

# PEZZIMENTI TUNNELBORE



Specialising in: **Highly Accurate, Laser-Guided Microtunnels.**

Sydenham Rail ULX





Sydney Water through its alliance partners Networks - required a Ø560mm water main to be constructed under the railway Station at Sydenham, Sydney. Works under the rail corridor were required to be completed over a weekend rail shutdown.

**+ Project Required Completion over Weekend Shutdown**

The head contract was won by Diona who then let the microtunnelling work to Pezzimenti Tunnelbore. The microtunnelling was scheduled to be carried out during a rail shutdown over the weekend commencing 5am Saturday and ceasing 5pm Sunday.

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Length  
96m

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Bore Diameter  
Ø1020 mm

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Jacking Pipe  
Ø800 Humes J-Series JP

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Carrier Pipe  
Ø560mm MS Water Main

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Ground  
Saturated Sandy Clay

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Grade  
1.00%

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## Sydenham Rail ULX



### + Pipejacking in Wet Sandy Clay

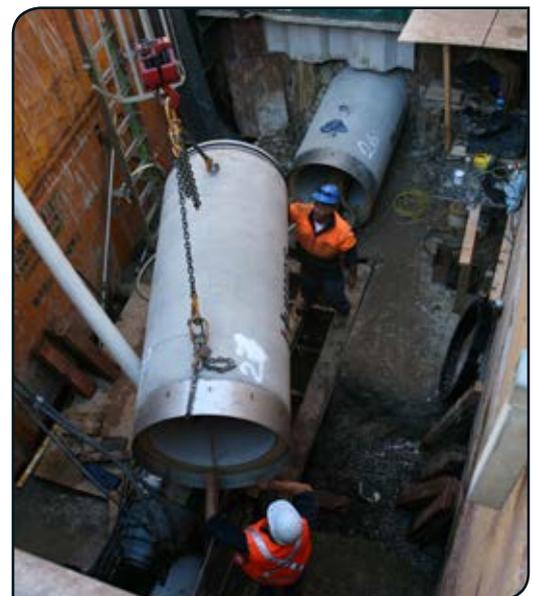
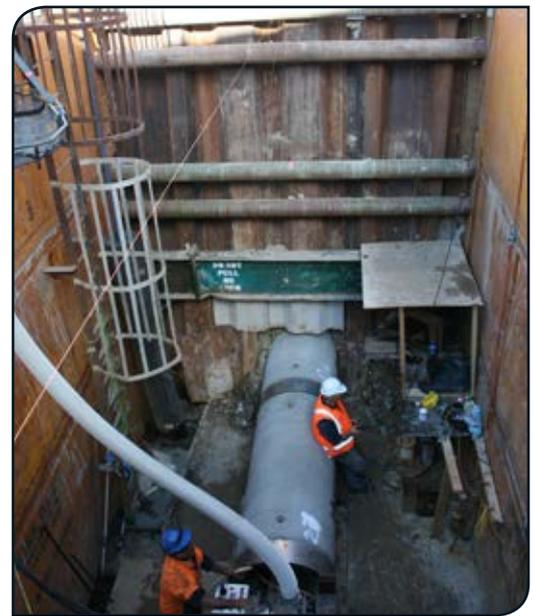
Diona excavated the 4.5m deep launch shaft so the jacking frame could be inserted in advance of the shutdown weekend. As the launch shaft was 38m from the Railcorp property line this distance was able to be pipejacked prior to the weekend shutdown. This left 58m of Ø1020mm microtunnel to be pipejacked during the shutdown.

Two drilling crews worked consecutive 12 hour shifts commencing 3am Saturday morning. The first shift jacked 11 pipes or 26m, the second shift commencing at 3pm on Saturday afternoon jacked 10 pipes or 24m. The day shift had 3 pipes to jack on their shift and they broke through at 8am on Sunday, leaving the remainder of the shift to remove the microtunnelling head from the exit shaft, retract the drilling rods and grout the annular space between the jacking pipes and the microtunnel.

The jacking frame and the remainder of the equipment were later removed from site over the next couple of days.

Diona then welded and inserted the steel main and completed pipework including the connections to the existing reticulation system.

The surveyor observed 'zero' settlement of the rails.



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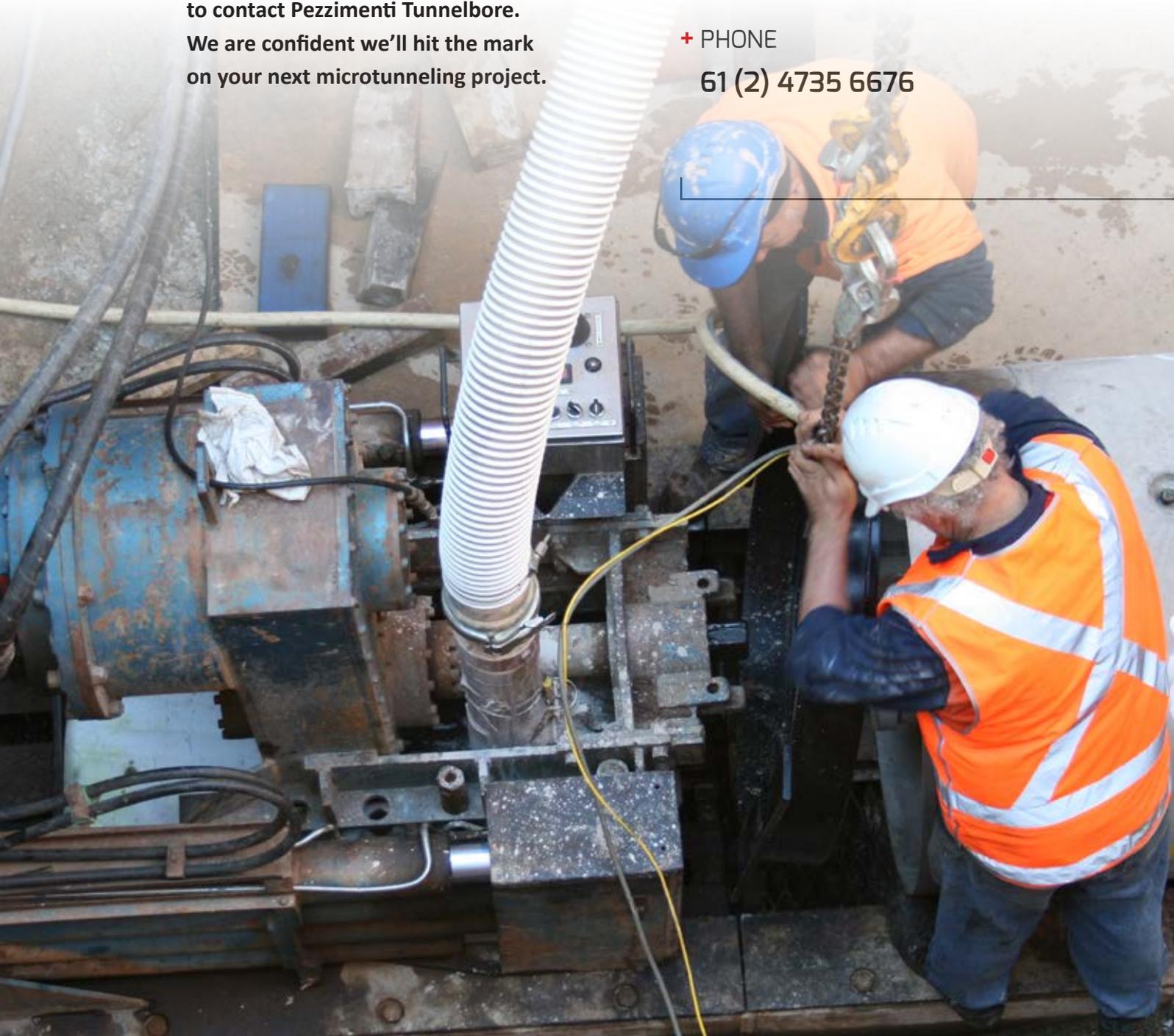
For all inquiries – including Job  
Inspections, Quotations and Project  
Feasibilities – please don't hesitate  
to contact Pezzimenti Tunnelbore.  
We are confident we'll hit the mark  
on your next microtunneling project.

+ WEBSITE

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**When Accuracy Matters.**