



PROTECTAHOME LTD STRUCTURAL SOLUTIONS

Targeting problems with the BEST solutions

Established 1980

CRACK STITCHING & CONSOLIDATION, PLYMOUTH ROAD, PENARTH

Case Study: 249

THE PROBLEM

Protectahome were asked to inspect this three storey, semi-detached stone property in South Wales. The property is over 100 years old, constructed from Blue Lias Limestone and was suffering from cracking and a lack of consolidation on the right hand side elevation wall.

This was the result of a loss of bond between the inner and outer skins stonework and settlement of the rubble fill.

THE SOLUTION

Protectahome's surveyor completed a detailed inspection of the problem areas and concluded that an economical, non-disruptive means was required to stitch and repair the existing internal cracks and consolidate the wall. A repair scheme was devised that utilised Helifix HeliBars and CemTies.

To permanently stitch cracks, 8 No: individual 1m long stainless steel HeliBars were bonded into channelled-out mortar beds, using HeliBond cementitious grout. Following installation of the HeliBars, a stainless steel mesh was applied to the problem area before replastering took place, leaving no sign of the internal cracking.

CemTies were installed across the whole wall, in a staggered matrix pattern, to provide consolidation and secure the inner and outer leaves of the rubble filled wall. CemTies were selected as they provide a highly cost effective, fully grouted tying system and have great tensile strength.

All external drill holes were repointed using matching mortar, leaving very little or no sign of the structural repair work undertaken.

On completion of the work, a long term Protectahome Guarantee was issued to provide added piece of mind and security for our client.

See Case Study 248 for additional Lateral Restraint Repairs undertaken by Protectahome at this property.



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