

50 YEARS OF BUILDING AUSTRALIA'S FUTURE

For half a century, a long-standing Master Precaster member of National Precast, Reinforced Earth, has been at the forefront of delivering innovative infrastructure solutions across the country. Since its inception in 1974, the company has led the adoption of reinforced earth technology, a technique originally developed in France during the 1960s. This revolutionary construction method has been instrumental in transforming Australia's infrastructure landscape, enabling the creation of robust, long-lasting structures across various sectors.

"Our team takes immense pride in having been a part of Australia's infrastructure evolution over the past 50 years," says Reinforced Earth Managing Director, Riccardo Musella. "Our technology has not only stood the test of time, but has also adapted to meet the ever-changing needs of modern infrastructure."

HOW REINFORCED EARTH TECHNOLOGY WORKS

Reinforced earth involves strengthening soil with materials like concrete, steel strips or geosynthetics to enhance its load-bearing

capacity. This technique has been widely used in the construction of retaining walls, bridge abutments and embankments. The method is particularly effective in challenging geotechnical conditions, providing a cost-effective solution that reduces the need for traditional concrete-heavy construction methods.

According to National Precast Chief Executive Officer Sarah Bachmann, precast concrete plays a crucial role in reinforced earth solutions, by providing durable and modular components that enhance the structural integrity of various infrastructure projects. In these applications, precast concrete panels are often used to form retaining walls, bridge abutments and other key elements that support the load-bearing capabilities of reinforced earth systems.

"The precision and consistency of precast concrete ensure a high-quality finish, while its ability to be manufactured off-site reduces construction time and costs," Bachmann says.

Precast elements are combined with soil reinforced by steel strips or geosynthetics, creating a robust and flexible system that can withstand significant loads and environmental conditions, making it ideal



Reinforced Earth specialises in tailoring infrastructure solutions for local communities and governments.

for long-lasting infrastructure in challenging geotechnical areas.

"Our precast elements use locally sourced materials and we reduce the overall amount of concrete required, which helps with both cost and sustainability," Musella says. "It's a win-win for our clients and the environment."

A LOWER CARBON FOOTPRINT

Reinforced Earth services offer significant

environmental benefits, reducing the need for excessive concrete and lowering the carbon footprint of infrastructure projects. The use of locally sourced materials and advanced design techniques means these systems require minimal maintenance over their lifespan, contributing to long-term sustainability.

"Our focus has always been on delivering durable infrastructure that lasts, while also reducing the environmental impact," Musella says. "We're proud to have pioneered solutions that benefit both the economy and the planet."

A PROVEN TRACK RECORD IN AUSTRALIAN INFRASTRUCTURE

Since the introduction of the reinforced earth method to Australia, Reinforced Earth has been involved in over 1000 projects nationwide. The company's first major project was constructing retaining walls for the Hume Highway in the 1970s, which remains a crucial transport corridor today. Over the decades, the company has become a trusted solution for major infrastructure works across roads, rail, ports and even mining operations.

One standout project is the M7 Motorway in Sydney, where over 100,000 square metres of precast concrete retaining walls



Reinforced Earth has been designing and constructing civil infrastructure projects for 50 years.

were supplied. These retaining structures have supported the motorway's expansion while blending seamlessly with the surrounding landscape. As infrastructure demands grow, Reinforced Earth continues to evolve its offerings, incorporating new technologies and materials. The company remains committed to leading the charge in developing sustainable and innovative infrastructure solutions.

"We're excited about our future in Australia," Musella says. "As we continue to innovate, our

goal is to deliver resilient infrastructure that meets the challenges of tomorrow."

For the past 50 years, the company has played a vital role in shaping Australia's infrastructure, from urban centres to remote regions. As the company looks to the future, reinforced earth technology will continue to be a key part of Australia's infrastructure solutions, ensuring communities can rely on strong, sustainable, and cost-effective infrastructure for decades to come. ■



National Precast's members are capable of delivering projects of a range of sizes and scopes.