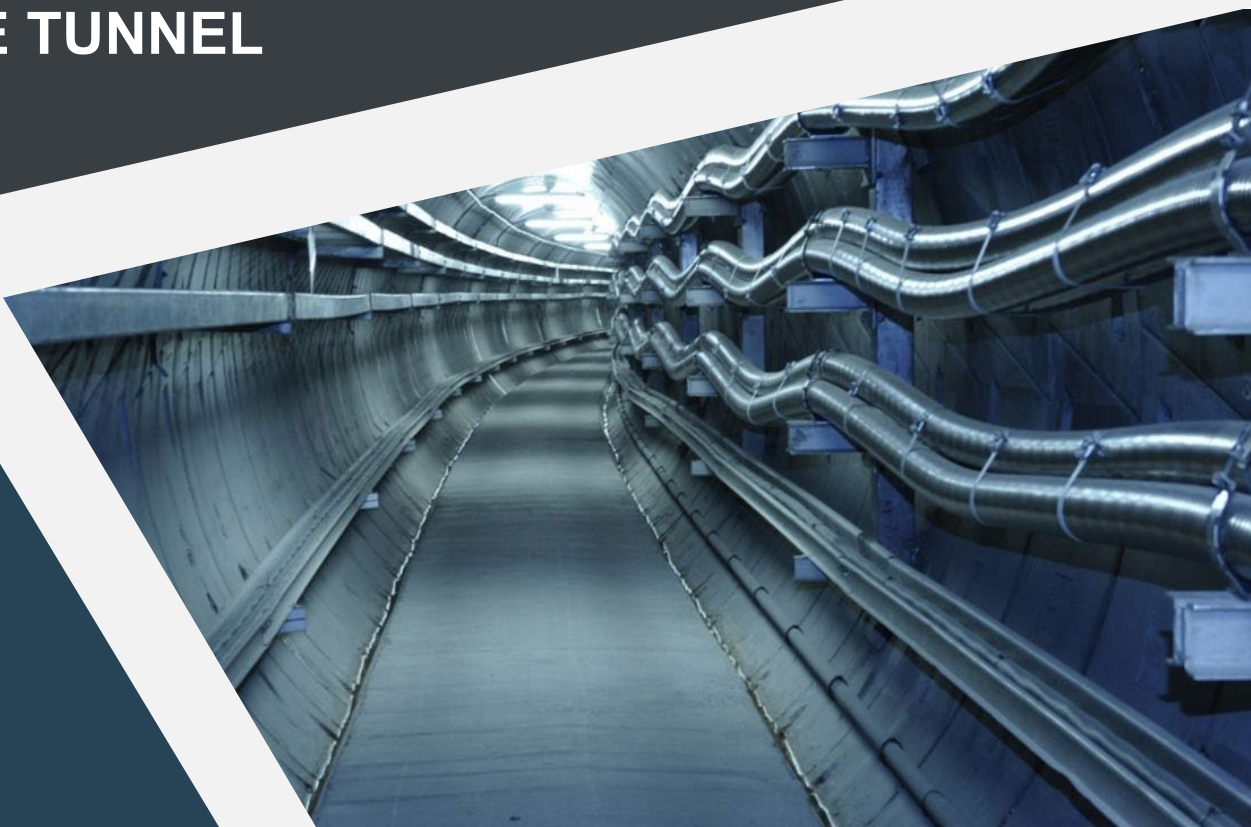


CITY WEST CABLE TUNNEL



PROJECT DETAILS

PROJECT LOCATION:
Sydney, NSW

COMMENCEMENT DATE:
2007

COMPLETION DATE:
2007

TYPE OF CONTRACT:
HV and LV Electrical,
Communications and SCADA

CONTRACT VALUE:
\$3 Million +:

PROJECT MANAGER:
Ray Khairallah

E & I MANAGER:
Phil Tilden

OVERVIEW TRADE PACKAGE

The City West Cable Tunnel (CWCT) passes below the Darling Harbour Exhibition Centre, Tumbalong Park, Darling Park Office Towers and Sussex Street in Sydney.

It carries the 132kV electricity transmission feeder cables from TransGrid's bulk supply point in Ultimo to the new City North Substation in the Sydney CBD.

The contract client, Thiess Pty Ltd awarded Star the role as services Contractor.

The project team consisted of competent personnel whom were responsible for tunnel services. The entirety of the City West Cable Tunnel which spanned over 3 years was completed with no lost time injuries.

This is a testament to the high safety standards fostered by the work culture and training of Star employees as well as their trusted partners.

COMMERCIAL FACTORS

The scope of work detailed for the project included:

- Installation of tiered tray structures from tunnel end to end
- To supply and install 800A Temporary Main Boards
- Installation of tunnel construction temporary electrics and installation of permanent electrics
- To remove all existing light and install 400W MH Highbay light fittings and emergency floods and illuminated exit signs.
- Services included lighting, pumping and general power requirements
- Installation of earthing and support for EA HV cables

PROJECT CHALLENGES

- High detailed coordination of services in 3D Revit format.
- Large distance to work faces in limited access areas
- Confined space with limitations on equipment and plant use.

PROJECT SPECIFICS

- The tunnel passes just metres below the Sydney CBD and therefore as an alternative cable tunnel solution eliminates major disruption to the city as well as setting a new standard for the design, delivery and operation of critical infrastructure.
- The substation is designed to supply up to one quarter of the city's future electricity requirements.
- The project was completed within 1.62 kilometres of tunnel varying from 25 metres to 45 metres in depth, design which required the installation of 9,600 precast concrete segments, which were completed with full electrical fit outs to carry 132v electricity feeder cables.
- The project was unique among hard-ground cable tunnels, requiring a segment-lined tunnel rather than shotcrete lining and groundwater drains.

