

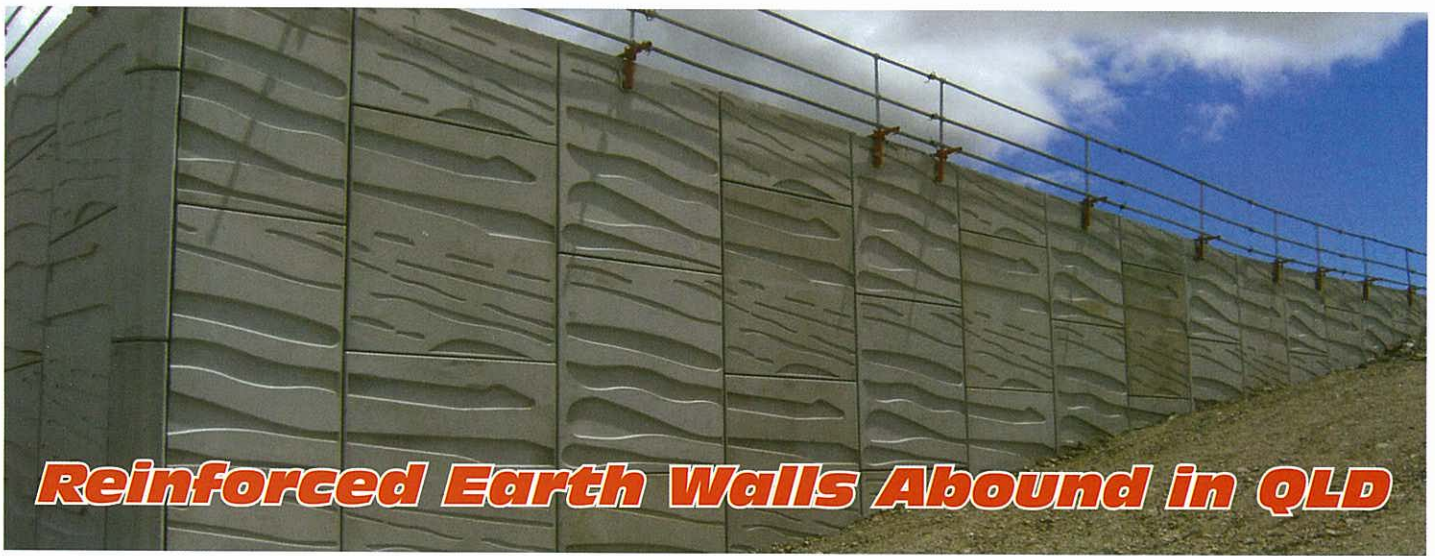
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# the roadbuilder

and CONSTRUCTION EQUIPMENT JOURNAL

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## Reinforced Earth Walls Abound in QLD

The Reinforced Earth Company (RECO) is currently in the process of designing and supplying a number of significant Reinforced Earth (RE) walls for Queensland Infrastructure projects.

As the supply of 15 000 m<sup>2</sup> of RE walls for the Gateway Upgrade Project draws to a close, making it one of the largest public infrastructure contracts RECO Australia has ever been engaged to do, other significant projects are starting off. All these new projects feature the TerraPlus® facing panel, which is square (2m x 2m). These panels are simple to erect and lend themselves to the adaptation of unique architectural finishes.

Project	Owner	Contractor	Area (m <sup>2</sup> )
Darra to Springfield Transport Corridor	Main Roads QLD	Horizon Alliance	>10000
Corinda to Darra Rail Upgrade	Queensland Rail	TrackStar Alliance	≈3000
Robina to Varsity Lakes Rail Extension	Queensland Rail	TrackStar Alliance	<2000*
Jilalan Rail Yard	Queensland Rail	Coal Stream J.V.	2000
Stuart Bypass	Main Roads QLD	Abigroup Seymour Whyte J.V.	≈1000
Woodlands to Veales Rd	Main Roads QLD	Thiess Pty Limited	≈1000

\*TrackStar initially awarded RECO two walls having a combined area of 1250 m<sup>2</sup>, however they were pleased with RECO's performance and subsequently awarded a further 600 m<sup>2</sup> for the East-West Link Bridge.

RECO also offers the TechSpan® cut and cover tunnel system. Tunnels are constructed using RECO's TechSpan® precast arch segments. TechSpan® is a three-pin, two-piece, funicular curve shaped arch.

Unlike other systems, every TechSpan® design is carefully tailored, structurally and geometrically, to meet the individual requirements of the particular project.

RECO uses finite element analysis and funicular curve theory to define the optimum curvature for the arch in consideration of span, clearance envelope, ground parameters and construction sequence. The resulting design will:

- Optimise the properties of concrete and reinforcement
- Minimise the tensile stresses and cracking in the concrete
- Optimise the shape of the arch
- Optimise arch thickness and amount of material used

This results in minimum materials required for the arch, maximum durability of the arch and importantly, a cost effective total solution for the client.

TechSpan® tunnels have been extensively used in the road, rail and mining industries throughout Australia. RECO Australia has also designed and supplied TechSpan® arches to projects in NZ and South East Asia.



### Reinforced Earth

Sustainable Technology

Leading supplier of retaining walls and cut and cover tunnel structures

**Reinforced Earth Pty Ltd**  
Trading as **The Reinforced Earth Company**

ABN 53 001 215 327

Level 2, 20 George Street  
Hornsby NSW 2077 Australia

Tel: (61) 2 9910 9910

Fax: (61) 2 9910 9999

Email: [recoaustralia@reco.com.au](mailto:recoaustralia@reco.com.au)

Web Site: [www.reco.com.au](http://www.reco.com.au)

