

## CASE STUDY CONSULTANCY FOR THE NHBC

Situated in the bustling sailing port of Fowey on the picturesque south Cornish coast, Blue Mills is a unique development of contemporary apartments enjoying breath taking views of the magnificent Fowey estuary. Once a magnificent building in the heart of Fowey, it soon fell foul of poor design features and a lack of consideration for the movement of the timber frame structure.

Algae soon started to form around the areas below windows. Cracks started to appear at internal corners and the render started to bulge and debond at floor levels, where inadequate precautions and consideration had been taken to the movement and settlement of the timber frame. This once proud development had become an eyesore on the Fowey landscape.



Following the outstanding consultancy service which SAS (Europe) Ltd had supplied to the NHBC on previous occasions, where other third party render systems had failed, the NHBC claims department once again sought the expert advice, consultancy service and technical knowledge of SAS (Europe) Ltd in order to identify the cause and rectify the issues with the Blue Mills failing render system. Following an initial conversation with the NHBC, a history of the development was gained along

with an understanding of the issues present with the buildings. Following further site visits and minor exploratory work, it soon became clear that movement, an integral part of any design consideration for timber frame construction, had become an afterthought, along with inadequate size, layout and fixing of the timber battens. This had resulted in the NHBC Claims department being faced with various issues here. Prior to agreeing any remedial works, a senior engineer from the

NHBC attended the development with SAS to inspect the exposed system and agree general proposals for rectification work.



A schedule of works was agreed between SAS and the NHBC to replace the failed system with ProWall; SAS (Europe) Ltd's industry leading rendered rainscreen cladding system. SAS then set about appointing one of their trained approved applicators to first rectify issues with the timber battening and cavity space such as:

- Removing horizontal timbers

at floor zones to allow for continuous ventilations and any further movement

- Additional screw fixings to existing vertical timber battens
- Existing fire socks replaced with horizontal intumescent strips to further allow continuous ventilation
- Battens around openings installed/modified to allow for improved ventilation & fixing.



With the batten and cavity issues rectified, attention turned to the installation of SAS (Europe) Ltd's ProWall system. The ProWall

system includes slip joints to compensate for any movement, a flexible render carrier board, ventilated cavities and a hard

wearing, quality silicone finish. The ProWall system, with its industry first 60 year BBA certificate, has breathed fresh life back into this once troubled development. This project emphasises the importance of considering all aspects of movement, shrinkage and detailing at the design stage and during application when choosing a rendered rainscreen cladding system. ProWall achieves this with a complete system backed with expert technical advice and site visits from initial design to project completion.



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