

ALABAMA BOARD OF LICENSURE
FOR PROFESSIONAL ENGINEERS
AND LAND SURVEYORS

JULY | AUGUST
2017 EDITION

OUR LEADERSHIP



*Huett named new
BELS Director*

By Griffin Pritchard |
BELS Public Information Specialist

Met the new BELS boss. He's a very familiar face, been around the office a few years. Rick Huett, on June 21, officially was named Executive Director, replacing Regina Dinger who retired in May.

Huett, who spent 15 years as the Assistant Executive Director / Investigator, has been serving as the director in an acting role for nearly two months.

See **HUETT** PAGE 6

BELS BULLETIN



Professional Engineer Jessica Dilley walks back to her seat after receiving her ring during the inductions into the Order of the Engineer.

Welcome to the Order

Engineering meeting ends with society inductions

By Griffin Pritchard |
BELS Public Information Specialist

- Originally founded in Canada, the Engineer Ring Ceremony made it's way to the United States in the 1970s. Originally geared to students in college and university engineering programs, over time more and more professionals have obtained their ring.
- Eight professional engineers were inducted at the Alabama/ Mississippi meeting in May.

See **ORDER** PAGE 2

While the first Alabama / Mississippi Engineering Society meeting in Alabama after a number of years away, focused on recognition and education, the weekend was capped by the Order of the Engineer adding new members to its growing catalogue of professionals.

Professional Engineers Jack Don Lokey, Whit McCormack, Brent Quick, Jeff Williams, Doug Wimberly, Wayne Black, Jessica Dilley and Darale Haney were inducted into the Order.

According to the Order's website

ORDER

From Page 1

(www.order-of-the-engineer.org) “The Order of the Engineer was initiated in the United States to foster a spirit of pride and responsibility in the engineering profession, to bridge the gap between training and experience and to present to the public a visible symbol identifying the engineer.”

That symbol, in the U.S., is a steel ring to be worn on the little finger of the “working hand.”

Dennis Truax, of the Mississippi Engineering Board, served as the emcee of the Memorial Day ceremony as the banquet room transformed into a room filled with engineering contemporaries, excited inductees and their families.

The newcomers, engineers from both Alabama and Mississippi, joined Link 289 of the Mississippi Engineering Society. A link filled with professionals. In Alabama, links can be found on several college campuses.

“The ring,” Truax read to the assembled mass, “a symbol of pride, prestige, honor and professionalism among all engineering in the United States, also serves as a reminder to the engineer of our obligation to society. The symbol of your desire to serve the public is the engineer’s ring ... It is a badge of recognition which will become known to all as the sign of a learned professional pledged to making the

best use of Earth’s precious and limited resources.”

But, with the ring comes great responsibility as each Order’d engineer signed “The Obligation.”

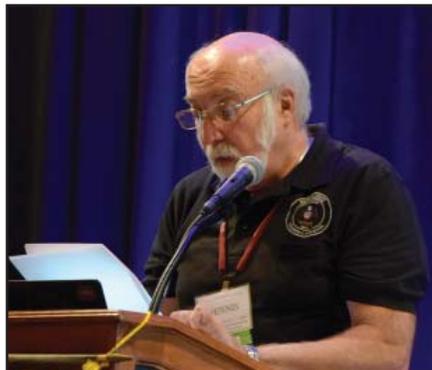
The Obligation, as Truax explained, is a contract signed between the engineer and the profession.

“It’s similar to the National Society of Professional Engineer’s Creed.”

After receiving their ring from the ASPE leadership, the engineer would then sign their Obligation.

“As an engineer, I shall participate in none but honest enterprises,” reads The Obligation. “When needed, my skill and knowledge shall be given without reservation for the public good. In the performance of duty and in fidelity to my profession, I shall give my utmost.”

The Order of the Engineer was founded in Canada, but moved to the United States after a group of Ohio-based Engineers “in 1960, attempted without success to extend the Canadian Ring Ceremony into American engineering schools.” The first Engineer’s Ring Ceremony in the United States was held in 1970 at Cleveland State University’s Fenn College of Engineering. While the Order was created and targeted toward college students, according to its website, “there is a preponderance of practicing engineers in the U.S. who have participated.”



Courtney Norris (left and right) slides the ring on newly inducted engineers’ fingers while Dennis Truax (center) conducts the ceremony. Through the induction, eight engineers from both Alabama and Mississippi were given rings and joined the Order of the Engineer.

3

KEY ARTICLES INSIDE

- EUREKA! Girls Inc. of Central Alabama are doing their part to increase the number of women looking to join the future engineering and STEM workforce. (Page 3 & 4)

- The final pencil and paper version of the Chemical Engineer exam was given earlier in the year. It now shifts to a computer-based version beginning in 2018. (Pages 5 & 6)

- Pause for a moment and read latest listing of Enforcement Actions taken by the Board during their May meeting. (Page 9)



Girls Inc. of Central Alabama partners with UAB every summer to offer a multi-week camp focused on growing interest in the fields of science, technology, English and math.



Girls Incorporated encourages big dreams

By Griffin Pritchard |

BELS Public Information Specialist

- Girls Inc., a New England based program with roots stretching to the Industrial Revolution, was created as a way to encourage women to get more involved and better educated in science, technology, English and math (STEM) as well as economic literacy, healthy living, cultural enrichment and sports.
- Girls Inc., of Central Alabama is based in Birmingham and partners with UAB to host two summer camps where the girls are exposed to different careers within the engineering, architecture and science fields.

According to organizers Connie Hill and Leigh Allison, STEM (science, technology, engineering and math) classes are often seen as “men’s subjects.” Thanks to their work with Girls Inc., of Central Alabama, the two are working to change that mentality.

“They tend to think they are not as scientific or as mathematical as the boys, even though they are,” Hill, Girls Inc., CEO said in a May interview. “There’s a study that shows that if kids have to write their genders on the tests, the girls will do less well than the boys. We are wanting to change that. We are trying to say ‘if you are good at math, you can do this.’

‘If you are good at science, you can do this.’ And then you start to see them blossom.”

So, what exactly is Girls Inc.?

According to the mission statement found on the group’s website (www.girlsincentral-al.org): “Girls Inc.’s core areas of programming include: science, math, technology, career development, economic literacy, English and creative writing, healthy living, arts, sports and cultural enrichment. A variety

See **DREAM BIG** PAGE 4



our **BOARD MEMBERS**

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DREAM BIG

From Page 3

of prevention education programs are offered through the Outreach Development covering areas such as health and wellness, life skills development... through all of these program the goal remains to help girls achieve at their highest level.”

Digging a little deeper, the organization (on a national scale) was founded in the New England area during the Industrial Revolution. Participants take part “in research-based informal education program that encourage girls to take risks and master physical, intellectual and emotional challenges.”

The program also has a focus on learning in the fields of math and science.

“We get to watch the girls explore new things,” said Eureka Program Coordinator Leigh Allison.

“Girls can so easily put limits on themselves. We don’t set any limits as to what they can do. They’ll try something and very often fail. But, they will try again and again and gain a new skill and gain more confidence each time. You can see them begin to believe in themselves.”

Allison, and Hill, work with females with the goal of directing them into industries that are often male-dominated. But, the times are a’changin. In an article posted on ASME’s website (www.asme.org) “the number of female engineers today has greatly improved since the early 1980s, when only 5.8 percent of engineers in the U.S. were women, it’s still surprisingly low. Currently, only 14 percent of engineers are women...”

Girls Inc., programs can also be found in Huntsville and Dothan.

“Whenever I’m in a setting of engineers, it’s interesting to see the number of females and women of color that have gone through the Girls Inc., program,” said Hill. “It’s interesting to see how it translates into the work world. They knew they were good at math, science, but didn’t really know the careers they should look at.”

Girls Inc., offers two programs. The first, which is a center-based program, offers after-school programming for girls in grades 1-8 and features a research-based programming including utilizing the SMART (Science, Math, and other Relevant Technology) program, reading, life skills, economic literacy, and sports.

The other program’s name is Eureka! And it is a five-year comprehensive STEM program designed to inspire girls ages 12 to 18 to pursue their academic and career interests, especially in STEM-related fields.

The Eureka! camp is held on the campus of UAB each summer, typically in June and July and involves monthly meetings during the school year. Rising 8th grade girls will have the opportunity to engage in hands-on science, technology, engineering, and math activities and will also have an opportunity to visit college campuses, meet new friends, explore different career options, and participate in internships.”

“We introduce the girls to new STEM fields,” said Allison. “We focus on the careers in those fields, not just engineering, it could be architecture for example. We have a lot of hands-on activities and then we meet once a month during the school year. Most of the girls involved in this program are from Birmingham or Jefferson County Schools and go on to college in a STEM-related field.”

“Pretty much all of them go to college,” Hill added. “Some go into engineering fields, some go into architecture. One girl is majoring in forensics. We have some graduate in different fields every year. One girl graduated in biomedical, another in chemical engineering and electrical.”

Both Hill and Allison agree that their goal is to make things more approachable and fun.

The total cost for one year of Eureka is \$300. For additional information about the program, visit the website: www.girlsincentral-al.org

Continuing Professional Competency

With conference season in full swing and the renewal window approaching, here is a quick reminder as to what qualifies as acceptable professional development. An email was sent out to the licensee community mid-May at the request of the Board. This information can be found by visiting the Law and Code section of our website (www.bels.alabama.gov). The portion of code referenced is 330-X-13-.02: Continuing Professional Competency.

(6) Criteria - Continuing Professional Competency activities must meet the following criteria:

- (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.
- (b) The content of each presentation is well organized and presented in a sequential manner.

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

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.

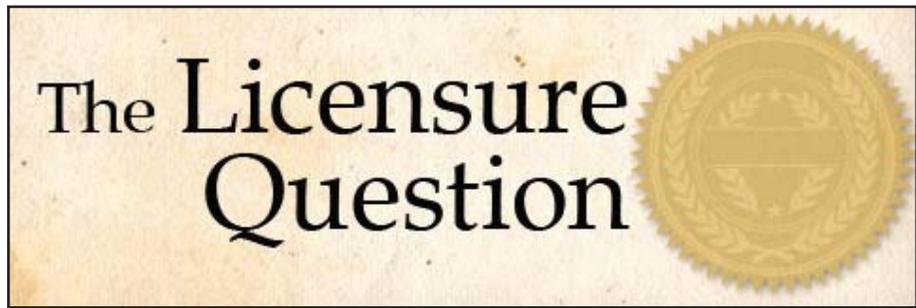
our CONTACTS

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Montgomery, Alabama
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7:30—4:30
Telephone Numbers
Toll free: 866-461-7640
In State: 334-242-5568

www.BELS.ALABAMA.gov



Disciplines prepare for CBT

Chemical Engineering CBT exam starts in 2018

By Griffin Pritchard |
Public Information Specialist

As announced in the April Licensure Exchange (NCEES quarterly publication), the April 2017 offering for the Chemical Engineering Principals and Practice exam was the final time the test would be offered in a traditional pencil-and-paper format.

It's computer-based from here on out. As will be the case for most other exams as the transition continues to be made. Registration for the computer-based Chemical Engineering exam opened in June and the first appointments are slated to begin January 2, 2018.

The Chemical PE Exam will be, according to the article, "linear-on-the-fly testing."

- NCEES is making a transition from traditional forms of testing, i.e. paper and pencil, to more modern methods utilizing technology available.
- The final pencil and paper Chemical Engineering Principals and Practices exam was given earlier this year, in April. The first CBT Chemical Exam is set for January 2018.

That translates to mean the test will feature "a unique set of exam questions that are similar in difficulty."

Beginning in 2014 those taking the Fundamentals of Engineering and Fundamentals of Land Surveying exams (respectively) got an early taste of this type of testing.

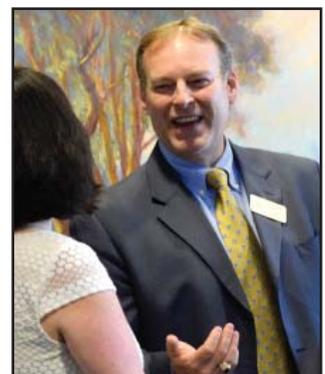
The Principals and Practice of Sur-

See EDUCATION PAGE 6



In May BELS joined the Alabama Board of Architects for their annual joint meeting. Marc Barter (above) chats with BOA member Mike Chapman. BELS leadership Frazier Christy and Liz Hyde (center) chat with BOA Chair Marzette Fisher. Nathan Johnson (right) laughs with BOA Director Elizabeth Bern.

visiting THE BOARD OF ARCHITECTS



EDUCATION

From Page 5

veying Exam transitioned to the LOFT (utilizing unique questions and answers) style of testing in 2016. The new Chemical Engineering test also offers alternative item types, AITs for short. Essentially AITs change the typical question/ (single) answer format. According to the NCEES article, the questions could be any of the following:

- Multiple Select – questions that require test-takers to select multiple correct answers
- Point and Click – questions requiring test-takers to click on part of a graphic to answer
- Drag and Drop – questions requiring test-takers to match, sort, rank or label items
- Fill in the Blank – questions in which a blank space is provided for test-takers to enter a response to a question.

Overall, the converted CBT Chemical Engineering exam will contain 80 questions and takes eight hours to complete. Appointments are made in nine-hour segments to provide for administrative information and a tutorial and an optional 50-minute break.

According to NCEES Director of Exam Services Tim Miller, a P.E. himself: “CBT allows us to introduce alternative item types and ask questions differently. We introduced AITs for the PS (Principals of Surveying) exam when it moved to CBT in 2016. We plan to expand AITs to the FS (Fundamentals of Surveying) and FE (Fundamentals of Engineering) exams in July 2017 and to the PE Chemical exam when it moves in 2018.”

The CBT exam, beginning with

the 2018 version, will be closed book. Information referencing the change in testing format, along with the PE Chemical Reference handbook can be found at the NCEES website (ncees.org/engineering/pe/pe-chemical/).

Regarding the handbook, there’s this NCEES provided caveat: “it does not contain all information required to answer every question; theories, conversions, formulas, and definitions that examinees are expected to know have not been included.”

Topics covered by the exam have not changed since they were initially published in 2011.

NCEES, however, “has changed the order of the topics and added the number of questions for each topic area.”

Exam specifications can also be found on the NCEES website.

Those getting ready to take the first-year CBT PE Chemical exam shouldn’t feel like guinea pigs though. Eventually, all the disciplines will be tested via computer.

Overall, Principal exams cover 25 disciplines (mechanical, civil, structural, electrical, for instance) and each has its own timetable to transition to CBT. With the exception of chemical, according to the NCEES article, the exams will remain traditional pencil-and-paper format. Other exam information can be found on the NCEES website at: ncees.org/exams/PE.

In other NCEES Exam news: The FE and PE Industrial exams have been renamed “Industrial and Systems” at the request of NCEES partner The Institute of Industrial and Systems Engineers.

The specifications of the exam, however, remain unchanged.

- Rick Huett, longtime Assistant Executive Director / Investigations, on June 21 replaced Regina Dinger as the head of the Board of Licensure for Professional Engineers and Land Surveyors.
- He served in the United States Air Force and in various roles within the Montgomery Police Department prior to BELS.

HUETT

From Page 1

Huett, while Assistant Executive Director, was responsible for planning and administering the enforcement program of the Board along with developing policies and procedures to insure enforcement activities remain consistent with Board policies and deadlines. He also supervised the issuance of BELS Certificates of Authorizations for businesses practicing engineering or land surveying services within Alabama’s borders.

On the national level Huett, who served in the United States Air Force, has been actively involved serving on the NCEES Law Enforcement Committee since 2003. He also authored articles for the NCEES *Licensure Exchange* and been a speaker at NCEES’s annual Law Enforcement Forum and programs. He’s twice (2007 and 2012) served on the CLEAR (Council on Licensure and Enforcement Regulation) Regulatory Program and NCIT Committees.

Prior to protecting those in the State of Alabama, Huett spent 21 years serving and protecting the people of Montgomery. As a member of the Montgomery Police Department, Huett served as Detective Sergeant and was also a part of the Crime Scene Bureau. Prior to that he was a patrol officer.

Professor makes his mark

Deceased Troy University instructor leaves mark on Pike County

By Griffin Pritchard |
Public Information Specialist

Troy University's Geomatics program opened 2017 in mourning as longtime faculty member Dr. David C. Griffin died at UAB Hospital and was buried at the Tri-Cities Memorial Gardens in Florence. Griffin was an associate professor of Geomatics and, along with Dr. Steven Ramroop and Dr. Xiutong Niu, was part of the group recognized by the National Council of Examiners for Engineering and Surveying (NCEES) as one of the top Geomatics program in the country. The award brought with it a \$10,000 prize and a plaque.

"We have lost a dedicated colleague who valued students, teaching and the department's mission," Ramroop, director of the of Troy University's Surveying and Geomatics Sciences Program, told Troy University's media relations following Griffin's death. "He was always supportive of our department, college, and university."

Paraphrasing the Troy University release: Griffin joined the (Troy University) Faculty in 2010 after earning a Ph.D. in civil engineering from the University of Alabama. He also completed his undergraduate work in groundwater hydraulics and hydrology, and master's work in environmental engineering at UAB.

He held associate degrees (a pair of them) from Calhoun Community College.

Troy Mathematics and Geomatics Department Chair Diane Porter, according to the press release, said: "He gave students the opportunity to meet and learn from professionals through involvement with the Alabama Society of Professional Land Surveyors and served as student chapter advisor."

Griffin was active both in ASPLS and the Alabama Society of Professional Engineers (ASPE) and held both a Professional Land Surveyor and a Professional Engineer license with BELS.

He authored and published multiple papers in the area of "History of Land Surveying" and contributed to many works associated with the practices of engineering and surveying.

One of his final projects was to establish a baseline calibration in the town of Brundidge, Alabama (just south of Troy on U.S. Highway 231). According to a release published by the ASPLS, Griffin's Calibrate Baseline (CBL) project began in the fall of 2012 and, with the help of the Alabama Department of Transportation (ALDOT) and the National Oceanic Atmospheric and Administration (NOAA), was completed in December 2016. He died in January 2017.

In Griffin's project, Troy University Geomatics Sciences (TUGS) calibration baseline, ALDOT and NOAA did the necessary measurements and verification fieldwork. Gustin, Cothorn and Tucker, Inc., constructed the monuments and Troy University financed the project. Prior to Griffin's work, only 11 CBL's existed within Alabama.

Follow these links to learn more about Griffin's work:

- <http://www.geodesy.noaa.gov/CBLINES/BASELINES/al>
- <http://www.ngs.noaa.gov/CBLINES/BASELINES/al>

"Dr. Griffin's legacy will continue to live on through our Surveying and Geomatics Sciences program," Ramroop said in the release. "He was very passionate about geomatics and has contributed a great deal, by imparting his tremendous knowledge and experience to our students in all of his classes and at our meetings. The six-plus years he has been with us here at Troy University will never, ever be forgotten because he was part of our team that shared a common vision of the geomatics profession. He will be sadly missed."





PRESS RELEASE

The Alabama Board of Licensure for Professional Engineers and Land Surveyors revoked the professional land surveyor license of W.M. Varnon, of Hueytown, Alabama on February 1, 2017.

As a result of the revocation, Mr. Varnon is not authorized to offer or perform land surveying services within the State of Alabama.

If you have had land surveying work performed by W. M. Varnon since February 1, 2017, please contact our office.

If you need additional information please contact the Board’s Public Information Specialist Griffin Pritchard (griffin.pritchard@bels.alabama.gov) or the Executive Director Rick Huett (rick.huett@bels.alabama.gov).

our TALKING POINTS

• **NEED A SPEAKER?**

If your university, firm or organization would benefit from a presentation by BELS, we would be happy to join you. We cover a myriad of topics:

- Our identity
- Engineering / surveying ethics
- Continuing education (PDH)
- The investigative process

Please contact Public Information Specialist Griffin Pritchard to make your request. He can be reached via email at griffin.pritchard@bels.alabama.gov or via phone at 334-242-5568

• **THE RENEWAL PROCESS**

At the conclusion of 2015, BELS shifted to a biennial renewal cycle. Notices for renewals will be mailed September 29 with renewals beginning Oct. 3. In order to renew, Professional Engineers and Professional Land Surveyors must have 30 PDH.

Licensing Trend Over a Five-Year Span

PROFESSIONAL LAND SURVEYORS



..... Reflects trend over the five-year span | Annual report available at www.bels.alabama.gov

our TRAVELS

Building upon the theme of protecting the public through education, the Alabama Board of Licensure for Professional Engineers and Land Surveyors staff made trips to Auburn and Birmingham for events in April and May.

In April, Special Investigators Bob Herbert and Tracy Pezold joined Public Information Specialist Griffin Pritchard as part of the Alabama Association of Plumbing, Gas and Mechanical Inspectors meeting. The event, hosted by the Auburn University Hotel, provided Building Inspectors from Central Alabama the opportunity to talk with investigators and answer any questions regarding complaints and BELS law and code.

Pritchard, at the end of May traveled to the Birmingham Jefferson Civic Complex to represent BELS a second time at the Alabama League of Municipalities event. A host of elected officials learned how the Board and the license search feature on our website can be utilized as a community resource to verify licensure status on Professional Engineers, Professional Land Surveyors and the firms practicing the disciplines doing work in the different towns.

Elba Mayor, Mickey Murdock (pictured), was one of the many officials to stop by and pick-up information about BELS.

More than 300 people visited the BELS booth and took home copies of the BELS Bulletin, infocards and other various marketing materials.

The quarter's travel ended in June with Pritchard and Herbert traveling to Fairhope to be a part of the annual Code Officials Association of Alabama meeting. Herbert, speaking on the third day of the three-day event, informed the attendees on the status of the Roddy Fitzgerald case as well as other issues and updates. He also held a short question and answer session.

ENFORCEMENT ACTIONS**Case No: 2017-06-C**
Southern Corrosion Inc

On December 8, 2016, the Board received a complaint that alleged Southern Corrosion Inc, an un-certificated firm, submitted a qualification form to an Alabama firm, in reference to performing water tank maintenance services.

A company logo appeared on the safety procedures document included with the form that included the term "Engineered Tank Services" without the firm having been issued a certificate of authorization by the Board.

The firm agreed to a consent order that required it to pay \$400 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 would be a public record.

The firm was issued an Alabama Certificate of Authorization for engineering on March 29, 2017.

Case No: 2017-08-A
Austin J. Bobo, EI 17190

The Board initiated a complaint in reference to Mr. Bobo receiving a felony criminal conviction for two class C felonies for Possession of Pornographic Material of Minors. Mr. Bobo was sentenced on April 6, 2016, to eight years in the Alabama Department of Corrections, which was suspended, and he was placed on supervised probation for five years.

He agreed to a consent order that revoked his Engineer Intern certificate, that he could not apply for

re-issuance of the certificate until his civil rights have been restored, and the Consent Order and Final Order would be a public record.

Case No: 2016-19-B
Frederick A. Hollon, PLS 15443

The Board received a complaint that alleged Mr. Hollon produced a survey that did not comply with the standards of practice for surveying in Alabama.

Mr. Hollon agreed to a consent order that required him to pay a \$1,000 fine to the Board, his license to be suspended for one year (with the suspension stayed), to provide to the Board upon request a list of the surveying jobs performed within a one month period during the stayed suspension period to be reviewed for compliance with the standards of practice, and the Consent Order and Final Order would be a public record.

Case No: 2017-10-B
Dana D. Tennill, PE 18585

The Board initiated a complaint in reference to Mr. Tennill voluntarily surrendering his Colorado and Kentucky professional engineer licenses relative to a disciplinary action taken by the Missouri Board against his Missouri professional engineer license.

Mr. Tennill agreed to a consent order that required him to voluntarily surrender his Alabama professional engineer license for a two-year period, and the Consent Order and Final Order would be a public record.

in Memoriam

• James Ronald Bedingfield (PLS) of Trinity, Alabama passed away May 10, 2017 and was laid to rest in the Decatur City Cemetery.

• Christopher Wayne Cochrell (PLS) of Athens, passed away June 11. Funeral services were held June 14 at Spry Funeral Home Chapel in Athens.

In Memoriam will appear periodically as we are notified of losses within our licensure community. Contact griffin.pritchard@bels.alabama.gov to help keep our records current.

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).

Speaking in Code

Area code official talks shop, expectations

By Griffin Pritchard |
Public Information Specialist

While the BELS mission is to “...protect and promote the public welfare and safety through licensure...” code officials and building inspectors on the county and municipal level are on the front lines of upholding that mandate.

“I believe this is a great answer to (the question – what is the role of a code official),” Dale Hamilton, Chief Electrical Inspector for the City of Montgomery, Alabama, said, “(quoting from the City of Montgomery)...The fundamental reason this classification exists is to inspect the installation, construction, maintenance and repair or electrical systems and equipment to ensure compliance with the National Electrical Code, city ordinances and regulation. The work involves field and office activities relating to, inspecting a variety of electrical installations to include residential, commercial and illuminated signs.

“The essential functions are: interprets the National Electrical Code, the city’s codes and ordinances and recommends and enforces compliance; maintains daily records and prepares reports; inspects electrical installations to verify conformance with safety standards, codes and ordinances.”

That’s from the electrical point of view, code enforcement officers / building inspectors are also there to monitor and enforce codes dealing with exterior maintenance of structures, overgrown vegeta-

- Code officials and building inspectors often deal with representatives of the licensure community as they are responsible for viewing plans submitted by professional engineers.
- They enforce the standards that have been placed for the construction of new buildings.
- Code officials and building inspectors also monitor and enforce codes dealing with structures, outdoor storage, overgrown vegetation, etc.

tion, outdoor storage, etc.

Code enforcement officers and building inspectors also deal with members of the licensure community as they are responsible for viewing plans submitted by professional engineers. They enforce the standards that have been placed for the construction of new buildings.

To that end, and with the requirement to maintain a professional license, continuing professional competency and continuing education is a mandate.

“I often tell people that codes and standards are written in blood,” said Hamilton.

“Lives are lost or changed forever due to an improper installation.

“Many changes to codes are made before someone is killed or injured, because someone had the forethought to see a problem and request the change.

So education is important to insure the installer, inspector, manufacturer, etc. is informed on the code requirements.”

GREYSCALE



Marc Barter

PE | Board Member

A reasonable fee

The engineering profession has a direct correlation with public safety. If engineers reduce services to suit client budgets, they have to make sure public safety is not jeopardized.

Should the client that wants to pay less be provided the same services as the client that's willing to pay a reasonable fee for services? Are engineers ethically allowed to contract to provide fewer services than the "standard of care" might require? If so, should the owner, who is often not the engineer's client, be made aware of the necessary services not being provided? The answers to these questions often elude engineers today and keep them up at night.

Many times an engineer is the most qualified to perform a service, but he or she is not the obvious low cost provider.

A project's lowest cost is often attained when the engineer of record provides the design, but the responsibility for providing the services is transferred to a third party through performance specifications.

Less often, but becoming more popular, engineers contend with contractor-initiated "value-engineered" alternatives, which

seldom have any relationship to value, aside from increased contractor profits.

The engineering profession has a direct correlation with public safety.

If engineers reduce services to suit client budgets, they have to make sure public safety is not jeopardized.

While the client might be perfectly happy with paying less and getting less, will a jury understand this concept when it's presented by a defense attorney? The public is, generally, not familiar with the term "scope of work."

Public perception is that engineers support projects, period. Engineers are believed to be the responsible party for all things associated with engineering, as well as any loosely-related discipline, in part because they are educated professionals with insurance. The participation of engineers on a project equates to an implied warranty.

Combine "implied warranty" with the legal doctrine of "joint

and several" and engineers have a real minefield laid out for them.

This is particularly true during construction of a project, where the engineer's influence has steadily been eroded by a plethora of project delivery methods.

The public does not comprehend that engineers offer a buffet table of services.

A client selects the services that they want, not necessarily the services that they need. In some cases, services are linked.

A client can no more purchase a design, without paying for the time necessary to prepare the calculations, than a fast-food customer can order fried chicken without the crust. Yet engineers have to ask themselves, if a client doesn't want to pay for an engineer's time to attend review meetings, assist during the procurement phase, and pay for site visits during construction, will the public be too much at risk if said engineer does not furnish those services?

Even so, it is agreed that a cli-

See GREYSCALE PAGE 12



According to BELS law a professional engineer is defined as someone who: “by reason of his or her special knowledge of the mathematical and physical sciences and the principles and methods of engineering analysis and design, acquired by engineering education and engineering experience, is qualified to practice engineering as hereinafter defined and has been licensed by the board as a professional engineer.

GREYSCALE

From Page 11

ent should have the right to purchase only the services he or she would like; but in the interest of protecting the public, engineers must make it abundantly clear as to what they are providing and, equally important, what they are not providing, and the client must understand the ramifications of ordering a la carte.

Some governmental agencies provide procurement and construction administration services and only hire the consultant to prepare the technical construction documents.

This system might work well with an entity that has a technical staff, but probably will not work as well with one that doesn't; therefore, an engineer's response to the proposed scope of services necessarily varies, depending on the client.

Regardless, should the design be so complex that its proper execution cannot be assured without the engineer's participation during construction, such that safety would be compromised by the

engineer's absence, then the engineer is ethically bound to insist on participation during construction, or decline the contract.

The engineer's compass has to be, first and foremost, protection of the public regardless of financial considerations.

Engineers should not provide incomplete services just because that's all that is requested, or because they are unable to negotiate a proper fee for all of the services they believe are required. Furthermore, engineers should not abuse performance specifications, i.e., off-load some of the design to the contractor via the contractor's suppliers.

There may be instances where this arrangement has merit, but too often the individual supplier performing the design is less knowledgeable than the engineer of record and may even be unlicensed, resulting in plan stamping, a topic for another day.

In conclusion, it is the ethical responsibility of engineers to protect the public, but it is not their

only responsibility.

When engineers are under-compensated, or pressed to do less than is wise, they have an important choice to make. Professionalism includes ethical decision making, public protection, and balancing the needs of all of the parties, including family and employees.

Sometimes a professional needs to stop and think, and maybe let one go by.

- Barter is a 1973 graduate of the University of South Alabama in Mobile with a B.S. in Civil Engineering and has taken graduate-level courses in Structural Engineering at the University of Alabama. He currently serves as president of Barter and Associates, Inc.
- Barter is a former BELS Chair and was the first board member re-appointed by then-Gov. Bentley.

Be mindful of your credentials

By Rick Huett |
BELS Executive Director

How do you feel when you send a completed set of design plans out of your office? Good? Relieved that the design aspect is out for permitting? Hopefully, you feel great about bringing the project to that stage, but it is important to protect your professional credentials after you submit your designs.

As we have experienced in Alabama, not everyone who has access to your credentials is going to treat them in a legal or ethical manner. In January 2015, the Alabama board received a complaint that alleged a metal building company had provided design plans for the construction of a church in south Alabama that contained the signature and professional engineer seal of an individual who was unaware of the project.

The board had previously conducted an investigation from a different complainant regarding the same company; that investigation ultimately resulted in the metal building firm being found guilty at a hearing and assessed monetary penalties.

This new allegation was similar to the previous complaint, but as the investigation began, it soon became apparent that this was not going to be typical. Early in the investigation, information appeared to indicate that the professional identities of multiple professional engineers had been used without their knowledge to construct several metal buildings in Alabama.

The investigation revealed that credentials from engineers in Alabama, Mississippi, Tennessee, and Georgia had been used surreptitiously to construct metal buildings in Alabama without their knowledge. After completion of the investigation, a hearing was held.

Ten charges were presented against the individual and his firm. The investigation and the hearing revealed that the individual would contract with an engineer or a metal building manufacturer to provide a set of sealed design plans.

The individual would then produce design plans for other projects and place the professional identity of that engineer on those plans without his knowledge. The individual used this process to construct several metal buildings for churches in various locations throughout Alabama.

After the hearing, the individual and his firm were found guilty on all counts.

The hearing order required him to pay a \$25,000 penalty to the Alabama General Fund and to pay the board \$5,243 for the cost of the hearing. The order also required the individual to cease and desist all acts that constitute the practice of engineering.

Once the order was issued, the board contacted news media in the state to make the public aware of the potential problems with buildings constructed by the individual.

The various news media ran several segments on the story and were instrumental in increasing public awareness of the potential safety concerns with buildings constructed by the individual.

The board also submitted the investigative information to district attorneys in the two southernmost counties of Alabama. Both district attorneys' staff met with the board's investigator and assigned the case to their investigative staff.

The board's investigator was included when the agencies served search warrants on the individual's premises and provided valuable information to assist the search for documentary evidence. The search warrants revealed quite a bit of information that the board was not able to obtain during its investigation. After the search warrants were served, the individual was arrested and charged with 44 felonies in Mobile County.

At his bond hearing, it was discovered that he was currently on probation for a different matter. The judge denied him bond and placed him in jail to serve the remainder of his probationary period.

The Baldwin County District Attorney presented the county's investigation to the grand jury, and the individual was indicted on eight felony counts for his actions in Baldwin County.

Thankfully, the previous case is not the norm. But 2016 is referred to as the "Year of the Metal Building" by the Alabama investigative staff.

The investigators worked on several cases involving metal buildings, and two of those may cause you additional concern.

In those two investigations, allegations were made that the structure (metal building or carport) did not meet the permitting requirements for the location where it was to be constructed.

In both cases, a metal building firm had previously

MINDFUL From Page 13

contracted with a licensed professional engineer to provide the design for a metal building or carport.

The engineers both acknowledged they provided a design to the metal building firms.

In both cases, the metal building company submitted a design drawing to an approving authority for a project to be located in Alabama. Since the structures were to be constructed in an area of the state that had higher wind-load requirements, the designs were not adequate.

The engineers were not consulted prior to the firm sending copies of their design plans to the approving authority.

In one of the investigations, the design drawings submitted by the metal building firm contained the seal of a different state where the professional engineer was licensed, not his Alabama seal.

In closing, please be mindful of how and where you transmit documents that contain your signature and professional seal.

You may also want to consider developing a process that would include a strongly written agreement with your client, especially those involved with prototypical or standard designs like metal buildings, to clearly spell out what can and cannot be done with your signature and seal.

The ultimate goal, as always, is the protection of the health, safety, and welfare of the public.

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LEADERSHIP CHANGE



Regina Dinger, former BELS Executive Director, addresses the members of the audience during the first-day luncheon at the Alabama/Mississippi Engineering Society event in May. Dinger, who's retirement became effective May 1, was given a special recognition plaque by the organizers of the meeting and ASPE as part of her years supporting licensure.

Dinger honored by ASPE

Longtime Alabama Board of Licensure for Professional Engineers and Land Surveyors Director Regina Dinger has officially retired. She was recognized for her efforts within the licensing community during May's meeting of the Alabama / Mississippi Engineering Society.

"I saw the little blurb in the last newsletter saying Regina is retiring," ASPE president Paul McCain said during the luncheon. "She has been such a good friend to ASPE. We wanted to thank her."

Dinger made it a habit to represent BELS on an annual basis at the Alabama/Mississippi meeting.

"The first formal function I attended (after being hired as BELS Director) was an ASPE meeting," Dinger told the nearly 100 members of the engineering community filling the banquet room. "When I was informed I was being presented a certificate, I found it fitting that my last formal act (as BELS Director) is accepting this award."

Board Chair Frazier Christy was also in attendance and praised Dinger for her work with the Board and within the licensure community.

"This lady has done so much for our profession," Christy said. "She's been here 20 and a half years and said it was time to retire. I heard again at 21 and a half years. It's time to retire. Then she did. Regina and the Board accomplished a lot of great things. Presenting her with this award means a lot to the Board and to the State of Alabama."

Dinger said her plans in retirement were to enjoy time with her husband, play tennis and travel to see her family.