

elevations

Issue One October 2009

Welcome to the first edition of elevations.

Over the coming weeks we will highlight the work of up and coming RIBA students from within the Eastern Region as well as focusing on developments within Architectural Masonry.

Additionally we hope to provide technical and environmental information on our products and the use of this most versatile of materials.

This issue we focus on the RIBA student award winners, launch the **Hi Light** masonry system and provide guidance on allowing for movement in buildings.

We would welcome any feedback as our aim is to inform and update on relevant topical matters.

Please email us on:
masonry@forticrete.com

Students' Innovative Designs Receive Architectural Award

Two architecture students from the East of England have been recognised for their design achievements by the Royal Institute of British Architects (RIBA) East and have been awarded the prestigious RIBA East Student Award 2009. This annual RIBA East Student Awards programme showcases and rewards the talents of outstanding students whose work has been selected as the best in their year. The programme aims to be inclusive by inviting submissions from all architectural students in the East, not just those studying RIBA validated courses.

The RIBA East Student Award Winners 2009 are ;

Fizaa Esmail from Anglia Ruskin University, Chelmsford, who won the Prize for Best Third Year Architectural Project entitled '**Chelmsford Theatre**' (pictured below)

Fizaa describes her project as follows: "A theatre designed in the heart of Chelmsford, larger than existing theatres and accommodating 500 people and a variety of acts. The aim was to have a piece of architecture in harmony with the environment and one which was sensitive to the context."





Fizaa continues "The initial concept stemmed from the shape and nature of the site. The site determined the shape of the floor plan and the massing. It is important to me to respect the existing natural barrier and use it as a design generator. I wanted the building to have a very strong relationship with the landscape and make part of the experience the natural surroundings bringing it into the building, and taking the building out. The plan therefore naturally curves along the edge of the gardens, allowing views and using it as a visual amenity. Being a public building, main access points are strategically placed to accommodate the public coming from the high street and pedestrian pathways. The building was to interact with its surroundings both natural and manmade, it was also to express the architecture of a theatre. The site was the main deriving concept for both form and function."

"The architecture should have a deep connection with the landscape. The quality of architecture is determined by the experience of a place not only the building in itself but the whole spirit of the entire place, building context as one. The context determines access, influencing entrances, views and relative spaces "



If you wish to contact Fizaa or David please do so via the RIBA East office:

RIBA East
The Studio
High Green
Great Shelford
Cambridge
CB22 5EG
Tel: 01223 566285
Fax: 01223 505142
Email: riba.east@inst.riba.org



David Champion from the University of Cambridge won the Prize for Best Overall Student.

David's brief was to design a music school and public auditorium for Ely with a commercial rail track through the middle of it. The project was about sculpting both the walls and landscape to produce an environment that responded audibly to the volume of the passing trains.

There was a need for creating loud and dramatic space, and musically sensitive calm zones where appropriate.

David's success has brought him recognition already as he is currently working in New York for STUDIO DANIEL LIBESKIND on a \$20 billion master plan in South Korea.



Both RIBA East Student Awards were presented to Fiza and David at the RIBA East Spirit of Ingenuity Awards Dinner on the evening of 25th September at the Thomas Deacon Academy Peterborough, which is a 2008 RIBA Award winning building.

Richard Tavener, RIBA East Chairman, commented: "We are delighted with the very high standards of design and the innovative scheme concepts submitted by students across the region and would like to thank the students in the Eastern region for their participation. We wholeheartedly congratulate the winners Fiza and David."

Forticrete provides Architects with a **Lighter Choice** of Eco Masonry



Architectural Masonry is a lasting legacy, manufactured by Forticrete in a bespoke production unit under strict control regimes to ensure special category status. Consisting of carefully selected aggregates, cement and pigments, quality Architectural Masonry is viewed predominantly as an aesthetic material, whilst also fulfilling functional and structural requirements.

Current sustainability thinking has migrated towards focusing on the level of recycled material content which is within building products in order to satisfy Green moral thinking. The inclusion of materials such as crushed glass, ash, crushed reject blocks, wood chippings and the like is to be applauded and supported in regard to commodity blocks and non visible components.

However, given the recognized visual requirement in Architectural Masonry it is counter productive to include recycled products – would you add left over blue paint to white paint to avoid disposing of the blue paint? Whilst it would satisfy the Green ethos it would compromise the aesthetic appearance. However, Canute could not turn back the sea and neither can any company with a coherent CSR policy stick it's head in the sand (however recycled). To this end Forticrete have devised the **Hi-Light System**.

Forticrete Masonry has long been recognized as the Market leader for quality and innovation and already utilizes carefully sourced aggregates, vapour curing and recycles water used during ancillary processes in its manufacturing process. The **Hi-Light System** provides further benefits for all aspects of the industry. By using a Cellular design the products use up to **24% less material** than a solid block. Concerns over mortar bedding are simply alleviated by installing the block 'upside down' so to speak thus providing a solid mortar bed to ensure no mortar waste and excellent adherence. The added innovation of the provision of a **Quoin** in the **Hi-Light System** that weighs less than 20kg, not only ticks boxes on Green moral issues but also provides projects with a product that is aesthetically pleasing and removes all concerns over Health & Safety issues encountered about repetitive lifting on site.

Added Green benefits come in the fact that being a lighter product each delivery vehicle can contain a greater volume thus reducing traffic and the fuel used, as opposed to having recycled materials being transported to manufacturing units.

Hi-Light System is readily available in 440x100x215mm format with quoins having a 215mm return. It is also available in a 440x140x215 only format, again weighing under 20kg. All this with no reduction in pullout strengths and with the general ability to accommodate fixings as required.

For further details contact Forticretegreenmatters@forticrete.com

FORTICRETE MASONRY TECHNICAL SUPPORT

Technical Note No. 1

One subject **Steve Goodger Forticrete's Technical Manager** is asked frequently is how to accommodate movement in masonry walls.

All building materials are subject to movement due to temperature and moisture changes. Designers should therefore ensure that the effects of such movement are accommodated to prevent unsightly cracking which may further result in structural defects.

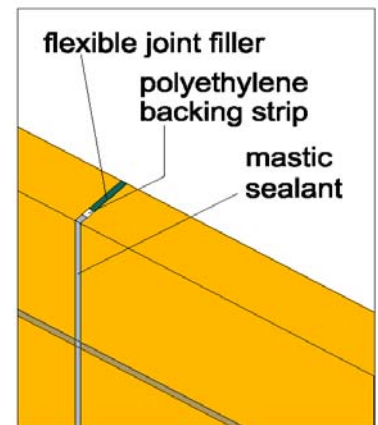
A number of factors should be considered by the designer.

- Specifying a product with low drying shrinkage e.g. Forticrete Masonry
- Specifying the correct mortar
- Providing control joints at suitable centres
- Using bed-joint reinforcement
- Protecting the blocks before and during construction

CONTROL JOINTS

Control joints are vertical separations built into a wall and located where cracking may occur due to excessive stresses caused mainly by drying shrinkage. As a general guide the joints should be at regular spacing up to 9.0m in external walls and up to 12.2m maximum for internal walls.

It should be noted that on south and east elevations, the effect of the early morning sun on these faces can raise the temperature very rapidly and cause greater movement to take place than elsewhere in the structure.



Detailed information is covered within BS5628: Part 3: 2005 and in the **Free Forticrete Design Guide** for a copy email : masonry@forticrete.com



RIBA ASSESSED CPD

One of the best ways of keeping up date with masonry technical issues is through Forticrete's two assessed CPD seminars.

Designing with Architectural Masonry - explores and advises on good masonry design

Specifications Cast in Stone - cover all aspects of the use of cast stone

To book these **free one hour seminars** please contact : vfenny@forticrete.com