Bringing structures to life

Fountain Gate Shopping Centre

Client:	Westfield Developments
Contractor:	Oakpark Construction
Location:	Melbourne, Australia
Products:	Rapidshor

Case Study

The versatility of the Rapidshor lightweight shoring system by RMD (Australia) was selected for the construction of over 80,000 square metres - an area equal to the size of ten football pitches - of slab and beams at the Fountain Gate Shopping Centre in Melbourne, Australia.

Speed of response was another consideration - within five days of its customer, Oak Park Construction, securing its order from the main contractor, Westfield Developments, RMD had already designed and delivered 1,800 square metres of the support system. Ultimately, the company went on to provide a total of 14,000 square metres for the project. Experience on similar projects, such as the Glen Shopping Centre, the Carousel Shopping Centre and the Doncaster Shopping Centre, gave RMD's engineers - working out of the Melbourne office - an invaluable insight into the design, logistics and site problems likely to be encountered by Oak Park Construction.

On occasions, the shoring reached ten metres high, with a significant number of floor-to-floor height variations on the ground floor. The Rapidshor system allowed safe and speedy access via clear walkways through the shoring for scissor hoists, site personnel and construction materials movement, eliminating many of the site safety issues normally associated with projects of the size and complexity of the Fountain Gate Centre.

Rapidshor's 80kN safe working load allowed the shoring system tables to be based on a 1.8-metre grid, and these were, in turn, frequently erected in four and six table bay configurations. The system's easy-fit, wedge-fixed modular ledgers and snap-on diagonal braces were quick to assemble which added to the significantly reduced cost of the Fountain Gate installation, when compared with lower load capacity and less versatile systems.

Typically, RMD's Alform beams were used as primary bearers, spanning across the top of several tables, over which Alform beams were laid to form joists. In some locations, forklift trucks were employed to raise and lower sections of the shoring support tables to allow the speedy addition or removal of Rapidshor legs to accommodate height variations. Elsewhere, scissor lift hoists were effectively utilised to ensure that the project's extremely tight deadlines were met.

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