

Field Trial of Basalt-Based Concrete

C-Crete Technologies announced the placement of its basalt-based concrete at 7200 Woodlawn Ave. in Seattle, WA, USA. The concrete mixture with basalt as the primary binder, entirely replacing portland cement, was used for a 20 ton (18 tonne) slab-on-ground outdoor concrete foundation for a loading dock stem wall and partial ramp replacement. Basalt mainly comprises silicon, aluminum, and calcium, three of the Earth's most abundant elements. In terms of volume, it is more abundant than limestone. Basalt is a noncarbonate rock that can be ground into a powder to be used as a binder, eliminating the environmental concerns of cement production. Moreover, the curing process of basalt-based concrete captures carbon dioxide (CO₂) from the atmosphere, further enhancing its eco-friendly profile. C-Crete's basalt-based concrete has a compressive strength exceeding 5000 psi (34.5 MPa). It demonstrates pumpability, workability, setting time, and surface finish similar to conventional concrete while meeting ASTM International standards for mechanical and durability properties.



Placement of C-Crete's basalt-based concrete

Blackwell 3D Acquires Blackwell Realtech

Blackwell 3D Construction Corp. (Blackwell 3D) acquired a 100% ownership interest in Blackwell Realtech 3D Printing Construction LLC (Blackwell Realtech), a Dubai, United Arab Emirates, limited liability company. In exchange for a 100% ownership stake in Blackwell Realtech, the company has agreed to issue 1,000,000 restricted shares of its common stock. The acquisition of Blackwell Realtech aligns with

Blackwell 3D's growth plan, providing several key benefits. Blackwell Realtech brings extensive experience and expertise in three-dimensional (3-D) printing construction technology. By integrating Blackwell Realtech into its operations, Blackwell 3D expands its service offerings to include advanced 3-D printing construction solutions. This diversification enables the company to cater to a broader range of client needs and projects. The acquisition facilitates operational synergies between Blackwell 3D and Blackwell Realtech, optimizing resource use and streamlining processes.

Engineering News-Record Celebrates its 150th Anniversary

Engineering News-Record (ENR) is celebrating its 150th anniversary in 2024. A weekly publication for most of its existence, with a current print frequency of 20 issues per year, *ENR* is one of the oldest continually published magazines in the United States. Today, *ENR* also publishes hundreds of articles, analyses, viewpoints, and data online, along with podcasts, videos, and webinars. Its cost indexes measuring fluctuations in building material and labor costs are benchmarks widely used by contractors and municipal agencies. *ENR*'s Award of Excellence, presented annually to someone who has made an exceptional contribution to best serve the construction industry or the public, is a high honor in the industry. *ENR* originated as two separate publications. One was called *The Engineer & Surveyor* when it started publishing in 1874. By the next year, it was named *Engineering News*. The second publication was originally called *The Plumber and Sanitary Engineer* and started publishing in 1877. By 1890, it was called *Engineering Record*. After several decades as competitors, the two publications merged in 1917 to become *Engineering News-Record*. Since 2015, *ENR* has been owned by BNP Media.

New Texas Lehigh Cement Company Slag Cement Facility

In its joint venture with Eagle Materials Inc., Heidelberg Materials North America announced that Texas Lehigh Cement Company LP will be starting production at a new slag cement facility in Houston, TX, USA. Construction of the new slag cement facility is substantially complete. The new plant is expected to have an annual manufacturing capacity of approximately 500,000 tons (453,590 tonnes) to supplement the Texas Lehigh cement manufacturing plant in Buda, TX. With this new facility, Texas Lehigh Cement Company strengthens its cementitious footprint to better meet the increasing demand for more sustainable and resilient building materials and to meaningfully reduce the carbon intensity of its product portfolio.

Woolpert Awarded TxDOT Contract

The Texas Department of Transportation (TxDOT) awarded Woolpert a 10 million USD contract to provide plans, specifications, and estimate (PS&E) services supporting statewide roadway and bridge reconstruction and improvement projects. The contract will support a range of TxDOT projects, including highway widening to accommodate growing traffic demands, bridge replacement and rehabilitation, and intersection upgrades to enhance safety and traffic flow at critical intersections. The projects will focus on enhancing roadway safety, bolstering economic growth, and reducing traffic congestion across the state's rural and emerging urban areas, including the greater Houston, Dallas-Fort Worth, and Austin-San Antonio, TX, areas.

DFI Online Course on Working Platform Design and Verification

The Deep Foundations Institute (DFI) is hosting a live, online instructional course titled "Working Platform Design & Verification." The two-part course is being offered October 3 and October 17, from 3 p.m. to 5 p.m. ET. The workshop is

led by Martin Larisch, an industry expert on the design of temporary working platforms for piling rigs and cranes.

Workshop topics include:

- The Federation of Piling Specialists method to assess the critical track pressures applied by piling rigs;
- Two common guidelines for the design of temporary working platforms (BRE470 and TWf2019);
- Applicability of the different design methods for various ground conditions;
- Underlying design assumptions about load transfer from piling rigs and cranes;
- Brief introduction of static/dynamic load factors in the different design approaches;
- Effects of groundwater on the different design methods; and
- Soil suitability site investigation techniques to assess the subgrade conditions and their advantages and limitations.

The course also includes real-world examples to expose some of the limitations and related risks. Attendees will receive 4 PDH credits at the completion of both sessions. Visit www.dfi.org for more information.

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