

AUTUMN 2010





# News from the Editor

## Autumn 2010

### IBSTOCK DZINE MAGAZINE

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Front Cover: Pinderfields Hospital, Wakefield

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## Ibstock Awarded Responsible Sourcing Standard

Leading the way for sustainable business, Ibstock has become the first UK brick manufacturer to be awarded the 'very good' rating in its recent factory assessment for the responsible sourcing standard, BES 6001.

The BES 6001 standard for responsible sourcing demonstrates that a building material has been produced in a way that has minimised its environmental impact, and it is sustainable. Ibstock was awarded this important standard at its Dorket Head factory in Nottingham.



## New Literature

The new Ibstock-Kevington Services Guide has been designed to complement our other industry leading literature, including the Portfolio and the Brick Selector. It features the entire range, from innovations such as the Faststack Chimneys, Fastwall and Arches, right through to the Eco-products and brick slips range. It acts as a quick reference guide for anyone looking to select the most appropriate and competitive products for their projects.



Visit [www.ibstock.com](http://www.ibstock.com) to order your copy on line.

## 'Brick App' Launched

In yet another first for Ibstock, they have launched a 'Brick App' that will allow users of Blackberry's and iPhones to match and choose bricks straight from their phones. This technological enhancement is a breakthrough for brick matching on site.

For more information visit [www.ibstock.com/mobile](http://www.ibstock.com/mobile)

## First BrickShield® Project Completed

The first BrickShield® project has now been successfully completed. This was an upgrade of a 1950's council property in Northampton; part brick and part render. The job went very well and to schedule. It was part of a major trial to test the best options for refurbishing these houses.

BrickShield® is a new, insulated, external wall cladding system with a real brick finish.

For more information visit [www.ibstock.com](http://www.ibstock.com)



## RIBA Stirling Prize Shortlist 2010

Christ's College School, Guildford by DSDHA has been shortlisted for the 2010 Stirling Prize.

The RIBA Stirling Prize is given for the RIBA Building of the Year. It is presented to the architects of the building which has been the most significant for the evolution of architecture in the past year.

The building won Building of the Year in the 2009 Brick Awards where the judges were struck by the way the architects exploited the visual quality of the semi-glazed bricks.

## Frequently Asked Questions

In the second of our new series looking at the most frequently asked questions of our Design and Technical Teams we continue with Stephanie Haywood, Ibstock's Technical Advisor. Steph has been with Ibstock for 15 years and her role includes providing advice on the properties and performance of all products within the Ibstock portfolio, giving full technical data, including Health & Safety and environmental matters; together with up-to-the-minute information on British Standards and Codes of Practice.



I am often asked about Protective Materials. Whether construction takes place in hot summer months or over the winter period, brickwork needs adequate protection from follow-on trades and the elements to ensure its performance and appearance isn't compromised.

Most people are aware that cold weather working can adversely affect the brick-mortar bond if allowed to freeze before mortar has hardened sufficiently. Hessian is traditionally used as an insulating material coupled with polythene sheeting to keep brickwork dry and frost free.

Similarly hot weather can evaporate moisture from fresh mortar too quickly unless it is covered by impervious sheeting to slow down the evaporation process. After-care of brickwork is an important part of the bricklaying process and one which is sometimes ignored, resulting in flaky or de-bonded mortar, sodden cavity insulation, efflorescence and lime staining.

Proprietary masonry protection materials are available that offer defence from hot, wet or frosty weather. Purchased by the roll, they can be tied into position and re-used night after night.

Covering brickwork in material that is already wet or which can become saturated may result in staining. Always ensure absorptive protective materials are covered by an impervious layer. Wrapping brickwork tightly in impervious materials could lead to 'sweating' so it is necessary to maintain some airflow.

Often follow-on trades damage brickwork. If an area incorporates expensive decorative features or is likely to be heavily trafficked, sheeting should be affixed to keep mortar stains and road splashes off or a protective cover should be fabricated to avoid knocks and scrapes. Alternatively temporary plastic edge and corner guards can be purchased.

Finally a cautionary word on guttering down-pipes; these are often not fitted into place until a building nears completion. Allowing water to freely drain down a brick wall can result in permanent saturation stains. A large surface area of water is being directed to a relatively small area of brickwork.

Proprietary temporary down-pipes are available that are simply rolls of polythene tube which are affixed to the gutter opening by cable tie or jubilee clip.



Polythene sheeting minimises staining from work carried out higher up.



Plywood sheeting protects vulnerable brickwork from knocks.



A missing down-pipe can cause permanent saturation staining.





# Textures in Brickwork Design

In this issue we are looking at some projects that have used bricks to create different textures – either completely smooth, in the case of the glazed brick seats at Orchard Park, or patterns and surfaces that resemble almost 3D images in the other projects.

Using bricks to produce striking visual effects is not a new phenomenon. In past issues we have touched on some really interesting projects such as The Keyworth Centre at the South Bank University where the rear of the brick has been used externally and internally by cutting the brick in half and exposing the concave shape formed by cutting through the perforation.

At The Bath House in Barking - texture and pattern has been provided through the introduction of a cant every fourth brick in the coursing. This gives a "pierced" effect to the side of an eight storey residential block and echoes the balconies.

The Ark, London designed by Ralph Erskine in 1992 is an original and popular landmark greeting visitors to London from the west or Heathrow Airport. The columns supporting the concrete floors rise vertically, and are outside the hull at ground

level, faced in decorative brick and appearing as buttresses before they pierce the skin of the building. This detail occurs below the 'water level' of the A4 overpass, and is therefore scarcely visible while driving past.

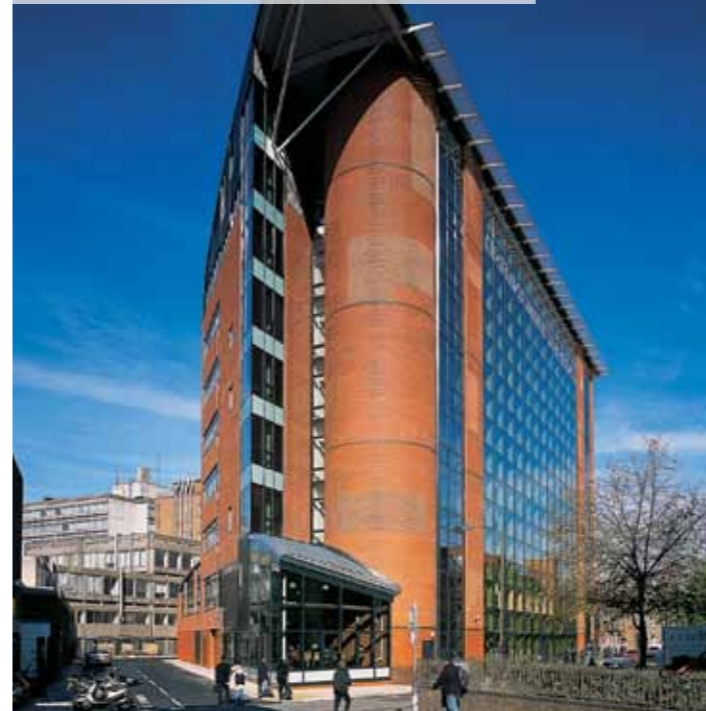
In Rothesay, on the Isle of Bute, brick types with the same colour but different surface finishes have been blended together on site to achieve a symmetrical texture pattern.

Two houses in Dublin use different bond patterns to create a startling "projecting brick" façade to both the front and rear of the properties.

These are just a few of the many projects world wide that use bricks to create stunning visual effects. Bricks do not have to be boring; they can be used to make interesting, unusual and beautiful "wallpapers" that enliven their environments.

## KEYWORTH CENTRE, SOUTH BANK

**Brick Type:** Ravenhead: Red Rustic, Red Smooth, Bracken Brown Rustic  
**Architect:** Building Design Partnership



## ROTHESAY, ISLE OF BUTE

**Brick Type:** Colonsay Red - Rustic and Smooth and Grampian Red  
**Architect:** Collective Architecture



## BATH HOUSE, BARKING

**Brick Type:** Cheddar Brown  
**Architect:** Allford Hall Monaghan Morris



## THE ARK, LONDON

**Brick Type:** Roughdales Red Rustic and Brown Multi Rustic  
**Architect:** Ralph Erskine



“Bricks do not have to be boring; they can be used to make interesting, unusual and beautiful “wallpapers” that enliven their environments.”



## TWO HOUSES, DUBLIN

**Brick Type:** Birtley Old English Buff  
**Architect:** TAKA Architects





# Lambeth 6th Form Centre

**Architect:** BDP  
**Brick Type:** Harewood Russet Buff plus specials in Albany Cream & Harewood Albany Cream  
**Main Contractor:** Regency Build

The new Sixth Form Centre is a landmark building that Lambeth College and the community it serves can be proud of, radiating optimism about our collective ability to learn together.

The plan form is designed to express a distinct college identity and create internal connectivity. The centre includes learning spaces, meeting/common rooms and breakout spaces for meetings or informal interaction and offers a broad range of facilities to cater for Sixth Form needs within the College. The building is shaped around the idea to visually 'open out' to Clapham Common, the pond and the wider public realm and creates a lively and animated 'heart space' at its centre. From the building interior, the third floor library and the fourth floor artists' studios give spectacular views across the Common and local environs are gained from the new 'wintergarden'. In this way the building creates a stimulating environment for teaching and quiet study.

The external building character is purposefully a counterpoint to the domestic architecture of the adjacent housing which is undistinguished 1950s brick built construction. The organic shape of the Performing Arts base is wrapped in a playful brick pattern, secretly spelling the word "learn". The selected brick aimed to give warmth, texture and human feel to the building elements as they are experienced. The brick creates a mellow appearance sympathising with the surrounding buildings and setting, through colour, texture and scale it also stands individually whilst complementing the other materials and offering durability both inside and out.



*“The selected brick aimed to give warmth, texture and human feel to the building elements as they are experienced.”*



# Pinderfields Hospital

**Architect:** BDP Architects  
**Brick Types:** Ravenhead Red Smooth  
**Main Contractor:** Balfour Beatty  
**Brickwork Contractor:** Marlborough Brickwork

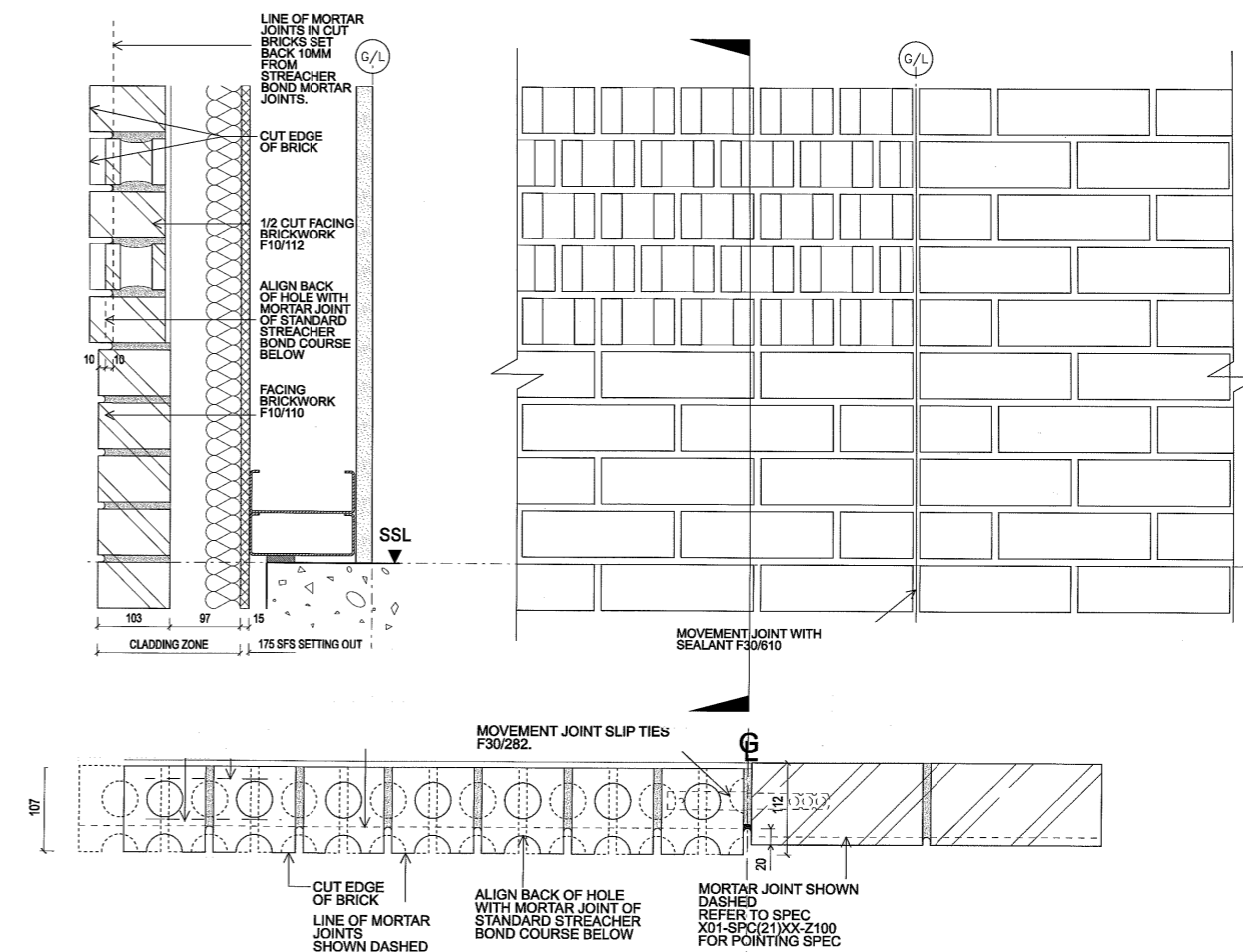
BDP, as lead architect, interior designer and landscape architect, is responsible for the design of the new 86,000m<sup>2</sup> acute hospital on the Pinderfields site on the edge of Wakefield.

The new hospital is set to deliver a new step-change in evidence-based driven design. In a leafy suburban setting, Pinderfields is conceived as two wings, one acute, one inpatient, linked by a public atrium. Generous courtyards and shallow plan depths mean occupied rooms have daylight and views.

At Pinderfields, the 708 bed new build acute hospital will consist of in-patient wards, women's and children's facilities, a rehabilitation institute, full acute services and a diagnostic and treatment centre. The project focus' on the patient and staff environment utilising shallow plan space and courtyards to deliver daylight and views to all occupied rooms.

The textured panels on the face of the building have been created by cutting the bricks as shown in the drawings below.

*“The new hospital is set to deliver a new step-change in evidence-based driven design.”*





# Orchard Park, Cambridge

**Artist:** Lubna Chowdhary  
**Brick Types:** Yellow, Aquamarine & Lime Glazed Bricks  
**Contractor:** Giles Landscapes



Pod



Flower



Tendril

Designs for five Local Areas of Play, as part of the Arbury Park public art programme, have been built to help create a sense of local identity. The designs for the LAPs recall the strong horticultural traditions of the Histon/Impington area, tying in with the overarching theme of the art programme.

LAPs provide incidental green spaces dotted throughout Arbury Park. They will function as informal social spaces (not, in spite of their name, having dedicated equipment for play). Five of these LAPs will be landscaped to Lubna's designs, extending the reach of the art programme into the heart of the neighbourhoods.

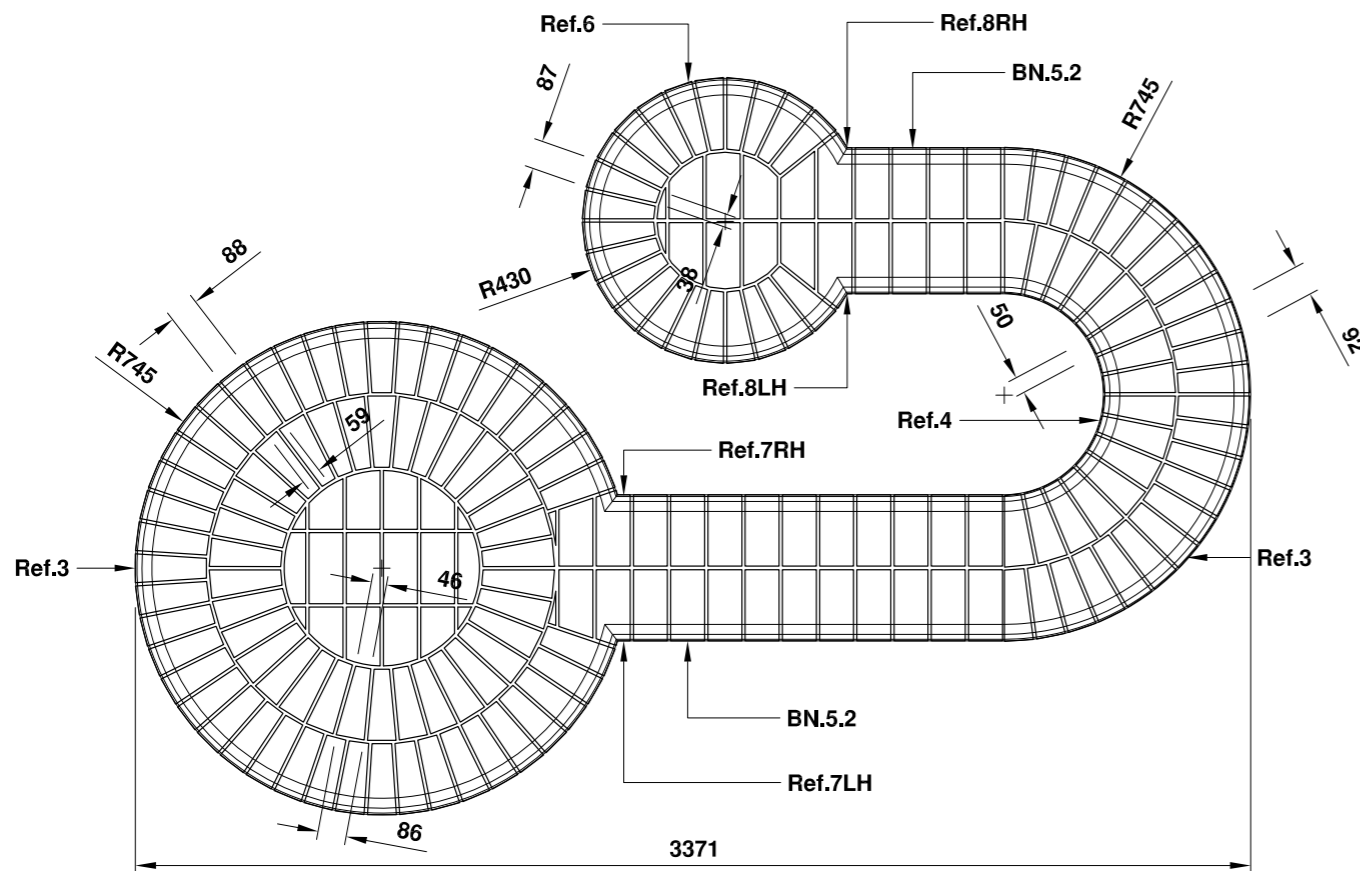
*“The starting point for my designs is the cycle of growth in plants, an idea which creates links with the previous land-based local economy and also symbolises the growth of a new community.”*

*My designs for seating evolved from the forms of growth stages in plants, abstracted and simplified to create strong, smooth, shapes which could be adapted as seats.”*

The sculptural seat forms are centrally placed in each LAP to create a meeting point and social space. Unlike a conventional bench, the seats have many surfaces, facing in many directions so multiple groups can use each one, encouraging interaction between groups.

The tactile shapes have a relationship to the body and invite people to explore, walk around and touch them, finding the best view, the most comfortable place to sit, or room to dangle their legs.

The seats, robustly built in coloured glazed brick, will introduce a strand of connection and continuity across the Park. The use of different colours and shapes will help orientation. The solid construction and hard wearing material will make the seats robust, safe and easy to maintain. The smooth surface of the glazed brick also makes them very tactile and offers a texture completely different to traditional brick surfaces.



**Sprout - Plan Of Bullnosed Capping**

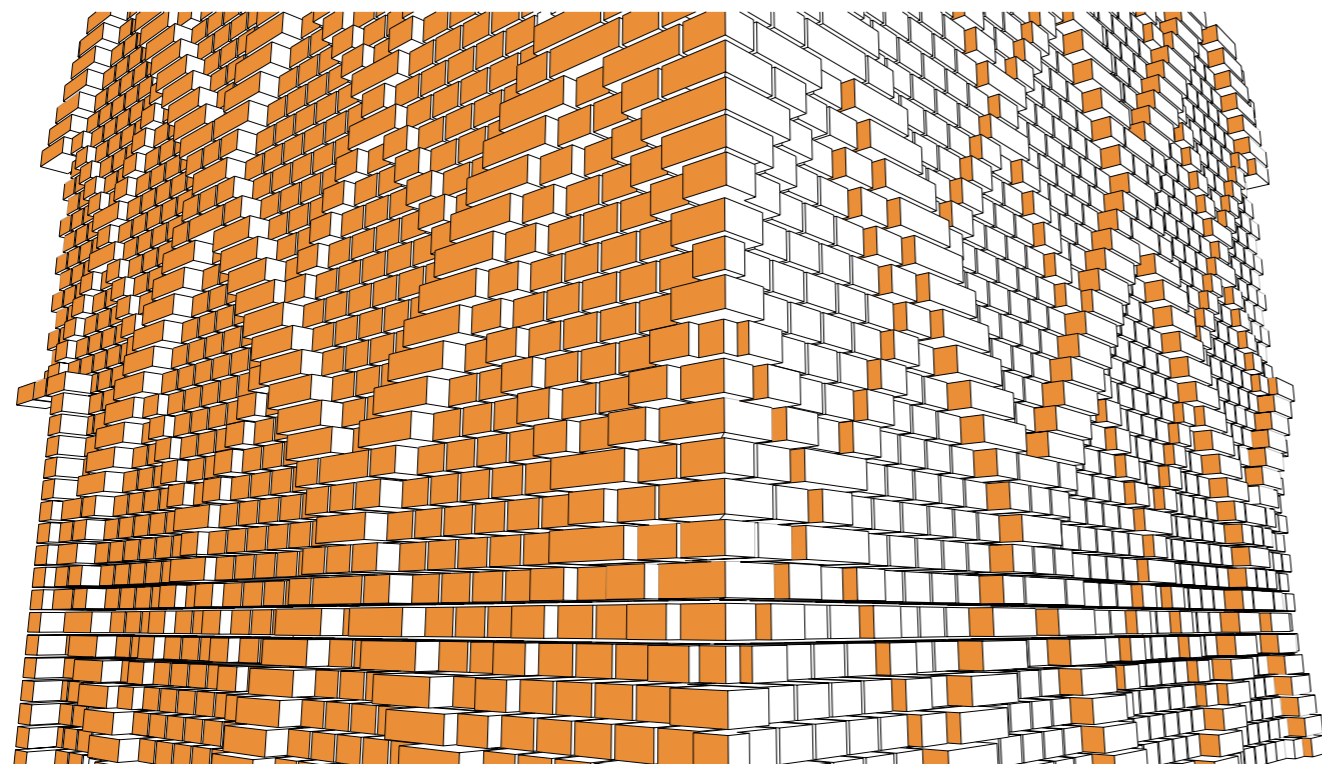




# Brentwood School, Assembly Hall & 6th Form Centre

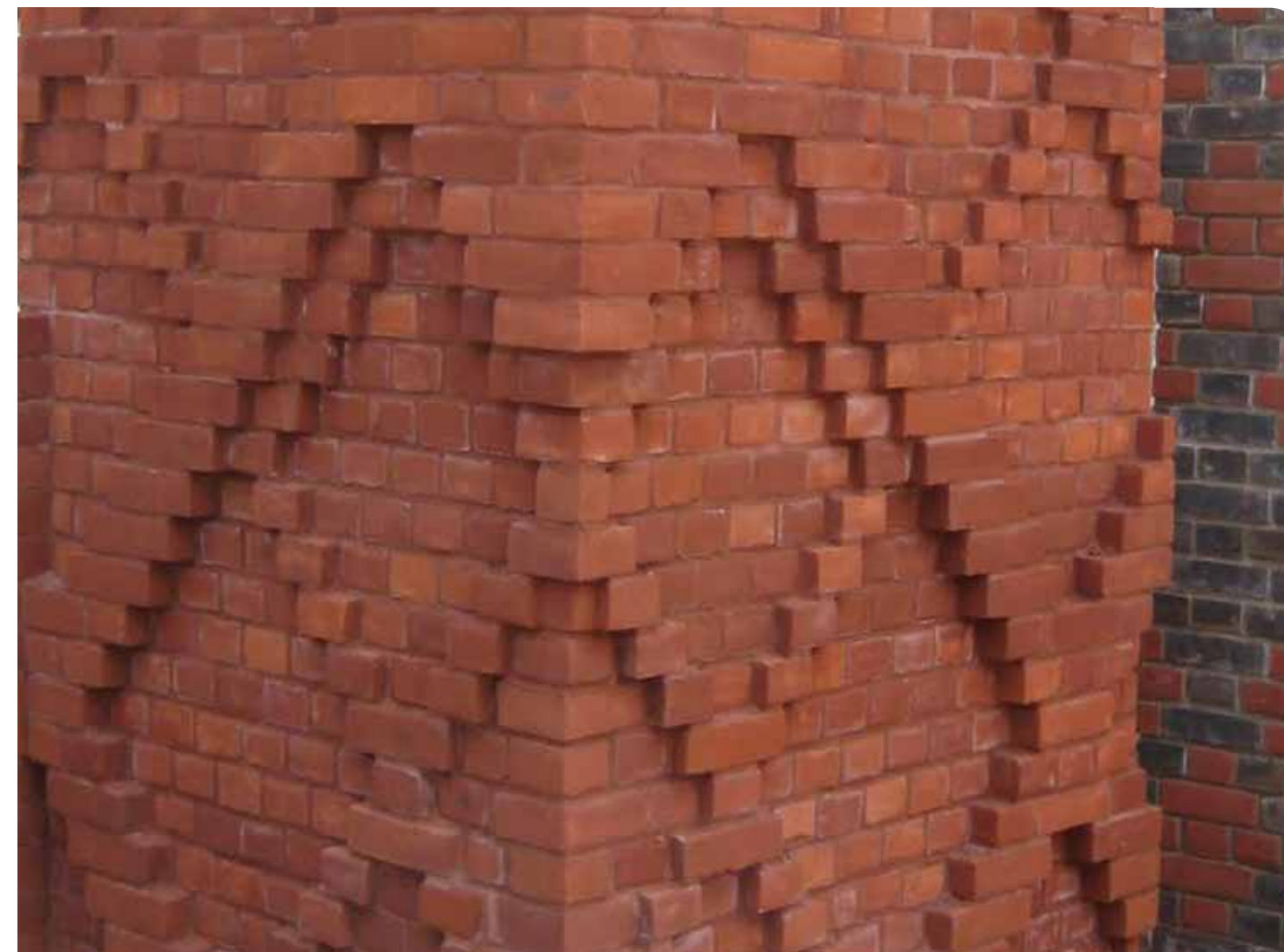
**Architect:** Cottrell & Vermeulen Architecture Ltd.  
**Brick Type:** Heritage Red Blend and Bevern Dark Multi  
**Contractor:** Hutton Construction Ltd

This project for an independent secondary school creates a new Sixth Form Centre and an Assembly Hall. The new Sixth Form Centre consists of social and study areas, classrooms and administration space. The new building will provide an educational environment appropriate for the 21st century and to deliver the new International Baccalaureate Curriculum. The assembly hall will be used for performances, both for school functions and public events.



VIEW. ELEV. H  
ELEVATION H FRAGMENT  
REFER TO AS 170

VIEW. ELEV. G  
ELEVATION G FRAGMENT  
REFER TO AS 170



The design is a modern and contemporary response, whilst still relating to the history and heritage of the School. The project achieved planning approval in April 2008, in the context of a conservation area and under close scrutiny from the planning department, conservation department and English Heritage. Cottrell and Vermeulen worked closely with all stakeholders to achieve a design which is both sympathetic to its context, and makes a new, forward looking statement for both school and town. The project is due to complete in spring 2011

### Classroom Patterning

A brickwork pattern is proposed to break down the scale of the building, and to introduce a level of visual detail in sympathy with its neighbours. A 'lacey' pattern is proposed to retain a level of subtlety. This is a traditional form of decoration. Brick patterning is evident on the school site. The proposed diagonal grid is similar to traditional diaper patterns. The pattern forms a grid in which window openings are placed which creates a perceptible visual order and structure to the elevations. This visual order reflects the order of mouldings and string courses on the Main School Building.

### Assembly Patterning

The proposal develops these precedents of brick patterning into a contemporary expression of a traditional craft. The lower plinth uses a 2-colour pattern. This is derived from an English Bond and is a development of a traditional diaper pattern. The upper walls use a relief brickwork pattern in a single colour brick which is derived from a Flemish Garden Wall Bond and is also a development of a diaper pattern. The pattern is formed in 3 layers of relief and integrates framing around the windows and to the parapets of the gables.



“The design is a modern and contemporary response, whilst still relating to the history and heritage of the School.”

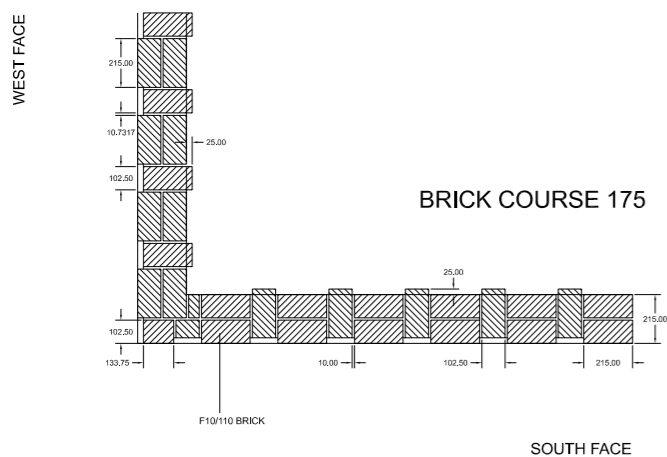
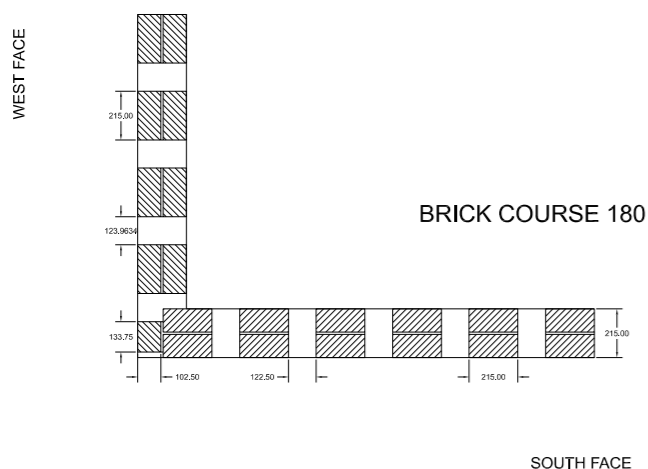
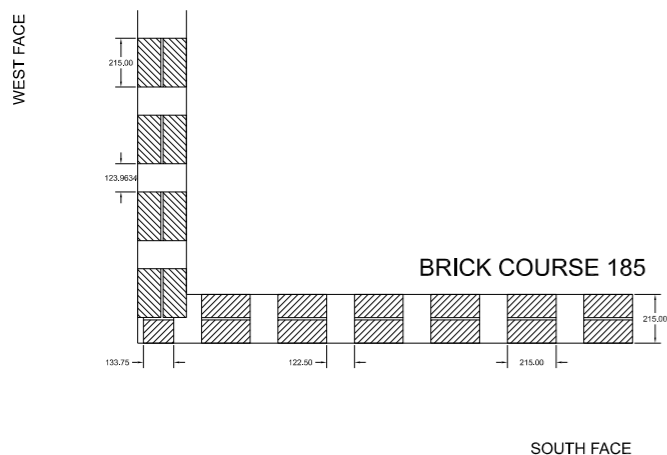






# Electrical Substation, Olympic Park, London

**Architect:** Nord Architecture  
**Brick Type:** Himley Ebony Black  
**Contractor:** Kier Construction  
**Brickwork Contractor:** Winchmore Brickwork



In 2007 NORD were appointed to work with the Olympic Delivery Authority to develop a strong contextual approach to a key utility building within the Olympic Park. The building is not designed as an event in its own right but as part of a number of buildings that form the fabric of the Olympic site itself, having permanency, weight and dignity.

A clear emphasis was put on the architectural designs of the electrical substation to ensure the structure fits in with the design of the wider Olympic Park. The external substation architecture creates a sense of solidity appropriate to the building's role as a key part of the utilities infrastructure in the Olympic Park. The use of more than 130,000 bricks in the design also reflects the traditional use of dark brick stock, as window and corner details on the former Kings Yard industrial buildings on the site where the new substation has been built.

At 80m long and made from Ebony Black brick, the substation is legible at first as one uninterrupted surface; however the envelope is a more open lattice than it appears. In lower sections, the brick operates as a load-bearing structure, in others simply as a skin and in the upper sections it permits ventilation for the internal transformers.

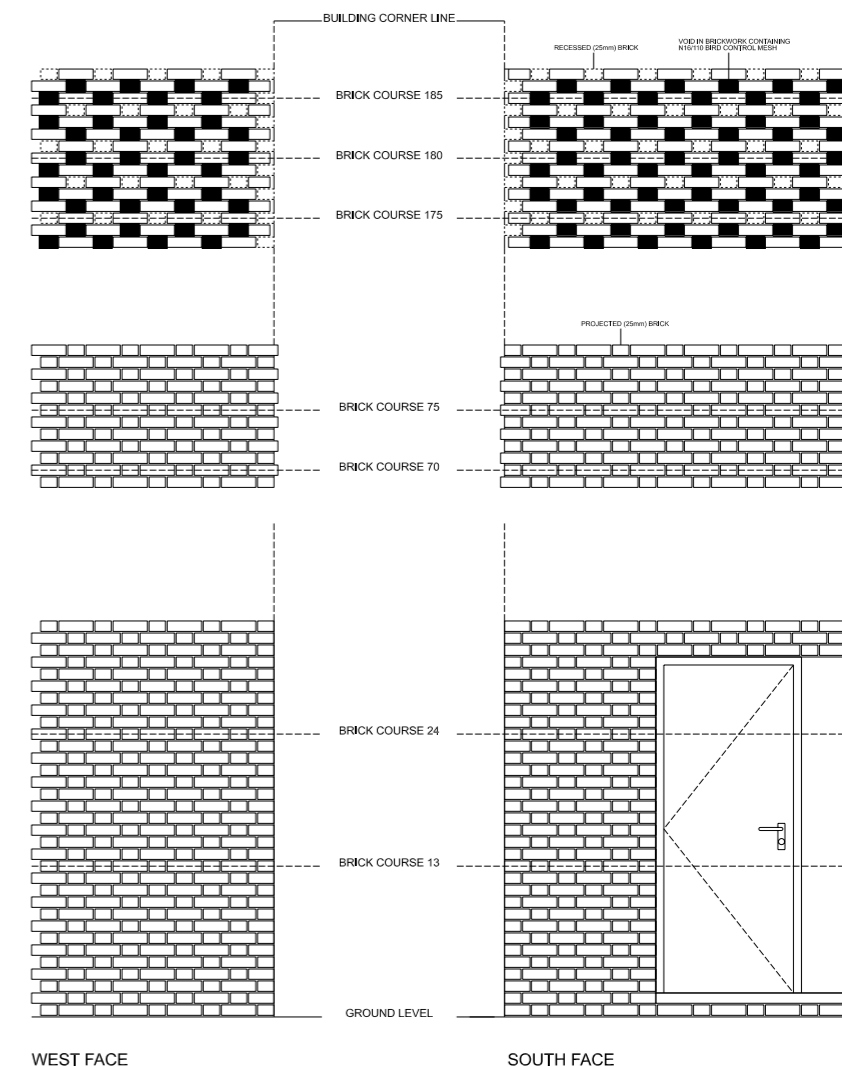
Across the length of the building the height varies - the eastern tower was designed to be lower in height, facilitating a viewing corridor to the Olympic Stadium in the south-west, as well as a view to central London, St Paul's and the Swiss Re tower.

Sustainability is at the heart of the substation design through the reuse of materials from the demolition of the former Kings Yard buildings. The building also includes a 'brown roof' which will allow species to naturally colonise the site, enhancing the ecological value and biodiversity of the Olympic Park site by attracting local wildlife. The roof's weight supplements a blast protection strategy, one of many technically demanding aspects of a challenging brief.



“We congratulate the client and architects for producing a real piece of architecture out of an everyday brief. We think this is an object lesson in how even relatively minor parts of the Olympic programme can benefit from committed design thinking.”

The Commission for Architecture and the Built Environment (CABE) and Design for London (DfL)







CRAFTSMANSHIP | OLD SWINFORD HOSPITAL TEACHING BLOCK - BRADGATE HARVEST ANTIQUE



OUTDOOR SPACE  
TO MARKET, THORNBURY - CATTYBROOK HANDCRAFTED BRICKS



PUBLIC BUILDING & CRAFTSMANSHIP  
GLASGOW CITY MISSION - STAFFORDSHIRE BLUE BRINDLE SMOOTH



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INNOVATIVE USE OF BRICK | BLUE DOOR - ELEMENTIX COPPER





HOUSING 1 - 5 UNITS | HOUSE, FORMBY - BIRTLEY OLDE ENGLISH



EDUCATIONAL | FITZWILLIAM COLLEGE, CAMBRIDGE - CROWBOROUGH MULTI STOCK



INTERNATIONAL | CASTLEFENS, CO KILDARE - ONYX BLACK & VITESSA WHITE



HOUSING 6 - 25 UNITS  
WATER STREET, PORT SUNLIGHT - COMMERCIAL RED & ATLAS SMOOTH RED



SPECIALIST BRICKWORK CONTRACTOR  
GRANGE TOWER HOTEL - SMOOTH BUFF



# Back to Basics

## Brick Textures

The colour and texture of bricks is influenced both by shaping and firing and by the addition of minerals and pigments.

### There are four different types of brick:

#### Handmade & Stock

Commonly have soft edges, always a frogged body (indent in the top of the brick).



#### Waterstruck

Often a solid brick, although a few products are made frogged. Commonly a lip is evident at the bottom of the face.



#### Wirecut

Precise edges are formed within the manufacturing process although a softer edge may be achieved by texturing or distressing. Holes or perforations through the brick are an easy way of identifying if the brick is wirecut; these can be in different patterns. Solid wirecuts are available on a limited number of products.



### Brick Textures

There are seven standard textures for the face of the bricks



Smooth



Creased



Dragfaced



Rusticated



Rumbled with creased face



Sanded



Rolled

### Special Bricks

Ibstock also produces several special bricks which will provide different textures when built.

The Umbra range of shapes is designed to create intriguing and exciting shadow effects across a façade. Umbra designs bring buildings to life, changing the appearance of buildings throughout the day, from dawn until dusk. The unique shapes can be installed as complete panels or interspersed with standard brickwork to develop bespoke looks.

The established Fireborn range of clay blocks now offers two additional textures.

Lined



and Riven



The Umbra range is available in four designs:

Sawtooth



Wave



Pyramid



Sphere



### Decorative Bonding

The bond pattern that the bricks are laid in will also affect the final appearance of the building.

Diaper work is a familiar site in many parts of the UK.

Other bonding patterns such as projecting brickwork (see first article in this issue) dog tooth corbelling, herringbone patterns, basketweave and stackbonding will produce different effects.

For more information on using brick textures in building design contact one of the Ibstock Design Advisors on **0844 800 4576**.



# Wall to wall innovation no: 230



**Elementix® is an innovative range of clay rainscreen cladding systems developed to offer an unrivalled choice in façade finishes.**

**Elementix® Express** is a cost effective and quick to build system in a range of the most popular size formats, natural clay colours and surface finishes.

**Elementix® Freedom** removes the design constraints of standard panel formats allowing sizes to be specified to suit the building. In addition Elementix® Freedom has exceptional sustainability credentials.

**Elementix® Colour** offers a virtually unlimited palette of ceramic glazed finishes to make every project unique.