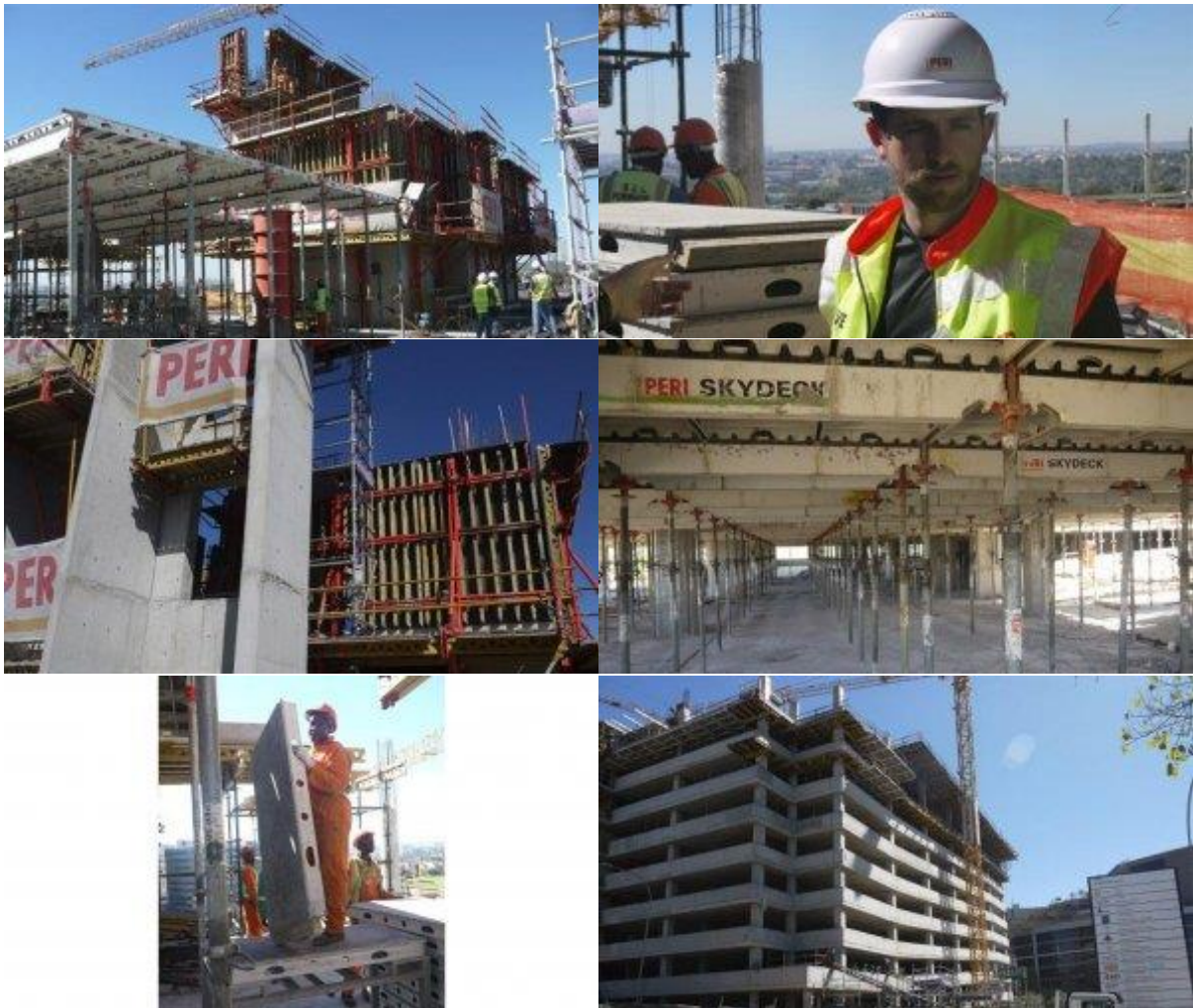


PERI Rail Climbing System reaches new heights at Katherine Towers



The complex core geometry at the [Katherine Towers project](#) in Sandton saw [PERI South Africa](#) deploy its RCS-CL ([Rail Climbing System](#) Carriage Light) to reduce crane time and maximise platform sizes for the complex core geometry.

The [project](#) was designed by architecture and [interior architecture](#) group Paragon, with [Trencon Construction](#) as the [main contractor](#), and [Sotiralis Consulting](#) as the [consulting](#) engineer. The complex multi-cell core structure boasts an architectural scenic shaft opening up in the centre of the [building](#). Here [PERI VARIO](#) GT24 wall [formwork](#) was used to achieve the necessary quality of the [concrete surface](#) finish.

[PERI South Africa](#) supplied a complete solution for the flagship [project](#), encompassing [design](#) and site supervision and [transport](#), in addition to a range of [products](#) and [systems](#) to realise the intricately-designed structure.

Located at 46 Katherine Street in [Wierda Valley](#), Sandton, the 21 000 m² [project](#) is being developed by Alchemy as the new Bidvest head office, and is a key element of the new Katherine Street mixed-use precinct. The premium-grade development is within walking distance of both [Sandton City](#) and the [Sandton Gautrain Station](#).

It will also offer an additional 12 600 m² of office space for prospective tenants. With expansive views of its surroundings, [Katherine Towers](#) is set to become a prominent landmark in the ongoing

redevelopment of the Sandton CBD, in which both [PERI South Africa](#) and Paragon have played a leading role.

The [PERI South Africa](#) team on the [project](#) consists of technical representatives [Stephen Sprong](#) and [Sebastian Burwitz](#), site supervisor and also [project](#) engineer [Terry Spronk](#), and sales representatives [Jay Fourie](#) and [James Frew](#). Spronk explains that his on-site presence is mainly to offer support to the [contractor](#) in terms of the PERI [systems](#) deployed on the [project](#).

These include the PERI SKYDECK and MULTIFLEX [slab systems](#), selected due to the faster slab cycles achievable, a critical factor in this fast-track [project](#), which aims to top-out by August. The balcony slab [construction](#) required complex back-propping, including the support of 6.5-m-high feature [concrete](#) walls.

These were realised using specialised QUICKSHORE shoring tower up to 10 m high, as well as a combination of GT24 GIRDERS and SRZ walers. PERI TRIO and DOMINO were deployed for the various retaining walls and upstand beams, which are repeated as a main feature throughout the [building](#).

The climbing [systems](#) used, in conjunction with the VARIO GT24 wall [formwork](#), consisted of specialised SRU, CB 240, and BR platforms, and an additional RCS-CL. “The RCS-CL has been developed specifically for cores in medium-height buildings leading with limited crane capacities and hook times,” Spronk points out.

[Rail](#)-guided climbing ensures that the climbing unit is connected securely to the [building](#) at all times, which makes the climbing procedure fast and safe, even in windy conditions. The units are moved by crane, or by means of mobile climbing [hydraulics](#).

“The main benefit of the RCS-CL [system](#) is that there are reduced crane requirements for the core, a particular advantage on a highly-constrained site, which also freed up time for related [construction](#) activities,” Spronk comments. Other benefits offered by the PERI solution was reduced plywood wastage in the typical flat slab areas, due to the SKYDECK [system](#) allowing productivity to be accelerated to meet the demanding 12-day cycle time.

“Our main challenges on this [project](#) have been limited [cranes](#), site space, and laydown areas. In addition, there was a specific requirement for [concrete](#) work with a high degree of accuracy, with an ultra-smooth finish on all vertical structural elements,” Sprong highlights.