# SUPPORTING SCHEDULE-CRITICAL TUNNELLING EXCAVATION WORKS

## CASE STUDY




Case Study: **Supporting confined excavation works ahead of a critical TBM breakthrough milestone**

**Project:** Lower Plenty Cut and Cover – Spark North-East Link
**Industry:** Road and tunnelling infrastructure
**Location:** Melbourne, Victoria
**Project Scope:** Supplying compliant, tunnel-configured earthmoving equipment to support hard rock excavation in restricted-access conditions ahead of scheduled TBM breakthrough works.

FOCUS MACHINERY

## THE **PROBLEM**

As part of the Spark North-East Link program, excavation works at the Lower Plenty Cut and Cover section required production in confined conditions through hard rock while working to a fixed tunnelling programme.

The challenge was not simply machine size.

The project required a powerful excavator capable of maintaining rock-breaking performance within a restricted excavation envelope where a standard configuration would compromise manoeuvrability and operational control.

Programme timing was critical.

According to the project handover, the excavation needed to be completed before a scheduled TBM breakthrough milestone, with tunnelling delays carrying significant downstream programme impact.

Equipment needed to arrive:

- Fully compliant
- Tunnel-ready
- Correctly configured
- Ready to work immediately on arrival

## THE **SOLUTION**

Focus Machinery specified a 35t short stick CAT 335 configured specifically for the project's excavation constraints.

The package included:

- Full tunnel specification
- Fire suppression system
- Montabert hydraulic hammer
- Full Checkrite induction and compliance preparation prior to delivery

The short stick configuration was selected to improve control and positioning within restricted excavation conditions while maintaining the breakout force required for hard rock production.

All equipment was prepared under Focus Machinery's Ready-to-Dig approach, ensuring:

- Verified compliance documentation
- Pre-delivery inspections and testing
- Correct machine and attachment configuration
- Site-ready presentation for immediate use

Close coordination with project sequencing ensured the machine package aligned with tunnelling programme requirements and mobilisation timing.

## THE **RESULTS**

Focus Machinery supported excavation works during a schedule-critical phase of the project by supplying a machine package engineered specifically for the site constraints.

The configured solution enabled:

- Excavation capability within confined conditions
- Hard rock production with restricted machine geometry
- Compliance-ready mobilisation
- Reduced setup and approval delays on site

By engineering the specification around the project scope - rather than supplying a standard fleet configuration - the project team reduced programme risk ahead of a key tunnelling milestone.

**Compliance | Performance | Reliability | Certainty**

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**Focus Machinery** | sales@focusmachinery.com.au | www.focusmachinery.com.au | (03) 9756 3950
908-920 Mountain Hwy, BAYSWATER VIC 3153
35 Great Western Hwy, KELSO NSW 2795