

BASEMENT WATERPROOFING CASE STUDY Charts Edge, Kent

NEW BUILD BASEMENT IN A LISTED MANOR HOUSE

Protected internally with Newton System 500 and externally with Newton System 400

History

This expansive new build basement was designed to become an integral part of a historic manor house situated near Sevenoaks in Kent. The architect and structural engineer wanting a robust and guaranteed basement waterproofing solution commissioned the services of Newton Specialist Basement Contractor Gulliver Timber Treatments.

Methodology

This new build block structure was built of a reinforced concrete raft and from the initial design discussions the use of a primary and secondary basement waterproofing solution was requested from the client. As such Gulliver Timber Treatments prior to the new raft being poured utilised the Newton 410 Geodrain as a drained waterproofing layer underneath the slab. Newton 902 Primer was then painted in two coats on the vertical walls as a Type A waterproofing protection then the Newton 410 was affixed vertically and lapped to the 410 Geodrain underneath the slab. Adjacent to the footings two 110 perforated land drains were installed wrapped in Newton Geofabric to act as a filtration layer for silts and fines that may be intercepted into the channel. The secondary system installed was the internal Newton System 500 drained cavity system. Newton 508 membrane was curtain hung to the inner face of the block work walls. At the base of the block work wall where it met the raft Newton Basedrain was installed in a complete perimeter ring main which acted as a conduit in the unlikely event of water moving through the structure this would move it quickly out to the open elevation present within the new build basement. The floor build was then 50mm of close cell insulation Newton 508 on top with under floor heating and screed.

Benefits

The installation of the dual Newton System 400 and System 500 means that the structure itself is kept dry and the external drained layer moves any water away from the structure before it comes into contact with the retaining walls. The Newton System 500 is the guaranteed solution and Gulliver Timber Treatments are able to offer full PI on design and offer the peace of mind to the main contractor and client with insured backed guarantees plus. The internal Basedrain conduit offers the ability to maintain the waterproofing system which is a mandatory design requirement in accordance with BS8102:2009. The Systems were installed with precision and speed and the contract was able to move forward at a pace without the need for drying out times or suffering delays from adverse weather conditions.

NSBC Contractor: Gulliver Timber Treatments



New build basement designed in a listed manor house



Newton 902 Primer applied prior to 410 membrane



Newton 410 Geodrain applied prior to back fill



Newton System 500 being applied to the internal blockwork



Newton System 400 external and Newton System 500 internal