

## VicRoads: Geelong Ring Road StormPRO® under road performance

Product StormPRO® DN600 Asset Owner VicRoads

 Application
 Civil
 Contractor
 Decmil Formally known as Cut and Fill P/L

## **Project**

The Geelong Ring Road project by VicRoads is a 27km stretch of freeway in Victoria, Australia running adjacent to Geelong's western suburbs. The project commenced in early 2006 and finished late 2014, with a total project cost of over \$490 million.

Vinidex was contracted by Decmil to supply the majority of the stormwater drainage pipes necessary for Stages 4A (Connection from Geelong Ring Road to Anglesea Road) and 4B (Connection from Anglesea Road - Princes Highway West) in 2011.



## Why was StormPRO® used?

This highly successful installation then led Decmil to nominate StormPRO® drainage systems as their product of choice for the next stage of the project section 4C, the design and construction of arterial road that extends 4.5km from Anglesea Rd to Surf Coast Hwy Grovedale. StormPRO® Polypropylene drainage pipe was used in sizes ranging from 375mm to 900mm in internal diameter.

Decmil civil engineering contractors have over 30 years of experience in major civil infrastructure works. Highly regarded and reputable within the industry, Vinidex were delighted to be Decmil's first choice for their drainage and stormwater pipe system needs.



As a result, in 2014 Decmil nominated 2.2km of StormPRO® to use for another major section of the project which is an arterial road; the duplication of Princes Hwy, including bridge widening, from Austin St to west of Deans Marsh Rd Winchelsea.

In November 2022, Vinidex re-visited the StormPRO® drainage culvert located under the Geelong Ring Road west of Waurn Ponds. This multi-cell culvert, consisting of three parallel 600mm StormPRO® pipelines, was originally installed as part of Stage 4B and opened to traffic in February 2013.

## What were the results?

A CCTV survey of the pipes was conducted that showed that the pipes were performing well with no deformation detected after 10 years of operation. This confirms that after initial vertical deflection, properly installed flexible pipes such as StormPRO® quickly stabilise, usually within 30 to 60 days. Any further deflection, even under heavy highway loading, is negligible.

Utilising modern co-extrusion techniques, StormPRO® is manufactured with a smooth bore for optimum hydraulic performance and a corrugated outside wall for high stiffness to weight ratio. StormPRO® pipes combine the strength and toughness of advanced polypropylene materials with a structured wall design. The light grey inner pipe design enables easy visuals for CCTV inspection.

Vinidex StormPRO® is the perfect choice for all stormwater applications due to is light weight, ease of installation and handling, all of which dramatically reduce construction time.



Original 2014 installation





2022 revisit