



## A Structural Practice Act for the State of Arizona

### IN A NUTSHELL

- Need for greater public safety in the structural design of significant buildings and structures
- Those presently qualified and competent to practice structural engineering as defined will remain qualified to do so
- Six month window for transitioning professionals to apply for S.E. licensing
- Administration changes for AZ BTR are minimal

### PROPOSED STRUCTURAL LICENSE ACT FOR ARIZONA

The current Arizona law concerning the practice of structural engineering does not define which structures or buildings require structural design other than to suggest that they are complex.

A proposal by the Structural Engineers Association of Arizona (SEAOA) would better define the practice of structural design by explicitly stating which buildings and structures would be considered not only complex, but also of sufficient importance to warrant the added expertise of structural engineers.

The International Building Code (IBC) classifies structures according to their occupancy with the intent of requiring increased care in the design of certain buildings. Hospitals, schools, and structures housing large numbers of occupants are deemed important and the code requirements for their structural design are consequently elevated.

These structures are among those defined in the proposed structural practice act for Arizona.

### Why Is A Structural Practice Act Necessary?

The International Building Code receives major updates every three years. There is an increasing complexity with each update requiring higher levels of competence and experience for structural design of significant structures

Reasons for improving structural practice:

- *Education Requirements:* Bachelor of Science degree requirements have steadily decreased from 150 to 140 semester hours to as little as 124 hours.
- *Complex Codes:* Structural engineering design and building code requirements have become increasingly complex
- *Computerization:* Use of advanced software by less competent engineers to design structures
- *Hidden Problems in Existing Buildings:* Many potential problems will only be evident when an earthquake or design snow load is applied
- *Plan Checking:* Many jurisdictions do not have the resources to perform sufficient structural plan reviews. Reliance on the “engineers stamp” does not always assure quality performance
- *Insurance Costs:* Poor design and construction can affect many different insurance policies
- *Cost Effective Design:* A structure can be designed which may be safe and meets the building code, yet is not the most cost effective structural solution

### How Will the Current Practice of Structural Engineering Change?

Those presently qualified and competent in the areas defined by the act will continue to be able to practice structural engineering. If not presently licensed as an SE in Arizona, they will submit application to AZ BTR for review together with an affidavit attesting to their competence and experience.

### How Will It Be Implemented?

When the law is enacted, those professional engineers not holding a valid S.E. license in Arizona and desiring to be transitioned will have six months to make application to the Arizona State Board of Technical Registration (AZ BTR).

After the six month grace period licensing as a S.E. in Arizona will follow the requirements newly established by the state and administered by the AZ BTR.

### Benefits

- Increased public safety for the structural design of significant buildings and structures
- Clearly defines the responsibilities for the practice of structural engineering
- Maintains and improves upon the standards established by the state of Arizona for the practice of structural engineering and the qualifications of license holders.

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