

Greenfields
Maidenhead, Berkshire

Sector: Social Housing
Medium Rise
Refurbishment

Before refurbishment



After refurbishment



After refurbishment



Client:
Maidenhead & District Housing
Association (Housing Solutions)

Building Type:
Crosswall Maisonettes

Project Size:
78 Properties / 4600m²

Product:
External Wall Insulation &
Render Finish

Project Background:

Maidenhead and District Housing Association was formed in 1995 as a result of a large scale voluntary housing stock transfer from the Royal Borough of Windsor and Maidenhead. In 2000 the association set up its own group structure known as Housing Solutions; which now owns, manages and maintains more than 6,000 homes.

As part of their regeneration programme Housing Solutions had a £1million budget for the Greenfields area of Maidenhead which included 30% from the Carbon Emissions Reduction Target (CERT) funding scheme. The programme included the external refurbishment of seven blocks of maisonettes to improve their thermal performance and give their appearance a much needed facelift.

Client Requirements:

The maisonettes were constructed using a crosswall building method with brick cavity gable walls and timber studwork in-fill walls between floors. The poorly insulated front and rear walls had moisture ingress resulting in rotten studwork in many locations. Housing Solutions wanted to specify an external wall insulation system which would solve all the problems that had arisen from the structural survey.

Design Solution:

The solution was to remove the existing timber external facade on the front and rear elevations, and then make repairs to the

timber studwork. New 18mm thick plywood sheathing board was then installed before the Structerm "High Build" External Wall Insulation (EWI) system.

The EWI consisted of a layer of 60mm thick, high performance Phenolic insulation boards. These were fixed to the sheathing boards using specially selected fixings to ensure there would be no failure of the system in years to come. Two layers of 3mm basecoat render with glass fibre reinforcing mesh embedded were then applied. To complete the system the client chose a high performance through coloured Acrylic render finish with Macerend brick effect render detail above and below window and door openings to provide a modern and fresh look to the buildings.

Results:

- Thermal performance has improved greatly with the U value of the walls dropping from 1.87W/m²K to 0.28W/m²K.
- The properties' walls are now watertight and the problem of rotten studwork has been rectified.
- The fresh, contemporary design of the buildings along with new polycarbonate roof structure installed over second floor walkways, new doors and general improvement works to handrails and external staircase soffits has transformed the appearance of the blocks into modern and attractive buildings.

