

# DESIGN

from IBSTOCK BRICK

**Spring 2017**

In this issue: PRP Architects, RH Partnership, Groupwork, Design Engine, Collective Architecture plus freestanding and retaining walls, and Ibstock's new state-of-the-art brickworks



Student Services Building, Arts University Boumeimouth, by Design Engine (ph: Nick Kane)

# DESIGN

from IBSTOCK BRICK

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# Ibstock Update

## BLEND ON TREND

The Arden Weathered Grey and Leicester Weathered Grey Stock have been both recently launched by Ibstock. They are intended primarily for the specification sector, where the company is finding an increased demand for grey tones as well as the striking weathered effect. Also new from Ibstock is the Tunstall Red and Whitmore Mixture (above right).



The products add to the strong range of house-builder bricks from Ibstock's Chesterton factory and are likely to be popular with regional and national developers.



Arden Weathered Grey 4990



Leicester Weathered Grey Stock 4933



Tunstall Red 2958

## BDA BRICK AWARDS

With 77 Brick Awards since 2005, a selection of which is shown here, Ibstock has been the most successful brickmaker in the prestigious annual celebration organised by the Brick Development Association. Entries are now open for the 2017 Brick Awards in 15 sponsored categories. The winners will be announced on 9th November at the awards ceremony, a black-tie event at The Hilton Park Lane, London. For Brick Awards entry details visit: [www.brick.org.uk/brick-awards/](http://www.brick.org.uk/brick-awards/) To book tickets for the awards email: [evelivett@brick.org.uk](mailto:evelivett@brick.org.uk)

**1 Best Commercial Building 2015**  
Project: The Haven Hostel  
Architect: Gottstein Architects

**2 Housing Development 6-25 units 2014**  
Project: The Quay, Waterside Phase 1  
Architect: Black Hawk Properties

**3 Best International Project 2014**  
Project: Dalkey Avenue  
Architect: De Blacam & Meagher Architects

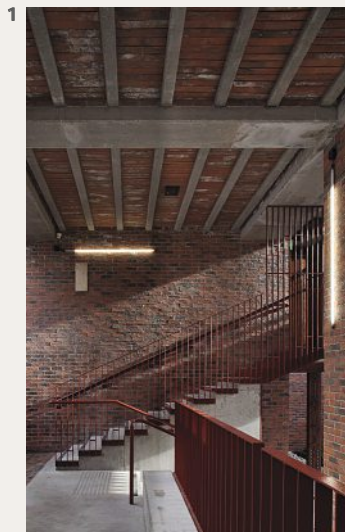
**4 Volume Housebuilding Award 2015**  
Project: Taylor Wimpey East London, City Mills  
Architect: PRP Architects

**5 Housing Development 26 units or more 2014**  
Project: Abode  
Architect: Proctor & Matthews

**6 Best Large House Builder 2016**  
Project: Linden Homes, Greyfriars Quarter  
Architect: Stride Treglown

**7 Best Education Building 2016**  
Project: Brentwood School Learning Resource Centre  
Architect: Cottrell & Vermeulun

**8 Individual Housing Development 2016**  
Project: Courtyard House  
Architect: Dallas Pierce Quintero





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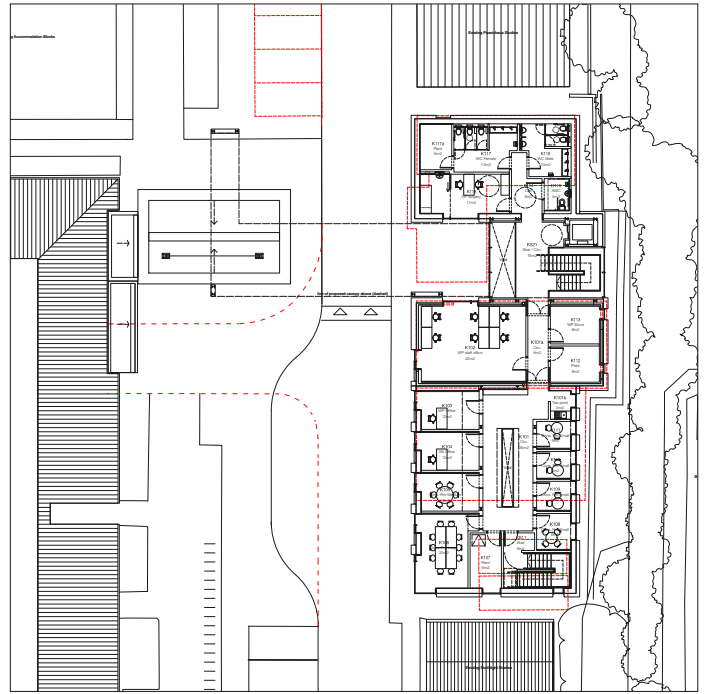
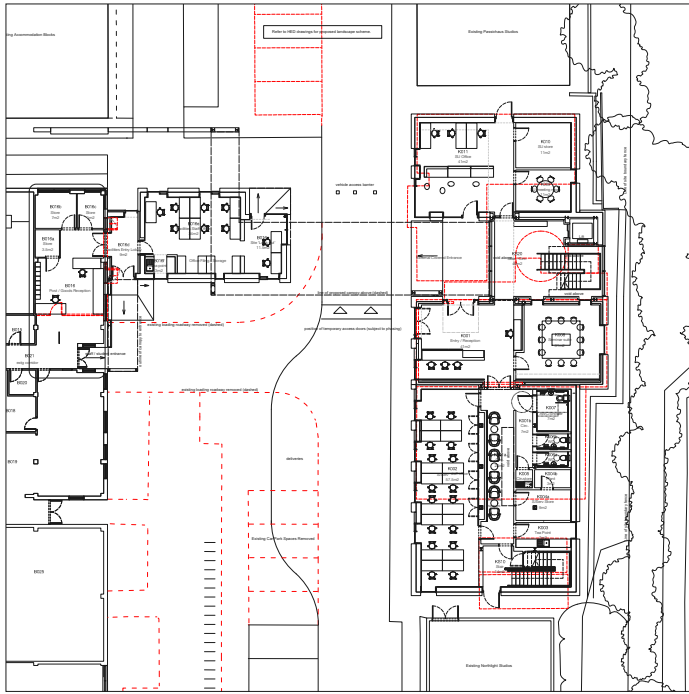
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# Campus Consolidation

Elegant brickwork elevations unify a complex project by Design Engine for a new Student Services facility at Arts University Bournemouth. The scheme combines new buildings with re-faced and reconfigured existing buildings that together provide a new focal point within the campus.







**Right**  
Internally, the contemporary structure has been optimised for acoustic control, creating a calm and welcoming environment for the growing student population of the university, a leading UK institution for high quality specialist education in art, design, media and performance.





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The Student Services Building at the Arts University Bournemouth, by Design Engine Architects, forms a key component in the masterplan for the development of the university's Wallisdown campus. The project combines a new two-storey building with re-clad and refurbished existing spaces. It provides a new home for the student services department, the student's union and campus facilities management and creates a striking new approach to what was previously a poorly defined edge of the campus.

Discreet from the main campus centre and oriented along the eastern boundary of the site on a high footfall route readily accessible to all students, Design Engine Architects' scheme accommodates a suite of improved and expanded facilities for staff offices, student consultation and counselling, a drop-in GP surgery, seminar and meeting spaces and a new reception.

The project necessarily included the strip-out and incorporation of an existing two-storey structure, now completely enveloped into a longer two-storey brick-clad elevation. Brick is used as the primary cladding material for the suite of new buildings, positioned either side of a shared entry foyer and circulation space, with an extension to an existing building across the access road opposite.

The whole scheme is linked visually by a dramatic sculptural steel canopy that brings together all of the brick volumes, adds impact to the new entrances, and extends across the adjacent road to tie in the single storey building housing extended facilities and a new post room.



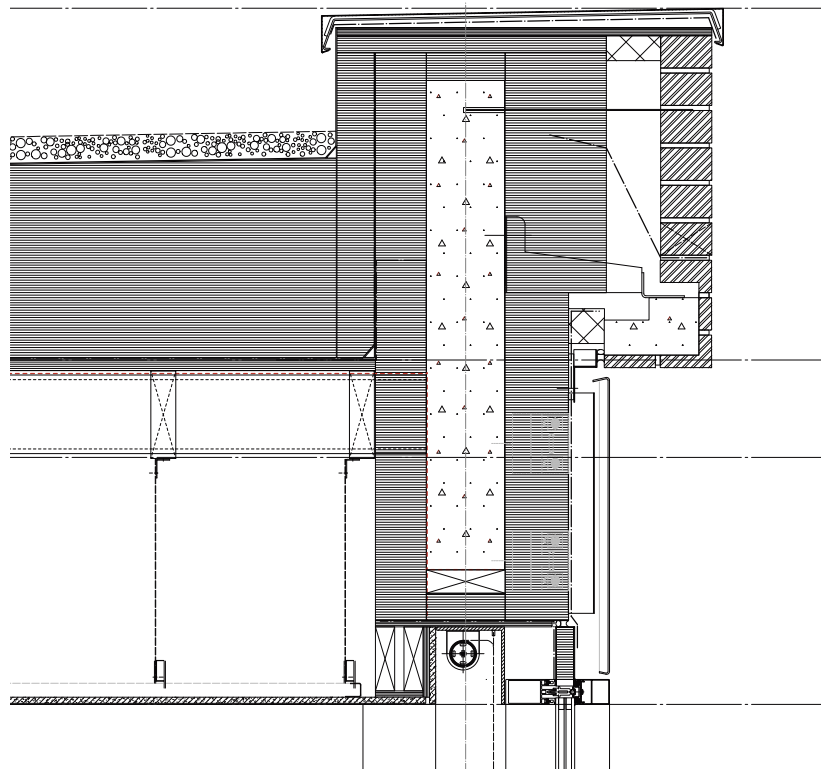
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Designed to target 'Passivhaus' environmental performance standards, the new buildings have been created around an innovative insulated concrete formwork construction, with triple-glazing, bespoke mechanical and environmental systems and a highly insulated and air-tight external envelope that minimises the building's energy consumption and running costs in use.

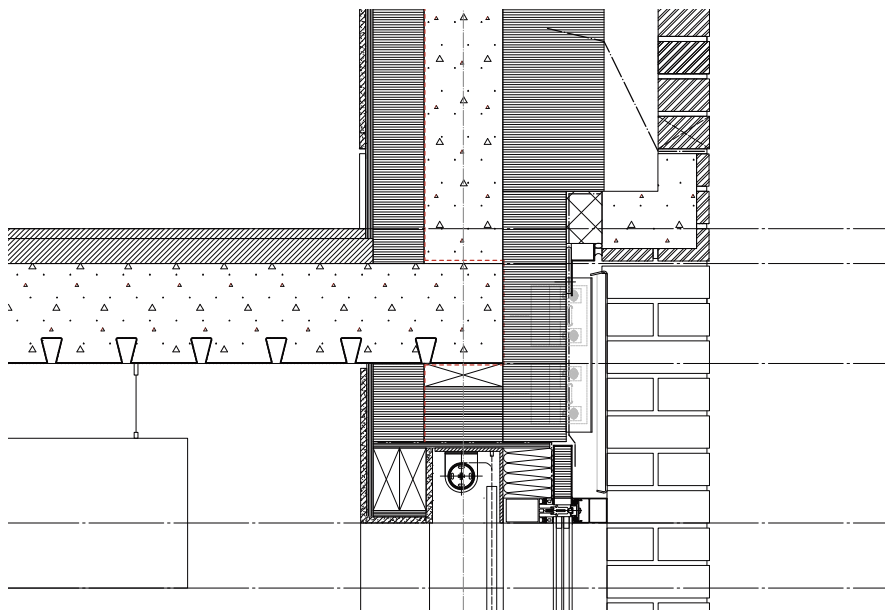
To create the contemporary appearance required, Design Engine chose to clad the buildings in Ibstock's Chailey Stock, a red sandfaced brick with dark contrasts that matches well with the brick vernacular of the existing campus buildings. In specifying a dark-grey charcoal dry mortar, however, the architects sought to integrate the brickwork with the new dark-grey finished aluminium window frames and cladding panels.

Executed to a high standard, the robust and durable brickwork facade contributes to the exceptionally high thermal performance of the external envelope. It is punctuated by generous full-height aluminium glazed panels and corner feature windows, creating a distinctive pillared appearance that characterises the scheme. The architect has incorporated matching Ibstock-Kevington pre-cast underslung brick-faced lintels and hung panels at window heads, achieving a depth to the brickwork finish that completely and neatly frames the window panels, maintaining a simple and flawless brickwork facade, without the usual lintel intrusions.





**Left**  
Typical section details. Oliver Moore, Design Engine associate, commented, "The detailed integration of precast brick-faced elements was central to the achievement of our design, allowing the incorporation of generous full-height and corner windows with inset aluminium clad facades and louvres for natural ventilation."



**BUILDING**  
Student Services Building,  
Arts University Bournemouth

**BRICKS**  
Ibstock Chailey Stock

**MORTAR**  
Euromix Dry System Charcoal EO22

**ARCHITECT**  
Design Engine Architects

**BRICK CONTRACTOR**  
GP Masonry Contractors

**PHOTOGRAPHERS**  
Nick Kane, Jim Stephenson

# HAPPI Outcome

Windmill Court in Chingford, designed by PRP Architects for the Circle 33 Housing Trust, ticks all the boxes in its provision of affordable housing for the elderly, in accordance with HAPPI recommendations, while also allowing for an independent lifestyle.









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Windmill Court is an affordable housing scheme designed by PRP Architects to meet all of the HAPPI (Housing our Ageing Population: Panel for Innovation) recommendations while providing state-of-the-art, contemporary homes for older people. The building, at Weale Road, Chingford, replaces two out-of-date community centres with generous apartments and communal facilities that are specifically designed to meet the needs of older residents and maximise their independence for the future.

The contemporary architectural design offers a high quality addition to a residential street that previously lacked significant architectural interest. The scheme reinforces the street frontage with a strong rhythm to the facade and provides a central welcoming entrance.

While the development is predominantly three storeys in height, the top floor is set back to give a two-storey appearance to the street. In addition, the scale of the elevations is tempered by a framework that identifies individual apartments. The apartments are flooded with natural light, with the majority south-facing, and all have private balconies and winter gardens. The winter gardens to each apartment provide a buffer to the street while open balconies with brise soleil provide shading at the top floor. The materials and finishes were carefully specified to relate to both the local housing vernacular and the historic Friday Hill House nearby.

The building design has a very simple, logical plan intended to make way-finding easy. Circulation is via colonnades and external

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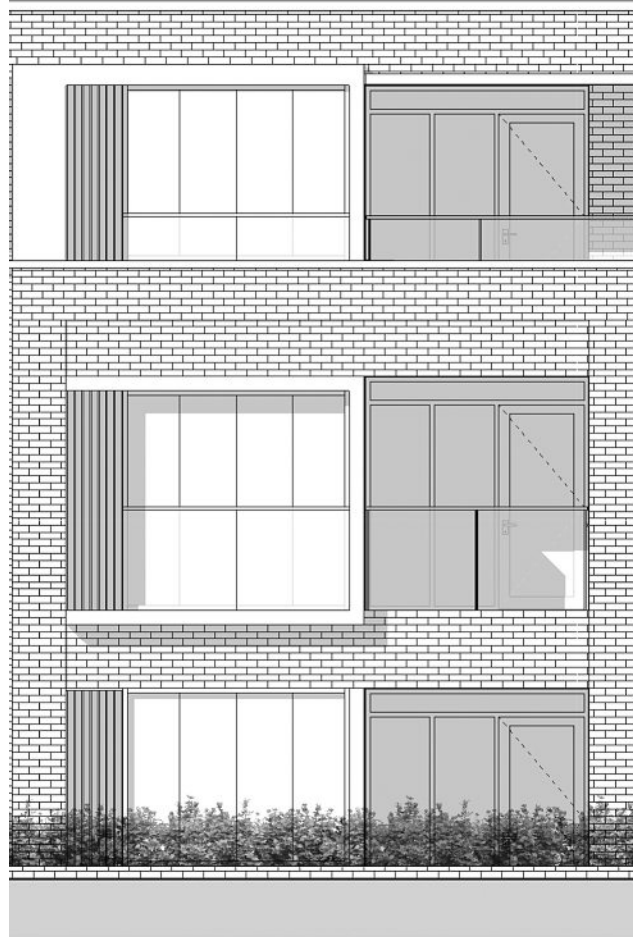
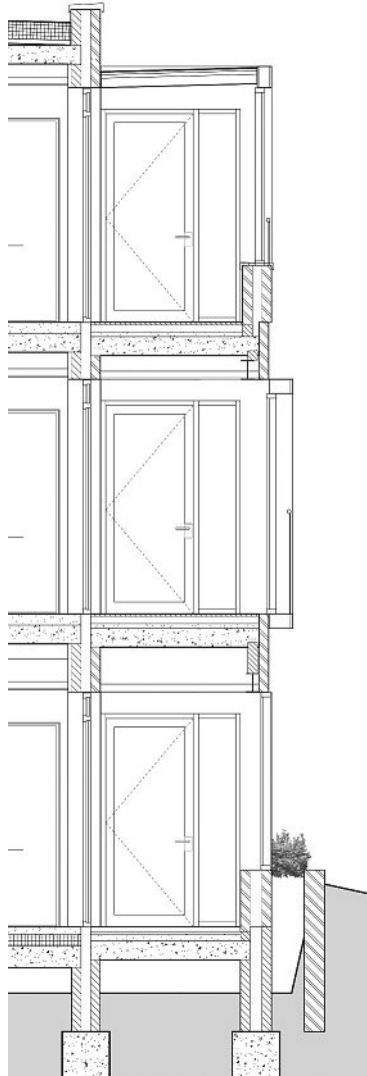
walkways which offer connection to the gardens, opportunity for interaction, natural surveillance and views across the site. Windmill Court has 24-hour staff presence and care delivered to suit residents' needs. The building and grounds are barrier-free with level access and generous space standards throughout.

The scheme meets all of the recommendations in the original HAPPI Report in a bright, attractive and contemporary way. Large communal spaces including a lounge, salon and activity room provide a vibrant social heart for community interaction. The residents' garden provides an accessible space for outdoor activities and a green prospect from the communal spaces and open-deck circulation.

At the recent Housing Design Awards, Windmill Court was honoured with a HAPPI award, taking PRP's tally to seven since the HAPPI category's introduction in 2010. Windmill Court was praised for the layout's skill in exploiting access and exposure to panoramic views, as well as the carefully designed recessed entrances that provide dignified thresholds for each home.







**BUILDING**

Windmill Court, Chingford

**BRICKS**

Ibstock Bradgate Light Buff  
Ibstock Bradgate Medium Grey

**ARCHITECT**

PRP Architects

**CONTRACTOR**

Higgins Construction

**PHOTOGRAPHER**

Tim Crocker

# Glasgow Initiative

A rich mix of new houses and flats occupy sites made vacant by the demolition of a high-rise tower and low-rise maisonettes. The first phase Sighthill redevelopment, by Collective Architecture, aims to reinforce the existing sense of community but with much improved living conditions.





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Sighthill is the largest of eight 'Transformational Regeneration Areas' identified by Transforming Communities: Glasgow, a partnership between Glasgow Housing Association, Glasgow City Council and the Scottish Government.

Proposals for Sighthill were developed to re-house a proportion of Glasgow Housing Association residents from the multi-storey flatted blocks that were programmed for demolition in order to facilitate Glasgow's bid to host the 2018 Youth Olympic Games. The bid was ultimately unsuccessful but Glasgow City Council committed to the development of the wider site.

The first phase of regeneration in Sighthill, designed by Collective Architecture, comprises 141 new homes, providing a variety of house types for social rent. The flatted blocks consist of one and two-bedroom properties, while the houses range from one-bedroom cottage flats to large five-bedroom family houses. House types are dispersed throughout the development to create mixed and balanced occupancy levels across the area. Wherever possible, existing tenants were rehoused near to one another, to help with the settling-in process and maintain the strong community links.

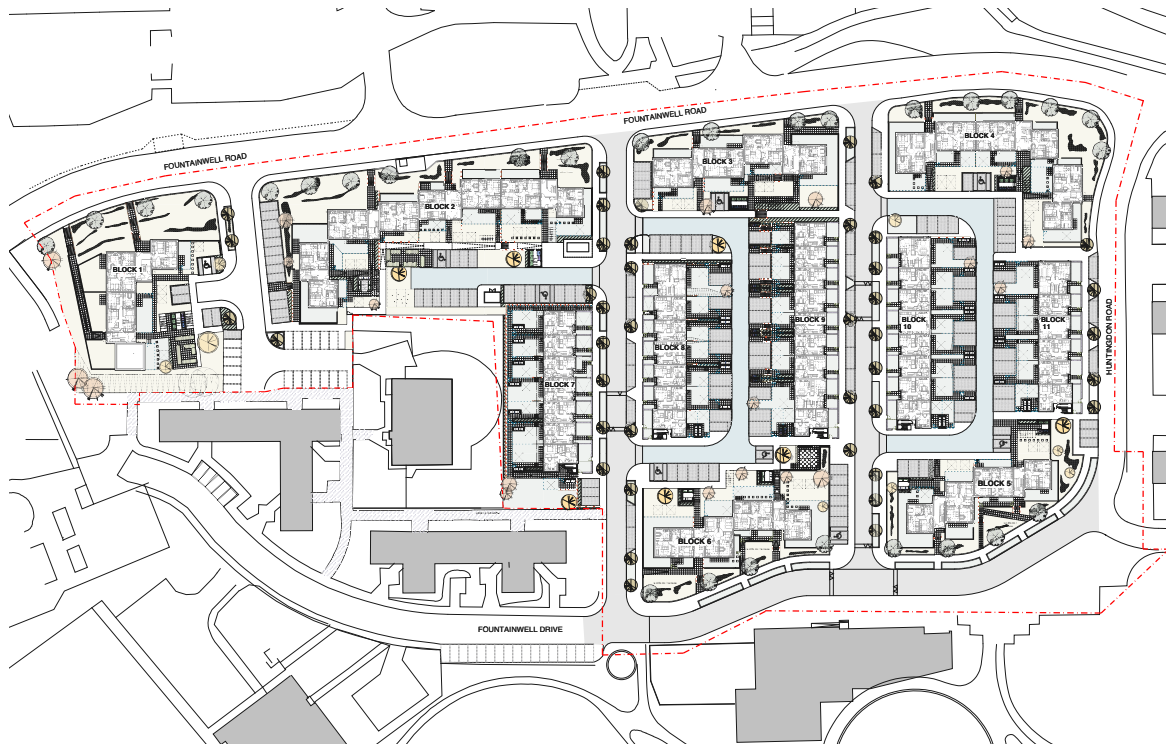
The streets and block layouts in the Sighthill masterplan have been designed in line with Glasgow City Council's Design Guide for New Residential Areas, which builds on 'Designing Streets' guidance to help create active and safe streets. Residents' parking is located to the rear of the properties, with on-street parking for



**Left**

Collective Architecture's Sighthill redevelopment provides 141 new-build houses and flats, making use of a mostly vacant site, following the demolition of a high-rise block and low-rise maisonettes. The remaining buildings had become run down and isolated, connected by redundant, poor quality infrastructure. The issues of fragmentation and a lack of clear delineation of public and private space were priorities to be addressed in the design. The site strategy therefore creates three distinctive urban blocks, with new north-south streets between Fountainwell Drive and Fountainwell Road.

These new blocks respond to the scale of the existing flats and provide complete streets with clear definition of public and private space. The north and south edges to the site are defined by flatted blocks, with terraced houses running north to south. The buildings to the northern edge are 3-4 storeys, responding to the topography and creating a strong edge when approaching the site from both east and west. The southern flatted blocks are kept to three storeys, to minimise overshadowing of the adjacent two storey housing and respond to the existing context of a low rise community centre and nursery.



**Above**  
Due to the scale of development, the design team felt it was important to provide a strong identity for the new neighbourhood, and chose to express this through careful selection of materials and the creation of strong built forms, building on early Scottish styles such as cross-stepped gables and rectilinear blocks. The contemporary response to this has been to use the roof pitches and corners to provide interest and variety along the streets, as well as deal with the challenges offered by the level changes across the site.

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visitors only, freeing up the street from vehicles. This creates space for trees, landscaping and wider pavements, helping to visually narrow the road and slow traffic, as well as prioritise pedestrian movement. The street landscaping serves to enhance biodiversity and habitat networks across the site.

As the site was the first element of the wider re-development plans for the area, it was important to deliver a high-quality design with strong identity that the community could relate to and be proud of. This was achieved through careful selection of materials and the creation of strong built forms. The decision to use light facing brick, contrasting with zinc cladding at key corners and gables, provides variety, in particular along the longer elevations. The material palette and landscape specification were reviewed throughout the design process with an engaged steering group consisting of local residents and future tenants.

The regeneration of Sighthill has delivered modern, attractive, energy-efficient homes within a high quality streetscape, carefully knitted in with other existing GHA and privately owned homes and public buildings in the area. In the longer term, the development will fully integrate into the wider regeneration plans being developed by Glasgow City Council which will include further housing developments, student accommodation, a school campus, road and land bridge connections, shops, a park, and improved, safer links to the city centre.



**BUILDING**  
Sighthill Regeneration, Glasgow

**BRICKS**  
Ibstock Caledonian Buff

**ARCHITECT**  
Collective Architecture

**BRICK CONTRACTOR**  
CCG

**PHOTOGRAPHER**  
Keith Hunter



# Screen Gem

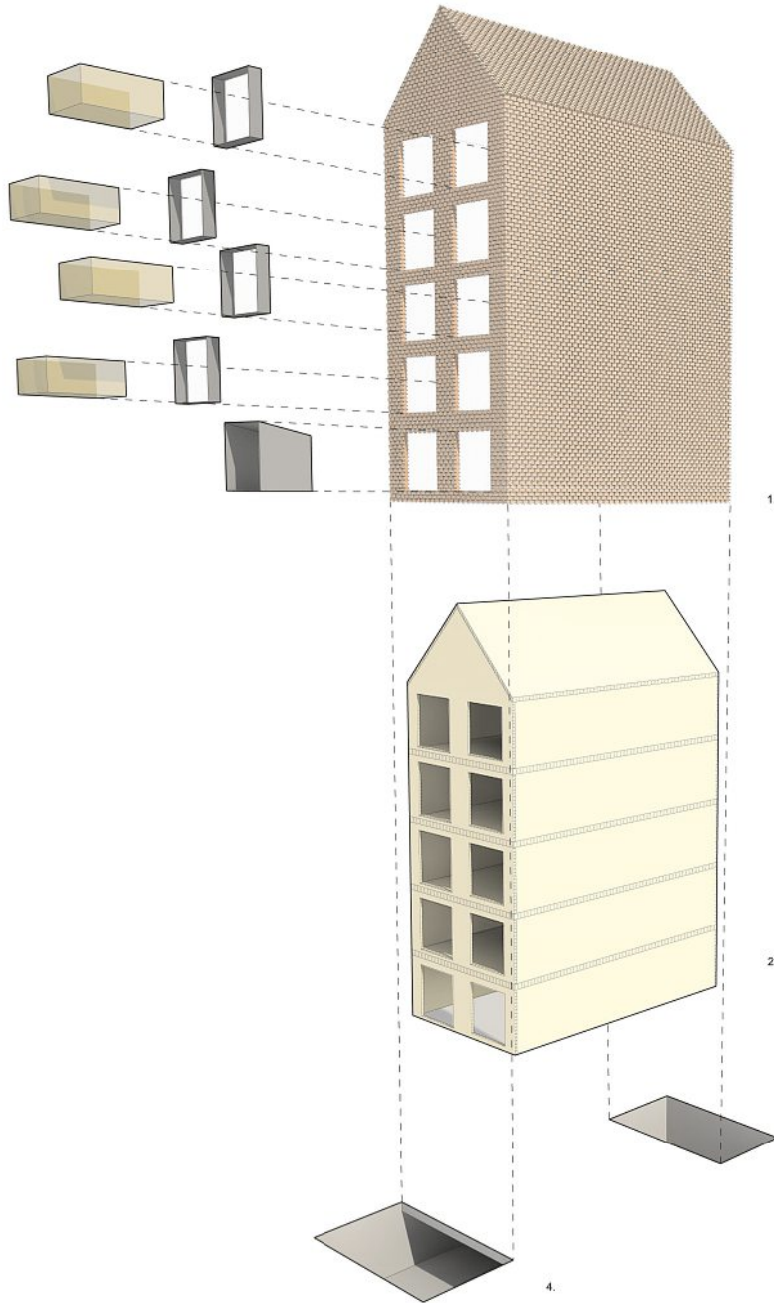
An all-embracing brick rainscreen envelops a cross-laminated timber structure at Groupwork's multi-storey residential building at Barrett's Grove, anchoring the project to its brick context in Stoke Newington, north London.







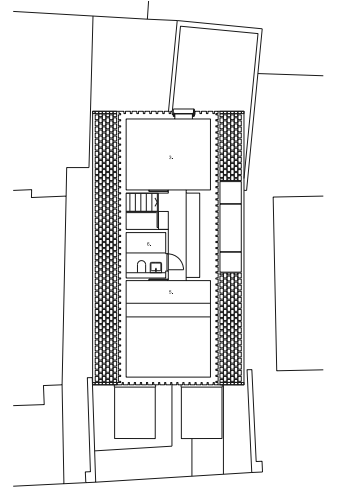
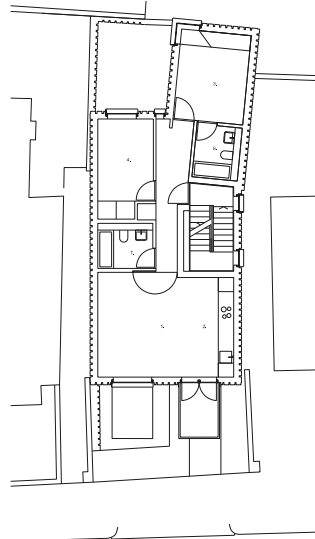
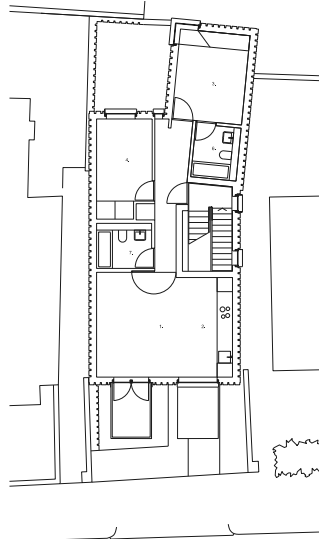
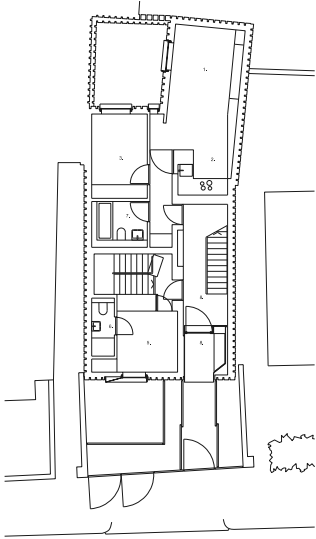




Barrett's Grove is an archetypal street of Victorian two-storey brick-built terraced houses that were later interrupted by detached apartment buildings, a tall, red gabled LCC school and a rubble walled church. The new addition sits amongst these later, standalone structures. A simplistic 'house' profile was generated in part through consultation with children at the adjacent primary school. Their awareness from stories of the comparative pitfalls of making houses of straw, wood and brick was in our mind.

The tall red brick gable facing the street echoes those of the LCC school and is formed in plan by a one-bedroom apartment with a second smaller site constrained block engaged at the rear to create the second two-bedroom plan. If the overall building form is intended to help complete the parade and its detailing is architectonically driven by a choice of exposed superstructure suited to residential use; the finer detailing was developed to reinforce a domestic and tactile scale.

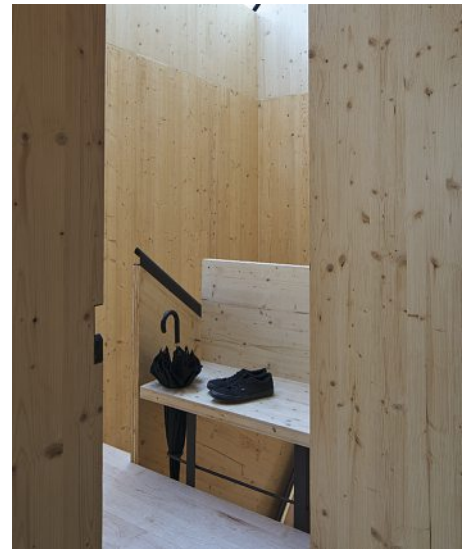
The red Ibstock Beamish Blend brick has been double stacked in an open stretcher bond which forms a self-supporting facade intermittently tied back to the cross-laminated timber (CLT) superstructure to allow differential movement



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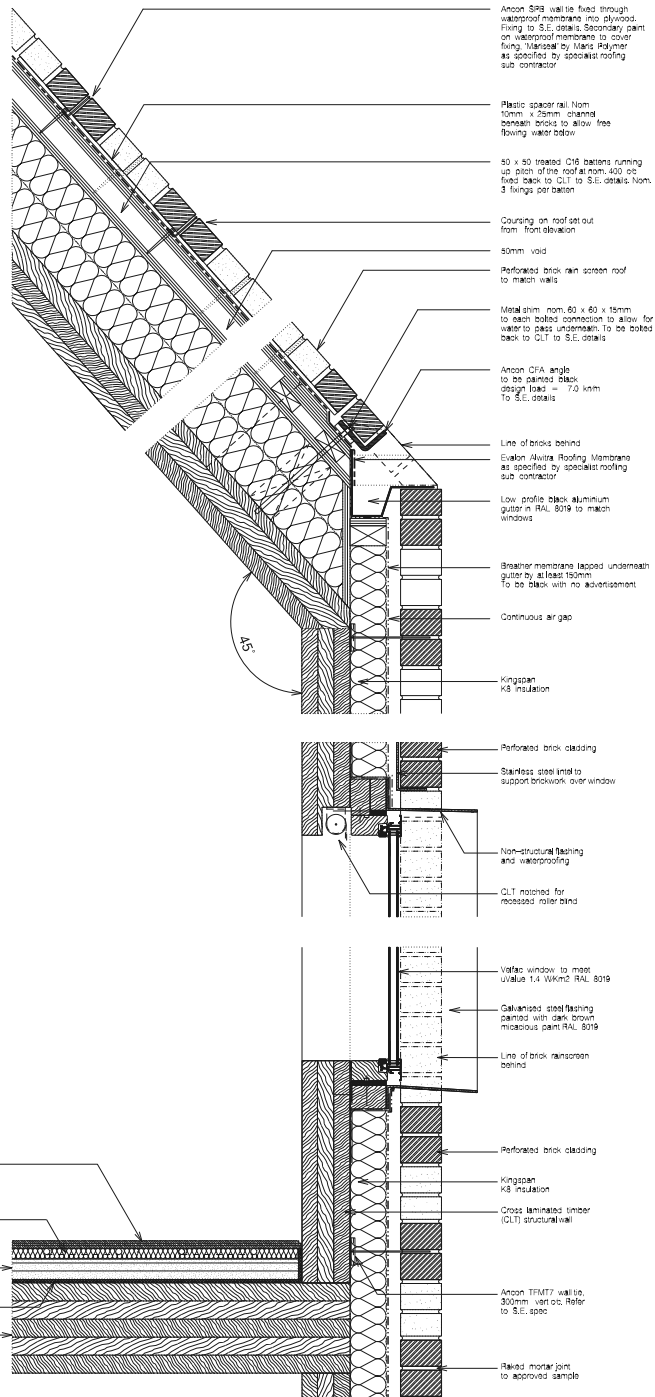
from the wood structure. The colour and texture echoes that of its neighbours to add some unity in the street scape. The perforations are there to demonstrate the facade is only that and not load bearing, further empathized by allowing this 'skin' to wrap across the roof. The double stack aims to lend some assurance of solidity, if not defensiveness. Given the slenderness of the building, its window and door openings were left uniformly large but on a grid to maintain a strength of form. Wicker is woven through the steel truss balconies that hang from every other aperture, softening the overall material palette.





## Right

The CLT superstructure is the primary physical element and because of its inherent visual and tactile qualities is left exposed to the interior, writes Groupwork. Externally, once the appropriate depth of insulation and its vapour check are applied, a decision needed to be made on the nature of the visible facade. Given the conservation area and desire by the borough's planning officers as well as local residents to use brick the temptation for efficiency and cost purposes would have been to apply a standard half-brick thick wall and a tiled roof. As the brick would only need to be self-supporting the default bond would be stretcher. We worked with this argument to persuade the client that a further cost efficiency could be gained if the bond were allowed to have 25 per cent of its bricks removed, leaving it as a rainscreen. While also performing as a gentler textural finish in the street, the double-stack offset bond appears to expand the modular size of the bricks within the facade, increasing their scale and mass, and giving the facade a reassuring strength and solidity at close quarters. Allowing the rainscreen to remain unchanged across all surfaces, including the roof, lightens the overall mass of the unbroken symmetrical building form.



**BUILDING**  
Barrett's Grove, London

**BRICKS**  
Ibstock Beamish Blend

**ARCHITECT**  
Groupwork

**CONTRACTOR**  
Ecore Construction

**PHOTOGRAPHER**  
Timothy Soar

# Collegiate continuity

The Crausaz Wordsworth building, designed by RH Partnership, consolidates the modern heritage of brick buildings that characterise Robinson College, Cambridge.







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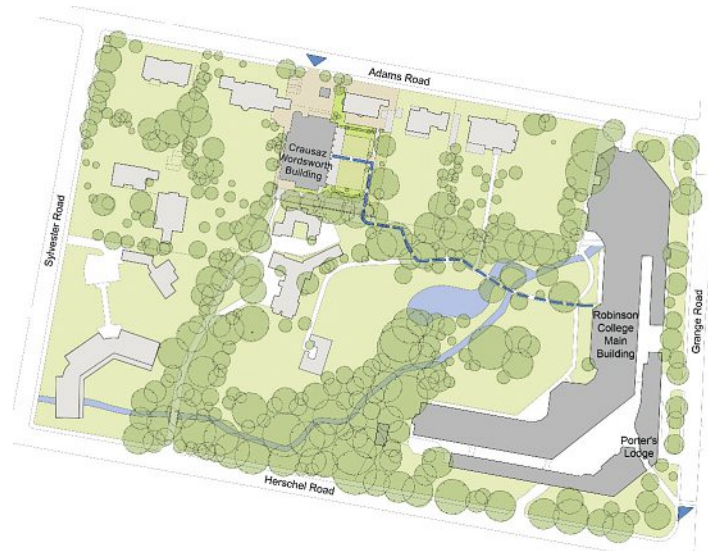
Robinson College is one of the newer of the University of Cambridge colleges, founded in 1979, and comprising distinctive brick buildings designed by Andy MacMillan and Isi Metzstein of Gillespie Kidd & Coia. The college is committed to ensuring that it is an environment in which learning, research and creativity flourish.

The original college buildings are located close to the University Library on Grange Road. They were constructed using a palette of red brick, brick pavers and red plain tile wall cladding in a compact, multi storey form. Existing mature gardens were preserved as a large central open space by the arrangement of the architecture of the modern college. The college continues to benefit from the beautiful, landscaped gardens at the centre of the site.



In 2009 RH Partnership was commissioned by the college to design a new teaching building with conference facilities to complement their existing black box raked lecture theatres in the main college. The site selected for the new building was a surface car park set between Edwardian villas in Adams Road backing onto the central college gardens, a short walk away from the main 1979 buildings.

The Crausaz Wordsworth building provides an elegant modern solution to the college's brief. The new building delivers a flexible flat-floor plenary space and conference rooms overlooking a remodelled garden, with high levels of natural light throughout the interior. The building has generously sized internal spaces including a double-height plenary room, a large





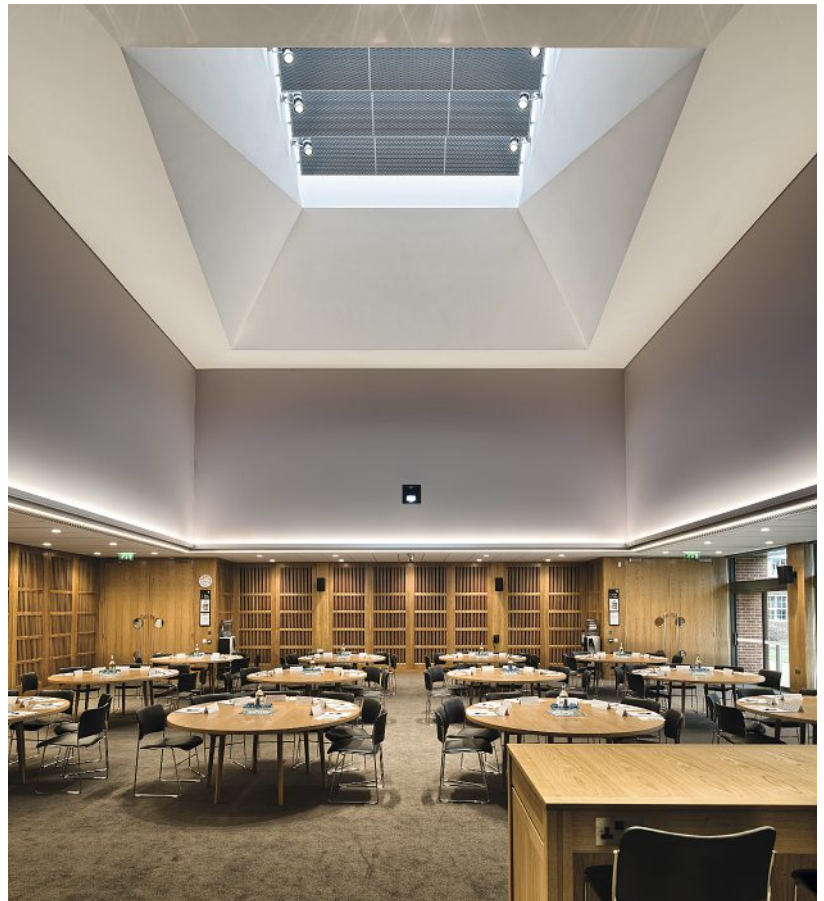
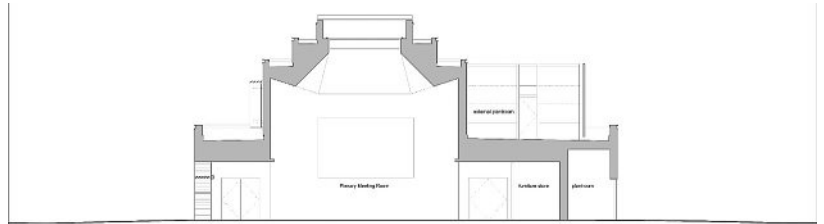
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reception area and three linked teaching/syndicate rooms. The simplicity of layout belies the sophistication of the audio visual systems and other supporting services essential for college and conference use in the twenty-first century.

The new building has been designed in an uncompromisingly modern style appropriate for the scale and use of the main spaces called for in the brief. The form of the building creates a red brick plinth and a brick arcaded garden cloister supporting anthracite grey zinc cladding that houses the larger volumes of the plenary room and syndicate teaching spaces above.

Traditional red brick and lime mortar was selected for its robustness and to match the materials used in the majority of the Edwardian houses in the street. The red brick also references the main college building which can be seen across the gardens from the upper floor of the new building.

Red brick and lime mortar is used in a number of different bond patterns, including snapped headers for the semicircular drum that houses the top-lit staircase on the entrance facade, English bond on the solid brick services building in the forecourt, and stretcher bond for the garden cloister to the side elevation. The deep recessed brick piers to the cloister provide solar shading to the south-east facade, allowing views out from the plenary room to the newly created garden spaces.

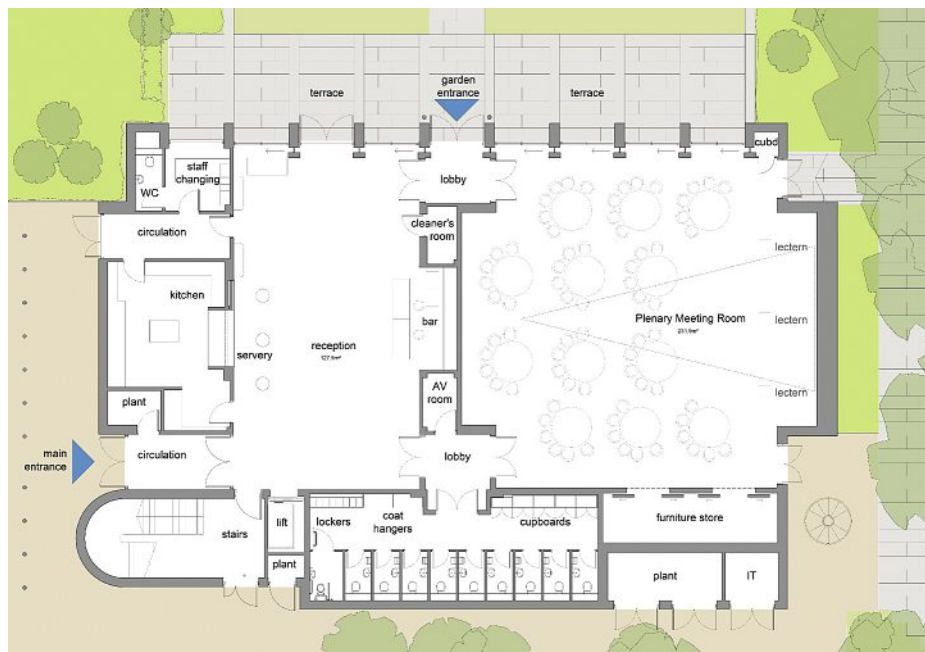
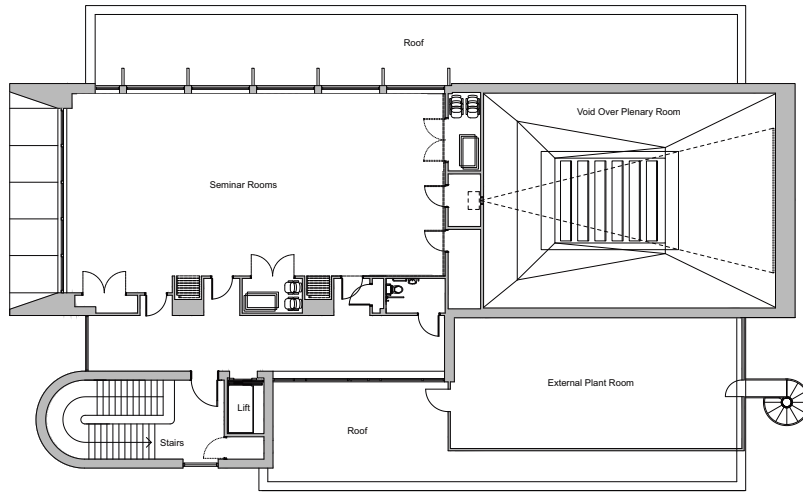


**BUILDING**

Crausaz Wordsworth Building,  
Cambridge

**BRICKS**

Ibstock Heritage Blend

**ARCHITECT**

RH Partnership (RHP)

**BRICK CONTRACTOR**

Hall Contractors

**PHOTOGRAPHERS**

Matthew Smith, Andrew Hatfield

# Technical: Freestanding & Retaining Walls

At least two projects featured in this edition of Design incorporate freestanding or retaining walls. Windmill Court, in Chingford (p12) shows how such features can contribute effectively to the design of a building. Sighthill in Glasgow (p18) illustrates the functional requirement at the external stairs. Freestanding walls are essentially a simple form of construction, but a knowledge of the basics is key to their design.

Ibstock recently received an email asking “I hope this isn’t a stupid question, but can I use brick-on-edge on a freestanding wall?”. We replied that the question wasn’t stupid, wishing more architects would query this type of detail before completing their design. In this case the Scottish location meant that brick-on-edge cappings would be inadequate. Our full reply included all the information in this article.

Where the climate is ‘Severe’ or ‘Very Severe’, as shown in blue or blue grey on the map (fig a), including the whole of the north and south west regions of England, all of Scotland and most of Wales, freestanding and retaining walls need to be built to withstand the vagaries of the climate – with copings.

This means that simple brick-on-edge cappings (fig b) are inadequate other than for the remaining ‘Moderate’ or ‘Sheltered’ areas. A coping must have a minimum of 40mm projection from the wall below and crucially include continuous weather drip throatings on the underside of the projections which should be extended around the ends of the wall.

Brick copings and cappings can be manufactured in a variety of different profiles – Saddleback

a



## Further information

For further technical advice for freestanding or retaining walls or any other technical issues, please contact Ibstock’s Design Advisory Service on 0844 800 4576.

The diagrams in this article are reproduced from the Brick Development Association’s guide ‘Severely Exposed Brickwork’ with its kind permission. The guide, with additional advice on freestanding and retaining wall construction, is free to download at: [www.brick.org.uk/2016/09/severely-exposed-brickwork/](http://www.brick.org.uk/2016/09/severely-exposed-brickwork/)

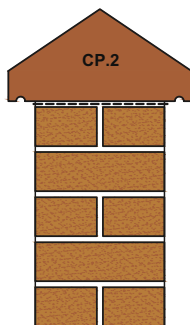
half-round (fig c), faceted, mono-pitch, double Bullnose (fig d) and Cant, and in differing thicknesses and lengths ie 65, 102, 140 or 215mm. Equally important is to have longer, stop-ends to give strength to the ends of the coping or cappings.

Too often copings or cappings have been built using a cheap polyethylene DPC. This can give rise to poor bond strength that is needed to keep the coping or coping in place. A similar result can occur if the DPC is laid dry on top of the brickwork below. To

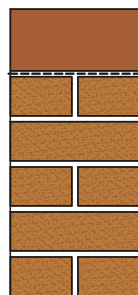
be effective, the DPC must be a bitumen polymer and be laid on a wet bed of mortar on the wall below with the coping or capping bedded on wet mortar on top of the DPC. The mortar bonds with the bricks and the bitumen polymer DPC holding them together.

If there is a high risk of dislodgement due to vandalism, consideration should be given to using Ibstock's unique Caplock system which locks together the coping or coping along the wall head (fig d).

b



Saddleback coping



Brick on edge coping  
(not recommended - see notes)



c



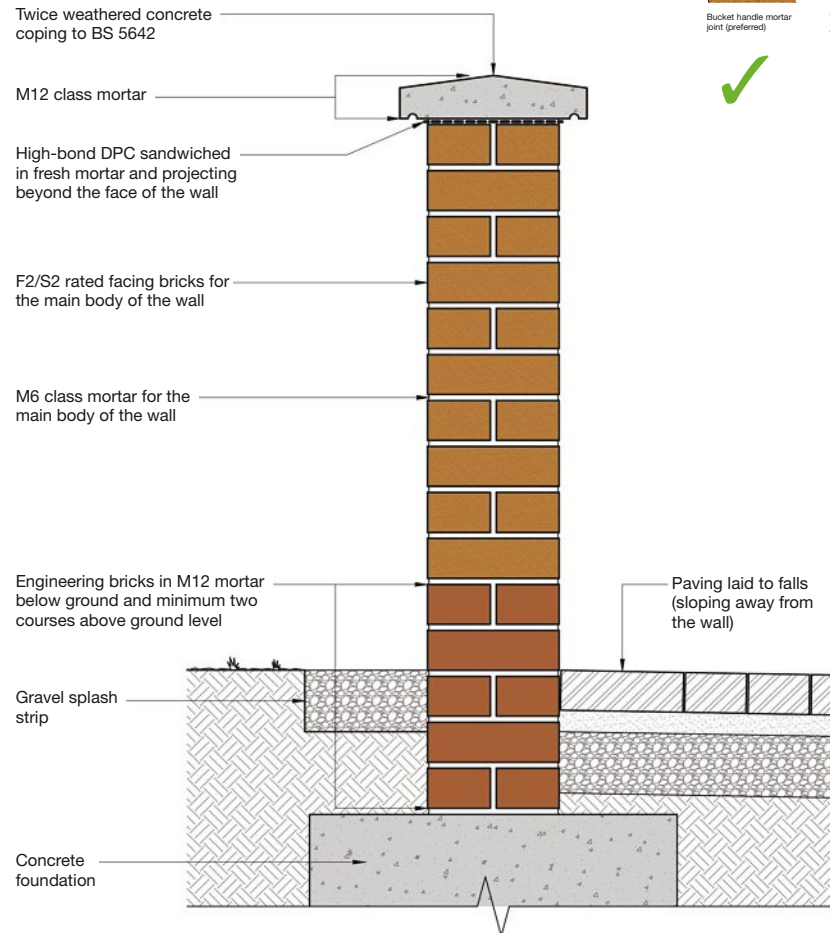
d



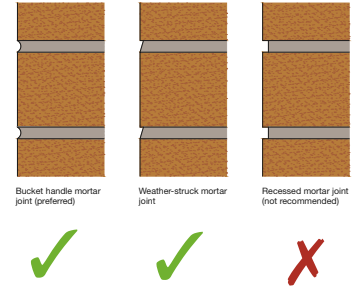
Freestanding walls should be a minimum of 215mm thick and bricks must all be F2 (frost resistant) and S2 (low active soluble salt content). For the first two courses immediately above the finished ground level, the bricks should additionally be of low water absorption ( $\leq 7\%$ ). Class A or B engineering bricks can also be used. These bottom two courses should be built using a class (i)/M12 designation mortar to resist rising damp. Above this level the bricks should be built using a class (ii)/M6 designation mortar. The copings should also be built using the class (i)/M12 designation mortar, unless the compressive strength of the bricks is lower than about  $25\text{N/mm}^2$  when we would use class (ii)/M6 designation mortar (fig f).

The mortar joint profile should be a Bucket Handle throughout, although a Weather Struck profile could be used for the wall below the coping or capping. Recessed or flush joints are not recommended as they don't offer sufficient resistance to rainwater ingress. Bucket Handle and Weather Struck are both compressed in the process of tooling to form the profile, pushing the mortar against the

f

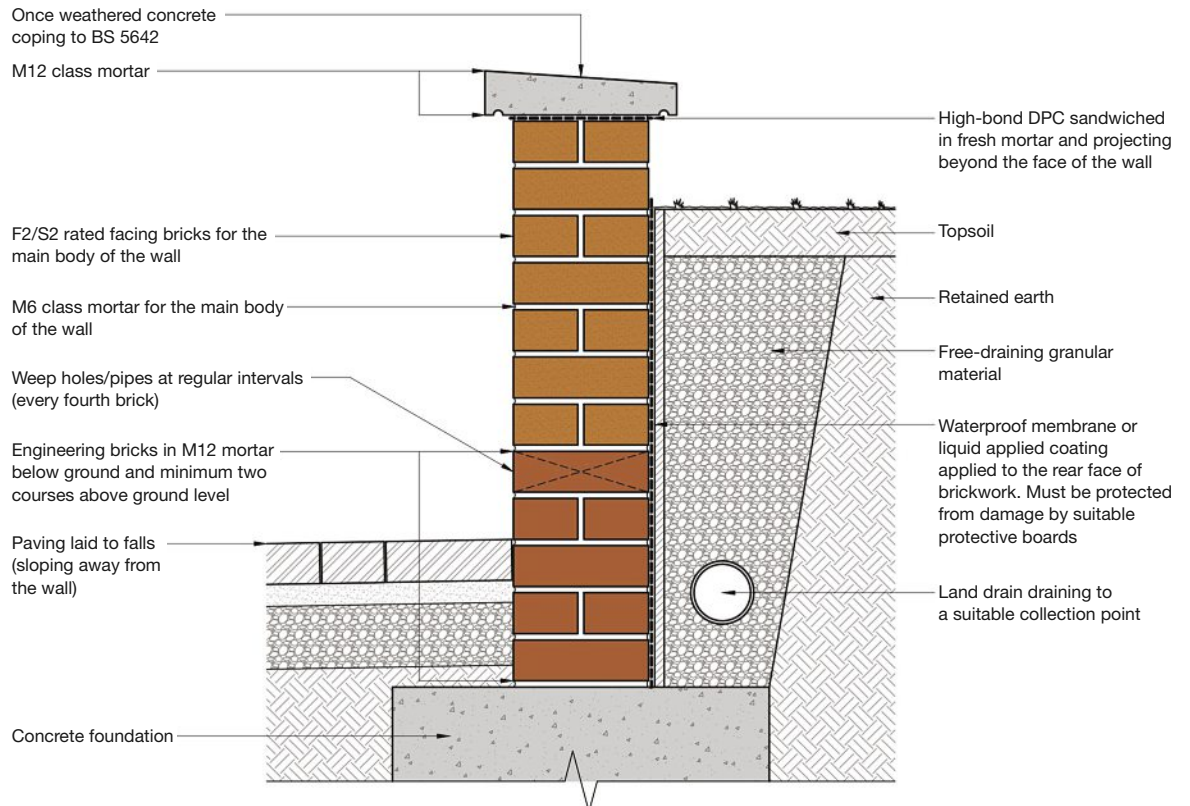


e





g



bricks excluding any small air pockets and making the surface of the mortar denser and more resistant to water ingress (fig e).

Movement joints should be incorporated in freestanding walls (fig g) at a maximum of six-metre centres, and three metres from

any corners and where there is a change in height or thickness. When the coping or cappings are built using the M12 designation mortar consideration should be given to decreasing the movement joint spacing to three-metre centres as the stronger mortar is less accommodating to movement.

Retaining walls are built in the same way as freestanding walls with the following additional requirements. The coping should be 150mm minimum above the retained ground level. The retained face should have a waterproof membrane or two coats of liquid applied water proofer to minimise

the water pushing through into the brickwork. Drainage should be provided along the back of the retained ground or 50mm pipes at 1350mm centres through the brickwork to alleviate water building up behind the wall (weepholes are insufficient as they are liable to becoming silted up).

## Profile: Ibstock's new Leicester factory

Ibstock has an unparalleled manufacturing capability within the UK brick industry, with 19 factories in its portfolio and a national spread which allows an average distribution distance of just 62 miles. Ibstock has also made substantial investments in assets and holds the largest clay reserves. The variety of brick factories employing numerous different manufacturing processes means that Ibstock can deliver the UK's widest range of bricks:

- Traditional clamp fired bricks from the Chailey and West Hoathly factories;
- True handmade products from the Swanage factory;
- Extruded bricks from 10 different factories;
- Unique Waterstruck bricks from the Birtley factory – one of only two operational waterstruck brick manufacturing plants in the UK.

As a business, Ibstock commits to continuous improvement, investing in both people and assets to ensure continuity of supply. This commitment is especially evident in the construction of a new £54m soft mud brick factory in Leicester, a project now well advanced which, when complete, will be the most efficient brick factory in the UK.



The new factory is designed to produce a wide range of soft mud bricks which are increasingly popular with housebuilders and which represent the bulk of the bricks currently imported into the UK from continental Europe. The factory will add about 100 million to Ibstock's current brick capacity.

The factory is being built in the context of under-achievement in house building – the UK falls significantly short of the 220-250,000 new homes that are needed each year. While the number of planning permissions granted in England & Wales is about 250,000 per annum, house delivery is forecast at around 170,000 for the next two years.

The new plant is located on nationally important clay reserves that are centrally located with excellent transport links. It has been developed with close community engagement and built without disrupting existing site output. The project forms part of the National Forest and has seen 15,000 new trees planted. The main structure was recently completed and the first bricks are due from the kilns in the summer with the plant fully commissioned and running at full output by next February.



**Above**

The new factory has an area equivalent to six football pitches. The building incorporates more than 42km of piling, 20,000 tonnes of steel, 30,000 square metres of cladding and 7,000 cubic metres of concrete.



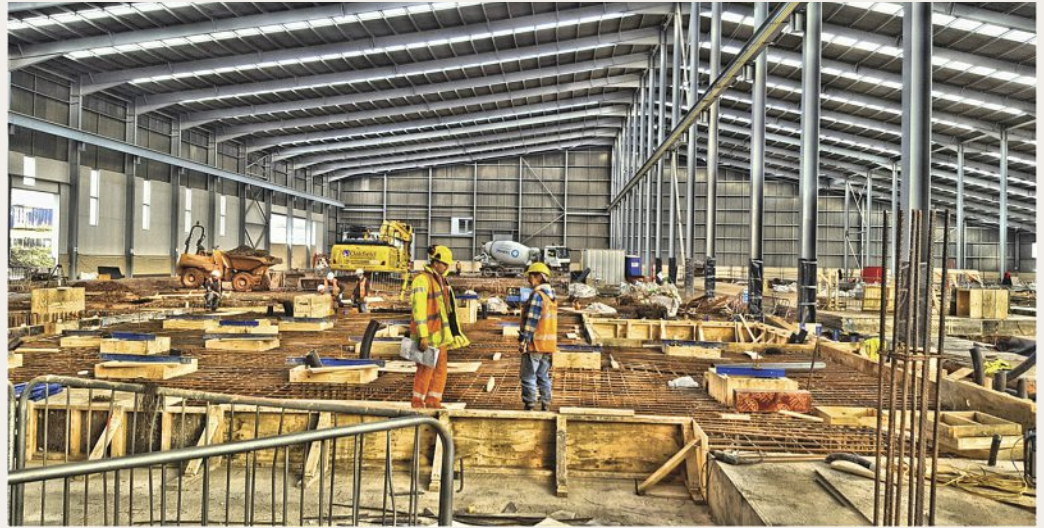


**Above**  
Site development plan showing the new factory (A) and woodland blocks (B).

**Left**  
The new factory will significantly increase Ibstock's brick production potential. It is located within Ibstock's main site, near Leicester, on previously developed land.

The Ibstock site is uniquely positioned strategically in the UK on good arterial road links. Reserves of clay at the site are within the existing consented areas, and this together with adjoining land means that clay can continue to be extracted locally.

Some of the buildings on site today can be traced back to the early nineteenth century but have been added to and modified to meet the changing demand for brick production. In 1994 Ibstock invested in buildings to house a new kiln and manufacturing equipment and the new development represents another stage in the organic growth of the manufacturing operations over nearly 200 years.



#### Above

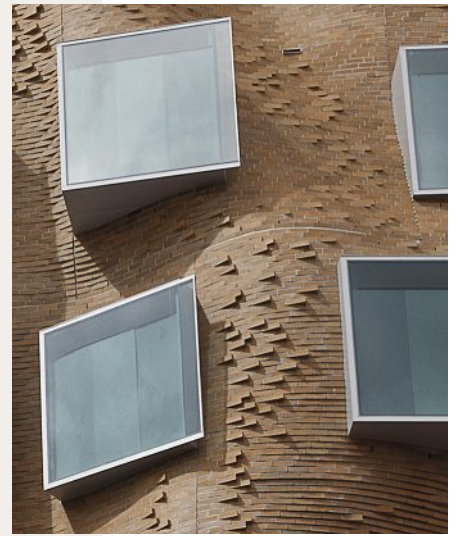
Clay extraction for brick making has taken place at Ibstock's site for nearly two centuries, with the forerunner to the present factory being associated with the historical colliery activities. By the mid 1950s the colliery closed and the brickworks expanded with a number of clay pits surrounding the works. Brick making first utilised the old North Works buildings and then the South Works, with the former now used by Fortcrete (a member of the Ibstock Group) but for the manufacture of concrete products.



# Ages of Brick

## So you think you know your bricks?

These six brick walls were built by well-known architects some time during the past century – see how many you can identify. Answers will be published in the next edition of Design magazine.





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Barrett's Grove housing, by Groupwork (photo: Timothy Soar)

Windmill Court, by PRP Architects (photo: Tim Crocker)

