

## OCTOBER 2014 MEETING

Wednesday, October 8, 2014 (1.0 PDH)

### TECHNICAL PROGRAM

#### The Innovative Use of Steel Sheet Piles in Underground Parking Garages

**Speaker:** Alwyn McDowall, Skyline Steel, Orlando, FL 32819, Tel: +1.321.274.9283 [www.skylinesteel.com](http://www.skylinesteel.com)

Mr. Alwyn McDowall – is a Civil Engineer for Skyline Steel in the Southeastern US covering Florida, Texas, Oklahoma, New Mexico and the Caribbean. He has over 12 years of design experience specializing in steel foundation design to support structures built with steel products. These applications include Bulkheads, Seawalls, Underground Parking Garages and Basements, Levee Walls and other related foundation and retaining wall applications. He graduated from the New Jersey Institute of Technology in 2002 with a Master of Science degree in Civil Engineering. He has provided technical support to Skyline's products for numerous projects

### PRESENTATION SUMMARY

To an audience of approximately 50 attendees Mr. McDowall presented information on using sheet piles for underground structures. The presentation highlighted the advantages of using steel sheet piles as the permanent wall for underground parking garages. Mr. McDowall covered all methods of construction, including "Bottom-Up", "Top-Down" and "Hybrid-Top-Down". His presentation illustrated how steel sheet piles have been proven to speed up construction resulting in an overall savings for the owner and contractor.



Mr. McDowall presented information that illustrated the different types of sheet piles and their application. Sheet piles were shown to be watertight and able to effectively withstand lateral soil and water loads. Several installation methods were presented that demonstrated how the use of sheet piles can accelerate construction. Most interesting was the method of driving piles while constructing the structure from the top down. Excavation proceeds at increasingly deep level below ongoing construction above while the sheet piles contain the excavation.

Mr. McDowall presented slides from several projects including two parking garages recently constructed in Florida where the water table was above the garage levels but was successfully retained outside the garage basement.

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