

Stormwater Management Solutions at Mudon: A Multi-Phase Success Story

CASE STUDY

Project

Mudon Community: Arabella 4,
Central Park and Roads

Location

Dubai, UAE

Client

Dubai Holding

Lead Consultant

Parsons

Main Contractor

Wade Adams

Sector

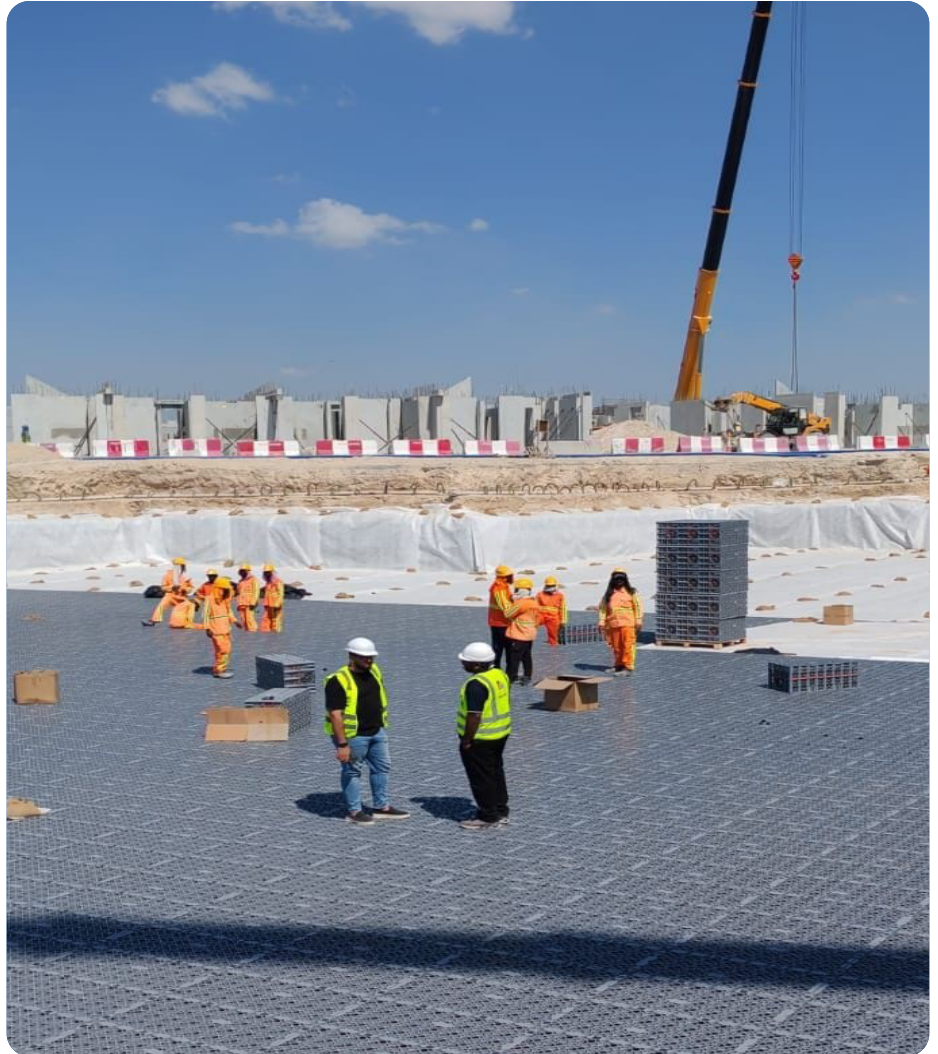
Infrastructure

Products Used

Polystorm (PSM 1),
Polystorm Deep (PSM5)

Application

Detention



Located within the vibrant and family-friendly **Mudon community in Dubailand**, the **Arabella 4 and Central Park & Roads** developments are part of a large-scale masterplan by Dubai Holding. Designed to offer a well-rounded and balanced lifestyle, Mudon features lush green spaces, modern townhouses, and extensive amenities including parks, jogging tracks, schools, and retail centers. Arabella, in particular, is known for its contemporary 3 and 4 bedroom townhouses surrounded

by landscaped gardens and tranquil, expansive private green spaces.

Polypipe Middle East has been a significant partner in delivering advanced stormwater management systems across multiple phases of this development. Our team's comprehensive involvement scope includes **Mudon Arabella 4 (Phases 7 & 8)** and **Mudon Central Park & Roads (Phases 3 & 4)** — each with distinct engineering requirements to satisfy the client ambition for a safe

community and family friendly place and consultant mission to deliver a design that is based on future sustainability goals.

Smart design, solid engineering: our systems helped future-proof one of Dubai's most ambitious communities.

At **Mudon Arabella 4**, we supplied our **Polystorm Deep (PSM5)** system to address complex and challenging ground conditions.

A study indicated that the groundwater table in the area is rising over time due to factors such as weather patterns and irrigation. As a result, **PSM5** was selected as it is the **only solution considered structurally safe and reliable under these conditions**. Working closely with Dubai Holding and Parsons, we proposed a more robust and reliable solution. We also brought in third-party specialist **Environmental Protection Group (EPG)** to verify the stability of the tank, ensuring structural integrity while preserving the required storage volume.

The result: **two tanks** with a **total capacity of 4,742.2 m³**, capable of storing **4,742,200 litres** of stormwater.

From high groundwater to high performance—Polystorm Deep delivered where others couldn't.



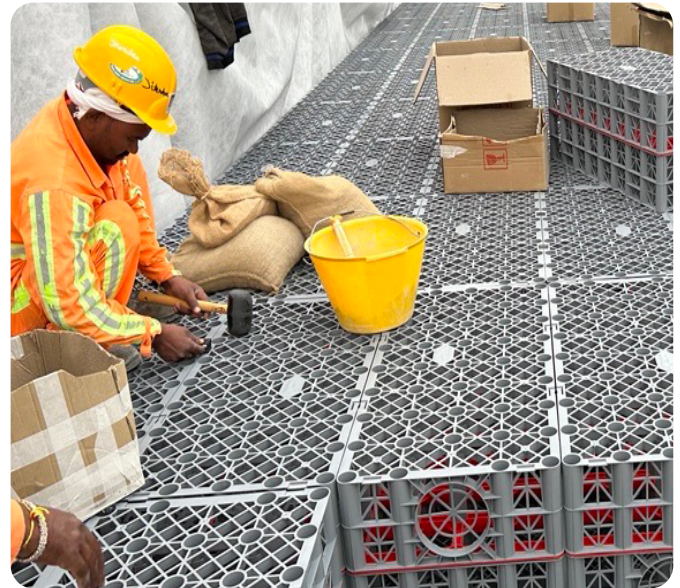
For **Mudon Central Park & Roads**, we delivered a combination of **Polystorm (PSM1)** and **Polystorm Deep (PSM5)** systems. This hybrid approach allowed for both standard and deeper applications across the site, optimizing the design and installation process to suit varying site conditions and load requirements. The **single tank** installed here provides an overall total volume of 7,370 m³, equivalent to **7,370,000 litres** of stormwater storage.

Together, these systems across both projects deliver a **combined stormwater storage capacity of 12,112 m³** — that's **12,112,000 litres** of water managed effectively beneath the surface.

Polypipe Middle East remains the **only manufacturer in the region** capable of offering a **combined shallow and deep geocellular solution**, giving engineers and developers greater flexibility and confidence in managing surface water across diverse site conditions.

Our extensive track record in similar major developments — including **The Valley**, **Serenity**, and **Arabian Ranches 3** — demonstrates our deep expertise and commitment to delivering consistently reliable, high-performance water management systems.

**12 million litres of stormwater,
managed safely and efficiently
beneath the surface.**



Talk to us early in the project

We can help you find the right combination of shallow and deep systems to deliver **considerable project cost savings** while ensuring sustained long-term performance and compliance.



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