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**IG** | Masonry  
Support

GOLD SERIES II

Inspiring Innovation In Brick

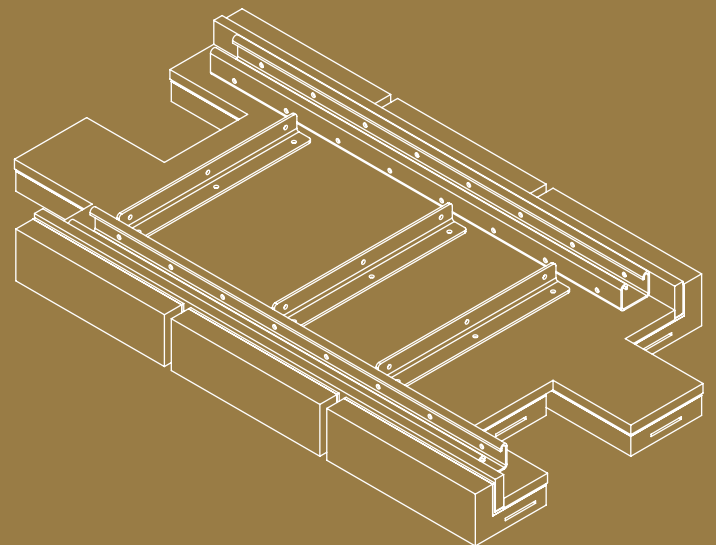
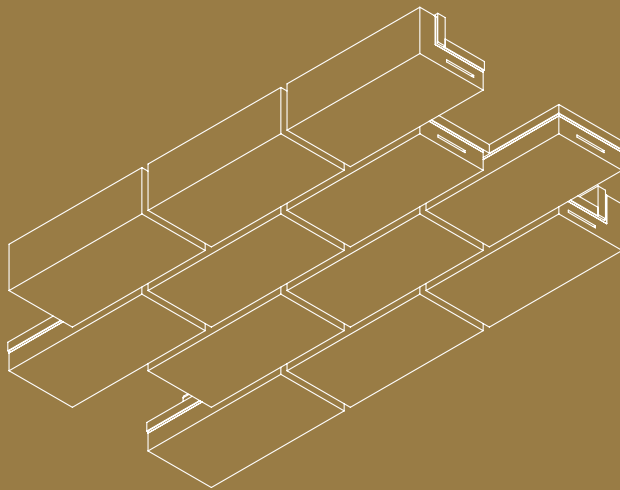


'Gold Series' highlights IG Masonry Support's most prestigious and Award Winning Projects.

IG Masonry Support is dedicated to delivering intelligent engineering with offsite craftsmanship.

We create the illusion of floating soffits of brickwork with hidden structural steel.

Throughout this portfolio, we acknowledge the people involved in delivering each project and the engineering excellence of IG Masonry Support.





04 — 09  
Borough Yards  
London

Borough Yards is a place that resonates with the blended work/play lives of modern urbanites. Located next to the historic Borough Market, the development of new retail streets, cultural galleries and commercial office space is urbane and welcoming. The restoration and transformation of Victorian brick railway viaducts and the creation of five new buildings feature an exceptional level of detail and brickwork authenticity.

10 — 15  
The Canal Turn  
Nottingham

The Canal Turn is the first of three phases to be delivered as part of a £650m mixed-use development (The Island Quarter) in Nottingham. The canal-side destination is located within a 36-acre nature-filled landscape that has been commercially re-imagined, with designers using the site's Victorian train station and warehouse buildings as inspiration.

16 — 21  
Southmere Phase 1B  
London

Comprising a total of 404 new homes, commercial space and public realm spaces, Southmere Phase 1B brings to life an area of former economic deprivation. Fourpoint Architects designed the new build homes with creative brick detailing to elevate the building's aesthetic.

22 — 27  
Radley College Chapel  
Abingdon

Radley College's Grade II listed Chapel embraces 21st-century technology alongside traditional craftsmanship. With the Chapel already at maximum capacity, the completed extension increases the seating capacity and sensitively reorders and restores its artefacts, including a series of stone and rubbed-brick arches throughout.

28 — 33  
Catherine Hughes Building  
Oxford

The Catherine Hughes Building at Somerville College in Oxford is a new-build development comprising four and five-storey student accommodation blocks. An integral part of the street scene and conservation area, the aesthetically-striking building features deep brick soffit reveals designed to be in contrast to the roofline.

34 — 39  
Brentwood Preparatory School  
Essex

Brentwood Preparatory School is an independent school for girls and boys aged three to 18 in Essex. It has been expanding since 2007 with new and remodelled facilities for the Preparatory School, alongside a new reception for the Senior School. Flush polychromatic decorative brickwork is used not just to enliven surfaces, but also to accentuate the building forms and pronounce the gables, arches, and bullseye windows.



# Borough Yards London

## Products Used

Welded Masonry Support, Brick Slip Sills, Brick Slip Masonry Support & Mechanically-fixed B.O.S.S.+

WINNER

Best Urban Project of the Year

MIPIM Awards 2022

WINNER

Place Making & High Streets

Future Cities Forum Winter Awards 2022

WINNER

Silver Winner

Better Future London Design Awards 2022

Mixed-use Urban Regeneration Project  
Borough Yards, London

Architect  
SPPARC

Developer  
MARK

Main Contractor  
Wates Group

Brickwork Contractor  
Lesterose Builders Limited



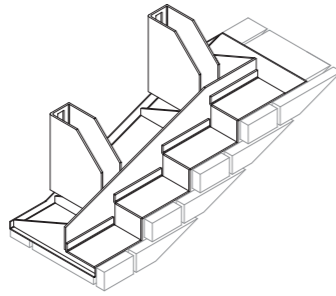


## Overview

The restoration and transformation of Victorian brick railway viaducts and the creation of five new buildings as part of an award-winning mixed-use development adjacent to the historic Borough Market required an exceptional level of detail and brickwork authenticity. IG Masonry Support was up for the challenge, playing a crucial role in the provision of a series of innovative brickwork solutions that successfully blend the old with the new, whilst retaining South London's Victorian railway heritage.

Built by Wates Group for developer MARK and designed by London-based architect SPPARC, Borough Yards features a number of transformed and re-purposed railway arches, viaducts and warehouses along with five new buildings, that weave their way from Borough Market to Clink Street.

IG Masonry Support worked with brickwork contractor Lesterose, designing and supplying a number of complex prefabricated brickwork elements including Welded Masonry Support (WMS), Brick Slip Masonry Support and its renowned B.O.S.S.+ (Brick on Soffit System).



Brick Slip Angled Soffit Design - Building 4

## Challenge

In this landmark conservation area, the brickwork for the new buildings needed to complement the existing brickwork on the repurposed viaducts and warehouses but also present their own unique character.

To meet these challenging design requirements, IG Masonry Support manufactured and supplied a range of prefabricated components that met both the wider considerations around planning in this conservation area and at the same time all the latest fire and building regulations.

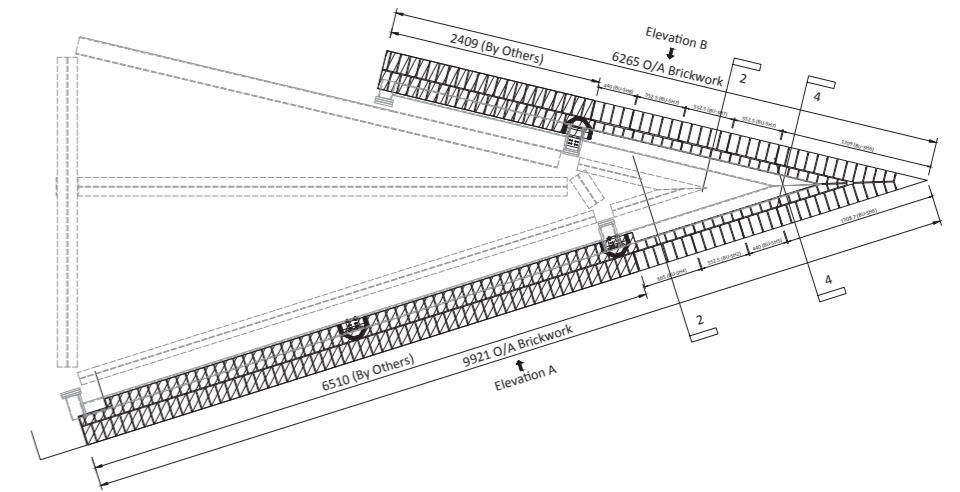
Due to the type of brick being used on buildings 2, 3, and 4 being a weaker composition, this necessitated pre-pointing the brick slips in dry, controlled conditions in order to create a high-quality, finished surface.

The distinctive 'Spearheads' featured on building 2 were the biggest challenge for IG Masonry Support. Installed over 4 level points of the building, these innovative Spearheads, never seen before, were manufactured from IG's B.O.S.S.+ which bolted to its Welded Masonry Support System.

Weight and size enabled these Spearheads to be installed as one unit directly from scaffold onsite. These bolted back to the structure and were slanted to allow any residual water to flow off.

As part of the complex design for building 4, the architect and design team required a bespoke 'floating' brick feature presenting a jagged design. The utilisation of IG Masonry Support's Brick Slip Masonry Support helped achieve the distinctive angled soffit design, offering a flawless and historic aesthetic in a modern, easy-to-install solution.

Spearhead Drawing - Top Course Sill Brickwork





The use of masonry to realise the vision was a fundamental part of our design ethos.

The brickwork itself is quite challenging across all five buildings. We wanted to ensure each of the buildings had its own unique character while harmonising with the surrounding area.

Working with IG and their huge range of products allowed us to realise these details that aren't common. The detailing around the masonry is the fundamental part of this scheme.

The idea of the brick piers, the way that the soffits are working and also the cantilevered parapet are all part of the technical solutions, delivered with IG to ensure the architectural vision was delivered.

Trevor Morriss  
Principal, SPPARC

## SPPARC



SPPARC is a renowned studio of architects, designers and thinkers based in London.

The practice delivers architecture, masterplans, refurbishments and interior architecture schemes.

Their high-quality portfolio includes many properties in the UK and around the world with sustainability being vital to their design process, ensuring that they have a positive influence on the world around them.

[spparcstudio.com](http://spparcstudio.com)



## Solution

An integral part of the street scene and conservation area, these stunning new buildings sit side-by-side with the historic viaducts and warehouses. The presence of IG Masonry Support's systems and the company's technical prowess has ensured this landmark Southwark development is thoughtfully planned, well-built and a sought-after attraction in South London.

### Building 1 ▶

One of the more straight forward elements of the development, building 1 required Welded Masonry Support and B.O.S.S.+ for each window head situated at level 1. This achieved a floating brick effect, blending seamlessly with the surrounding traditional brickwork with an easy-to-install solution.



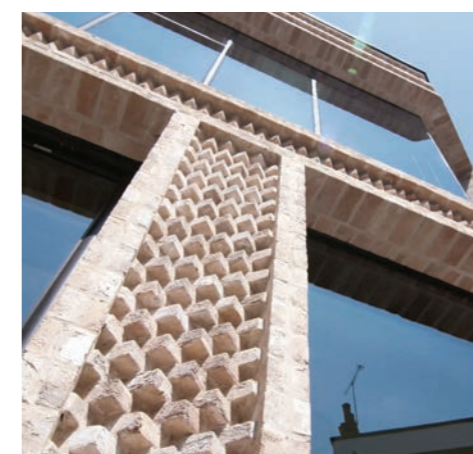
### Building 3 ▼

Building 3 featured B.O.S.S.+ , bracketry to support the soffits and fix back to the structural steel frame and also Brick Slip Sills to form the external brick facade. From street to roof level, the building features new interventions utilising brick construction to reference the site's historic architecture. Being the first building undertaken by IG Masonry Support at Borough Yards, product development was completed which gave solid foothold for the design and engineering required for the rest of the buildings. The solutions developed for this building were ultimately scaled up to feature on building 2.



### Building 2 ▲

Significant design time and liaising with the client was required to design and engineer a cantilevered solution that would feature at four levels of building 2. Known as the 'Spearheads', each was made up of IG Masonry Support's B.O.S.S.+ which was designed and bolted to its Welded Masonry Support System. Also requiring a solution was the stand-out cantilevered brick soffit featured at the front of the building. These high-quality, bespoke prefabricated systems offered a 70% weight saving against an equivalent concrete product, negating the need for mechanical handling and onsite labour.



### Building 4 ▲

Featuring a complex structural steel frame, thorough technical collaboration was required to design and engineer the jagged design features which were achieved with Brick Slip Masonry Support. Due to the intricate framing, there were many junctions and bolt connections which IG Masonry Support had to work around. As a result, Brick Slip Masonry Support Systems were designed and engineered with two courses of brickwork which easily bolted together and blended seamlessly with the surrounding brickwork.



# The Canal Turn Nottingham

## Products Used

Welded Masonry Support,  
B.O.S.S. (Brick on Soffit System)  
& Brick Slip Arches

SHORTLISTED

Place-making Project  
of the Year

Midlands Residential  
Property Awards 2023

Mixed-use Regeneration Project  
The Canal Turn, Nottingham

Main Contractor  
Sir Robert McAlpine

Architect  
Jestico + Whiles

Brickwork Contractor  
Lee Marley Brickwork

© Christopher Terry Photography





The Canal Turn was a pleasure to be involved in alongside IG Masonry Support. The result was stunning with the incorporation of their quality Brick Slip Arches and soffit systems. The intricately built venue required critical logistical planning and is a project we are all exceptionally proud of.

William Gingell  
Managing Director, Lee Marley Brickwork



## Overview

The Canal Turn features within The Island Quarter, a £650m mixed-use development in Nottingham, set to become a new landmark for the city and the Midlands. Featuring 20 restaurants, bars and cafés, the three-storey, canal-side destination is located within a 36-acre nature-filled landscape that has been commercially re-imagined, with designers using the site's Victorian train station and warehouse buildings as inspiration.

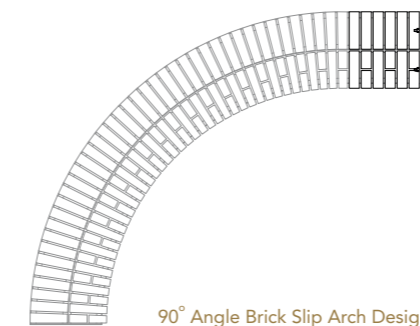
The nearby historic Lace Market, the epicentre of the world's lace industry during the 19th century and now a protected heritage area, was also an influence on the Island Quarter's architectural form.

The Island Quarter is 'setting the scene for something really different' for city centre mixed-used developments.

For this high-profile, complex project, IG Masonry Support was selected to design and manufacture 19 Brick Slip Arches that met the structural and aesthetic requirements of the three-storey building which will be home to the site's myriad social attractions.

## Challenge

IG Masonry Support was selected for The Canal Turn project following its successful completion of similarly complex projects in conjunction with brickwork contractor, Lee Marley Brickwork. The brief was to design and manufacture 19 Brick Slip Arches, 17 at ground level, and two at the fourth floor level.



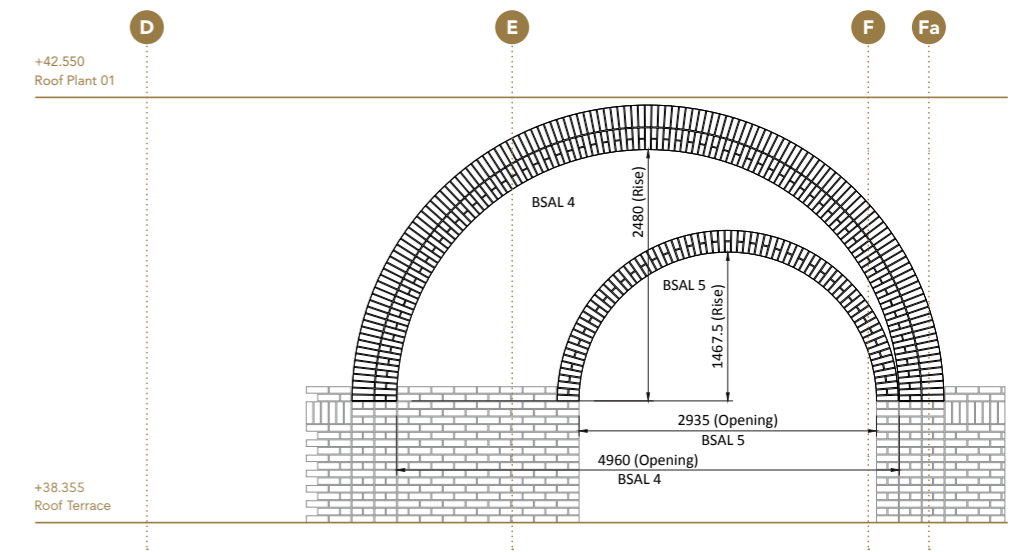
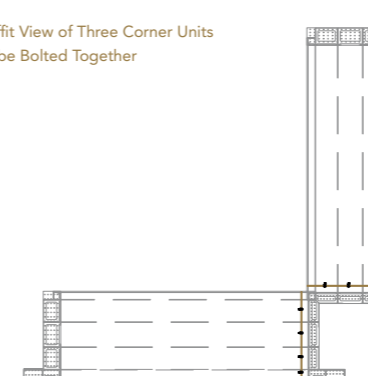
### Half-arch Corner ▲

The North East corner of the building featured a half-arch design which then wrapped around the corner and met a floating brickwork façade. The challenge of this element was ensuring the brick bond wrapped around the corner and blended with the surrounding brickwork.

### 90-degree Corner Arches ►

The greatest challenge of the 17 Brick Slip Arches required at ground level was coordinating the brickwork configuration of two deep-soffit arches, which were to meet at a 90-degree angle at the structure's corner. This required a great deal of technical exploration due to the complex steel structure and brickwork situated at this corner to make the building both structurally sound and aesthetically pleasing.

Soffit View of Three Corner Units to be Bolted Together



South West Elevation of Fourth Level Brick Slip Arches



### Fourth Level Brick Slip Arches ▲

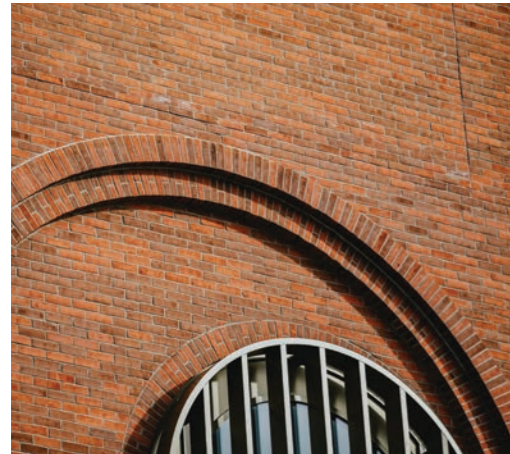
Two large Brick Slip Arches were required for the fourth level of the building. The bearing and size of these arches presented a logistical challenge for the project. Each arch was nearly five metres wide and two metres tall and once onsite, was required to be craned to the top of the building. This process was particularly challenging as there was approximately half a metre for the contractor to install the units into the correct position.





## Solution

The prefabricated nature of the arches supplied for this whole project not only guaranteed their controlled and high-quality manufacture, it led to a more rapid and cost-effective installation, with the units being delivered straight to site for immediate implementation.



## Jestico + Whiles



Jestico + Whiles is an international architecture and interior design practice based in London and Prague who have completed projects throughout the UK and across the world.

Their proven expertise is in sustainable design across a wide range of sectors: housing, hotels, education, offices, retail, research, transport, and cultural facilities.

[jesticowhiles.com](http://jesticowhiles.com)

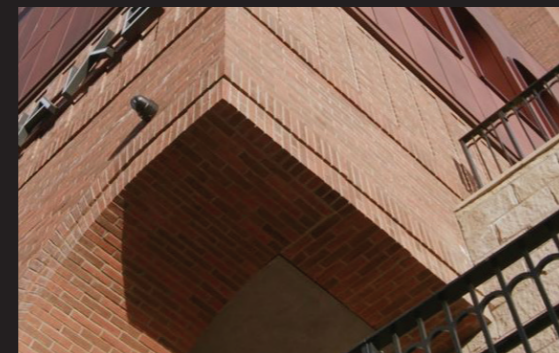


### 90-degree Corner Arches

The experience and expertise of our technical team and collaboration with our client was essential to ensuring the 90-degree corner arches' unique formation complemented the surrounding building work. Following extensive research and detailed assessments, a Brick Slip Arch system involving three units was designed and embedded within the structure's corner section, thus providing a suitable base for the deep-soffit arches to meet at the correct angle.

The 90-degree corner arch is built into three pieces consisting of a central pier in which the main arch systems would then bolt onto.

Due to their size, the arches were delivered separately and once onsite, were carefully craned towards the top of the building.



### Half-arch Corner

To tackle this complex half-arch corner of the building, IG Masonry Support designed a custom solution featuring a Brick Slip Arch, Welded Masonry Support, and B.O.S.S. (Brick on Soffit System). With the largest challenge being the brick bond wrapping around the corner of the building, IG had to continue the elevation bond pattern and the soffit arch bond pattern from the arch which then bolted onto a custom Brick on Soffit System (B.O.S.S.). The finished elevation view is a continuous soldier bond corner and blends flawlessly with the surrounding brickwork.



### Fourth Level Arches

In terms of the logistical operation to install the two large arches on the building's fourth level, the project required engagement with Nottingham City Council to implement appropriate road closures during the delivery. Due to their size, the arches were delivered separately and once onsite, were carefully craned towards the top of the building. This process was particularly challenging, as there was little space (half-metre) for the contractor to install the units into the correct position.

The client required IG Masonry Support to keep each arch as a whole entity to enable simpler and quicker installation.

Normally, arches of this size would be manufactured into a number of units. Due to the client's requirements, IG Masonry Support supplied a bespoke solution to keep the arches as a whole entity, ready for instant installation when delivered to site.



# Southmere Phase 1B London

## Products Used

Welded Masonry Support,  
Windposts, Cast-in Channel,  
Specials, Fixings, Brick Slip Lintels,  
B.O.S.S.+, Brick Slip Arch Lintels,  
Welded Shims, Cavity Tray Lintels  
& Brick Cutting



Evening Standard  
New Homes Awards 2022

## Residential Development

Southmere Phase 1B, Thamesmead

## Architect

Fourpoint Architects

## Developer

Peabody

## Main Contractor

Durkan

## Brickwork Contractor

Landmark Brickwork





Southmere Phase 1B was a particularly complex build programme. Products were designed, manufactured, and delivered by IG Masonry Support to the highest of standards and we were delighted at the dedication shown by their team to ensure all products met our client's expectations.

Martin Cockram  
Managing Director, Landmark Brickwork

## Overview

The Southmere housing development is being built as part of a regeneration project, designed to revitalise the Harrow Manor Way area of South East London. Designed by Fourpoint Architects, the new residences comprising mixed tenure units, include both shared ownership and affordable rental units, within a range of attractive tower blocks and town houses.

IG Masonry Support supplied almost all its products on offer across nine blocks on Phase 1B. The entire development is valued at £126m and IG Masonry Support's product package for this development is the largest the company has supplied to a project since its inception. The introduction of new building regulations set out by Approved Document B meant brickwork contractor Landmark Brickwork needed to find products that met the conditions. IG Masonry Support's B.O.S.S.+ (Brick on Soffit System) met these standards, making them the ideal choice of supplier.

The contractor engaged with IG Masonry Support and requested that its team developed a range of products, including bespoke items, to comply with the uniquely designed buildings with complex shapes and intricate façade detail.



## Challenge

The most obvious challenge for IG Masonry Support was the sheer scale of the project. As a result, the timescale from order to delivery was tight. IG Masonry Support assembled a dedicated team of technical detailers and engineers for the duration of the build programme to provide full customer service and in-depth technical support.

An inherent challenge of the project was the unique building design and intricate brickwork programme, which would be too irregular to use off-the-shelf products. The client would instead require bespoke products and innovative solutions to meet their specifications. For example, the recessed column feature meant that the columns were only half supported by the slab; therefore requiring a top bracket which was fixed to the slab to provide full support to the brick columns.

IG Masonry Support has demonstrated its innovation through its use of the new Cavity Tray Brick Slip Lintel. This was designed specifically for the Southmere project and is now being specified and utilised on many other schemes to meet the new Part L Building Regulations. It also offers a quick and practical solution for brick soffit detail. The manufacturer designed a custom waterproof gasket fixing to prevent moisture travelling through gaps in the lintel and tray, while ensuring the aesthetic finish at the face.

In addition to the B.O.S.S.+, the developer required almost every product offered by IG Masonry Support.

IG Masonry Support also created a bespoke Windpost design with special kinked plates to comply with the surrounding build work. Its B.O.S.S. units and arches were identified of a size and weight which could make installation difficult so IG Masonry Support adjusted the design accordingly to fix back the products. Providing technical drawings also presented a further challenge, as it was difficult to co-ordinate the brick bonds to ensure the brick soffits would perfectly tie in with the adjacent brickwork. Any brick bonds that didn't perfectly blend were reported to IG Masonry Support and were quickly rectified and redelivered to site, to ensure the build programme remained on schedule.

Additionally, the build programme was constantly changing due to being carried out during the COVID-19 Pandemic. Therefore, IG Masonry Support had to adapt to the evolving requirements. IG Masonry Support's priority became producing products more quickly than anticipated at times to meet tight deadlines.







© Fourpoint Architects

Thamesmead Regeneration Plans Phase 1A, 1B & 2

## Solution

On the Southmere development, IG Masonry Support was able to provide bespoke designs with a quick turnaround. The client initially enquired about products in December 2019 and following a consultation and approval period for design, received its first order just six months later, which was remarkably fast considering the bespoke nature of the products. Considering the large quantities of product, IG Masonry Support prefabricated them to ensure a faster installation speed for the client.

IG Masonry Support worked closely with customer Landmark Brickwork, main contractor Durkan and Fourpoint Architects throughout the build programme and all were highly impressed with the level of detail in the technical details provided by IG Masonry Support. They were also very pleased with the level of detail in quoting and the dedication of the team in collaborating, and delivering requirements.

The Phase 1B brickwork programme specified a variety of brick types, which changed regularly throughout the numerous blocks. IG Masonry Support's team were in constant communication with the relevant parties to ensure that the products blended correctly. Block C4, in particular, had an unusual bond pattern, so coordinating the brickwork required planning and engagement from the IG Masonry Support team.

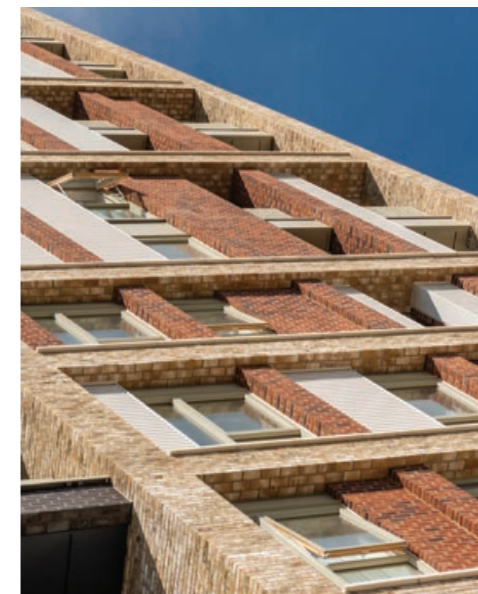


## Fourpoint Architects

Fourpoint Architects are designers in the residential and commercial sectors, mainly in London and the South East of England.

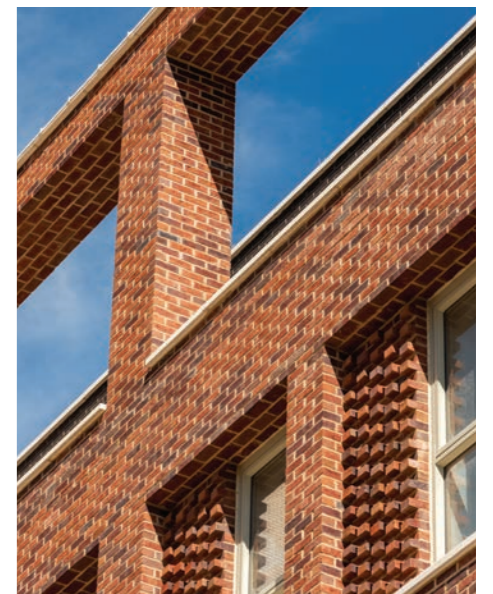
The firm is well resourced to serve its thriving client base in both the private and the public sectors and, has achieved a number of design awards for its work. The repeat commissions the practice regularly receives are an endorsement of the firm's commitment to provide quality in design, creativity and professionalism.

[fourpointarchitects.co.uk](http://fourpointarchitects.co.uk)



On the Southmere project, the client was highly impressed that IG Masonry Support was able to provide the desirable aesthetic finish, without compromising on the bespoke elements while working to tight, frequently changing timescales. The client was also pleased with IG Masonry Support's commitment to the build programme and its dedicated technical team of detailers and engineers who attended design meetings every week.

IG Masonry Support's prefabricated products resulted in an overall reduction of labour on the project. Furthermore, the final invoice value was also within 1% of the original quotation provided by IG Masonry Support. This demonstrates the accuracy of IG's estimations while proving to be a reliable supplier. The provision of IG's quality brickwork support solutions has led to an efficiently constructed modern housing development that will breathe new life into Thamesmead.





# Radley College Chapel Oxfordshire

## Products Used

Sectional Brick Slip  
Masonry Support Arches

WINNER

Supreme  
Award

Brick Awards  
2022

WINNER

Craftmanship  
Award

Brick Awards  
2022

WINNER

Project of the Year  
(up to £5m)

Building Awards  
2022

Educational Development  
Radley College Chapel, Abingdon

Architect  
Purcell

Main Contractor  
Beard Construction

Subcontractor  
OG Stonemasonry Contractors Limited



© Dan Paton Photography



## Overview

Founded in 1847, Radley College is one of the country's most esteemed independent public schools. The college's Grade-II listed chapel is the site's spiritual centre, being it's the only place where the whole school can congregate for daily services. As part of an elaborate expansion, the chapel recently underwent a refurbishment that included the building of a sanctuary.

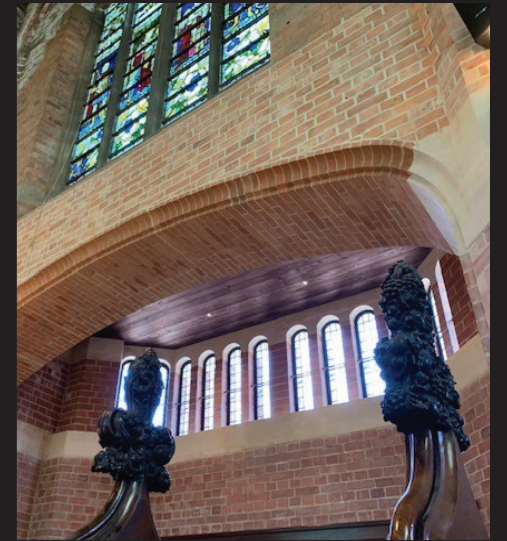
To augment this stunning new architectural feature, an octagonal plan form and roof lantern created from self-supporting curved structural glass featured as part of the design. The expanded chapel delivered an additional 207 seats to increase its total seating capacity to 807. The approach to the new sanctuary's octagonal plan form features a series of stone and rubbed brick arches. For these elegant structures, which lead from openings specifically created from within the chapel's nave, IG Masonry Support provided six sectional Brick Slip Masonry Support Arches. These bespoke designed solutions not only facilitated the inclusion of some intricate brick detailing to meet the architect's imaginative design, they also ensured a time and cost-efficient installation beyond the capability of traditional brickwork techniques.



© Dan Peaton Photography

## Solution

To meet the application's requirements, which needed to be unerringly precise due to the tight tolerances and size variances of the arches and surrounding structure, IG Masonry Support designed and manufactured each bespoke Sectional Brick Slip Masonry Support Arch. The process was complex and due to its non-standard nature, required a methodical, yet innovative approach. The support arches needed to blend seamlessly with the existing chapel and extension in a form that was beyond traditional bricklaying techniques.

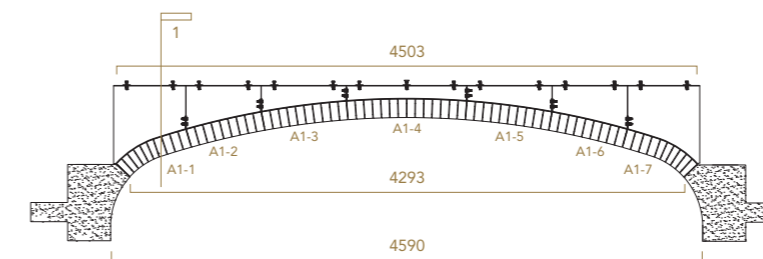


IG Masonry Support's success in meeting its intricate brief is testament to its experience and expertise in delivering brick slip solutions for projects of all size and purpose. The expanded college chapel has not only enhanced the historic building's grandeur and capacity, the refurbishment has also been recognised by winning multiple design awards including the prestigious Supreme Award at the Brick Development Association Brick Awards 2022.

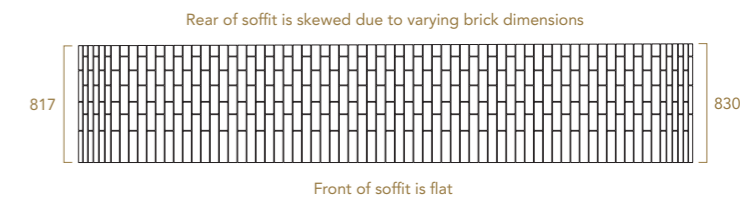
## Challenge

Selected for the project on account of the company's expertise in the supply of prefabricated sectional arches, IG Masonry Support was nonetheless confronted with a number of conundrums due to the programme's size and complexity. The Sectional Brick Slip Masonry Support Arches were required for two elements of the college chapel refurbishment: four new apse openings, and two ante sanctuary brick arches where an end wall intersected the existing chapel walls.

For IG Masonry Support, the four apse openings presented a challenge due to the varied wall thicknesses. Each apse arch had to fit between two kicker stones which differed in height, resulting in IG Masonry Support's design team having to work to tight tolerances and size variations in two planes. Challenges also came in the form of the arches' elevation, which needed to match the small radius vertically and the join that intersected them.



APSE Arch Detail



Soffit Outline with Northcott Red Brick





© Dan Paton Photography

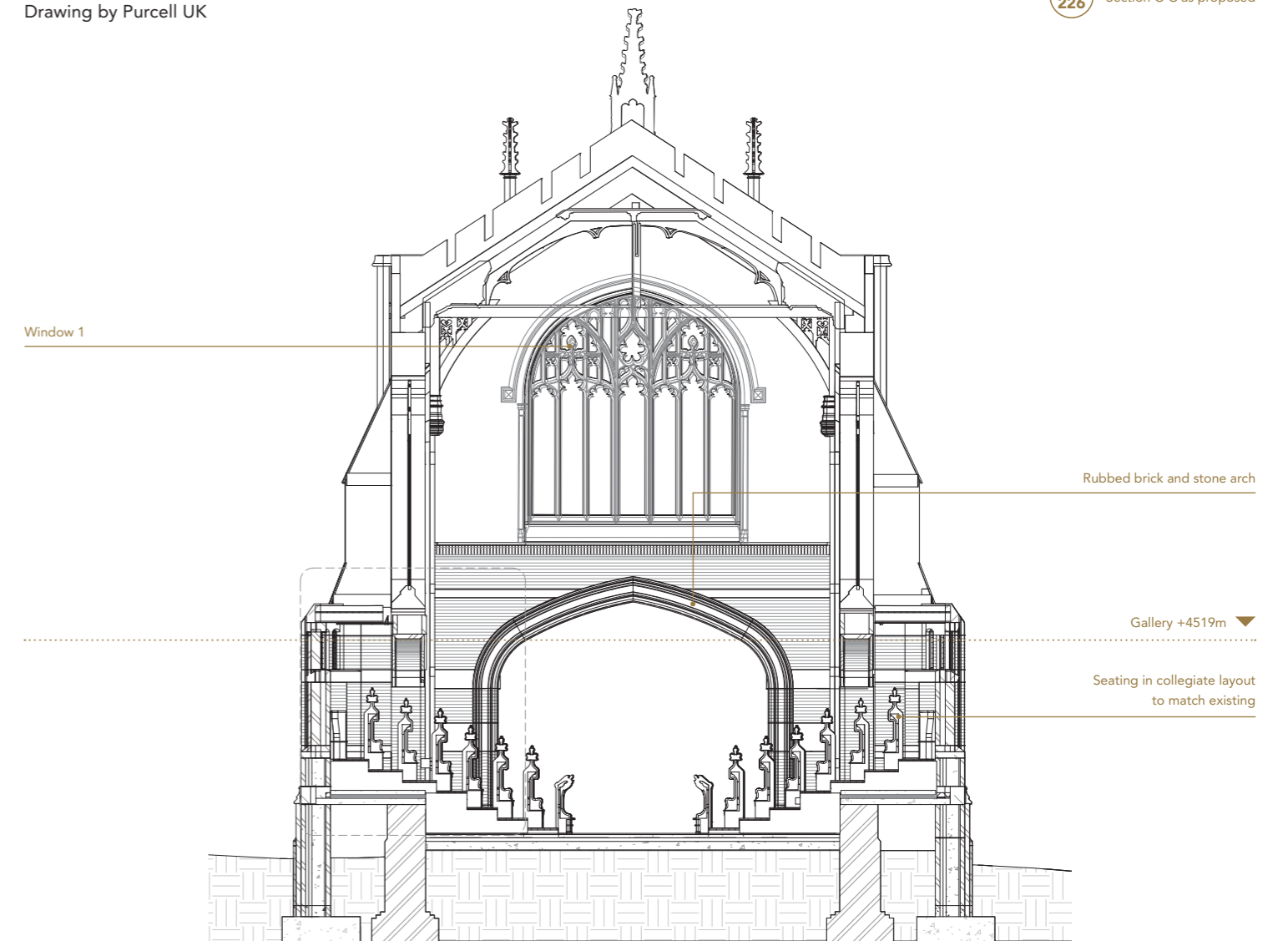
This was a truly magnificent project. It was a one-off build in a superb location – we felt privileged to help bring it to fruition. Andy Sharlot, Chief Designer at IG Masonry Support had a great influence on the project’s success. His technical knowledge and expertise made for an enjoyable working experience, which for such a challenging project, proved to be a real bonus.

Karl Devlin FIOC  
Site Manager, Beard Construction



Sanctuary Detail Section  
Drawing by Purcell UK

2  
226 Section C-C as proposed



Purcell



Purcell has the world’s largest team of heritage specialists, unlocking opportunities to sustain and enhance historic places. Their holistic approach brings together conservation excellence and innovative design.

Purcell’s architectural designs respond to each individual place, drawing on the wealth of inherited resources to facilitate the continued evolution of our historic places.

[purcelluk.com](http://purcelluk.com)



# Catherine Hughes Building Oxford

Products Used

B.O.S.S.+ (Brick on Soffit System)  
Corbelled Cornice Units  
& Brick Slip Lintels

WINNER

South Award

RIBA Awards  
2022

WINNER

Education  
Category

Brick Awards  
2021

Educational Development

Catherine Hughes Building, Oxford

Architect

Niall McLaughlin Architects

Main Contractor

Beard Construction

Subcontractor

OG Stonemasonry Contractors Limited



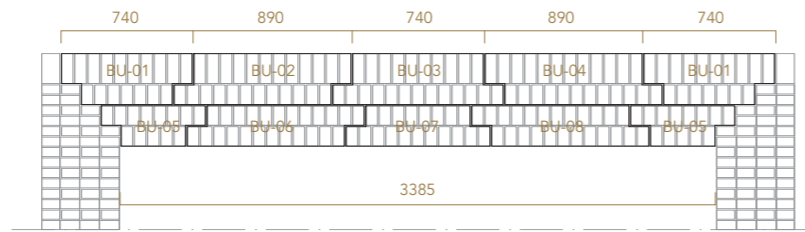


## Overview

For new high quality, contemporary student accommodation at Somerville College in Oxford, IG Masonry Support was able to create a solution that offered striking aesthetics whilst complementing the adjacent listed buildings and sensitive character of the conservation area.

Designed by Níall McLaughlin Architects, overseen by contractor Beard, and installed by specialist subcontractor OG Stonemasonry Contractors Limited, the Catherine Hughes Building at Somerville College in Oxford is a new-build development comprising of four and five-storey accommodation blocks. Named after a former principal of Somerville, it features 68 ensuite bedrooms for undergraduates including three fully accessible rooms, kitchens and a new graduate study room.

Constructed using a cross-laminated timber frame which offered a low-carbon alternative to concrete, the building's external walls were built using a combination of hand-laid and prefabricated brickwork elements around the façade's windows.



Third Floor Soffit Plan (Type 1 of 4)

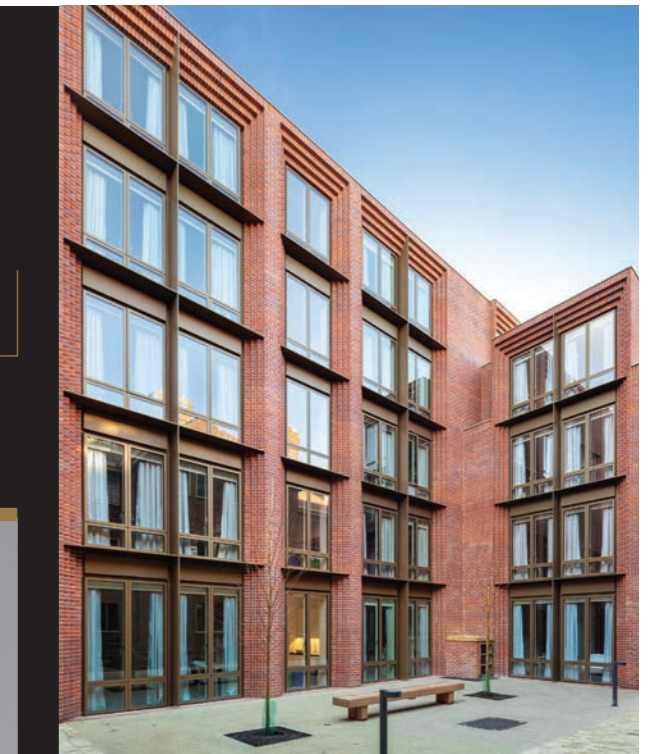
Deep, hand-laid, corbelled brick reveals to the windows paired with projecting fins accentuate the fall of shadow across the façade and provide a sculptural quality to the brickwork.

Níall McLaughlin Architects



A joy to behold, stands in a varied street scape proudly designed and built to make it feature well on its own merits.

Judges Panel  
Brick Awards 2021



## Challenge

For this new student accommodation, the client required a number of striking, bespoke designs for the exterior brickwork including an aesthetically-pleasing brick-to-soffit header with a taper effect across the reveal rather than it being straight. These deep brick soffit reveals are designed to be in contrast to the roofline.

To meet the requirements, IG Masonry Support manufactured and supplied prefabricated B.O.S.S.+ (Brick on Soffit System) for the head of the windows which produced Corbelled Cornice detail.

Customisable to the architect's design wishes, the brick slip systems are prefabricated units manufactured offsite and delivered complete with brick slips mechanically fixed and pre-bonded to the units.

The utilisation of IG Masonry Support's B.O.S.S.+ helped achieve the distinctive soffit design and striking corbelled head units, offering a flawless and historic aesthetic in a modern, easy-to-install solution.





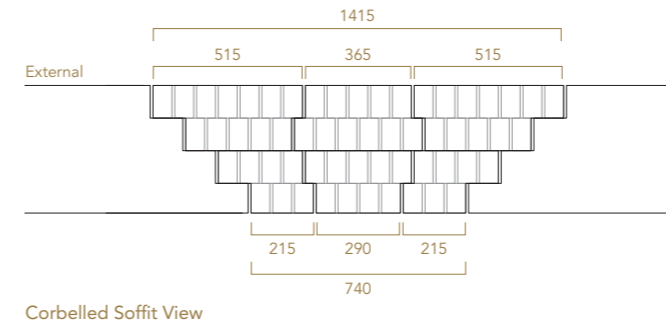
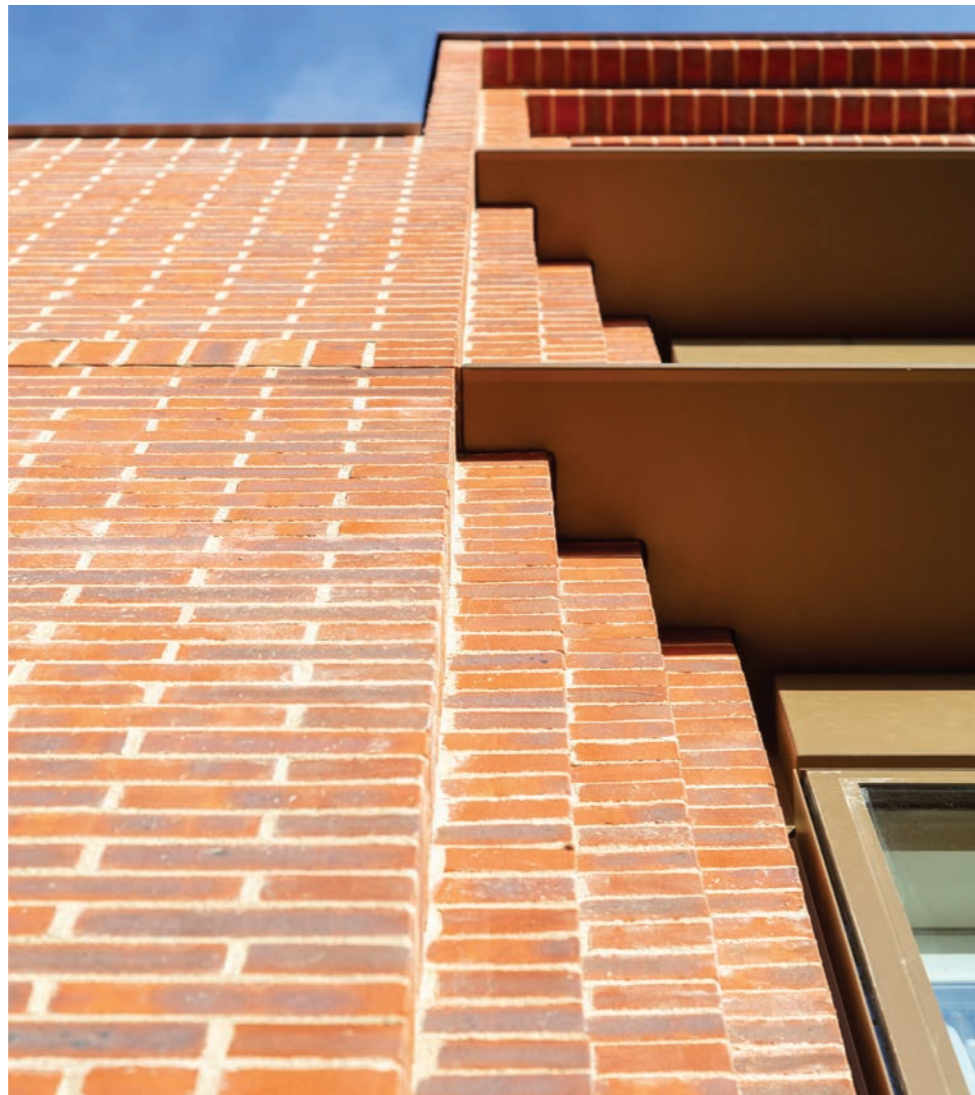
Long Section View - © Níall McLaughlin Architects

## Níall McLaughlin Architects

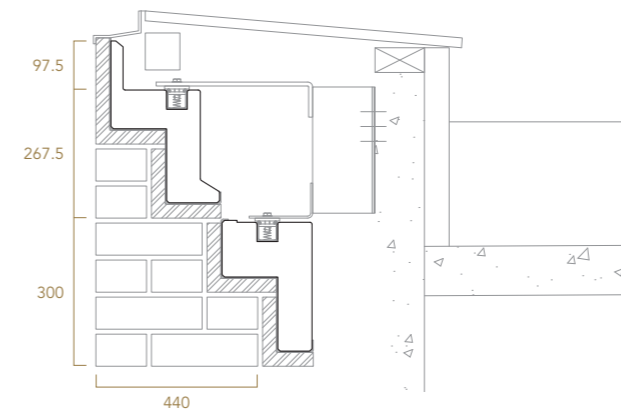
Níall McLaughlin Architects is a practice that designs high quality modern architecture for a range of clients.

The practice puts a strong emphasis on the inventive use of building materials, the qualities of light and the relationship between the building and its surroundings.

[niallmclaughlin.com](http://niallmclaughlin.com)



Corbelled Soffit View



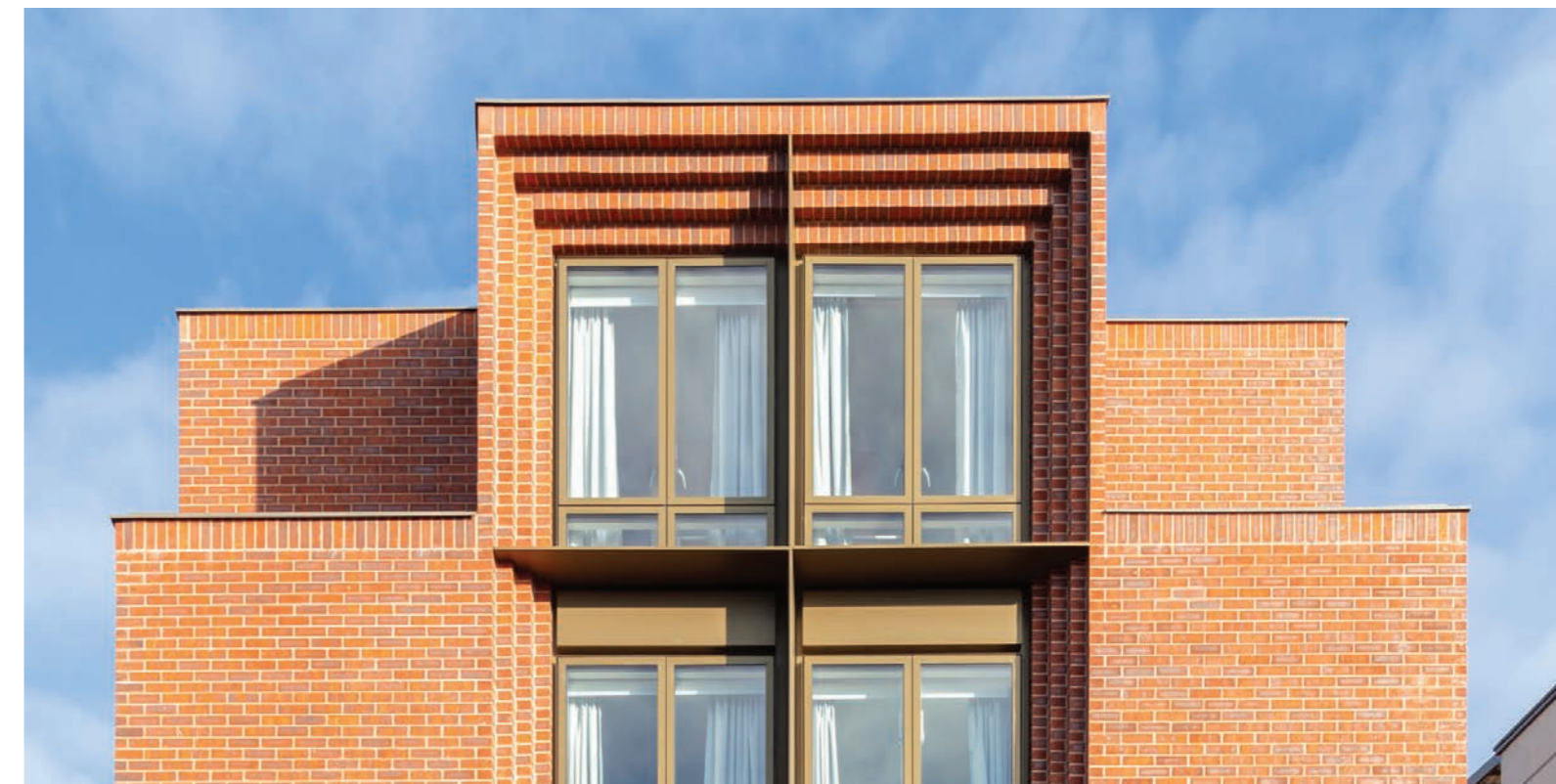
Section View

## Solution

Whilst the bespoke elements were a challenge and pushed the boundaries in terms of design, IG Masonry Support's collaboration with main contractor Beard, ensured a solution that met the architect's specific requirements. Due to the brick slip units being large, IG Masonry Support made a sample to showcase how the units would be fabricated and a vision of how they would be installed. Beard visited the factory at this time to ensure their needs and standards would be met.

IG Masonry Support exceeded expectations with its versatile B.O.S.S.+ (Brick on Soffit System) and Brick Slip Lintels. With a striking and unique look to each window on the building, IG's B.O.S.S.+ incorporated Reigate Purple Bricks. This brick type was carefully considered for the project by the architect and its red tones reflect the neighbouring buildings, with the articulated brickwork elements around generous windows providing a rhythm to the façade. Significant time was taken to research and develop the solution which kept the B.O.S.S.+ units as light as possible whilst maintaining optimal performance.

An integral part of the street scene and conservation area, this exemplary accommodation block and the presence of IG Masonry Support's systems have ensured Somerville College's newest student accommodation is thoughtfully planned, well-built, and a sought-after place to live on campus.





# Brentwood Preparatory School Essex

Products Used

Brick Slip Arches, Brick Slip Lintels  
& Welded Masonry Support

WINNER

East Award

RIBA Awards  
2022

Educational Development

Brentwood Preparatory School, Essex

Architect

Cottrell & Vermeulen

Main Contractor

Rooff Limited





We wanted to create a series of intricate arch details that would have been unachievable in conventional brickwork. The technical support we received from IG Masonry Support allowed us to realise this ambition.

Jonathan Dawes  
Associate - Cottrell & Vermeulen



## Overview

When it came to the design of a new classroom block and assembly hall at a leading independent school in Essex, an approach that both complemented and enhanced the school's original 19th century construction was a key element of the project brief.

Founded in 1557, Brentwood School has carried out a number of refurbishments and new build projects as part of its expansion over the past 10 years, including a sixth form study and social centre housed in a refurbished late-Victorian vicarage. The latter forms the main street frontage to the senior school with the new build facilities sitting impressively either side. This stunning transformation required brickwork detailing of the highest order. The redevelopment of the Prep School also required first-class brickwork, with the striking colonnade of brick arches and the façades of a new classroom block and assembly hall building enhancing the educational setting.

Designed by Cottrell & Vermeulen and built by contractor Roof Limited, the construction of the new buildings saw IG Masonry Support play an important part in the provision of a number of prefabricated brickwork solutions including the interlocking Brick Slip Arches that enabled the architect's vision to be realised and helped with the build sequence along with the quality finish.



## Challenge

Creating new buildings that pushed the boundaries in terms of brickwork design whilst meeting conservation and planning requirements necessitated close collaboration between client, architect, contractor and IG Masonry Support's project engineers.

With a brief to achieve a consistent colonnade of seven interlocking arches as well the masonry support requirements to achieve the required brickwork formation, IG Masonry Support manufactured and supplied a range of prefabricated components that met the design requirements and the wider considerations around planning in this heritage context. The offsite manufactured solutions also overcame challenges when it came to the creation of half arches that would have been impossible to build in a traditional way.



## Cottrell & Vermeulen



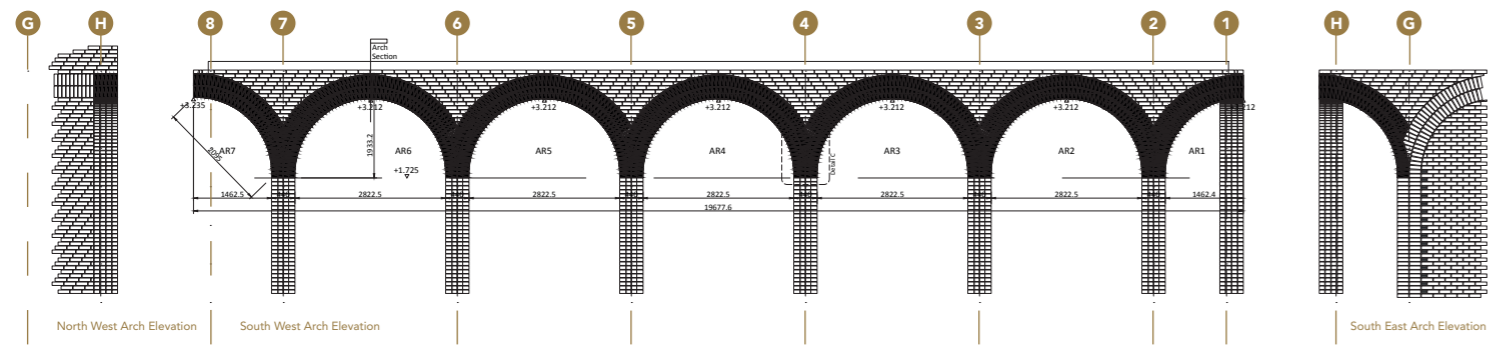
IG Masonry Support manufactured and supplied a range of prefabricated components that met the design requirements and the wider considerations around planning in this heritage context.

Cottrell & Vermeulen Architecture is an award-winning RIBA Chartered Practice with more than two decades of experience designing and building spaces for communities, institutions and individuals.

Their portfolio of work spans a broad range of clients, stakeholders, budgets, timelines, and sites, from small-scale community projects to working for central government, within large masterplans or framework design consortia.

[cv-arch.co.uk](http://cv-arch.co.uk)





Technical Drawing of South West Arch Elevation



Architect's Proposed South West Elevation

© Cottrell & Vermeulen



## Solution

A combination of restrained and self-supported solutions, the prefabricated Brick Slip Arches required coordination with the concrete superstructure. The connections had to be bespoke for every arch because the faces of the arches were semi-circular and the concrete structure behind was chamfered.

Another challenge that was overcome through engineering was the connections at the spring points. The connections between individual arches had to be designed to allow for differential movement. Connections at spring points had to therefore take into consideration the lack of space during installation due to the proximity of the column behind. Furthermore, the end half arches could not be built traditionally, with the only other option being to use concrete pre-cast, which would be very heavy and difficult to install.



In terms of masonry support and the unusual brick bond pattern, IG's Welded Masonry Support was designed to take into consideration the unusual distribution of the load within the façade and required extra brackets. At the corners, further innovation on the part of IG Masonry Support was required due to the corner arches returning along the elevations and corner lintels requiring extended bearing zones.

A Victorian school with a 21st-century transformation, Brentwood Preparatory School's new multi-purpose hall and linked three-story teaching block, became a new visual identity for this educational facility, thanks in part to the offsite craftsmanship and intelligent engineering from IG Masonry Support and its range of masonry support systems.



## Performance



BBA Certification for IG's B.O.S.S.+  
B.O.S.S. A1 & Brick Panel System



Carbon  
Neutral  
Organisation



BREEAM®

LUCIDEON



British Standards Institution  
ISO 9001



British Standards Institution  
ISO 14001

UK  
CA

CE



### Material Specification

The perforated soffit plates, gusset plates and channel are manufactured using austenitic stainless steel to BS EN10028-7: 2016 Grade 1.4301/1.4307 or Grade 1.4301/1.4307 HR. The steel sections of the system are CE marked and manufactured in accordance with BS EN 1090-1: 2009.



### Fire Testing

All components of IG's B.O.S.S. A1 and Brick Panel System have been tested and classified as A1 in accordance with BS EN 13501-1: 2018 as detailed in BBA Cert. 15/5250 Product Sheet 5 and 6.

Systems are unrestricted in terms of building height and distance to the boundary by the national Building Regulations, provided that it is incorporated in a construction that satisfies the requirements of BS EN 1993-1-2: 2005, BS EN 1996-1-2: 2005, and their UK National Annexes.



### Patented Mechanical & Adhesive

The patented technology used in IG's B.O.S.S. A1 and Brick Panel System ensures added re-assurance and performance of a mechanical lock.



### Simulated Weathering & Freeze Thaw Cycling Pull Tests

IG has assessed the performance of its B.O.S.S. A1 and Brick Panel System to determine the bond strength after simulated weathering and freeze thaw cycling between -20°C and +50°C. Due to the results of this comprehensive testing, IG lead the way on brick slip soffit systems.



### NHBC Standards

All BBA certifications comply with all current standards and are qualified by National House Building Council (NHBC).



### Controlled Conditions

IG's brick products are produced offsite in a factory environment which ensures that the bonding process occurs in optimum controlled conditions free from wet weather, extreme temperature and excessive dust.



### Lucideon Building Technology

Independent testing carried out by Lucideon verified that product performance was unaffected following stringent hygrothermal weathering. Continuous testing is carried out on IG's products to ensure the highest possible standards are achieved and maintained.



### BBA Certification

**BBA Cert. 15/5250** (Product Sheet 4)  
Certification for IG Masonry Support's B.O.S.S.+  
Within the scope of this BBA, B.O.S.S.+ has been assessed for thermal performance, condensation risk and durability.

**BBA Cert. 15/5250** (Product Sheet 5)  
Certification for IG Masonry Support's B.O.S.S. A1.  
Within the scope of this BBA, B.O.S.S. A1 has been assessed for its structural performance and properties in relation to fire and durability.

**BBA Cert. 15/5250** (Product Sheet 6)  
Certification for IG Masonry Support's Brick Panel System.  
Within the scope of this BBA, IG's Brick Panel System has been assessed for structural performance and properties in relation to fire and durability.



### Environmental Factors

IG Masonry Support is committed to the continual improvement of all environmental issues and the protection of the environment. This is demonstrated through the achievement of becoming a Carbon Neutral Organisation and becoming the first UK masonry support manufacturer to achieve Environmental Product Declarations for all products.





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