

Structural Anchoring Westminster Abbey, London

Client: Building Restoration
& Conservation Co.

Completed: 2018

Case Study No: 284

- Historic Location
- Structural Anchoring
- Crack Stitching
- Consolidation

The Project:

To repair several large cracks that had appeared within a medieval wall on the grounds of the historic Westminster Abbey.



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Westminster Abbey - The Problem

Following successful works at another historic London landmark, Tower Bridge, Protectahome were approached by an existing client to inspect cracking to a medieval wall on the grounds of the world famous Westminster Abbey.

The rubble filled stone wall, which measures approximately 30m in length and up to 7m in height, is believed to date back to medieval times and had developed several large cracks which required specialist repair.

Westminster Abbey itself can lay claim to being one of the most notable religious structures in the world and has hosted Royal coronations for almost 1000 years since 1066. In addition to coronations, the Abbey has played host to 16 royal weddings including the ceremonies of Her Majesty Queen Elizabeth II and later HRH Prince William. It is also the final resting place for 17 royal monarchs including Elizabeth I & Henry V.

With a proven history of working on notable heritage sites and specifically having worked successfully with the client on another high profile project in London recently, Protectahome were invited to inspect the cracking and prepare a remedial works specification.



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Westminster Abbey - The Solution

Working in conjunction with the project engineer, Protectahome devised a repair scheme incorporating the use of specialist sock anchors.

Prior to works commencing, trial drilling was undertaken to the wall to determine the appropriate anchor installation technique.

The 65mm 4.5m trial drilling revealed a very loose infill within the wall and determined that a mining barrel would need to be used to prevent the drill holes collapsing and refilling before the anchors could be installed. The anchors would be installed through the mining barrel, before the barrel was removed leaving the anchor in-situ.

Once in-situ, the sock anchors were then inflated with specialist grout to fill the voids within the wall to tie the cracked sections together and consolidate the existing wall structure.

In total, 5 No. 4.5m long anchors were installed to strategic locations along the wall.

All works were completed on time and within budget by 2 of Protectahome's senior and most experienced, NVQ qualified structural repair operatives who between them boast over 40 years' combined experience in this field.



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