



TRAC & RIDES EDUCATIONAL OUTREACH PROGRAMS NEWSLETTER

FEBRUARY 2016

By Linda Clifton, TRAC and RIDES Manager

TRAC Training: Building Bridges in Madison and Milwaukee Schools

By Alicia DeShasier and Jennifer Koleske

School districts in Madison, Wisconsin, are gearing up to introduce AASHTO's TRAC educational program to their students this year, after attending training from AASHTO and learning about the modules. Engineers from the Wisconsin Department of Transportation (WisDOT) and Michael Baker International also participated in the training session. Training for the program took place in late October for teachers from six different schools from the Madison area. Training for Milwaukee-area teachers will occur in February.

As part of the Madison training, which was led by Michigan teacher and TRAC veteran Tim Barron, teachers teamed up with the engineering volunteers to participate in a series of entertaining—and educational—activities to demonstrate how to effectively engage students of all ages in the TRAC modules.



Sue Barker, an engineer with Michael Baker International, and a teacher from the Madison School District test their bridge from the Bridge Builder training module.

The highlight of the training, of course, was their introduction to the bridge-building module. Together, the teacher-engineer teams had their own opportunities to build model wooden bridges based on engineering concepts and to compete for both the best and most durable designs. A few teams from Wisconsin have already applied to attend the national bridge-building competition by AASHTO later this year.

The Madison-area school district launched its actual TRAC program for students earlier this month, supported by engineers from WisDOT's Southwest Region Office and Michael Baker's Madison office, who model bridges. The kids, according to the engineers, were excited to work with the professional engineers on their bridge construction and asked many questions throughout the process.



Increasing STEM Opportunities for Students in Underserved Schools in Oregon

by Scott Cornthwaite

In the past few years, research has shown that students in underserved populations are fleeing from and avoiding STEM-related careers at alarming rates. At the same time, STEM-related careers boast some of the highest paying jobs in the U.S. workforce. In the next decade, there is an opportunity to invest in minority and underserved populations to incline them towards careers in STEM.

There is a growing lack of underserved students in the United States, who are pursuing STEM careers. The Oregon Department of Transportation (ODOT), and many other DOTs have a unique opportunity to invest in these underserved populations.

FHWA Support

Having received funding from the Federal Highway Administration's On-The-Job-Training/Supportive Services Program (OJT/SS), ODOT is partnering with a local organization called Business Education Compact (BEC) to facilitate a relationship with underserved schools and send our STEM-related employees into targeted classrooms with the purpose of investing directly through relationship with these students and their teachers.

"If our engineers can create a positive association toward STEM by helping with STEM Connect activities in these classrooms, we might be able to affect systemic change and positively affect these young people-and the workforce. This is an exciting opportunity for ODOT," says STEM Program Coordinator Scott Cornthwaite.

The future vision for the STEM Connect program is that each Region's Tech Center would be paired up with a nearby underserved school in order to replicate the success of the pilot program in Salem. For this idea to gain traction, regional management would champion the vision of the program and allocate employee time to participate in the schools, as well as employees enthusiastically taking STEM to the classroom.

Partnering With AASHTO to Expand Trac/Rides Program in Oregon



Oregon's Teachers prepare to teach Newton's Laws.

ODOT is also using the funding from the OJT/SS program to bring trainers from American Association of State Highway Transportation Officials (AASHTO) to deliver a two-day STEM training for teachers in underserved schools. Through the ODOT STEM Teacher Training, teachers receive hands-on training on materials that they take with them back to the classroom. The teachers get a



high-quality training (that counts toward their PDUs), high-value materials that stay in the school, and the students receive a teacher who is sent back to the classroom, ready to engage their students in STEM-related activities.

"The hands on nature of all the activities...That's what I need," said one teacher who attended the training provided by ODOT.

This kind of trainings are vital. ODOT has the capacity, ability, and funding to come alongside and augment current training for teachers as we seek to expand our TRAC/RIDES program in the five transportation regions in Oregon.

We are also on the lookout for an experienced teacher in our state, who would be trained to teach the TRAC/RIDES curriculum to other teachers. We want to use this teacher or former teacher as an on-going resource to increase the STEM interest among teachers in Oregon.

If teachers are enthusiastic and feel well-equipped to teach STEM in the classroom, students learn from that enthusiasm and motivation, and their interest toward STEM increases. This sounds like the kind of work that DOTs should be a part of.

Are you interested in hearing more about what ODOT is doing to facilitate STEM-related activities in underserved classrooms in our community? E-mail ODOT.STEMprograms@odot.state.or.us and start a conversation. We would love to chat with you!



Building bridges in Oregon.



In Alabama...



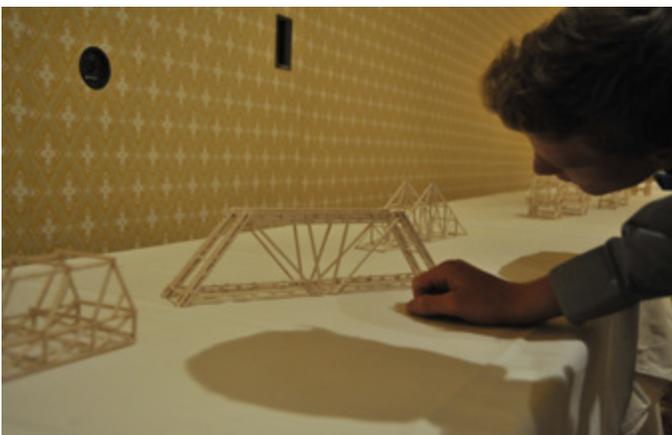
Collapsing Columns...which structure can hold the most weight?
Alabama's RIDES training 2016.



SAVE THE DATE!

AASHTO 2016 National Bridge Competition

The next AASHTO National Bridge Competition will be held on May 23, 2016, at the Des Moines Marriott in Des Moines, Iowa.



TRAC Member States



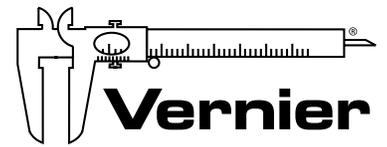
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INTERNATIONAL



AASHTO TRAC and RIDES Advisory Board Meeting

May 23, 2015
AASHTO Spring Meeting
Des Moines, Iowa

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