

ASBESTOS STORMWATER PIPE REMOVAL & REPLACEMENT

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

PROJECT OVERVIEW

A major road accident involving a B-Double fuel tanker lead to a significant amount of fuel running into the stormwater drains running alongside the Federal Highway and igniting. This caused significant damage to the asbestos stormwater drains with potential for a major environmental incident. The RMS had to move quickly to replace the damaged pipes. Whilst the majority of the pipes could be removed by conventional open trenching techniques, the crossings of the north and southbound carriageways had to be completed using a suitable form of trenchless technology that would also meet the asbestos removal regulations required so as to ensure no dust or fibre particles entered the atmosphere.



LOCATION

Federal Highway, 30km south of Canberra NSW



CLIENT

NSW RMS



PIPE

450mm steel case & 900mm steel case



GEOLOGY

OTR, shale and rock



LENGTH



TECHNIQUE

Thrust boring

DESIGN

On previous sewer contracts, UEA upsized existing mains using thrust boring equipment – a specially designed cutter was designed to follow the existing pipes and then install a steel case into which a new carrier pipe was installed and grouted. This option was presented to the client and after reviews of the proposed work method statements, the process was adopted as the preferred installation method. UEA manufactured the required cutter heads with the guides for the existing pipelines – the only constraint was that all excavated and augured material had to be removed, bagged and sealed by an authorised asbestos removal company.

CONSTRUCTION

UEA used its 160 tonne auger boring machine. Three crossings had to be completed as part of the removal process, all of which had a new 300mm reinforced concrete pipe installed inside the steel casing.

- Bore 1 – 12 metres of 450mm steel case



- Bore 2 – 54 metres of 900mm steel case
- Bore 3 – 54 metres of 900mm steel case

During the boring process, the launch pit had to be completely encapsulated and dust controlled using water so that the air quality could be monitored for asbestos particles. All material was hand shoveled into 44-gallon containers and sealed before removal from site.

COMPLETION

The unique nature of this project required UEA to think outside of the box and deliver a specific scope. At all times the potential contamination was managed to ensure there was zero impact on the workforce and the general public. The project was delivered successfully for all involved.