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Common Ground

Civil, Architectural and Environmental Engineering Newsletters

01 Oct 2019

#### Common Ground Newsletter Fall 2019

Missouri University of Science and Technology

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#### **Recommended Citation**

Missouri University of Science and Technology, "Common Ground Newsletter Fall 2019" (2019). *Common Ground*. 1.

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# ommon

Civil, Architectural and Environmental Engineering





## From the Chair



As we head into the 2019-20 academic year, this issue of *Common Ground* really hits home at the breadth of accomplishments and undertakings of our students and alumni.

Our student design teams continue to excel in many ways. As a department, we like to promote our students' activities as well as their professional engagement and preparation. Please take a few minutes to browse this publication and see their work on design teams like Engineers Without Borders (see pg. 9), as well as a small sampling of their internship and co-op experiences over the summer (see pg. 6). Professional experiences have always been an important part of preparing our students to be leaders in the profession — and also to

become outstanding Miner Alumni. We were the first department at Missouri S&T to require experiential learning, so our students are "street-ready."

S&T's experiential learning opportunities will increase with the expansion of the Kummer Student Design Center, thanks in large part to the support of many of our alumni (see pg. 11). The facilities will double in size over the next year to give even greater opportunities to all S&T students. The expansion of Butler-Carlton Hall with the Advanced Construction and Materials Lab (ACML) will offer more opportunities in learning and research lab activities. The ACML construction can be followed with weekly time-lapse videos at **rol.la/ACML-live**. We are all looking forward to the move in 2020!

We also look to expand the reputation of our institution as well as our department on the national stage. The civil engineering program was again the highest-ranked engineering program at S&T, ranking in the top 50 of *U.S. News and World Report* (20th percentile). This ranking is by our peer institutions from across the U.S. The quality of our graduates and the activities of our students and alumni drive our outstanding reputation, and also maintain the high level of expectations and recruiting of our graduates.

Thanks to the support and collective career achievement of our alumni, we have a history of excellence that is unparalleled at S&T and in engineering education in the state of Missouri. Thank you to all our alumni who are such strong supporters of our students and their activities. Once again, the CArEE Department set the bar at the highest level of support from Miner Phonathon and also in support of the ACML and the Kummer Design Center expansion. The continued support of alumni and industrial partners is instrumental for us to maintain activities that are a big part of the professional preparation of our graduates.

Sadly, we lost two longtime team members, just as we went to print with this publication. **Jerry Bayless** and **Marsha Grayer** had over 90 years of combined service to our department. Their contributions will never again be matched, and we feel their loss everyday. Please keep them in your thoughts and think of the impact people can make through exceptional dedication and effort. We will hold a memorial event for them at Homecoming this fall (Oct. 4) during the departmental activities. Look for more details with the Miner Alumni Association at **mineralumni.com**.

I hope you will continue to help celebrate our past, look for continued excellence from the team in civil, architectural and environmental engineering, and help support us as we continue forward.

Sincerely,

Joel Burken, Ph.D., P.E., BCEE, F.AEESP

Email: burken@mst.edu

#### 90+ YEARS OF EXPERIENCE

This summer our department lost more than 90 years of experience and service with the passing of **Jerry Bayless** and **Marsha Grayer**. Both were the epitome of dedication and spirit. We doubt we will ever have anyone that serves on the faculty for over 55 years or a staff member devoted to one department for over 35 years again.



#### **JERRY BAYLESS**

Jerry Bayless, retired associate professor of civil engineering died Tuesday, July 2, 2019, at age 81. He taught thousands of students in a career that spanned seven decades and three different names for the same university. Known by students and alumni as "Mr. MSM," "Mr. UMR" or "Mr. S&T," depending on the era, or simply as "Mr. Miner" to many, he will be remembered as a dedicated professor who was the "heart and soul" of Missouri S&T.

Bayless came to Rolla in 1955 to study engineering at what was then known as the Missouri School of Mines and Metallurgy. After earning his bachelor's degree in civil engineering in 1959, he joined the civil engineering faculty while pursuing a master's degree in that discipline. He remained on the faculty and held various administrative positions until his retirement 58 years later in Feb. 2017. He is survived by his son, **David Bayless**, a 1987 mechanical engineering graduate, and daughter, **Jennifer Bayless**, a 1989 psychology graduate.



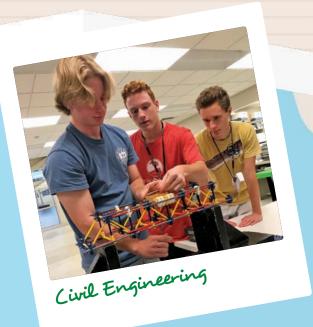
#### **MARSHA GRAYER**

Marsha Louise Grayer, of Rolla, passed away Saturday, June 15, 2019, at the age of 62. She was born in Greenville, Tenn., and on Sept. 10, 1986, she married Ernest Grayer. They were blessed with three children, Celeste Grayer, Tiffany Grayer and Ernest Grayer Jr.

Marsha served as a secretary in our department for 35-plus years. She attended the First Assembly of God in Rolla. She was a huge part of our administrative support team and we will always remember her quick wit and wonderful sense of humor.

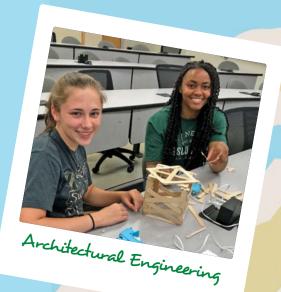
Along the way, Marsha touched the lives of thousands of students, faculty, staff and alumni.

# **SUMMER CAMPS**



#### **Jackling** Introduction to Engineering

During "Intro," campers explored what engineers really do and the tools they use. They were introduced to our three engineering degree programs through hands-on activities and team design competitions while making new friends and enjoying a taste of campus life.













#### **REFLECTING ON EXPERIENCES**

"Summer has been good! My internship started out a little rough in the sense that I had no idea what I was doing and my pride didn't appreciate feeling clueless — but I'm starting to get the hang of things, which is a good feeling. My co-workers and I also traveled to South Carolina for an intern summit."

#### **Scott Grier**

"I interned for the second time with Paric Corp. in St. Louis. One of the jobs at Paric is working on the St. Louis Ball Park Village Expansion. This is me on a tour to check out the new construction."

#### Samantha Wickes

#### Krista Deffenbaugh



# TEAMS BRIDGE AND CANOE



The Steel Bridge Team's dominating performance at the regional American Institute of Steel Construction (AISC) Mid-Continent Student Conference sent them to the national competition at Southern Illinois University-Carbondale in late May. The team competed against more than 50 competitors from across the U.S., but unfortunately their bridge suffered a failure during loading. They reported, "it was a great learning experience that will help them improve for next year." During the regional competition in April, the team earned three awards, including first place in construction economy scoring, first place in construction speed and first place overall.

As for the Concrete Canoe Team — a big storm that caused damage across the Southern states put a damper on their competition in Oklahoma City. Some 10 college teams gathered at the North Canadian river to prove their designs could hold up to actual use, but winddriven waves, plummeting temperatures, cold water, and the threat of thunderstorms and hail sank the event. Simply not worth the risk, race times were dropped from the scoring matrix, leaving product, design paper and presentations to settle who went to nationals. S&T took first in product judging and won the spirit award, but Oklahoma State finished first based on stronger design reports and presentations.



Concrete Canoe Team - Spirit Award winners!

EWB brings together amazing people and ideas, combining the talents of students, professors and professional engineers alike to **Change the World**.

Below are the communities where our EWB-S&T team has been working to improve lives through environmental, equitable and economical sustainable engineering projects.

# ENGINEERS WITHOUT BORDERS



EWB Team - changing the world!

#### PUERTO PANDO AND ATAHUALLANI, BOLIVIA

That's a wrap! The Puerto Pando team traveled to Bolivia this summer and finished working on monitoring, evaluating and inspecting its potable water system. The team identified its next partner — Atahuallani— a small Bolivian community located on the slopes of Mount Illimani, the tallest mountain in the area. They need systems for drinking water, irrigation and sanitation. Right now their drinking water comes from the same open channel used to irrigate the crops, which poses an interesting challenge for the design to meet the needs of both systems.

#### PARAJE XECAXJOJ, GUATEMALA

The Paraje Xecaxjoj team headed back to Guatemala to begin excavation and construction of a school. The excavation addresses slope stability by placing gabions on the downhill portion of the site. The gabions must be implemented first in order to secure the site from erosion, allowing for the building to be safely constructed.

#### **AGUA FRIA, ECUADOR**

This team's short-term goal is to implement a rainwater catchment system on the roofs of the community's church and school. Agua Fria is a rural town located near the coast of Ecuador, and so it has a lot of rain and humidity throughout the year, but the rivers are polluted by livestock upstream. The team is excited to help create a sustainable supply of clean water for this community.

#### DIEZ DE ABRIL, BOLIVIA

The group returned to Bolivia accompanied by master's in public health students from the UM System. They plan to provide water to each house via a potable water system including a well, supply line, tanks and two distribution networks (required due to elevation differences across the community). A well house will be constructed next to the well for the electrical systems needed to control and power it. The team's secondary goal is constructing an erosion control system that will reroute stormwater to a nearby river.

The Montana Cahill Foundation's grant matches every dollar contributed to our EWB chapter, up to \$500,000! We are less than \$60,000 away from meeting this goal. If you would like to support this important initiative and help unlock \$1 million in support for our EWB team, visit **giving.mst.edu** and choose to designate your gift by selecting the "Montana Cahill EWB Challenge Grant."

# AR HOUS



#### Exterior renderings of the new solar house - ReFresh

Going into the 2019 academic year, the Missouri S&T Solar House Design Team is well on its way to completing its record-setting eighth home — ReFresh.

In June, the U.S. Department of Energy (DOE) selected S&T as one of 11 teams from around the world to compete in the 2020 Solar Decathlon. One exciting change to the competition is allowing the home to remain in place, with all the judging occuring onsite. The new format allows for more innovation, showcasing creative concepts from students and new technologies from world-class researchers integrated into imaginative, one-of-a-kind designs.

The 2020 Solar Decathlon will be broken into 10 challenges. They include: energy performance, engineering, financial feasibility and affordability, resilience, architecture, operations, market potential, comfort and environmental quality, innovation, and presentation.

The home is designed to appeal to a millennial market such as new families, recent graduates and young individuals in need of sufficient starter homes. ReFresh aims to challenge conventions in the modern housing design market, not only by featuring automated functions and enhanced human-building interfaces, but by also adapting easily to the everchanging lifestyles of its inhabitants.

Construction documents are currently being finalized before the team begins construction this fall. To learn more about the team and its project, visit: solarhouse.mst.edu.

ReFresh will join the current homes from prior competitions, which serve as student housing and lodging for S&T visitors. The EcoVillage, where ReFresh will be constructed, also serves as an interactive research facility — including developing directed energy storage and multi-mode sustainable power generation, showing how communities of the future will be powered.

The solar house design team is led by advisors Dr. Stuart Baur, Dr. Heath Pickerill and Thomas Yarbrough, a Ph.D. student in architectural engineering.



# DESIGN CENTER SUPPORT

Expansion of the Missouri S&T Kummer Student
Design Center will offer added learning opportunities
for ALL Missouri S&T students involved with a
wide variety of design and service teams.

The new addition will expand the center to the west of the current building, which was dedicated in 2011 after a \$2.5 million transformation funded entirely by private contributions, including a named gift from 1955 civil engineering graduate, Fred Kummer and his wife, June.

The 8,000-square-foot expansion will double the size of the current center, home to S&T's 20 student design teams. The expansion was supported by many of our generous alumni including: Fred and June Kummer, Bob Brinkmann (Brinkmann Constructors), Roger and Karen Laboube, and Richard and Nancy Arnoldy.

The teams include many students focused on CArEE topics that are highlighted in this edition of Common Ground, including Steel Bridge, Concrete Canoe, Solar House and Engineers Without Borders.

"We were the first department on campus to require experiential learning for all students as a graduation

requirement. We observed changes in approach in students who were in activities like design teams, internships and undergraduate research, and we wanted all our graduates to have that experience," said **Dr. Joel Burken**, CArEE department chair.

Two years after the CArEE department included the experiential learning requirement, the entire S&T campus added that graduation requirement. The expansion of the Kummer Student Design Center will provide great opportunities for decades to come.

For more information on the ground breaking, you can go online at rol.la/expansion\_news to read the article or contact **John Held** with university advancement, by email at heldjohn@mst.edu or call 573-341-6533.



The expansion includes more manufacturing and fabrication bays, a larger machine shop, upgrades to the welding, waterjet and composites labs, new labs for electronics and a remodeled innovation suite.

# 



Let us know what you've been doing.

Send information about your professional and personal accomplishments — career changes or promotions, weddings, births and other news.

Submit your news online at: www.mineralumni.com

#### 1950s

Melih S. Durusan, MS CE'50: "It has been 68 years since I received my master's degree. My years in the U.S. and my country, Turkey, have been satisfying. Now I enjoy being with my daughter, my grandson and his daughter."

**Edward Wakefield**, CE'59: "Enjoying 20 years of retirement. Lynn and I cooled off in Wisconsin for the summer. All kids are doing well but scattered out from St. Louis."

#### 1960s

**Alan Kamp**, CE'64, MS CE'66: "Illa and I are 50 percent owners of Branson Scenic Railway, which celebrated its 25-year anniversary in July 2018."

**Bill Mathews**, CE'61: "Judy and I celebrated our 51st wedding anniversary in 2017. We enjoy our three grandchildren in Flower Mound, Texas, near our home in Plano. We are still traveling to Europe often on military aircraft as a benefit of my Army Reserve retirement."

**Doug Munsell**, CE'60: "We're up to 50 grandchildren and 18 great-grandchildren. God is so generous."

#### 1970s

**Robert Brinkmann**, CE'71, was named to the Missouri Highways and Transportation Commission in January. Brinkmann is chief executive officer of Brinkmann Constructors, a member of the S&T Board of Trustees and a member of the S&T Academy of Civil Engineers.

**Jeff Lewis**, CE'79, received the 2017 Lifetime Achievement Award from the Federal Highway Administration.

Roger Phillips, CE'74, retired from Toth and Associates Inc. in Springfield, Mo. He worked for the firm for over eight years as a professional engineer and land surveyor followed by a career in private practice for over 40 years. He has since retired and is enjoying traveling.

**Stephen Wiechens**, CE'71: "I was elected governor of Lions Club in my part of Missouri last year, and now I am an immediate past district governor."

#### 1980s

**Terry Bodine**, CE'81, joined Hanson Professional Services Inc.'s Chicago regional office.

**Barry Horst**, CE'84, was named executive director of the Southeast Missouri Regional Planning Commission.

Jeffery Litherland, CE'86, a senior aviation engineer at Hanson Professional Services Inc.'s Sarasota regional office, recently celebrated 10 years of service with the firm.



**Andy McDonell**, CE'88, was promoted to vice president at Brinkmann Constructors. McDonell leads the regional office in Kansas City, Mo.

Gerald Scott Nall, CE'86, MS CE'99: "This marks my 25th year in the Air National Guard. I was promoted to the rank of colonel in May 2016 and assumed command of my unit in November 2016. My unit is the 245th Civil Engineer Flight, North Carolina Air National Guard, based with the 145th airlift wing, Charlotte, N.C. Our gaining commands or 'clients' are United States Air Forces Europe and Air Forces Africa."

**Stephanie O'Sullivan**, CE'82, was named to Peraton's advisory board.

**Steven K. Starrett**, CE'89, dean of engineering at LeTourneau University, received the Professional Practice Ethics and Leadership Award from the American Society of Civil Engineers at the World Environmental and Water Resource Congress.

(continued on the next page)

**Aaron Weatherholt**, CE'88, joined Hanson Professional Services Inc.'s Springfield, Ill., headquarters. He has a leading role in the advancement of Hanson's Illinois Department of Transportation and local government transportation engineering endeavors and serves as a project manager for transportation engineering projects.

**John Zimmerman**, CE'89, was promoted to vice senior associate of TranSystems' Kansas City, Mo., office.

#### 1990s

Tracy Beattie, CE'98, MS EMgt'01, a lieutenant colonel in the U.S. Air Force, was recently installed as commander of the 577th Expeditionary Prime Base Engineer Emergency Force Squadron at the Al Udeid Air Base in Qatar. Beattie takes over command from Col. Bryan Opperman, EE'94.

**Randy Gorton**, CE'95, a 16-year veteran with BHC Rhodes, a Kansas City-area based civil engineering and surveying firm, was promoted to public works services group leader.



Gary Greene, CE'96, MS CE'05, PhD CE'06, associate professor of civil engineering at Trine University, received the Asphalt Pavement

Association of Indiana's inaugural Outstanding Asphalt Industry Educator Award. Photo courtesy of Dean Orewiler/ Trine University

Keith Juedemann, CE'98, MS CE'08, was named vice president of sales and engineering at Valley Joist + Deck, an independent steel company that manufactures steel joist and deck product systems.

Danielle (Stone) Kleinhans, CE'99, PhD CE'02, was named the 12th president and chief executive officer of the Concrete Reinforcing Steel Institute. She joined CRSI in 2011 as a staff structural and bridge engineer.



Shannon Lambert, CE'90, MS CE'95, was named chief operating officer at Barge Design Solutions Inc. He previously served as director of the firm's Water

Services Business Unit.

**Robert Payne**, CE'97, received the Association of the U.S. Army Award for Excellence in Writing for the National War College class of 2017.

Jonathan Robison, CE'97, MS CE'03, principal at GeoEngineers, was chosen by the American Society of Civil Engineers to lead the task committee creating a manual of practice about the trenchless method of direct pipe. The committee is comprised of engineers, contractors, and equipment manufacturers and suppliers from across North America and Europe.

**Adam Watson**, CE'91, recently took over as an area engineer for the western counties of the Missouri Department of Transportation's Northwest District office. He has been with MoDOT for nearly 30 years and says his focus is on safety.

#### 2000s

Brent Baker, CE'02, was named vice president of customer experience for Liberty Utilities. He oversees the customer experience teams in the east, west and central regions of the U.S., as well as Oakville, Ontario.



Jeff Conar, MS CE'03, joined SM&E Inc. in Nashville as project manager. He previously served as director of civil engineering for Southern Land Co.

James Duehning, CE'04, MS CE'13, a program manager for Burns & McDonnell, relocated to central Florida to help open a local office to support a capital improvement project from an Orlando utility. He was featured in the Orlando Business Journal's 2018 list of 40 Under 40 honorees.

**Eric Kopinski**, CE'09, joined the American Association of State Highway and Transportation's engineering department at the Washington, D.C., headquarters.

**Michael Purol**, CE'02, president of Tri-States Operation for Poepping, Stone, Bach and Associates Inc. in Quincy, Ill., was featured in the *Quincy Herald-Whig*'s 2018 20 Under 40 list.



#### Sondra (Terry) Rotty, ArchE'04, MS EMgt'08, who

ArchE'04, MS EMgt'08, who was recently promoted to project director by Tarlton Corp., has been named to the St. Louis Business

Journal's 2018 "40 Under 40" list. Rotty joined Tarlton as a project engineer in 2005. She was featured in Missouri S&T Magazine's Winter 2010 issue as one of S&T's 30 under 30.

#### 2010s



**Ruili He**, PhD CE'14, joined New England engineering firm Fuss & O'Neill as senior structural engineer. She specializes in bridge design and analysis.

Matthew Klegseth, ArchE, CE'16, was named a 2017 Outstanding Student of the Year by the U.S. Department of Transportation's Council of University Transportation Centers.

Nathan Monzyk, CE'17, joined Byrne & Jones Construction's micro surfacing division as a project manager and estimator. Byrne & Jones is a diversified St. Louis civil site contractor serving clients in concrete, sports, asphalt, soil stabilization, marine and micro surfacing.

**Shelby Robertson**, CE'18, joined Hanson Professional Services Inc.'s Kansas City office as a railway civil designer.

#### RICHARDSON WINS NATIONAL TEACHING AWARD



**David Richardson**, CE'71, MS CE'73, PhD CE'84, Chancellor's Professor of civil, architectural and environmental engineering, received the James M. Robbins Excellence in Teaching Award from the Chi Epsilon national civil engineering honor society.

One nomination cited Richardson's teaching track record, which includes 11 separate graduate and undergraduate courses — four of which Richardson created — taken by more than 4,000 students.

Richardson has taught at S&T since 1984 and has received 18 national and campus teaching awards, as well as 12 faculty and professional awards. In 2017, he was awarded the Alumni Merit Award from the Miner Alumni Association. Richardson is a registered professional engineer in two states, a fellow of the American Concrete Institute and member of the S&T Academy of Civil Engineers. He has served as director of the QC/QA Training and Certification program at S&T for 20 years, and has authored over 60 publications.

"Successful teaching should be viewed as student-learning facilitation," Richardson says." The successful teacher should be passionate about the subject matter and willing to devote great personal effort in self-education about all aspects of the subject matter."

# FUTURE MINEIS



Graham

Gary Graham, CE'96, and his wife, Melissa (Kuenzel) Graham, ChE'94, had a girl, Margaret, on June 30, 2016. She joins siblings Alex (a current S&T student, holding Margaret), Allison, Nicholas, Peter, Clare and Sara.



Marlin



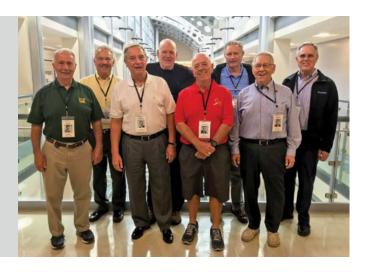
Meeks

Scott Marlin, CE'14, and his wife, Rachel, had a girl, Rosalie, on June 21, 2018. Rosalie's grandfather is **Ron Marlin**, CE'86.

Shawn Meeks, ME'13, and his wife, Sara (Shafer) Meeks, ArchE'11, MBA'12, had a boy, Roman Nikola, on March 29, 2018. He joins brother Abel.

#### **CLASS OF '69**

Golden Alumni from the Class of 1969 returned to campus this spring. They enjoyed a tour of Butler-Carlton Hall and had a good time reminiscing about their college days.





He's driven the backroads with some of the biggest names in rock and roll, from Def Leppard and KISS to John Denver and the Eurythmics, hauling both gear and performers as a truck- and busdriving roadie.

Yet despite his many brushes with fame, what gets **Mike Lusher**, CE'96, MS CE'04, PhD CE'18, most excited these days is his research into an unassuming desert shrub that some predict will revolutionize the rubber industry.

A fascination with the guayule (why-YOO-lee) plant that began a dozen years ago while watching an episode of the History channel show "Modern Marvels" culminated in a civil engineering Ph.D. for the 64-year-old grandfather, who received his diploma last May.

"Along with being a source of rubber, this is a renewable, domestic source of binder-modifiers for asphalt," Lusher says of guayule. The plant, native to northern Mexico and the southwestern U.S., is a source of resin that he and others envision as an eco-friendly alternative to petroleum-based additives used in asphalt pavement.

Such scientific insights were far from Lusher's mind while growing up as a music-obsessed teen in Union, Mo., he says. The drummer instead returned home from college to pursue his rock-and-roll dreams, touring regionally with several bands before deciding to settle down in the mid-1970s.

Starting with soul band the O'Jays in 1977, Lusher spent more than a decade on and off the road, driving for the likes of Jackson Browne, Kris Kristofferson, Rick James, and Southside Johnny and the Asbury Jukes. He returned to school in 1990, earning an associate's degree in engineering from East Central College in his hometown while in his mid-30s.

In school, the lure of the road persisted for Lusher, who spent some summers as a 40-something undergraduate hauling around groups like Boz Scaggs and Jimmy Buffett. Since 2005, he's worked full-time for S&T as a research specialist and lab manager under **David Richardson**, CE'71, MS CE'73, PhD CE'84, Chancellor's Professor of civil, architectural and environmental engineering and Lusher's advisor.

"When I first saw Mike in the classroom, he looked like a middle-aged truck driver — not your typical college student," Richardson recalls. "But it was quickly apparent that he was the smartest guy in the room. The type of research Mike was doing with guayule helped move our binder laboratory capability up several notches."

# WEDDINGS







Dell'Orco

Granger

Willev



Kind

**Tom Dell'Orco**, ME'15, married **Lauren Bigler**, CE'15, on April 7, 2018, in Scottsdale, Ariz. The couple resides in Houston.

Austin Keith Granger, ArchE'16, married Werica Martins DaCruz on Nov. 25, 2017.

**Kevin King**, AE'15, married **Michelle Gibson**, EnvE'15, on June 10, 2017.

**David Willey**, CE'14, married Danielle Getsee on Oct. 28, 2017.

#### By visiting **MINERALUMNI.COM** you can:

- View myMinerboard Update your contact information Submit a class note
  - Search the alumni directory Request an official transcript



# Remembering the following Miner Alumni who have passed away.

#### 1940s

Peter F. Bermel, CE'48, (Oct. 21, 2017)

Rex Hopkins, CE'42, participated in track and field. Mr. Hopkins served in the U.S. Army Air Corps during World War II and then worked as a professional engineer in private firms before joining the Missouri Department of Transportation in Springfield, Mo. He retired in 1983. He also worked as a surveyor and was the first chief of the Dunnegan, Mo., Rural Fire Department. (June 21, 2017)

Samuel H. Lyle, CE'47, (July 17, 2018)

**William H. Shaw**, CE'49, (Aug. 25, 2017)

#### 1950s



**Kenneth D. Cole**, CE'54, was a member of Army ROTC, the American Society of Civil Engineers and the Missouri Society of Professional Engineers

and was a licensed professional engineer in Maryland and Missouri. He served as an Army combat engineering officer and then as a civil servant in the U.S. Army Corps of Engineers, retiring after 29 years of service. His career included leading the construction of U.S. Air Force runways and missile silos, rocket fueling infrastructure, and engine test stands for the Apollo

missions. He was area engineer at Wright-Patterson Air Force Base during construction of Walter Reed Army Medical Center and retired as the Baltimore Division chief of supervision and inspection. After retirement, he worked as a consulting engineer for the Government Services Administration and as a deputy project manager for Hill International in the United Arab Emirates. (Nov. 11, 2017)

Wayne C. Dannenbrink, CE'53, (March 8, 2018)

Robert L. Dugan, CE'57, (May 12, 2018)



William B. Dye, CE'58, was a member of Sigma Tau Gamma Fraternity, Chi Epsilon and Army ROTC. He worked as a civil engineer for Cal Trans.

He was a registered California Civil Engineer and worked as chief engineer for the Santa Margarita Water District. (March 12, 2017)



**Gene W. Edwards**, CE'53, was a member of Triangle Fraternity and Army ROTC, played basketball and ran track for the Miners. An active member of the Miner

Alumni Association, Mr. Edwards was also active in the Jackling Jocks, a group of alumni who are former Missouri S&T athletes. (May 6, 2018)

(continued on the next page)

**Richard R. Furrell**, CE'58, (Dec. 16, 2017)

Zygmund S. Kosakowski, CE'55, (Feb. 18, 2018)



Herbert E. Lincoln III, CE'54, was a member of Sigma Nu Fraternity and Blue Key. Mr. Lincoln was an avid sailor, cyclist, handball player and tennis player.

He was a master woodworker, boat builder, toymaker and artist. (April 3, 2018)



John McCarthy, CE'55, was a member of Blue Key, Chi Epsilon, Tau Beta Pi, Student Council and ASCE. (Jan. 6, 2018)

**Robert L. Moore**, CE'59, (April 28, 2018)

**James Rethmeyer Jr.**, CE'55, (Nov. 5, 2017)

**Robert C. Slankard**, CE'51, (Nov. 7, 2017)



Eugene E. "Earl" Strohbeck, CE'53, worked for Shell Oil Co. until his retirement in 1989. He designed offshore oil platforms in the Gulf of Mexico, participating in

depth-of-water milestones throughout his career. (Jan. 14, 2018)



Waldemar D. Stopkey, CE'52, was a member of Chi Epsilon Fraternity, Tau Beta Pi and Independents. Mr. Stopkey earned a master's degree in structural

engineering from Illinois Institute of Technology in 1958. He began working for Procter & Gamble in 1952 and joined Union Carbide in 1963. He retired as senior vice president of administration from Walk, Haydel and Associates in New Orleans in 1996. He received a direct commission into the Navy Reserves Civil Engineering Corps in 1956 and retired in 1982 as commander. (April 10, 2018)

**Dale E. Walker**, CE'50, (May 25, 2018)

**Norman E. Winkler**, CE'59, (Dec. 10, 2017)

**William H. Zvanut**, CE'52, (March 2, 2018)

#### 1960s

Terry W. Alexander, CE'66, MS CSci'67 (Dec. 21, 2017)

**Ronald I. Bobbitt**, CE'61, (July 5, 2018)

**James W. Bortmess**, CE'68, (Dec. 28, 2017)



Danny L. Chilton, CE'65, was a member of the Independents and the American Society of Civil Engineers. Mr. Chilton worked for the Illinois

Department of Transportation and as a consulting engineer and led WVP Corp. to its merger with URS. He retired after being diagnosed with Parkinson's disease in 2004. He and his wife, Suzanne, wrote Blue & Gray Cross Current based on family memoirs and official records of the Civil War in the Ozarks. (June 18, 2018)



Joseph Davis, MS CE'69, served in the U.S. Army and worked as a civil engineer for NASA at the Kennedy Space Center for 30 years. (Aug. 24, 2017)

**Ronald E. Evans**, CE'67, (Feb. 26, 2018)



**Gerald A. Fink**, CE'60, was a member of Chi Epsilon Fraternity and Army ROTC. Mr. Fink participated in the American Society of Civil Engineers, Tech

Engine Club, Independents and Honors Association. He worked for the U.S. Forest Service, the Illinois Department of Transportation and Southern Illinois University. (Dec. 20, 2017)

William C. Ford, CE'66, MS CE'72 (Sept. 15, 2018)

**David L. Gaines**, CE'68, (Nov. 4, 2017)

**Frank L. Grabski**, CE'68, (Dec. 6, 2017)

**Gunther A. Helm**, CE'64, was a member of the Independents, Blue Key, Chi Epsilon and the band and worked on the Rollamo. He served in the U.S. Army Corps of Engineers 1955-75, retiring as a decorated lieutenant colonel. Later,

Mr. Helm became a licensed professional engineer and worked until 1989 as a quality control nuclear engineer for Virginia Electric and Power Co. (Aug. 21, 2018)



**Wendell M. Jones**, CE'64, was a member of ASCE and the Baptist Student Union. (Oct. 9, 2017)



**Karl G. Leonard**, CE'62, was a member of Theta Xi, the Spelunking Club, Student Council, Student Union Board, the Honors Association, the Society

for Mining, Metallurgy and Exploration, and the American Institute of Mining, Metallurgical and Petroleum Engineers. He was a licensed professional engineer. (June 13, 2018)

**Clifford E. Miller**, CE'63, (July 15, 2018)

**Glenn L. Osick**, CE'65, (April 9, 2018)

Ernest B. Perry Jr., CE'61, (Feb. 19, 2018)



Ronald A. Rusch, CE'65, MS CE'69, was a member of the Pershing Rifle Drill Team, the Independents, the Newman Center, Army ROTC, Student Council, the

American Society of Civil Engineers and the Residence Hall Association. He worked for Southwestern Bell Telephone in Oklahoma, the Kansas City District Corps of Engineers and the Department of Commerce. After retiring, he started a home-inspection business in Kansas City. He was active in the American Society of Home Inspectors, serving a term as national director. (July 17, 2018)

**Robert Saxer**, CE'61, MS CE'62 (Feb. 14, 2018)



George R. Schillinger, CE'63, was a member of Phi Kappa Theta, Blue Key, Chi Epsilon, the Newman Center, the American Society of Civil Engineers, the Honors

Association and Phi Kappa Phi and worked on the *Rollamo* and the *Missouri Miner*. His career included positions at Sauget Sanitary and the American Bottoms Treatment Plant. (Aug. 9, 2018)

**Richard E. Sharp**, CE'68, MS CE'69 (Aug. 27, 2018)

Richard B. Spieldoch, CE'61, (Feb. 4, 2017)

**James A. Stidham**, CE'61, (April 27, 2018)

Ronald C. Wittenauer, CE'64, (Sept. 25, 2018)

1970s

John L. Mundwiller, CE'70, (Aug. 15, 2018)

John T. Sickman, CE'75, (June 17, 2018)

**Philip B. Weddle**, CE'73, MS CE'76 (June 15, 2018)

1980s

**Bradley Jaye Cash**, CE'87, (May 28, 2018)

1990s

**Jeffrey Smith**, CE'95, (Sept. 4, 2018)

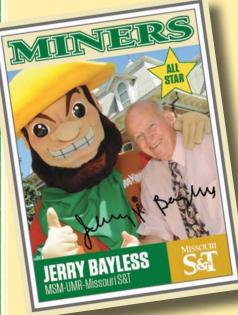
#### LEN KIRBERG



**Len Kirberg**, CE'66, died June 19, 2019. Following graduation, he began his career with McDonnell Douglas Corp., and in 1967 he joined Horner & Shifrin Inc., where he spent the next 38 years of his career. Mr. Kirberg retired as chairman, CEO and president of the company in 2004. A member and past president of the Missouri S&T Academy of Civil Engineers, Mr. Kirberg was a member of the Order of the Golden

Shillelagh and was an active member of the Miner Alumni Association. In 1978, he was awarded a professional development degree in engineering management and in 1986 he received an Award of Professional Distinction in civil engineering.

# HONORING JERRY BAYLESS



When many of us think of civil engineering at MSM, UMR and S&T, one name spans all three of the university's names and bridges generations of Miners and that's Jerry Bayless.

We invite you to make a gift in Jerry's memory for future generations of Rolla alumni.

Visit **give.mst.edu** and select the Bayless Graduate Fellowship (710300) from the drop-down menu.

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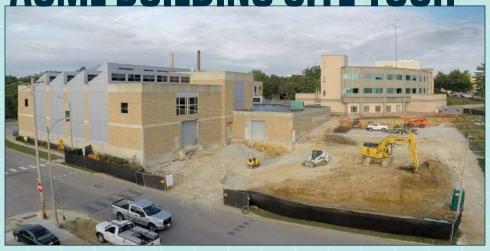
Mail a check to: Advancement Services, 1200 N, Pine St., Rolla, MO 65409.

Be sure to designate the Bayless Graduate Fellowship on your check.



**Questions?** Contact Dr. Joel Burken (burken@mst.edu) or Shannon DeBourg (sbishop@mst.edu).

**ACML BUILDING SITE TOUR** 







#### 3 p.m. | Friday, Oct. 4 Butler-Carlton Civil Engineering Hall

The Advanced Construction and Materials Lab (ACML) is scheduled for completion in fall 2020, but you can get an advanced tour of the site on Friday, Oct. 4.

The building contractor, Cahill Construction, will be there to help us walk you through the site. I hope you'll join us for this opportunity to share one more way we are shaping the future to **Change the World**.

If you can't make it, you can follow along with the ACML construction project through weekly time-lapse videos at rol.la/ACML-live.

#### Civil, Architectural and Environmental Engineering

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#### **MINER PHONATHON STARTS SEPT. 22.**

IN 2018, **Caree was no. 1** in Alumni Support. Visit **Give.mst.edu** or **Text Civil19 to 41444** to help us do it again this year!

