



## CASE STUDY - FLAT ROOF REFURBISHMENT

# KING GEORGE V COLLEGE, SOUTHPORT SPORTS HALL

### CLIENT:

KGV College

### CONSULTANT:

E3 Cube, Liverpool

SIZE: 800m<sup>2</sup>

### VALUE RANGE:

£250-500,000

When the flat roof covering to the Sports Hall at King George V Sixth Form College in Southport reached the end of its useful life, BBR Roofing Ltd were appointed to carry out the refurbishment works. The building has flat roofs at two levels, but the higher level main roof over the sports area had a tile covered mansard which also required replacement, along with a hidden perimeter gutter to the base of the mansard.

The refurbishment works, specified by Liverpool based consultant E3 Cube, therefore necessitated the complete renovation of the external envelope down to, and including the perimeter gutter.

A Garland bituminous membrane system was specified for the flat areas and the gutter lining. The roof areas incorporated 120mm thermal insulation, with drainer boards to the edges to enhance water run-off from the roofs.

The old clay tiling was removed from the mansards and replaced with Marley Eternit roof tiles on a lightweight underlay. 300mm quilt insulation applied internally completed the thermal envelope, prior to the replacement of the suspended ceiling.

### SPECIFICATION;

#### Flat roofs;

- ◇ Garland Bituminous Membrane
- ◇ 120mm thermal insulation
- ◇ Perimeter drainer boards

#### Mansards;

- ◇ Marley Eternit Tiles
- ◇ Timber Battens
- ◇ Marley Light-weight underlay
- ◇ 300mm Quilt insulation

#### Perimeter gutter;

- ◇ Garland Bituminous Membrane
- ◇ Plywood base

#### Internal works;

- ◇ Suspended ceiling

