

## BASEMENT EXTENSION TO A GRADE 2 LISTED BUILDING

Adding a 5,000 sq/ft Basement Extension to a Listed London Club

### THE CASTLE CLUB, FULHAM

Built in 1855 as an Elizabethan School for local children, the historic and landmark Castle Club has also been a children's hospital, youth club and private residence in its long history.

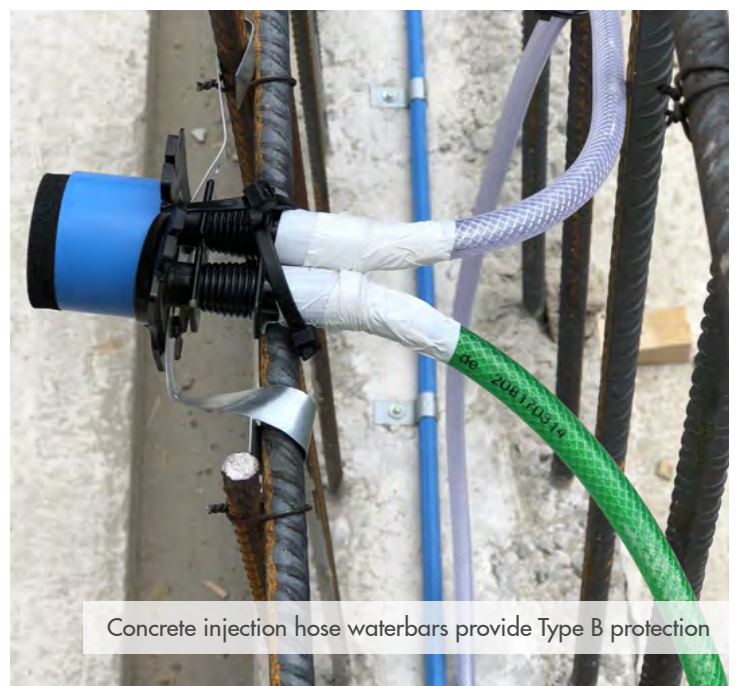
Since being acquired by property developers Thackeray Group however, the Grade II Listed building is now to be converted and extended as a specialist care home.

The work includes not only the restoration of the historic gothic structure, but also the building of a modern four-storey extension to the rear, including a 5,000 sq/ft basement.

### PROJECT SCOPE

Newton worked with UK super-prime construction experts [Knowles Construction](#) as the main contractor, alongside Thackeray Group and Darling Associates Architects.

The 5,000 sq/ft basement, linked to the existing structure, was excavated using contiguous piles, a raft foundation, and perimeter RC liner walls and retaining walls for the structure, which needed to be completely dry as per [BS 8102:2022](#).



Concrete injection hose waterbars provide Type B protection





The extensive basement excavation was dug with contiguous piles to create the structure



The new basement spans the existing Listed structure on two sides, as well as being in close proximity to a road



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### THE SOLUTION

As the designers of the waterproofing solution, [Newton's team](#) proposed a combination of Type B and C waterproofing systems as per BS 8102:2022 to deliver a dry environment.

Firstly, Type B products from the [Newton HydroTank System](#) were used to ensure that the concrete structure is itself integrally waterproof. The first of step was to install the resin injection waterbar, [HydroTank 302 Injection Hose](#), to all construction joints. With ports every 10 metres, the hose is injected with a [specialist resin](#) after curing, which penetrates into the concrete to permanently seal any gaps and voids.

Whilst no additional 'waterproofing admixture' is required, [HydroTank 104 Super](#), an active crystalline coating, was applied internally to protect against the movement of moisture through capillaries and hairline cracks in the concrete.

Pipe and service entries were also protected with specialist [Hauff-Technik press seals](#) to seal any structural penetrations.

Lastly, for complete peace of mind, the [Newton CDM System](#) provided the internal Type C waterproofing solution, and the most failsafe and reliable form of waterproofing protection.

The maintainable and effective system combines BBA approved [cavity drain membranes](#) with bespoke sump and pump configurations, backup systems, telemetry and ancillary options to create a system that depressurises ingressing water before safely managing and removing it from the structure.

### THE RESULT

The Newton and Knowles partnership has helped to deliver this beautiful Listed project, as well as a new dry basement.

We are proud to have been involved in the regeneration of this rich heritage site, turning it into a building that will continue to be used for generations to come.







The modern extension will provide the rooms to deliver a top quality care home in the heart of London



The work by Newton and Knowles will help deliver the Castle Club back to its former glory



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## THE PRODUCTS

- [HydroTank 302 Injection Hose](#) - Resin Injection Hose Waterbar
- [HydroCoat 104 Super](#) - Crystalline Waterproofing of Concrete
- [Hauff-Technik Press Seals](#) - Sealing New or Existing Pipe Entries
- [CDM System Membranes](#) - Cavity Drain Membrane for Basements
- [CDM BaseDrain & FloorDrain](#) - Drainage channels for the Newton CDM System
- [CDM Fibran XPS 500-C](#) - 50mm closed-cell insulation board & CDM BaseDrain spacer
- [Titan-Pro Pump System](#) - Pumping system for cavity drain waterproofing systems
- [Victron Inverters](#) - Pumping Power Interruption System



## THE CONTRACTOR

Knowles Construction

# Knowles

## Newton Specialist Contractors

We recommend that our systems are installed by one of our nationwide network of Specialist Basement Contractors (NSBCs). Trained by us, NSBCs offer a full guarantee on the design and installation, and can act as Waterproofing Design Specialists.

