The Geological Society

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North West Regional Group

Online Meeting

Thursday 30th April 2020

The Engineering Geology of Florida;

A Guide to Managing Ground Risk in The Sunshine State

By David Wilshaw

Florida has an unusual geology, characterized by its paucity of exposed rock and its variety of geologically young soil deposits. Eogenetic karst processes dominate the landscape and influence most construction projects, either through the complex interrelationships between the surficial and Floridan aquifers or through the risks associated with developing in areas impacted by past or future sinkhole activity.

Geotechnically, Florida soils do not behave like soils found elsewhere in the United States. Many geotechnical engineers who move to Florida do not have an appreciation of the unconsolidated behaviour of deeper soil layers and the somewhat counter-intuitive reduction in soil stiffness with depth.

The presentation puts the depositional history of the shallow soil layers into context and explains their stress history from a geologic perspective. The exploitation of natural resources such as economic minerals and groundwater in certain areas of the State over the last 50 years has further changed the way the ground might behave during construction. The geologic history of sea level change and the challenges associated with coastal development are of direct relevance to the design process.

Finally, the limitations and challenges of applying standard geotechnical and geophysical exploration techniques to the geologic conditions unique to Florida must be appreciated by both geotechnical engineers and by clients ordering such services.

David Wilshaw is president of Integrity Drilling and Geophysical Services, LLC based in Florida and has spent 35 years in the engineering geology, geotechnics and geo-environmental industry in the UK, Europe, the USA and the Caribbean. He is a chartered geologist, and has appeared on television programmes about sinkholes.

His specialities include neutral evaluation of disputed sinkhole claims and forensic engineering geological assessments.

Lecture starts promptly at 6.30pm

1. Download the Zoom app. https://zoom.us/
2. The day before the lecture a link and passcode will be emailed to you
3. On the day of the lecture, click on the link and enter the password to join the meeting
4. At 6.30pm, the host will open the meeting

Organised by the North West group of the Geological Society of London For further information contact the group secretary, Catherine Kenny at: Geologicalsociety.northwest@gmail.com

***CPD**: These events may be considered for contributing to a recognised Continuing professional Development (CPD) scheme as part of personal development. Delegates should check their individual scheme requirements.*

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