



The Pool Academy was suffering from relentless water ingress, where many classrooms at the site had been forced to shut, causing continuous disruption to students and staff.

The Pool Academy, nestled in the west of Cornwall, has been a long-standing education provider, catering to over 600 11-16 year olds in the local area.

Over the years, the facilities team at the Academy had made their best efforts to remedy the growing number of waterproofing issues across the site with quick-fix repairs. Unfortunately due to substantial leaks and relentless water ingress, many classrooms at the site had been forced to shut, causing continuous disruption to students and staff.

Following a strong track record of successful Condition Improvement Fund (CIF) bids, Garland UK was recommended and chosen as the trusted roofing partner to support Pool Academy's bid process and were soon appointed to collate the essential supporting evidence for the upcoming CIF application.

## Quick Facts

Project  
**Pool Academy**

Location  
**Cornwall**

Garland System  
**StressPly Flex  
R-MER CLAD**

Sector  
**Education**

Garland Technical Manager  
**Justyn Irons**

Approved Contractor  
**DFR Roofing, Stay Dry Roofing**



## Challenge

Collaborating with local building surveying firm **Cunningham Taylor**, Garland UK's Technical Manager, **Justyn Irons**, carried out a series of investigative works on-site, starting with a comprehensive condition survey of each roof section, including core sample testing, U-Value calculation and analysis, as well as a series of supporting photographic evidence.

Following the condition survey, it was clear that the Pool Academy was in need of a complete roof replacement scheme. Cunningham Taylor, with the supporting reports produced by Garland, were successful in their application to the Condition Improvement Fund which released over £500K to carry out the much-needed works.

## Solution

With a total replacement of over 4,000m<sup>2</sup>, a phased schedule of works across a 2 year period was adopted to reduce the disruption to the academy as much as possible. Working with main contractor **TEC Construction** and Approved Contractors **DFR Roofing**, and **Stay Dry Roofing**, works commenced with the Garland Technical Manager regularly on-site to oversee the installation.

The Pool Academy roof had an existing layer of bitumen felt with mineral wool insulation, which had become the major cause of the water ingress due to the movement in the poorly designed roof system.

A labour-intensive process was soon underway, to remove the mineral wool which had been mechanically fixed to the structure, before installing a full Garland **StressPly Flex** Warm Roof system. The system is built up from a newly installed Vapour Control Layer. To this layer, a fully tapered insulation scheme was installed to achieve 0.18w/m<sup>2</sup>k, the current building regulation requirement, and also to move water off the roof and to the outlet points in a more efficient way. On top of the insulation, a full torch-on system including a vented base sheet and mineral embedded cap sheet was installed.

The roof also had some falling metal roof sections which were suffering from cut edge corrosion and ingress around the fixing points where the perished seals were allowing water directly into the system. This was overlaid using a bar and bracket system and additional insulation, to again achieve 0.18 w/m<sup>2</sup>k, with Garland's **R-MER CLAD** system with the new roof being matched to the school's original colour scheme.



*Final StressPly Flex and R-MER CLAD installation*



## Outcome

The Pool Academy was able to greatly benefit from Garland UK's diverse system offering, utilising both bituminous membrane and metal sheet systems to tackle the failing roofing issues head-on.

Following the success of the Phase 1 bid, the Pool Academy had confidence in the successful team between Cunningham Taylor and Garland UK, leading to a Phase 2 CIF bid submission and further securing future funds for the client.

The client was extremely happy with the end results, with money saved in the long-term, zero water ingress and improved insulation levels, creating a much-improved learning environment for the school. Garland's 25 year **Single-Point Guarantee** has given the school lasting peace of mind.



*Final StressPly Flex and R-MER CLAD installation*

“ **The detailed condition survey and inspection reports produced by Garland were instrumental in the success of the Academy's bid to the Condition Improvement Fund. Working collaboratively together across the 2 phases, it has been a real team-effort and we're delighted with the end results for our client.** ”

**Matt Taylor**  
Cunningham Taylor



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