

**JANUARY 8, 2020**

Wednesday, January 8, 2020

5:30 PM (1.0 PDH)



## **PRESENTATION**

**TITLE:** Geotechnical Considerations in Design and Construction of Tilt-Up Buildings and Parking Lots

**SPEAKER:** : David A. Eastwood, P.E., D.GE, DFE, C.A.P.M., F.FPA, F.ASCE w/ *Geotech Engineering and Testing*

**ABSTRACT:** Many tilt-up buildings are being built in Texas for commercial use. The buildings are durable and cost effective. However, foundation and structural problems can occur if these buildings are not designed and constructed properly. The purpose of this presentation is to discuss the geotechnical concerns with design and construction of these buildings in Texas. Some of the design issues have to do with shallow piers, improper floor slab soil preparation and compaction. Many of the parking lots are subject to heavy traffic truck loading. The presentation will address the proper design for the pavement subject to heavy traffic loading.

**BIO:** Mr. Eastwood is the President of DAE & Associates, Ltd, dba Geotech Engineering and Testing (GET). He has practiced consulting engineering for about 43 years, serving in key technical project management and administrative roles. His specialties are in geotechnical, environmental, materials and geoforensic engineering. Mr. Eastwood's experience in these functions includes a wide range of project types, ranging from public infrastructure, public works, municipal work, industrial facilities, commercial developments to waste disposal facilities, power plants, dams, marine terminals, and underground storage tank contamination studies. Mr. Eastwood has the ability to provide clients with cost effective alternatives to difficult problems. One of Mr. Eastwood's greatest attributes is his ability to contribute constructively, responsively, and professionally as a member of the client's project design team. Mr. Eastwood received his Bachelor's and Master's of Science in Civil Engineering from the University of Houston with specialization in soils engineering. Mr. Eastwood has attended Continuing Education Seminars at Rice, Princeton, University of Maryland, and the University of Houston. Mr. David Eastwood

has been accepted as an Academy of Geo-Professionals (AGP) as a Diplomate, Geotechnical Engineer Fellow Member. In addition, he has been accepted as an American Society of Civil Engineers (ASCE) Fellow Member. Furthermore, he is a Diplomate in Forensic Engineering (DFE) by National Academy of Forensic Engineers (NAFE). Mr. David Eastwood has been inducted to the Academy of Distinguished Civil and Environmental Engineers at the University of Houston Cullen College of Engineering. Mr. Eastwood is also a 2017 Member of Distinguished Alumni of College of Engineering at the University of Houston Cullen College of Engineering. Mr. Eastwood has several publications on the design and construction of foundations on expansive soils. Geotech Engineering and Testing is a member of PTI, ACI, HCEC, ABC, GHBA, AIA, ASTM, TSPE, TIBD, HCEC, TCEL, and ASCE. Mr. Eastwood is on the Geotechnical Committee of Post-Tensioning Institute Slab-On-Grade

Committee. Furthermore, he is a founder and past President of the Foundation Performance Association. The mission of this organization is to serve the public by advancing the skill and the art of engineering analysis, investigation of foundations. Mr. David Eastwood is also the past president and board member of Houston Chapter of Texas Council for Engineering Laboratories. He helped with development of the geotechnical guidelines for design and construction of infrastructure for City of Houston, Harris County, Harris County Flood Control District, etc. facilities. In addition, Mr. Eastwood has been certified as a Corrective Action Project Manager with the Texas Commission on Environmental Quality (TCEQ). Mr. Eastwood conducts training seminars in geotechnical, environmental, materials, and geoforensic engineering for the City of Houston, Harris County, City of Sugarland, Associated Builders and Contractors, American Institute of Architects, and Greater Houston Builders Association.

## **PAST PRESENTATIONS**

To read summaries of previous FPA presentations by David Eastwood, please click:

[April 2017](#) - Foundation Repair Techniques for Lightly Loaded Foundations in Texas

[July 2016](#) - Geotechnical Considerations for Soil Stability, Ditches, Embankment and Detention Ponds

[February 2014](#) - Simplified Method for Design of Shallow Drilled Shafts Subject to Light Loading in Expansive Soils

[September 2007](#) - Recommended Practices for Design and Construction of Swimming Pools in Houston

[January 2003](#) ASCE Paper Presentation - "Recommended Practice for the Design of Residential Foundations."

[June 2001](#) - State of Practice of Geotechnical Engineering Design of Custom Homes in the Houston Area between 1990 and 2001