

## PUBLIC HEARING

Alabama Board of Licensure for Professional Engineers and Land Surveyors will host a PUBLIC HEARING January 31 beginning at 8:15 a.m. The purpose of the PUBLIC HEARING is to discuss a proposed rule change regarding Qualification-Based Selection (QBS). The PUBLIC HEARING will be inside the Purchasing Auditorium located on the first floor of the RSA Union building located at 100 North Union St. in downtown Montgomery.

### our CONTACTS

PHYSICAL ADDRESS  
100 N. Union Street  
Suite 382  
Montgomery, Alabama 36104

OFFICE HOURS  
7:30—4:30  
Telephone Numbers  
Toll free: 866-461-7640  
In State: 334-242-5568

[www.BELS.ALABAMA.gov](http://www.BELS.ALABAMA.gov)



ALABAMA BOARD OF  
LICENSURE FOR PROFESSIONAL  
ENGINEERS AND LAND  
SURVEYORS

# BELS BULLETIN



Members of the Troy University Geomatics Program pose with their recently won NCEES Award. Pictured are Dr. Bill Granthem and Dr. Steve Ramroop (holding plaque) Garrett Mitchell, (from left) Ray Spooner, Ty McBurnett, Griffin Pritchard and Dr. Xiutong Niu.

## Surveying Trojan Success

### *Troy's Geomatics named nation's 'Ten Best'*

By Griffin Pritchard |  
Public Information Specialist

- Troy University's Surveying and Geomatics Sciences Program was awarded a \$10,000 prize from NCEES, and was recognized as being one of the 10-best surveying programs in the United States.
- The program was founded in 1998 and works with a practical application mindset and the objectives of "providing students with the knowledge, communication skills and the ability to pursue a career as a Geomatics professional."
- Additional information about Troy's Surveying and Geomatics Sciences program can be found at [www.troy.edu](http://www.troy.edu).

The gridiron wasn't the only place Troy University saw success in 2016. The Trojan Surveying and Geomatic Sciences Program found a measure of prosperity as well. It was awarded a \$10,000 prize from the National Council of Examiners for Engineering and Surveying (NCEES) naming Troy's Geomatics program as one of the 10-best in the United States.

"Our Surveying and Geomatics Sciences Program started in 1998 and has been described as a 'practical' program with a focus," wrote Dr. Steve Ramroop, program director and associate professor within Troy University's Department of Math and Geomatics Sciences.

"Our objective is to provide students with the knowledge, communication skills and ability to successfully pursue a career as a Geomatics professional."

## GEOMATICS

From Page 1

From a student standpoint, the distinction was great news.

“Upon learning that the Surveying and Geomatics Science Program at Troy had received the award, I was ecstatic,” Ty McBurnett replied in an email. McBurnett currently serves as the president of the student chapter of the campus Alabama Society of Professional Land Surveyors.

“It is an awesome feeling to know that you are attending a program that is nationally recognized for their hard work and dedication in the geospatial field.”

According to Ramroop Troy University’s Geomatic Sciences Program is guided by an Advisory board of recognized professionals in the field and has the active support of ASPLS.

He is joined in teaching by Xutong Niu and David Griffin, both of which have earned their Ph.D.

“The distinguished faculty is able to explain the latest theory,” Ramroop said, “and have a basis in practical work experience to share with students.”

Prior to National Council’s recognition, the Geomatic Sciences Program at Troy was already on the rise earning a handful of accolades:

- In the Summer of 2011 the estate of Elbert A. Botts donated \$1.4 million to Troy University which was used to support the university’s School of Accountancy and Surveying and Geomatics programs.
- The program achieved a specialized accreditation by the Accreditation Board for Engineering and Technology (ABET) in 2011, retroactive to the fall of 2010.
- The program won back-to-back first place awards in 2010 and 2011 at the National Society of Professional Surveyors Student Competition.
- Highest student enrollment recorded in 2016 since the program’s inception.

“Our program has been very fortunate to have the administrative support of Troy University and the ASPLS in an advisory role as well as scholarship funding for students in the program,” Ramroop said. “As a result there have been few ‘growing pangs.’”

There were difficulties though. Ramroop added that in the early years the program faced the challenges of “hiring competent faculty,” and Program Director, the initial ABET application and review process and then the economic downturn in

2012 which caused enrollment numbers to dwindle.

Troy was selected along with colleges and universities from Michigan, Louisiana, Florida, Oregon and Ohio. National Council formed an award jury that considered criteria such as student outcomes, student involvement, outreach and recruitment. The jury met for two days in late June and presented the award September 19.

“The students indirectly contributed to the NCEES award by making our program one of the 10 best in the country,” said Ramroop. “They excelled in all that they do, and what is taught to them. They continue to impress all their employers with their competency and willingness to learn. They are so fortunate that they get multiple job offers even before they graduate. In terms of recruitment, our students assist in spreading the word of our program through social media as well as through their friends. The Geomatics professionals also assist in spreading the word about our program, as well as, the initiatives undertaken by the faculty and Troy University. These attributes were all identified in our submission for the NCEES award.”

In amongst a sea of engineering schools, Troy University stands as Alabama’s lone surveying school.

With all the success, don’t be disillusioned to think the students were the only facets of the Program celebrating.

“We were all happy to be given the word,” Ramroop said. “We all worked hard to have a program as good as it is, and continues to develop in a positive direction for the good of the profession. We got a quite a bit of recognition at Troy University, that ranged from the Chancellor level to that of the University’s student newspaper (The Tropolitan). NCEES also provided us with a framed award which was given at a Troy University luncheon. Pictures were taken and shared via social media and placed on the program’s website.”

With the award firmly affixed to the program’s legacy, Ramroop – the Geomatic staff and students – is not resting on his laurels as he listed the program’s remaining goals:

- Reaffirmation of ABET Credit
- Increase student enrollment
- More recruiting initiatives
- Begin to offer online courses
- Investigate the possibility of a graduate program.

### inside THIS EDITION

• Board Members Frazier Christy, Liz Hyde and Marc Barter pen thoughts in the BELS Member Forum and Shades of Grey. (Pages 3 & 16)

• Surveying takes flight as drone technology soars into Alabama.. We talk with ASPLS and firms that currently utilize them. (Pages 6, 7 & 8)

• Is it acceptable to be dishonest when dealing with BELS? Find out what the law says and what the expectations are. (Pages 10, 11 & 12)

# BELS MEMBER FORUM



*Frazier Christy*

PLS & PE | BELS CHAIR

## A look forward

**“Our next issue is QBS. Your board, all of the sitting members, are firm believers in the process and fully understand the issues with the projects requested by the uneducated client for very small projects...”**



*Liz Hyde*

PE | BELS Vice Chair

Liz and I are looking forward to serving as Vice Chair and Chair of the BOL (Board of Licensure) for the next 11 months. We have an active Board that is committed to serving you and are looking forward to having a new member appointed soon. To say the least, things have gotten off to a rather interesting start this year. There have been regular Board meetings, several hearings and committee meetings on numerous subjects. We have set a preliminary calendar for the year and submitted the budget to Finance.

### WHERE TO NOW? WHAT IS NEXT?

Our very first goal is to get the law changes we proposed for the last legislative session submitted and pre-filed in December. When it is ready, we will post it to the BELS web page. Most of the revisions are housekeeping with no controversial changes. The major items would be the Public Member and the new definition of Land Surveying.

As to the Public Members, this is something we owe the Public, of which we are charged to protect. We are currently made up of “Active Market Participants”.

See **FORWARD** PAGE 4

### our BOARD



Frazier Christy  
PLS & PE | Chair



Liz Hyde  
PE | Vice Chair



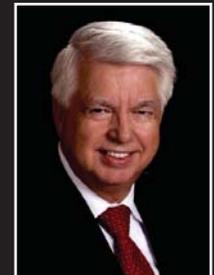
Nathan Johnson  
PLS & PE | Secretary



Richard Grace  
PE & PLS



Marc Barter  
PE



Randall Whorton  
PE

**our WEBSITE**

BELS website ([www.bels.alabama.gov](http://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 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](mailto:griffin.pritchard@bels.alabama.gov)).

**our MEETINGS**

The Alabama Board of Licensure for Professional Engineers and Land Surveyors opened the 2016-2017 Fiscal Year by meeting November 16 at the BELS office in Montgomery. BELS met again in December and will host a public hearing January 31 beginning at 8:15 a.m.

**FORWARD**

From Page 3

**“If there is something that you feel needs to be addressed, please contact us through the Board office staff.”**

As I have said, “the fox guarding the hen house.” We feel that this is something that needs to be corrected.

The new definition of surveying cleans up the issues with GIS and Photogrammetry and what they can do under our Law. The Survey Task Force has worked on this definition and passed it through ASPLS. A big thank you to all that participated in this process.

Our next issue is QBS (Qualification-Based Selection). Your Board, all of the sitting members, are firm believers in the process and fully understand the issues with projects requested by the uneducated client for very small projects or surveys.

These include lot surveys and surveys of very large parcels. We met with several stakeholders November 2, 2016, to discuss the law and current issues within the licensing community and how it relates to our Board. We received input from these stakeholders related to a path and proper wording to provide a process that will protect the public and insure quality service.

We have begun the process of repealing the two current sections of the Administrative Code that relate to QBS and “bidding”. We will follow this immediately with a single new section that is legally sound and keeps some measure of QBS intact.

Both of these actions will have a public hearing scheduled at the appropriate time and in accordance with the procedures of the Legislative Reference Service. The hearing for the repeal pro-

cess is set for January 31 beginning at 8:15 a.m. (CST). It will be held in the Purchasing Auditorium in the RSA Union located at 100 North Union St., in Montgomery, Alabama. This is the same building where the Board offices are located. The Public and all licensees are welcome.

We plan to hold frequent educational webinars. We are updating our equipment in the Boardroom to be able to do these more efficiently and provide better quality presentations. More to come on this as the topics are developed. It is our plan to do these bimonthly.

We are also very excited about the vast improvement to the communications process our staff has developed to keep our licenses informed and improve the image of the professions. We are planning on attending several meetings during the year of the various officials and organizations, i.e. the League of Municipalities, the County Engineer’s Association, the County Commission Association and the Building Officials. The main focus of these meetings is to stress the importance of licensure, let them know who we are and why we exist.

If there is something that you feel needs to be addressed, please contact us through the Board office staff. Remember we are here to guard the public health, safety and welfare as it relates to Engineering and Land Surveying. We must coordinate the needs of the Public with the services provided by our Professions.

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](mailto:griffin.pritchard@bels.alabama.gov) or via phone at 334-242-5568

RENEWAL NOTICES | CA

Notices to renew Certificates of Authorization within the State of Alabama have been mailed. Renewals can be handled by visiting our website [www.bels.alabama.gov](http://www.bels.alabama.gov). Please note that any firm that fails to renew its CA by January 31, 2017 will incur a \$250

# Cease and desist the cease and desist

By Mark R. Brengelman  
from FARB FOCUS

State agencies use cease and desist letters as demands to stop unlawful conduct over which the agency has authority, such as the unlicensed practice of a profession. Given the official nature of the document from a government bureau served by the Sheriff or certified mail, recipients often cave in and comply.

Cease and desist letters include a document demanding obedience, such as an affidavit of compliance promising not to do it again.

State agencies focus on these procedures because of the exorbitant cost and uncertain outcome of litigation, lack of legal consequences for sending the demands, and effectiveness of the letters.

Most state agencies lack specific statutory authority to enforce such actions via cease and desist.

Instead, laws provide for little-used criminal penalties for unlicensed practice.

Also, agencies have a remedy in civil

court to obtain a judge’s order enjoining the illegal activity.

The use of cease and desist letters was a factor in *N.C. State Bd. of Dental Exam’rs v. FTC.*

The Court upheld the FTC’s sanctioning of the Board, which had attempted to stop non-dentists from whitening teeth through cease and desist letters. While the letters got little explanation from the Court, North Carolina law lacked legal authority for cease and desist.

If this procedure to demand compliance to end alleged unlawful conduct is not tolerable, what is the state agency to do?

Agencies should focus on their statutory authority.

If lacking, amend state statutes to provide for the cease and desist procedure and include a right to an administrative hearing – the outcome of which could be appealed to or enforced by the courts.

This retains “home court advantage” where the agency establishes the facts

See **DESIST** PAGE 12

## FUTURE CITY COMPETITION

### JUDGES NEEDED

NCEES is continuing its support of the Best Land Surveying Practices special award at the regional and national levels of the Future City Competition. This is part of its long-standing support of DiscoverE Engineers Week. NCEES is seeking judges for this award for the regional competitions that will take place across the country in January 2017. The award recognizes the design that employs the best land surveying practices, taking into

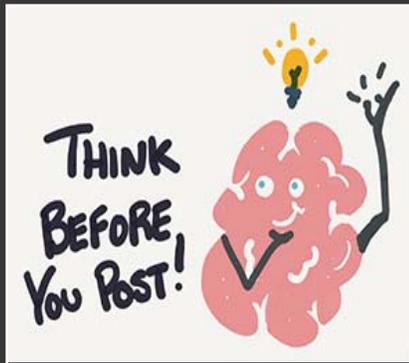


consideration the high standards used by surveyors to protect the public’s health, safety, and welfare. Teams should demonstrate the skills and resources surveyors provide in the design, development, and maintenance of their future city.

NCEES has sponsored this award at the national competition since 2004, and this is its fifth year

offering it at the regional level. By expanding into the regional competitions, NCEES is introducing approximately 40,000 middle-school students from 1,350 schools in 37 national regions to the surveying profession each year. If you would like to share your enthusiasm for the surveying profession by serving as a judge at a regional competition, contact Christian Cernauskas, NCEES marketing and outreach associate, at [ccernauskas@ncees.org](mailto:ccernauskas@ncees.org). For a list of regional competition locations and dates, visit [futurecity.org/regions](http://futurecity.org/regions).

## our COMMUNITY



## Think before you post

By Griffin Pritchard |

### Public Information Specialist

“Social media is one of the fastest growing areas of online activity, and one of the fastest growing areas for malicious cyber activity. Even if your organization blocks access to social media sites, there are a tremendous number of risks you have to make your faculty, staff and students aware of...” states an October 2016 Educause.com article.

The different social media platforms – Facebook, Twitter, Instagram serving as the main source of information trafficking – bring with them the opportunity to provide information to the masses at an instantaneous pace. The downside, however, is that once that information is out there – the good, the bad and the ugly – there is no taking it back.

“Social media is changing the way we communicate and the way we are perceived, both positively and negatively” said Amy Jo Martin, founder and CEO of Digital Royalty (an online marketing firm specializing in social media campaigns and advertising). “Every time you post a photo, or update your status, you are contributing to your own digital footprint.”

According to the Joy of Marketing: “If you want social media to work for your business, you have to view it as any other marketing tool and use it to build trust with your clients.”

In its article – “Think Before You Post: Social Media Tips for Small Businesses” the group posts a list of scenarios for

See **POST PAGE 14**

# Flying the lines

## *The use of drone technology as part of the surveying field takes flight in Alabama*

By Griffin Pritchard |

### Public Information Specialist

Ever since the propellers spun on the first consumer-flown drone, the possibilities for use became infinite. Providing “eye-in-the-sky” capabilities to a plethora of industries, drone technology grows on a regular basis.

For the purposes of land surveying the sky really is the limit.

In an article posted on Land Development Technologies website: “Engaging with this new technology in the surveying field offers us a fantastic way to add huge value to the people that we serve – answering questions and getting our job done faster and more efficiently than ever before.”

Here in Alabama, only a handful of surveying firms utilize this technology.

“I see current drone surveying like GPS (Global Positioning Systems) surveying was 20 years ago,” Jason Bailey, Alabama Society of Professional Land Surveyors (ASPLS) said in an email to BELS. “Most surveyors 20 years ago did not trust or even believe in surveying with GPS; it went against everything they were taught. There are a few surveyors using [drones], but most surveyors can’t get their heads around getting accurate positioning from something that looks like a child’s Christmas present. Twenty years from now, a drone will be as much a part of a surveyor’s toolbox as a GPS receiver, total station or a Gunter’s chain is today.”

According to BELS Law, land surveyors are allowed to use drones: (34-11-2.1) “A professional land surveyor may go on, over, and upon the lands of others which is not enclosed by an device installed to deter entry to or exit from industrial facilities or plant sites by humans or vehicles, if necessary to perform surveys for the for the location of section corners, quarter corners, boundary lines, rights-of-way and easements and may carry and utilize equipment and vehicles.”

In Birmingham, Walter Schoel Engineering has embraced the future after seeing a demonstration in 2014.

“Surveying technology is changing at an unprecedented rate,” wrote Vice President Joey Breighner, Jr., in an email to BELS. “Terrestrial Laser Scanning, Mobile Scanning, LIDAR and GIS are just a few surveying technologies

- Drone technology provides surveyor’s the ability to fly above a plot of land and scan the geographical features of that space.
- ASPLS President Jason Bailey: “I see current drone surveying like GPS surveying was 20 years ago...Twenty years from now a drone will be as much a part of a surveyor’s toolbox as a GPS receiver, total station or a Gunter’s Chain.”
- Pricing and type can vary from single-wing to multiple propellers and in price from \$350 to upwards of \$20,000.

## DRONES

From Page 6

that continue to see innovation and exploration into future mapping and measurement capabilities. The future benefits of drone consist of merging datasets collected from these other surveying technologies such as laser scanning into a useable and coherent format. The benefit of having field shot data overlaid with a current orthophoto and an as-built model created from a laser scan will allow the surveyor to truly map reality. This all translates into more complete data for the client to design and develop the project. We are continuously researching new ways to use this technology.”

Mobile-based Polysurveying and Engineering, in April, posted a blog entitled *Here's Why Drones are the*



A Schoel Engineering worker readies their single-wing drone for flight.

*Next Big Thing in Land Surveying in Mobile, AL:*

“In order for a human being to create a highly detailed and accurate map of

a particular area, they would need to survey every square inch of the property by foot, and conduct a variety of

See **DRONES PAGE 8**

## NCEES NEWS

### NCEES SLASHES EXAM FEE

The United States Engineering and Surveying Licensure Boards that form NCEES have voted to amend its policy on exam charges to lower the price for the Fundamentals of Engineering (FE) and Fundamentals of Surveying (FS) exams by \$50 to \$175 beginning January 2018.

The decision was made at the organization's 95th annual meeting, held August 24–27, 2016, in Indianapolis, Indiana.

Delegates also set a price for the computer-based Principles and Practice of Engineering (PE) exam. None of the PE exams, which NCEES offers in 24 disciplines, is currently administered through computer-based testing (CBT), but the organization is preparing for future transitions to CBT.

The earliest that the new price of \$375 for computer-based PE exams could take affect is January 2018.

Delegates also approved an amendment to the financial policy



on exam charges to require that examinees pay NCEES directly for all exams, whether CBT or pencil-and-paper format, beginning May 2017.

Direct payment to NCEES is already required for all CBT exams.

With PE exams moving from pencil-and-paper to CBT, the change will provide a consistent payment method during the transition.

“NCEES and its member boards are committed to reducing barriers to licensure,” NCEES Chief Executive Officer Jerry Carter explained.

“Therefore, the organization wanted to lower the price of the fundamentals exams—the first exam for engineering and surveying licensure—to ensure that cost is not a prohibitive factor in starting on the path to licensure.”

### 2017 CALCULATOR LIST

NCEES recently approved the calculator models that can be used during NCEES computer-based and pencil-and paper exam administrations in 2017.

The models approved for last year remain on the list, but a new model has been added: Casio fx-991.

The following is the full list of calculators approved for 2017:

- Casio: All fx-115 and fx-991 models (Any Casio calculator must have “fx-115” or “fx-991” in its model name.)
- Hewlett Packard: The HP 33s and HP 35s models, but no others
- Texas Instruments: All TI-30X and TI-36X models (Any Texas Instruments calculator must have “TI-30X” or “TI-36X” in its model name.)

Limiting the types of calculators allowed in the exam room is one of the measures NCEES takes to protect the integrity of its exams.

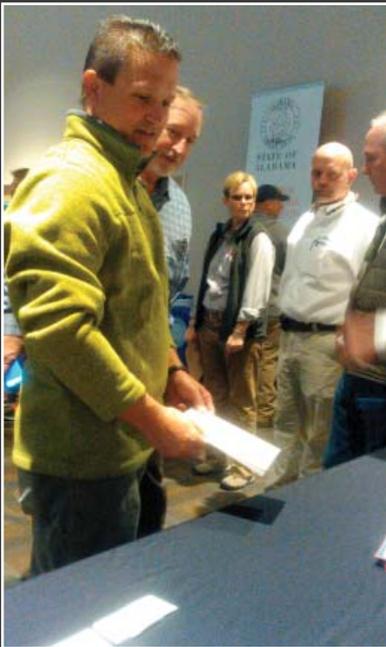
## our IDENTITY

BELS is comprised of \*seven members (five professional engineers and two professional land surveyors) each appointed by the Governor to serve a five-year term.

BELS reviews applications, offers national licensing examinations, develops and administers the state-specific licensing exam, licenses qualified applicants and regulates the professional practice of licensees throughout the state. BELS has the power to discipline those individuals who are not licensed in the state but who are performing engineering and or land surveying in the State.

\* -- Currently six due to resignation

## our TRAVELS



For the second year Griffin Pritchard, representing the Alabama Board of Licensure for Professional Engineers and Land Surveyors attended the North Alabama Code Officials Conference. This year's event was held in downtown Decatur Nov. 15-16.

The event provided BELS the opportunity to meet with building and code officials, providing information and answering myriad questions brought forth.

# DRONES

From Page 6 & 7



Drones are designed to fly in various types and price ranges.

different equations and experiments,” the blog’s author writes. “In contrast, all a drone has to do is fly over the designated area and record highly precise topographical information. If you need a survey completed quickly, without sacrificing any accuracy, drones are the way to go.”

But they aren’t cheap.

“After seeing the capabilities of this technology,” Breighner, Jr., wrote, “we saw the benefits of using the drone on various types of projects.”

Multiple tests were conducted before the drone was added to the group’s workflow, Breighner, Jr., added

A quick search for the price of surveying drones reveal the costs range from around \$350 to upwards of \$20,000. They range in design as well.

Some models are propeller based ranging from one to six. Schoel chooses to use a fixed-wing version.

“The brand of drone we use is sensFly’s Ebee. The drone falls under the FAA’s Micro-UAS category which is under much less regulation than its counterparts due to its size,” wrote Breighner, Jr. “The Ebee is 1.6 pounds and has a wingspan (singlewing) of three feet, two inches. Constructed from EPP ultra-light foam, the Ebee can fly up to 45 minutes in optimal conditions and cover 100 acres in a single flight. The software suite for post-processing the images is also very user friendly and intuitive. This software reduces the amount of time it takes to create orthophotos and contours and simplifies quality assurance reports.”

The survey-centric publication Point of Beginning touted the use of drone technology in a 2013 article: “the combination of low cost and easy assimilation of multiple technologies provides significant opportunities for development, including by surveyors and consulting engineers.”

Surveying, like engineering, is a math-based operation that requires precision in measurements and data-gathering. As technology continues to grow by leaps and bounds, the process becomes easier, yet more detailed. Being able to fly over the area and scan the ground beneath serves as proof.

## *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* FAQs

Q—Do I have to have a degree?

A— Yes, unless you were originally licensed as a PE in another state prior to December 31, 1992 and you are currently licensed in some state and can have at least 8 years of experience prior to December 31, 1992 verified by PE's or you were originally licensed as a PLS in another state prior to December 31, 2005, and you are currently licensed in some state and you can have at least 8 years of experience prior to December 31, 2005 verified by license land surveyors.

Q—Does my foreign degree have to be evaluated?

A— Yes. The Board requires that your education be evaluated by National Council of Examiners for Engineering and Surveying (NCEES). Please contact NCEES at [www.ncees.org](http://www.ncees.org) to request an education evaluation packet. There is no waiver to this requirement. If you have an evaluation performed by AACRAO of Josef Silny & Associates prior to July 1, 2009, we would accept that evaluation.

Q— Does my transcript have to be mailed directly from my school?

A— Yes. We cannot accept transcripts mailed directly from the applicant.

# ENFORCEMENT ACTIONS

## NOVEMBER MEETING

### 2015-37-C

#### **Reid Steel Truss Inc,**

On or about August 29, 1986, Reid Steel Truss Inc., purchased six steel truss designs from an Alabama Licensed Professional Engineer, and used those six designs, without modification, for 29 years. The firm continued to use the six designs even after the death of the professional engineer in 2008.

The firm agreed to a consent order that required it to cease and desist using the design plans created by a deceased professional engineer and dispose of, and exclude as assets in any sale, any existing trusses produced according to those plans, to develop a process to insure all its future pre-engineered truss designs for projects in Alabama are, (1) prepared by an Alabama Licensed Professional Engineer, (2) are current, and (3) are applicable to the locale where construction is to take place, to pay BELS \$250 for the cost of the investigation, to pay a \$4,000 civil penalty to the State of Alabama General Fund, and the Consent Order and Final Order to be made a public record.

### 2015-50-B

#### **Russell W. Duke, PE**

At its July 13-14, 2016 meeting BELS accepted an agreed upon consent order that required Mr. Duke to pay \$212 to BELS for the cost of the investigation, to pay a \$1,000 fine, that his license to practice engineering was suspended for six months, with the suspension stayed, that he must provide certificates showing he completed 5 professional development hours (pdh) to the Board, and

the Consent Order and Final Order to be made a public record. Mr. Duke failed to comply with the agreed upon requirements and was notified in October 2016 that the matter would be presented to BELS for discussion at its November 16-17, 2016 meeting. On November 16, BELS reviewed the consequences for failing to comply with the agreed upon consent order and revoked Mr. Duke's license to practice engineering in the State of Alabama.

## SEPTEMBER MEETING

### Case 2014-30-B

#### **David J. Fannon, PE**

BELS received a complaint from a professional engineer that Mr. Fannon knowingly trespassed onto property that he did not own, and undertook the design and construction of infrastructure within an intermittent stream and wetlands determined to be waters of the United States by the United States Army Corp of Engineers. The complaint also indicated Mr. Fannon may not have the education or experience necessary to perform this type of work.

A formal hearing was held that Mr. Fannon attended along with his legal counsel. An administrative law judge presided over the hearing and provided recommendations to BELS for its consideration. At its September 20-21, 2016, meeting BELS issued an Order that found Mr. Fannon guilty, and required him to pay the Board a \$2,500 fine and to pay \$6,478.75 for the cost of the hearing.

Mr. Fannon appealed the decision of the Board to the Montgomery County Circuit Court.

## our FUTURE



TUSCALOOSA, Ala. — Students at The University of Alabama will work with NASA to enhance understanding of propulsion systems for small satellites – CubeSats — that orbit the Earth, participating in a research project that will help further scientific discovery.

Joan A. “Jody” Singer, deputy director of NASA’s Marshall Space Flight Center in Huntsville, will sign a Space Act Agreement that formally starts the project along with Dr. Carl A. Pinkert, UA vice president for research and economic development, on campus Thursday Nov. 10. The two will sign the agreement together following an address by Singer that begins at 1 p.m. in 1012 North Engineering Research Center.

“This agreement allows our students the chance to work on applied research ultimately used by NASA, which is a win-win for all sides,” said Dr. Carl A. Pinkert, UA vice president for research and economic development. “The University of Alabama and the NASA Marshall Space Flight Center have partnered many times, and we look forward to continuing that relationship.”

The address and ceremony are part of two days of NASA events at the University that includes a panel discussion, “The Path to Mars,” among NASA personnel moderated by Singer in 2014 South Engineering Research Center at 2 p.m. Wednesday Nov. 9. Other events include mentoring, a career fair, exhibits by NASA and other industry partners as well as technical sessions on solar dynamics, a Europa mission and deep space exploration.

“Connecting universities with NASA’s unique skills, expertise and world-class capabilities is a priority for the Marshall Space Flight Center,” said Singer. “This new partner-

See FUTURE PAGE 11

# ‘I solemnly swear this is true’

## *Is dishonesty accepted by BELS*

By Griffin Pritchard |

Public Information Specialist

One of the common themes found in complaints crossing the desk of BELS’ investigators is dishonesty. But that statement raises this question: Is it ever ok to be a little untruthful? We’ve all told white lies, and selective truths. Dishonesty, as a sentiment, seems to be pervasive in our country on a daily basis.

However, dishonesty cannot cross over into your capacity as a Professional Engineer or a Professional Land Surveyor. It is simply not acceptable when honoring the tenets of the profession: “...to safeguard the life, health and property and to promote the public welfare.”

According to an article written by David J. Evans, assistant executive director for North Carolina’s Board of Examiners for Engineers and Surveyors: “The public holds licensed professionals to a high standard and expects licensees to be truthful in all dealings whether it be what’s contained on the face of a plat, in a report or in testimony to what you told the client you would do and how much it would cost. The Board doesn’t have the authority to settle contractual matters. It does, however, have the authority to investigate the conduct of its licensees to include their truthfulness, even with respect to statements about cost.”

It’s understood, when our applicants begin the process to become licensees, they must be truthful.

Located at the bottom of the Professional Engineering Licensure Application is the statement: “I, the applicant named in this application, have read the contents hereof, and to the best of my knowledge and belief the statements contained in this application are true in substance and effect and are made in good faith...”

From that point, BELS decision to license or reject is based upon the applicant’s (understood) honest, completed application. It’s assumed that no liberties have been taken or experience exaggerated. If the applicant worries their references could become a liability, North Carolina suggests: “If licensees are asked to provide references and do not feel they can be truthful and objective, they should decline to do so.”

Again, the expectation of honesty and integrity is spelled out on the application: “...the statements contained in this application are true in substance and effect and are made in good faith...”

By agreeing to that statement and swearing before a public notary, the applicant is legally saying: “I haven’t lied on this application.”

- Located at the bottom of the PE Licensure Application is the statement: “I...have read the contents hereof, and to the best of my knowledge and belief the statement contained in this application are true in substance and effect and are made in good faith.”
- According to BELS law: “...have the power to reprimand, censure, place on probation or fine any licensee...”

See DISHONESTY PAGES 11 & 12

## OUR FUTURE

ship agreement provides research and development opportunities for students and faculty, while helping NASA better understand the performance of this emerging technology.”

Many of the representatives from NASA and industry partners are UA alumni, including Singer who graduated in 1983 with a bachelor's degree in industrial engineering.

“This is a great opportunity for our students to network and learn from our alumni and friends who work within the space industry,” said Nancy Holmes, director of the Capstone Engineering Society, the alumni association for the College of Engineering and sponsor of NASA Days at UA. “We are proud to have so many of our wonderful graduates return to campus to share their insights on space exploration and provide advice and mentoring to our students.”

The work laid out in the Space Act Agreement will be a senior design project for a team of students in the STEM Path to the MBA, a program managed by UA's Culverhouse College of Commerce that allows students in the fields of science, technology, engineering and math to earn a Bachelor of Science and a Master of Business Administration within five years, along the way getting the chance to work as a group on entrepreneurial experiences.

“In supporting a NASA project, the students are exposed to the people and job opportunities available to them not just with NASA directly, but also with the contractor workforce,” said Mike Pope, an instructor in the STEM Path program who will advise the student team on the NASA project. “The students get to see and work with state-of-the-art technologies in world class facilities as they support specific NASA entities.”

CubeSats are small, fairly inexpensive satellites put into orbit around the Earth for research purposes, often designed and used by education and non-profit institutions. They mostly hitch rides on other missions, and as a secondary payload, they are dropped into a low-Earth orbit without the ability to move. They eventually fall back to Earth and disintegrate in the atmosphere after completing their research purpose.

NASA, as part of its CubeSat Launch Initiative, wants to provide CubeSats with a method of propulsion, and NASA is tasking UA students with devising a method for doing so in such a way that it does not damage the satellite. The students will be given equipment to test ways to keep the propellant cooled during firing, and they will have to analyze and test the technology in a lab setting.

“The students learn the engineering problem solving process as applied to a real-world problem,” Pope said. “They get to work with outstanding technical professionals on a weekly basis to generate and implement a project plan that addresses a NASA need.”

This is the second Space Act Agreement UA has with NASA. The first was for testing NASA-developed vibration mitigation technology for structures in the UA Large Scale Structures Lab.

## DISHONESTY

From Page 10

If an applicant is caught being untruthful, there is language to cover that: “In accordance with Administrative Code Section 330-X-3-.01 (5) withholding information, misrepresentation or untrue statement will be cause for the denial of application.”

If a license is obtained and the dishonest shoe falls shortly thereafter, it's in the scope of BELS to pull the license and possibly seek prosecution as a criminal offense.

Evans writes: “While the vast majority of licensees are truthful in their interactions with the Board, some are not, which are disturbing. This is most often seen with Continuing Professional Competency compliance; reporting of criminal convictions and disciplinary actions in other jurisdiction; information reported on individual and business firm renewals; and in written responses and interviewing during disciplinary cases.”

BELS has the authority to seek action against a licensee for simply being disciplined in another jurisdiction. Our Administrative Code (34-11-11[A][5]) reads: “(A) The board shall have the power to reprimand, censure, place on probation or fine any licensee or certified engineer intern or land surveyor intern or corporation, partnership or firm holding a certificate of authorization and to suspend, refuse to renew, or revoke the certificate or any licensee or certified engineer intern or land surveyor intern or the certificate of authorization of a corporation, partnership or firm found guilty of the following: (5) An offense in another jurisdiction resulting in revocation, suspension, or voluntary surrender, to

avoid disciplinary proceeding, of a license or certificate of licensure, including any agreement or stipulation executed by a licensee to avoid formal disciplinary proceedings.”

BELS, like North Carolina, monitors the National Council of Examiners for Engineering and Surveying (NCEES) Enforcement Exchange, which is a national database of enforcement actions. If BELS learns that a licensee had enforcement action taken against them, but told the Board otherwise on the application or renewal, a case will be opened against them.

This goes back to the wording on the application: “the statements contained in this application are true in substance and effect and are made in good faith...”

Evans: “Occasionally the Board finds that the licensee wasn't being untruthful at all, but someone else filled out the renewal and attested to inaccurate information. This is akin to having a staff member certify a survey or a set of plans. It is not allowed!”

Businesses holding a Certificate of Authorization to practice within the State of Alabama fall under this expectation as well. BELS require businesses practicing within the state of Alabama to obtain a Certificate of Authorization, thereby certifying that the business is operating within professional requirements and BELS Law.

Think of it as a business commandment.

This is a task – attesting to the accuracy of the information on the license application – that shall not be delegated.

See **DISHONESTY** PAGE 12

**our ANNOUNCEMENTS***Annual Report*

In February our licensees will be one click away from viewing our Annual Report for Fiscal Year 2016. The report, which is a collection of statistics ranging from the number of students currently in our Engineering and Land Surveying Intern program to the amounts of money we've spent over the year. The report can be found on our website.

**• KEEP YOUR ADDRESSES CURRENT**

BELS, from time to time, receives requests from active licensees and those businesses operating with Certificates of Authorization to list their company address as their mailing address.

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](http://www.BELS.ALABAMA.gov)) and using the CHANGE OF ADDRESS feature.

**DISHONESTY****From Page 11**

Citing Evans: "While the board sometimes finds less than truthful licensees upon audit of CPC (Continuing Professional Competency) responses or upon review of renewal and application forms, equally egregious examples of untruthfulness have come to the surface during the Board's investigations. Some situations come to mind:

- A licensee's spouse attended a continuing education program in the licensee's place, which then the licensee claimed credit. Believe it or not, it happened.
- Licensees have claimed to be overworked and unable to meet deadlines and therefore told their clients or employers that the permit application or plan had been submitted and the holdup was with the state or local government agency when the information never left their desks.
- Licensees have submitted exaggerated qualifications and overstated their abilities in an effort to win contracts.
- Licensees serving as expert witnesses have hedged testimony and failed to include all relevant and pertinent information in order not to hurt the clients' cases.
- Licensees have certified work that was either not personally prepared by them or under their direct supervisory control. When the licensee certified the work it was purported to be their final work product and could be relied upon.
- Licensees have failed to disclose conflicts of interest. This is simply not being truthful by omission. Licensees that later tried to justify why there wasn't a conflict of interest just compounded the issue.

The mission of BELS 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 surveying."

In order to uphold those principles, it's paramount that honesty is demanded and expected in every aspect of the licensure process.

**DESIST****From Page 5**

and applies its laws before a hearing officer/administrative law judge, and not in a court of law with more cumbersome and expensive procedures.

Without this statutory authority, state agencies may still send pre-litigation demand letters threatening to take the matter to civil court, or even to initiate criminal charges where warranted. These actions protect due process rights since they reflect the legal authority of the agency and provide for an opportunity to challenge them-in court.

Instead of demanding a person "cease and desist," the state agency may properly serve a pre-litigation demand giving notice that unless the unlawful activity is ceased, the agency will take the matter to civil court. Then, take the case to court when needed.

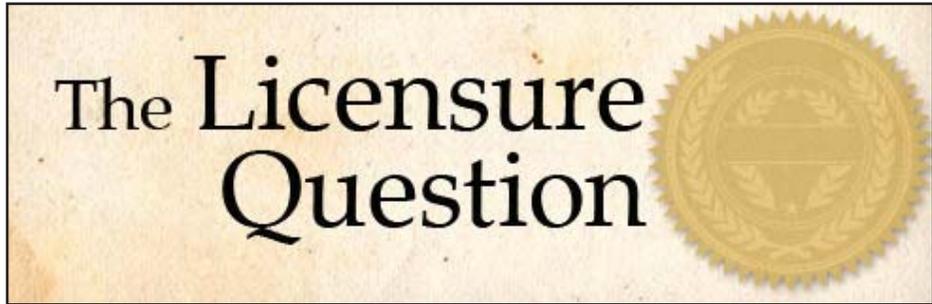
Or, the state agency may simply file criminal charges with the local prosecutor, if the case is sufficient to warrant criminal action.

our DECEASED



We would like to pause for a moment and recognize those licenssees who have passed on in 2016:

- Dennis Anthony Dudley PE
- Jeffrey Lee Moehring PLS
- Gary Lee East PE
- Douglas Hungate PE
- Anil Khare PE
- Dewey J Gray PE
- Howard B Johnson PE
- Kendall K. Brown PE
- Albert Wagnon LS
- Charles Ellenburg LS
- James Denham LS
- Earl Hewitt Pearce PE
- James Floyd Lawrence PE
- Charles G. Bowden PE | PLS



# The importance of licensure

By Griffin Pritchard |  
Public Information Specialist

“Licensure is the mark of a professional. It’s a standard recognized by employers and their clients, by governments and by the public as an assurance of dedication, skill and quality.”

In the mid 1930’s when the Alabama Board of Licensure for Professional Engineers and Land Surveyors (BELS) was commissioned, it was tasked with maintaining and protecting 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.”

Being licensed to practice an act of engineering or surveying within the State of Alabama means that individual “has met a minimum set of qualifications” in order to do so.

“Does licensure really matter?” asked Michael Conzett then-NCEES president in an article appearing in their June 2016 newsletter. “We, who are in the business of licensure and regulation would answer ‘yes’ to that question without thinking very deeply. It is kind of like preaching to the choir, wouldn’t you say?”

Conzett ponders the point: “Does li-

icensure really matter to the public?”

He writes: “It is the public who benefits from engineering and surveying licensure, not us as practitioners. But when the latter question is asked, I wonder what the public really thinks. After all, what does the public really know about licensure? It’s trying to tell people what engineers and surveyors do, much less trying to tell them how licensed professionals make a difference.”

BELS has more than 16,000 individuals (both professional and intern) licensed to practice engineering and land surveying within the confines of the State of Alabama. But what does that really mean?

According to the National Society of Professional Engineers, “licensure is the mark of a professional. It’s a standard recognized by employers and their clients, by governments and by the public as an assurance of dedication, skill and quality.”

Think of licensure as a calling card to the legitimacy of the practice one has created and established.

NPSE writes in their blog *Why Get Licensed*: “Just as the CPA defines the accountant, and a law license defines the lawyer, the PE (or PLS) license tells the public that you have mastered the critical elements of your profession.

It demonstrates your commitment to the highest standards of engineering practice. It’s also proof of your ability

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## LICENSURE

From Page 13

to offer engineering services directly to the public – something only a licensed PE can do. The PE after your name is an advantage that will open doors for the rest of your life.”

The Society goes on to highlight five reasons to be licensed:

1. **Prestige:** PE's (and PLS's) are respected by the public and are seen in the same light as licensed professionals in other fields. PE's are also held in high esteem by their peers within the engineering (and land surveying) communities, who see the licensed professional as part of an elite group.
2. **Career Development:** Employers are impressed with engineers who have their PE (and PLS) license. Licensure not only enhances your stature, it shows

commitment to the profession and demonstrates heightened leadership and management skills. Licensure is also a necessity for rising to increased levels of authority and responsibility.

3. **Authority:** Only PE's can sign and seal engineering drawings; only PE's can be in responsible charge of a firm in private practice or serve as a fully qualified expert witness. Also, many government agencies and educational institutions are emphasizing licensure among their engineers as well.
4. **Flexibility:** Having a PE (or PLS) license opens up your career options. You can become a specialist, or establish your own business. It also protects you during industry downsizing and

outsourcing. Licensure allows you to go as far as your initiative and talent will take you.

5. **Money:** Studies have shown that most PE's earn higher pay throughout their business careers. Having your PE allows expanded opportunities beyond a company structure – as an independent consultant for example.

But, the job of relaying the importance of licensure to the general public falls on the shoulders of state Boards of Licensure. BELS, for example, has made it a point to become a presence at events that aren't necessarily industry specific.

Conzett writes: “We, in our roles as state regulators, must be articulate in

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## POST

From Page 7

business owners to consider before clicking the post button.

- Friends can post YouTube videos, jokes, post cards and bumper stickers on your wall that may appeal to you personally, but that could turn off or offend clients. Change your privacy settings so that people cannot post on your wall.
- Status updates / tweets: Keep them business related or don't post them at all.
- Send an inbox message to all of your personal friends letting them know the page is for business purpose so please keep it clean.
- Don't allow people to “tag” photos of you. This will ensure unflattering images of you doing things your client base may not agree with or care to know about aren't seen.
- Don't comment on friends' posts or photos that may hurt your brand and your credibility. Remember your friends can see what you post on other's walls.

The biggest question to ask, before sharing information is a simple one: “Does this post have value?”

If, yes, then go ahead and put it out there. If no, then refrain and choose a different more suitable network for it.

Sylvia Montgomery, who published an article entitled: “5 Tips to Proper Social Media Etiquette” wrote: “Practicing proper social media etiquette helps you better represent your brand to your followers. While monitoring your personal presence on social media is important, firms should take extra care to make sure their accounts remain professional.

In that article she lists engagement, personality and proofreading as ways to be cognizant of the message your firm or business is trying to get out to the masses.

- “If it's not engaging, it's not worth posting.” Like Joy of Marketing, it comes down to whether or not your business will benefit from the post. Montgomery writes: “As delicious as a photo of your dinner might look, it's likely not the type of engaging content your readers are looking for. Instead, post with intention. Choose posts that will interest your professional services audience and get them excited about following you. Remember that their decision to follow your accounts is a choice – one they can just as easily choose not to do.”
- “Make sure there isn't a better way to communicate the information” -- Montgomery adds: “Social media can be largely impersonal. Some types of information are best saved for more personal means of communication.”

The most important facet of communicating to your customers in masse is making sure your message has been spellchecked and proofread.

Montgomery wrote: “The social media content your firm puts out into the online world is a representation of your firm's brand. One of the great benefits of social media participation is it's immediacy, but slowing down to spellcheck and proofread can save you from embarrassment later on. You want your followers to see your firm as confident and intelligent, not careless.”

## GREYSCALE



Marc Barter

PE | BELS

## Changing relations

**Who has the consultant's ear when a relationship of many years is in conflict with a consultant's newly formed relationship with a client? Does the consultant subjugate long-time friendships to a newly-formed client relationship?**

**M**ost licensing boards and professional associations adopt a Code of Ethics, but no code or set of rules can be framed which will be more than a general guide.

Out of necessity, canons of professional conduct are written to address particular responsibilities but, in reality, the ethics committee writes rules for black and white situations that become grey when the practitioner attempts to apply them.

Consider Alabama's Administrative Code, Rules and Regulations 330-X-14-.02(b) Conflict of Interest (*Canon I*): "The engineer or land surveyor shall not solicit or accept any gratuity, material favor or benefits of any substantial nature from any party, agent, servant or employee dealing with his or her client or employer in connection with any project on which he or she is performing or has contracted to perform engineering or land surveying services. This solicitation or acceptance includes, but is not limited to any act, article, money or other material possessions, which is of such value proportion that its acceptance creates a clandestine obligation on the part of the receiver or otherwise compromises his or her ability to exercise his or her own

independent judgment

Typical of ethics rules, the above part b of *Canon I* is long on edict and short on explanation.

There is no guidance provided as to what constitutes a gratuity "of such value proportion."

Of course the intent is to dissuade practitioners from being influenced by people who could compromise their relationship with the client. On balance it seems like a reasonable rule, but in application it can be complicated.

In small markets it is very common for the consultants to know and be friends with the construction community. Many consultants are even in trade associations that are contractor-based. Who has the consultant's ear when a relationship of many years is in conflict with a consultant's newly formed relationship with a client? Does the consultant subjugate long-time friendships to a newly-formed client relationship?

It could be difficult for an engineer to tell a long-time contractor friend that the annual deep-sea fishing trip is off this year because the contractor happened to get the contract on the new school or hospital that the engineer designed.

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## LICENSURE

From Page 14

the public square to clearly point out that licensure should matter to the public. I sincerely believe that although not every engineer needs to be licensed, the world is in a better place and the public better served when more engineers and surveyors are licensed. Does licensure matter because it makes a person smarter, more qualified or more experienced? No, licensure should matter to the public because it compels engineers and surveyors to think differently about the work they do every day. It reminds all of us of our duty to place the interest of the public over and above our

duty to any other party. Finally, licensure should matter to the public because it is a privilege, not a right. Licensure should make us behave and act differently. For we have something to lose: our license, along with our reputation and livelihood. And that should matter to the public.”

Protecting the public, ensuring the safety and welfare and property and to promote public welfare. This task is accomplished through the practice of licensure. But it's not just BELS who benefits, it's the individuals who have put in the effort to become licensed.



*happy* **HOLIDAYS**

From our family to yours, the Alabama Board of Licensure for Professional Engineers and Land Surveyors would like to wish all of our licensees and their families a happy holidays and an exciting new year.

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](mailto:griffin.pritchard@bels.alabama.gov)

## SHADES

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But could the contractor pay for lunch?

How strict should enforcement of the rule be?

Contractors and vendors often buy lunches for engineers as well as other items of value, including trips. Stories have even circulated about a contractor walking into a restaurant and, upon realizing that most of the patrons were employees of the owner, paying for everyone's lunch.

The level of adherence to the above rule depends in large measure on the engineer. Some people can have their head turned with a milkshake and others couldn't be bought with a McDonald's franchise.

Ethical behavior is often in the eyes of the recipient and the intentions of the contractor.

While an engineer would not want to insult a good friend over a lunch, a good friend will understand the need for caution. It's a judgment call. Depending on the engineer's personality, levity might be used, to help diffuse this kind of uncomfortable situation: "While this project is going on, let me buy the lunches. You don't know it yet, but you will need your money to finish the project".

The rule is left grey because the world operates in a grey fog. Business is seldom black or white. If it were, there would not be a need for personal relationships. Everyone could just write algorithms and let the computers interact, which might be starting to happen now anyway.

Professionals must establish their reputations and build on them throughout their careers. An ethical engineer cannot be bought, and an unethical one doesn't need to be. Neither relationships nor careers should be destroyed over rules.

Simple explanations and open communication between the parties can go a long way towards deflating any criticism of bias.

An engineer need not be overly tough on the contractor because of a friendship. A fair and balanced approach consistent with past actions is ethical and should be acceptable to any owner and any licensing board.

Even the annual deep-sea fishing trip can be explained if it doesn't vary from years past, but an engineer should consider whether he or she wants to have to provide the explanation. A reputation takes a lifetime to create and a nanosecond to destroy. Engineers should tread lightly and be able to defend their actions.