# GREEN SQUARE WATERMAIN RELOCATION

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

## PROJECT OVERVIEW

UEA was contracted to relocate a DN750 underground water main, to allow for future bridge and road construction.

**LOCATION**
Huntley Street, Alexandria NSW

**CLIENT**
DG Alliance & Sydney Water

**PIPE**
DICL, MSCL

**GEOLOGY**
Saturated sand with high water table

**LENGTH**
100 linear metres

**TECHNIQUE**
Conventional open cut excavation & GBM thrust boring

## SCOPE OF WORKS

UEA was engaged to supply the materials necessary to undertake the below scope of works, along with the installation and commissioning of the main itself.

Works included the:

- Completion of a 60 metre underbore, and installation of a DN1050 mild steel carrier pipe on grade within water charged ground conditions
- Temporary work designs certified for use onsite by appropriately qualified personnel
- Protection of existing services where required
- Excavation and disposal of all materials necessary to construct the works
- Supply and installation of shoring in accordance with approved temporary work designs
- Dewatering of all excavations using dewatering well points into a nominated onsite discharge point (via a sediment tank and flow meter to treat prior to discharge)
- Installation of the OD 813 SCL product pipe within carrier pipe, pump scour, outlet pipe and associated fittings
- Centralisation of product pipe within the carrier pipe and grouting into position
- Supply and installation of concrete thrust blocks
- Connection to existing water main in accordance with Sydney Water shutdown protocols

## CHALLENGES

- Open cut trenching and microtunnelling of a loose sand geology, up to seven metres deep in highly water charged grounds
- Excavation of microtunnelling shafts and pipeline trenches in a tight work zone, alongside continuous live traffic
- Installation of a 90m PW thrust bore and rising connections parallel to the crown of Huntley Street, passing underneath a live stormwater canal and various other live utilities in the alignment of the PW relocation
- Detailed and complex water main cutover procedure when connecting to a DN750 water main within a 72-hour shutdown timeframe
- Scheduling our works within a fast paced, large scale infrastructure project with numerous work faces

## COMPLETION

Despite the difficulties encountered, the works were completed to the satisfaction of the client and to a very high standard.