SMDI AND AISC PARTNER WITH INDUSTRY AND ACADEMIA TO ESTABLISH THE STEEL DIAPHRAGM INNOVATION INITIATIVE

New website is launched to educate and update design professionals at http://www.steeli.org

WASHINGTON, D.C. – The Steel Market Development Institute, a business unit of the American Iron and Steel Institute (AISI), and the American Institute of Steel Construction (AISC) have partnered together with several industry organizations and academic institutions to establish the Steel Diaphragm Innovation Initiative (SDII), a multi-year effort to advance the seismic performance of steel floor and roof diaphragms utilized in structural steel buildings through better understanding of diaphragm-structure interaction, innovative design approaches, and new three-dimensional modeling tools that provide enhanced capabilities to designers.

SDII investors include SMDI, AISC, the Steel Deck Institute (SDI), the Steel Joist Institute (SJI), and the Metal Building Manufacturers Association (MBMA). Additional partners in SDII include the Cold-Formed Steel Research Consortium (CFSRC), which is comprised of researchers and engineers from The Johns Hopkins University, Virginia Tech, Northeastern University, and Walter P. Moore and Associates. The research team was awarded a three-year grant from the National Science Foundation commencing September 2016. SDII will be managed by the Cold-Formed Steel Research Consortium.

“Steel deck diaphragms have many advantages, including low weight, use of recycled material, competitive cost, and proven performance,” said Jay Larson, P.E., managing director of AISI’s Construction Technical Program. “The objective of SDII is to move the practice forward through the adoption of new design specifications for diaphragms and the creation and use of tools that allow engineers to understand and optimize in their designs of steel diaphragms for steel buildings. We
anticipate the research undertaken by SDII will provide innovative new solutions that significantly advance current design practices and result in safer, more optimized, and cost-effective steel solutions for building construction.”

Benjamin Schafer, Ph.D., P.E., director of the Cold-Formed Steel Research Consortium, announced that a new website, http://www.steeli.org, has been launched to keep the design community informed of advancements resulting from the research as well as providing an educational tool for those interested in learning more about the use and design of steel deck diaphragms. The new website:

- Introduces engineers and other design professionals to the seismic design of steel deck.
- Provides web resources for steel deck diaphragms.
- Discusses the past performance of tested steel deck diaphragms.
- Explores challenges in simplified models for steel deck.

AISI serves as the voice of the North American steel industry in the public policy arena and advances the case for steel in the marketplace as the preferred material of choice. AISI also plays a lead role in the development and application of new steels and steelmaking technology. AISI is comprised of 19 member companies, including integrated and electric furnace steelmakers, and approximately 125 associate members who are suppliers to or customers of the steel industry.

SMDI increases and defends the use of steel by developing innovative materials, applications and value-added solutions for customers in the automotive, construction and packaging markets. SMDI construction investors include: AK Steel Corporation, ArcelorMittal, Nucor Corporation and SSAB Americas. For more information on SMDI, visit www.smdisteel.org or follow @SMDISteel on Twitter.

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