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IG | Masonry
Support

Inspiring Innovation In Brick

➤ IG Masonry Support has combined experience with innovation to provide the most practical and advanced range of Masonry Support & Brick Slip products on the market. The team is passionate about delivering intelligent engineering with offsite craftsmanship. Dedicated to Inspiring Innovation In Brick, IG creates the illusion of floating soffits of brickwork with hidden structural steel.



Rear view of property / Church Road, Belfast

6

Dawson Street Dublin

The Dawson Street development involved the major refurbishment and remodelling of an existing office building in the heart of Dublin's business district.



10

Church Road Belfast

The property on Church Road demonstrates an urban approach to modern architecture. Brickwork elements formed an integral part of the design, utilising a single red brick type throughout the development.

14

National University of Ireland Maynooth

The new student accommodation at Maynooth University has provided three new blocks, each comprised of 4 to 9 storeys.



Inspiring Innovation In Brick



Dawson Street Dublin

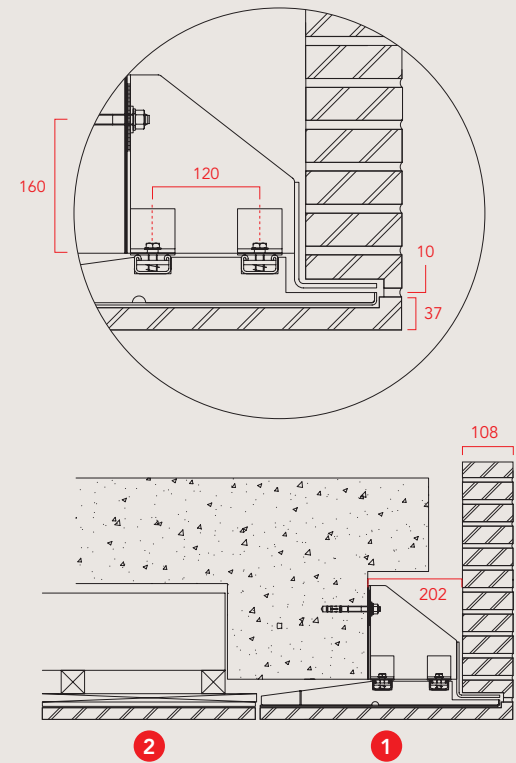
Products Used

Brick Slip Lintels, Welded
Masonry Support & B.O.S.S.®

—
Commercial Development
Dawson Street, Dublin

—
Architect
MCA Architects

—
Contractor
PJ Hegarty & Sons



Cross section view A - A

Overview

The Dawson Street development involved the major refurbishment and remodelling of an existing office building in the heart of Dublin's business district. The project saw significant structural modifications and aesthetic improvements, replacing the outer leaf brickwork for a distinct handmade Petersen brick. The carefully selected materials employed throughout the façade have refreshed the exterior of the building, effectively combining brick and glazed elements to reinvigorate the 1970's building. Replacing the existing façade required a combination of IG's B.O.S.S.® and Brick Slip Lintels to achieve the deep brick soffit reveals above each opening. Using brick supplied by Peterson, IG's versatile brick slip systems accommodated the unusual brick dimensions and complex bond pattern throughout the building.

The Challenge

MCA Architect's design retained the core architectural features of the existing building, allowing the contractor to remove the outer leaf brickwork and keep the existing concrete structure. The proposed elevations detailed a contemporary new exterior, balancing the intricate detailing of Petersen Kolumba brickwork and large elegant glazed areas recessed into the façade. The west elevation featured an impressive recessed opening above the main entrance, revealing a 1005mm brick soffit return spanning over 6200mm; this required a practical offsite solution developed by IG's technical team. Additionally, Brick Slip Lintels were required to provide seamless brick soffits above all window openings throughout the development, spanning openings up to 1447mm. IG's brick slip products accommodated the unusual dimensions of the handmade brick type, developing effective brick slip solutions to suit the 538 x 108 x 37 profile in different bond patterns.

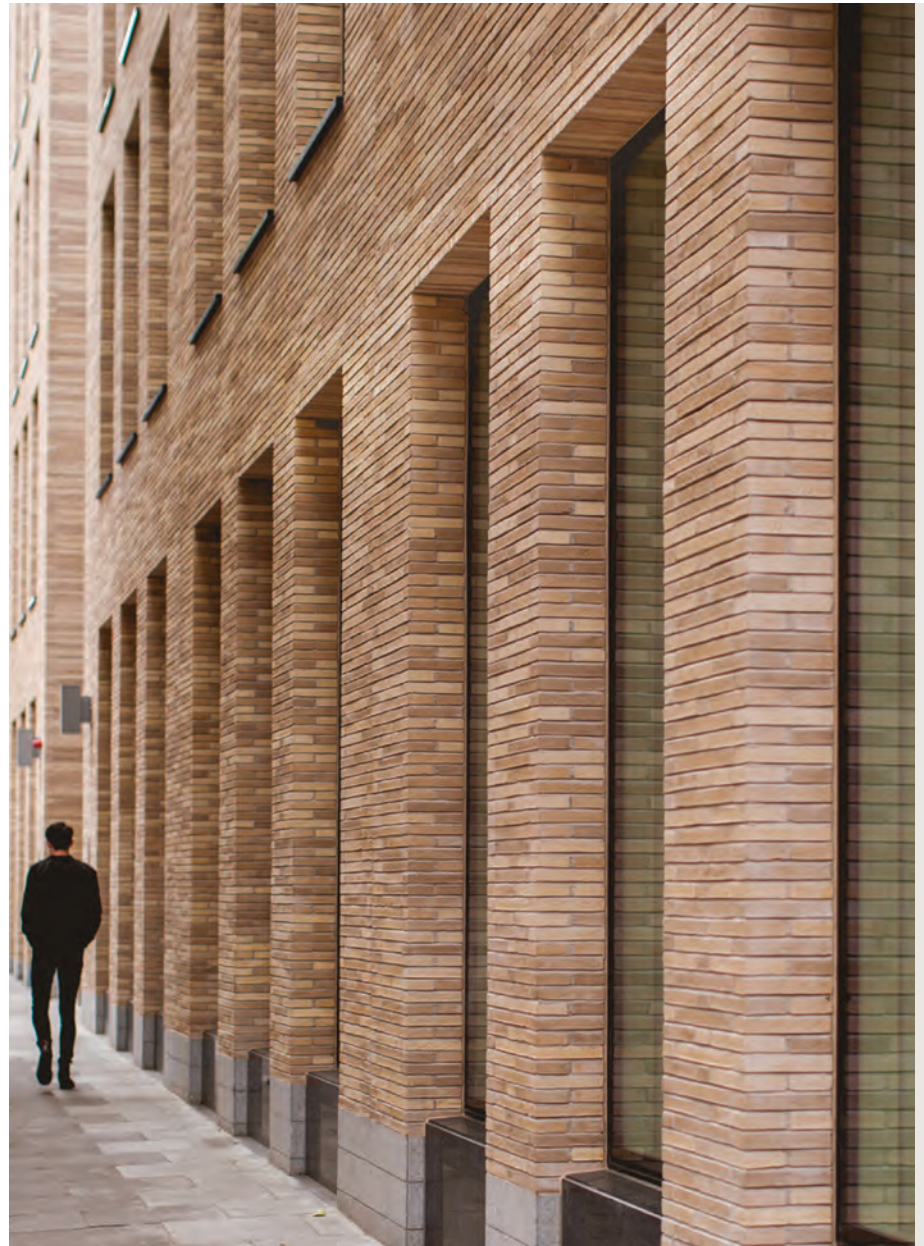


The Solution

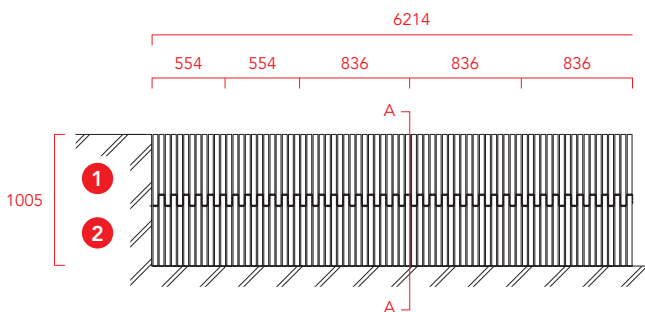
IG designed a bespoke system for accommodating the deep soffit above the office accommodation's main entrance, combining both Brick Slip Soffit Panels and B.O.S.S.[®] to attain the full 1005mm return. Each B.O.S.S.[®] unit fixed to the underside of pre-installed Welded Masonry Support (WMS) brackets to achieve the outer course of brick. The design incorporated two stainless steel channels to allow for necessary adjustments during installation. Lightweight Brick Slip Soffit Panels were secured to the substructure, interlocking with the B.O.S.S.[®] units to complete the soffit. The system, composed of three IG Masonry Support products, effectively achieved the staggered soffit detail demonstrating the impressive collaboration of IG's components.

IG also supplied Brick Slip Lintels, providing exposed brick soffits above all recessed window openings. IG designed bespoke lintel solutions to accommodate both rowlock and stretcher bond patterns, as well as various soffit depths. The development has breathed new life into the 1970's building, transforming it into contemporary office accommodation.

Soffit view of main entrance



- 1 IG B.O.S.S.[®] Units
- 2 IG Soffit Panels



Technical drawing showing soffit view of main entrance

➤ Replacing the existing façade required a combination of B.O.S.S.[®] and Brick Slip Lintels to achieve the deep brick soffit reveals above each opening.

Church Road Belfast

Products Used

Brick Slip Soffit Panels
& Brick Slip Lintels

Private Dwelling
Church Road, Belfast

Architect
Hall McKnight Architects

Contractor
Strong Construction Limited





➤ The design and realisation of this house was impressive. The brickwork elements were well proportioned and integrated to dramatic effect.

Judges' Comments / Brick Awards



Overview

The property on Church Road, Belfast demonstrates an urban approach to modern architecture. Brickwork elements formed an integral part of the design, utilising a single red brick type throughout the development. The underside of the first storey at the property's entrance required intricate brick detailing. IG Masonry Support facilitated the seamless continuation of the brickwork onto the soffit. IG designed a brick soffit panelling system that could easily achieve the masonry soffit. The series of interconnecting panels provided a lightweight prefabricated solution allowing a fully clad 20m² brick soffit.

Challenge

The property on Church Road presented very complex brickwork elements. Each elevation is defined by deep recesses in the façade. The first floor protrudes out above the entrance to the property. The brick soffit on the underside of the first floor required a brick slip cladding system in order to achieve this detail. IG Masonry Support was approached for a multitude of prefabricated brick slip soffit panels to achieve the bond pattern required for the 20m² masonry soffit.

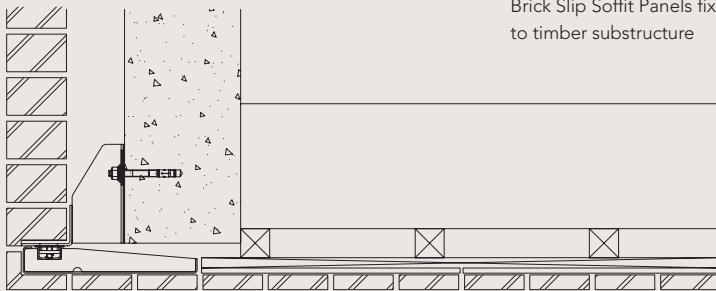
Solution

IG Masonry Support designed 26 brick clad soffit panels to achieve the brick detailing required for the deep soffit reveal above the entrance. The prefabricated units were manufactured offsite and delivered complete with bricks bonded. The lightweight panels facilitated fast and efficient installation, allowing the seamless continuation of brick on the underside of the floor above. Achieving a seamless transition between onsite and offsite building materials, the interconnecting soffit panels collectively achieved a full brick soffit.

Strong Construction Limited installed the IG units, fixing them to the timber substructure with stainless steel screws. The screws were positioned within the mortar joints and hidden once pointed. The completed installation achieved the stunning deep brick soffit detail to great effect.

Further to the soffit panels, IG supplied (BBA approved) Brick Slip Lintels to this project for every window and door opening.

The property became the deserving winner of the 'Best Housing Development 1 - 5 Units' Award at the Brick Awards; this is a tribute to the unique design and craftsmanship required to deliver it.



Soffit view

1
Brick Slip Soffit Panels fixed to timber substructure



National University of Ireland Maynooth

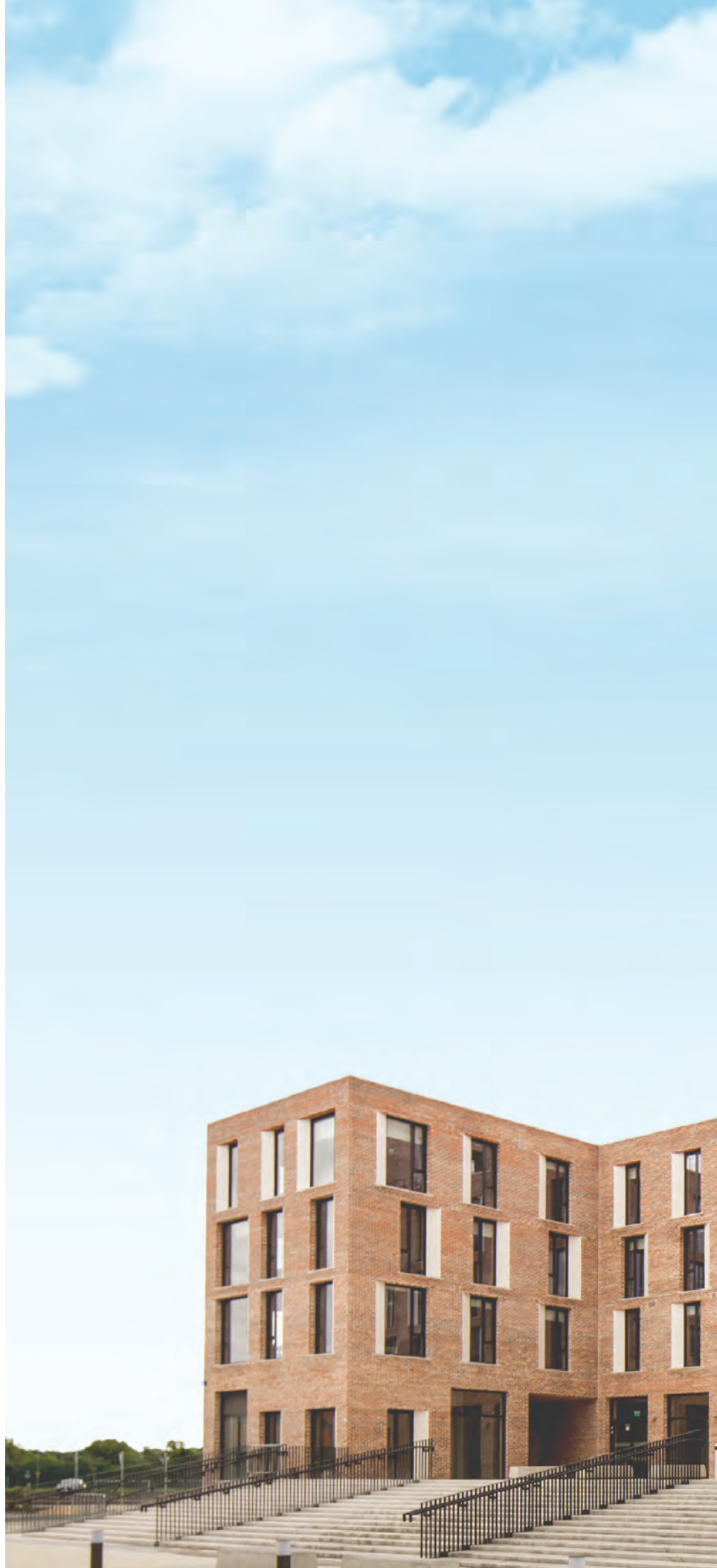
Products Used

Welded Masonry Support, Brick Slip Lintels,
B.O.S.S.® & Brick Slip Soffit Panels

Education
Maynooth, Ireland

Architect
Heneghan Peng Architects

Contractor
JJ Rhatigan



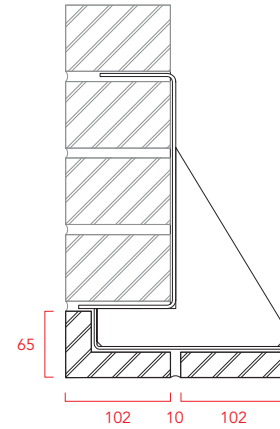


Overview

The new student accommodation at Maynooth University has provided three new blocks, each comprised of 4 to 9 storeys. The purpose built courtyard apartment complex has significantly expanded the capacity of student accommodation on campus, providing rooms of varied specification. The intricate brick elements and large areas of brick soffits featured throughout the development required IG's full catalogue of prefabricated components. IG designed bespoke brick slip systems for each application, providing practical solutions that enabled JJ Rhatigan to combine both speed and quality of construction.

The Challenge

Covered walkways with deep brick soffits were an integral part of the architect's vision, connecting the different elements of the modular design. Each walkway exhibits large areas of exposed brick soffits, some in excess of 33m². Achieving the large soffits using formwork would have been impractical and time consuming, therefore IG was required to supply a more effective soffit panel solution. The tapered brick reveals are another common feature throughout the facade, introducing a contrast in brick type. IG considered the integration of the two brick elements during the design process, ensuring no brick cutting was required onsite.



Section View A - A



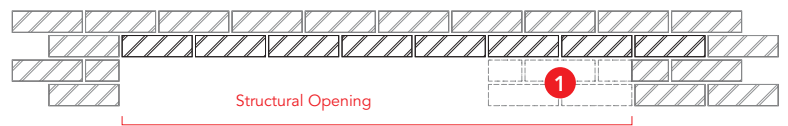
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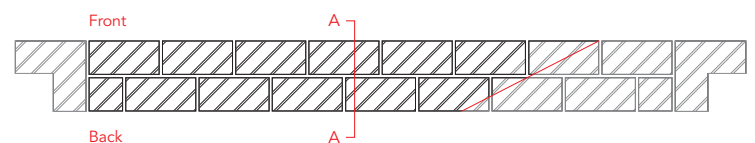
The Solution

The large areas of exposed soffit throughout each walkway required IG's interlocking soffit panels. Where traditional methods would have used the full brick, IG's lightweight brick slip panels utilise 25mm brick slips to reduce the weight of the installation. Supplied in ½m² panels, the system was quick and easy to install without any need for mechanical lifting. The result is a continuous brick soffit with seamless interlocking components. A 10mm soft joint was provided around the perimeter to allow for movement. IG's Brick Slip Lintels were designed to accommodate the chamfered side return beside each window opening. IG's prefabricated components offered the contractor speed of construction; resulting in cost savings gained onsite through increased productivity.

- 1 Wall tapered at this point towards window opening (see soffit view below)



Front view



Soffit view

Performance



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. The steel sections of the system are CE marked and manufactured in accordance with BS EN 1090-1: 2009.



Fire Testing

Having undergone fire resistance testing utilising BS EN 1363-1: 2012, IG Brick Slip Lintels have achieved a two hour fire performance certificate.

During the fire test undertaken by Exova Warrington Fire Research, IG's lintel was judged on its ability to support the applied load and failure was deemed to occur; until either the lintel collapsed or the test load could not be maintained at a constant rate. Failure was also deemed to occur if the brick slips de-bonded from the steel lintel.

The product was tested for 132 minutes in total and the lintel continued to satisfy the test criteria, while the brick slips remained in place and intact throughout the test.



Patented Mechanical & Chemical Bond

The patented perforated steel in an IG Brick Slip Lintel allows the adhesive to squeeze through the perforations and form a 'mushroom' on the inside, providing a mechanical and chemical bond between the steel lintel and the bricks.



Simulated Weathering & Freeze Thaw Cycling Pull Tests

IG has assessed the performance of the bond between the brick slip and lintel after simulated weathering and freeze thaw cycling. Due to the results of this comprehensive testing, IG was the first manufacturer to be awarded a BBA certificate for bricks bonded to steel lintels.



Controlled Conditions

IG Brick Slip Lintels 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 has verified that in destructive testing there were no failures in the steel/adhesive interface.

Test Report No. 131830 &
Test Report No. SW238/02



NHBC Standards 2014

NHBC accepts the use of IG Brick Slip Lintels, provided they are installed, used and maintained in accordance with the BBA Certificate, in relation to NHBC Standards, Chapter 6.1 External Masonry Walls. Extract from IG Brick Slip Lintels BBA. Cert 15/5250.



Certification

BBA Cert 15/5250 (Product Sheet 1)
Certification for IG Masonry Support's Brick Slip lintel. IG was the first manufacturer to be awarded BBA certification for bricks bonded onto a steel lintel. Within the scope of this BBA is the standard, heavy and extra heavy duty range.

BBA Cert 15/5250 (Product Sheet 2)
Certification for IG Masonry Support's B.O.S.S.® Bolt Up Soffit System. Within the scope of this BBA, B.O.S.S.® has 4 typical profiles each with a different bond pattern. For further information on IG Masonry Support's BBA Certification please visit our website.

BBA Cert 12/4893
Certification for the epoxy adhesive IG Masonry Support uses on all their brick slip products. This epoxy adhesive is manufactured by ChemFix Ltd and has been specifically engineered for the brick industry.

NSAI Cert
The NSAI issues certification confirming the quality and safety of goods and services produced and traded in Ireland. IG Masonry Support has been awarded NSAI accreditation for its structural steel products.



BBA Certification for
B.O.S.S.® Bolt on Soffits



BBA Certification for
High Performance Adhesive



LUCIDEON



British Standards Institution
ISO 9001



British Standards Institution
ISO 14001



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