

502 Hay Street Office & Retail Development

Sheet Piles & Anchors + Piles



Developer: Saracen Properties
Contractors: Broad Const. (Stage 1), Arccon (Stage 2)

Structural Engineer: Cardno Saraceni
Specialist Contractor: GFWA

THE PROJECT

Subiaco is one of Perth's closest suburbs to the CBD and a centre of attention for developers. 502 Hay Street is located in a prime spot of the central area of Subiaco and the location of a mixed use office and retail development.

This development comprises the construction of two basement parking levels, one retail tenancy level and four levels of office space, and provides more than 2,000 m² of highly sought urbanized area resulting in the development of a high quality office facility.

Construction of the basements required an excavation of up to about 6.5 m in medium dense to very dense sand. Since the project was located next to streets on three sides and a nearby building, sloping the excavation sides was unfeasible and it was necessary to construct a retaining wall system to support the ground. The project's designer specified sheet piling.

THE ROLE OF GFWA

GFWA was awarded the design and build contract for the execution of the sheet piles and anchors.

Sheet piles were driven down to a maximum depth of 9 m to protect the 264 m long perimeter of the project. Based on the architectural designs, the walls were designed for 2 rows of anchors; however changes made to the drawings at Stage 2 required the addition of a third row of anchors in areas where lower ground level was required.

299 sheet piles, 628 mechanical anchors and 7 piles were installed in this project.

Among the parameters that added to the challenges of this project was a 3 m anchor exclusion depth under the roadways.

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