radiiag.com

ARCHITECTURAL GLASS

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Radii AG is the specialist division of Radii Planet Group, one of the UK's largest premium partitioning and architectural glazing groups, with the aim of becoming an international leader in glass based construction solutions. With over £50m turnover, we have the capabilities, scale and financial capacity to be the ideal partner for our suppliers and customers.

The formation of Radii Planet Group brings together two of the UK's leading interior glazing contractors and has enabled the businesses to share expertise, unlock group synergies and continue to operate independently in our chosen markets, which we have been servicing for up to 40 years.

A key area of focus was targeted towards our specialist architectural glass divisions, which have successfully delivered prestigious projects in all types of building environments for many years. Drawing expertise from both Planet and Radii divisions, we have formed a dedicated Architectural Glazing division, with the clear objective of providing the best service, product and experience for our valued customers.

RADII AG has an extensive track record working with leading Main Contractors and Architects offering comprehensive design and installation of both proprietary and bespoke atrium glazing systems and other structural glass solutions. The division benefits from cutting edge in-house technical and manufacturing capabilities at our Sussex based facility, enabling the processing of glass panels and fabrication of metal and aluminium profiles for our projects - ensuring that our materials always meet the exacting standards that are required.

In addition, RADII AG will promote our new in-house range of ARC fire rated door and screen solutions, which have been extensively tested to EN standards, up to Ei90 fire rating.

OUR APPROACH

OUR APPROACH

A Tailored Response to Your Brief

At Radii AG, we recognise that each bespoke project comes with a set of unique challenges and designs. Our team has a wealth of experience in the design and installation of glass. Supported by our in-house design department, they can work with you on the most visionary and dynamic of projects. Our managed approach guarantees the smooth running of your project throughout the design and installation process.

> Moneypenny, Wrexham

> City Guards Hotel, London

Design

Radii AG employ technical managers to assist with all bespoke projects, from the initial concept stage, through to preparation of full working drawings. Our design led solutions consider glass as a building material with known properties, rather than a standard product. There will always be a number of technical solutions to meet the designer's vision and our mission is to develop the design into a working solution that satisfies everyone and is delivered within budget. Our design team use BIM modelling and 3D printing to help the client envisage the completed design.

Technical and Commercial Support

Radii AG has extensive experience of working with glass and is aware of its strengths and limitations. To ensure we keep your structure safe and functioning at its optimum level, we provide both pre-tender technical assistance as well as ongoing support throughout the project. Our services include NBS specification writing, structural analysis and technical support.

> Santander, London

> 246 High Holborn, London

Project Management

Radii AG has a dedicated contracts team to ensure the continuity and smooth running of projects. This team includes our in-house Health & Safety Director, Project Managers, Site Managers and internal Project Co-Ordinators. Our project management teams are always available to discuss projects in depth, at any stage of the process. We will provide main contractors with all of the necessary project specific documentation and procurement materials from our approved supply chain.

> Bexley Council, London

Meeting our Responsibilities

Radii AG assure its staff and customers the best possible health and safety care, whilst fulfilling our corporate responsibility obligations. Our Company's CRS policy outlines the principles encompassed in all areas of our operations.

Employees are provided with the training and support they need to realise their potential and, in turn, they adhere to our codes of conduct. We maintain the highest standards of integrity; are committed to providing safe, value for money, high quality, consistent, accessible and reliable products and services to our customers. The policy also details employment guidelines and benefits, including equal opportunities and diversity, and our commitment to adhering to the relevant codes of corporate governance and international standards.

Of paramount importance to Radii AG is wellbeing and safety. The general wellbeing, health and safety of our employees and customers underpins all operations. This is based on the principle that any incident or injury can be prevented. In practice, Radii AG is dedicated to eliminating accidents by setting clear guidelines to all staff and sub-contractors.

Nine key safety principles are included in the policy including: directions on the wearing of personal protective clothing, the use of tools and equipment, manual lifting and obeying directions from Managers. Radii AG's Health & Safety Director will, alongside his fellow Board Members, periodically review these practices.

OUR SERVICES

OUR SERVICES

The term ‘Architectural Glass’ covers any situation where the specifier’s requirements go beyond the brief of the standard partitioning range. Radii AG can provide a variety of design options, from atrium glazing to glass floors. If you are looking for a truly bespoke solution, please do not hesitate to get in touch.

Radii AG use glass as a building ‘material’, as opposed to a ‘product’, allowing a bespoke specification. This is especially relevant when using glass structurally, and then combining architectural conformance for acoustics, aesthetics, atria and fire performance. There are times when all of the above become necessary.

Importantly, Radii AG assess the glass stress generated under applied loads, as it is our policy to avoid the use of thermally toughened glass, which can be prone to damage caused by Nickel Sulphide Inclusions (‘NiS’). Typically, atria glass, partitioning screens and glass floors can be designed using annealed laminated glass or heat strengthened laminated glass, where both these alternatives avoid the potential for NiS failure. If toughened glass cannot be avoided, where loaded stress is high (bolted glass for example), then it is our policy to promote ‘heat soak tested’ glass to minimise the risk of failure.

> Atriums bring light to a commercial environment

Lift Lobbies

Radii AG has developed and designed numerous solutions that offer decorative and fire rated enclosures. These can also include ARC Doorsets and Sidescreens achieving up to Ei90 fire performance.

> FireTec doors in a main corridor area

Atrium Glazing

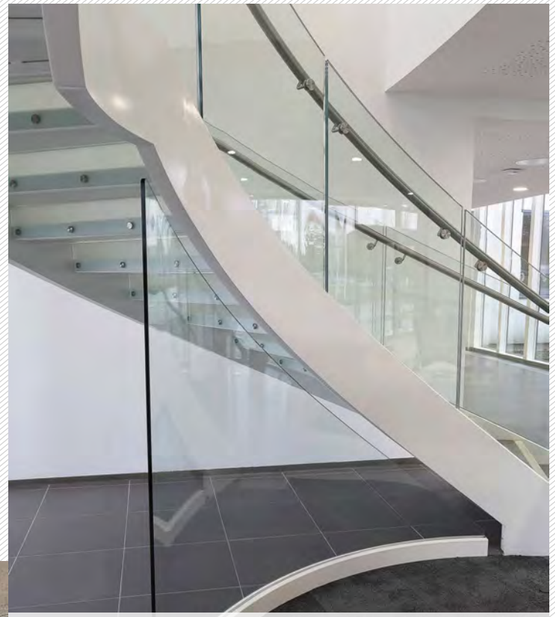
Glass in any atrium will be specified to meet ‘design intent’ whilst also being performance compliant. In most cases, the glass will need to provide ‘containment’ (as determined by BS6180, guarding), as well as ensuring fire resistance and acoustic performance. Structural deflection is also taken into account.

> Bespoke frameless glass construction

Glass Stairs and Balustrades

Radii AG can provide both glass stairs and balustrades for any location. Glass is an impressively strong material; a cantilevered glass balustrade can sustain a line load of 3kN/m without the use of ancillary steel posts, with glass stairs being totally variable; some being ‘all glass’ whilst others have steel support frames with glass landing and treads.

Talk to us about your design requirements and how to employ the full use of structural laminated glass floor technology.



> Glazed balustrades

> Stainless steel bolt fixed glass

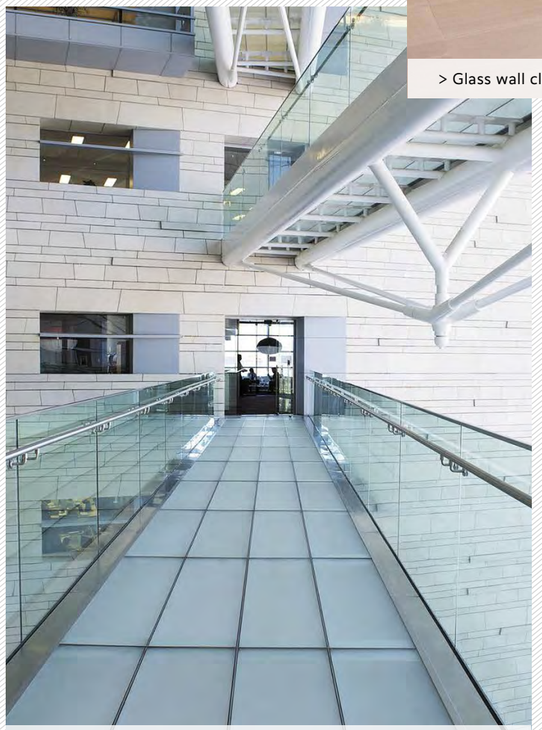
Bolt Fixed Glass

Primary support structures include glass fins, mild or stainless steel mullions. We are specialists in the supply and installation of SGG Spider and Litewall system. Where fully frameless solutions are required, countersunk flush stainless steel bolted solutions are often the way to achieve the aesthetics required.

Glass Wall Cladding

The variety of finishes and details allow a totally bespoke look to any lobby, atrium, reception area or interior façade. Back painted glass, combined with coloured laminates, can provide an infinite choice of interior design possibilities. Incorporating steel panels can also offer the use of magnets on glass.

> Glass wall cladding is a stylish alternative to drywall



> Utilise natural light with glass floor tiles

External glazing/retail
Roof glazing
Bespoke
??

Glass Floors

Just as with staircases, there is considerable flexibility. We will work with your design to arrive at a structural laminated glass floor solution. Glass thicknesses depend on such things as the clear span, the type of edge support and the design loads that need to be considered. (BS6399) Top and bottom surfaces can be clear, sand blasted, fritted or have a variety of options, to arrive at the right design solution.

> Glass wall cladding in a lift lobby area

PROJECT FOCUS

Ampersand, London

Main Contractor:
McLaren Construction

Architect:
Darling Associates

Challenge

Ampersand at 178 Wardour Street is a mixed-use building, comprising ground floor retail space, commercial offices and penthouse apartments.

Darling Architects and McLaren Construction approached Radii AG to undertake a Category-A fit-out and to help transform a London landmark. This was done by manufacturing and installing all of the glass internal atrium, balustrades and fire rated lift lobby doors.

Solution

For the atrium, Radii AG used full height frameless low iron glass. This highly curved atrium needed glass rising from the floor plate, to create a fluid feel and complement the central spiral staircase. Radii AG designed and installed the steel framework to support all the atrium glazing.

Radii AG incorporated spandrel panels with stainless steel trim and curved balustrades, to complement the atrium's arcs. The curved atrium pods not only enhanced the aesthetics, but also added to the useable floor space. All the atrium glass was manufactured in the UK, and the atrium glazing installation required a mini crane.

Project Insights

The four storey central atrium features a unique living staircase commissioned especially for the building, and designed by Paul Cocksedge Studio. The staircase features areas to sit, meet and think. “If a staircase is essentially about going from A to B, there is now a whole world living and breathing in the space between the two” explains Paul. The modern and clean look of the glass fits beautifully with the oak framework and ‘live vegetation’ adorning the staircase.

PROJECT FOCUS

MACQUARIE

Macquarie Bank, London

Main Contractor:
Overbury

Architect:
Perkins + Will

PROJECT FOCUS

THE CHARTER BUILDING

The Charter Building, Uxbridge

As featured on BBC drama 'The Bodyguard'

Main Contractor:
Bowmer & Kirkland

Architect:
dn-a architects

Challenge

Landid Property, the company behind The Harry Potter Warner Brothers Studio in Leavesden, created The Charter Building as Uxbridge's largest ever luxury commercial space. A monumental 324,630 sq ft of design led offices, co-working spaces, car parking and coffee shops, complete with on-site concierge for all occupiers, this refurbishment and extension was a mammoth task for everyone involved.

With 152,000 sq ft of existing space to refurbish, and an additional extension of 75,000 sq ft, Radii AG were approached by dn-a architects with the task of designing and installing a five storey central atrium, together with some additional fire solutions.

Solution

With 1,000m² of atria glass to install, over five floors, including a 4 metre double height reception area, Radii AG offered a streamlined design to ensure a stunning appearance with a time-conscious installation delivery. p20XL was used with 40dB Rw toughened laminated glass for the central atrium. This helped create the 100 metre long ‘street’ that ran along the heart of the building. dn-a created varying ceiling heights to provide pockets of space, as well as ‘pop-out-boxes’ protruding over the reception area.

FireStop E30 single glazed partitioning screens, with FireTec doorsets and automated sliding doors, were installed elsewhere in the building.

Project Insights

The Charter Building's aim is to bring luxury commercial space to Uxbridge, and is designed to be the highest standard of contemporary design, sustainability and amenity. Everything about the building is intended to make the occupiers' day run smoothly, providing everything from integrated coffee shops, changing rooms and showers, and co-working spaces. Portico provides front of house and concierge services for the building's occupiers.

PROJECT FOCUS

Nabarro, London

Main Contractor:
Como

Architect:
TP Bennett

PROJECT FOCUS

Holland Park School

Main Contractor:
Shepherd Construction

Architect:
Aedas

Challenge

Located between Kensington and Notting Hill, Holland Park School is seen as one of the best state schools in London. However one of the biggest threats to its reputation was the condition of the older buildings. The school decided to consolidate all of the existing school buildings and facilities into a brand new purpose-built structure. Aedas approached Radii AG to put together a specification package for all interior glazing, including the atrium, classrooms, library, sixth-form areas, gymnasium and doors. Principal contractor, Shepherd Construction, commissioned Radii AG to undertake the internal glazed package for this highly prestigious project.

Solution

At the heart of the school, a central atrium links the different classrooms and offices. This creates an uplifting environment for students and staff. Our in-house design team worked with Aedas to make sure the angled atrium glass, used throughout all seven levels, was correctly detailed and achieved perfect alignment.

Work began in 2010 and took 15 months. The new Holland Park Building opened on 19 November 2012 and is a magnificent piece of modern architecture.

Project Insights

One of the key challenges of the project was bolting the atrium glazing to the steel work. Aedas wanted to ensure a seamless and minimal look and feel, using stainless steel pig-nose bolts, so each piece of glass and bolt position had to be millimetre perfect. Our in-house design team engineered a clever solution to achieve this. As a result, the glass in the atrium ensures the extensive new facilities are visible and accessible, with learning ‘on show’. An on-site impact test was also carried out, ensuring that the designed solution met the impact resistance standards.

PROJECT FOCUS

Amazon, Principle Place, London

Main Contractor:
ISG

Architect:
IA interior

PROJECT FOCUS

The British Museum

The British Museum WCEC

Award winning project

Main Contractor:
Mace

Architect:
Roger Stirk Harbour + Partners

Challenge

At approximately 18,000 m², The World Conservation and Exhibition Centre (WCEC) is a purpose-built part of The British Museum that will transform how it displays, studies and cares for its collections.

Mace, a global consultancy and construction firm, asked Radii AG to provide a highly complex and detailed specification for the internal glass package. Radii AG worked with Roger Stirk Harbour + Partners, creating and fine-tuning drawings, for a range of elements, including sub-basement laboratories, balustrading, atrium glazing and offices.

Solution

For the basement laboratories, Radii AG used p100 double glazed full height partitions. The framework was set within the steel grid structure, ensuring a bold industrial look and incorporating slimline single glazed doorframes and IsoPro doors, with integrated venetian blinds. Radii AG also provided a full blackout option for lab work on sensitive ancient human remains. Radii AG was responsible for the full height atrium glazing which required carefully spaced apertures for securing attenuators that control airflow within the building.

Project Insights

In the basement, all supporting framework was concealed into the concrete floor. Working with Roger Stirk Harbour + Partners, Radii AG mapped out an effective plan to ensure smooth installation.

Radii AG was recognised for its outstanding work and high quality service on this project, winning a Silver Award at the FIS Contractors Awards 2015.

PROJECT FOCUS

RocketSpace

RocketSpace, London

Main Contractor:
Overbury

Architect:
LOM architecture

PROJECT FOCUS

Carmelite Riverside

Main Contractor:
Morgan Sindall

Architect:
Fletcher Priest Architects

Challenge

Carmelite Riverside, formally Carmelite House, is on the North Bank of the Thames and consists of two distinct parts: a 1990's section, at 50 Victoria Embankment, and the Grade-II listed 8 Carmelite Street, an 1898 building with an ornate brick façade. It has been home to Associated Newspapers Ltd for almost a century.

Morgan Sindall and Fletcher Priest Architects asked Radii AG for help with the design, manufacture and installation of a new central, frameless atrium, as part of a Category-A refurbishment, providing 134,000 sq ft of prime office space.

Solution

The nine storey atrium used smoke retardant frameless internal atrium glazing across three sides, to ensure high transparency, improving the ingress of natural light, whilst providing structural guarding and maintaining the highest acoustic rating.

In addition, Radii AG designed, manufactured and installed frameless glass balustrades and bespoke walnut timber spandrels. For the lift lobbies, ARC doors provide outstanding fire integrity to these communal areas.

Project Insights

What sets Carmelite Riverside apart from other central London commercial space, is its riverside views and historical character. The architects, Fletcher Priest, were keen to keep as many original features as possible during the refurbishment, recreating its decorative motifs with new materials and fabrication techniques. Maximising space was another high priority for the atrium steel work. Radii AG's design team ensured it acted as a cantilever, allowing the basement of the atrium to be used for the buildings services plant. This also created additional commercial space and a 7,600 sq ft roof terrace overlooking the Thames, maximising the attractiveness of the building to tenants.

PROJECT FOCUS

IMPERIAL COLLEGE

Imperial College, London

Main Contractor:
Laing O'Rourke

Architect:
PLP Architecture

Challenge

The Research and Translation Hub at Imperial College London forms the centrepiece for the innovation district in White City. The 48,000m² building delivers world class education, research and translation facilities. Radii AG was approached by Laing O'Rourke to collaborate with PLP Architecture, to design and install a stunning central atrium, linking the laboratory and office spaces.

Solution

The completed design for the central atrium pushed the boundaries of performance glazing. Radii AG worked with PLP Architecture to ensure the project stayed commercially viable, whilst maintaining the desired impressive design. Curved glass, which reached up to 3.4 metres tall on floors 2-6, and a staggering 5 metres tall on the ground floor, had to be heat soak toughened and was up to 25.5mm thick to support the weight. To create the wave illusion, the curves were made up of 2 full height curved panels and a ‘hockey stick’ panel. The glass had to be installed over the 6 floors using the latest installation methods, ‘suspended access cradles’. In addition to the atrium glazing, glass wall cladding was used in the space, to fit with the modern aesthetic of the lobby area.

Project Insights

The Research and Translation Hub is run by Imperial College's ThinkSpace team, a dedicated team that works with entrepreneurs and companies, providing them with innovative, high quality workspaces and relocation support. The Hub has an emphasis on linking research and commerce to benefit society and the global economy. The Hub will be open to corporations and fellow universities, driving innovation through co-location and collaboration. Additionally, The Hub will provide high specification, multi-disciplinary research space for over 1,000 next generation scientists and engineers. A lift shaft in the centre of the atrium was additionally glass clad by the Radii AG team.

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