

SUBSTATION EXCAVATION, SHORING AND SERVICE DIVERSION

Transgrid

Ultimo N.S.W.



This project involved a bulk excavation of over 30,000 cubic metres (predominantly in strong sandstone), extensive shoring works, and the diversion of services.

An extensive network of adjoining underground services, existing ground anchors supporting the adjoining railway bridge, and the presence of a geological dyke all complicated the shoring procedure. Extensive re-design and modification of the shoring was required to allow the works to be completed, with some shoring piers extending up to 20 metres deep.

The location of the works, and the number of adjoining services, meant that works had to be coordinated with a multitude of different authorities including Energy Australia, Telstra, Sydney Water, Railway Infrastructure Corp, Sydney City Council, and the Sydney Harbour Foreshore Authority.

The diversion works included the construction of a large, reinforced concrete 'shelf' to permanently support the new 1.5m diameter stormwater main, as well as a temporary sewer diversion. These works had to be staged to ensure that the stormwater and sewer mains, which serve adjoining areas, remained in service throughout the works.