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## ACE Mentor Program puts engineers in high school classrooms

by Kevin Warneke / World-Herald correspondent Feb 18, 2018



Engineer Doug Walter and student Jenna Reynard work on a project in an Omaha North High School engineering class. Walter is a mentor in the ACE Mentor Program.

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Jenna Reynard didn't think finding ways to improve a parking lot could be so interesting.

The Omaha North High School senior spent last semester creating a plan to make the Norris Middle School parking lot and its student drop-off process more efficient.

The project was part of the ACE (Architecture, Construction, Engineering) Mentor Program, which was incorporated into the Project Lead the Way engineering class at North High.

The national mentoring program brings architects,

construction managers and engineers into high school classrooms to spark interest in their professions.

The program brought Reynard and Doug Walter of E&A Consulting Group together to work on the parking lot project.

“At first, he scared me,” said Reynard, who plans to study engineering in college. “Then I realized he was only trying to challenge me, to make me better.”

Reynard’s engineering teacher at North, Shanna Sedlacek, said the program has helped her students understand the complexity of architecture, construction management and engineering.

“Some students, for example, thought being a mechanical engineer means you work on cars,” she said. “They may. But they may also work on an HVAC system in an office building or on a piping schematic or an industrial plant.”

Or they may learn that there’s more to designing a restroom than placing the fixtures, she said. Students initially don’t realize that bathrooms must be accessible, which dictates how high those fixtures can be and how wide the doors must be.

Mike McMeekin, chairman of the ACE Mentor Omaha board, said the program grew from a challenge issued by City of Omaha and Omaha Public Schools officials to impact inner-city Omaha communities in a meaningful way.

“We asked firms like ours what we could do to influence young people into the professions,” said McMeekin, who also is Lamp Rynearson’s board chairman. “We took a longer-term approach.”

McMeekin issued a call to local industry professionals to work with OPS high school students interested in careers in architecture, construction management and engineering.

The request drew enough response to start ACE programs in OPS and at Westside High School and Creighton Prep.

Their charge: “Make a connection with young people. Help them accomplish something and learn how to solve problems — and make a career out of it.”

The program, which features 45 industry professionals from 25 local companies, awarded five \$4,000 scholarships last year to program participants, with plans to increase that support this year. Two of last year’s recipients are studying engineering at Nebraska universities; the others are still in high school.

Mike Holton, a design engineer at Ehrhart Griffin & Associates, had heard of the mentoring program before it came to Omaha. He said his company wanted to get more involved in the community, and the program presented the opportunity.

Holton, who worked with Omaha North students weekly last semester, currently visits every other week as part of a rotation of program participants.

Holton admitted he wasn't sure what to expect regarding the students' interest and knowledge. He said he was surprised.

"I've been amazed at how far along these students are. It's great to see how interested they are," Holton said.

He worked with students to develop land for a restaurant. The students decided whether to use an existing site or find an open lot. He taught them about the need for proper drainage and the importance of properly situating utilities and parking.

Holton said he has benefited from his program involvement and expects that his company also will at some point.

"I always felt teaching and telling others how things work in your profession, explaining things in layman's terms, helps your own understanding," he said.

McMeekin said the strong response by students and mentors has him thinking about expanding the program's reach. Typically, ACE mentors work with students who already are interested in architecture, construction management and engineering.

"We want to reach students who don't know anything about us," McMeekin said. "We're not on their radar."

Reynard, the Omaha North student, said engineering is definitely on her radar, and that participating in the program has reinforced her interest.

"At one point I'm arguing with my classmate, then I'm talking to a professional engineer," she said. "I'm learning while I participate."