BIOGRAPHY: Rich Finno is an Emeritus Professor of Civil Engineering specializing in geotechnical engineering. After receiving his BSCE from the University of Illinois at Urbana-Champaign and MS from Stanford University, he worked for 5 years for Sargent & Lundy and Woodward-Clyde Consultants. Upon coming to his senses, he returned to Stanford and somehow convinced the faculty to grant him a PhD. Thereafter, he entered academia and has been at Northwestern University since 1986. He has conducted research in the areas of full-scale performance of deep excavations and tunnels, adaptive management methods in geotechnical engineering, numerical analysis, inverse analysis techniques, failure processes in soil, small strain behavior of clays and non-destructive testing of deep foundations. He has received a number of awards from ASCE, among them the Karl Terzaghi Award, the Ralph B. Peck Medal, the Harry Schnabel Jr. Award for Lifetime Achievement in Retaining Structures and the Walter L. Huber Civil Engineering Research. He is the author or co-author of more than 180 reviewed technical papers. He served as Chair of the Earth Retaining Structures Committee and as an Editor of the Journal of Geotechnical and Geoenvironmental Engineering of ASCE. He has consulted on more than 300 projects for many organizations on projects related to retention systems, tunnels, shafts, foundations and slopes.

ABSTRACT: Developments in the design of deep supported excavations have been driven by field observations collected during construction of such systems. The lecture illustrates this by presenting a number of aspects of design related to both limit state and serviceability. Field performance data are discussed relating to lateral loading diagrams for internally braced excavations, stiffness-based design based on allowable deformations and current capabilities with respect to prediction of ground deformations.