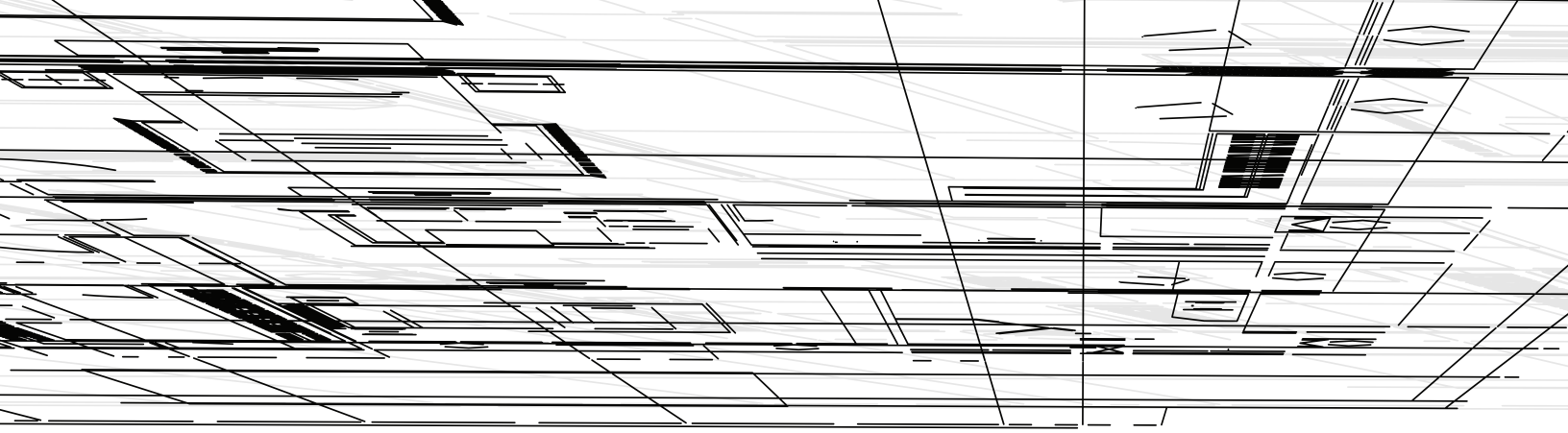
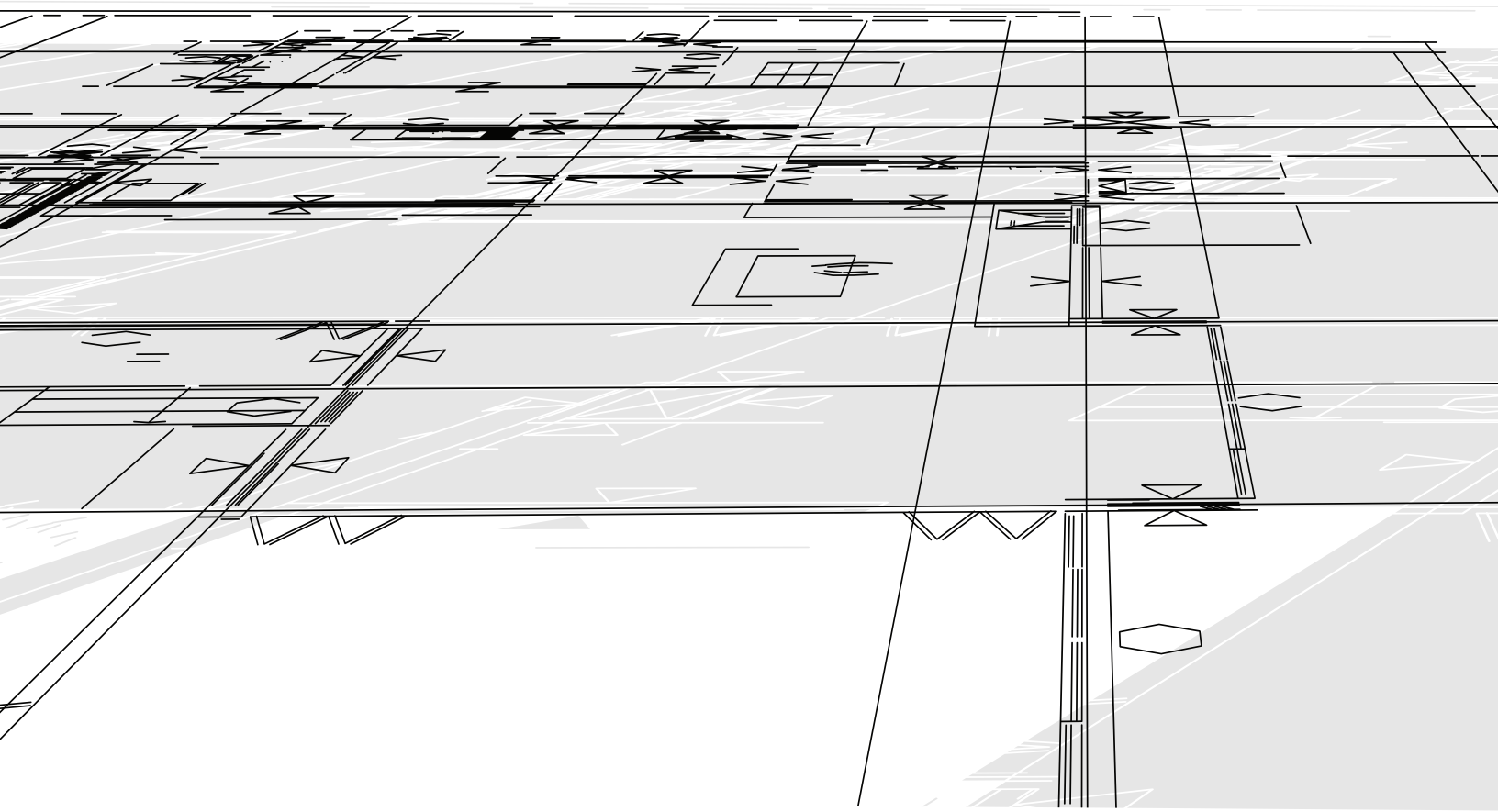


THE DURHAM SCHOOL

HEADLINES

WINTER 2019



THE DURHAM SCHOOL OF ARCHITECTURAL ENGINEERING & CONSTRUCTION

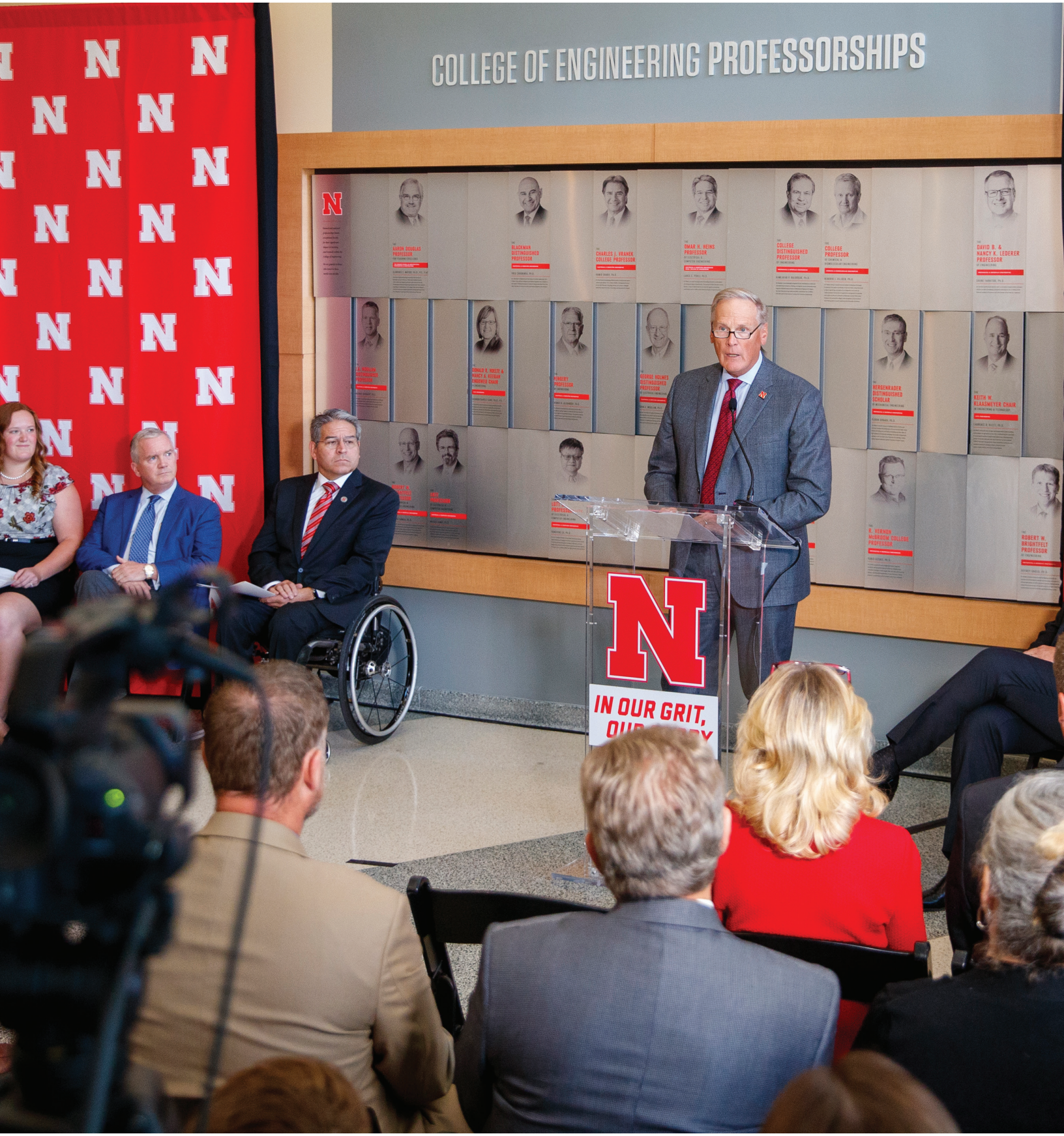
KIEWIT HALL COMMITMENT

Q&A WITH ALUMNUS DAVID MILES

GRANTS AND AWARD WINNERS

DURHAMSCHOOL.UNL.EDU

INTRODUCING KIEWIT HALL



The chairman and chief executive officer of Peter Kiewit Sons' Inc. joined with the chancellor of the University of Nebraska-Lincoln Sept. 16 to announce the Omaha corporation's support of a significant expansion of Nebraska Engineering.

The company's $20 million commitment is a substantial contribution to an estimated $85 million engineering facility planned for Lincoln. The building will be erected at the corners of 17th and Vine Streets and will be named Kiewit Hall. It will serve as the College of Engineering's academic hub and house Lincoln-based construction management programs.

"As stewards of our community and the construction and engineering industry, Kiewit is happy to not only support the College of Engineering's physical expansion, but also the strategic efforts to grow UNL's engineering program into one of the best in the country," said Bruce Grewcock, Kiewit's chairman and chief executive officer.

Chancellor Ronnie Green said Kiewit's support is emblematic of the partnership between Nebraska's Big Ten College of Engineering and one of North America's largest and most respected construction and engineering companies. Kiewit and its executives have had a long history of support for Nebraska engineering, which offers programs in both Omaha and Lincoln.

"The powerful combination of Kiewit and UNL will significantly grow the impact of Nebraska Engineering," Green said. "That is a top priority for the University of Nebraska. We are making great strides under the strong leadership of Dean Pérez, and I am so excited about the trajectory of this program."

By 2026, Nebraska will need nearly 15,000 new workers in the engineering and computer science fields.

College of Engineering Dean Lance C. Pérez expects engineering enrollment at Nebraska to reach about 5,000 students within the decade, a 50 percent increase that would make it UNL's second-largest college in terms of enrollment.

"The college is extremely grateful to Kiewit for this generous gift and continued partnership as we make critical investments to provide Nebraskans with world-class construction, computing and engineering education and research," Pérez said. "We are truly gratified for the support from the state of Nebraska, the business community, and others."

The Abel family of Lincoln is a second major contributor to the project. Jim Abel, chairman and CEO of NEBCO, and his wife, Mary, are longtime civic leaders and their family's support for the university goes back three generations. The family has agreed to donate a parcel of land at 17th and Vine streets to the project.

Construction started this fall on the first phase of the $75 million expansion and renovation project, which was approved by the Nebraska Board of Regents in August 2018. Phase 1 will include the $75 million renovation of Scott Engineering Center and Nebraska Hall, plus the demolition of the 1984 facility known as the Link, and its replacement with a 91,000-square-foot addition scheduled to be completed in 2022.

Fundraising is actively continuing with engineering alumni and other donors so that all funds can be raised, and Kiewit Hall can meet its tentative completion date of 2023.

Kiewit's roots trace back to 1884, when brothers Peter and Andrew Kiewit started a small masonry contracting business in Omaha. It rose to national prominence under the leadership of one of Peter Kiewit's sons, also named Peter, and has since grown into one of the largest construction and design engineering firms in North America. Kiewit delivers some of the industry's most complex and challenging projects across seven different markets including transportation, oil, gas and chemical, power, building, industrial, mining and water/wastewater. The employee-owned company is home to over 11,000 staff, of which about 45 percent are degreed engineers.

HAPPENINGS

Student, faculty go global, bring home seven ASC regional awards

Construction programs students and faculty brought home plenty of awards from recent Associated Schools of Construction (ASC) competitions and conferences - one on another continent and the other only a few miles from campus.

At the North Central Region 4 annual conference and 27th annual Construction Management Student Competition Oct. 27-30 Nebraska City,

Matthew Barrows and Brandon Kreiling, assistant professors of practice in the construction programs, each were honored with the ASC Regional Teaching Award. Barrows' nomination has been forwarded to be considered for the ASC National Teaching Award.

Students used real construction documents from projects that have already been or are currently under construction. The overall intent was to place students in "real life" project management situations. In an 18-hour period, they had to schedule, estimate, run cost analyses, and resolve several management issues that arose during the project planning phase.

A panel of judges from industry reviewed and graded the team proposals, which included the team's plans for managing and constructing the project. Students presented their proposals to the judging panels, comprised of representatives from all facets of the construction industry.

COMPETITION RESULTS

Commercial 2 (renovation/addition), first place – Jake Batenhorst, Austin Campbell, Ryan Cook, Eric Hayward, Brad Hurtz and William Semerad. Coach: Matthew Barrows.

Heavy Highway, first place – Jack Bourne, Christian Chilton, Hala Fadhil, Garrett Giesler, Jose Lopez Flores and Matt McMahon. Coach: Brandon Kreiling.

Commercial 1 (new construction), second place – Tyler Farley, James Killeen, Kiel Kruse, Cooper Netsch, Anthony Sacco and Brady Standage. Coach: Matthew Barrows.

Design-Build, second place – Eric Adame, Zach Barnhill, Nick Gaffney, Dakota Mohlman, John Pupkes and Alexis Wilson. Coach: Phil Barutha.

The competition included 28 teams and 168 students from 10 universities in the seven-state region.

On Nov. 5, Barrows and four students - Zach Barnhill, Brad Hurtz, John Pupkes and Brady Standage - traveled to Manchester, England for the ASC International Region 8 competition and conference. After a 21-hour trip and fighting a bit of jet lag, the Nebraska team took second in the Quantity Surveying/Construction Management competition against teams from across Europe and Asia.

Barrows will return to England in April 2020 for the ASC International Conference in Liverpool, where the ASC National Teaching Award will be presented.

The **ASCE ExCEEd Teaching workshop** was held June 2-7 at The Peter Kiewit Institute. The six-day practicum provides engineering educators the opportunity to improve their teaching abilities. Faculty members across the country and around the world have benefited from this workshop, including Durham School faculty Phil Barutha, Iason Konstantzos, Josephine Lau and David Yuill. This is the second year that the school has provided financial support for this workshop.

The **17th Annual Tradition of Excellence Golf Tournament** was held July 8 at Tiburon Golf Club and was hosted by The Durham School and the Construction Industry Advisory Council. More than $35,000 was raised, with 70-plus companies and 244 players participating in the event. Students from Associated General Contractors (AGC), Latinos in Science and Engineering (MAES) and Mechanical Electrical Specialty Contractors (MESC) sponsored wagering holes and interacted with industry representatives.

The **annual Durham School Career Fair,** held Sept. 30-Oct. 2 at the Scott Conference Center in Omaha, was again a rousing success, with 110 employers registering, 104 employers attending, and 358 students participating. The Career Fair generated approximately 343 student interviews.

- Just over 93 percent of employers gave an overall evaluation of good or excellent.
- More than 98 percent of employers said the Durham students either met or exceeded their expectations.
- 100 percent of employers said the career fair staff and the host program either met or exceeded their expectations.
- More than 98 percent of students said they learned about an organization or opportunity that fits their interests.
- Nearly 95 percent of students said they gained insight about what they need to do to prepare for internships and employment.
- More than 98 percent of students said they planned to follow-up on a contact made during the career fair.

On Aug. 30, the **inaugural Tradition of Excellence Sporting Clay** took place at Oak Creek Sporting Club in Brainerd, Nebraska. More than 100 people registered for the event, with more than $16,000 raised for scholarships. The event was organized by members from the Construction Industry Advisory Council and other industry professionals.

With the support of the Beavers Foundation, The Durham School has recently partnered with Metro Community College to purchase a fully operational mobile heavy equipment simulator that will be integrated into existing courses within certificate and degree programs in construction management, construction engineering and civil engineering, with a focus on heavy-civil construction. The development of a simulator training curriculum is underway.

MISSION IN THE VIRGIN ISLANDS

Alahmad and Tesfay join with *SURGE* to help recovery following 2017 hurricane season

Moe Alahmad, associate professor of architectural engineering, and architectural engineering student Mehari Tesfay took part in the second Minority Scholars from Underrepresented Groups in Engineering and Social Sciences (SURGE) Boots-on-the-Ground Reconnaissance Mission in the U.S. Virgin Islands from June 19-25. The mission – supported by the National Science Foundation's Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (INCLUDES) initiative – built upon and expanded the groundwork that SURGE laid during its inaugural 2018 field mission to help the islands recover from a devastating 2017 hurricane season.

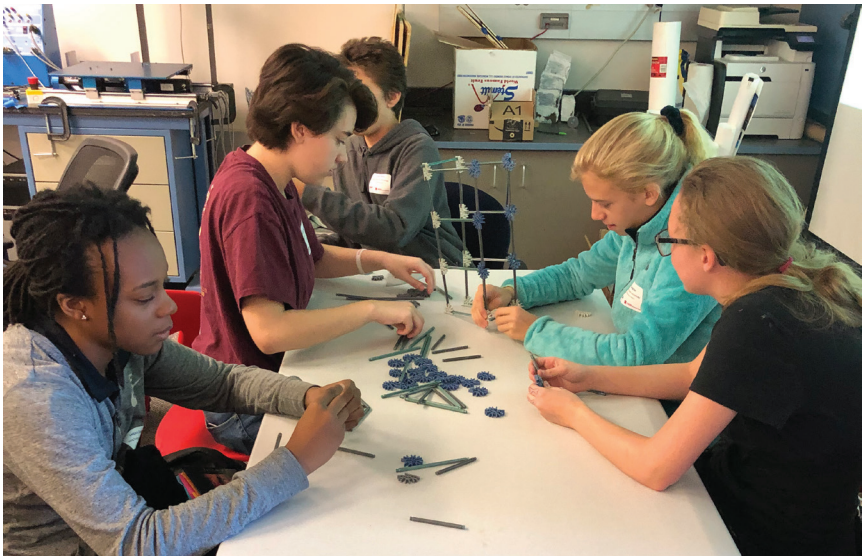
Tesfay was one of 10 U.S. students among the 17 scholars chosen for the mission. Alahmad was part of a group that worked on solar panels.

SURGE scholars took on a range of activities, including helping to rebuild hurricane-damaged structures with the group All Hands and Hearts; using drones to map drainage structures with local researchers; designing and obtaining stakeholder feedback on a survey of community preparedness and recovery; and mapping grocery stores to identify food deserts. Another team worked with members of the St. Thomas Recovery Team (STRT) to build prototypes of home and community gardens as part of a food security project.

Terri Norton, a former Durham School faculty member who is now at Bucknell University, is a co-principal investigator on the project.

Top: Mehari Tesfay on the beach in the Virgin Islands

Left: The entire group of SURGE scholars



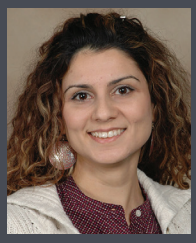
Society of American Military Engineers' Student Mentoring program teaches hands-on engineering skills students

More than 200 middle and high school students from 22 Omaha area schools got a hands-on introduction to engineering and construction careers in October at the Peter Kiewit Institute. The event was hosted by the Society of American Military Engineers (SAME) Student Mentoring Program and the Durham School of Architectural Engineering and Construction (DSAEC).

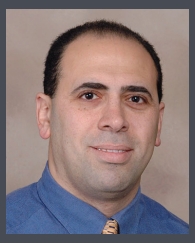
Durham School faculty and graduate students, and staff at the University of Nebraska-Lincoln College of Engineering, together with industry leaders, led activities to illustrate the technology, tools and daily experiences of engineers and constructors. Student favorites were Roller Coaster Engineering led by Sally Wei and the Engineering Ambassadors, Electrical Theory led by Kevin Ruppert from Omaha Joint Electrical Apprenticeship Training Committee, and Project Management, led by Professor Matthew Barrows.

Students were accompanied by their teachers, who also enjoyed the hands-on sessions. Of the event, they said it was "wonderful," "very organized," and they "would love to be able to book these demonstrations for the classroom." Outreach events like these can lead to long-term partnerships with area schools, increasing exposure to the next generation of future engineers.

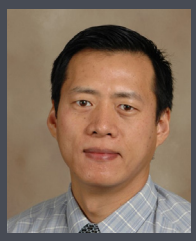
GRANTS



Ece Erdogmus Skourup, professor of architectural engineering, received a $52,957 grant from the Nebraska Department of Transportation for a project titled, "Detection of Flaws with Asphalt Overlaid Concrete Decks Using Ultrasonic Guided Waves."



George Morcous, professor of construction engineering, has received a $78,648 grant from the Nebraska Department of Transportation for a project titled, "Design and Detailing of Cast-in-Place and Precast Concrete Approach Slabs."



Zhigang Shen, associate professor of construction engineering and management, received a $109,844 grant from the Nebraska Department of Transportation for a project titled, "To Automate Detecting, Quantifying, and Mapping of Delamination of Bridge Decks using Aerial Thermographic NDE."

Shen also received a $249,964 grant from NDOT-PHMSA for "An Autonomous UAS Inspection Platform for High-Efficiency 3D Pipeline/Route Modeling/Change-Detection and Gas Leak Detection-Localization."

David Yuill, assistant professor of architectural engineering, has received a $749,792 grant from the U.S. Department of Energy for a project titled, "A Field Study to Characterize Fault Prevalence in Residential Comfort Systems."

FACULTY/STUDENT FOCUS

Research showing that quieter environments in neonatal intensive care units (NICUs) may result in better health outcomes for infants has created an unexpected buzz.

Erica Ryherd, associate professor of architectural engineering, and her co-authors were preparing to present the research at the biannual Acoustical Society of America (ASA) conference in Louisville, Kentucky in early May when media from around the world discovered the information that was prepared for the conference.

"It's a topic that comes up periodically in the popular media, but this is the first time one of our group's conference abstracts has blown up," Ryherd said.

The project is headed by Ryherd and includes recent Nebraska architectural engineering Ph.D. recipient Jonathan Weber and is part of a larger body of study by Ryherd's research group looking into engineering solutions to acoustical issues in hospitals to create healthier environments. It received attention from U.S. News & World Report, The Daily Mail of London, Health Day, Nursing Times, Medical Xpress and the Omaha World-Herald, among others.

The group implemented quiet-time protocols – a practice common in many NICUs that call for scheduled periods of quiet and/or softened sounds through behavioral and operational changes – in three hospitals and assessed the results from before, shortly after and long-term (approximately 16 months) after quiet times were put in place.

"The newborns seemed to thrive more during those quiet times, hopefully making it easier for premature babies to transition to life outside the womb and lowering the risk of disease," Ryherd said.

The quiet-time protocols are only part of an overall recommendation. These would also include engineering solutions such as "thinking about how the units are designed, including the unit layout, the materials used in the building, the HVAC systems and overall noise control."

MAE Project Earns NCESS Engineering Education Award

For the second time in four years, Durham School graduate students won the Grand Prize and $25,000 in the 2019 NCEES Engineering Education Award. The University of Nebraska-Lincoln is the only institution to be a multiple Grand Prize winner since the competition's inception in 2009. A Durham School team also won the Grand Prize in 2016.

For the competition, architectural engineering master's degree students worked with architects, engineers and others to design the structural, mechanical and electrical systems for the Jack H. Miller Center for Musical Arts on the Hope College campus in Holland, Michigan. The design included superior acoustics, integrated timber or engineered wood throughout the building, and a rooftop amenity space. The team's project was praised by the jury for involving different disciplines and a practical design solution.

A total of 51 entries were submitted in this blind competition, with eight chosen as winners and from them, Nebraska received the Grand Prize.

The award was established by the National Council of Examiners for Engineering and Surveying to recognize college engineering programs for engaging their students in collaborative projects with licensed professional engineers.

Alsaleem to incorporate innovation in fall-detecting wearable device

With an insect-inspired approach and more than $500,000 from the National Science Foundation, Fadi Alsaleem and his team think they can lower power consumption by as much as 100-fold in wearable technology that detects falls among the elderly.

Using micro-electro-mechanical systems (MEMS) in which mechanical components take on some of the processing burden, Alsaleem proposed a system with a series of paired switches to detect more complex movement profiles, somewhat like the neural network of a brain.

But whereas a brain processes the signals sent from nerves — a model for the conventional but power-intensive setup of CPUs and sensors — the team is designing its mechanical sensors to effectively act as both nerve and brain. That makes the team's approach more akin to the nervous system of many insects, Alsaleem said. Though insects have relatively few neurons and comparatively small brains, they evolved to perform surprisingly complex computations by essentially embedding neurons in appendages or other sensory organs.

The inspiration for applying the potential breakthrough to a fall-detecting device struck Alsaleem after a conversation with an AE colleague whose elderly father has an Apple Watch that can detect falls but needs to be charged, something the father sometimes forgets to do.

"So even though his dad has this watch, it's of no use to him. (My colleague) was saying, 'I wonder if there's any new technology that can do the job without the need to keep charging it.' And that's where things clicked for me," Alsaleem said.

Alsaleem also sees potential for the sensor-as-processor innovation to find a place in all sorts of other technological domains. He's already considering how to incorporate it in wearable devices that would read, process and transmit physiological indicators of discomfort to a smart home's HVAC system, which could then heat or cool a specific room accordingly. "The application for this is very wide," he said. "Anything that relies on data to make some conclusion or judgment or decision, that's where this fits — regardless of the size, regardless of the location.

GRANT

Fadi Alsaleem, assistant professor of architectural engineering, has received a $65,179 grant from the Nebraska Department of Transportation for a project titled, "A Big Data Approach for Improving Nebraska Cycling Routes."

Alsaleem has also received a $10,000 grant from the University of Waterloo (Ontario, Canada) for a project titled "Micro-Neuro Computing."

Barrows at GH Phipps Construction

Matthew Barrows, associate professor of practice in construction management, spent his summer in Denver being a student – gaining hands-on education while working in a construction firm – and then brought that industry experience and knowledge to the Durham School and his students.

"My goal is to bring industry into the classroom," Barrows said.

Barrows was a Professor in Residence at GH Phipps Construction in Greenwood Village, Colorado as part of a program started three years ago to address an industry-wide need for skilled workers coming out of college ready to work.

"It's a key function to make sure students are up to speed and that they have the skills and background needed when they graduate," said Katie Lavicky, GH Phipps human resource partner.

Barrows said it was a great experience learning at job sites, working with planners and being exposed to the latest technology developments. He believes his summer learning experience with have a ripple effect in his classes at Nebraska.

"Construction management is a very hands-on industry and learning out of a textbook is not the way to get that done," Barrows said.

CSE 40 Under 40

Four Nebraska architectural engineering alumni, including associate professor Erica Ryherd, were among the recipients of Consulting-Specifying Engineer's 2018 40 Under 40 award.

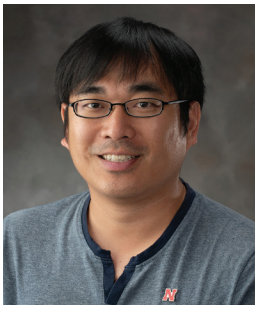
Also winning the award were Kimberly Cowan, senior associate and senior mechanical project engineer at Leo A Daly in Omaha; Samuel Haberman, associate principal at Alvine Engineering in Oklahoma City, Oklahoma; and Brandon Rich, associate principal at Alvine Engineering in Omaha.

This award is given to 40 nonresidential building industry professionals ages 40 and younger who stand out in their personal and professional lives. Candidates were nominated by a professional colleague or mentor and judged by industry experts based on nine areas.

The winners, who were profiled in the May edition of the magazine, were presented with their awards at an October ceremony in Chicago.

NEW FACULTY & STAFF

The Durham School welcomed four new faculty and one staff member in the 2019-20 fall semester to Scott Campus.



Kyungki Kim, assistant professor

Kim's research includes Building Information Modeling (BIM), Immersive Augmented Reality (AR) for construction education and training, construction safety and health, and real-time sensing for construction operation monitoring.

Jennifer Lather, assistant professor

Lather's research includes interactive workspaces to support integrative project delivery and collaborative teams, quantitative layout planning and optimization, stochastic simulation for healthcare operations, and data-driven decision making.

Marc Maguire, assistant professor

Maguire's research includes accelerated bridge construction, integrating sustainability, energy efficiency and structural performance, and non-destructive testing, computer vision, and machine learning in structural engineering.

Adam Page, assistant professor of practice

Page has 14 years of construction and project management experience and five years legal department/in-house counsel experience for ENR-ranked AE firms, and has been in project management and construction administration.

Mary Anne Phillippi, outreach program coordinator

Phillippi is a former lab manager at University of Nebraska Medical Center, where she focused on tumor experiments and projects in both cancer and NASH-model systems. Her professional interests include education of experts in scientific fields and the mentoring and education of K-12 students in STEM fields.

DSAEC team wins ASHRAE Student Design Competition

The Durham School team of architectural engineering students Mitch Mallett-Hiatt, Colin Miller and Sam Underwood took first place in HVAC System Selection at the ASHRAE 2019 Student Design Competition. The team received $2,000, and one representative of the team will receive transportation, lodging and $100 for expenses to attend the ASHRAE Winter Conference in Florida Feb. 2020. David Yuill, assistant professor of architectural engineering, was the team's faculty mentor, and Rick Hiatt was the AP industry mentor.

Durham team Could have impact on offshore energy tech

The National Offshore Wind Research and Development Consortium selected RCAM Technologies, for its wind research and development technology projects. The College of Engineering will play a key role in the project, which will support the development of a concrete offshore wind turbine foundation that does not require a heavy-lift vessel for installation.

Philip Barutha, assistant professor, will head up research that will help to develop and determine the feasibility of the assembly process. The team will perform high-level analysis, logistics, and commercial feasibility.

"We may be playing a smaller role in this big project, but this work has the potential to have a great impact on our industry and our nation's energy infrastructure," Barutha said.

Askar featured as Kiewit intern

Each summer, Kiewit hires interns for positions in offices and projects across North America. They take on a variety of tasks and responsibilities and are important contributors to Kiewit 's business.

Among them was Malik Askar, a senior in construction management who worked this past summer at Venture Global Calcasieu Pass LNG in Cameron, Louisiana.

"Working for a company of this size has allowed me to work outside my comfort zone, face new challenges and learn something new. I am part of the grading and soil stabilization team. I have been blessed to have a great team that takes the time to set me up for success. I have been able to apply what I learned in the classroom. I have learned so much more working on this job by interacting with all the people with different backgrounds. This has been the best experience of my life."

AE students win Howard Brandston Lighting Design grant

Nebraska architectural engineering students Andi Walter and Ryon Sommerer have been chosen as the winners of the 2019 Illuminating Engineering Society (IES) Howard Brandston Student Lighting Design Education Grant, the top international student lighting competition.

The IES gives out one Brandston Grant per year – a $1,000 award to divide among the winning entrants and a plaque. Walter and Sommerer received the award at the IES Annual Conference, Aug. 8-10 in Louisville, Kentucky.

Both Walter (Bucyrus, Kansas) and Sommerer (Omaha) recently graduated with bachelor's degrees and are pursuing a Master of Architectural Engineering degree. Earlier this year, Walter received the Jonas Bellovin Scholar Achievement Award, a $5,000 grant from the Nuckolls Fund for Lighting Education.

The entries are submitted by students who take a lighting design course in their senior year. The class is led by Rodrigo Manriquez, an industry fellow and lighting designer who lives in Detroit, Michigan and Michelle Eble-Hankins, assistant professor of practice in architectural engineering and senior lighting designer at Alvine Engineering in Omaha.

This year's award is the seventh since 2009 won by students from the Durham School.

Underwood receives Phi Kappa Phi fellowship

Sam Underwood, a recent architectural engineering graduate, earned a prestigious fellowship from the national Phi Kappa Phi Honor Society. Underwood, who is pursuing a master's degree, is one of 50 students across the country to receive the $8,500 award.

The Phi Kappa Phi fellowship will help Underwood continue his research, particularly into understanding the impact of sound on how English and Spanish speakers comprehend auditory information. Underwood has worked with advisors Lily Wang, associate dean for faculty and inclusion, and Erica Ryherd, associate professor of architectural engineering.

Earlier this year, Underwood received the Dean's Award from the College of Engineering and the Senior Vice Chancellor Outstanding Undergraduate Award from the University of Nebraska-Lincoln. He was also involved in the UNO University Honors Program and played in the UNO pep band.

LES demonstrates the power, dangers of overhead wires

When students in the College of Engineering take Construction Site Safety, a required class for construction programs, they get to see and hear about the dangers inherent on a job site.

But when Terry Stentz, associate professor of construction, brings the Lincoln Electric System safety demonstration crew to campus, all of the students' senses are alerted about the power and danger of overhead electrical lines.

Stentz teaches two sections of that class on Mondays and Wednesdays in the fall semester, but required his 64 students to attend one of two Nov. 22 demonstrations in a large parking lot near 18th and Y streets.

The three LES employees demonstrated how even getting close to a power line can be hazardous, showing how electricity can burn through the insulated rubber boots worn by firefighters, cause steel-belted car tires to smolder and make flames shoot out from the interior of a hot dog.

These and many more dangers were demonstrated on a trailer that generated less than 10,000 volts, which Stentz said is quite a small amount compared to the lines that construction workers regularly encounter on job sites.

"Electrocution risk is one of the top four problems we have that result in serious injury and fatalities."

"It's one thing to talk about overhead high voltage in class, but it's another thing to have students actually see what it can do. What we're trying to do here is talk about it in the classroom and then come out here in the field and actually see it experientially. I think it makes a bigger impression." Before the demonstration, Stentz said, the students have "little or no experience" with overhead power lines.

"They have no idea (about the danger). A lot of kids think overhead lines have insulation on them, that they're insulated, and they don't. This is a way to show them experientially that this stuff is nothing to mess with," Stentz said.

Eric Hayward, a senior in construction management, said he was taken aback by the demonstration.

"Apart from the general aspect of you need to call it in ahead of time and make sure your keeping your clearances and keeping your distances, the standard procedure kind of stuff, I didn't know much about this," Hayward said. "Just to see the amount of damage it can cause, even when it's a fairly scaled-down system, not a full-blown, high-voltage line, that's very impressive."

Stentz said the safety of construction workers is important and this type of demonstration, which he hopes can take place every year, is paramount.

"We'd like to make construction safer, and right now it's one of the three most dangerous industries in the U.S. ... Every year, between 1,000 and 1,200 construction workers don't go home, and that hurts 1,000 families, too," Stentz said. "These young people really need to see what kind of hazard that (electricity) is."

Q&A WITH ALUMNUS DAVID MILES

David Miles enrolled at the University of Nebraska-Lincoln in 1981 and began studying as a civil engineering major. Despite switching to the construction management program the next year, Miles' career path has remained intertwined with many of the areas construction and civil engineering both serve, especially heavy construction projects.

In more than 33 years with Kiewit, Miles has risen from an entry-level assignment in Southern California just after graduation to now serving as Kiewit Companies' executive vice president of the infrastructure group and a member of the board of directors. Miles oversees all of Kiewit's six infrastructure operations on the West Coast, which account for roughly one-fourth of the company's revenue.

He is also president of The Beavers, a mostly West Coast-based social, honorary organization formed, organized and managed by construction companies and individuals in the heavy engineering construction industry. Recently, that support included a gift of a state-of-the-art equipment simulator to the construction programs at The Durham School.

Miles recently reflected on his career and how his College of Engineering experience and education have been integral to his success.

How did you come to be a student in the construction program in the College of Engineering?

I started out in civil engineering, but after a year I realized I didn't like to do engineering design. So, I switched to construction management in 1982 and graduated in December of 1985. I wasn't your typical four-year student. I took one extra semester. I tell people now that I stayed around to catch one more season of Husker football.

How long have you been with Kiewit and what has been your path to your current roles?

I got an opportunity to work for Kiewit in 1986 and I've been with them ever since.

My wife and I are originally from Lexington, Nebraska. My original assignment with Kiewit was in California, where I was hired to our Southern California district. We moved there in 1986. Then we moved 14 times in 17 years – up and down the West Coast, to Hawaii, down to Atlanta and back in Omaha in 2011.

So that's how you came to know The Beavers, through your Kiewit experience. What is The Beavers?

The Beavers is a construction industry organization specifically focused on heavy construction– lots of roads, bridges, highways, heavy earth moving, and structural and infrastructure – for the majority of our work. We are more West Coast-focused, with about 140 primary companies that have members and some associate members as well.

I was on the board of The Beavers, since I was on the West Coast a long time. I was elected as an officer four years ago, and the officers work through the rotation – secretary, treasurer, vice president, and then president. I am president for this fiscal year – from January to January 2020 – then I'll then pass it off to another board member.

What do you value being part of The Beavers organization?

The Beavers Foundation trust started in the early 1970s and it has grown from roughly $3 million to $33 million recently. We like to say we use it to grow little Beavers, young construction program students, into strong members of the industry. We're very much focused on universities that have curricula that support our initiative. We help to drive up-to-date curricula that fits the needs of our industry, support and select professors with a construction background, and give a lot of scholarships.

The fact we're making a longer-term impact on this industry is so gratifying. With our trust fund, recently, we've been in a position to sponsor a number of activities, like helping The Durham School get equipment simulators that can give the faculty and students the tools they need to stay up-to-date with the needs of the construction industry. The simulators are portable and they take them to classes on City and Scott Campus and can share them with students at Metro Community College. It's one of the examples of the opportunities we have to provide additional funding to schools that support our initiatives.

Being an alumnus, how important is it to give back to the construction program that produced you?

That's the greatest benefit of all. I had already established a scholarship in Lincoln with Construction Management to try to give back to the students. I feel an obligation to give back for the opportunities I have had here at Kiewit because the education prepared me to do what I'm doing.

Kiewit hires a lot of our Nebraska Engineering graduates. Obviously, there's something about these students that is so attractive. What is it that makes graduates good employees?

There's got to be something about the culture you're growing up in and that attributes significantly to the success you have professionally. I used to do a lot of recruiting when I was in California. I'd try to come back here and get kids from Nebraska. There's something special about people who are comfortable in the environment Nebraska has to offer. It's a good Midwestern, high-level-of-work ethic, people who are really professional and respectful. Maybe that's upbringing or the environment of growing up in Nebraska. That carries over to the university's programs and it's demonstrated in the success of alumni from the University of Nebraska in our company and throughout our industry.

ALUMNI NEWS

Construction Management alums chosen for Nebraska Football Hall of Fame

Construction management alumni **Mark Behning and Alex Henery** were inducted into the Nebraska Football Hall of Fame in September 2019.

Henery ended his four-year career at Nebraska as one of the most accurate kickers in college football history. He connected on an NCAA-record 88.9 percent (68 of 76) field goal attempts from 2007-10 and was good on 193 of 194 career point-after-touchdown tries. His 397 career points is a Nebraska school record. He played four years in the NFL for the Philadelphia Eagles and Detroit Lions.

Currently, Henery lives in Omaha and is a project manager for Tetrad Property Group. He and his wife, Johna, have a son, Landen.

Behning was a starter at left tackle from 1982-84 and was first-team All-Big Eight selection in 1984. He was selected by the Pittsburgh Steelers in the second round of the 1985 NFL Draft. He returned to Nebraska after the 1987 season to complete his degree and later spent 11 years as a teacher and coach at Denton (Texas) High School.

Today, he is a senior project manager with Golden Sands General Contractors in Dallas, Texas. He and his wife have four children and four grandchildren.

Weber receives Best Outstanding Paper from ASA

Jonathan Weber, a postdoctoral research associate in architectural engineering, recently received a Best Outstanding Paper by a Young Presenter Award from the Acoustical Society of America (ASA) Technical Committee on Noise. Weber was honored for the presentation, "Quiet Time Impacts on the Neonatal Intensive Care Unit Soundscape and Patient Outcomes," which came from research while he was lead graduate assistant on a team headed by Erica Ryherd, associate professor of architectural engineering.

Introducing New Alumni

Congratulations to the graduating seniors on City Campus, graduating construction engineering and construction management students. Students from left to right: Brady Standage, John Pupkes, Conner Yost, James Killeen, Zach Barnhill, Ryan Cook, Austin Campbell, Cooper Netsch, Jake Batenhorst, Brad Hurtz, Tony Sacco and Tyler Farley.

UPCOMING EVENTS

Explorer Post

January 15, 2020
6–8 p.m.
Scott Conference Center

Explorer Posts, sponsored by The Boy Scouts of America, introduce students (age 14 to 20) to career fields and provides them with the resources and opportunities to develop skills in their interested fields.

Explore Your Future - Omaha With The Durham School and Boyd Jones

February 18, 2020
6–8 p.m.
Scott Conference Center

Adventure and opportunity await the next generation looking to make a difference. The construction and engineering industries offer a rewarding and challenging future with a growing need for young, passionate people.

AE Awards Banquet

March 5, 2020
4:30–8:30 p.m.
Scott Conference Center

Please join us as we celebrate the academic excellence, service, and leadership of students, faculty, alumni and volunteers at our 15th Annual Architectural Engineering Awards and Recognition Banquet.

Construction Programs Awards Banquet

April 23, 2020
5:30–8:30 p.m.
Around the Bend Steakhouse

Join us as we celebrate the academic excellence, service, and leadership of students, faculty, and alumni at our Construction Programs Awards and Recognition Banquet.

Durham School Merchandise Available

The Durham School of Architectural Engineering and Construction has set up an online merchandise store within the College of Engineering's online store. You can visit directly at: *nebraskaengineeringestore.com/dsaec*

Scan for your chance to win Durham School gear!

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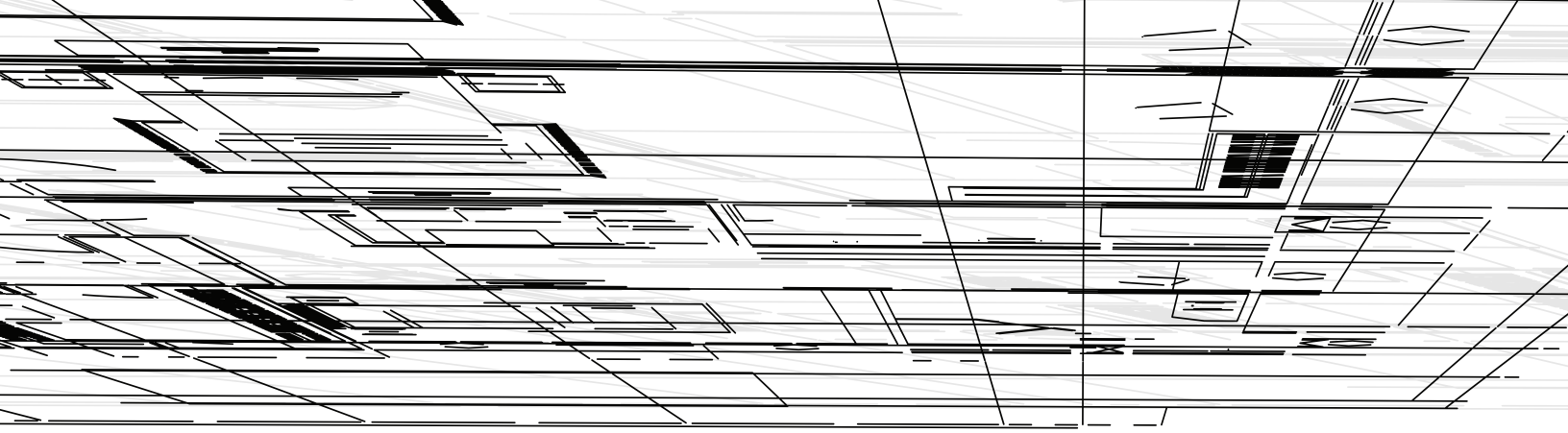

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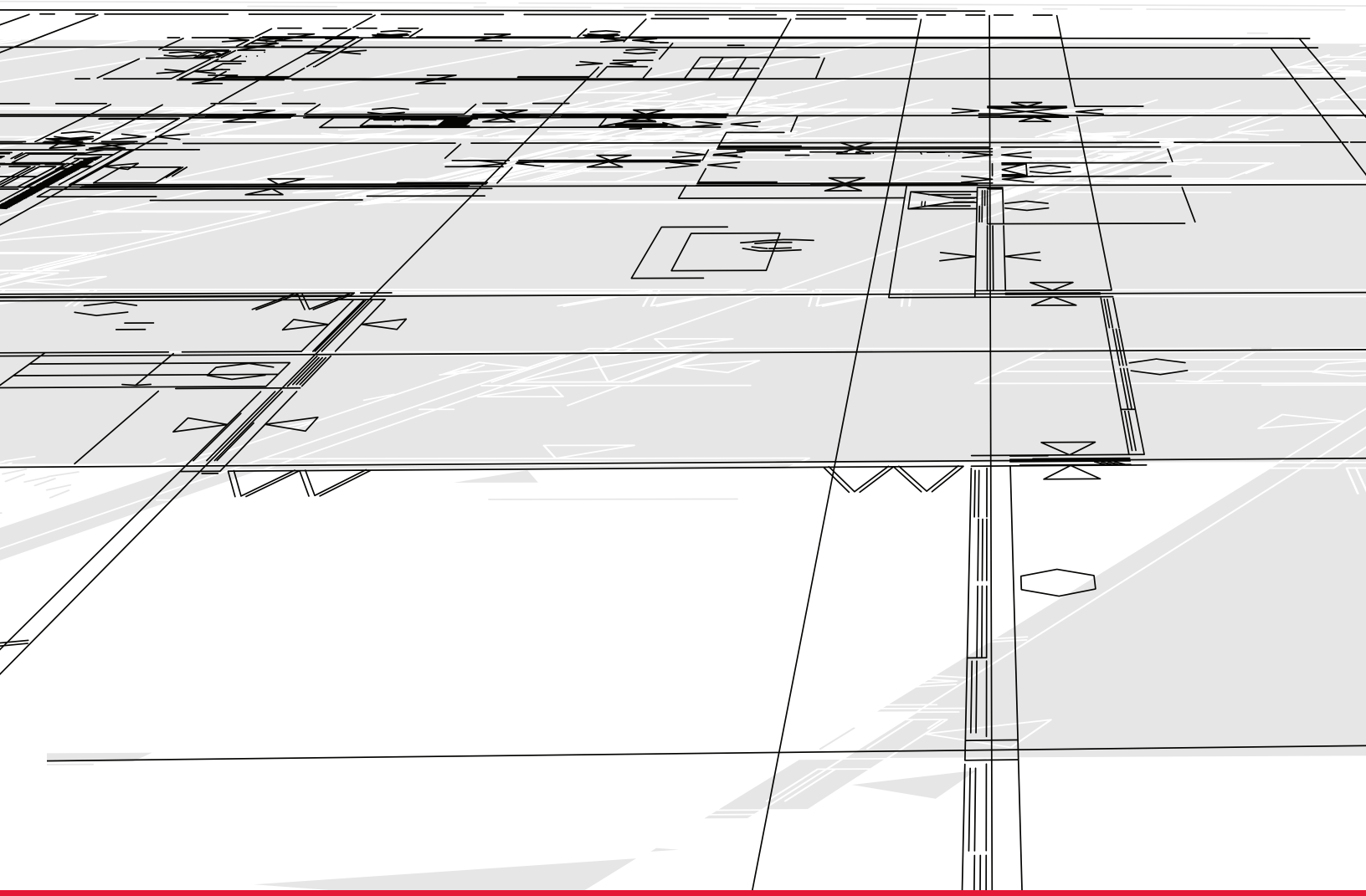

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