# Our Members



Arthur Sakaev

# MMFX Steel appoints Sakaev new regional sales manager

MMFX Steel Corp. of America has appointed Arthur Sakaev regional sales manager in the southwestern United States, including California, Nevada, Utah, Arizona, and Hawaii.

With experience in developing sales territories, Sakaev will be key in the growth of acceptance and use of MMFX uncoated corrosion-resistant and high-strength reinforcing steel products in the Southwest.

With over eight years of sales and engineering experience, Sakaev has worked for Contech Engineered Solutions as a design engineer, regional manager, and technical sales engineer. Before working for Contech, he was a field engineer and designer for EDS, a quality assurance coordinator for Dichtomatik Americas, and a civil engineering field technician for GME Consultants Inc.

Sakaev has a bachelor of science in engineering from Ufa State Petroleum Technological University in Russia.

—Source: MMFX Steel Corp. of America



**Kirit Patel** 

### Spancrete hires sales, service reps in India, Russia

Spancrete has added sales and service representation in India and Russia.

Kirit Patel, president of SP Precast Pvt. Ltd. in Mumbai, India, and Mikhail Myarikianov, president of Northern Construction Co. in Yakutsk, Russia, bring decades of experience in the building industry. Both will provide sales and service expertise to their local construction industry.

-Source: Spancrete



Mikhail Myarikianov

### Fam named Munro Chair

Amir Fam, PhD, PEng, has been named the Donald and Sarah Munro Chair in Engineering and Applied Science at Queen's University in Kingston, ON, Canada. The purpose of the Munro Professorship is to enhance research in the Faculty of Engineering and Applied Science and encourage collaboration between academia and industry. The five-year, renewable appointment includes an annual stipend to support Fam's research.

-Source: Amir Fam

# Hoffmann Architects receives U.S. patent for parking structure engineering solution

Hoffmann Architects Inc. has received a U.S. patent for a design by a senior member of the firm's engineering team, Lawrence E. Keenan. Designed to prevent and remediate structural failure in precast concrete parking decks, the seismic connection improves structural integrity and reduces the incidence of stress and fatigue fracture. Keenan, director of engineering with Hoffmann Architects, developed the design after observing structural failures of welded deck connections at different precast concrete parking structures. The extent and nature of the failures led Keenan to consider new ways of approaching these critical connections.

Precast concrete parking structures usually comprise large concrete double-tee beams. Their flanges abut one another to form elevated parking decks, with stainless steel bars or dowels welded at intervals along the length of each flange. In daily use, they support vehicular loading in flexure; during earthquakes, they are called upon to resist seismic loading in shear.

At a number of precast concrete parking structures, Keenan found evidence of pervasive flange connection failure. "Connections may fracture from overloading or deteriorate from corrosion," Keenan says, "but it is highly uncommon for connections to break under normal service loading."

This observation prompted him to investigate the overall parking structure design to determine why these connections were failing under ordinary use. He found that the standard connection, in which a cylindrical metal rod or flat bar is welded between adjoining flanges, was inefficient, making the connections unforgiving and reducing their factor of safety against construction defects or loading. Furthermore, the overall design typically had insufficient strength to withstand anticipated service loads when building code requirements for fatigue were considered.

The patented solution developed by Keenan and Hoffmann Architects reduces stress at precast concrete parking structure connections by replacing standard straight bars with bent erection plates. By increasing the flexural capacity of both plate and weld, the design improves the strength of flange connections by as much as a factor of 10. By reducing the concentration of stress, the patented connection also satisfies building code requirements for fatigue resistance. These benefits are achieved without increasing the size of the steel bar or the weld, making the design cost effective as well.

The connection was granted United States Patent 8,468,766. For more information, contact Hoffmann Architects at (800) 239-6665 or news@hoffarch.com.

-Source: Hoffmann Architects Inc.



Amir Fam has been named the Donald and Sarah Munro Chair in Engineering and Applied Science at Queen's University in Kingston, ON, Canada.



**Denise Senior** 

### Meadow Burke appoints Senior as marketing and new products manager

Denise Senior has joined Meadow Burke to further expand its sales and marketing capabilities via new product innovation and development. Senior comes with a wealth of experience outside the industry, having spent the past eight years within a global contract services company where she was instrumental in new business sales and marketing strategies as well as brand and product extension introductions and launches. Senior will provide engineered product solutions to the concrete construction market.

—Source: Meadow Burke

### Stresscon Project Awarded DBIA National Design-Build Award

Stresscon Corp. received a Design-Build Institute of America (DBIA) National Design-Build Award in the Civic Buildings category for the C-5-159th Readiness Center in Cheyenne, Wyoming. This is the first design-build project for the Wyoming Military Department.

DBIA projects must achieve budget goals and schedule goals and demonstrate advanced and innovative application of total integrated project delivery. This  $10,000~{\rm ft^2}\,(930~{\rm m^2})$  total-precast concrete design-build project is a heated building solution providing space for vehicle storage and maintenance.

The C-5-159th project is owned by the Wyoming Army National Guard. This fast-track design project was erected in a week and incorporates a prestressed concrete roof system of 10 ft (3 m) wide, 32 in. (810 mm) deep double tees supported by 10 in. (250 mm) thick insulated Structural Plus walls.

—Source: Encon Design LLC.

#### ROBERT T. LONG SR.



Robert T. Long Sr., the founder of Composite Technologies Corp. and the inventor of the Thermomass Building System, died September 5, 2013. He was 72.

For more than 30 years, Long helped customers, architects, and engineers from around the world design and build energy-efficient buildings.

## Rosignoli publishes Bridge Construction Equipment

Marco Rosignoli, bridge technical leader at HDR Inc., has published *Bridge Construction Equipment*. With extensive illustrations, the 494-page book explores configurations, operations, performance, productivity, structure-equipment interaction, and industry trends for every family of special equipment: beam launchers; self-launching gantries and lifting frames for precast concrete segments; movable scaffolding systems for span-by-span casting; form travelers for balanced-cantilever decks and arches; and tire trolleys, launchers, and portal carriers with underbridge for full-span precasting.

Design-oriented chapters provide guidance on prevention of human error, design for robustness and redundancy, instability and prevention of progressive collapse, and repair and reconditioning of second-hand machines. Management-oriented chapters describe procurement, fabrication, and commissioning of special equipment. An outline of technical specifications is also provided. A chapter on forensics illustrates failures of special equipment investigated by the author during his 31 years in the industry.

Addressing the needs of bridge designers, contractors, construction engineers, inspectors, safety planners, bridge owners, academics, and forensic engineers, the book delivers professional guidance for the use of special equipment during each stage of bridge construction.

—Source: Marco Rosignoli



Lafarge has signed a partnership agreement with the U.S. startup Solidia Technologies to industrialize an innovative technology that could reduce the environmental footprint of precast concrete. The technology allows lower  ${\rm CO_2}$  emissions in the cement production process and involves the capture of  ${\rm CO_2}$  in precast concrete manufacturing. Overall,  ${\rm CO_2}$  emissions could be reduced up to 70%.

As part of the agreement, Lafarge will work with Solidia to demonstrate the feasibility of commercial-scale production in the first half of 2014. The two companies will collaborate to market this technology as a new solution for the precast concrete sector.

Lafarge has reduced its CO<sub>2</sub> emissions nearly 25% per ton of cement since 1990.

—Source: Lafarge

#### Joseph Retzner

Joseph Retzner, an engineer at Coreslab Structures (INDIANAPOLIS) Inc., died October 21, 2013. He was 63.

Retzner was a member of PCI's Industry Handbook Committee and served on several Blue Ribbon Review teams. He received his master's degree in engineering from Purdue University.





David Jablonski



Heidi Ziemann

## JVI promotes Jablonsky to VP/general manager, hires Ziemann as chief engineer

JVI has promoted David S. Jablonsky to the position of vice president and general manager and has hired Heidi Ziemann as chief engineer.

Jablonsky's previous position was vice president of operations and product development. Prior to his 12 years at JVI, he was the director of certification programs for PCI and worked at Tindall Corp. and Rocla Concrete Tie. Among other duties, Jablonsky is tasked with leading JVI in a transition to a new computer-based program that will allow JVI to serve its customers more efficiently. During his tenure at JVI, he has served on no fewer than nine PCI committees, serving as chair for the Plant Certification Committee and serving on the PCI Board of Directors. Most recently, Jablonsky has been a member of the PCI Technical Activities Council, the PCI Quality Activities Council, and the joint PCI/NPCA Task Group. Jablonsky is a member of the American Concrete Institute, American Institute of Steel Construction, ASTM International, and AltusGroup. He is a registered engineer in South Carolina and Delaware.

Ziemann brings to JVI a 14-year background in the design and detailing of precast concrete and commands strong expertise in the areas of technical marketing, building modeling, blast resistance, and project management, among others. Before joining JVI, Ziemann was an independent consultant, an instructor and tutor for SolidWorks, a consulting project manager for Denver West Design Group Inc., an engineering analyst for quality assurance and technical services for StructureWorks LLC, and a design engineer at Rocky Mountain Prestress. She holds a BS in civil engineering from Michigan Technological University and an MS in engineering systems from Colorado School of Mines. She is a registered professional engineer in Colorado and a co-author on several technical articles.

—Source: JVI

# Meadow Burke sets new standard for engineered lifting construction

Meadow Burke recently unveiled the Burke Lift, which is designed to improve on current face and edge lifting technology in one complete 10-ton system.

For the past 30 years, the Rapid Lift system from Meadow Burke was used for engineered lifting for precast/prestressed concrete producers. Now, the Burke Lift brings together face and edge lifts in a complete 10-ton system. This lifting system significantly simplifies the process by using fewer anchors while providing a broader range of lifting capabilities.

Among the features of Burke Lift is a one-clutch system, which allows for the elimination of switching between 4/5-ton and 8/10-ton clutches. The system also allows the clutch to bear into the Burke Lift anchor, rather than the concrete.

The Burke Lift features a single-style face lift anchor supplied in eight heights to accommodate panel thicknesses from 5 to 12 in. (125 to 300 mm). In addition, the system is equipped with a single-style edge lift anchor that requires just one standard length. The edge lift can be used in panels as thin as 5 in.

-Meadow Burke LLC

### Lafarge helps build first NetZero Energy precast concrete homes in North America

Lafarge has made home ownership possible for two Edmonton, AB, Canada, families through Habitat for Humanity. Partnering with Stantec to design the first NetZero energy precast concrete homes in North America, the team has targeted LEED platinum certification. Representatives from Lafarge and Stantec presented keys to the recipient families.

Building with precast concrete allows the homes to benefit from significant thermal mass. For the next two years, the homes' energy performance will be monitored by the Massachusetts Institute of Technology in Cambridge to determine whether the high-efficiency design delivers on an operational basis. Findings from all stages of the project will be incorporated in other sustainable residential solutions.

"These types of projects are so important if we are to find sustainable solutions to affordable home ownership," says Alfred Nikolai, president and CEO of Habitat for Humanity Edmonton.

"Our partnership with Habitat for Humanity and Stantec has allowed us to do innovative research on the energy efficiency that concrete brings to buildings while helping two deserving families attain home ownership. From a sustainable construction and sustainable communities perspective, Lafarge could not be prouder of all this duplex has achieved," says Larry Diduck, Lafarge Edmonton vice president.

Volunteers began construction on July 10, 2012, and 3050 hours were given by 159 different volunteers. As a charity, Habitat for Humanity mobilizes volunteers and community partners to bring their affordable home ownership model to hard-working families. The NetZero Energy project has been embraced by many in the community, the corporate sector, the small business sector, individuals, and municipal and provincial governments.

The land for the state-of-the-art duplex was made possible by the City of Edmonton Cornerstones program.

The homes are designed and constructed to be sustainable, which complements Habitat for Humanity's sustainable home ownership program. The two Habitat for Humanity homeowners will pay an interest-free mortgage to Habitat for Humanity, and their payments will never be more than 25% of their income. The families' mortgage payments are then reinvested into building more Habitat for Humanity homes, ensuring an ongoing program. Families also contribute 500 hours of "sweat equity" on Habitat for Humanity build sites as a down payment for their home.

Many others partnered with Habitat for Humanity, Lafarge, and Stantec to make this project a reality: the government of Alberta, the City of Edmonton Cornerstones, Kassian Dyck Associates, Dow Chemical Canada, All Weather Windows, NCSG Crane & Heavy Haul Services, Landmark Solar Productions, Vital Engineering, Clark Ecoscience and Sustainability, RBBN Contractors and Painting Ltd., Cascade Aqua-Tech, Irving Wire Products Corp., Canada Green Building Council—Alberta Chapter, Eco Ammo, Deck X, Siteline Inc., Whirlpool, Patching Associates Acoustical Engineering Ltd., Hunter Douglas, NIC, Schneider Electric, Eco Synergy, Threshold Energies, and Ecobee.

—Source: Lafarge



A Habitat for Humanity family receives the keys to their new NetZero energy precast concrete home in Edmonton, AB, Canada, from Lafarge. Courtesy of Lafarge.



Soubhagya Rout



Naoko Kurahashi

### Splice Sleeve welcomes two new staff members

Splice Sleeve North America Inc. has hired Soubhagya Rout as project engineer and Naoko Kurahashi as business development and administration in the Southern California office.

Rout is responsible for all technical and engineering matters for NMB Splice Sleeve System, technical presentations to existing and potential clients, site training for the grouting work of NMB Proprietary Grout, communication with state departments of transportation regarding technical matters, and communication with relevant authorities to obtain product certification. He earned his master's of science in civil engineering from Lawrence Technological University in Southfield, Mich.

Naoko Kurahashi has been in the construction business 20 years, working as an interior designer and as a procurement manager and office manager for a general contractor. She supports sales, marketing, and business development in the Southern California office, which reopened in July 2013.

-Source: Splice Sleeve North America Inc.

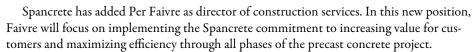
# Five Holcim plants receive Energy Star for superior energy efficiency

Five Holcim (US) Inc. plants earned the U.S. Environmental Protection Agency's (EPA's) Energy Star.

The Holly Hill plant in Holly Hill, S.C., the Ste. Genevieve plant in Bloomsdale, Mo., and the Theodore plant in Theodore, Ala., are all receiving this award for the fourth time. The Devil's Slide plant in Morgan, Utah, has earned its sixth consecutive award from the EPA, and the Portland plant in Florence, Colo., has been honored for three consecutive years.

—Source: Holcim (US) Inc.

### Spancrete hires director of construction services



Faivre is a civil engineer with a degree from the University of Illinois. He previously worked as the precast division leader at Area Erectors Inc. based in Rockford, Ill. Faivre will oversee and direct project managers, superintendents, erection crews, subcontractors, and related services for Spancrete projects.

—Source: Spancrete ]

Compiled by K. Michelle Burgess (mburgess@pci.org)



Per Faivre

#### **Welcome to PCI!**

#### **Erector associates**



#### All Florida Erectors and Welding Inc.

145 E. Sandpiper St. PO Box 1883

Apopka, FL 32712-1883 Phone: (407) 466-8556

Email: martin@allfloridaerectors.com Primary contact: Martin A. Flickinger

#### D. L. Meacham LP

PO Box 431789

Houston, TX 77243-1789 Phone: (713) 465-1905

Email: paige@dlmeacham.com Primary contact: Howell Underwood



#### Gil Haugan Construction Inc.

200 E. 60th St. N Sioux Falls, SD 57104 Phone: (605) 336-6082 Email: gil@gilhaugan.com

Primary contact: Gil Haugan Jr.



#### **Landwehr Construction Inc.**

PO Box 1086

St. Cloud, MN 56302-1086 Phone: (320) 252-1494

Email: paul@landwehrconstruction.com

Primary contact: Paul Nelson



#### The Middlesex Corp.

1 Spectacle Pond Road Littleton, MA 01460-1128 Phone: (860) 206-4404

Email: vfoti@middlesexco.com Primary contact: Victor Foti



#### Midwest Steel Inc.

2525 E. Grand Blvd. Detroit, MI 48211-2001 Phone: (313) 873-2220

Email: tombroad@midweststeel.com Primary contact: Thomas Broad



#### **River City Erectors LLC**

PO Box 246

Rossville, TN 38066 Phone: (901) 861-6174

Email: twilliams@rivercityerectors.com Primary contact: Tommy Williams

#### The Smedley Co.

40 Flax Mill Road Branford, CT 06405-2898 Phone: (203) 315-6066

Email: wrp4@smedleycrane.com Primary contact: William Palmer

#### Welcome to PCI! (cont.)



#### **Southeastern Precast Erectors Inc. (SPE Inc.)**

4651 Woodstock Road, Suite 131

Roswell, GA 30075-1698 Phone: (770) 722-9212

Email: plhoward@seprecasterectors.com

Primary contact: Peter L. Howard

#### **International producers**



#### **Broad Homes Industrial Co. Ltd.**

No. 248, Yinshuang Road Yuelu District Changsha, Hunan 410013

China

Phone: (+86) 0731-269-89775722 Email: hongxi.yin@gmail.com Primary contact: Hongxi Yin



#### GIC Ingeniería y Construcción SA de CV

San Ignacio No. 123

Col. Privada Santa Maria, Nuevo León

Monterrey, México 64650 Phone: 52 (818) 401-7000

Email: mgutierrez@grupogic.com Primary contact: Mauricio Gutiérrez

#### Manufacturas de Cemento SA

PO Box 3561

Bogota DC, Cundinamarca

Colombia

Phone: +57 (1) 3353550

Email: jgomezjurado@titancemento.com Primary contact: Jaime Gomezjurado



#### Rabiah-Nassar & Zamil Concrete Industries Co. Ltd.

PO Box 100919 Riyadh 11645 Saudi Arabia

Phone: +966 (1) 4910590 Email: info@rancozamil.com

Primary contact: Khalid Mumtaz Bhambhro