



PROJECT REPORT SHEET:

# BluSeal Tunnel Liner

EASTLINK TUNNELS, MELBOURNE





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1.6km Twin Tunnels under the environmentally sensitive community parkland area of Mullum Mullum Creek Reserve as part of the Eastlink Motorway Extension from the outskirts of the Melbourne CBD to Frankston.

**PROJECT COMPLETION:** NOVEMBER 2007  
**CLIENT/END USER:** THIESS JOHN HOLLAND  
JOINT VENTURE

### APPLICATION

#### WHERE WE USED BLUSEAL LINER

External waterproof membrane system installed to the entire extrados of the tunnel concrete structural lining. The tunnel structure also included cross passages every 120 metres (fourteen in total) and one low point drainage sump pit

#### WHY WE USED BLUSEAL LINER

The tunnels were designed to be fully 'tanked' with very strict water ingress limitations specified, being one litre per second for the combined groundwater inflow to both the internal and external drainage systems of the tunnels. The general objective was to have nil environmental impact on the parkland reserve above the tunnels.

### FEATURES

- 150,000 square metres of 2mm LLDPE sheet membrane to both the invert and obvert (arch) of the tunnels
- Waterstop joint protection and lining compartmentalisation
- External lining z-profile compartments
- Post completion injection systems

### BENEFITS

- Minimal long term environmental impact on the surrounding water tables with nil effects on the Mullum Mullum creek water levels above
- Negligible water inflows that needed to be handled by operational drainage pumping systems for the life of the tunnels

### SUMMARY

All project specified water ingress limitations were achieved with the tunnel structural lining works completed on time and within budget, with minimal impact from the waterproofing installation activities.

