

our MISSION

The Alabama Board of Licensure for Professional Engineers and Land Surveyors was established by legislative action in 1935. Its charter is to protect the public by helping to safeguard life, health, and property, and to promote the public welfare by providing for the licensing and regulation of persons in the practices of engineering and land surveying.

This purpose is achieved through the establishment of minimum qualifications for entry into the professions of engineering and land surveying, through the adoption of rules defining and delineating unlawful or unethical conduct, and through swift and effective discipline for those individuals or entities who violate the applicable laws or rules.

our CONTACTS

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100 N. Union Street
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Montgomery, Alabama
36104



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www.BELS.ALABAMA.gov

BELS BULLETIN



Students from Southside Middle School (Tallassee) display their Future City concept during early morning judging as part of the Huntsville-hosted Future City Competition.

Peering into the Future

Competition focuses on tech, engineering growth

By Griffin Pritchard |
BELS Public Information Specialist

- A National Competition, divided into regions throughout the globe. Huntsville hosts the Southern Region as well as serves as the grand prize destination for the National winner.
- Teaches middle school students STEM (Science, Technology, Engineering and Math) principles as they plan, design, create and then explain a futurist city to a group of judges representing differing Engineering Societies.

What better way to introduce STEM principals to middle schoolers than to combine all of the elements and design a self-sustaining city, then turn that into a competition. And, to top it all off, set the competition site in a city where ideas literally take flight.

Huntsville, Alabama’s Rocket City, served as a regional host to the national Future City competition in mid-January.

According to event organizer Sonya Dillard, 24 teams competed in the 25th anniversary of the annual competition. With the 24 teams, the day featured more than

See **FUTURE CITY** PAGES 2 & 3

FUTURE CITY

From Page 1

350 attendees (teachers, students, engineer mentors, parents, judges, guests and media) filling the display floor of the Davidson Center's Saturn V Hall.

What is Future City you may ask?

"Future City is a flexible, project-based learning experience" that can be adapted to myriad classroom settings for teams of sixth, seventh and eighth-graders reads the informational press release. Paraphrasing, students spend roughly four months imagining 100 years into the future and creating a city that would be applicable to the future society. The designers of this new "city" must take into account civics and sustainability issues.

"Everything in our city is self-sustaining," Baxlee Burton, a student at Tallassee's Southside Middle School explained while pointing out various features of her team's town. The city, "PanAquaueous" featured a stack of small disco balls in the center of the town that rotated. "This (she points to one part of the town) is self-sustaining and is connected to our waste system and will all go over here, which will fertilize the soil. Our water goes through a desalination process, so we'll always have water."

Burton's explanation was one of many going on that January morning as tables filled with teams of middle schoolers from Mobile to Madison explained their creations to the cavalcade of judges working their way from one end of the Davidson to the other.

"NCEES sent us criteria that we have to look for, but we also look for student participation," said Lee Greene (PE/PLS), owner of Lee Greene & Associates (located in Hartselle). Greene and ASPLS head Jason Bailey (PLS) (owner of Bailey Land Group in Hoover) were two of the judges working their way down the electric line. "The kids put on a presentation so they can explain to us their ideas. The model is one thing, but how they explain it...that's just wonderful. We quiz the kids. They say 'we get our power from solar.' Well what happens when it's night?"

"Then we tell them that when they figure it out to

call us, because that's what engineers are working on in the real world. Once they realize they've touched the cutting edge of what grown-ups don't know, you see little light bulbs start to go off in their minds."

Greene is in his third year as a judge. Bailey is in his first. Overall 60 judges were on hand representing societies ranging from the Association of Energy Engineers to the American Institute of Aeronautics and Astronautics to the International Council on Systems Engineering.

Each of the societies, 16 in total, presented awards to teams at the end of the day.

"One of the things I'm grading on is 'how did you plan your city?'," Bailey said. "Why did you put your industrial area here and your residential area here? Why did you put your tourism over here and your recreation here? I think it gets kids thinking about how cities are laid out; if they are actually planned or if they just happen. A lot of what the engineering profession does is planning out cities. Most of them have a water feature somewhere on their terrain. We ask them 'did you plan for a natural disaster?' 'Did you plan for a hurricane or a flood?' What do you do with the people and how do you account for that. Surveying is a part of all of this. We are the basis for all engineering design."

Teams – led by a teacher – design their imagination-driven cities by utilizing a version of the SimCity video game, constructing scale models and researching elements of engineering and design.

"The kids get so much out of this," said Fort Payne Middle School teacher Jamie McClung. "They get to apply all the subjects. They are learning math, English, the arts, science; they get to put them all together. And the challenge is coming up with something new and showing us what they've learned. This is wonderful to teach with – the kids are engaged. I can open the door after school or on Sundays and the kids are there. They know they are doing something that will make the world a better place. I don't have to worry about trying to make the Pythagorean Theo-

inside THIS EDITION

- Board Member Marc Barter returns with another installment of GreyScale, this time discussing personal responsibility. (Page 7 & 8)

- Read about the latest cases and incidents closed by our Board in the Enforcement Actions section. (Pages 9 & 10)

- The Alabama Engineering Hall of Fame adds six new names to the roster. Read on to learn more about them. (Pages 11 & 12)



Middle school students from throughout Alabama gathered to present their Future Cities in Huntsville.

our LEADERSHIP



On March 24, Alabama Board of Licensure for Professional Engineers and Land Surveyors Executive Director Regina Dinger informed the staff that she was retiring effective May 1.

Mrs. Dinger informed the Board of her decision the day prior at the March 23 Board meeting. Rick Huett, Assistant Executive Director, is now the Interim BELS Director.

Regina served the Board of Licensure for 20 years after her retirement from the Air Force. She plans to spend more time with her husband John, and their dogs and will stay in Montgomery.

A more in-depth piece on Mrs. Dinger's time with BELS will follow in the Summer BELS Bulletin (scheduled to publish in July). If you would like to reach Mrs. Dinger, her email address is dinggina@aol.com and her cell is 334-746-7684.

FUTURE CITY

From Page 2

rem fun because they are learning it while making these models.”

But, this competition isn't for wallflowers. Teams have to write a description of their city (constructed with recycled materials) and then present their creations to a team of judges.

At the end of the judging period five teams were selected and called to the National Geographic Theatre floor with the task of pre-

sending their city to the hundreds seated.

Academy of Science and Foreign Language (ASFL), Central School and Randolph School (all of Huntsville), Fleeta Jr. High (Opp) and Robert E. Lee (Satsuma) comprised the top five schools. The top five had their cities carted in and carefully placed on tables. The teams then had to present their creation to the audi-

ence and field two questions from a group of judges.

“At the end of the day, ASFL and their city “Mauri” took the top prize and advanced to the National Future City Competition in Washington D.C.

Texas's North Ridge Middle took the grand prize at National and will be traveling to Huntsville (Alabama) for a week at Space Camp.



January Public Hearing

On January 31, at the request of the Board, a public hearing was held to discuss a proposed language change in the current Qualification-Based Selection rule.

This meeting was the culmination of part of the Board's proposed rule changes that were submitted QBS language.

At the public hearing, nearly 80 members of the licensed community (including engineering and land surveying society representatives and a handful of lawyers) were on hand to speak both in favor and against the proposed rule change.

BELS Chair Frazier Christy (top left) overlooks the list of speakers signed up to make remarks during the near three-hour meeting.

Chris Harvey (top) makes a presentation to the audience during the early portion of the meeting.

Speakers (right) throughout the day provided their thoughts.

The public hearing was held in the Purchasing Auditorium in the RSA Union Building in downtown Montgomery.



our **WEBSITE**




BELS website (www.bels.alabama.gov) can serve as a resource for anyone looking to garner information about our licensees, law or trends within the engineering and land surveying industries.

This information provided as a highlight of the License Search feature includes, name, addresses, types of licenses and their number, license status and an indication of whether or not they have had any formal/disciplinary action taken against them. The information is provided for use amongst individuals looking to hire a Professional Engineer, Professional Land Surveyor or someone currently listed as an Intern. BELS does not release social security numbers, dates of birth, telephone numbers, or email addresses. BELS also cannot recommend professionals or businesses.

Under Alabama Open Records Law, public record requests may be made of BELS. The records, or information, sought should provide enough detail for our agency to adequately respond. Requests should be addressed to the attention of Griffin Pritchard (griffin.pritchard@bels.alabama.gov).

The Licensure Question



Continuing Education Points

Where to earn them and how to count them

By Griffin Pritchard |
Public Information Specialist

Board of Licensure for Professional Engineers and Land Surveyors?

With the start of the renewal cycle now just a few months away, BELS is looking to provide answers to questions that may pop up from time to time. The first, and most common, we've received lately have been about continuing education and its qualifiers, how to count it and how to track it.

While there are changes coming to the audit process, this Points to Ponder segment is taken specifically from BELS' Rules found online at www.bels.alabama.gov.

QUESTION – What are the Continuing Education requirements to maintain a license with the Alabama

ANSWER – Each in-state and out-of-state licensee shall be required to meet the continuing education requirements of these regulations for professional development as a condition of licensure for renewal. According to BELS' Rules, Professional Development Hours (PDH) are required as a way “to demonstrate that a licensed Professional Engineer or Professional Land Surveyor maintains an acceptable level of competency.”

The PDH requirement must be satisfied during the current renewal period. “Professional Development Hours”, according to BELS' Rules “must not be anticipated and cannot be used for more than one renewal period.”

See **EDUCATION** PAGE 6

our **BOARD MEMBERS**



Randall Whorton
PE

Richard Grace
PE & PLS

Marc Barter
PE

Nathan Johnson
PLS & PE | Secretary

Liz Hyde
PE | Vice Chair

Frazier Christy
PLS & PE | Chair

EDUCATION

From Page 5

QUESTION – What constitutes a PDH?

ANSWER – BELS' Rules defines continuing education / PDH as the following:

- PDH – A contact (clock) hour consisting of not less than 50 minutes of instruction or presentation and which further meets the requirements of these rule. The minimum acceptable fraction of a PDH is 0.5 (essentially 30 minutes of instruction time).
- Sponsor – An individual, organization, association, institution, or other entity which provides an educational activity for the purpose of fulfilling the continuing professional competency requirements.

QUESTION – Where can one obtain PDH?

ANSWER – Professional Development Hours can be obtained by attending the following:

- Successfully completing or auditing college / university sponsored courses
- Successfully completing courses which are awarded continuing educational units (CEUs)
- Successfully completing tutorials, short courses, correspondence courses, televised courses, internet courses, or videotaped courses
- Attending seminars, in-house programs, workshops or professional / technical presentations made at meetings, conventions, or conferences
- Teaching, presenting, or instructing as described above.
- Authoring published papers, articles, books, or accepted licensing examination items
- Receiving a United States patent
- Actively participating in professional or technical societies as defined in BELS' Rules (330-X-13.02 (8)(f))
- Serving BELS as a Technical Advisor as defined in BELS' Rule (330-X-13.02 (8)(g))
- Active participation in educational outreach activities pertaining to professional licensure or the surveying/engineering professions that involve K-12 or higher education students.

QUESTION – What are the criteria used to determine PDH activities?

ANSWER – The first two criteria state that (a) there is a clear purpose and objective for each activity which will maintain, improve, or expand skills and knowledge obtained prior to initial licensure or to develop new and relevant skills and knowledge, or (b) the content of each presentation is well organized and presented in a sequential manner. Beyond that:

- There is evidence of pre-planning which should include the opportunity for input by the target group to be served
- The presentation will be made by persons who are well qualified by education or experience
- There is a provision for individual participant registration which will include information required for record keeping and reporting

QUESTION – How do I calculate my PDH?

ANSWER – Below is the following chart utilized by BELS as a way to calculate time into PDHs.

- 1 University semester hour of credit --- 45 PDH
- 1 University quarter hour of credit --- 30 PDH
- 1 Continuing Educational Unit – 10 PDH
- 1 Hour of acceptable professional development – 1 PDH
- 1 Hour of outreach activity – 1 PDH
 - Not to exceed 3 PDH
- Active participation in professional and technical society
 - Each organization maximum 2PDH per organization not to exceed a total of 6 PDH

QUESTION – How do I keep track of the number of Professional Development Hours (PDH) I've taken?

ANSWER – That information can be found on our website (www.bels.alabama.gov) under the Continuing Education tab. One of the benefits of being a Professional Engineer / Professional Land Surveyor, licensed through the BELS is the ability to keep a current log, through our website, of your Professional Development activities. Keep in mind that as we inch closer to the renewal period in October, 30 PDH are needed to be able to renew your individual license.

GREYSCALE



Marc Barter

PE | Board Member

The Code section on ethics requires that engineers "... shall act only in fields in which qualified by education or experience.." (330-X-14.03). Many years ago a bachelor's degree in engineering consisted of 145 semester hours. Universities now award the bachelor's degree in engineering after 128 semester hours or less, not recognizing how important those 17 plus hours of coursework are to the process of educating engineers. In the case of civil engineering, for example, missing those courses might mean that the student was not educated in concrete and steel design, or soils and foundations. To make up for this, today's employers are likely to require a master's degree in certain engineering fields. Even so, there are students do not continue their education past the baccalaureate and, as a result, must finish their education through on the job training, which begs the question: Can an engineer gain through on-the-job experience what is missing from the

college learning experience? The answer is a qualified yes.

Due to the generic licensing that Alabama and most other states employ, it is impossible for the procurer of services to determine from the credential (P.E. - Professional Engineer) what field of engineering the P.E. is qualified to work in. However, with all of the information available on the internet, it is possible to determine the disciplines in which an engineer has been educated. LinkedIn and similar sites, for example, allow users to list their education; but having knowledge of the specialty of engineering the graduate received a degree in will not likely answer the real question: "Is that engineer qualified to perform the work I am seeking to have done." The ethical responsibility to answer the question falls to the engineer.

As people leave college and accept jobs, the third leg of the three-legged stool (education, examination, and experience) comes into play and their

areas of expertise evolve. The graduate civil engineer who studied hydraulics and now works in the industrial design office becomes the design engineer responsible for the design of the mechanical system of pumps, piping, and motors. Similarly, the mechanical engineer educated in mechanics of materials becomes the specialty engineer designing structures for a prefabricated building company. By education and examination, both engineers should be working in other fields, but they used their broad form of an education along with on-the-job training to become proficient in loosely related fields. Is it ethical for the civil engineer to practice mechanical engineering and the mechanical engineer to practice structural engineering? If they can do so, meet the standard of care, and produce code-compliant designs, my opinion is yes. However, that can be a tall order to fill.

My chosen field of engineering is structural, a subset of civil engi-

Are you qualified?

"Is that engineer qualified to perform the work I am seeking to have done?"

The ethical responsibility to answer the question falls to the engineer.

GREYSCALE

From Page 7

neering. In addition to structural engineering, my education and experience would have allowed me to practice geotechnical engineering, transportation engineering, and civil site engineering. However, my post-college experience is largely in structural engineering, so I chose that field.

Although I have decades of experience in structural engineering, however, I am not qualified to design every structure. If an architect offered me the opportunity to design a high-rise building, would it be ethical for me to accept the project? Given that I have never designed a 50-story building or any structure even close in height, the answer is a qualified no. If given the time, I could muddle through the project and provide the client with a

design that met the building codes; but without the specialized knowledge needed in the area of high-rise building design, my design would be inefficient and, while safe, could be problematic in construction or in coordination with the architect's design.

Therefore, if I accepted the project, an ethical approach would be to make the client aware of my lack of experience with high-rise buildings and to agree to associate with another firm experienced in this type of construction.

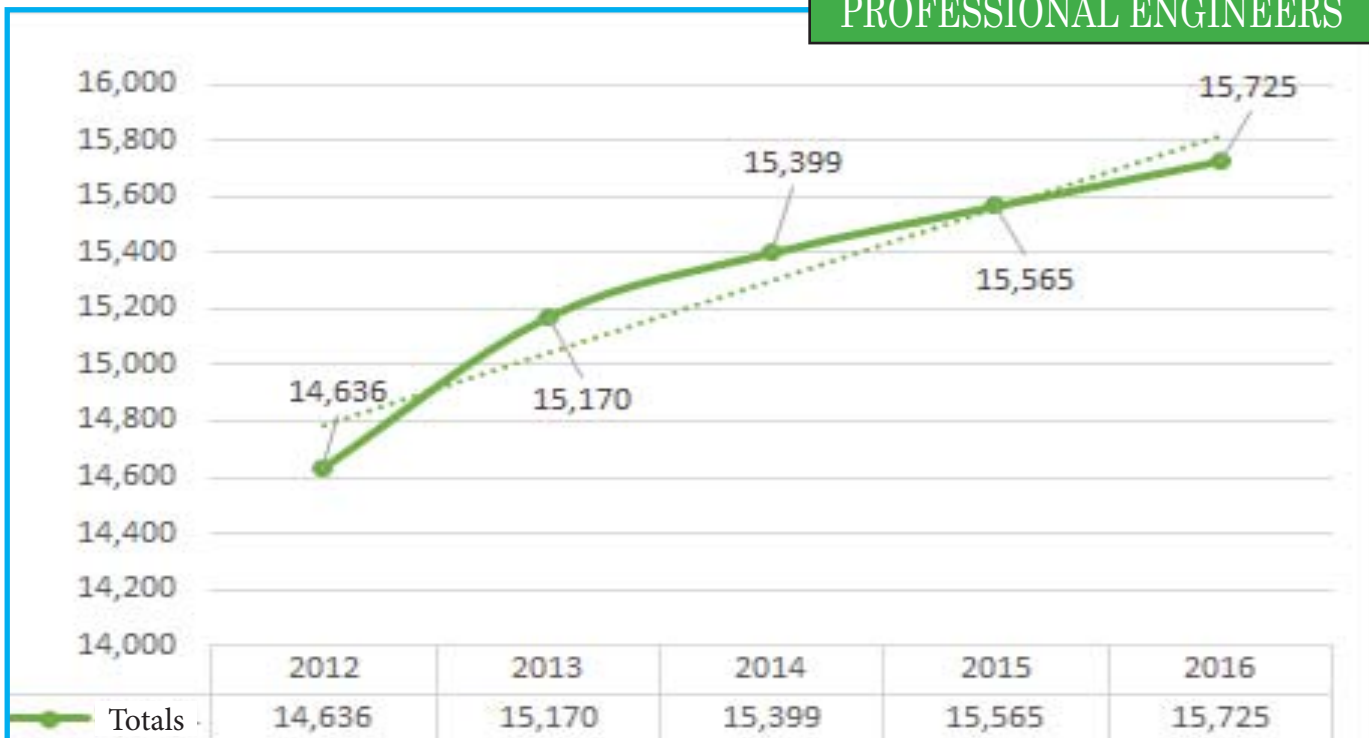
This example reinforces the opinion that ethical practice does not stop with discipline designation or even broad experience. Ethical practice means telling the truth and not overselling your abilities. While every structural engineer might

love to have designed Burj Khalifa, only a relatively small number of structural engineering practitioners possess the specialized expertise to design a 2,700-foot tall building. Those that do not have this expertise would be guilty of unethical practice if they solicited or accepted such an assignment, regardless of their stated discipline and credential.

Ethical practice extends beyond an obligation to the client. It extends to the public and to the people that will occupy or utilize the structure or system, now and throughout its life. As engineers, it is important that we understand our limitations and seek employment based on what we know and not what we would like to know. Ethical behavior means taking on only those projects for which you are qualified.

Licensing Trend Over a Five-Year Span

PROFESSIONAL ENGINEERS



..... Reflects trend over the five-year span | Land Surveyor trend will appear in next BELS Bulletin | Annual report available at www.bels.alabama.gov

our FAQs

Q—Is experience prior to graduation acceptable?

A— There are only two instances where the Board will consider experience prior to graduation:

- 1) If the experience was obtained in a formal co-op program through the school you will receive no more than six-months credit.
- 2) If it took you six years or longer to receive your BS degree and you were working, gaining engineering experience if applying for engineering or land surveying. You must have least two years of experience after your BS degree before the Board will consider experience prior to graduation.

In either instance, the experience must be verified by a PE if for an engineering application or by a PLS if for a land surveying application.

Q—How do I verify engineering or land surveying experience if my supervisor is not licensed?

A— There are two ways:

Engineering Experience - If your supervisor is not a PE but is a graduate engineer, you can have them complete a Background Information Form on the website (under Applicants then under PE Application Forms) as well as the Experience Verification form. The board would review to determine that when you were working together if this person would have sent in an application to become licensed would they license them. If so, you would get credit for the experience. If not, then you would not.

Land Surveying Experience - If your supervisor is not a PLS but is a graduate land surveyor, you can have them complete a Background Information Form on the website (under Applicants then under PLS/ALLS Application Forms) as well as the Experience Verification form. The board would review to determine that when you were working together if this person would have sent in an application to become licensed would they have licensed them. If so, you would get credit for the experience. If not, then you would not.

ENFORCEMENT ACTIONS

Case 2015-15-B

John A. Fowler, PE 18615

The Board received a complaint that alleged John A. Fowler, professional engineer, placed his signature and professional engineer seal on design plans that contained errors. A formal hearing was held October 20, 2016, that Mr. Fowler attended along with his legal counsel. An administrative law judge presided over the hearing and later provided recommendations to the Board for its consideration. At its January 31 – February 1, 2017 meeting, the Board issued an Order that found Mr. Fowler guilty, suspended his license for 90 days, required him to pay an \$1,800 fine to the Board, and to pay \$4,939.40 for the cost of the hearing.

Case 2015-51-B

W. M. Varnon, PLS 9324

On March 31, 2016, Mr. Varnon agreed to a consent order that required him to pay a \$2,000 fine to the Board, his license to be suspended for 2 years (with that suspension stayed), that to provide to the Board upon request a list of the surveying jobs he performed within a one-month period with the understanding that survey(s) would be selected from that list to be reviewed for compliance with the standards of practice for land surveying, and the Consent Order and Final Order would be a public record.

Mr. Varnon failed to comply with the consent order by not providing surveys selected from the list of surveys he provided. The matter was presented to the Board at its February 1, 2017 meeting. After its review and discussion, the Board issued an Order that **REVOKED** Mr. Varnon's professional land surveyor license as outlined in the consent order.

Case 2016-16-A

William R. Rainey, EI 15090

On May 9, 2016, the Board by and through

its Executive Director initiated a complaint in reference to Mr. Rainey possibly receiving a felony criminal conviction for Aggravated Assault in the State of Mississippi in 2010. A formal hearing was held on November 17, 2016, that Mr. Rainey did not attend. An administrative law judge presided over the hearing and later provided recommendations to the Board for its consideration.

At its January 31 – February 1, 2017, the Board issued an Order that found Mr. Rainey guilty, **REVOKED** his Engineer Intern certificate, and required him to pay \$1,468.05 for the cost of the hearing.

Case 2016-18-C

R&B Metal Structures Inc. (uncertificated)

On May 31, 2016, the Board received a complaint that alleged R&B Metal Structures Inc provided an 18'x36'x11' carport design for a location in Alabama that bears the seal and name of a professional engineer licensed in the State of Georgia.

R&B Metal Structures Inc agreed to a consent order that required the following:

- It will **CEASE** and **DESIST** providing design plans for projects in Alabama that are not specific to the location where the structure is to be erected, and do not contain the professional seal and signature of an Alabama licensed professional engineer.
- It will develop an internal process that prevents its administrative staff from submitting design plans for projects in the state of Alabama that are not site specific, and do not contain the professional engineer seal of a licensed Alabama professional engineer.
- It will pay a \$750 civil penalty to the State of Alabama General Fund.
- It will pay the Board \$225 for the cost of the investigation.
- The Consent Order and Final Order

See **Enforcement Actions** PAGE 10

ENFORCEMENT ACTIONS

From Page 9

will be a public record.

Case 2016-26-C

Rueben Russell of Russell Management Group LLC (unlicensed)

On September 6, 2016, the Board received a complaint that alleged Mr. Rueben Russell, an unlicensed individual, entered into an agreement with the Birmingham Water Works Board that included the offer to provide engineering services, without being licensed to practice engineering in the state of Alabama, and without a certificate of authorization for engineering for his firm, Russell Management Group LLC.

Mr. Russell agreed to a consent order that required the following:

- He would cease and desist the practice, or offering to practice, of engineering in the state of Alabama.
- He would pay the Board \$682 for the cost of the investigation;
- He would pay a \$2,500 civil penalty to the State of Alabama General Fund.
- The Consent Order and Final Order will be a public record.

Case 2015-41-B

William W. Payne Jr., PE

On June 26, 2015, the Board received a complaint that indicated William W. Payne, Jr., professional engineer, provided a report that indicated the foundation of a building consisted of a continuous concrete footing around the exterior of the slab, however, it was later determined by another professional engineer that there was no continuous footing around the slab. Mr. Payne agreed to a consent order that required his license to be reprimanded, payment of a \$2,000 fine to the Board and the Consent Order and Final Order to be a public record.

Case 2016-08-C

John B. Burns (unlicensed)

On February 17, 2016, the Board received a complaint that indicated a draftsman solicited engineering work when contacted by a sub-contractor on a project. Mr. Burns agreed to a consent order that required him to cease and desist the practice or offer to practice of engineering, to pay \$650 to the Board for the cost of the investigation, to pay \$1,000 to the State General Fund, and the Consent Order and Final Order to be a public record.

FROM UAB -- Faculty from the UAB Department of Civil, Construction, and Environmental Engineering (CCEE) are working on ways to ease the current and future problems of traffic congestion, thanks to a \$14-million grant from the U.S. Department of Transportation (USDOT). In December, the USDOT designated a consortium of 10 Southeastern universities as the Region 4 University Transportation Center led by the University of Florida. The consortium, which is named the Southeastern Transportation Research, Innovation, Development, and Education (STRIDE) Center, will use the \$14 million over the next five years to develop novel strategies for reducing traffic congestion.

Virginia Sisiopiku, Ph.D., associate professor of transportation engineering in CCEE, is the associate director for STRIDE on the UAB campus. She also is director of the UAB Transportation Engineering and Development Lab (TRENDLab), which will be engaged in the STRIDE study.

OUR FUTURE



Students were able to see the work of Land Surveyors first hand as the Alabama Society of Professional Land Surveyors hosted a booth at the Calhoun College "Careers in Construction" event in March. The event served as a way to introduce construction careers to students both on the collegiate and the high school levels.

Thanks to Lee Greene, Jr. for the photos and information.

our ANNOUNCEMENTS

The Alabama Board of Licensure for Professional Engineers and Land Surveyors will have a learning opportunity (ethics) May 18. Look for an email from BELS with the title, topic, host and registration period for Webinar 2 of four scheduled in 2017.

**• KEEP YOUR ADDRESSES CURRENT**

It is not uncommon for BELS licensees and those with Certificates of Authorization to use their business address as their official mailing address for all mail

If you choose to do this, it is important to realize the consequences of this action. This means all of your correspondence from BELS will be mailed to your company address, which could result in an increased possibility that you may not receive it. Additionally, you must remember to change your contact address in order to receive correspondence. If you leave the company, most do not forward mail. It is your responsibility to keep your address current.

If you choose your residence as your contact address, this may reduce communication problems. The same is true with email addresses.

If your company-specific email address is also your contact email for BELS and you leave the company it will be necessary for you to promptly update your information. Since BELS has transitioned to sending important information and reminders via email, it is important to keep a current, accessible address on record at all times. You can update your address (physical), email address and other information by going to our website (www.BELS.ALABAMA.gov) and using the CHANGE OF ADDRESS feature.

Engineering HOF recognition

Alabama Engineering Hall inducts six

By Griffin Pritchard |
Public Information Specialist

For five individuals and one company, February 18 became a day they'll never forget as they became inductees into the State of Alabama Engineering Hall of Fame. The induction and reception event was held in Montgomery.

Brian D. Barr, Bill L. Harbert, Paula Martese Mareno, Todd May and H. Stuart Starrett had their moment in the spotlight as they were nominated by various societies and recognized for their years of service to the industry. Krebs Engineering Inc., was inducted for the projects in which they've been involved.

The State of Alabama Engineering Hall of Fame was founded in 1987 by a Governor's proclamation as part of the "sesquicentennial of formal engineering education in the state of Alabama." According to the Hall of Fame's website (aehof.eng.ua.edu) it "honors, preserves, and perpetuates the outstanding accomplishments and contributions of individuals, projects, and corporations/institutions that have brought and continue to bring significant recognition to the State of Alabama."

Krebs, according to their introduction, continues to be "a leading provider of professional engineering services to public water and wastewater systems over 90 years" and has "played a critical role in delivering clean, affordable drinking water and improving water quality in streams for the people of Alabama." The W. Warner Williams Water Resource Complex (Opelika) was developed by

- The State of Alabama Engineering Hall of Fame held its 2017 induction ceremony February 18 adding six names to its ranks.
- Brian D. Barr, Bill L. Harbert, Paula Martese Mareno, Todd May and H. Stuart Starrett were added for their work in the field of engineering.
- Krebs Engineering Inc., was inducted based on the work they've done for over 90 years.

Krebs Engineering and inducted into the Hall of Fame in 2015.

As for the individual inductions Barr, a Florence native and a graduate of the University of Alabama's College of Engineering, has more than 30 years' experience in the construction industry and a "proven track record of successful project deliveries."

Since joining Brasfield and Gorrie Birmingham, teams under Barr's direction have built more than \$5 billion in projects across the country. He is also still involved with UA's Engineering program and serves on the President's Council.

With 50 projects in 33 countries, Birmingham's Bill L. Harbert (Harbert Construction Corporation) can say his creations have touched the sky. In Jefferson County alone Harbert can list AmSouth Harbert Plaza and South Trust Tower in his portfolio, along with overseeing work on the Red Mountain Expressway, Riverchase Galleria, the Hoover Met Stadium and (in Mobile) his company completed work on the Mobile Convention Center.

The work his company is doing now

HALL OF FAME

From Page 11

is a far cry from his and John's (brother) first project as civil engineers, building a community swimming pool. This marks Harbert's third Hall of Fame induction: Alabama Business Hall of Fame in 2000 and the Associated General Contractors Construction Hall of Fame in 2007.

A registered Professional Engineer in six states, inductee Paula Martese Marino has served as an advocate for engineering education, "especially as a voice for women pursuing engineering," according to her Hall of Fame profile. An Auburn University graduate with a degree in electrical engineering, Marino was promoted to Senior Vice President of Engineering and Construction Services before being promoted again in 2014. According to her profile "in addition to overseeing the organization responsible for providing technical expertise and services for Southern Company's power plants, she also recently developed a strategy to transition the workforce to meet changing business needs."

Along with her work for industry, she serves on boards and committees at Auburn, UAB, Tuskegee and Alabama and multiple mentorship programs.

While most of the inductees' designs have reached for the stars, Todd May's creations have actually touched them. He's worked on key projects in route to becoming the state's most senior NASA official. In the mid 90's, May served as deputy program manager of the Russian Integration Office for the International Space Station at Johnson Space Center in Houston tasked with successfully integrating, launching and commissioning the ISS Quest airlock module. As his career and responsibilities grew, so did his stature within the state's aerospace community.

In 2011, May was tapped to be Space

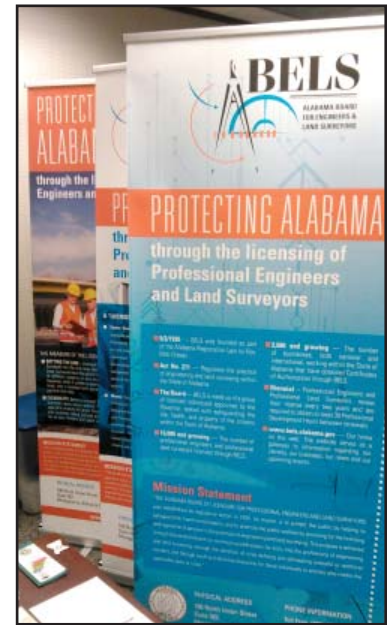
Launch System's Program Manager. The goal was to build the world's most powerful rocket to carry astronauts on deep space missions to an asteroid, and Mars. He guided SLS up to the design phase. In 2016, May became the director of the Marshall Space Flight Center, one of NASA's largest field installations, and heads the agency's Michoud Assembly Facility in New Orleans.

H. Stuart Starrett, for more than 50 years, made his mark on both the defense and aerospace field and aided in the resolution of challenges in the energy industry by "developing systems for the filtration of hot gases from boilers for recovery of the energy in a gas turbine, critical work to assure continued success of Southern Company's and the Department of Energy's Power Systems Development Facility."

According to induction information: "His knowledge and technical contributions have helped Alabama become a major player in the defense and power generation arenas brought many high-paying jobs to the Birmingham area and generated more than \$175 million in research and development revenue to the region." Starrett's 50 years of contributions and technical know-how have laid the groundwork for Alabama to become one of the leaders in multiple types of weapons systems.

The Engineering Hall of Fame is governed by a 20-member board of directors. This body establishes the criteria for selecting inductees, and determines the eligibility of candidates and how these candidates shall be elected to the Engineering Hall of Fame. All candidates must meet criteria established by the board for each category. Currently, there are three such categories: Individuals, Corporations/Institutions, and Projects.

our TRAVELS



BELS, through the first three months of the year, has been on the road with stops in Tuscaloosa, downtown Birmingham and Pelham.

In January, Griffin Pritchard traveled to Tuscaloosa to speak to ASCE student chapter at the University of Alabama about the importance of earning a professional license. While there he was able to provide answers to questions ranging from the Fundamentals of Engineering exam to how the state's law differs from those of PE boards from neighboring states.

In March, he traveled to Pelham to participate in the Greater Birmingham Area Home Builder and Remodeling Showcase. While there, he interacted with a number of Professional Engineers and members of the general public. The trip served as a way to grow BELS recognition outside of industry and introduce the Board to a new audience. The Pelham trip also served as the debut of three new pieces of BELS marketing equipment: a trio of pop-up banners each fitted with a different message dependent upon the audience and the event.

BELS Bulletin is a publication of the Alabama Board of Licensure for Professional Engineers and Land Surveyors. Digital editions will be posted on our website and linked on our social media page. To subscribe, email griffin.pritchard@bels.alabama.gov