



PROJECT CASE STUDY

Blackburn Central High School

- Architect: Nicholas Hare Architects
- Contractor: Balfour Beatty



Nicholas Hare asked RIW to look at a robust waterproofing strategy for Blackburn Central High School, a new secondary school for 960 pupils.

The Challenge

The concrete retaining wall on the site was supplemented with a series of concrete pile caps, inter-connected by a network of ground beams. These foundations formed the base for a concrete slab across the entire site.

The network of concrete foundations presented a difficult proposition for a traditional polythene damp proof membrane, as the complexity of the details potentially increased the risk of failure. The waterproofing solution needed to display excellent durability throughout the construction process as well as achieving robust details. The system also had to envelope the perimeter ground beams and pile caps, rising vertically within the external cavity wall construction, terminating at cavity tray level, thereby completing the system. By involving RIW early in the design process, the waterproofing strategy could address all of the design and construction team's concerns.

The Solution

RIW Structureseal provided the answer to the first part of the challenge. This highly durable composite geotextile membrane formed a waterproof seal, providing the required continuity to terminate just below ground level at the building perimeters. Extending the waterproofing to cavity tray level required a fully compatible membrane, ideally suited to the changing substrate conditions. RIW recommended RIW Sheetseal 226 self adhesive sheet membrane, selected for its ability to bridge numerous interfaces in the construction including steel, concrete and a lightweight metsec frame faced with cement based boards. RIW Sheetseal 226 accommodated the differing movement capabilities of a

combination of modern building techniques and materials with ease.

Featured Products

RIW Structureseal

A bentonite sheet waterproofing composite of high swelling Sodium Bentonite, encapsulated between a non-woven and woven geotextile. Typically used for:

- Basement tanking
- Sub-structures
- Boundary line construction
- Retaining walls
- Under slab ground floor DPM

RIW Sheetseal 226

A cold applied, high density polyethylene film, coated with a bitumen/rubber self adhesive layer with a removable reinforced silicone paper. Particularly used where large unobstructed areas are to be waterproofed:

- Basement tanking (External & Internal)
- Retaining walls
- Ground floor DPM
- Flat Roofs as a robust self adhesive vapour control layer.

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