

Case Study

# GLA Building



## The Challenge:

To develop a replacement drainage system with the capability to remove all standing water from the perimeter of one of London's most iconic public buildings.

## The Approach:

The installation of a mains connected, higher capacity channel drainage system pre-formed to exactly match the faceted façade of the building.



## The Product:

A modular-based, full stainless steel system manufactured in unique wide 'v' sections and fitted with lockable Heelsafe perforated gratings.

# Greater London Authority Building

## New drainage system cures City Hall of standing water

A new drainage system developed by ACO Building Drainage has been installed at London's City Hall, curing the building of a standing water problem around its perimeter close to the main entrance. Manufactured entirely from stainless steel, the channel drainage system has been designed to run exactly parallel to the faceted glass façade, allowing it to be installed close to the structure and complementing the striking visual qualities of the building and its surroundings.

Located on the south bank of the Thames, alongside the new More London development, City Hall is one of the capital's most symbolically important buildings. City Hall's energy efficient, sphere-like steel and glass form is designed to minimise perimeter surface area, reducing heat loss and heat gain. Completed in 2001, the building is home to the Mayor of London, the London Assembly and the GLA.

A narrow slot drainage system was originally installed around the entire perimeter of City Hall to manage surface run-off from the granite slabwork that surrounds the building. The collected water drained directly into the sub-soil, percolating through to the water table. However, due to City Hall's proximity to the Thames, tidal action and high ground water levels often meant that the soil was saturated, restricting the efficiency of the drainage mechanism and, in certain cases, causing the system to overflow.

ACO Building Drainage, recognised that rather than removing and upgrading the whole system the problem could be overcome by increasing capacity along a 35 metre section of the perimeter (approximately one third of the perimeter total) and by installing a series of direct connections to the existing mains drainage system.

*"The close working relationship established from the outset between ourselves and ACO's team, gave us the assurance that the system would operate effectively under all soil conditions and, critically, would take into consideration the very sensitive visual environment around this important building,"* says David O'Sullivan from groundworks contractor, McNicholas Construction. *"It was also vital that the system be easy to install to ensure minimal disruption to the main entrance."*

The new system was manufactured in modular form so that it could be readily assembled on site. Each section is made up from two 1500mm straight runs of 155mm wide grade 304 stainless steel channel. These are welded together at an angle of 15 degrees to form a wide 'V' shape that fits exactly to the angle of the glazed panels of the building. The flanged ends of each section are precision cut to form the same angle when bolted together.

To ensure pedestrian safety, the installed channel is fitted with a Heelsafe perforated grating that is locked in place for additional security. Two 100mm outlets connect sump sections within the new channel to the site's existing rainwater manholes.

For full details of ACO Building Drainage's bespoke design services, contact 01462 816666, email [buildingdrainage@aco.co.uk](mailto:buildingdrainage@aco.co.uk) or visit [www.acobuildingdrainage.co.uk](http://www.acobuildingdrainage.co.uk).

## In Brief:

- One of the most prestigious, landmark structures in the centre of London.
- Faceted glass and steel building, home to the Mayor of London and the London Assembly.
- 35 metre channel drainage system removes all surface water from the critical main entrance area, complementing the sensitive architectural environment.
- Perimeter channel runs exactly parallel to the external walls of the building.

