

AUSTRALIA



**Owner**

Your Project

**Engineer**

AFS Bachy Soletanche

**General contractor**

AFS Bachy Soletanche

**Period of works**

August 2016- August 2030

**Main figures**

Retaining walls:

- Wall thicknesses from 500mm to 1000mm.
- Depth to 23 metres

**Project description**

Constant adaptation. To meet the special requirements of diaphragm wall construction in urban areas, Soletanche Bachy revisited the conventional method used to build such structures. In devising these solutions, its focus was on working in confined spaces, optimising tool performance and minimising disruption due to the works.

**Ground conditions**

Well suited to the local ground conditions, the XS2 can be fitted with a variety of interchangeable cutter wheels to tackle the prevalent ground conditions. Generally the system will be used through a mixture of overburden materials from made ground, gravels and alluviums through to clay soils, before anchoring into the underlying bedrock. Rock strengths of up to 100MPa can be cut using the system.

**Solution**

Soletanche Bachy developed the Cit'Easy. A special Hydrofraise machine, the Hydrofraise XS, was developed for urban diaphragm walls, which as a rule have moderate thicknesses and depths. Requiring less space and consuming less energy than the conventional Hydrofraise, the XS nevertheless offers equivalent or superior drilling efficiency. A new-generation mud plant is used in conjunction with this machine. It has three shipping container-sized modules that can be stacked and highly simplified connections between the elements. The plant has a small footprint and takes very little time to set up. The Cit'Easy process is not limited to a single high-performance machine set. New methods and a new production organisation have been designed to accommodate further tool development.



**Sustainable development**

The smaller more mobile rig has better manoeuvrability around site, giving an improvement to production rates. The compact rig and site set up means a rapid mobilisation to and from site, as well as providing a more space efficient solution, better suited to the urban environment.

