

CASE STUDY

Leak Detection

Iconic public museum in London

Protecting sensitive equipment and priceless museum collections



Providing effective leak detection for the basement area of an iconic public museum in central London housing a vast collection of artefacts from around the world.

The background

This landmark museum houses artefacts from cultures across the globe, from the dawn of history to the present day. The museum welcomes visitors from across the world.

Located in central London, UK, the basement floors of the museum provide state-of-the-art laboratory facilities with areas for conservation and scientific research and world-class collections.

The challenge

The basement levels were at risk from water ingress from groundwater as well as water pipework running above some of the critical areas.

A reliable, early warning leak detection system was needed to ensure that the large basement areas were protected from the possibility of leaking pipework and importantly to protect against water ingress through ground water into the underground basement levels.

The system also needed to integrate into the building management system (BMS).

A highly sensitive solution needed to be installed to protect the priceless museum collections and sensitive equipment.

A range of zonal systems was needed to provide individual zone early warning alarms if the slightest trace of water was detected.

The solution – a tailored Floodline® leak detection system

Andel's Floodline® leak detection system is a flexible, future-proof, zonal and distance measuring leak detection system.

A combination of Floodline® 128-Zone and Multi-Zone control panels were installed in conjunction with high-sensitivity water leak detection cable and pipe-in-pipe sensors.

Because the main challenge was water ingress from groundwater into three basement levels, rather than providing a sensor running around the entire footprint of each level, equidistant access hatches were cut into the secant walls, around the entire outer perimeter of each level, so that sensors could be located between the water proofing and the walls of the basement.

Short lengths of high-sensitivity water leak detection cable were installed at each access point to provide instant warning of even the smallest ingress of water.

Each control panel was integrated into the BMS via Modbus and volt free contact output relays.



For more information:

+44 (0)1484 845 000 or

help@andel.co.uk

www.andel.co.uk



Making water sustainable for a cleaner and safer environment.

Proactive approach

- Through Andel's proactive and cost-effective approach, many M&E contractors in the UK look to Andel to design, plan and carry out leak detection installations.
- Prior to installation, Andel's chosen Floodline® equipment was supplied to the customer to demonstrate the superior build-quality and functionality and to allow the customer to see and test the equipment first-hand.
- The customer was provided with all relevant technical specifications and user information.
- The project involved detailed assessment, design and careful planning with the contractor.
- Bespoke installation kits were manufactured in advance for each part of the installation which was delivered over a period of a year, working closely with the main contractor.



The result

An effective water leak detection installation in the basement levels of the museum.

Installing Andel's Floodline® leak detection systems now means the museum has:

- A cost-effective, reliable and low-maintenance leak detection system.
- A bespoke, tailored solution to protect precious museum artifacts and equipment from the risks of water leaks from pipework and water ingress from groundwater.
- Peace of mind with a leak detection system that will give early warning alarms and onward communication, allowing for evasive action to be taken to avoid any damage.
- A future-proof solution with a system where additional zones, sensors and upgrades can be added easily and cost effectively.

For more information:

☎ +44 (0)1484 845 000 or

✉ help@andel.co.uk

www.andel.co.uk



What the client said

"In my experience, Andel have always done their homework and delivered innovative leak detection solutions. This project for the British Museum was no exception, they delivered a robust leak detection installation with excellent planning and execution. Andel has continued to regularly maintain the system."

Project Manager, ME Contractor

Museums, galleries and heritage buildings using Andel equipment include:

Victoria and Albert Museum, British Museum, UK Houses of Parliament, Windsor Castle Library, Lincoln's Inn Library, Science Museum and Tate Britain.

Andel systems are also chosen as the most reliable and cost-effective option by many of the world's leading blue-chip organisations.



Making water sustainable for a cleaner and safer environment.