

CASE STUDY

SIG D&T delivers a hat-trick for heritage church refurbishment



SIG Design & Technology was chosen for this project because we can offer multiple product expertise including for flat roofs and metals with just one phone call, as well as our depth of knowledge of roofing design.

Project: Church of St Andrew, Avonmouth

Architect: [Innes Wilkin Architect](#)

Roofing contractors: [Urban Roof](#)

Waterproofing membrane: [IKO Armourplan PVC single ply](#)

Zinc: [elZinc Slate](#)

First built in 1893, extended with a new nave building and tower in 1935, then bombed and burned out during World War Two. Finally, re-built in 1957. The church of St Andrew's, at Avonmouth, near Bristol, has had a colourful history. The red stone building

featured pitched roofing mostly in green-finished patina copper, dating back to 1957, but it had fallen into disrepair.

A key priority was refurbishing the roof of this prominent local landmark building.

Ian Hayward, SIG Design & Technology's Specification Manager for South West England and South Wales, said: "SIG Design & Technology was chosen for this project because we can offer multiple product expertise including for flat roofs and metals with just one phone call, as well as our depth of knowledge of roofing design."

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“We used an eight step process which we call #perfect roof which follows the process from product selection and roof design expertise through to full guarantees and planned maintenance.

“With the help of our roofing contractor, we were able to move quickly on this conservation project and the client was very pleased with the results.”

Three-part roofing challenge

Exterior building works started in October 2017, replacing the church roofs and adding a new entrance foyer, as well as drains and toilets.

Architects Innes Wilkin needed a single point of expert contact to deal with a three-part roofing challenge at St Andrew’s Church.

Not only did the pitched copper roof need replacing, but repairs were also required for the church’s flat roof. The client also required the construction of a new area of tiling over the church entrance, and SIG Design & Technology rose to the challenge on all three.

DATAc accredited roofing contractors Urban Roof, based in Bristol, which has previous experience of working with church buildings, was ultimately chosen to meet the client’s brief.

A zinc coating, elZinc, was chosen to create a ‘like-for-like’ finish on the pitched roof. SIG Zinc & Copper’s Product Development Manager Paul Cousins worked on the specification for this cold roof build-up, which allows for continuous ventilation air space of at least 50mm beneath the plywood.

The variety specified was elZinc Slate, which is matt grey and closely resembles lead, or naturally weathered zinc. A lead batten roll was most commonly used on church roofs built in the same era as St Andrew’s.



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elZinc Slate has a pleasing aesthetic appearance, is maintenance free, lasts up to 100 years and is a cost-effective alternative to copper. In addition, this product has little scrap value so it is considerably less likely to be targeted by thieves than copper.

Meanwhile, Armourplan PSG was chosen as the single ply membrane for the flat roof. The technical specification was completed by Ian Hayward at SIG Design & Technology.

Armourplan - A suitable aesthetic fit

Armourplan is a suitable aesthetic fit for conservation projects, and comes with a 25 year guarantee. By utilising the same high quality UV resistant PVC

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compound on both the upper and lower side of the membrane, Armourplan PSG ensures optimal weld strength and quality.

In accordance with the #perfectroof eight step process, work at St Andrew's Church has received a guarantee of 20 years for the Armourplan single ply and a 25 year guarantee for the elZinc pitched roof.

Double Roman tiles were chosen for a small roofing area above the church entrance, as they matched the materials of the existing thick-walled church building, the former hospital – which first opened in 1832 – a new purpose.

More information

- Visit the Armourplan product pages and downloads <http://www.singleply.co.uk/flat-roofs/iko-armourplan-pvc/>
- Visit the elZinc Slate product pages and downloads <http://www.sigzincandcopper.co.uk/rainbow-pigmented-pre-weathered-zinc-sheets-and-zinc-shingles/>
- Learn more about the 8 steps to the #PerfectRoof www.singleply.co.uk/perfectroof/
- To find out more about Armourplan call SIG Design & Technology on 01509 505714 or visit www.singleply.co.uk

