ISSUE 4146 MAY 2016

school building

Decorative casings for education – in a class of their own

Two into one

How a London school was transformed to address the pressure on education provision

On track with offsite We talk to Orla Corr of the McAvoy Group about her multiple business awards

Collinson's community sports facility After years in the planning, work has commenced at Chauncy School

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Editor's Welcome

We've enjoyed putting together another informative and entertaining issue for you!

This month's Case Study is the John Roan School in The Royal Borough of Greenwich, and Jamie Barrett, Managing Director of construction consultancy Evolution5, tells us how this historic school was transformed.

The hugely inspirational Orla Corr OBE features in our Profile - Executive Chairperson and shareholder within the McAvoy Group, she was awarded the OBE in 2011 for services to the construction industry.

Paul Eatock, co-founder and director of Spatial Office Environments tells us about some of their student accommodation projects in In My Opinion, and shares his views on the future of this sector.

And finally, floor coverings are an essential element of school interiors, and our Forum discusses this with Matthew Speck of Karndean Designflooring, Tom Rollo of Polyflor Ltd., Dave Ford of Altro, and David Bigland of ITEC UK.

What projects are you working on? What would you like to see discussed in our Forum? Let us know – we'd love to hear from you!

Regards,

Juliet Davies, Editor

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The importance of good design is essential to support a positive learning environment, which has been a key feature of recent student centred educational building solutions. In this issue, we take a look at decorative casings for interior and exterior use while exploring a number of projects undertaken by Encasement Ltd.



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ScaleBuster[®] performance & longevity encapsulated at James Hornby School

Between August 1998 and February 1999 three Scalebuster[®] units were installed at the James Hornby School in Basildon, Essex. The Scalebusters[®] were specified to protect the calorifiers in the school heating system by inhibiting the build-up of harmful limescale and so preventing the need for costly repairs or premature replacement.



In 2014 a refurbishment programme was undertaken at the school that included changes to the heating system, but the question was, had the Scalebusters® actually done their job? The ideal chance came when the three original units were removed 16 years after their installation. Between December 2014 and February 2015 new boilers were installed for the upper and lower schools as well as the sports hall. At the same time five new Scalebusters® were installed to protect the new system and the old units were returned for a detailed examination.

Their effectiveness was immediately evident from the condition of the calorifiers. The contractor involved in their replacement took internal photographs of the original, 16 years old calorifiers, shown here, before they were removed. The images show no build-up of scale on either the cylinder walls or the heat exchange walls demonstrating conclusively that the ScaleBusters® had performed their function of inhibiting the build-up of hard scale throughout their operational life.

But what of the Scalebusters® themselves? If the old boilers hadn't been replaced would they have carried on working even longer? External inspection showed the body of the units to be in good order. The nickel plating was in good condition and there was no corrosion or pitting of the brass. The central spindle and all PTFE fins were in good order on the flanged units. All the fins were present and were tight within their housing indicating that minimal reduction in the anode had taken place.

The PTFE sections within the ISB C50 threaded unit were clean and showed no sign of wear or fouling. All the zinc anodes were in place and although some signs of depletion were evident, this was to be expected after having been in use since 1999. A detailed internal and external examination of the units confirmed that despite the use of a zinc anode as a sacrificial element, minimal depletion of the anode had actually taken place.

During a service life in excess of 15 years, thousands of cubic metres of water would have been treated as they passed through the three units. The service life in the case of the removed ScaleBuster®-units within the system and water type at the James Hornby School was found to be well in excess of 15 years.

How do Scalebusters® work?

The Scale-Buster[®] unit conditions hard water (preventing lime-scale build up) by combining a number of actions that release zinc ions into the water as it passes through the unit. It does not contain magnets or involve any sort of magnetic process. It needs no power supply and works completely automatically with no control panel to maintain. They are WRAS approved and can be installed with new systems or retro-fitted to existing installations.

Scale-Buster[®] is designed to cause precipitation of calcium carbonate into the water stream. This is as a result of the breakdown of the bicarbonate into carbon dioxide, water and carbonate due to the effects created within the Scale-Buster[®] itself. The particles which are formed in the water stream act as nuclei for the formation of further scale when the water is heated. In this way, scale deposition upon heating surfaces is minimised.

When a salt is precipitated from solution it results in a relatively less saturated solution remaining. The less saturated water is then able to dissolve and breakdown existing scale from pipe surfaces which form bigger particles that can then be removed from the system with a filter.

For further information, call The Rodin Group on 01795 423400, Email info@therodingroup.co.uk or visit www.therodingroup.co.uk



Internal images of the calorifiers prior to removal