Products & Practice

SkyCiv Reinforced Concrete Design

SkyCiv's Reinforced Concrete Design module consolidates modeling, analysis, and code checks into a single platform. The module integrates directly with SkyCiv Structural 3D software,



allowing engineers to design beams and columns without exporting data between programs. Users can model their structures, run analyses, and perform code checks for ACI CODE-318, EN2, CSA A23, BS 8110, or AS 3600. Longitudinal bars and stirrups can be added through a graphical interface that shows what is being specified. Load combinations from international code libraries apply with a few clicks and pass/fail results highlight which members need attention. Reports show complete step-by-step calculations, making them ready for review and approval and saving time on projects.

—SkyCiv, https://skyciv.com

Leica Xsight360

The Leica Xsight360 safety awareness solution, powered by Presien, detects nearby people or objects and alerts the vehicle operator using sounds and visual cues. These indicate the hazard location and proximity so that the driver can take evasive action. Video and alert data are also transmitted to the cloud, where agentic artificial intelligence (AI) generates reports and recommendations for safety professionals.

The system's visual AI models are trained for heavy construction operations and improve performance through machine learning. The Leica CRS360 AI processor runs a Presien model refined over 700,000 hours of real-world operation on construction sites to deliver low-latency operator alerts with minimal false alarms. Leica Xsight360 supports up to six cameras, providing 360-degree coverage on any construction vehicle to detect hazards in real time. Data is also sent to the Leica Xsight360 cloud platform, generating insights that enable occupational health and safety (OHS) managers to identify safety issues and opportunities for improvement. The video input is interpreted by AI and transformed into safety indexes, dashboards, and reports within minutes. Users can compare video footage to international, national, or site-specific safety policies, gaining an immediate overview of possible regulation violations.

—Leica Geosystems, https://leica-geosystems.com

Isobloc ZÉRO

Isobloc ZÉRO, developed by Isobloc and CarbiCrete, is an insulated masonry unit made with cement-free concrete. Isobloc ZÉRO delivers the same performance as standard concrete with a lower carbon footprint. CarbiCrete's patented process for making decarbonized concrete eliminates cement-related emissions and removes carbon dioxide (CO₂) from the atmosphere by replacing cement with a steel-making by-product and mineralizing CO, into the concrete for permanent storage. Designed and manufactured in Quebec, Canada, Isobloc ZERO is intended for architects, contractors, developers, and institutions looking to meet the



requirements of new environmental standards without compromising project quality or profitability.

- —Isobloc, https://isobloc.com/en
- —CarbiCrete, https://carbicrete.com

Holcim ECOCycle

With its ECOCycle® circular technology, Holcim can recycle up to 100% of construction demolition materials across a broad range of applications, from decarbonized raw materials in low-carbon cement formulation to recycled aggregates in circular concrete. ECOCycle enables concrete, cement, and aggregates to contain a content of 10 to 100% recycled construction demolition materials without compromising performance and while reducing the environmental footprint. Holcim recycled nearly 7 million tons (6.35 million tonnes) of construction demolition materials into new building solutions during 2022. Holcim aims to recycle over 20 million tons (18.1 million tonnes) of Construction Demolition Materials by 2030 in Europe by scaling up ECOCycle technology to reach 150 sites by 2030. ECOCycle has been named a "Circularity Lighthouse in the Built Environment" in a joint initiative between McKinsey & Company and the World Economic Forum, a designation that recognizes solutions that demonstrate a circularity approach with impact and value.

—Holcim, www.holcim.com

Products & Practice.

Ergodyne Hi-Vis Safety Vests

Ergodyne® expanded its high-visibility (hi-vis) line with a collection of accessories designed to help people stay safe in high-risk, low-visibility environments. The GloWear 8045X Hi-Vis Safety Vest is made with lightweight and breathable mesh fabric to ensure that the wearer stays cool and comfortable during extended wear or vigorous physical activity. The GloWear 8142BA Breakaway Hi-Vis Safety Vest - Type O, Class 1 features an X-back design to make it instantly clear whether someone is moving forward or backward, for safety and awareness in dynamic environments. This vest is compliant with the ANSI/ISEA 107-2020 Class 1 standard.



-Ergodyne, www.ergodyne.com

Kubota U17-5

The Kubota Tractor Corporation U17-5 is a zero-tail swing compact excavator equipped with a 16.1 hp (12 kW) Kubota diesel engine. The U17-5 features a digging depth of 7 ft-6.2 in. (2.3 m), a dumping height of 8 ft-1.2 in. (2.5 m), and a bucket breakout force of 3547 lb (16 kN). The U17-5 also comes equipped with a thumb bracket welded onto the dipper to mount an optional hydraulic thumb, an auxiliary control system integrated into the joystick, and an auxiliary diverter valve. Weighing 3902 lb (1770 kg), the U17-5 features a rear end that has been extended by 1.2 in. (30 mm) and a track gauge that can be expanded to a maximum of 4 ft-3.2 in. (1.3 m) to optimize stability when using heavy attachments and that can be retracted to 3 ft-3 in. (1 m) for tight spaces.



Additional standard features include an auto-idling system that reduces engine revolutions per minute (RPM); a two-pattern selection system allowing the operator to select the most familiar operating control pattern; and KubotaNOW telematics, providing access to metrics like hours, location, and diagnostics. A redesigned control panel to the right of the seat houses the key switch, throttle control, and a mobile phone holder and USB port. Additional features include a single-switch engine emergency stop, a swivel parking brake and unload lever for easy transportation, light-emitting diode (LED) boom work lights, and a roll-over protection structure (ROPS) and operator protective guard (OPG) canopy.

-Kubota Tractor Corporation, www.kubotausa.com

Peri VARIOKIT Pier System

The VARIOKIT Pier System (VPS) provides a system for the smart construction of bridge columns and caps. VPS brings together the advantages of dance floor systems and self-spanning systems to deliver standardized platform solutions and mitigate hazards on site. User benefits of VPS include:

- Efficient material use: With two-in-one soffit panels that also form columns, customers save costs on logistics with minimum material;
- **Fast assembly:** With X-Bolt connections and standardized beams, cap geometries can be easily adjusted;
- Fast and safe cycling: Cycling of side forms can take place the next day, reducing idle time. Striking from the top and no need to disassemble from the ground for cycling reduces accident risk; and
- Access to reinforcing bars: Open access to reinforcing bars and 5 ft (1.5 m) wide platforms reduces injury risk and increases productivity.

VARIOKIT system components can be used for various applications, from columns and pier caps to superstructure shoring. Short cycle and assembly times along with reduced material demand enable time, material, and labor savings. VPS can further reduce site costs due to lightweight components requiring lighter-duty cranes than conventional steel girder formwork.

—PERI Formwork Systems, Inc., www.peri-usa.com



Products & Service Literature & Videos

CP Tech Center publishes Commentary on AASHTO R 101, Developing Performance Engineered Concrete Pavement Mixtures

The National Concrete Pavement Technology Center (CP Tech Center) published *Commentary on AASHTO R 101, Developing Performance Engineered Concrete Pavement Mixtures*. This manual presents the context and rationale for several key recommendations provided in AASHTO R 101, Developing Performance Engineered Concrete Pavement Mixtures. The intent of the manual is to provide transportation agencies with tools for preparing a concrete pavement mixture specification that moves closer to measuring and basing acceptance on parameters critical to the long-term performance of the pavement system.

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—CP Tech Center, www.cptechcenter.org



Product

Showcase_

Design & Inspection Tools

StructurePoint

StructurePoint's suite of reinforced concrete analysis and design programs was developed for the needs of practicing structural engineers and is aligned with ACI design standards. It makes structural analysis accessible and practical. The suite includes:

spWall for reinforced concrete shear walls, including tilt-up and precast wall panels, addressing both slender and non-slender behavior;

- **spMats** for mat foundations, slabs-on-ground, and pile caps, with settlement and soil pressure analysis;
- spColumn for axial load and biaxial bending in columns, piers, and core shafts;
- spSlab for one-way and two-way slab systems, including strip-based design and punching shear checks;
- spBeam for continuous beam systems, offering reinforcement detailing and deflection control.

Together, these programs mediate the gap between engineering analysis and practical design needs. Engineers can experience the full capabilities of the software through a complimentary 15-day trial license available for each program on their website.

-StructurePoint, LLC, www.structurepoint.org



Vectorworks Architect

Vectorworks Architect allows users to sketch, model, and document in a fully integrated workflow with a design-centric building information modeling (BIM) solution. It comes with two-dimensional (2-D) graphics, three-dimensional (3-D) modeling, visualization tools, and cloud-based collaboration with Vectorworks Cloud Services. Vectorworks Architect 2026 features a Sustainability Dashboard, Worksheet Slicing, Depth Cueing, and Door and Window Assembly tools. The new

Sustainability Dashboard combines several sustainability-focused tools into a centralized dashboard with real-time monitoring, tracking, and reporting of project compliance targets, including embodied carbon calculations, biodiversity net gain, urban greening, and SITES biomass metrics. To meet the architecture, engineering, and construction (AEC) industry's demand for BIM-based detailed documentation, Vectorworks Architect 2026 has door, window, and wall 2-D detailing, allowing granular control over 2-D graphics of doors and windows at multiple detail levels. Architects can generate wall plans from 3-D geometry, helping drawings appear as intended without manual workarounds.

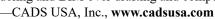
—Vectorworks, Inc., www.vectorworks.net



RebarCAD 3D

RebarCAD 3D leverages Autodesk® Revit® for modeling and BIM integration of reinforcing bars, allowing reinforcing bars to be divided up into particle groups (bar ranges), bar marks to be created and managed, and detailed reinforcement (shop) drawings to be created. With decades of experience developing RebarCAD, an AutoCAD®-based detailing software, CADS and

CADS-USA introduced RebarCAD 3D. It extends Revit's capabilities in modeling reinforcing bars and enables detailers with expertise to transition to 3-D modeling, particularly detailers using RebarCAD. RebarCAD 3D also opens the door to future reinforcing bar professionals, as engineering students are being trained in 3-D modeling and BIM over drafting and computer-aided design (CAD).





ForneyField

ForneyField, a mobile application for field technicians, helps meet project standards and streamline workflows for productivity and profitability. Its features include:

Capture: When a new batch of concrete arrives on site, field technicians can capture sample data and create new
specimens. These data can be accessed later to inform
future steps in the testing workflow;

- Claim: Managers and field technicians can drive accountability on the jobsite by claiming specimens or assigning someone else to pick them up; and
- Locate: When assigned to pick up a sample's specimens, the field technician can view a map with pins that show the exact location of specimens on the jobsite.

These features bridge the gap between the field and the lab, allowing stakeholders to hold the same, accurate data at every stage. The app drives fewer errors, clearer accountability, and more reliable data throughout the concrete testing workflow.

—Forney LP, https://forneyonline.com



Stay Up-to-Date with the ACI Concrete Industry Calendar!

Whether you're interested in networking with industry leaders, learning a new technology, or wanting to let others know about your upcoming event, be sure to check out the ACI Events Calendar. With just a few clicks, you can connect with an event near you or post your own event to share with the world!



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