

# Bespoke MSE Retaining Walls for Melbourne's West Gate Tunnel Project

Reinforced Earth designed, manufactured and supplied 9,299m2 of bespoke mechanically stabilised earth (MSE) TerraPlus® walls for Victoria's transformative West Gate Tunnel Project in Melbourne.

The MSE walls form part of the upgraded West Gate Freeway and the new road and tunnel system, which connects the freeway with the Port of Melbourne, CityLink and the CBD. The work included key installations at the M80 Interchange, Hyde Street Ramps and Tunnel Portals.

# Master Precaster

The Reinforced Earth Company

#### **Project**

West Gate Tunnel

#### Location

Melbourne, VIC

www.nationalprecast.com.au

### **Aesthetically Minded Precast Solutions**

The retaining walls were designed with both functionality and aesthetics in mind, with the bespoke precast concrete panel facings specially designed to feature four different patterns and four distinct concrete colours to create a visually diverse and appealing finish. The results highlight the dynamic and flexible capabilities of precast concrete, showcasing how it can be tailored to meet complex design requirements while maintaining structural integrity and enhancing the overall visual impact of large-scale infrastructure projects.

Reinforced Earth provided manufacturing insight to reduce the potential quality risk in reproducing thousands of panels with the intricate pattern developed by the Urban Designer. The insight was utilised to adjust the pattern over the whole project and other elements to great satisfaction to all stakeholders. Just an example of the whole process cycle experience from design, supply to delivery/install Reinforced Earth can provide when engaged at an early stage.







## **Reducing Carbon Footprint**

To support sustainable construction practices, the concrete mix for these panels incorporated 25% supplementary cementitious material (SCM), reducing the carbon footprint of the manufacturing process while enhancing the durability and longevity of the structure.

## A New Western Artery for Melbourne's Transport Infrastructure

The West Gate Tunnel Project is a transformative infrastructure initiative designed to improve traffic flow and connectivity in Melbourne, Victoria. It will provide an alternative to the heavily congested West Gate Bridge, which currently handles 200,000 vehicles per day. Once completed, the West Gate Tunnel Project will feature two new twin tunnels, elevated road connections and a widened West Gate Freeway.

This largescale project involves upgrading the West Gate Freeway and constructing a new road and tunnel system that connects the freeway with the Port of Melbourne, CityLink and the CBD. Once completed, this network, including the newly constructed city bypass between Dynon Road and Flinders Street, will be a new western artery for Melbourne's transportation infrastructure, removing more than 9000 trucks per day from residential streets in the inner west.

