

# PCA Case Study

## Flood Remediation

### THE PROJECT

A combination of resilience measures for a flood-prone property, built on the banks of the River Severn in Worcester.

### THE CHALLENGE

The owner was determined not to sell the home he loved, but the property was constantly flooding. Severe flooding in 2007 caused water to rise beyond the ground floor window sills. Prior to this the property had been undergoing renovation because the original floor slab had cracked and the damp proof membrane failed. There was constant water ingress into the ground floor whenever water levels rose or during heavy rain.

### THE SOLUTION

A system was specified that comprised cavity drain membranes in conjunction with pumps and channel conduit. Water entering from behind the membrane would drain into sumps fitted into the floor. Flushing points were incorporated so the system could be sanitised if necessary following ingress of contaminated water.

Two pumps were installed in each sump to guard against mechanical failure and to provide extra capacity if needed. Audible and visual high water alarms were also fitted in case of power failure, when a stand-by generator could be used to power the system.

In addition external steel flood barriers were fitted to ground floor windows and doors and the pathway adjacent to the property.

### THE RESULT

The system was tested even before renovation works were completed, when heavy rain caused a neighbouring property to flood and water to seep through the party wall. All water remained behind the membrane and was pumped away while the property remained dry.



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The Property Care Association (PCA) is a trade association that represents professional specialist contractors, consultants, surveyors and manufacturers in the field of structural waterproofing, wood preservation, damp-proofing, flood remediation and structural maintenance. Its members preserve and protect buildings across the UK.

Case study produced with thanks to Triton Chemical Manufacturing Co Ltd.

