

SYDNEY TRAINS ELECTRICAL NETWORK UPGRADE

OIL/GAS | SEWER | STORMWATER | **POWER** | WATER | TELCO

PROJECT OVERVIEW

UEA completed complex HDD works required as part of the Sydney Train's Electrical Network Upgrades in Haberfield, Leichardt & Erskineville.



LOCATION

Erskineville, Haberfield & Leichardt NSW



CLIENT

Sydney Trains



PIPE

180mm HDPE orange electrical conduits



GEOLOGY

Rock, clay & fill ground conditions



LENGTH

264 metres



TECHNIQUE

HDD

SCOPE OF WORKS

- Barton Ave, Haberfield – 84 metres: 4 x DN180 HDPE electrical conduits with 50mm spacers
- Darley Road, Leichardt – 130 metres: 4 x DN180 HDPE electrical conduits with 50mm spacers
- Eveleigh Yard, Erskineville – 50 metres: 3 x DN180 HDPE electrical conduits with 50mm spacers
- Design of all underbores
- Track Settlement Monitoring Program
- Location of all known service including a secondary gas main

Haberfield & Leichardt

Sydney Trains 11kV feeders 533A and 533B previously provided connection between Lewisham and Strathfield substations via an old footbridge. The objective was to relocate the 11kV feeders (533A and 533B) to the new Transport for NSW (TfNSW) footbridge.

Erskineville (Eveleigh Yard)

Sydney Trains constructed an 11kV cable route inside Eveleigh Yard for feeders 512 and 515. Part of this route involves an underline crossing (ULX) below seven tracks inside the maintenance yard. The seven tracks had live train traffic during the underbore that added another level of complexity to the process.



CHALLENGES

Each site had limited access, as well as a limited area, to set up the HDD rig and associated equipment. As a result, the welding and stringing of the HDPE electrical conduits had to take place adjacent to the site itself. On completion of the conduit welding, UEA used custom-made spacers to form a bundle ready for pipe pull. Due to the combination of soft clay and rock ground conditions for the first two underbores, UEA had the flexibility to use a second HDD rig and a variety of associated tooling.

COMPLETION

UEA used the team's own pipe rollers and highly skilled HDD operatives to remove the risk of pipe damage during pipe pull. Taking into consideration the tight project schedule, UEA successfully complete all three underbores while working through constant wet weather and changing ground conditions.