MN, Ontario Partner on Bridge Replacement

MnDOT has completed a replacement of the Baudette/Rainy River International Bridge, which links north-central Minnesota to Ontario, according to Transportation Topics. The $39.3 million bridge is steel-girder and cast-in-place concrete deck and was a partnership between MnDOT and the Ministry of Transportation of Ontario. Stantec created the preliminary and environmental designs, and Parsons Transportation Group developed the bridge’s final design. Demolition of The old bridge, which is scheduled for demolition beginning in October, was built in 1959. According to MnDOT, the steel truss bridge is a rare example of a Pennsylvania truss structure (named after the Pennsylvania Railroad). Due to the bridge’s historic standing, the state was required to make it available for preservation and relocation, which was complicated by the fact that Minnesota owned only half the bridge. MnDOT’s project manager said, “[S]ince ownership of the bridge is split with Canada, we were actually advertising only half of a bridge for sale. The advertising for the chance to buy half of a bridge created a stir online and in the media, but it didn’t generate any interested parties due to the considerable costs to disassemble, move and reassemble.”

Researchers Study COVID Spread from Musical Instruments

University of Minnesota mechanical engineering researchers are working with the Minnesota Orchestra to figure out the likelihood that aerosols from brass and woodwind instruments can spread the coronavirus that causes COVID-19, reports the Star Tribune. University faculty member Jon Hallberg said, “The degree of aerosol coming out of a wind instrument or a brass instrument is actually less than we thought it might be,” adding, “Realizing there isn’t this enormous difference between breathing and playing the instrument in terms of aerosol production, velocity and spread — that became very reassuring.” Early results were published in the Journal of Aerosol Science.
We Want to Hear from You!

Do you know of engineering news in Minnesota that would be great for this newsletter? Maybe it’s a project you or your firm is working on, or perhaps you read some interesting engineering news in your local newspaper. Or maybe you know of a fellow PE or student who deserves a little recognition. If so, we want to hear from you. Email your ideas to pemagazine@nspe.org

Stay up to date on legislative issues through the NSPE Advocacy Center.

NSPE President Warns Against Broad-Brush Licensing Reform

NSPE President Tricia Hatley, P.E., F.NSPE, recently challenged an opinion piece that advocates making temporary licensing deregulation permanent, measures that were enacted in response to the COVID-19 pandemic.

In a letter to the editor of the Oklahoman, Hatley warns that efforts to weaken licensing, however well-intentioned, make no distinction for highly complex, technical professions. This is a critical distinction that broad-brush proposals like those referenced in the article fail to make—and puts thousands of lives at risk in Oklahoma and elsewhere.

She also states that professions like engineering, architecture, accounting, landscape architecture and surveying are responsible for the safety of our physical spaces and the integrity of our financial systems. Because of this, they are required to meet rigorous standards based on education, experience, and examination to demonstrate a minimum qualification level.

Read more.

An Adventure to the Moon with Future City

Future City is a project-based learning program where middle school students imagine, research, design, and build cities of the future. This year’s Future City theme is “Living on the Moon.” Teams will be challenged to design a lunar city and provide examples of how their city uses two moon resources to keep citizens safe and healthy.

Due to COVID-19, Future City transitioned this year’s program into a virtual format
to offer impactful volunteer opportunities you can do from the comfort of your home or office.

**Inspiring the Next Generation**

Kay Bailey is a senior research and development engineer currently working on an innovative mechanical device that relieves back pain and pressure. She knows firsthand the added challenges in academia—and professional settings—when few people look like you. "When I was a middle school student, I didn't see many examples of African Americans doing engineering," she says.

This inspired Kay Bailey to volunteer as a Future City mentor in a predominantly African American school in Milwaukee. "I wanted to do whatever I could to show these students that it’s okay to be interested in engineering. Right away I could tell Future City would be a great way to get involved."

Over the last two years, Bailey has loved working with these young scholars. Sometimes she helps them shape their creative ideas or explains STEM concepts, and other times they simply want to hear about what she is working on at her job. "I want these young people to be encouraged to pursue whatever they want."

If, like Kay Bailey, you’re interested in inspiring the next generation, you can sign up to be a mentor by clicking here or email Info@FutureCity.org with any questions. This year, the program (including mentoring) will be virtual.

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**Upcoming Webinars: Roundabout Design Safety, the Engineering Team**

NSPE’s [PE Institute](#) helps members stay current in the profession, earn PDHs, and advance in their careers through webinars on important topics. The webinars are held at 2:00 p.m. – 3:00 p.m. EST at a member price of $99 ($129 for
October 28
Put Me in Coach! The Engineering Team from Concept to Completion
Within the construction industry, engineering-based decisions are made by professional engineers closely engaged with technicians. Working as an efficient team, a project moves smoothly and is successfully completed. A panel of PEs and technicians will share engineering best practices and approaches to overcoming technical challenges.
This webinar is **FREE** for members and non-members.
*Presenters: Kent D. Dvorak, P.E., Chip Hollis (moderator), William Kenneth Johnson, Jr., P.G., Shannon Looney P.E., and John W. Quidley S.E.T.*

November 2
Canon 1, NSPE Code of Ethics for Engineers: “Hold paramount the safety, health, and welfare of the public”
This webinar will introduce you to four of the current members of the NSPE Board of Ethical Review (BER). Discussion will focus on four ethics cases that illuminate multiple aspects of Canon 1, to “hold paramount the safety, health and welfare of the public." These cases are personal favorites selected by each BER member from the more than 600 opinions the BER has published since the late 1950s.
*Presenters: Mark Dubbin, P.E., FPE, Jeffrey H. Greenfield, Ph.D., P.E., BCCE, F. NSPE, David Kish, Ph.D., P.E., William D. Lawson, P.E., Ph.D., F. NSPE*