Gauteng Piling Provides 77 Foundation Piles For New Houghton Office Block

Gauteng Piling was entrusted with the provision of foundation piling for a new luxury office block development in Eighth Street, Houghton (fronting onto Oxford Road), currently being built and developed by the Barrow Group.

Ivan Schlapobersky of M/Architects in Illovo, who designed the building which will feature close to 2900sq m of office space, says the site on which the new upmarket office block will be located was previously a residential property. "The house was demolished and had been vacant for some time. Great care is being taken to preserve existing trees on the periphery of the site," Schlapobersky stated.

Kobus Geyer, Site Manager for Gauteng Piling, says the foundations for the four-storeyed office block (with double parking basement levels) on a site of over 1000 square metres, called for 77 auger cast insitu piles, varying between 14 to 18 metres in depth. The diameter of the piles varied: 27 are 500mm in diameter, 11 are 600mm, 19 are 750mm, and four are 1100mm in diameter.

Auger cast in-situ piles are formed by drilling holes into the ground, placing steel reinforcement into the holes, then filling the holes with concrete. In built-up residential areas, such as Houghton, auger cast piles cause minimal disturbance and are generally favoured for environmentally sensitive sites.

Steel reinforcement employed for the piles consisted of 7 high tensile strength steel bars (7Y32), 32mm in diameter; and spirals of mild steel, 8mm in diameter with a 200mm pitch. The rebar cages inserted into the piles were 950mm in diameter and 4.33m in length.

"In addition to the 77 foundation piles, in November 2014 - prior to site excavation and earthworks in January this year – Gauteng Piling provided 13 earlier piles to provide lateral support for a retaining wall against the site's neighbouring property to the north," Geyer added. "The piles will eventually form part of a retaining wall, sprayed with Gunite - a mixture of cement, sand, and water - through a pressure hose to produce the strong 'lining' of the retaining wall.

"Such a specially-designed bored pile retaining wall system makes it possible for developers and contractors to make maximum use of available space in excavated structures with underground levels. The bored pile solutions minimise the need for additional support measures and maximise the available excavation."

Gauteng Piling employed two rigs for the piling project for the Eighth Street site (which is adjacent to Oxford Road): a Williams LDH digger with 5,5t-m torque, and a Soilmec hydraulic drilling rig.

Two prominent Gauteng Master Builders are closely linked with Gauteng Piling. The company was established in 1996 by former MBSA and MBA North president, Nico Maas (current chairman of GP), and is now run by MD, Hennie Bester, who has served as president of MBA North for an unprecedented three-year spell from 2011 to 2013.

players in the piling industry in Gauteng. The company now has a fleet of 20 auger drilling machines, two cranes, two bore rigs, four Grundo hammers, and two lateral support machines.
Ends
Caption: 'GP Houghton – checking flight point'
Gauteng Piling site staff performing a checking operation to ensure that the rig's flight is drilling at precisely the correct underground point. A thin peg is then placed in position at the bottom of the pile to guide the flight point to the exact drilling point to ensure optimum vertical boring.
Ends
Caption: 'GP – Houghton Kobus and alfred':
Gauteng Piling site manager, Kobus Geyer (right) and the site foreman, Alfred Phiri, in discussion at one of the completed piles for the Houghton office block.
Ends
Caption: 'gp Houghton reinforcement cage':
Soil clings to Gauteng Piling's LDH digger's 1.1 metre diameter flight after extraction from an 18 metres deep pile at the Houghton site. In the foreground is one of the large steel cages used to reinforce the piles.
ends

Caption: 'GP Houghton flight discharging soil:

Gauteng Piling's Williams LDH digger's flight spins at breakneck speed to create a cascade of discharged soil extracted from an 18m pile at the Houghton building site.
Ends
Caption: 'go Houghton and piles to support retaining wall':
Gauteng Piling had to provide special early piles to provide lateral support for a retaining wall on an adjacent site for the Houghton foundation project.
Ends
Caption: 'proposed Houghton office block image':
A computerised perspective of M/Architects' design of the new Barrow Properties office block, fronting on to Oxford Road, for which Gauteng Piling provided the foundation piling.
ends
Issued for Gauteng Piling, Fourways / Further info: Hennie Bester, tel 011 465 7751 / www.gautengpiling.co.za