

### FOURTH QUARTER 2018 EDITION



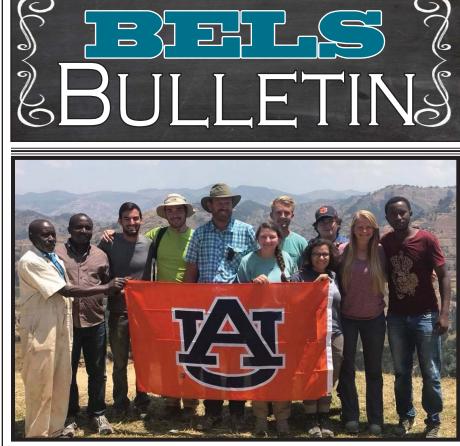
- Educators discuss ways to keep the classroom updated as industry evolves (Pages 4, 5 & 6)
- Meet Joey Breighner, Jr., the newest
  PLS appointee bringing 30-plus years
  of experience to the Board.
   (Page 3)
- After a law change comes the updates to the Administrative Code. Take a look at BELS' proposed new language. (Pages 9-16)

#### **BELS MEETING INFORMATION**

- BELS Meets approximately every two months beginning at 8 a.m. in the boardroom at our Montgomery office located at 100 North Union St., Suite 382.
- 2019 MEETING DATES: January 15 | March 5 May 7 | July 16 September 10 | November 13



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 pages. To subscribe, email griffin. pritchard@bels.alabama.gov





Pictured at top: Auburn University's Engineers Without Borders program pose for a photo during a trip to Rwanda. The group also traveled to Bolivia to do work. (Below) Katelyn Jenkins and a teammate work on the functionality of a newly installed tap which will help bring water to the town.

# **A Practical Education**

Students put engineering and surveying skills to work

By Griffin Pritchard | BELS Public Information Specialist

which is the fields of engineering and land surveying, there's a limit to the learning done inside the classroom. Students at Auburn University and the University of Alabama at Huntsville are doing their part to "build a better world" as part of the Engineers Without Borders USA program.

"We gain unbeatable experience working in a new context on real projects that truly impact people's lives," wrote Natalie Palmquist, President of the Auburn Engineers Without Borders Chapter, in an email message.

see Practical Education PAGES 2 & 3

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### our OUTREACH



Special Investigator Bob Herbert, with Bruce Thornell, not pictured, traveled to the Alabama Fire College to speak to a group of firefighters who will be working as plan and building inspectors throughout the state.

#### • 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 Ethics
- Land Surveying Ethics
- Continuing education (PDH)
- The investigative process
- ACT 550 / Law Change
- Pathways to Licensure

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

### our CONTACTS

100 N. Union Street Suite 382 Montgomery, Ala. 36104 334-242-5568

www.bels.alabama.gov

### PRACTICAL EDUCATION

"We get to grow together as a team, building strong friendships and life-long connections with people we know are going places.

"And we get to enjoy stepping outside of the box to learn skills well beyond what a traditional engineering curriculum can provide."

Students from Auburn have shouted "War Eagle" all the way to Bolivia (annually since 2008) and Rwanda (four times since 2016).

Through the efforts of students groups, they are working to better fulfill the mission of EWB: "...build a better world through engineering projects that empower communities to meet their basic human needs and equip leaders to solve the world's most pressing challenges."

To that end, according to the Engineers Without Borders website, 651 projects are ongoing in 45 countries utilizing a student-led workforce of more than 14,000 students.

"Our goals are to use the skills learned in engineering at UAH to gain real-life experiences, and to enhance the capabilities of our members and to promote UAH," Desmond Flanagan, Engineers for Global Action President, answered when questioned about EWB's benefits.

The Huntsville program is still in the infancy stages compared to Auburn.

UAH students have worked on a project in Lineville (Clay County, Alabama) which is roughly a three-hour drive south.

Auburn's Chapter also lists a project in Lowndes County to their resume.

The goal, according to Flanagan, is to



Ciara Morgan uses a total station during a trip by the Auburn University Chapter of Engineers Without Borders.

- The Auburn University EWB program began in 2008 and was known as Auburn Engineering Students Abroad (AESA) and took an initial trip to Bolivia. Since then, the EWB group has worked projects in Bolivia, Rwanda and Lowndes County (Alabama).
- The UAH program, now known as Engineers for Global Action, is in its infancy and has worked one project in Clay County (Alabama) but has plans to visit either Guatemala or Sierra Leonne

venture a greater distance in December to either Guatemala or Sierra Leonne.

"Whichever is approved," added Flanagan.

Engineers Without Borders (according to the organization's history at www. ewb-usa.org) traces the group's founding back to the year 2000 and an industrious

### See Practical Education PAGE 3

### 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.



### Breighner joins BELS as PLS Member

By Griffin Pritchard | BELS Public Information Specialist

he Alabama Board of Licensure welcomed its newest Professional Land Surveyor member, Joseph "Joey" F. Breighner, Jr., to the table for the September 10 meeting. Breighner, who will serve a five-year team after being nominated through the Alabama Society of Professional Land Surveyors and appointed by Gov. Kay Ivey, replaced Frazier Christy. Christy's term expired in April, but was serving beyond appointment until Ivey made the new appointment.

Breighner brings more than 35 years of surveying experience to the Board of Licensure and holds professional licenses in Alabama and Mississippi. In that time, he has also amassed a cornucopia of knowledge in land surveying, survey mapping on residential, commercial, industrial and institutional

See Breighner PAGE 9

### **PRACTICAL EDUCATION**

professor of civil engineering at the University of Colorado (Boulder). Dr. Bernard Amadei visited a community of Mayan Indians, 950 in total, in San Pablo, Belize with the task of assessing their water supply.

He realized the community "lacked clean water and sanitation infrastructure and that most of the community's children didn't attend school because their time was dedicated to collecting water from miles away."

Witnessing the trials and tribulations endured by that community left an impression on Armadei. Fast-forward to 2002 and he had officially founded EWB.

The goal was to: "harness the power of professional and student engineers to complete similar low-tech, high-impact projects in other developing countries."

That's the mission that led students from Auburn to Bolivia where they designed a large-scale irrigation system to aide with farming in the Andes Mountains; and to Rwanda where they are in the midst of designing a drinking water distribution system in an area known as the "Land of 1,000 Hills."

Palmquist wrote of the Rwanda project: "there are many springs and water sources to be tapped but few properly designed and installed distribution mechanisms. To date we have constructed two functional pipelines: one 500 meter line bringing water to the Kabaya Secondary School and a 1,500 meter line bringing water to the town center of the community of Mwendo."

The Auburn program, originally created as Auburn Engineering Students Abroad, traveled to Bolivia in 2008 to the town of Quesimpuco where the group worked on irrigation design projects, hydroponic system development, handheld washing machines and solar powered stove technology.

In Huntsville, Flanagan said the goal for his group is to experience and have a

better understanding of what it means to be an engineer and to build friendships, and, promote the university.

Auburn has been working with UAH and UAB to develop their programs and has had contact with Miami (Ohio) University on similar on-going projects.

While the two programs are in different places in terms of experience, there is a commonality in what they have to offer the students who participate: "develop leaders in engineering who will go into their field with a knowledge of how to serve."

But it's not just engineers and land surveyors reaping the benefits of this volunteer movement. Palmquist pointed out that every semester, they will have around four non-engineering students that are critical to the operation.

"Our current treasurer is an accounting major from the business school," said Palmquist. "Last year we had a marketing major assisting with our website and media development. This year, we have a student from Information Systems Management out of the college of business interested in assisting with the project development. These students bring critical skill sets essential to the health of a well-functioning engineering non-profit."

Palmquist added that they want to get more non-engineering students involved. In Huntsville, Flanagan pointed out the involvement of several nursing and biology/chemistry students working with the club.

"Our group is always trying to grow and develop," said Palmquist. "We never want to say no to opportunities for solving new problems, serving the new communities or developing new student leaders. It is never student interest, but funding that is the limiting factor in what we can or cannot do as a group. Still, with the help of generous donors we have been able to maintain team operations at this point."



Engineering professors throughout the State of Alabama are working to design classes that will meet the needs of engineering students. They discuss how to deal with both an evolving field and an ever-changing classroom.

# **Engineering the Class**

Professors discuss ways engineering industry and student changes effect classrooms

#### By Griffin Pritchard |

#### **BELS Public Information Specialist**

Just like everything in today's society, changes have been made. According to Digital Engineering contributor and president of Lifecycle Incites and host of the Resource Center Webinar: Five Trends Facing Modern Engineering, chad Jackson writes: "Twenty years ago, the engineer's chief concern was form, fit and function. Whenever you signed or put your seal on a drawing that was your personal approval that this design works. It's going to pass testing and be safe."

Just as the innovation can be found within the industry, the trickle down effect can be found in the classroom. According to Ph.D's John Cleary (Associate Professor in the Department of Civil, Coastal and Environmental Engineering at the University of South Alabama) and Jose Vasconcelos Neto (Associate Professor of Civil Engineering at Auburn University), who are both rather young in the fields of education, can see the evolution of engineering education.

"The biggest change," said Cleary, "is the use of technology. Design software is so prevalent in practice today, that it's almost inconceivable that a practicing engineer would not be using it on a regular, if not daily basis." Neto agreed: "One example is discussions about data collection techniques/sensors which are much [more] available now and not much so 20 years ago."

The 20 year number was just a starting point. The two professors are basing their frames of knowledge on a sample size of less than 10 years.

But that comes with an advantage.

They are more in tune with how students – growing up in the technology age – best learn.

According to Jackson, Generation Y (Millennials) don't typically want to learn the same way as past generation but are looking to careers that provide them with "immediate impact." He goes on to add "they don't want to sit on the sidelines and watch."

That mindset directly correlates with the way they learn and approach education.

MIT Professors Erik Brynjolfsson and Andrew McAfee posited that education and industry are currently in the midst of the "The Second Machine Age."

According to the two Massachusetts educators, millennials ar-

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### our **LEADERSHIP**



Nathan Johnson, PLS/PE Chair



### Randall Whorton, PE Vice Chair



Helen Adams-Morales, PE Secretary

### **ENGINEERING THE CLASS**

rive on camps "with significantly different resources, skills and expectations:"

- Growing up with computers, internet, smart phones and social media, they expect to be connected on a 24/7 basis and are tech savvy. They also embrace new and emerging technologies
- They are multi-taskers and accustomed to juggling numerous activities and tasks.
- They have a truly global world view and expect to work across boundaries.
- They tend to be very comfortable working collaboratively in teams.

"There have been many changes indeed," said Auburn's Neto. "Students involved in design classes; the approaches we've used in classes have been changing to follow what design companies/consultants apply."

Cleary added: "From an education perspective, there has been a shift (at least from my perspective) in how engineering is taught and the 'type' of student that is thought of as a 'good engineering student.' At one time there was a philosophy where students who did not perform as well in lower level (freshmen and sophomore level) math and science should be 'weeded out' of the program.

"The reality is, these students often had a different way of thinking when math, science and engineering was being taught and could potentially make excellent engineers. Thankfully gone are the days (at least for the most part) of 'look to your left, look to your right; one of them won't be there next semester.' We now embrace and teach to students who learn differently and encourage all students to exceed."

Educators are embracing the new learning styles as well:

- Educators have also Focus on Group Work Designing lab and class work around team problem solving and experiments can be far more effective than more traditional methods.
- Integration of Technology Online experiences can illustrate key concepts before a student even arrives to class, making the classroom and lab experience more meaningful.
- Innovation on Display Allowing students and visitors to see into labs and workshops and identifying opportunities to display student-generated innovations can help them feel more engaged.
- Cross-Pollination Educators are discovering ways to share facilities, lectures, classes and labs with other scientific disciplines while also identifying opportunities for broader academic collaboration. Connecting a school of engineering and a school of business, for example, can facilitate synergies that will accelerate the next generation of startups.
- Emphasis on Undergraduate Research Undergraduate engineering students are increasingly involved in research to keep them more engaged.
- Interaction with Faculty A close connection with a passionate, inspired faculty member is one of the most important factors in student success.

"Teaching methods and styles have evolved as much as the research on teaching on learning has showed how students learn," said Cleary.

"Traditional lectures for 50 minutes have been shown as ineffective since students tend to 'zone out' and stop retaining information. Breaking lectures up with active learning activities are more effective at keeping students engaged and increasing retention and learning."

Cleary said he teaches using "short bursts" of lecture combined with examples and in-class activities that encourage student engagement.

### See Engineering The Class PAGE 6

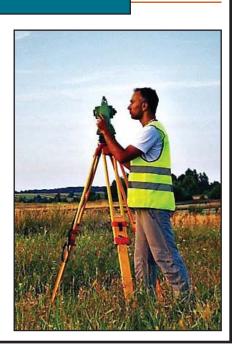
### education **OPPORTUNITY**

## **Ethics Webinar November 8**

As part of Act 550-2018, Professional Land Surveyors are now required to have an hour of ethics every year as part of the 30 PDH needed to renew. As a state agency, and a resource, BELS will host a free, one-hour webinar November 8 beginning at noon.

We have transitioned to a new program, Google Business Hangouts, which will allow us to host a larger audience.

This program - which is encouraged for offices to utilize as a lunch'n'learn opportunity - will feature a mixture of updates from the board, case studies and a dive into the 14th chapter of the Board of Licensure's Administrative Code. The webinar is open to both Professional Engineers as well as Professional Land Surveyors, but will be geared toward the surveying profession. Look for an email the coming weeks with login instructions. If you have any other questions, reach out to Griffin Pritchard (griffin.pritchard@bels. alabama.gov).



### our NEW LICENSEES

Listed on pages 6, 7, 8 and 9 are the names of the most recent Professional Engineer, Professional Land Surveyor licensees who have been granted licensure following the Sept. 11, 2018 meeting. The list will also include those who have been granted status as an Engineering or Land Surveying Intern:

### <u>PE LICENSEES</u>

ALAN L. LUMPKIN AMES NYQUIST ANDRE E. SLINTAK ANDREW DURICK HORWATH ANDREW HENRY MILLER ANDREW KARL STEINMETZ **ARTHUR BENEDICT GAVIN III** AZLAN BIN EZADDIN **BENJAMIN MARTIN WINKELBLECH** BILL QUINTEN ROGERS BRETT ANDREW BUCKLAND **BRIAN SULLIVAN BRIAN JASON BURTON BRIAN JOHN MEISSNER** CARL LEE SCHOENTHAL **CARL WAYNE RODE CARSON JOSEPH CARPENTER** 

### **ENGINEERING THE CLASS**

- Professors John Cleary and Jose Neto agree that as the industry changes, the student's neeeds inside the classroom change as well.
- Industry experts point out the need for educational innovation to help fill the "knowledge-vacuum" being created by the number of Baby Boomer-era engineers that are in the retiring on an annual basis.

Neto said he prefers using student interaction as a key component during his classes.

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"I attempt to have discussions that involve the students, rather than an expository style of teaching," said Neto.

According to Jackson, "a knowledge-vacuum is being created within the engineering industry as many Boomers are approaching retirement age." That is putting the pressure on the professors to better prepare the students of the future as they enter into the profession.

"I believe engineering education will continue on the trajectory of using re-

search-based methods to increase student learning and success," said Cleary. "I also believe there will be in an increase in the usage of online education at both the undergraduate and graduate level. The convenience of online education for students and the educational efficiency for the institution will be drivers for that movement."

Online education, computer-based-learning goes hand-in-hand with the way the students receive information.

"I think that more and more students will be applying with more advanced tools, improved numerical data models and better data collection techniques in class," added Neto. "I believe more and more co-op will be a choice for students so they are exposed to tools and techniques that are applied in practice."

All professionals – both those in the classroom and those at the drafting table – agree that as the industry advances so will education.

### our NEW LICENSEES

CHAD SEGAL CHARLES BENJAMIN SKAGGS CHRISTOPHER MARK D'ANGELO CORNEL GODANY **CRAIG JEROME STREET CRAIG STEVEN FUNSTON** DANIEL CLARKE SAUTTER DAVID O'CONNELL DAVID EUGENE SCHAAD DAVID J. WALLNER DAVID KENNETH BLACKMON DAVID MICHAEL DEMELLO DONALD ARTHUR MARTIN JR. DONALD M. LEFFERT EDWIN GREY HORNFECK **ERIC DAVID RIDINGS** ERIC MICHAEL KNIGHT FLORIJE A. VESELI **GARY DAVID HEITMAN** JACOB SCOTT CLARK JAMES ROBIN HARRELL JAMES THOMAS WILLIAMS JAN I. BLOK JASON ALAN ATKISSON JASON THOR CRUMB JEFFREY ALAN URLAUB JEOVANNI AYALA-LUGO JEREMY LEE LUCAS JOEL BRUCE CLARY JOHN KENNETH BRINSON JOHN TALBERT REA JONATHAN DANIEL CLAXTON JONATHAN WILLIAM HEALD JORDAN AVERY HAYES JOSEPH LOUIS GROVEMAN JOSHUA EDMOND BLEDSOE KENNETH DEWAYNE ASH **KERI JOHNSON KEVIN J. KNOCKE** LAUREN SUSAN WELLBORN LISA A. COYAN LOGAN DREW CLARK LUKE SAMUEL PLATFOOT MARC ELLIS RADER MARK ANDREW BRADO MARK THOMAS INGRAM MATTHEW EDWARD WUERTH MATTHEW ELLIS BILLINGSLEA

## **Proposed Changes to Admin. Code**

By Griffin Pritchard | BELS Public Information Specialist

n May, Gov. Kay Ivey signed Senate Bill 316 into law, changing its identity to Act 2018-550. The new law -- which clarified language regarding Qualification-Based Selection and Land Surveyors' education, expanding the Board of Licensure to include two public members and decoupling the experience precursor prior to individuals taking their professional exams -- served as a culmination of years' of work by board members and staff. During that time, town hall meetings and spirited discussions were had. Board members also offered presentations to different societies on the different items that comprised the 82-page bill's contents.

Sen. Clyde Chambliss (P.E.) championed the bill in the Senate and did a yeoman's portion of the work in creating the language that ultimately formed the new laws by which professional engineers and professional land surveyors are to be governed going forward. Chambliss gathered and considered comments from different stakeholder groups and put forth a bill in which all parties could agree on.

Think of this is a quick lesson in governmental cause and effect. Once the law changed (cause) Board needed to address those changes within the

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see Administrative Code PAGES 8-16



Pictured are scenes from the Sept. 10, 2018 public hearing where comments were heard and discussion was made regarding the proposed changes to the Board of Licensure's Administrative Code. (Top Left) James Monk offers comments from ASPLS. (Top Right) Jim Meads of ACEC speaks and offers comments. (Bottom) Incoming Board Chair Nathan Johnson answers a question during the hearing.

### our NEW LICENSEES

MATTHEW THOMAS PAYNE MELISSA A. SIERRA MICHAEL ALAN BRIGHTWELL MICHAEL DUANE BUCHANAN JR MICHAEL J. SHARKEY MICHELLE STAFFAN NATHAN KYLE CONNORS PHILLIP ANDREW SMITH PHILLIP IGNACIO PARRA RANDALL KEITH O'NEAL **RAYMOND A. CONIGLIARO RICHARD EDWARD CZLAPINSKI** ROBERT BRUCE SEEKINS ROBERT CHRISTOPHER AECK ROBERT LEWIS WILBERT SALVADOR MURRA SARAH ANNE OSTRANDER SCOTT VERNON WALOWSKY SHAWN CHRISTOPHER MCNAMARA SOMPHAVANH BOUALAPHANH STEPHAN WILLIAM WYSE SUNIL BORKAR THOMAS PATRICK WURZINGER THOMAS WAYNE HARTMANN THOMAS WILLIAM PENSHORN TOD EARL LEWIS WADE STERLING BONZON WESLEY ALEXANDER JONES WILLIAM GLENN DURIE WILLIAM LAKE POLHEMUS JR WILLIAM MORRIS TANNER

• <u>PLS LICENSEES</u> KERRY M. SIMON BRIAN L. SOUVA

### our NEW INTERNS

### • ENGINEER INTERNS AUSTIN WADE COWAN BRADLEY MICHAEL RIPPEE BRIAN BATSON COOK BROOKE MORRIS CHARLES AUSTIN BARBER V CHRISTOPHER BERTON PERRY CODY RAY MORRIS DALTON AUSTIN STACKS EBONE DEKAYLA SANKEY

### **ADMINISTRATIVE CODE**

From Page

rules and the Administrative Code (effect).

In August, BELS filed Administrative Code changes to supplement the law change. Within the submissions to the Alabama Legislative Services Agency, rules were made to create a public member nominating committee, language was also clarified to make the nomination process uniform amongst engineers, land surveyors and the public. Existing language was also amended to address board compensation and to establish the titles of Professional Engineer, Retired and Professional Land Surveyor, Retired.

Listed below (broken down by Administrative Code Chapter and highlighted in bold) are the proposed rule changes as they appear online at www.bels.alabama. gov.

An initial public hearing was held Sept. 10 which featured representatives from ASPLS and ACEC making comments. A second public hearing is scheduled as part of the Nov. 14 Board of Licensure meeting.

chapter 330-X-1

### 330-X-01.01 Purpose

The Alabama Board of Licensure for Professional Engineers and Land Surveyors was created to protect the public by helping to safeguard health, life, *health safety, welfare and property*, and to promote the public welfare by providing for the licensing of persons and regulation of 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 promulgated thereunder.

### 330-X-1.03 Board Members Compensation

Compensation and Expenses. Board Members shall be compensated (\$200) on a per diem basis for days actually spent in performance of their duties and, additionally, members of the Board shall be reimbursed for all expenses incurred in performance of their duties as provided by Code of Ala. 1975. Sections 34-11-32 and Section 36-7-20.

### 330-X-1.13 Nominating Guidelines

(1) It is the responsibility of the Executive Director of the board to verify that the three persons nominated by each nominating committee meet the requirements of the Administrative Code. Each nominating committee must submit a letter with the list of names to the Executive Director to be forwarded to the Governor.

a. The Executive Director or a Board representative shall attend all nominating committee meetings.

See Administrative Code PAGE 9

b. The meetings and any candidate interviews shall be open to the public.

(2). Any professional organization with a representative on the nominating committee, who fails to attend two consecutive committee meetings, shall be placed on probation. Notification will be sent to the non-participating professional organization by the Executive Director of the board. If the professional organization fails to provide a voting representative at a third consecutive committee meeting, the professional organization's membership on the committee shall automatically be revoked. The professional organization and the Board shall receive written notification from the Executive Director of the board and shall not be considered for readmission to the committee for a minimum of three (3) years. A revoked organization may petition the board for membership on the committee using the procedures as outlined in the above section.

#### (3) Professional Engineer Nominating Committee

A Nominating Committee shall be composed of one professional engineer from each professional engineering organization in Alabama. The members of the nominating committee must be residents of Alabama and must hold a current Alabama professional engineer license.

(a) Members of the Nominating Committee are:

- 1. Alabama Society of Professional Engineers
- 2. American Council of Engineering Companies of Alabama
- 3. American Institute of Chemical Engineers
- 4. American Society of Civil

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- 5. American Society of Mechanical Engineers
- 6. Institute of Electrical and Electronics Engineers
- 7. Society of Mining Engineers
- 8. Structural Engineers Association of Alabama
- 9. Alabama Association of County Engineers

(b) Any active professional engineering organization in the state having membership requirements comparable to those of the above-named organizations may petition the board for membership on the committee, and the board may grant the membership.

(4) Public Member Nominating Committee: A nominating committee shall consist of one representative, appointed or elected, by the Business Development Organizations serving as members of the nominating committee.

- (a) Members of the Public Member Nominating Committee are:
- (1) Chamber of Commerce Association of Alabama
- (2) Alabama State Black Chamber of Commerce
- (3) Economic Development Association of Alabama
- (4) Women's Business Enterprise Council South
- (5) National Federation of Independent Business Alabama
- (6) Alabama Farmers Federation

(5) Professional Engineer and Public Member Nominating Committees Responsibilities and Meeting Procedures

(a) The Nominating Committee is

 Breighner - Executive VP and Chief Land Surveyor at Schoel Engineering - brings 35 years of experience and BELS. He also holds licenses in multiple states.

#### BREIGHNER

From Page 3

sites as well as specific-purpose surveys.

Currently Breighner and hs wife Janet live in Springville, Alabama. He is the Executive Vice-President and Chief Land Surveyor at Birmingham's Schoel Engineering Company. Schoel Engineering, at 130 years old, is one of the oldest civil engineering and land surveying consulting firms in the state.

The Breighners have two children and five granddaughters.

### our NEW INTERNS

ELIAS AQEEL LEE **GABRIEL PALMER WAGNER** GARRETT ZAN HARE JACOB MARK WILLIAMS JACOB MICHAEL EDWARDS JOSEPH DANIEL BRODERICK **KATIE ANN RENDER KATLYN ASHLEY JONES KELSEY MARIE FERRILL** LIZANNE DACY ESPY MARTHA MYDUYEN DO MARY MARTHA EMILY SHAW MEICHELLE EMILY SOUTH NICHOLAS EDWARD CHAPMAN PATRICK SHANE CRAWFORD SHANE CHANDLER GLOVER SHAWN MICHAEL ROBBINS

• LAND SURVEYOR INTERN JACOB ROBERT OLMSTED

a special committee as established by Section 34-11-30, Code of Ala. 1975. The Nominating Committee is a separate entity and is not to be considered as a sub-committee of the Board and does not have to meet the requirements of the Open Meetings Act.

(b) The Executive Director of the board shall give the Nominating Committee at least 30 days' notice of the date and place for a meeting. In the event there is an unanticipated vacancy, the Executive Director of the board shall give the committee as much notice as possible.

(c) The meeting will be open to the public and shall proceed according to Robert's Rules of Order. The committee may go into Executive Session when discussing the good name and character of the nominees. All motions and ballots will be done in an open meeting.

(d) The Chair of the Nominating Committee shall be elected by the Committee on the day of the meeting.

(6) Nominating Process for Professional Land Surveyor Members

(a) The Executive Director of the board shall give the Alabama Society of Professional Land Surveyors (ASPLS) at least 30 days' notice of an anticipated professional land surveyor vacancy on the Board. In the event there is an unanticipated vacancy, the Executive Director of the board shall give ASPLS as much notice as possible.

(b) ASPLS is a separate entity and is not to be considered as a subcommittee of the Board and does not have to meet the requirements of the Open Meetings Act.

(c) The meeting will be open to the public and shall proceed according to Robert's Rules of Order. The committee may go into Executive Session when discussing the good name and character of the nominees. All motions and ballots will be done in an open meeting.

### chapter 330-X-2

#### 330-X-02.01 Definition of Terms

(6) The term *managing agent* of the firm as used in Section 34-11-9. Code of Ala. 1975, and Section 330-X-15.01 of the Administrative Code shall also be construed to mean "the engineer" or "land surveyor" which is defined as the designated person who is a licensed professional engineer or licensed professional land surveyor and who makes significant technical and/or contractual judgments on behalf of the firm which would affect the firm's professional reputation and liability. The *managing* agent's responsibilities include overall supervision of the firm's licensed and subordinate personnel providing engineering or surveying work in Alabama and the institution and adherence of policies of the firm.

(11) The term "Inactive" shall mean a licensee *or firm* who is not engaged in the engineering or land surveying practice which requires licensure in Alabama. No licensee *or firm* granted inactive status may practice or offer to practice engineering or surveying in Alabama as defined in Section 34-11-1(12), Code of Ala. 1975.

(12) The term "*Professional Engineer, Retired*" or "*Professional Land Surveyor, Retired*," shall mean a person who is retired from the profession of engineering or land surveying in Alabama and has been approved to use the title by the board.

#### See Administrative Code PAGE 11

(13) The term "*Expired* License" shall mean a license that has not been renewed as of the deadline for renewing. A license not renewed will remain in a lapsed *expired* status for a maximum of *two* years.

(14) The term "restricted" shall mean a license or certificate that is limited in a manner specified by the Board.



#### 330-X-03.01 Form of Application\_ for Certification of Licensure

(2) Applications for licensure as a professional engineer or as a professional land surveyor or for certification as an engineer intern or a land surveyor intern shall *contain a declaration made under penalty of perjury*.

(4a) Engineer intern - Board meeting agenda deadline -- application, application fee, education transcripts, experience forms (if necessary) *and verification of exam*.

(4b) Land Surveyor intern - Board meeting agenda deadline -- application, application fee, educational transcripts, experience verification form (if necessary) *and verification of exam*.

(4c) Professional Engineer -- Board meeting agenda deadlin - application, reference forms, experience verification forms, educational transcripts, verification of examinations, application and licensure fee.

(4d) Professional Land Surveyor --Board meeting agenda deadline - ap-

plication, reference forms, experience verification forms, educational transcripts, verification of examinations, application *and licensure* fee.

(5) Withholding information, providing statements which are untrue or misrepresenting the facts may be cause for denial of an application or revocation of license. If the infraction is identified after the board has approved the applicant for examination, the board may temporarily suspend its previous approval and examination *results* will not be released until such time as a hearing can be conducted.

(7) If a current, complete, properly executed NCEES Record is provided the professional engineer or professional land surveyor applicant will be required to complete only the sections of the Alabama application form dealing with general information, *and* licensure in other jurisdictions.

(9) If an applicant for examination or comity has been convicted of a felony and has had his or her civil rights revoked, the application cannot be approved for examination, licensure, or certification until the civil rights of the person have been restored and approval of the board has been granted.

### 330-X-03.03 Disposal of Applications

(2) Deferred Applications - When the Board, after due consideration of an application and of information pertaining thereto finds that the applicant is not *currently* eligible for certification or licensure, but the Board believes the minimum legal requirements may be met within one year, the application may be deferred by the Board. The applicant will be notified of the action of the Board by the Executive Director, and for further consideration the applicant may submit the required information, without fee, provided the resubmittal is within *one year* or date specified by the Board. The application will be considered closed *one year*, from the date of the Board's consideration and the applicant must submit a new application *unless otherwise specified by the Board*.

Denied Applications - When (3)the Board, after due consideration of an application and of information pertaining thereto finds that the applicant is not *currently* eligible for certification or licensure under any section of the Law, the applicant will be denied certification or licensure. The applicant will be notified of the action of the Board by the Executive Director, and for further consideration the applicant may submit a new application, without fee, after securing the necessary eligibility, provided the resubmittal is within one year from the date of the Board's consideration. An applicant, who is denied licensure or denied the opportunity to take an examination, has the opportunity to meet with the Board and/or to appeal the Board's decision as provided by Sections 34-11-13 and 41-22-12 through 41-22-21, Code of Ala. 1975.

chapter 330-X-4

### 330-X-04.01 <u>Method of Payment</u>

(1) Fees that are paid to the Board shall be made payable to the "Professional Engineers and Land Surveyors Fund". Fees paid directly to the Board

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office should be made by checks (personal, company or cashier's), *credit cards* or money orders. No cash or money transfers will be accepted as payment of fees. Applications not accompanied by the proper fee will be returned to the applicant.

### 330-X-04.05 Renewal and <u>Reinstatement Fees</u>

The renewal and reinstatement fees shall be set by the Board. Renewal will be annually or biennially as established by the policies of the Board.



### 330-X-05.01 Curricula Approved by the Board

The term "graduate of an ap-(e) proved land surveying curriculum" shall mean a graduate of a baccalaureate surveying/geomatics program accredited by EAC/ABET, ETAC/ABET, or Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology (ASAC/ ABET) at the time of graduation or within a two year period of graduation. This term shall also mean a graduate of a EAC/ABET, ETAC/ABET, or ASAC/ABET accredited surveying/ geomatics master's degree program. This term shall also mean a surveying/geomatics baccalaureate program where the school or college has petitioned the Board for approval for this degree and the Board has granted this approval. This term shall also mean a graduate of a baccalaureate civil engineering program accredited by the Engineering Accreditation Com-

mission (EAC) of the Accreditation Board for Engineering and Technology (ABET) at the time of graduation or within a two-year period of graduation including a minimum of 15 semester hours or 22.5 quarter hours of surveying courses from a school or college which has been accredited by a regionally accredited commission and is approved by the Board.

(h) The term "graduate of an approved associate of science degree program" shall mean a graduate of a surveying or engineering curriculum that includes a minimum of 15 semester hours or 22.5 quarter hours of land surveying courses from a school or college accredited by the Accreditation Board for Engineering and Technology (ABET).

chapter 330-X-6

### 330-X-06.01 Qualifying Experience

Professional land surveyor ap-(b) plicants will usually gain experience by working under the supervision of a licensed professional land surveyor. Verification of experience must be by the licensed professional land surveyor supervisor, the licensed professional land surveyor associate, or in some other relationship that assures the Board that the experience received is substantially equivalent to supervision under a licensed professional land surveyor. It is the responsibility of the applicant to have the verification forms provided in the application package completed and returned directly to the Board by the applicant.

See Rule 330-X-3-.01(4).

(k) Experience in construction

supervision in order to be qualifying must include use of engineering skills in assuring compliance with specifications and design - *as approved by the Board*.



### 330-X-08.02 Eligibility for Examination

(2) No candidate may take the ALSS Examination until the Board has established his or her eligibility for examination.

(3) Candidates for the FE Examination, FS Examination, *PE Examination, SE Examination and the PS Examination* may sit for the next scheduled examination without Board action provided the proper application has been filed with NCEES.

(4) An ALSS examination candidate, if approved, *is allowed unlimited attempts* within a *one-year* period.

#### 330-X-08.05 Study Information

Information on the history of land surveying in Alabama and Alabama Law applicable to land surveying is available.

### 330-X-08.07 Exam Offerings for the ALSS Examination

(a) Should the applicant fail to take the ALSS examination offered or fail to pass the examination and plans to retake the examination, the applicant must file a request for reexamination to the Board and pay the examination fee as set by the Board. Should the applicant fail to take the examination or fail to pass the examination applied for, the

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fee paid is not refundable.

(b) In the event an applicant fails to pass the examination after *one year*, the applicant will be notified that the application has been closed.

(c) If an application is closed, in order to be considered for further examinations, an applicant must file a new application, listing experience gained *and verified* since the previously filed application, and pay the application fee as required by Law.

No transcripts, *or* additional references or verifications will be required. The applicant must meet the eligibility requirements of the current Law and Administrative Code.

(d) In the event the requalified applicant again fails to pass the examination after *one year*, the application will be closed and the procedure as outlined in (d) above would then be repeated before further consideration would be afforded the applicant.

(e) An application *approved prior* to July 1, 2018, will be retained on file for two years. After two years, the application will be closed.

### 330-X-08.07.01 Examination Offerings for the FE, FS, PE, SE and PS <u>Examinations</u>

(1) An individual wishing to take the FE, FS, *PE, SE or PS* examination will register with NCEES.

(2) An individual failing the FE, FS, *PE*, *SE or PS* examination may be allowed to retake the examination in accordance with NCEES policy.

(3) An application approved prior to July 1, 2018, will be retained on file for two years. After two years, the application will be closed.

### 330-X-08.10 Exam for Record Purposes

(1) Any engineer licensed by this Board may take, for record purposes, the Fundamentals of Engineering Examination, and the Principles and Practice of Engineering Examination *or the Structural Engineering Examination* prepared by NCEES upon payment of the fees to NCEES.

### 330-X-08.12 Materials Permitted in ALSS Examination

(2) Only materials *specified by the Board* 

(4) Each candidate will be required to sign a statement that he or she will neither copy nor divulge any examination problem or solution and that any violation thereof will be sufficient grounds for invalidating the candidate's examination.

### chapter 330-X-10

### 330-X-10.02 Certificates of Licensure

After the Board has received payment of *all required fees* from an approved applicant, a certificate of licensure with the license number will be issued.

### 330-X-10.03 Reissuance of Certificate

A licensee requesting a *duplicate* certificate of licensure under the provisions of Section 34-11-12, <u>Code of Ala. 1975</u> shall file a request form setting out the reasons for the request. Upon receipt of the request form accompanied by the required fee, a duplicate certificate will be issued.

### 330-X-10.04 Professional Engineer Retired,

### Professional Land <u>Surveyor Retired</u>

(1) An individual who has been issued a certificate of licensure as a professional engineer or as a professional land surveyor and who chooses to relinquish or not to renew a license may be granted use of the title "Professional Engineer, Retired" or "Professional Land Surveyor, Retired," as applicable, if the individual applies to and is granted approval by the board.

(2) Applications for Professional Retired Designation must be submitted in the manner outlined by the Board and will be considered by the Board for approval.

(3) This designation is not a license and does not allow the individual to practice engineering or surveying. An individual that has been granted this designation that wishes to practice engineering or land surveying will be required to file a new license application and meet the current eligibility requirements of the law and administrative code.

(4) The designation does not require renewal and does not expire.

*chapter* **330-X-13** 

### 330-X-13.01 <u>Renewals</u>

(1) All licenses *expire* on December 31 of a specified year. Each licensee will be *notified* no later than two months prior to the date the license *expires*. Renewal *must* be accomplished online. The licensee's *submission of* the renewal form reaffirms agreement to abide by the Rules of Professional

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Conduct (Code of Ethics), Rule 330-X-14.

(2) No renewal fees will be accepted prior to *the renewal date specified in the Board renewal notification*.

(3) Reinstatement fees for *expired* licenses and certifications are set each year by the Board.

(4) The responsibility for the timely renewal rests solely with the individual. Failure to receive notice of renewal does not relieve you of your duty to renew on time.

### 330-X-13.02 Continuing Professional <u>Competency</u>

(1) Purpose - In order to help safeguard *health*, life, *safety, welfare* and property, the practices of professional engineering and land surveying in Alabama require continuing professional competency in accordance with <u>Code of Ala. 1975</u>, Section 34-11-8 (a) (2) and this Rule.

(4.3) All professional land surveyors are required to earn a minimum of 4 PDH on the Standards of Practice for Surveying in the State of Alabama every two years. All new professional land surveyor licensees shall complete this requirement within 2 years of becoming licensed in Alabama. Credit will be given for courses taken within 2 years of obtaining licensure in Alabama. Credit for these courses/ seminars will count toward the annual or biennial PDH requirements as required by the <u>Code of Alabama</u> 34-11-6.

(4.4) All professional land surveyors are required to complete 1 PDH on ethics every year. All new professional land surveyor licensees shall complete the 1 PDH of ethics within 1 year of becoming licensed in Alabama as required by the <u>Code of Alabama</u>

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#### 34-11-6.

(5) Activities — *Continuing* professional competency activities which satisfy the professional development requirement shall include, but not be limited to:

(8a(b)) Teaching or instructing qualifying courses or seminars or making presentations at technical meetings can earn PDH credit at twice that of participants. For non faculty - Teaching credit is valid only for the first offering of the course/presentation. *Faculty* may not claim teaching credit associated with their regular duties.

(9d) Licensees who list their occupation as *Inactive* on the Board approved renewal form and who certify that they are not currently practicing engineering or land surveying shall be exempt from the professional development hours required.

(9e) New Licensee: A new licensee is awarded 30 PDH toward their first renewal.

(10) Reinstating *Expired*, or Inactive Licenses. In the event a licensee elects to return to active practice of professional engineering or professional land surveying, thirty professional development hours must be earned. The hours required for reinstatement are to bring the license to active status. When the license renewal is due, the licensee will also be required to obtain the professional development hours for the renewal period. *Professional Land Surveyor licensees must also meet the PDH requirements contained in Section 330-X-13-.02.(4) 3 and 4.* 

### 330-X-13.03 Expirations and Reinstatements

The right to practice as a licensed professional engineer or licensed professional land surveyor *expires* December 31 of the specified year unless renewed. To be reinstated, a licensee who does not renew before December 31 and has an *expired* license for a period not to exceed *two* years, will be required to file a reinstatement form, show evidence of completion of the continuing professional competency requirement, and pay the reinstatement fee as determined by the Board.

Any license which has been *expired* for more than *two* years is not eligible for reinstatement and the individual will be required to file a new application and meet the statutory requirements in existence at time of relicensing.

chapter 330-X-14

### 330-X-14.01 Preamble

In order to meet the intent of (1)the Code of Ala. 1975, Title 34, Chapter 11, to safeguard the *health*, life, *safety*, welfare and property, of the public and to establish and maintain a high standard of integrity, skills, and practice in the professions of engineering and land surveying, the following Rules of Professional Conduct (Code of Ethics) are promulgated in accordance with Section 34-11-35, Code of Ala. 1975 and shall be binding upon (a) every person holding a license as a professional engineer or professional land surveyor, (b) every certified engineer intern and land surveyor intern and (c) holders of certificates of authorization.

(4) Licensees, in the performance of their services for clients, employers, and customers, shall be cognizant that their first and foremost responsibility is to the public health, *life*, safety, *prop*-

### See Administrative Code PAGE 15

erty and welfare.

### 330-X-14.05 Practice (Canon IV)

(f) The engineer or land surveyor shall not participate in or implement procurement practices *based solely on fees (except as allowed by State Law)*.

(1) **Procurement practices shall** first determine the qualifications of the engineer or land surveyor prior to entering into fee negotiations for services being sought.

An engineer or land surveyor having submitted a statement of qualification and performance data, and having first been judged as the qualified individual or firm to provide the services required for the proposed project, may proceed to negotiate a contract with a client and establish compensation or fees for the required services.

(2) Should the engineer or land surveyor be unable to negotiate a satisfactory contract with the client for any reason, the engineer or land surveyor shall withdraw from further consideration for the engineering or land surveying services.

Another engineer or land surveyor may then be selected for negotiations of a contract for the services on the stated project.

(3) Examples include but are not limited to, simultaneous negotiations or solicitation of fee proposals by the client from two or more engineers or land surveyors constitutes "bidding" and participation by a licensee is prohibited.

### 330-X-14.06 Practice (Canon V)

14. Participate in procurement procedures for engineering or land surveying services either by providing the bids or in requesting bids from other

professional engineers or land surveyors where bidding is the primary consideration *except as allowed by State law*.

### 330-X-14.07 Responsibility for Conduct

A corporation, partnership, or firm shall be held responsible for the conduct or acts of its agents, *managing agents*, employees, officers, partners, or owners, licensed or non-licensed.

### chapter 330-X-15

#### 330-X-15.01 Requirements

Section 34-11-9, Code of Ala. (1)1975 provides that a firm, company, partnership, or corporation may engage or offer to engage in the practice of professional engineering or professional land surveying; provided, the managing agent of the corporation or firm or partners of the partnership and all personnel of the corporation, partnership, or firm who act in its behalf as professional engineers or professional land surveyors in this state are licensed as provided by Title 34, Chapter 11 of the Code of Ala. 1975, and further provided, that the corporation, partnership, or firm has been issued a certificate of authorization by the Board.

(2) In order to be considered eligible for a certificate of authorization (CA), every firm, partnership, or corporation or other entity which performs engineering or land surveying services in the State of Alabama, shall have a resident licensed professional engineer or licensed professional land surveyor as the case may be, who exercises direct control and personal supervision of the engineering or land surveying work for each separate office or branch office in which engineering or land surveying services are performed or offered to be performed. The resident engineer or land surveyor shall be an employee of the firm, corporation, partnership, or association or other entity, engaged in the practice of engineering or land surveying, designated in the CA for the branch office. The *managing agent* and the designated *resident engineer or land surveyor* shall only be for one business *location*.

(3) An engineer or land surveyor who renders occasional or part-time engineering or surveying services to or for a firm may not be designated as being the *managing agent* of the professional activities of the firm or as being the *resident* engineer or land surveyor designated in the CA for the branch office.

(4) The *managing agent* is responsible for notifying the Board within 30 days of any change in the firm name, address, *managing agent, or resident engineer or land surveyor during* the year.

(5) In the event of a change in the *managing agent*, the firm cannot perform engineering or land surveying services until such time as a new *managing agent* is identified to the Board.

(6) In the event of a change in the CA designated branch office resident engineer or land surveyor, engineering or land surveying services cannot be offered or performed from that office location until such time as a new resident engineer or land surveyor is identified to the Board.

(7) Failure by the firm or *manag-ing agent* to provide notification within 30 days may result in a temporary suspension of the certificate and the certifi

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icate will remain suspended until such time as the requirements are met.

### 330-X-15.04 Renewal Procedures

(1) A certificate of authorization issued to a corporation, partnership or firm shall *expire* on January 31 if not renewed, and the corporation, partnership or firm may not offer or engage in engineering or land surveying services until the certificate of authorization has been *reinstated*.

(2) Certificates of Authorization are renewed annually. *Certificate of Authorization holders will be notified no later than December 1.* 



### 330-X-16.05 Disciplinary Hearings

(5) <u>Cease and Desist</u> In addition to or in lieu of the sanctions provided in this chapter, the board may issue an order to any individual or firm engaged in any activity, conduct, or practice constituting a violation of this chapter, directing the individual or firm to cease and desist from the activity, conduct, or practice, or the performance of any work then being done or about to be commenced.

### 330-X-16.07 Reissuance of Licensure or Certification after Revocation, Surrender or Suspension

(2b) If all conditions for reissuance of a license or a certificate of authorization have been met, but a request for reissuance is not received within thirty days after completion of the suspen-

# ENFORCEMENT ACTIONS

Sept. 11 BELS Meeting

### 2017-17-B: Jonathan C. Payne, P.E.

An investigation determined Mr. Jonathan C. Payne, P.E., allowed an unlicensed individual to pursue projects and sign contracts to provide engineering design services. The arrangement allowed the unlicensed individual to contact the client and coordinate the design with Mr. Payne. The unlicensed individual provided the sealed design plans to the client, and paid Mr. Payne for his services. Mr. Payne did not meet with the clients. Mr. Payne agreed to a consent order that required him to pay the Board a fine of \$750, to be reprimanded, and the Consent Order and Final Order be public records.

### 2018-01-C Lucinda Miller - Unlicensed

On July 31, 2018 the Board held a formal hearing regarding its charges that Ms. Lucinda Miller offered engineering services without being licensed as a professional engineer. An Administrative Law Judge (ALJ) presided over the hearing and provided her recommendations to the Board at its September 11 meeting. After review of the ALJ's recommendations the Board issued an Order that found Ms. Miller guilty of all charges, required her to cease and desist the offering or engineering services, to pay a \$2,500 civil penalty to the Alabama General Fund, and to pay \$1,817.50 to the Board for the cost of the hearing.

### 2018-09-C - Ahmad Madani - Expired License

An investigation discovered that Mr. Madani provided engineering services for a project in Alabama during the time he did not have a valid license to practice engineering in Alabama. He had previously held a professional engineer license in Alabama, however it had expired in 2010, and his firm had never been issued a Certificate of Authorization for engineering. He agreed to a Consent Order that required him to cease and desist the offer or the providing of engineering services in Alabama until he receives a license to practice engineering and his firm has obtained a certificate of authorization from the Board, to pay the Board \$350 for the cost of the investigation, to pay a \$2,000 civil penalty to the Alabama General Fund, and the consent order and final order be public records.

### **ADMINISTRATIVE CODE**

sion period, the status of the license or certificate of authorization will be changed to *expired*.

(2c) If a request for reissuance is not received within four two years from the time the license is placed in *expired* status, *a new application will be required and the applicant must meet the eligibility requirements of the current law and administrative code*.

(2d) If a request for reissuance is not received within two years from the time the certificate of authorization is placed in *expired* status, *a new application will be required*. (2e) If all conditions for reissuance for a certification have been met, the status of the certification will be changed to *active*.



### 330-X-18.02 Notice

The Board shall give at least 35 days' notice of any proposed action on any rule by publication in the Alabama Administrative Monthly in compliance with the Alabama Administrative Procedure Act, <u>Code of Ala. 1975</u>, Section 41-22-5(a)(1).

### 330-X-18.05 Emergency Rules

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In the event the Board finds that an immediate danger to the public health, *life* safety, welfare or *property* requires adoption of a rule upon fewer than 35 days' notice or that action is required by or to comply with a federal statute or regulation which requires adoption of a rule upon fewer than 35 days' notice, the Board may adopt an emergency rule under the provisions of the Administrative Procedure Act, <u>Code of Ala. 1975</u>, Section 41-22-5(b).