Texas Board of Professional Engineers Engineering For A Better Texas

#### Texas Board of Professional Engineers Professional Practice Update / Ethics

TF

#### Daniel Wong, Ph.D., P.E.

Chairman of the TBPE President, Tolunay-Wong Engineers, Inc.



## Expectations of a Licensed Engineer

- Technical Competence
- Professionalism
- Ethical Responsibility
- Understanding of Laws and Rules

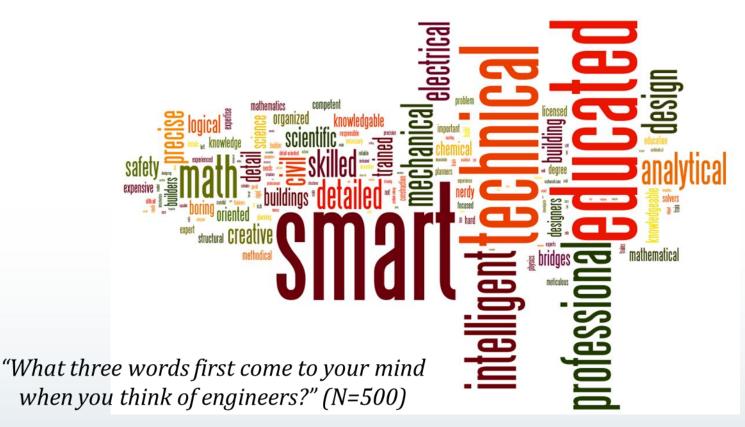


## **Public Perception of Engineers**

- Honesty (Gallup Poll Nov. 2012)
  - Nurses
  - Pharmacists
  - Doctors
  - Engineers
  - Dentists
  - Police Officers
  - College Professors
  - Clergy



#### **Public Perception of Engineers**



Survey by McKinley Advisors



## Engineering Competence

- Protection of Public Health, Safety, Welfare
- Professional Engineers must not practice outside of their competence
- Competence is determined by experience, education and examination
- Competence is an expectation of the public



## **Engineering Ethics**

- Ethical behavior / Professionalism
  - Not just what we do, but how we are expected to treat clients/employers/public/other engineers
  - Most TBPE enforcement is related to ethics rather than technical incompetence
- Laws and Rules



#### Law and Rules

- Board is authorized by the Texas Engineering Practice Act
- Other statutes also apply to engineering (PSPA, etc.)
- Board interprets and implements the statute to create Rules
- Texas Professional Engineers are expected to know both



#### **Scenarios**

- Continuing Education
- Professional Services Procurement Act
- Sealing Rules
- Conflict of Interest



## Continuing Ed

- You have been licensed for years and have always had more than enough hours for each renewal.
- You misplaced your renewal reminder and the expiration date is in a few days.
- You were busy and haven't completed any continuing education activity this year.



## What should a Texas PE do?

- A. Go online and renew without completing the Continuing Ed hours and try to take some courses as soon as you can.
- B. Keep working, wait to renew until you have the ContinuingEd hours which could be a few weeks and then renew.
- C. Check your records from last year to see if you had extra hours.
- D. Call the board and ask for an extension.
- E. None of the above.



## And the best answer is?

- **C** You need to have the Continuing Education hours prior to renewing. You can carry forward up to 14 hours from one renewal period to the next, excluding the hour of ethics.
- Self study is limited to 5 hours and can be used for ethics.
- If you don't renew, your license is delinquent and you cannot practice.
- If you do renew and certify that you have completed Continuing Ed but have not, your license is subject to censure.
- Renew in ECHO. It's immediate and you get confirmation.



# **Continuing Education**

- 15 hours includes no more than 5 hours of selfstudy and must include one hour of ethics
- Random audits ongoing
- Keep documentation for 3 years
- Over 65 not exempt
- Fines as high as \$5,000; separate violations for claiming Continuing Ed without documentation or not responding to Board.



#### Professional Services Procurement Act

- The local Independent School District has properly posted an RFQ and selected an engineering firm to be the prime professional for a new Auditorium/Gym. After negotiations, the ISD and the firm agree on a contract price.
- As the project progresses, the engineering firm contracts with an MEP engineering firm to address the HVAC, electrical and plumbing design.



## **PSPA** (continued)

 The MEP firm calls you for assistance, because he has worked with you previously. You are a licensed P.E. with HVAC expertise and he asks you to give him a cost estimate to complete the HVAC for the new auditorium/gym.



## What should a Texas PE do?

- A. Give him your best estimate of the cost.
- B. Wait for a proper authorization to proceed from the prime professional firm who has the contract with the ISD.
- C. Call the Board for authorization to provide the estimate.
- D. Ask the MEP firm if you have been selected as the HVAC engineering firm prior to providing any cost information.
- E. Respectfully decline to offer any cost or price information.



#### **Best Answer**

 D – You must follow the Qualification Based Selection process by being selected prior to offering any cost or price information as outlined in the Professional Services Procurement Act (Chapter 2254 of the Texas Government Code) and as identified in the Board Rules, Section 137.53.



#### Seals

- Your lead engineer on a project has been overseeing all aspects of the design and construction.
- He has a severe health issue is keeping him from the job for an extended time at the same time that there is a deadline for plan submission.



## What should a Texas PE do?

- A. Ask an employee under his supervision to copy his seal and digital signature from the shared drive and use them.
- B. Have the documents sent with his seal and assure the authority that he'll come in to sign them later.
- C. Mark the plans as "preliminary"
- D. Negotiate a new deadline
- E. Ask the architect to do it.



#### **Best Answers**

- **C or D** Mark as preliminary or renegotiate the deadline
- 137.33(d): License holders shall take reasonable steps to ensure the security of their physical or electronic seals and electronic signatures;
- 137.33(e): Preliminary documents are not sealed.
- 137.33(f): Sealed documents require a signature.
- Only the licensee may use his or her seal.
- 137.33(a): A PE can only sign and seal their own work or work under direct supervision.



#### A Twist

• What happens if the PE never returns to work?

 Another PE can sign and seal the work if the PE performs sufficient calculations to verify the accuracy of the engineering work and make it his own work.



#### Scenario – conflict of interest

You have been providing consulting services to a small suburban town on development of a parcel of land. Your firm decides to make a bid on the same project. What should you do?



## What Should You Do?

- A. Stop work negotiations or work on a project and walk away after providing an explanation to the client.
- B. Continue negotiations or work on a project since as a professional engineer, I am able to maintain my complete objectivity.
- C. Notify all involved parties in the situation in writing of my concerns of a possible conflict of interest and continue working only after obtain written confirmation from the client and/or employer that they understand and authorize you to continue my work.
- D. None of the above.



## **Best Answer**

- C Notify all parties in writing of your concerns
- § 137.57 (c) and (d): A professional engineer must be objective and truthful, and shall disclose a possible conflict of interest in writing.



#### We want to hear from you

- How did we do today?
- How are we doing in general?

http://engineers.texas.gov/outreachsurvey http://engineers.texas.gov/feedback



## **Contact TBPE**

- 1917 S Interstate 35
- Austin, TX 78741
- Phone: 512-440-3054
- Web: <u>http://engineers.texas.gov</u>
- David.howell@engineers.texas.gov