



## New Domestic Basement, North West London Waterproofing a Large Basement Office in Golders Green

### The Project

Newton Specialist Contractor [Arti Construction](#) got involved at an early stage in this new-build project in Golders Green, North West London, to construct an office basement and 4-storey dwelling containing 7 new flats.

Working alongside Landmark Architecture and Barnard Associates structural engineers, Arti were faced with the challenges of excavating and waterproofing a 330m<sup>2</sup> new basement at 3.5 metres deep, whilst also coping with very restricted site access and a tight timescale.

### The Solution

Arti Construction have been building, renovating, converting and remodelling properties in London since 2002, so they soon got the site up and running with a 40-tonne piling rig installing 267 secant piles. Once a total of 1,700 cubic metres of earth and clay were removed, the waterproofing could begin.

As a completely dry office environment was required, Arti chose an external Type A system with an integrally waterproofing Type B concrete structure. They began with [Newton 403 HydroBond](#) beneath the slab and against the secant piles. The Type A solution was completed with the application of a [Newton 104](#) crystalline solution to the tops of the piles, and [Newton 314-BG](#) bentonite granules to seal around the pile caps.

To provide a watertight Type B concrete structure, Arti then installed [Newton 315 Polymer-Waterbar](#) to all construction joints in the concrete slab and walls.

The waterproofing will eventually be finished with an internal [Newton CDM System](#) once the project is ready for Arti Construction to return to site.

### The Result

Despite facing many challenges, including a tight timescale, extremely restricted access, and Covid 19 social distancing rules, Arti Construction delivered the impeccable Type A and B waterproofing to the agreed project programme.



Arti Construction installed 267 secant piles on the site.



403 HydroBond installed beneath the concrete slab.



"At Arti Construction we strive to achieve as perfect a service as possible, as well as maintaining and growing our reputation for perfection within the construction industry.

Working with Newton waterproofing products fits perfectly with this aim, as they too strive to deliver the highest levels of service. As a result, we are confident that our clients will see the benefit of choosing us to execute their project."

Lucian Ardeleanu, Managing Director  
Arti Construction Ltd.

## The Products

### 104

A crystalline waterproofing solution that is applied to the surface of cured concrete, and penetrates deep into the substrate to provide in-depth protection against the movement of moisture through the capillaries and hairline cracks.

### 314-BG BENTONITE GRANULES

Naturally occurring sodium bentonite that swells on contact with water up to 15 times its initial size, forming a dense, water impermeable paste that is ideal for detailing.

### 315 POLYMER-WATERBAR

BDA-certified, high performance hydrophilic waterbar which swells up to 9 times its original size in contact with water. Ideal for sealing structures against water leaks to both cast-in-place concrete and precast construction joints.

### 403 HYDROBOND

Newton's flagship, BDA-certified, self-healing Type A external membrane. The product provides a complete waterproof envelope to the structure, and is suitable for all below ground and earth-retained structures from domestic basements to the largest civil engineering projects.

### CDM SYSTEM

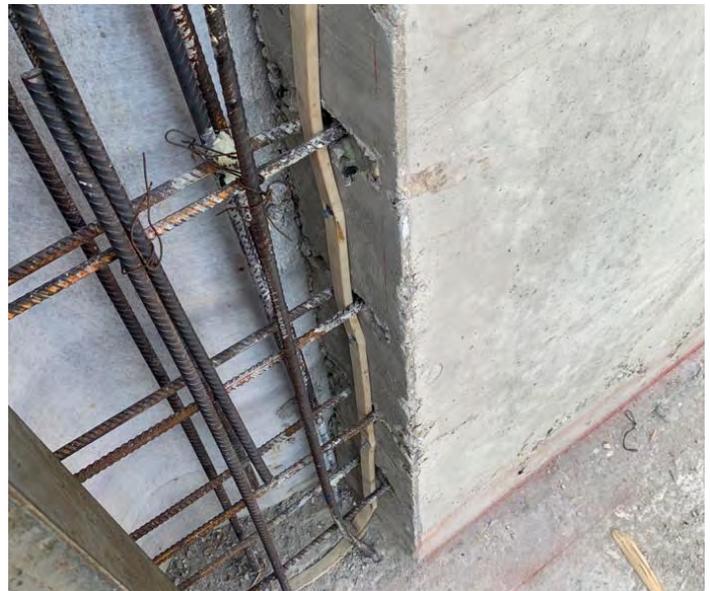
The most reliable waterproofing solution for any space below ground, the Newton CDM System combines decades of experience with the highest quality, BBA certified membranes from Newton System 500, bespoke sump and pump configurations, back-up systems, telemetry and ancillaries.

## Newton Specialist Basement Contractors

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



With the slab poured, 403 HydroBond continued up the walls.



315 Polymer-Waterbar used to seal concrete construction joints.



A pristine concrete basement with two types of waterproofing complete.

