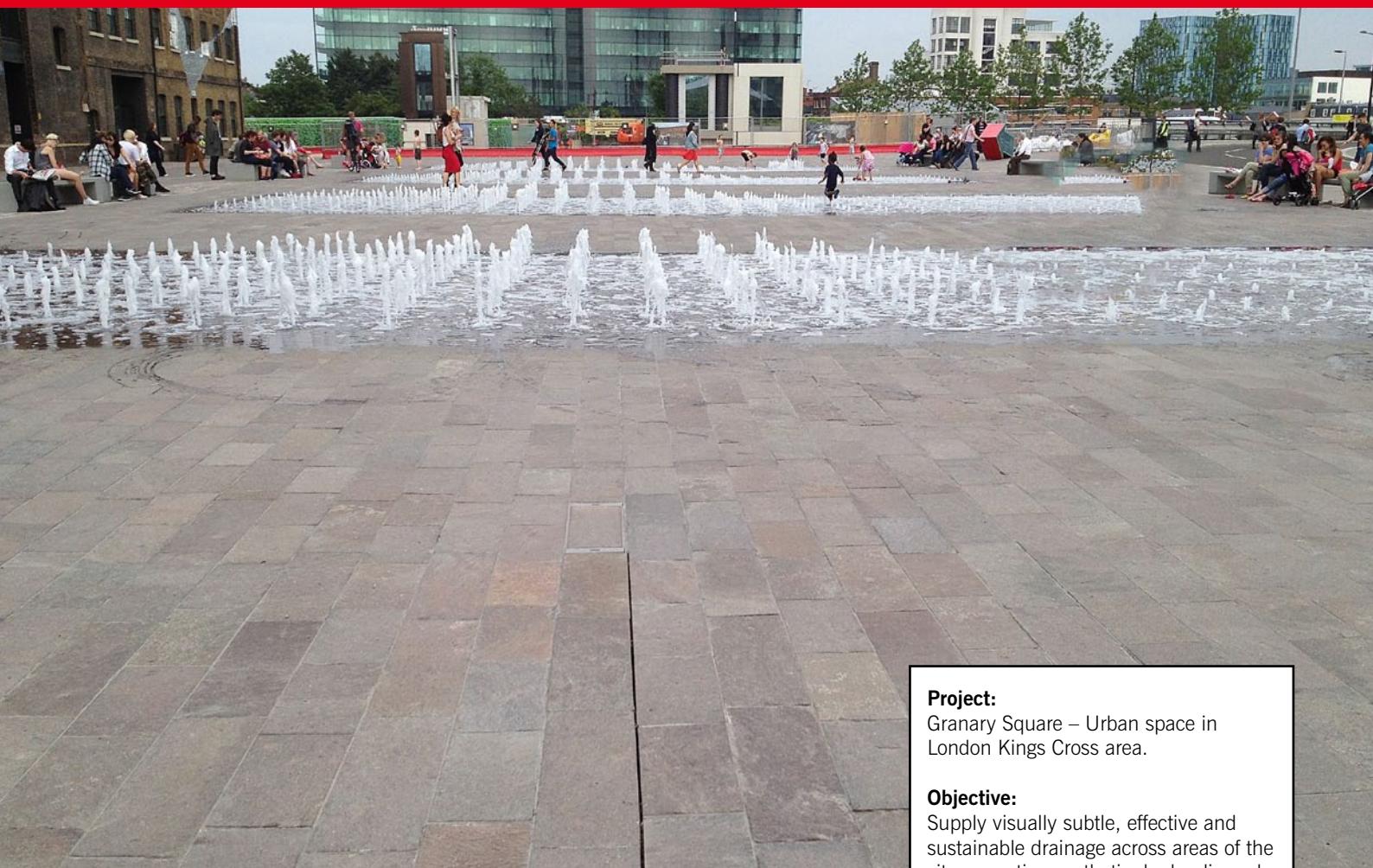


The Granary Square project at London's Kings Cross

The successful Granary Square project at Kings Cross uses ACO discrete, sustainable drainage system.



Opened in June 2012, Granary Square in London Kings Cross is a major milestone in the regeneration of the area. This prestigious project has transformed the site into one of the largest urban spaces of its type across Europe and it has been carefully developed with sensitivity to its historic nature. The cleverly designed open space is intended for fun and community as well as for hosting a wide variety of events and activities. At its centre is a large surface fountain consisting of 1080 individual jets of dancing water – adding to the beauty and fun of the development while keeping a water theme link to its history as a canal basin.

ACO supplied linear drainage for the project to provide efficient and sustainable surface water management for impermeable areas across the site while meeting the aesthetic and engineering demands of its features.

ACO Scope of supply

Peter Brett Associates delivered the surface water drainage system design with BAM Nuttall providing the installation, utilising the [ACO MultiDrain Brickslot](#) channel drainage system for the landscaped area. The system was used extensively to provide drainage channels across

key areas of the site, including the building entrances, steps, walkways and the central fountain area.

Used in both galvanised and stainless steel finishes across the project, the 10mm off-set drainage inlet on the [ACO Brickslot](#) made a visually subtle solution. Utilising 100mm and 150mm MultiDrain channels, the system provides a continuous slot drainage solution with high hydraulic efficiency to enable rapid removal of surface water from the impermeable pavement areas throughout Granary Square.

Project:

Granary Square – Urban space in London Kings Cross area.

Objective:

Supply visually subtle, effective and sustainable drainage across areas of the site – meeting aesthetic, hydraulic and loading requirements. Provide low profile slot drainage for invisible installation below paving in fountain area.

Solution:

ACO products to facilitate surface water management including [MultiDrain Brickslot channel drainage system](#) with 100mm and 150mm channels utilising galvanised and stainless steel gratings.

Results:

1000 metres of [ACO products](#) were provided in various forms including a bespoke reduced height version of [Brickslot](#) developed to meet specific client requirements for the area around the fountain. The project reached a successful conclusion with sustainable and rapid water drainage for impermeable areas across the Granary Square site.

Alongside the discrete [Brickslot grating](#), MultiDrain also has a wide range of additional grating options and designs to suit a wide range of applications and loads – from slotted or perforated galvanised steel for load class A 15 through to solid and slotted ductile iron covers for up to load class D 400 – making this versatile product ideal for everything from pedestrian footpaths to vehicle parking areas. In areas designated for parking and delivery within Granary Square and the University Buildings traditional ductile iron and composite gratings were used to accommodate a variety of vehicle weights including HGV.

As with other [ACO products](#), [ACO MultiDrain](#) provides a reliable and environmentally sound solution. It is constructed from Vienite, a new polymer based recycled material that contains post-consumer waste previously destined for landfill. The material is four times stronger than traditional concrete, has a low water absorption rate and can be itself recycled at the end of its operational life.

Subtle, secure, sustainable

The [ACO MultiDrain Brickslot](#) products supplied for the Granary Square project met both functional and aesthetic requirements. The unobtrusive nature of the system helped keep the authentic brick and stone surfacing of the square in keeping with the historical feel of the site. Once installed, the [Brickslot](#) system is totally secure and not vulnerable to vandalism or loose gratings – making it ideal for this open, municipal area.

Having a system that is sustainable and easy to maintain is important. Blockage to the drainage system is minimised with a tapering entrance to the channel which is narrower at the surface to prevent debris that could block the drain from

entering the system. The system is punctuated with a series of access points providing openings to the full width of the [MultiDrain](#) channels for the easy, periodic removal of silt and general system maintenance. To maintain the security and discreet nature of the system, these points are camouflaged by the surface stone.

Meeting bespoke project requirements

For the remarkable fountain at the centre of the Square a bespoke version of [Brickslot](#) was required to keep the traditional aesthetics of the space by ensuring drainage was not visible from the surface of the Square. Although the fountain area appears to be level with the adjacent area, the paving surrounding the installation is slightly higher to prevent overflow of water from the fountain boundary. [ACO](#) created a version of [Brickslot](#) with just a 40mm profile, instead of the standard 105mm, to enable the natural stone paving to cover the drainage slot. Water is channelled into the drainage system through an open joint between the covering slabs. This renders the drainage system invisible to passers-by while enabling the paving to be laid at variations in height for effective [surface water management](#) for the surrounding area of the fountain.



ACO's MultiDrain Brickslot was chosen for the Granary Square project as it met both functional and aesthetic requirements.

A successful quality project

A lot of the engineering challenges for the drainage system in Granary Square were based on keeping the authentic look and feel of the site and adding in the impressive central fountain feature. In total, 1000m of [ACO products](#) were applied across the development, including 300m of bespoke stainless steel [Brickslot](#), 600m of standard galvanised [Brickslot](#), and 100m of composite and ductile iron gratings, all used with [ACO MultiDrain MD channels](#).

The [ACO MultiDrain Brickslot](#) products are easy to handle and install on site. The project reflected the assured quality and support provided from the [ACO](#) brand which offers a broad range of [surface water management products](#) and, as with Granary Square, works closely with clients to ensure every aspect of project requirements can be met; if necessary with the development of bespoke products.

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