



## KAYTECH CASE STUDY

# SOLVING WATER INGRESS CHALLENGES WITH A FLODRAIN® SYSTEM: A COST-EFFECTIVE SOLUTION

## GEOSYNTHETICS USED

**Flo-Drain®** : A high-capacity geocomposite drain for efficient subsoil and structural water management.



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## PROJECT DESCRIPTION

A client's property, situated at the bottom of an estate, faced significant challenges related to water ingress. The property was located on a steep slope, making it susceptible to water runoff from the entire estate, coupled with a high water table underground. This combination of factors led to water infiltrating the structure walls of the client's property, posing a serious issue that needed to be addressed promptly and effectively.

## A BETTER SOLUTION

To tackle the water ingress problem effectively, our team implemented a comprehensive solution that involved the installation of the Flo-Drain® system. Given the challenging terrain and high water table, this solution required meticulous planning and execution.

- **System Installation:** The Flo-Drain® system was installed 2.4 meters underground to ensure that water did not flow underneath the drain and into the structure. A 70-meter long trench was excavated across the upper section of the property to accommodate the Flo-Drain®.
- **Filtering Mechanism:** To enhance the performance of the Flo-Drain® system, a 100mm layer of river sand was installed as a secondary filter on the upstream side of the bidim®. This layer effectively separated the in-situ backfill material from the bidim®, preventing any potential clogging issues and ensuring the system's long-term functionality.
- **Local Labour Utilisation:** A practical advantage of the Flo-Drain® system was its ease of installation. Following initial guidance and training from Kaytech, the site team was able to install the system efficiently and in accordance with the required installation procedure, demonstrating the system's suitability for straightforward on-site application.

In conclusion, the implementation of the Flo-Drain® system effectively addressed the water ingress challenges faced by a client at their property. The project showcased the benefits of employing innovative drainage solutions tailored to the specific needs of the terrain while also fostering community engagement and local skill development. By successfully mitigating the water infiltration issue and promoting sustainable practices, this project serves as a model for addressing similar challenges in sloped and water-prone areas.



Connecting the Flo-Drain® to the Kaypipe® using binding wire.



Flo-Drain® installation nearing completion.



Flo-Drain® with outlet in the sump.



Connecting the Flo-Drain® to the trench.

## Did you know?



### Ease of Installation

A local team of six completed the Flo-Drain® installation, demonstrating the system's ease of installation.



### Local Labour

The use of local labour reduced reliance on external installation resources and supported local skills development.



### Rapid Installation

The Flo-Drain® system was installed within one week, demonstrating efficient construction and installation.