JV's 'most challenging contract' creates a new icon

"The most challenging contract we have ever handled," is how José Correia, director of Tiber Bonvec Construction, describes Sandton's new iconic building, 115 West Street, which Tiber and WBHO have now completed in a R550-million joint venture.

Both companies are long-standing members of Master Builders Association North (formerly Gauteng Master Builders Association).

Developed by Zenprop Holdings with funding by Nedbank Corporate Property Finance, 115 West Street – the new head office of Alexander Forbes – is likely to be etched in the memory of millions of tourists visiting South Africa in future. The seven-storey building in Africa's most affluent economic node is directly across from the Sandton Gautrain station, making an impressive sight for visitors arriving by train from OR Tambo International Airport.

Correia said Tiber Bonvec had decided that, in view of the severely challenging 18-month construction period, a JV would be essential. "WBHO is vastly experienced in joint ventures, and has a corporate culture and management style that we respect, so the 50-50 JV we agreed on seemed the sensible solution. We decided that Tiber would handle the building operations and WBHO the commercial aspects of the contract," he explained.

Work started on 14 February 2011 on the 37 000-m² office block which includes 'ultra-green' design features from Paragon Architects and accommodates most of Alexander Forbes' 2 200 Gauteng staff members under one roof. Despite the construction challenges, the WBHO-Tiber JV managed to complete the bulk of the contract by 17 September 2012 and the offices are now up and running.

Correia says there were, at peak times, up to 1 600 people on site, including 30 of the JV's management team. Apart from the almost impossible time constraints caused by Alexander Forbes needing to move in by October 2012, other major obstacles that had to be overcome included:

- An unforeseen metal workers' strike which, for almost a month, brought steel deliveries to a halt;
- The construction of the towering atrium roof. A 650-ton crane – operating from Rivonia Road and Katherine Street for the north and south atriums, respectively – was required for placement of the structural steel roof;
- The installation of the atrium's resin-based cones, weighing 1,2 tons each, employed as skylights in the design of the atrium. The cones, supplied segmentally by Dudley & Sons, had to be assembled on site on a bird-cage scaffold platform before being jacked into place and attached to the steel structure;

115 West Street, Sandton's new landmark designed by Paragon Architects and constructed by the WBHO / Tiber Joint Venture.

- The special technique and formwork devised in consultation with PERI for the construction of the S-shaped scallop concrete walls which called for around-the-clock application to achieve the accurate symmetries and finishes required;
- The special timber-plank texture required on some of the concrete facades;
- The self-compacting concrete from AfriSam that was used for all the vertical walls. As SCC tends to put high pressure on the formwork at window box-outs, PERI had to design and produce special high-tolerance tie rods to strengthen the structure.

Correia says the building's imposing curved glass facades called for months of planning and design by the professional and installation teams, which included Geustyn & Horak for the unitised glazed facades, and L&D Facades for conventional glazing.

The building's impressive North atrium is a showcase of the application of natural illumination.

Other construction challenges included:

- The intricate installation of 20 nine-metre-high, sloping, tapering concrete columns (weighing 16 tons each) which had to be secured in place for two weeks before the concrete slab on top could be cast and the formwork released. Six of the columns have a side protruding bridge support column;
- The atrium's sharply-curved spiral glass-walled, steel staircase which Correia believes features the tightest internal glass radius yet achieved in South Africa;
- The simultaneous installation of link bridges by Nancy Engineering in both atriums which required temporary support until the atrium roof was completed. After the temporary steel support was removed, the jacks were decompressed, leaving the bridges 'hanging' in their permanent state from the roof steel structure," Correia explained.

Construction of the 55 000-m² basement parking lot took just five months to complete, using 8 000 m² of PERI Sky Deck formwork.

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115 West Street conforms to exceptionally high environmental standards and the building is accredited with a GBCSA four-star 'Green Star' rating. Included in its design are plant-filled outdoor areas, natural light, energy-efficient lighting, high-speed lifts, and modern auditoriums. Staff facilities include an in-house gym, coffee shop, health spa, convenience centre, and a large canteen.

"Perhaps the most gratifying aspect for the JV members was the tremendous relationship and the exceptional teamwork it produced. Tiber Bonvec and WBHO proved a great combination. We are also very proud of the safety achievements on the site which have won top awards on both regional and national MBSA levels. This is a significant achievement with so many people on site – all working against the clock," Correia added. ■

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