



## GEOFABRICS CASE STUDY



# IMPROVING SUBSOIL DRAINAGE IN ROADS WITH MEGAFLO GREEN

## PRODUCTS USED

### MEGAFLO® GREEN SOCKED SLOTTED DRAIN PIPE

- A wide and flat-shaped panel drainage system, made from recycled HDPE material and wrapped with Bidim Green, prevents soil migration into the drainage system
- Up to 1.6 times faster water drainage compared to 100mm round agi pipe class 1000/SN20, due to its ability to effectively remove excess water with its superior design and increased in-take slot distribution
- Higher compressive strength under traffic loads due to its structural rigidity
- A cost optimised solution compared to conventional drainage methods by offering reduced trench excavation
- Complies with VicRoads Pavement Drain specifications (and all road authority specification codes)



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## PROJECT DESCRIPTION

In 2023, as part of the Victorian Government's road safety initiative, critical infrastructure works were undertaken within the Dandenong network. Several upgrades were implemented to optimise traffic flow and road network efficiency, including the expansion of lanes, construction of a multilane bridge and the establishment of commercial access intersections.

Due to the scale of the project, Geofabrics was enlisted to provide comprehensive support, supplying a wide range of products for various applications, including pavement stabilisation, subsoil drainage and erosion control.

## OUR SOLUTION

Prior to commencing road construction, an inspection of the site conditions was conducted, revealing swampy grounds caused by the presence of groundwater resulting from both short and long-term heavy rainfall. To mitigate this issue, a reliable and effective subsoil drainage system was required.

The Megaflo Green socked slotted drain pipe was chosen for its superior inflow capacity and narrow trench requirements, resulting in less backfill. Additionally, this product met the Victorian Government sustainability procurement guidelines, supporting the use of recycled materials in the construction and maintenance of road networks. Made in Australia from recycled HDPE materials, Megaflo Green drain pipe helps to minimise the environmental impact by reducing waste to landfill, resulting in lower carbon emissions.

A total of 170 rolls of Megaflo Green, spanning 8500m, were installed. Technical information regarding inflow and flow rate testing were provided to the contractor and design engineer for comparisons to 100mm round agi pipe class 1000/SN20, supported with a cost calculator to determine potential project savings.



This was the first time the contractor had used Megaflo Green in a subsoil drainage application, which posed several challenges. To address the uncertainties associated with using a new product and to move away from historical methodologies and habits shaped by years of using round pipes, the contractors developed an installation process. Through the installation of Megaflo Green, both cost savings and sustainability targets were achieved for the project.



**8500m  
Megaflo Green**  
installed

Achieved  
**25% in cost  
savings**



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**GEOFABRICS®**  
Sustainable solutions

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