



CASE STUDY:

DRAINAGE

Narnungga Multi Purpose Sports Pavilion

**ADELAIDE, SOUTH AUSTRALIA
JULY 2017
CLIENT: OUTSIDE IDEAS**

MEGAFLO® PANEL DRAIN SYSTEM

FEATURES

MegaFlo® is a rigid, high-flow velocity panel drain designed for roads and sports fields. It works faster than any other road drainage system, protecting pavements against long-term structural damage. The MegaFlo® drainage system requires only a narrow trench so installation costs are significantly reduced. Because of its stiff structure and high flow velocity there is also less risk of siltation.

BENEFITS

The MegaFlo® system's design simplifies the installation process, significantly reducing costs. It has a high crush resistance and an unmatched drainage response time.

South Australia Cricket Association (SACA) and Adelaide City Council recently collaborated on the redevelopment of Narnungga (Park 25) which will include a new multi-purpose sports pavilion to replace the existing sporting clubhouses, improved cricket and football fields and a floodlit beach sports facility.

One of the biggest issues historically with the football/cricket field had been its undulating surface and poor drainage. This was in part due to the clay type soils typical of this region coupled with poor natural drainage. Therefore one of the most important aspects of the project was ensuring that the drainage was significantly improved to ensure excellent ongoing playing conditions during the wet and dry season for both SACA and the local South Australian Amateur Football league.

A product was required to be laid underneath the entire oval which had enough strength for ongoing construction loads, had excellent drainage qualities but was also cost effective.

As a result, MegaFlo panel drain was chosen for its trafficability, its ability to drain 60% faster than your typical 100 mm round slotted pipe and its ease of installation. It was laid flat and connected using various MegaFlo fittings and then covered with approximately 200 mm of sand. Its strength and shape enabled a trenchless installation, which meant there was no need for gravel backfill and no disposal of trench spoils. This resulted in a significant reduction in installation costs for the client.

> Narnungga Multi Purpose Sports Pavilion – Continued.

Besides the main benefit of using **Megaflo**® over round pipe for this project, other advantages realised were:

- **Megaflo**® laid horizontally can remove water from sports surfaces much quicker than traditional round drainage pipes.
- **Megaflo**®'s larger catchment slots/surface area means an improved infiltration/drawdown rate compared to equivalent round pipe when laid horizontally.
- **Megaflo**®'s high crush strength when laid horizontally enables it to be placed higher up in the construction profile eliminating the need for additional cover soil to spread the load and make up levels.
- Internal supports in the flat pipe construction prevents intrusion of the cover geotextile into the core allowing flow rates to be maintained beneath soil confinement pressure.



ASSET OWNERS: SACA & ADELAIDE CITY COUNCIL
CONTRACTOR: OUTSIDE IDEAS
CONSULTANT: GREENHILL ENGINEERS



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