

Case Study: Leeufontein Estate

State-of-the-art Wastewater Treatment
Enhances Sustainable Living.

Overview

At the heart of Leeufontein Estate, a residential area known for its opulent homes, there was a pressing need for a modern wastewater treatment solution.

With local regulations demanding an upgrade and the existing soakaway system reaching saturation, Calcamite stepped in with a sustainable, compliant solution.

Requirements/On-site challenges

Due to new municipal regulations and saturation issues the estate's previous septic tank and soakaway system were no longer viable.

A new wastewater treatment plant was imperative to meet regulatory standards and environmental sustainability goals.

Solution

A Bio-mite 4 system was installed, featuring a primary septic tank and a secondary tank outfitted with fixed film plastic media for biomass growth. The aeration process in the tank promotes the breakdown of organic compounds by aerobic bacteria.

The system concludes with a chlorine disinfection stage, ensuring the treated effluent is safe for irrigation purposes.



Client information

Leeufontein Estate, set in the serene environment of Roodeplaat, Gauteng, offers an exclusive living experience, now matched with state-of-the-art wastewater management practices.



Location

Leeufontein, Roodeplaat,
Gauteng



Industry

Individual Household



Plant size

1 000L per day



Project date

August 2020



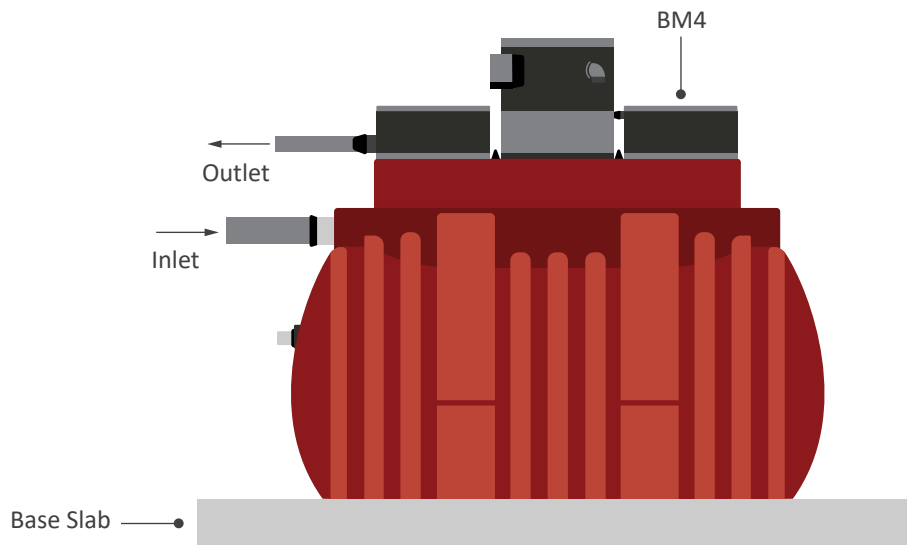
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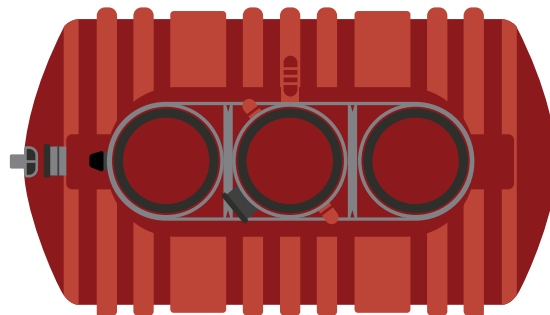
Plant specifications

Side view

ADWF: 0.8m³/day
Plant type: Below ground



Top view



Conclusion

The installation of the Bio-mite 4 system at Leeufontein Estate marks a significant step forward in promoting environmental responsibility in residential areas.