DFI Europe

Current Activities and News

Massimo Grisolia, Prof. Ing., was named the new Italian board member for DFI Europe. Grisolia is a professor of civil engineering at the University of Rome. He specializes in deep mixing of contaminated soil, excavation and underground construction in urban environments, and stability of jetties and other maritime works. Grisolia has published over 100 technical papers and presented at national and international conferences. He is also active in many other professional societies including Associazione Geotecnica Italiana (AGI), Societa Italiana Gallerie (SIG) and the technical committee on ground improvement for ISSMGE. DFI Europe welcomes Grisolia to his new role on the board.

Several new projects have surfaced that may utilize DFI Europe member companies for foundation design and construction. The Crossrail 2 project in London is a proposed route between Surrey and Hertfordshire intended to alleviate overcrowding on the commuter rails. Plans for this project have taken many forms throughout the years but should be finalized in the coming months. A new Metro (Line 4) is also being constructed in Athens, Greece, with a length of 8.1 km (5 mi) from Veikou Park to Evangelismos at a cost of 900 million euros. A TBM (Tunnel Boring Machine) will be used to bore beneath the most densely populated neighborhoods in Athens.

The Transatlantic Trade Investment Partnership (TTIP) is a proposed free trade agreement between the European Union and the U.S. that is set to be finalized in 2015. Economic assessments have shown the TTIP to be beneficial for all parties involved. The European construction market stands to benefit significantly from the agreement. There is a large potential for growth and jobs following an investment in infrastructure and construction including areas such as telecommunications, energy and transport. The TTIP may also lead to better access and facilitated trade in raw materials and commodities. An optimistic tone surrounds the final negotiations for the investment partnership.
Reconstruction of the A1 and A6 Motorways

A major motorway project is underway from the city of Diemen to Almere in the Netherlands. Rijkswaterstaat, the executive arm of the Dutch Ministry of Infrastructure and the Environment, contracted consortium SAAone to perform the reconstruction, widening and partial rerouting of the motorways between intersection Diemen (A1 motorway) and Almere Havendreef (A6 motorway). This is the first project of the 63 km (39 mi) road expansion program named Schiphol Airport-Amsterdam-Almere A1/A6 (SAA A1/A6). In 2020, the construction will be finished and will hopefully result in fewer traffic jams and an enhancement of the area.

The first subproject consisted of the construction of additional driving lanes; the renovation of five large intersections; and modifications to hundreds of viaducts, a new aqueduct, a tunnel and a bridge over the Amsterdam Rijn Kanaal. Consortium SAAone, comprised of the companies Hochtief, VolkerWessels, Boskalis and DIF, contracted Voorbij Funderingstechniek and Vroom International Piling BV for several foundations works.

In March 2014, Voorbij Funderingstechniek began foundation works for the motorway A1/A6 project. Voorbij is installing more than 15,000 m³ precast concrete piles, steel sheets, tubular piles, strutting and anchorage for approximately 60 sites on the A1/A6 route. The work will continue through 2016.

The aqueduct near Muiden is described as one of the most prestigious construction projects in Dutch history. Consisting of 12 lanes of traffic, it will become Europe’s broadest aqueduct. In some areas, it is a challenge to drive 27 m (86 ft) long piles to a depth of at least 14 m (46 ft) below the ground surface. Vroom offered a cost-conscious alternative for the aqueduct. Instead of driving prefabricated concrete piles to a maximum depth of 6 m (20 ft) using a deep-level piling technique, they used vibro combo piles for deep-level piling depths of more than 3 m (10 ft). On many project sites the soil is injected with a gel layer that functions as a dam.

During some weeks, eight foundation rigs were utilized simultaneously. The statistics: 5,922 piles of which 1,161 are precast concrete piles and 4,211 are vibro combo piles. Additionally, for a bridge spanning the Amsterdam-Rijnkanaal, 450 vibro piles were installed from April until June 2014. The two projects are divided into several phases over the course of two years.

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