

CASE STUDY

CCL

CAST CONTRACTING
LIMITED

The British Museum

The British Museums' new World Conservation & Exhibitions Centre required a comprehensive waterproofing solution to protect priceless artefacts at their £135m storage facilities in London.



THE CHALLENGE

The British Museum is an iconic visitor attraction in the heart of London. Its new World Conservation & Exhibition Centre provides world class facilities for visitors & researchers. RIW Specialist Waterproofing Contractor Cast Contracting (CCL)

were commissioned by Careys Plc to install a comprehensive waterproofing solution into the £135 million, four story basement project, reaching 30 metres into the saturated London Clay, to protect the priceless artefacts from damp and water ingress.



THE SOLUTION

RIW's range of waterproofing products were specified for this project. CCL installed RIW Cementseal cementitious waterproof coating to pile heads, top of concrete ground beams and secant piles whilst RIW Cementfill FC was used to repair and make good the side of piles, prior to the application of RIW Cementseal coating.

As the substructure was raised, CCL installed 5000m² RIW R7 Cavity Drain to all perimeter walls. The ground bearing slab consumed close to 2,000m² of RIW's Structureseal, pre-applied Sodium Bentonite System & RIW's R20 membrane.

RIW Structureseal is a waterproofing composite laid beneath the basement slab, directly onto the subsoil. The material contains bentonite clay which reacts with the groundwater to swell up and create a totally impervious layer beneath the reinforced concrete.

The Cavity Drain system connected to RIW's Aquachannel located at the wall/floor junctions of each basement slab level, allowing water to cascade down to the lower basement level and drain to drainage outlets connecting to suitable sump pump systems.

To allow for future maintenance of the system, RIW Jetting eyes/inspection ports were also installed within the channel. RIW Overtape was used to seal the cavity drain membrane at wall/floor; wall/ceiling junctions and around service pipe penetrations.

To complete the robust waterproofing solution, RIW LAC was installed to the top of capping beams linking from RIW Structureseal via RIW's Sheetseal 226/sealing compound link detail and vertically to concrete walls up to ground level and protected with RIW Double Drain drainage sheet.



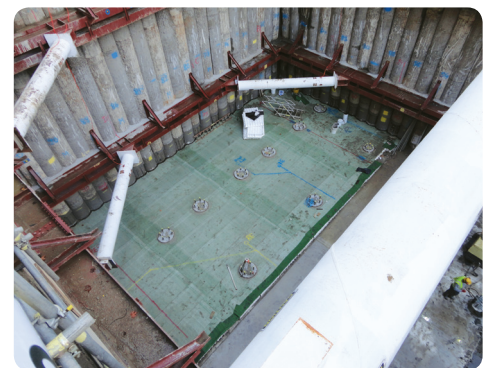
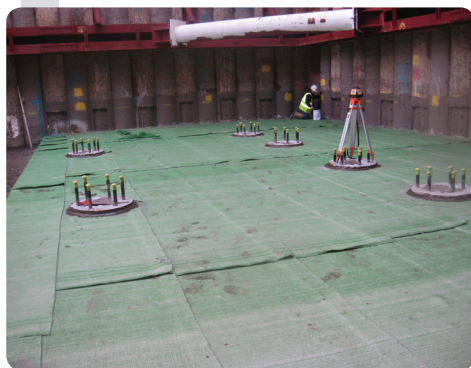
Cast Contracting Ltd

01256 763100 info@ccl-ltd.net www.ccl-ltd.net

Lodge Farm Hook Road North Warnborough Hook Hampshire RG29 1HA

PEACE OF MIND
GUARANTEED

THE SOLUTION



Design: Rogers Stirk Harbour & Partners
Main Contractor: Careys PLC

CLIENT TESTIMONIAL:

“CCL are approved applicators for RIW and have extensive experience installing our range of waterproofing systems. For the works at the British Museum, the RIW Cavity Drain system was rigorously tested by Carey’s to prove the effectiveness and sealing properties of the system. This involved running hoses over night at entry points at the top of the wall membrane.”

Testing ensured that water flowed down within the cavity membrane on the walls, was collected by the Aquachannels & then flowed into the sump chambers. With priceless artefacts at stake, it was imperative that a comprehensive waterproofing strategy from RIW was employed.”

Martin Radford, Business Manager, RIW

PRODUCTS SPECIFIED

RIW Cementseal	RIW R20 Cavity Drain
RIW Cementfill FC	RIW Overtape
RIW Cementseal primer	RIW Aquachannel
RIW Cementfill HB	RIW Doubledrain
RIW Structureseal	RIW Sealing Compound
RIW Sheetseal 226	RIW Granules
RIW R7 Cavity Drain	RIW LAC