

## AWARDS

### Maria Garlock of Princeton University Wins 2016 T.R. Higgins Award

Maria Garlock, P.E., Ph.D., associate professor in the Department of Civil and Environmental Engineering at Princeton University, is the 2016 recipient of the T.R. Higgins Lectureship Award, which is presented annually by AISC. Garlock is being honored for several of her papers on fire resistance in steel structures, as well as for her outstanding reputation as an engineer and lecturer. The award, which includes a \$15,000 cash prize, will be presented to Garlock at the 2016 NASCC: The Steel Conference in Orlando, Fla., April 13-15.

“We are very pleased that Dr. Garlock has been selected as the 2016 Higgins lecturer,” said Charlie Carter, AISC vice president and chief structural engineer. “The jury found the work for which she was nominated to be compelling for its relevance to advancements being made today in research and practice. We look forward to Maria’s presentation at The Steel Conference in Orlando and her insights into what structural engineers need to know about fire protection and engineering.”

In addition to her professorship, Garlock is the director of Princeton’s Architecture and Engineering Program and acting director of the Program in Urban Studies. Her research aims to bridge the

gap between academia and practice, both as related to advancing the knowledge in structural engineering and to the education of future engineers. Her work in resilient structural design for large fires and earthquakes has covered both isolated and combined multi-hazard events. She is an advocate in both fields, and her research has been published in numerous journal papers, conference proceedings and books.



## PROJECTS

### Steel Tower Will Give Astronauts Access to Rockets

A 200-ft, 20-story steel tower is rising at the Cape Canaveral Air Force Station in Florida. The Crew Access Tower will give astronauts and support teams access to board rockets and support teams access to board rockets and missions to be launched for flight tests and missions to the International Space Station. It’s being built in seven pieces prefabricated by Steel, LLC, Scottdale, Ga. (an AISC Member/Certified fabricator). The pieces will be stacked atop each other to form the tower, which will include an elevator, communications and power infrastructure and an escape system.

Construction crews will face all the usual challenges of building a tall structure beside the ocean, plus the fact that one of the busiest launchers in the American catalog is not going to take time off during the construction phase. Boeing and the United Launch Alliance (ULA) designed the structure to be made modular so crews could build large sections of the structure away from the Atlas V launch pad already in place, then truck them in and stack them up to complete the work in between launches. It will take about 18 months in all to build the tower.

## People and Firms

- **Valmont Industries, Inc.**, a global manufacturer of engineered products and services for infrastructure and a provider of coatings services, announced today the acquisition of **American Galvanizing Company** of Folsom, N.J. This increases **Valmont Coatings’** (an AISC Member) network to 33 facilities located in six countries around the world. American Galvanizing provides corrosion protection services to structural steel fabricators and steel manufacturers throughout the Northeast, and the acquisition allows Valmont Coatings to expand its business into that market.
- Structural engineering firm **Keast and Hood** has opened an office in Charlottesville, Va., led by associate **Craig D. Swift, S.E., P.E.** The new location responds to a growing business presence and client base throughout Virginia.
- **Steel Projects**, a supplier of production management solutions for steel fabricators, and **FabSuite**, a provider of management information systems for North American steel fabricators, have signed an agreement at FabSuite’s headquarters in Williamsburg, Va., to further integrate their products. In the near term, FabSuite will provide a stock and purchasing management solution to be integrated into Steel Projects’ Product Lifecycle Management system (Steel Projects PLM). Longer-term goals of the partnership involve discovering synergies between the two companies’ products and focusing on building a broader product offering for the steel fabrication industry.

## BRIDGES

## White House Honors Atorod Azizinamini as Champion of Change

Atorod Azizinamini, P.E., Ph.D., chair of the Department of Civil and Environmental Engineering at Florida International University's College of Engineering and Computing, has been named a 2015 White House Transportation Champion of Change. Sponsored by the White House and the U.S. Department of Transportation (USDOT), the program highlights the stories and examples of citizens across the nation who are leading projects and initiatives that move their communities forward. Azizinamini, known worldwide as a leading visionary bridge engineer, is being honored for his innovations in making the nation's aging bridges safer.

USDOT and the White House Office of Public Engagement recently hosted all of this year's White House Champions of Change, and Azizinamini and the other honorees were recognized for being leaders in advancing transportation and change that benefits the country's transportation system.

"At FIU, we are providing efficient and economical solutions for the many challenges we face with our bridges and infrastructure," Azizinamini said. "Being named a Champion of Change is recognition of the impact that we have had."

Azizinamini has devoted his career to developing solutions for aging bridges. Currently, about 24% of more than 610,000 bridges in the U.S. are deficient, and about 45% of all U.S. bridges are shorter than 60 ft. To address this issue, Azizinamini invented the Folded Plate Steel Bridge System, which provides an economical, long-term solution for replacing outdated short-span bridges. It allows on-site construction of a bridge over a few days, using less costly materials and lasting longer, resulting in lower costs and limited impact to traffic. In 2011, he received the AISC Special Achievement Award for his development of this technology.

Last year, with support from the second Strategic Highway Research Program, Azizinamini developed the first comprehensive guide for enhancing the service life of bridges. The first application of the guide was at the new Tappan Zee Bridge in New York.

Azizinamini is director of FIU's Accelerated Bridge Construction University Transportation Center (ABC-UTC), focused on developing technology and methods to improve bridge design and construction. The ABC-UTC was established by the U.S. Department of Transportation in 2013, and works closely with

the Federal Highway Administration and the American Association of State Highway and Transportation Officials to advance accelerated bridge design and construction, through research, workforce development and technology transfer.

"Dr. Azizinamini's visionary bridge designs are what our country needs for the 21st century—cutting edge, cost-efficient and safe," said Ranu Jung, interim dean of FIU's College of Engineering and Computing. "In addition to his contributions to bridge engineering, he has ensured that our students learn to think in terms of finding solutions and impacting the local, national and global community."



## NASCC

## SteelDay Sculpture Finalists

AISC members spent all summer creating scintillating structural steel sculptures for the 2015 SteelDay Sculpture Competition, and now the finalists are set. The five finalists, which were selected

via voting on Facebook, will be on display at the 2016 NASCC: The Steel Conference, April 13-15 in Orlando, Fla., where attendees will be able to vote for their favorite. Visit the SteelDay Sculpture

Facebook page at [www.steelday.org/SculptureCompVoting](http://www.steelday.org/SculptureCompVoting) to see all of the entries. And to register for and find out more about the Steel Conference, visit [www.aisc.org/nascc](http://www.aisc.org/nascc).



PROJECTS

## Transbay Transit Centerpiece Installed

Installation of the central feature of San Francisco's new 1.5 million-sq.-ft Transbay Transit Center was recently completed. The Light Column, which will allow natural daylight from the open air rooftop park into the main public space, the Grand Hall, reaches 150 ft through all five levels of the building. Topped with a 4,000-sq.-ft domed skylight, the structure not only supports the building, but also draws daylight deep into the interior and frames views of the park above.

The Light Column is assembled of tubular steel columns and 56 cast steel nodes with various geometries, supplied by Cast Connex (an AISC Member). Each vertical segment of the structure is topped off with a uniquely designed horizontal ring, made up of roller or induction bent pipe segments, except for the top and bottom rings, with the smallest ring weighing in at approximately 50 tons. As the structure grows taller, the rings become wider and thinner, expanding the capacity for natural light to enter the building.

"Not only is the Light Column one of the signature architectural features of the Center, but it has also been one

of the most fascinating sections to construct," said Dennis Turchon, Transbay Joint Powers Authority senior construction manager.

Due to the Light Column's sheer size and proximity to Fremont Street, two lanes of traffic were closed in order to install it during the afternoon and evening hours. Despite the unique construction challenges, assembly of the structure was completed in just over a month. Crews are now advancing steel construction toward Fremont Street, which began in September.

A total of more than 22,000 tons of steel will be used to construct the Transit Center, all of which was supplied and fabricated domestically in accordance with the project's Buy America status. Production facilities in 25 states have been involved in providing the steel for the project, several of which are AISC Members and AISC Certified facilities. (View a map of the various facilities at <http://tinyurl.com/o8yvwub>.)

When finished, the Transit Center will accommodate approximately 100,000 travelers daily. Bus operations are scheduled to begin in late 2017. For more on the project, visit [www.transbaycenter.org](http://www.transbaycenter.org).



Photo Courtesy of Cast Connex

PUBLICATIONS

## Nuclear Specification Supplement now Available

A new Supplement No. 1 (ANSI/AISC N690s1-15) to the AISC *Specification for Safety-Related Steel Structures for Nuclear Facilities* (ANSI/AISC N690-12) is now available. This ANSI-accredited standard is written as a supplement to the AISC 2010 *Specification for Structural Steel Buildings* and applies to the design of safety-related steel structures and steel elements in nuclear facilities. Supplement No. 1 consists of a new Appendix on steel-plate composite walls and associated revisions. AISC

Task Committee 12 on Nuclear Facilities Design and an ad hoc subcommittee developed the Supplement, and it is approved by the AISC Committee on Specifications. The Supplement has been incorporated into the standard and the document is available for free at [www.aisc.org/specifications](http://www.aisc.org/specifications). A limited number of printed copies are available for purchase at [www.aisc.org/bookstore](http://www.aisc.org/bookstore) for \$12.50 (AISC members) and \$25.00 (nonmembers), plus shipping and handling.

PUBLICATIONS

## 2016 Specs Open for Public Review

The drafts of the 2016 AISC *Specification for Structural Steel Buildings* and the 2016 AISC *Seismic Provisions for Structural Steel Buildings* will be available for public review from December 18, 2015, to February 1, 2016. Both specifications, along with the review forms, will be available for download at [www.aisc.org/publicreview](http://www.aisc.org/publicreview) during this time. Copies are also available (for a \$35 nominal charge) by calling Janet Cummins at 312.670.5411.

Please submit comments using the form provided online to Cynthia J. Duncan, director of engineering, at [duncan@aisc.org](mailto:duncan@aisc.org) by February 1, 2016, for consideration.