chemical and physical changes that occur in the DEF-affected mortars (SN2526; \$15.00; PDF only; free to members).
[More information](#)

Volumetric Measurement in Water Bath – An Inappropriate Method to Measure Autogenous Strain of Cement Paste: Volumetric and linear measurements of autogenous strain should in principle give identical results. However, the results from the volumetric method are typically 3 to 5 times the results from the linear technique, depending on the type of cement paste and the experimental conditions. In this study, absorption of water from the buoyancy bath through the rubber membrane is identified as the principal artifact of the volumetric method and cause of most of the discrepancies between volumetric and linear measurements (SN2925; \$15.00; PDF only; free to members).
[More information](#)