JANE STREET & MULGOA ROAD WATER INFRASTRUCTURE UPGRADE

CLIENT: MCCONNELL DOWELL
LOCATION: PENRITH NSW
DURATION: 16 MONTHS
PROJECT VALUE: $105 MILLION
VALUE OF ENGAGEMENT: $17 MILLION

Ferrycarrig carried out the installation and relocation of mixed utilities including water main, sewer main, combine services route, walkway lights, direct bury and galvanised steel trough, rail driver platforms, various private connections, and deep excavation for the rail bridge pile caps working across Castlereagh Road, Mulgoa Road, High Street, Great Western Highway, and Jane Street.

Ferrycarrig carried out the relocation and upgrade of large water mains and sewer mains (gravity sewer and rising mains) to enable the widening and upgrading of Mulgoa Rd between James St and Museum Dr.

Ferrycarrig installed the following utility assets:

- Over 1,200 lineal metres of PVC, DICL and SCL Watermains varying from 150dia to 600dia.
- Over 1,000 lineal metres of 375dia DICL and SCL rising main (pressurised sewer).
- 175 lineal metres of 375dia Gravity Sewer, including 6 x deep manholes up to a depth of 5m.
- 150 lineal metres of 600dia Thrust bore under the Rail Corridor.

In order to reduce the impact of dust on nearby residents and businesses, water cartage remained on site at all times. Works were cleaned on a daily basis to reduce dust dispersion.

Ferrycarrig encountered more than 100 unknown services, therefore the Client had to redesign all new services. In order to accommodate existing unknown services which could not be redirected, Ferrycarrig changed construction methods and systems multiple times to accommodate for these requirements. For example, instead of using a standard shoring box for excavation, the team completed excavation works with sheet piles around existing services.

Ferrycarrig carried out he installation of a new water main that was within half a metre of an existing water main. In order to avoid exposing the existing water main, the team reconnected the new water main, coordinating shutdowns section by section. To complete the works efficiently and successfully, Ferrycarrig planned and coordinated with both Sydney Water and the Client's water services coordinator.

Ferrycarrig installed sewer mains under a rail corridor with layers of cobblestone. Rather than using the standard micro-tunnelling techniques, Ferrycarrig used a thrust bore without causing any program delays.

When changing our boring method from micro-tunnelling to a thrust bore, the bore clashed with the remnants of an unknown 40-50 year-old demolished timber bridge. The team entered the injecting pipes and removed the obstruction manually by cutting the timber inside the pipe so the crew could continue hammering with the thrust bore.

Ferrycarrig had 14 crews working around the clock during the project's peak. All works were carried out without incident and with zero complaints.

FERRYCARRIG HAD 14 CREWS WORKING AROUND THE CLOCK DURING THE PROJECT'S PEAK. ALL WORKS WERE CARRIED OUT WITHOUT INCIDENT AND WITH ZERO COMPLAINTS.