



## TECHNICAL PRESENTATION

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### Case History in Mobile Crane and Pump Truck Failure

Presented by [Mr. David Eastwood](#), P.E., D.GE, DFE, C.A.P.M., F.PTI, F.FPA, F.ASCE, with [Geotech Engineering and Testing](#)

**BIO:** Mr. Eastwood has practiced consulting engineering for about 44 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 include 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 conducts training in geotechnical, environmental, materials and geoforensic engineering for many agencies and associations. He is the President of Houston Chapter of Texas Council of Engineering Laboratories. Furthermore, he is the founder and past president of Foundation Performance Association, an organization specializing in foundation failure evaluation. In addition, Mr. Eastwood has been certified as a Corrective Action Project Manager with the Texas Commission on Environmental Quality (TCEQ).

Mr. Eastwood is the past President of the Academy of Distinguished Civil & 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. Furthermore, Mr. 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) Fellows Member.

Mr. Eastwood received his bachelor's and master's degrees in Civil Engineering from the University of Houston in 1977 and 1978, respectively.

**ABSTRACT:** Mobile cranes and concrete pump trucks are used throughout the construction industry. These types of equipment have an outrigger that provides stability during operation. The outrigger must be supported by a proper pad and soil underneath it. This webinar presents case histories on outrigger failure of mobile cranes and concrete pump trucks. Specifically, case history one addresses a mobile crane failure in the Houston Medical Center. The outrigger experience failure due to soil bearing capacity issues. These soils were loose and poorly compacted. Case history two addresses a concrete pump truck that failed due to presence of trash under the outrigger.



**PAST FPA PRESENTATIONS BY MR. EASTWOOD:**

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[January 2019](#) - Geoforensic Investigation of a Storage Dome Collapse at a Plant in Louisiana

[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 200

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