

**Project case study
Sainsbury's****Retail**

Product: Aquaflow®
Size/area: 6,700m²
Location: Irvine

Contractors: Dawn Group
Project engineers: Halcrow Yolles
Supplier: Frazer Ltd

Sainsbury's 1,000th store in Irvine, Scotland, has used almost 7,000m² of Formpave's sustainable urban drainage system (SUDS), Aquaflow, to create parking facilities at its main store and at its petrol station.

In its push to be the UK's greenest grocer, Sainsbury's felt that the Irvine site would be the prime location to put its 'respect for the environment' value, which encompasses a commitment to water stewardship and positive water usage, into action.

Store manager, Lynne Nimmo, explains: "We are working to reduce the impact of our operations by using new innovations in the way we build and sustain our stores.

Products like Formpave's Aquaflow system complement our approach and investment into water management.

"It gives us the ability to ensure that any surface water on the car park is put back into the water course at an acceptable rate – and is as clean as possible, achieving a pH neutral level – while while reducing standing water and making the car park safer for shoppers."



Due to ground conditions on site being unsuitable for infiltration, an attenuated Aquaflow system has been installed in the 501 parking bays across the main store car park and the parking facility at the store's petrol station. This system limits the discharge rate from site to 16 litres per second, meeting the requirements set by the Scottish Environment Protection Agency (SEPA) and the local authority. Surface water discharge is regulated by the SEPA as part of the Water Environment (Controlled Activities) (Scotland) Regulations 2011.

Even surface run-off from the access aisles, formed from dense bitumen macadam (DBM), drains onto the Aquaflow and into the system's sub-base.

The Aquaflow system was recommended to main contractors, Dawn Group, by project engineers, Halcrow Yolles, and supplied by Frazer Ltd, specialists in below ground drainage products.

Thomas Ward of Halcrow Yolles said: "We have worked with Formpave on a number of projects across the UK.

"The team is experienced, knowledgeable and offers a high quality service. For the Irvine store, we worked in partnership with Formpave's in-house design team to create a surfacing solution that met stringent SEPA and LA legislation. We then advised the contractors, Dawn Group, that the Aquaflow system would best meet the requirements of the site."



Formpave – innovators in permeable paving for over 20 years

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Lynne Nimmo | Store Manager, Sainsbury's, Irvine store