

# Case study: Atlantic Square, Glasgow

The Atlantic Square development in Glasgow has created three new buildings: 1, 2 and 3 Atlantic Square. The buildings offer a mix of sustainable commercial, retail and residential space, with 1 and 2 Atlantic Square both achieving BREEAM Excellent. 1 Atlantic Square is now home to the HMRC and has been described as a game-changer for the construction of future public sector buildings due to its use of digital and data modelling.

BAM was the Designer, Developer and Contractor for the Atlantic Square development, a project comprised of three buildings creating a mix of high-spec office space, retail and residential accommodation.

Located in the busy centre of Glasgow, this complex project involved the construction of two large commercial buildings of ten storeys and seven storeys, with ground floor retail space in both. A façade of a listed warehouse building on site was also retained, nodding to Glasgow's industrial heritage. A third, five-storey building will also feature retail and residential accommodation.

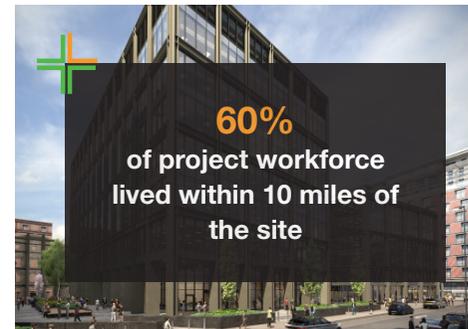
Although the site was situated in the International Financial Services District (IFSD) of Glasgow, the area immediately to the south was faced with several social challenges and so the project represented an enormous opportunity for urban renewal.

## A unique design in a unique location

The site is sandwiched between York Street to the east and James Watt Street to the west, with the major thoroughfare of Argyle Street at its north. It's uniquely positioned within the 'Glasgow grid', which shifts approximately 22 degrees anti clockwise from Argyle Street, and therefore gave this project the opportunity to utilise both the north and south grid geometries in the project design.

BAM designed the buildings so that the frontage of the five-storey retail and residential building aligned with the geometry of the north grid, while the two commercial buildings exaggerated the geometry of the south grid. This allowed us to incorporate a spacious v-shaped public realm between the buildings, in a space that naturally funnels into a thoroughfare link onto James Watt Street at the west of the site.

Both commercial buildings have their reception hall entrances positioned within this open space, creating a dialogue with each other across the thoroughfare and making both buildings accessible from either street.



## Building 1, Atlantic Square

Building 1 will be the second UK Government Hub in Scotland and home to HMRC's Glasgow Regional Centre.

HMRC was determined that 1 Atlantic Square would be a game-changer for the construction of public sector buildings, so the project adopted digital and data modelling from the outset to eliminate construction risk and be able to plan the maintenance regime for the building.

Using VR goggles the construction, design and HMRC estate team monitored progress by looking at the building's digital twin, enabling them to understand and plan the building's operations as well as look at economic efficiencies. The UK Government is now looking to adopt this approach throughout other public sector buildings.

## Social Value

At BAM, we want to have a positive impact in the places we work and Atlantic Square was no different. By focusing on our social impact from the outset we were able to deliver a range of local benefits.

In particular we are aware of how important it is to encourage and train the next generation of construction professionals. The project supported 40 apprentices, either directly with BAM such as an apprentice surveyor and site manager, or through our supply chain. We were also able to support two foundation apprenticeships to completion and create approximately 10 new-start positions.

The project team worked closely with Developing the Young Workforce (DYW) Glasgow, as well as delivering a range of activities such as Inspiring Construction sessions, Educating the educator workshops, running the CIOB Global Student Challenge, providing site visits and running an artwork hoarding competition which received an award in a UK-wide competition.

Throughout the project our team supported a number of local schools and organisations, including the University of Strathclyde, Barnardo's Works, CIOB, Lourdes Secondary School and Govan High School. At the University of Strathclyde the project team provided a valuable mentoring experience for a group of Civil Engineering Students, which included site visits, mentoring sessions and employability support.

## Charity fundraising

The team enjoyed regular Macmillan coffee mornings, as well as taking part in sporting challenges and donating winter jackets and boots to local charity, PEEK (Possibilities for Each and Every Child). A Christmas Hamper collection was also arranged to support CLIC Sargent, collecting hundreds of items to support families affected by cancer at Christmas.

## Supporting our workforce

We understand that our people are special. At Atlantic square, we supported a variety of training opportunities, from upskilling current staff to delivering a series of best practice workshops. Over 30 members of the workforce undertook SVQ qualifications, we funded various opportunities through our training partner, AVQ Management, and various health and safety training took place including First Aid, IBOSH, IOSH, NEBOSH, SMSTS and SSSTS.

The project was operating during the COVID pandemic so mental health support was promoted, including an exercise project to motivate staff.

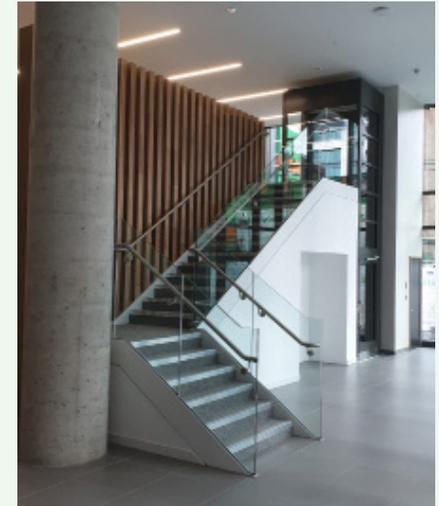
## Sustainable design and construction

The design and construction of 1 and 2 Atlantic Square incorporated many sustainable features, such as a green roof, a combined total of 150,000l of rainwater harvesting for greywater use, and basement electric car and cycling facilities.

The buildings achieved BREEAM Excellent and both buildings achieved an EPC A rating.

We wanted to ensure the buildings would be as energy efficient as possible, so during the design stage we reviewed the building orientations to identify the ideal locations to maximise natural light and reduce solar gains, to reduce the need for artificial lighting and cooling in-use. Solar panels fitted at roof level will provide 55,567kWh and 33,489kWh per annum respectively. Air source heat pumps provide heating and cooling via underfloor pipework within both building reception areas, while high efficiency fan coil units are designed to operate at variable air volumes to reduce their energy demands in operation.

At Atlantic Square we utilised BIM to help us develop a strategy and design that would minimise waste. This included using prefabricated elements extensively in the MEP such as risers, fan coil unit modules, pipework modules, roof pipework and fully prefabricated packaged plantroom. We also engaged with our supply chain to ensure we could utilise any take back or reuse schemes available, allowing us to take advantage of British Gypsum's plasterboard take back scheme where offcuts are recycled into new products, Whitecroft Lighting's reusable crate scheme, and Correx sheeting takeback and recycling schemes.



**Client:** BAM Properties

**Architect:** BAM Design

**Quantity Surveyor:** RLF

**Structural Engineer:** BAM Design

**M&E Consultants:** BAM Design

**Value:** £78,666,276

**Floor area:** 26,384m<sup>2</sup>