

## Project Overview

The primary purpose of the Springvale Road Grade Separation Project was to eliminate one of the busiest level crossings in Melbourne, being the at-grade intersection of the Belgrave and Lilydale Rail lines and Springvale Road in Nunawading. The rail tracks were lowered by eight metres which required extensive retaining wall works, the construction of a six lane road bridge, construction of a new station and platform, and associated services and signaling works.

## Project Scope

Geotech were primarily engaged as a piling sub-contractor to the Springvale Road Alliance project team. The piling scope included approximately 400 No. piles for retaining walls, bridge foundations and overhead structure foundations. The bored piles were all constructed to VicRoad's specification and ranged from 600mm diameter up to 1,500mm diameter, and up to 20m into bedrock. A key objective of the project was to minimise disruption to road and rail traffic. As such the majority of work was completed adjacent the live rail corridor, but it was necessary to mobilise four teams of piling rigs, equipment and personnel for discrete periods of 24hr operations to minimise infrastructure closures.

In addition to the piling works, Geotech added value to the project with their innovative design and construct soil nail and shotcrete wall solution for a significant section of the retaining walls. The design and construct soil nail wall was proposed in lieu of piles to temporarily retain the adjacent live rail track. This solution saved project costs (and more importantly time) when it became necessary to demolish the wall. The solution also resolved spatial clashes with the conforming design enabling the platforms to be completed prior to demolition of the wall.

