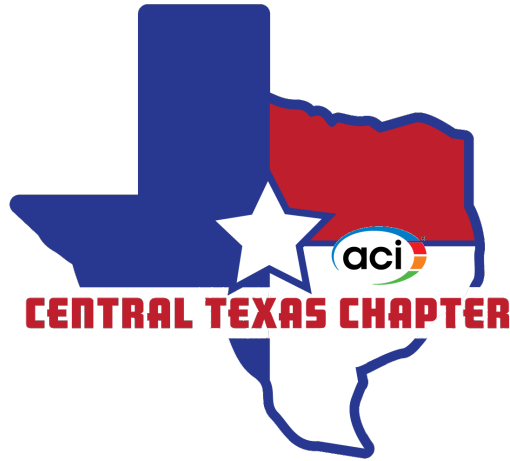




Professional Development Hours (PDH's)

Various States have established the PDH as a requirement for professional license renewal. Typically, this is a self-certifying requirement. Attendees have a personal responsibility to assess the applicability of attended program elements to their professional development. Attendees are encouraged to consult their state licensing board to answer any questions regarding PDH credits. Attendees are hereby advised that neither The Central Texas Chapter of The American Concrete Institute nor the participating speakers guarantee compliance of the individual program elements with the qualifications established by individual State licensing boards.

Certificate of Attendance

This Certificate Documents That

**has attended the following presentation sponsored by the
Central Texas Chapter of the American Concrete Institute**

Thursday, October 8, 2020

via Webinar

11:30 PM – 12:30 PM

Tyler Ley, Ph.D., P.E.

Meeting Topic:

The Concrete Revolution!!!

Everything in the concrete industry is beginning to change. This is true for our materials, standards, test methods, and the needs of society. To solve these problems then we will need a new generation of tools and design methods. This presentation will introduce several of these new tools including:

- * A field test method to measure the w/cm in fresh concrete in < 15 min called the Phoenix,*
- * A new fly ash calculator that accurately predicts the performance of fly ash in concrete, and*
- * A mixture design tool to proportion concrete with a focus on the use of manufactured sands.*

These tools were created by blending a number of advanced tools such as machine learning, advanced materials characterization, and app development along with classic methods of concrete material design. Further, each tool has been designed to be practical for the field.

Elizabeth Lukefahr
ACI President 2020
Central Texas ACI Chapter