

# waterman times

## The Northcliffe: extensive revamp of former Daily Mail headquarters completes

Manchester Velodrome  
reopens after major  
refurbishment

Giant Teesside turbine base  
factory to drive growth in  
offshore energy sector

Circular economy  
drives design creativity  
at Paper Garden





## Welcome to our latest edition of Waterman Times

Global events continue to influence the UK economy but Waterman's engineering and geographically diverse business provides stability and continuity both in the markets in which we operate and to our employees.

Clearly 2024 could be a year of change with the UK and USA elections potentially resulting in political upheaval, leading to policy and investment decisions being reviewed and commitments to reduce carbon emissions reconsidered.

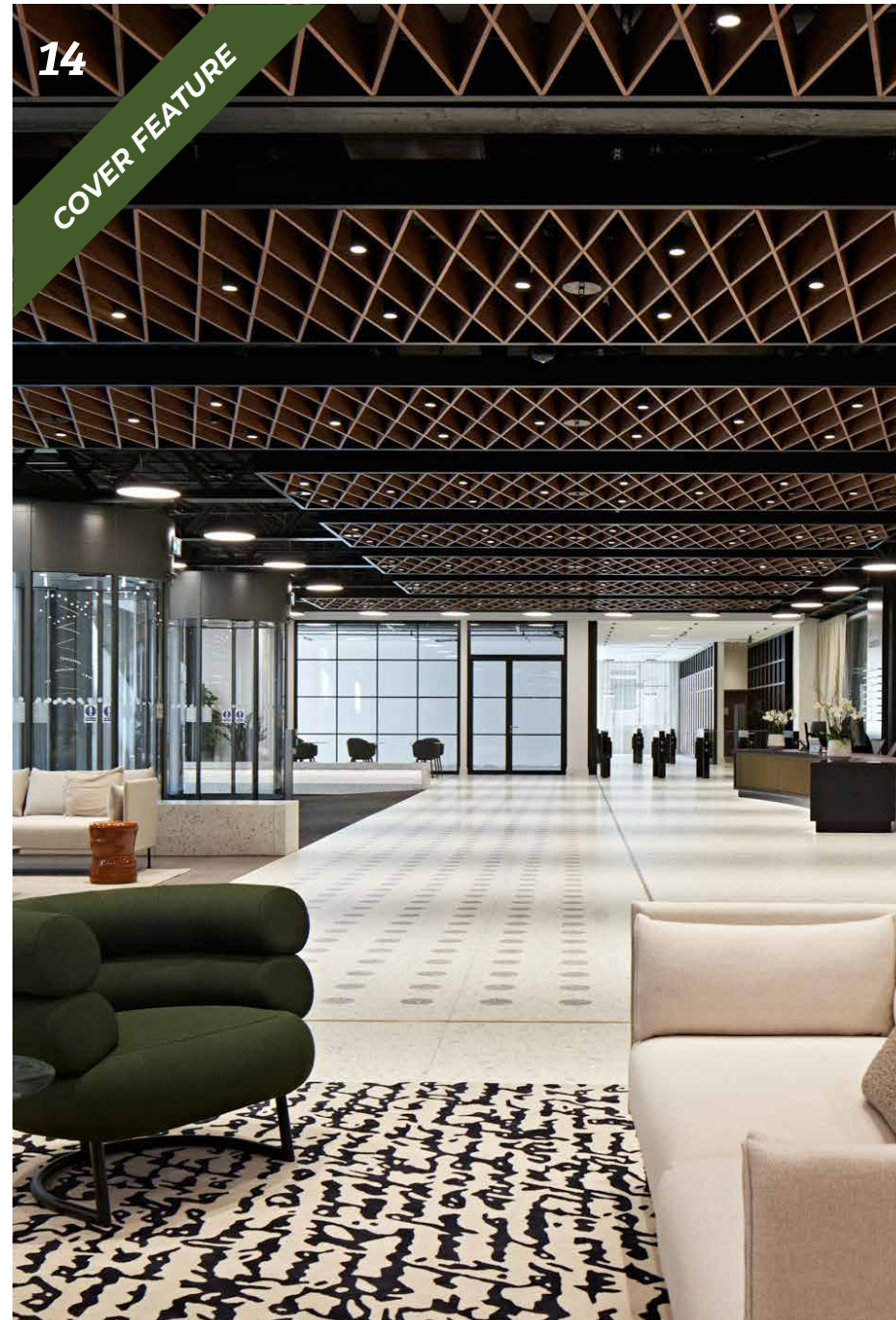
With this on the horizon, we all need to plan for the future and Waterman remains committed to attracting "best in class" industry professionals to strengthen our experience and expertise. Our apprentices and graduates have achieved great success over the last year, and we're proud to see so many recognised for awards.

You will note from the wide range of projects and commissions covered in this edition that we operate at the forefront of many different markets, always with a focus on embedding sustainability within our innovative yet practical solutions.

As an industry, collaboration remains vital, and we continue to work with our clients, fellow designers and professional colleagues towards the shared goal of delivering a Net Zero built environment.

Best wishes for the remainder of 2023 and I hope that you enjoy reading the Waterman Times.

Nick Taylor  
Chief Executive



## The Northcliffe: extensive revamp of former Daily Mail headquarters completes

The deep refurbishment and extension of this historic 1920s building has seen the internal spaces completely reworked to deliver 200,000 sq ft of exceptional office space.



## Manchester Velodrome reopens after major refurbishment

With the major revamp of British Cycling's HQ now complete, the scheme is central to Manchester City Council's ambitions to become the first European capital of cycling in 2024.



## Giant Teesside turbine base factory to drive growth in offshore energy sector

SeAH Wind's giant new £300m, 40-metre-tall offshore turbine base factory at Teesside's Freeport will underline the region's reputation as the home of the offshore energy sector.



## Circular economy drives design creativity at Paper Garden

Set at the heart of the 53-acre Canada Water regeneration scheme, the project team sheds light on how material circularity was embedded throughout this unique facility's sustainability-focused design.

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Thank you to our team, clients and industry colleagues who contributed to this edition. If you have any queries, please contact our editorial team: [communications@watermangroup.com](mailto:communications@watermangroup.com)

 @Waterman\_group

 Waterman Group







# Planning green light for expansion of Manchester's Loreto College



Manchester City Council has approved plans for the extension of the popular Loreto Sixth Form College in Hulme.

Part of the £4bn Victoria North masterplan, this 10architects-designed scheme will see the addition of a new 24,000 sq ft teaching block accommodating an extra 264 students across three storeys. Under the plans for this two-acre site, the existing vacant St Vincent's probation centre and part of the St Vincent building will be demolished, making way for the new facility which will incorporate 20 classrooms, staff rooms, assembly space and a study centre.

Bordering Moss Road West on the College's existing campus off Chichester Road, the development will introduce 24 new cycle parking places, along with multiple electric vehicle parking and charging bays all set within extensive landscaping. In an effort to address concerns around congestion and air quality at this busy location, a campus-wide active travel policy will also be introduced to further reduce the College's travel impact.

Waterman's team in Manchester provided the building services design for the scheme. With a key focus on reducing operational carbon emissions and minimising energy consumption in use, our mechanical and electrical design incorporates air source heat pumps, 100 sqm of photovoltaic panels and passive natural ventilation systems with night cooling. Combined with a highly efficient building envelope, these measures will deliver a circa 20% improvement over Part L CO<sub>2</sub> targets.

Commenting on the planning approval, Tim Davies, Waterman's Director for Building Services, said: "I'm delighted to see the exciting plans for Loreto Sixth Form College's expansion get the go-ahead from Manchester City Council. This development will provide a highly sustainable learning environment, harnessing the latest technology and passive design techniques to drive down operational carbon emissions and slash energy consumption. I look forward to seeing the scheme progress over the coming months."

## Anastasia Stella finalist for WICE Digital Innovation Award

Our Sustainability Associate, Anastasia Stella, was a significant finalist at this year's European Women in Construction & Engineering Awards (WICE Awards).

Widely recognised for her leading role in developing Waterman's Materials Passports initiative, her exceptional work positioned her alongside leading female innovators from across the industry in the highly competitive Digital Innovation category.

The European WICE Awards aim to make the construction and engineering industries more enticing to women by helping create role models for those considering a career in these sectors, whilst also encouraging companies to employ and train more women. The awards celebrate excellence and innovation, highlighting the vital role women play in shaping the future of construction and engineering.



## Richard Brooks awarded Phil Tindall Memorial Medal

Richard Brooks, our National Lead for Civil Structures, has been recognised for his long-term commitment to mentoring and supervising early career civil engineers as they strive towards achieving key qualifications.

The Phil Tindall Memorial Medal is presented by the Worshipful Company of Engineers on behalf of the Rochester Bridge Trust and is awarded to those who have been particularly successful in mentoring civil engineers during the first ten years of their careers.

The judges were impressed by Richard's approach to mentoring, which he embeds within the day-to-day working practices of his team. His methods continuously improve project quality, focusing on overall outcomes rather than viewing mentoring as a standalone activity.



# Strategic Appointments

Reflecting sustained growth across multiple sectors, we've made a series of key appointments throughout the UK.



## Nafis Ahmad joins Manchester team as Business Case Associate Director

Joining us from Atkins, Nafis brings over 20 years' experience in delivering strategic advice to both public and private sector organisations. He has a proven track record of providing economic analysis and value-for-money assessments to help unlock funding and achieve successful approvals for clients. Nafis has worked extensively on developing 'HM Treasury Five Case' business cases, from early-stage strategic studies through to the final business case.

His portfolio spans a wide range of infrastructure, transport and energy projects, which include the assessment of strategic and policy drivers, financial viability and direct economic impacts, along with the appraisal of wider socio-economic and sustainable growth benefits on site for re-use in future projects and developments.



## Climate Resilience team strengthened with key appointment

Based in our Glasgow office, Cara Labuschagne will head up our Climate Resilience team to support our clients in their preparations for physical and transitional climate risks.

With a master's degree in Carbon Management and over 10 years' experience in climate adaptation and mitigation in senior analytical, consultancy and leadership roles, Cara has accumulated a deep knowledge of UK climate impacts and policy. She also brings significant expertise in broader sustainability initiatives such as TCFD, the Greenhouse Gas Protocol and climate-related ISO standards.

Before joining us, Cara assessed national progress on climate adaptation at the UK Climate Change Committee, where she advised government on delivering climate resilient, Net Zero infrastructure and contributed to the third UK Climate Change Risk Assessment.



## Strategic Civils Structures hire to support ongoing expansion

Civil engineering specialist, Dan Southwell, has joined our Civils Structures team in Manchester as Associate Director.

A Chartered Civil Engineer with over 11 years' experience in the highways and bridges sectors, Dan joins us from AECOM where he led engineering teams delivering a diverse range of schemes for private and public sector clients. Key project highlights include substantial infrastructure developments for Network Rail, National Highways and Transport for London.

With a particular focus on the northern region, Dan will help deliver and further expand our growing range of infrastructure frameworks, including partnerships with NEPO, Peel Ports, YorConsult2 and Manchester City Council.



## Heritage team welcomes new Associate Director

Based in our Manchester office, Matt Astill will take a leadership role in this field and will support our continued growth in the Midlands and the North. With 15 years' experience as a Heritage Consultant, Matt has worked for a broad range of clients in the commercial, residential property and renewable energy sectors.

Matt is currently project managing heritage works for the new Isle of Man Ferry Terminal in Liverpool. He has previously managed and provided heritage advice on large city residential developments, including Trafford Waters in Manchester on behalf of Peel Developments, Aire Park in Leeds for Vastint UK and the South Macclesfield Development Area for Barratt Homes. In addition, he has managed large-scale archaeological site evaluation and mitigation works, including the excavations of an Iron Age-Romano British settlement in Ryhope, Sunderland, a geophysical survey across the late prehistoric settlement site at Throckmorton airfield which featured in an episode of Time Team, and building recording works on the scheduled Medieval city wall in Worcester.

## New Associate Director to shape DRIMS delivery

Highways specialist John Swift has joined our Glasgow team to lead the expansion of Waterman's smartphone-based DRIMS road monitoring system which enables effective road condition evaluation.

Formerly Head of Business Development for Gaist Solutions, John worked with local authorities to develop strategic planning and development improvements.

With over two decades' experience in the highways sector, John's extensive Europe-wide portfolio has seen him take the lead in schemes such as the UK's first LED Road Safety and Wireless Vehicle Detection trial.



## Michael Cheetham joins Building Services team

Michael Cheetham has joined our London Building Services team as an Associate, bringing a wealth of knowledge in delivering complex building services solutions.

A Chartered Engineer with over 20 years' experience, Michael's expertise spans a wide range of sectors, with a particular focus on aviation. Throughout his career, he has amassed a diverse portfolio, successfully leading numerous projects in commercial, retail, residential, arts, education, healthcare, and mixed-use developments. Notably, Michael successfully acted as Building Services' lead for several major developments at Stansted Airport during his time at Ramboll.



## Rob Forsyth appointed as Flood and Drainage lead

Rob Forsyth, a recognised industry leader in the civil water sector, has joined us as a Technical Director leading our national water team including flood risk, drainage, SuDS and water cycle, and water quality.

Rob was previously the UK lead for drainage, flood and water at AECOM, where he was responsible for growth, technical excellence and collaboration across their UK offices.

With a strong background in civil engineering and environmental consultancy, Rob has a proven track record of effective design management, leading challenging and complex multidisciplinary development projects. He brings extensive experience in the private and public sector, spanning due diligence, planning, design, tendering, programming, site supervision and stakeholder negotiations.



# Unlocking Circularity:

## Materials Passports to Revolutionise the Built Environment

**Get ready**  
for an industry  
game-changer! Look out  
for the upcoming launch  
of our award-winning  
Materials Passports  
Framework.

### What is it?

It's the first standardised approach to managing materials throughout their lifecycle, giving you access to a comprehensive database of materials, products and building elements. Developed in collaboration with CIRCUIT and applied by software developer Circuland.

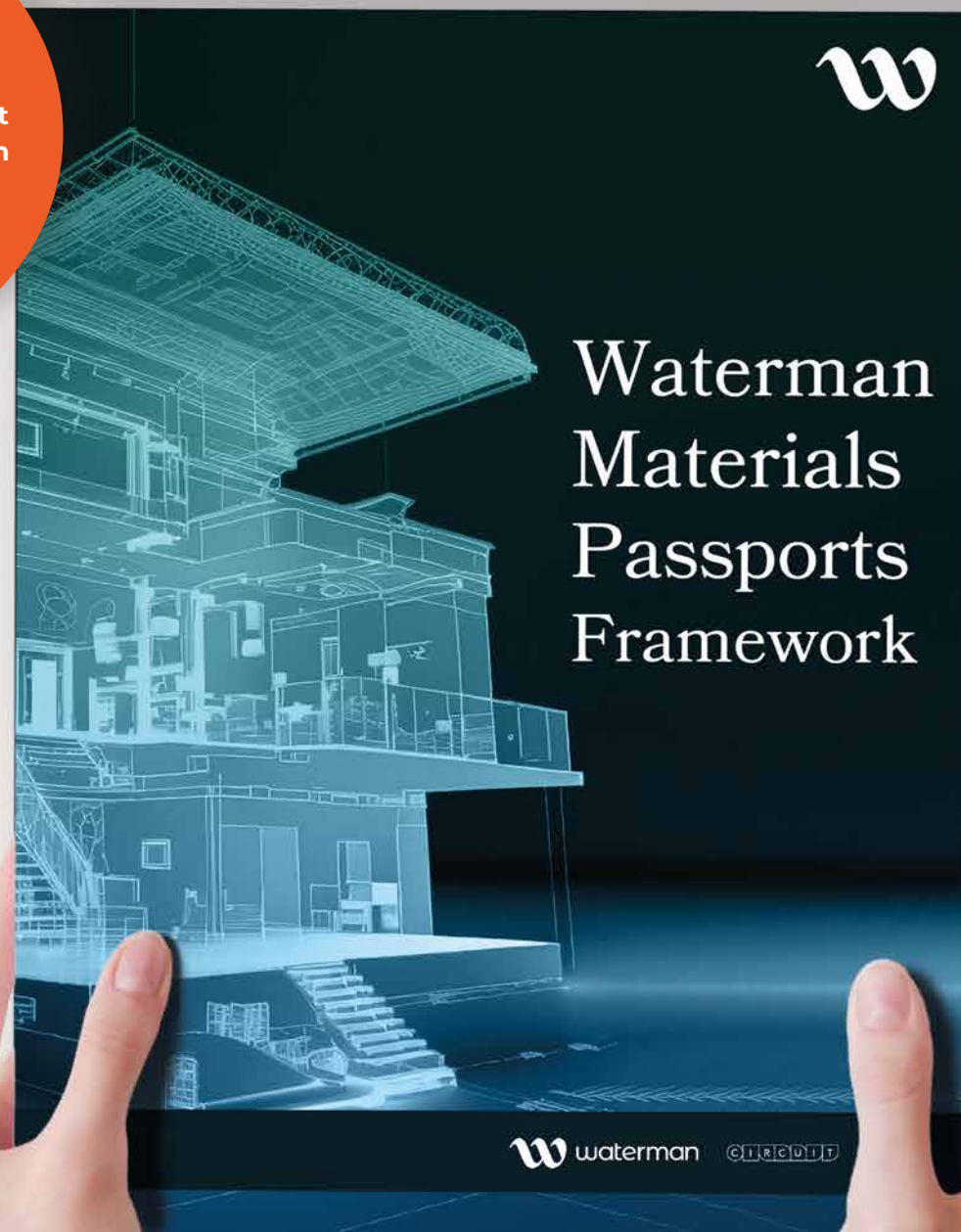
### Why it matters?

Picture a future where Materials Passports become the industry standard, driving collaboration and embedding circular economy principles within every project so that we unlock the blockers to material reuse.

### We're already making a difference!

We're currently piloting Materials Passports at Edenica, a City of London sustainability-focused construction scheme by YardNine and Beaumont Real Estate. The initiative won ACE's Best Net Zero Project 2022.

Stay tuned for the launch this autumn and join us in delivering a more sustainable future!



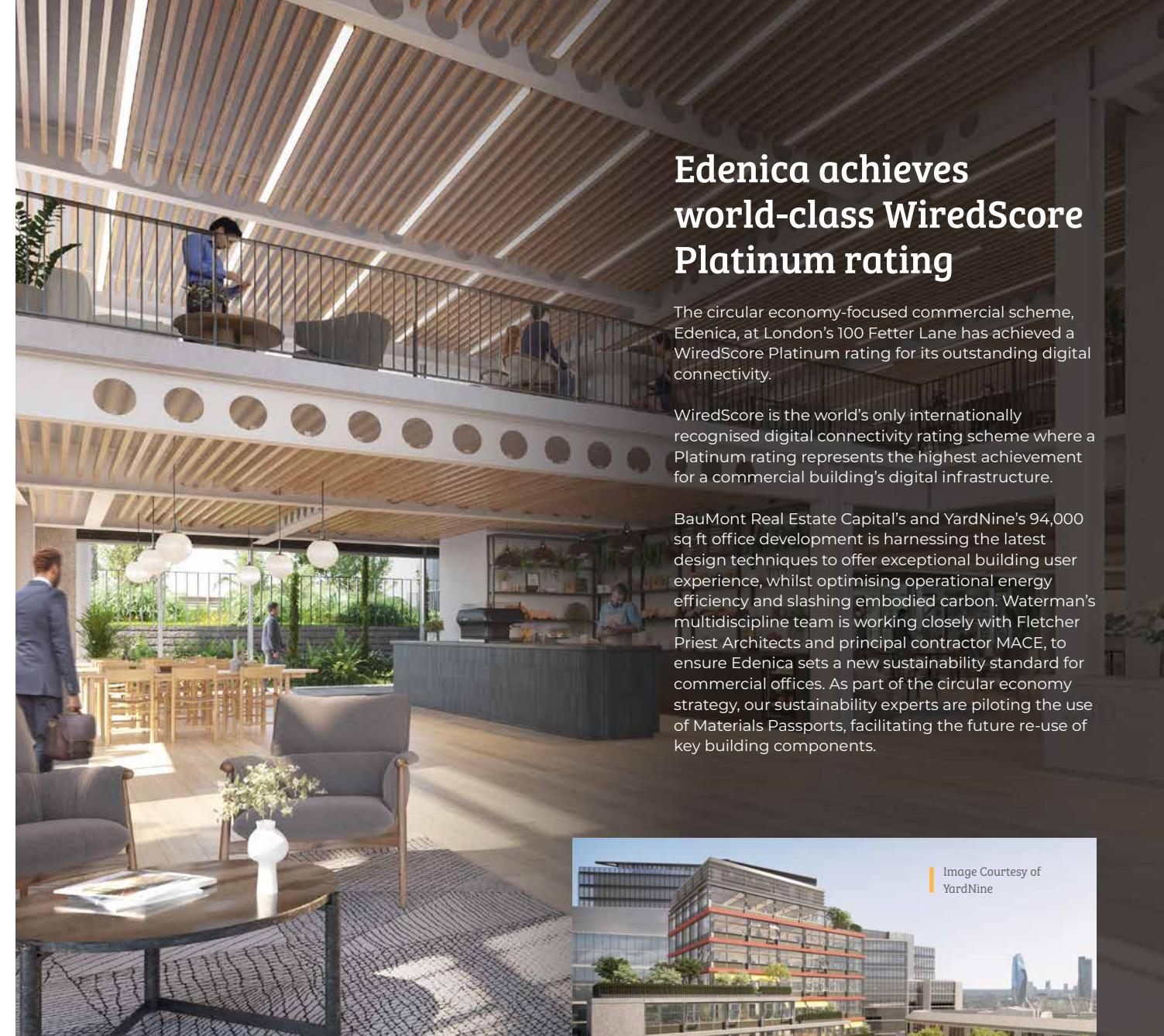
To request a copy of Waterman's Materials Passports Framework, please contact us at:  
[communications@watermangroup.com](mailto:communications@watermangroup.com)

## Edenica achieves world-class WiredScore Platinum rating

The circular economy-focused commercial scheme, Edenica, at London's 100 Fetter Lane has achieved a WiredScore Platinum rating for its outstanding digital connectivity.

WiredScore is the world's only internationally recognised digital connectivity rating scheme where a Platinum rating represents the highest achievement for a commercial building's digital infrastructure.

BauMont Real Estate Capital's and YardNine's 94,000 sq ft office development is harnessing the latest design techniques to offer exceptional building user experience, whilst optimising operational energy efficiency and slashing embodied carbon. Waterman's multidiscipline team is working closely with Fletcher Priest Architects and principal contractor MACE, to ensure Edenica sets a new sustainability standard for commercial offices. As part of the circular economy strategy, our sustainability experts are piloting the use of Materials Passports, facilitating the future re-use of key building components.



### Tandy's Lane development gets under way in latest housing boost

Part of the wider Adamstown Strategic Development Zone, Quintain Ireland's Tandy's Lane development in the west Dublin suburb of Lucan is making strong progress onsite.

The Tandy's Lane scheme will ultimately provide 254 new houses and apartments in addition to community facilities as part of the overall masterplan. Championing 'neighbourhood living', residents will benefit from three acres of open space through access to Tandy's Square pocket park as well as Serpentine Park, a large linear green space located within the scheme.

Our experts are working alongside Quintain Ireland to provide multidiscipline engineering services and health and safety consultancy across the development.



### Victoria's Wonthaggi Hospital Expansion completes

Situated to the south of Melbourne in Australia's Victoria state, the recently completed \$115m Wonthaggi Hospital Expansion scheme will enable staff to treat 26,000 more patients annually. The new emergency department offers three additional theatres and a procedure room, with the major upgrade also bringing 32 new inpatient beds, expanded car parking and a new central energy plant. Waterman provided mechanical, electrical, fire, hydraulics, vertical transport and ESD engineering services for this exceptional development.



## Bristol hotel and retail development tops out

This major scheme on Bristol's Fox Den Road has reached a key stage in its construction marked by a topping out ceremony.

The development, which is being built by construction company Beard and developed by Baylis Estates, will see the delivery of a five-storey 103-bed Premier Inn hotel, Aldi superstore, Costa Coffee drive-thru and a Beefeater restaurant, all with associated car parking. Landscaping will be incorporated throughout including a pocket park and public art.

Sustainability is central to the scheme's ethos, and both the hotel and restaurant are on track to achieve BREEAM 'Very Good' certifications.

Our structures experts developed a flat slab design for the Premier Inn element to minimise downstands and provide maximum flexibility for service run positions, whilst also responding to the requirement to minimise overall building height.

Elsewhere, our environmental specialists completed a detailed ground investigation spanning contamination, hydrogeological assessments and geotechnical design parameters, while our civil engineers developed a cut and fill design which maximised reuse of site excavated material.

The scheme is due for completion in spring 2024.



Soundbite

## Healthcare delivery in Caithness bolstered by two new community hubs

Situated in the far north of the Scottish Highlands, the community in Caithness is set to receive a welcome healthcare boost through two new community hub and care villages in Wick and Thurso. Delivered by hub North on behalf of NHS Highland, these new facilities form part of a wider drive to reshape health and social care services across the region.

The community hub and care village developments bring together services and teams currently located in multiple facilities across Wick and Thurso, providing community and residential care beds, a GP practice, outpatient consulting, therapy space and a base for community integrated teams.

Working closely with Norr Architects and Rybka, Waterman's structures experts are delivering consultancy services for the schemes. With sustainability high on the agenda, the design team is exploring renewable energy sources and are collaborating to create a low environmental impact design as part of the UK-wide drive to meet Net Zero carbon targets.

Alun Rae, Waterman's Director for Structures, commented: "We're looking forward to supporting hub North and NHS Highland once again, helping them transform adult health and social care services across the region."

## Double student living boost for Melbourne as two new UniLodge properties complete

Located in the heart of Melbourne's central business district (CBD), UniLodge's two recently completed premium student living properties offer a combined 1,366 units and are now welcoming residents.

Situated close to RMIT University on La Trobe Street, UniLodge Melbourne Central offers 714 units across 46 floors, whilst UniLodge Melbourne CBD brings 652 self-contained studio and multi-share apartments across 37 floors set within a unique historic building on Wills Street, just a short walk from RMIT and Victoria University City Campus. Both facilities offer exclusive access to bespoke cinemas, futuristic gyms, social areas, study and sky lounges, creating an inspiring environment where students can thrive.

Giving a new lease of life to the former Victorian Printing Works building, the Wills Street development preserved the historic façade which now creates a stunning backdrop to the common areas. With sustainability a high design priority, both schemes achieved five-star Green Star certification, whilst each of these developments is targeting Climate Active certification to reflect carbon neutrality in their operation.

Our team provided a variety of services, including mechanical, electrical, fire, hydraulic, vertical transportation and ESD designs across both buildings.



# Manchester Velodrome reopens after major refurbishment

The Manchester Velodrome, located within the National Cycling Centre, has officially reopened its doors following an extensive £27m refurbishment aimed at enhancing facilities and boosting sustainability in use.



Opened in 1994 as Britain's first indoor Olympic cycling track, the Velodrome has been the training ground for numerous Olympic champions over the years. In 2021, it temporarily closed for a significant renovation primarily funded by Sport England with local and central government contributions. This initiative was part of Manchester City Council's ambitious plan to position itself as the leading European capital of cycling by 2024.

Our specialists worked closely with Manchester City Council's sustainability team to develop a road map for the Velodrome to achieve the Council's 'Climate Emergency Carbon Reduction Strategy' which focuses on the delivery of carbon neutral buildings by 2038.

Led by our Director of Building Services, Tim Davies, our sustainability-focussed design employed green technologies including heat recovery systems and new Air Source Heat Pump systems to reduce energy consumption and cut carbon emissions by more than 50%. These new improvements are expected to result in an annual reduction of up to 517 tonnes of carbon emissions.

## The team used cutting-edge ventilation and heating solutions to meet the stringent climatic control requirements for the space.

The team used cutting-edge ventilation and heating solutions to meet the stringent climatic control requirements for the space. This includes meeting both the professional cycling body UCI-regulations and British Cycling's requirements for variable climatic simulation. The engineering solution has unlocked the ability to provide a 365-day per year training facility for Olympic and Paralympic cycling teams. Cyclists utilising the Velodrome's facilities will also experience improved comfort through the introduction of state-of-the-art fresh air ventilation systems.

The Velodrome's centre court will host a variety of sports throughout the week, including badminton, futsal, netball, korfbal and more. Its inclusive approach encompasses various cycling disciplines and multi-sport activities, enabling the facility to engage communities and residents of all ages and abilities with a world-class offering on their doorstep.

Proud of Waterman's involvement, Tim Davies said: "It has been very exciting for us to support the redevelopment of one of the most significant sporting facilities in the country. We've enjoyed working closely with the Council to align the revamped Velodrome with their climate goals, and this project has allowed us to push the boundaries of design, incorporating green technologies to significantly reduce both the operational and embodied carbon footprint. The Velodrome's reopening marks a milestone in Manchester's pursuit of a greener, more accessible, world-class sporting destination for all."

Tim Davies  
Director, Building Services  
tim.davies@watermangroup.com

The Velodrome's centre court will host a variety of sports throughout the week, including badminton, futsal, netball, korfbal and more.



## New landmark for Manchester skyline as student residential tower gets the go-ahead

Approval has been granted for a 28-storey student accommodation development on Echo Street in the heart of Manchester.

The Sheppard Robson-designed development will provide 1,224 student rooms, 196 of which will be designated 'affordable', all set across three multi-storey towers of 16, 22 and 28 storeys. Individual rooms will be arranged in clusters of five or six, with shared amenity areas provided for socialising, games and wellness space. In keeping with the character of the surrounding Whitworth conservation area, the external façade features red brick punctuated by anodised bronze aluminium metalwork, while two separate courtyards, a communal garden and a study garden give residents direct access to external green spaces.

Our building services specialists provided the MEP design for this all-electric scheme, which is one of the first student residential developments to be designed in accordance with the Net Zero-focused Building Regulations update. With sustainability a key priority, our design incorporates air-source heat pumps and solar panels, and the project is targeting a BREEAM 'Excellent' rating.

Commenting on the planning approval, Waterman's Managing Director of Building Services North, Jonathan Purcell, said: *"I'm delighted to see this exciting scheme secure planning permission. Sheppard Robson's stunning design will unlock the site's potential and the facility will become a key asset to Manchester's thriving student community as part of the city's vision to become a world-class education hub. We worked closely with the architect to design the fabric and facade to meet the latest Part L and Part O regulations, ensuring exemplary energy efficiency and climate resilience."*

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**With sustainability a key priority, our design incorporates air-source heat pumps and solar panels, and the project is targeting a BREEAM 'Excellent' rating.**

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Image courtesy of  
iQ



## Relocation to prime Nottingham office enhances Midlands presence

In May this year, we made a significant move having secured a ten-year lease for a 3,813 sq ft prime office space situated on the fifth floor of central Nottingham's Alan House. The relocation reflects sustained growth in our Midlands workstreams and will allow us to drive our collaborative multidisciplinary working approach.

In addition to offering a wide variety of collaborative spaces, the facility brings enhanced welfare facilities including onsite bike storage, showers and drying facilities, promoting active travel commuting options.

Our Nottingham team has a strong project portfolio spanning multiple sectors, including Nottingham Trent University's Clinical Skills Centre, Laing O'Rourke's Centre of Excellence for Modern Construction, Via East Midlands' council services, SeAH Wind's Teesside offshore turbine base factory. Our specialists also play key roles in public sector frameworks, strategic infrastructure projects and local schemes across the Midlands.

Led by Jonathan Purcell, Ruth Jeffs, and Dominic Hardy, our team look forward to welcoming you to our new location at Alan House, Clumber Street, Nottingham NG1 3ED.



# The Northcliffe: extensive revamp of former Daily Mail headquarters completes

The historic former Daily Mail headquarters and print works has been restored to its old glory, retaining its original art deco look and feel but with a modern twist to introduce new features to the space.



**D**esigned by John Robertson Architects (JRA), the refurb has preserved the Grade II-listed façade of the original 1920s building to include extending two upper floors and three landscaped roof terraces featuring extensive urban green areas to promote biodiversity. The Northcliffe’s semi-industrial aesthetic is maintained throughout, with exposed steel frame elements and semi-exposed ceilings.

*“Structurally, it’s been a really exciting project for our team, breathing new life into the scheme we previously worked on in the 90s”, said Waterman’s Structures Director Helen Blacker.*

*“We worked closely with the whole project team from the outset, carefully collaborating our design interventions to meet the scheme’s ambitions but stay true to the building’s rich heritage. The team liaised with local businesses, residents, and City of London Corporation officers to ensure this latest chapter in the building’s life was a success.”*

Set across seven storeys, the workspace covers approximately 200,000 sq ft, with terraces totalling 9,800 sq ft, all designed with sustainability at the forefront. *“Focusing on keeping as many of the key structural elements as possible, we retained the existing superstructure, the foundations and the Grade II-listed façade to minimise embodied carbon”, Helen adds.*

The newly glazed atrium is a striking central feature in the building, designed to allow for natural daylight to reach the office spaces across all upper levels.



Our structures specialists worked closely with John Robertson Architects along with the wider project team including principal contractor ISG, project manager M3 and cost consultants G&T.



*“Our efforts focussed on minimising strengthening to the 1990s steel frame, along with several structural changes including vertical extensions and modified floorplates with circulation routes being centred around the reimagined atrium space.”*

The main entrance, originally located on the corner of the building, is now centrally positioned and remodelled to incorporate a café, breakout areas, library, meeting room, and an internal access to a retail unit that opens onto Tudor Street.

The listed 1925 façade exudes the charm of a pre-war department store with its embedded cast steel frame and Crittal-steel windows. Elsewhere, the fifth floor’s original octagonal turret has been repurposed, offering tenants a flexible amenity space that leads onto a landscaped roof terrace.

The scheme has been delivered as WELL ‘Ready’ and achieved a BREEAM ‘Outstanding’ rating. It incorporates simultaneous heating and cooling through air source heat pumps, enhanced wall and roof insulation, and new PV panels at roof level.

Designed with wellbeing in mind, the premises boasts 31 high-spec showers and changing rooms, complete with 325 lockers at basement level along with over 342 cycle parking including dedicated cycle lifts.

Etain Fitzpatrick, Director of JRA highlighted the importance of collaboration in this project: *“Working with Waterman, who worked on the previous refurbishment of the building, was key to the success of the project. Helen and her team were able to quickly identify the design parameters and provide innovative and cost-effective solutions for the new extensions to the building.”*

Helen sums up the project with pride, saying: *“The Northcliffe demonstrates that refurbishment has a significant role to play in delivering a Net Zero built environment. It highlights how exceptional outcomes can be achieved by taking an innovative approach to design, even dealing with the constraints of a retained listed facade. Our team relished the opportunity to return to Tudor Street after 30 years, breathing a new lease of life into this iconic building, and it was a real pleasure to work so closely with the highly creative project team.”*

Helen Blacker  
Director, Structures  
helen.blacker@watermangroup.com



Images courtesy of GG Archard - [www.ggarchard.com](http://www.ggarchard.com)

**The atrium is a central feature in the building with floorplates and circulation routes wrapped around allowing for natural daylight to reach the office spaces across all upper levels.**





# Peel Ports Group

## – FRAMEWORK APPOINTMENT –

Running for up to eight years, Waterman's appointment on the Peel Ports Group Framework will see our team providing engineering and environmental consultancy services in support of key infrastructure projects and feasibility work across all of Peel Group's projects and engineering operations.

Peel Ports owns and operates six of the UK's most important ports, as well as a container terminal in Dublin, handling 65 million tonnes of cargo every year. They are dedicated to continuing to improve their customer offering as well as supporting and enhancing their commitment to becoming carbon neutral by 2040. Peel Ports is part of the Peel Group, one of the UK's foremost privately-owned investment enterprises.

Notable projects delivered through the consultancy framework include the new Gladstone passage outer lock gates at the Port of Liverpool, and the development platform for a 22,524 sqm rail-linked multi-user warehouse, which is set to launch as a new Bulk and Steel facility in 2024. These two projects alone equate to a £35m investment, whilst throughout the last ten years Peel Ports has invested over £1bn on sustainable infrastructure projects.

Andrew Ferguson, Waterman's Managing Director for Infrastructure and Environment, commented: *"Investment in our ports infrastructure will play a vital role in helping the UK develop new trading opportunities. We look forward to working in partnership with Peel Ports Group to help deliver their programme of sustainable infrastructure projects and support their journey to Net Zero."*

**Peel Ports owns and operates six of the UK's most important ports, as well as a container terminal in Dublin, handling 65 million tonnes of cargo every year.**



## Planning Award win for Oval Village

Phase two of the stunning residential-led redevelopment in the heart of London's Kennington scooped the award for 'Best housing scheme (500 homes or more)' at this year's Planning Awards.

Transforming a former industrial site, Oval Village will bring over 1,400 new homes to this unique location next to the world-famous Kia Oval Cricket Ground.

Our experts have been supporting this scheme since inception, providing specialist multidisciplinary input, including building services, civil and structural engineering, geotechnical, contamination and remediation services.



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**ANAIS uses traditional road monitoring methods and enhances them with digital technology to identify potentially hazardous zones based on onboard driving data.**  
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## Midlands' highways set for safety boost with new inspection tech trial

Following several months of detailed collaboration with our civil engineering specialists, Mobility by Colas' innovative ANAIS digital road inspection service is now being launched in the Midlands.

**As** part of their multi-year motorway maintenance and response contract for National Highways' Area 9, Colas Ltd, a subsidiary of Colas in the United Kingdom, will utilise the ANAIS service for a trial period of one year across the network of motorways and trunk roads around Birmingham.

ANAIS uses traditional road monitoring methods and enhances them with digital technology to identify potentially hazardous zones based on onboard driving data. After analysing the data, recommendations are made to infrastructure managers on how to improve these zones and increase road safety through continuous monitoring. The system has been deployed on a range of highways networks across France and the UK since 2018, seeing it receive a French Interministerial Delegation for Road Safety 'Road Safety Innovation' award in 2019.

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**Waterman's highways team has been collaborating with Colas for several months on the initiative, with our specialists helping contextualize the data included within the reports.**  
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Commenting on the roll-out of ANAIS in the Midlands, Paul Elliott, National Highways' Head of Service Delivery for the Midlands, said in a recent statement: "We are always keen to find new ways to improve safety on our roads. Using this new source of data to support our current processes could improve our ability to target

*areas in need of maintenance, making journeys safer and smoother. As part of our Digital Roads project, we are embracing new ideas and technologies, and we look forward to seeing the results of this trial as well as the benefits it could bring."*

Our highways team has been collaborating with Colas for several months on the initiative, with our specialists helping contextualize the data included within the reports. Taking into account the key attributes of the various road types across the national highways network, including vehicle speed, road markings, direction of driving, we helped ensure the automatic recommendations made by ANAIS are tailored to suit the specific requirements of British highways.

Waterman's National Framework Director Amrit Ghose, said: "I am delighted to see the ANAIS system being adopted by National Highways in the Midlands following our close collaboration with Colas. This exciting initiative will help improve highway safety across this key network, ensuring the area's busy roads continue to support the economic and social prosperity of the region as efficiently as possible."

Amrit Ghose  
National Framework Director,  
Infrastructure and Environment  
amrit.ghose@watermangroup.com

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**The system has been deployed on a range of highways networks across France and the UK since 2018, seeing it receive a French Interministerial Delegation for Road Safety 'Road Safety Innovation' award in 2019.**  
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## Broadford Community Hospital wins Scottish Design Award

The 24-bed Broadford Hospital on the Isle of Skye scooped the Gold Award for 'Health Building or Project' at this year's Scottish Design Awards. Over 120 companies submitted class-leading work for the 2023 edition of the annual show, which saw hundreds of designers gather for a celebration of creativity.

Designed by Oberlanders architects, the facility offers a range of services including a midwife-led community maternity unit, an accident and emergency unit, a dental surgery, an X-ray/ultrasound unit and an infusion site. The project further enhances NHS Highland's ambition of providing more accessible healthcare in remote and rural communities and supports an increase in the use of virtual assessment.

Situated in a stunning location on the shore of Broadford Bay, patients, visitors and staff benefit from extraordinary views over the Scottish countryside. The facility serves a population of 14,300, which can grow to over 30,000 during peak tourist seasons.

Our specialists delivered a range of multidisciplinary services for this incredible scheme, including civil and structural engineering. We also provided pre-planning support services for transportation, acoustics, ecology, hydrology and geo-environmental.

The facility serves a population of 14,300, which can grow to over 30,000 during peak tourist seasons.



## Materials Passports scoops ACE Award for Best Net Zero Project

Waterman's Materials Passports initiative scooped 'Best Net Zero Project' at this year's ACE's Consultancy and Engineering Awards.

Currently under trial at BauMont Real Estate Capital's and YardNine's 94,000 sq ft Edenica office development in London, Material Passports are set to accelerate the circular economy and boost future reuse of building materials across the UK.

The Edenica scheme, designed by Fletcher Priest Architects, employs cutting-edge design techniques to optimise operational energy efficiency and minimise embodied carbon, whilst also offering top-tier user experience.

Impressed with the pioneering application of Waterman's Materials Passports on the scheme, the award judges celebrated the initiative's potential to kick-start material circularity throughout Britain's built environment.



## Dublin's city centre College Square scheme progresses at pace

Construction of this major project on Dublin's College Square is now entering the final phases, with the façade recently completed. The scheme will unite two development sites as part of a combined regeneration in the heart of Dublin's city centre. Set across two ten-storey buildings, occupants will benefit from 540,000 sq ft of Grade A office space, sitting above a double height entertainment venue.

Waterman's team in Dublin is providing civils and structures support for this outstanding scheme.





# Innovative NMIS facility to shape future of Scottish manufacturing industry

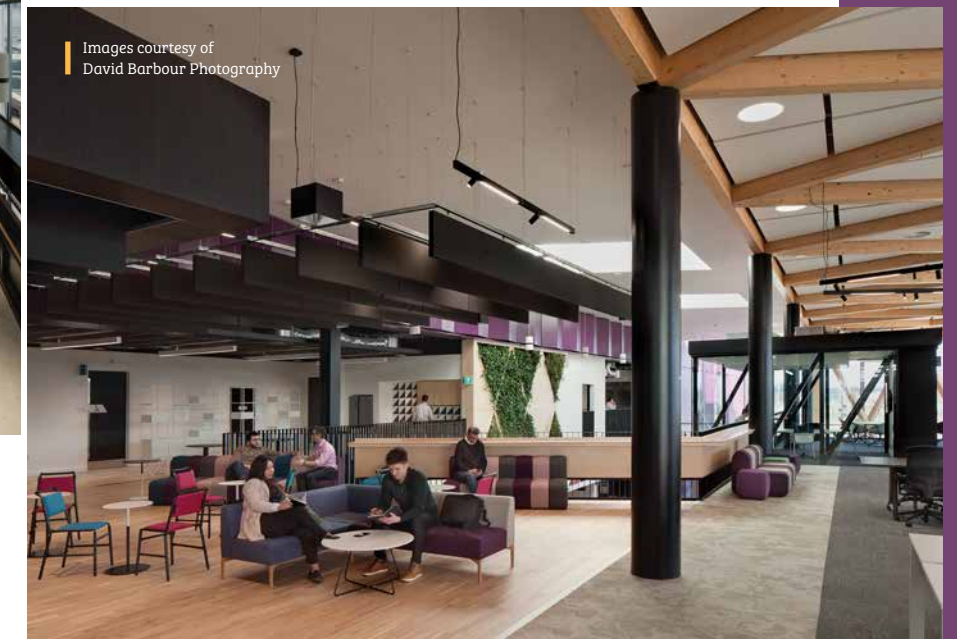
Nestled in an industrial park a stone's throw from Glasgow Airport, the stunning National Manufacturing Institute Scotland (NMIS) facility was created to drive innovation across Scotland's internationally renowned advanced manufacturing industry.

Built by Morrison Construction, the 11,500 sqm operationally carbon neutral development will act as a magnet for innovative manufacturing, engineering and tech businesses, offering a creative place where they can come together to share skills and develop new ideas. The building is home to the NMIS Manufacturing Skills Academy and also incorporates a fully connected Digital Factory and a publicly accessible collaboration hub.

Following just over two years of construction, the University of Strathclyde recently took ownership of the completed flagship facility at the heart of the Advanced Manufacturing Innovation District Scotland (AMIDS). A collaboration between the Scottish Government and the University of Strathclyde, NMIS connects all of Scotland's engineering Universities and colleges and was delivered in partnership with Scottish Enterprise, the Scottish Government, Highlands and Islands Enterprise, Skills Development Scotland, Scottish Funding Council, Renfrewshire Council and The University of Strathclyde.

Highlighting the role the new facility will play in delivering a bright future for Scotland's manufacturing sector, NMIS Chief Executive Officer, Chris Courtney, said in a recent statement: "This is a truly exciting time for us all at the National Manufacturing Institute Scotland (NMIS) Group... Our new HQ is a place designed for intense collaboration, accelerated innovation and the development of the skills required to deliver the future of manufacturing."

  
NMIS recently won 'Commercial Project of the Year' at the Herald Scottish Property Awards and 'Education Project of the Year' at the Structural Timber Awards



Leading the way in sustainable design, the facility also features innovative low carbon solutions to mitigate its impact on the environment.

HLM Architects' striking design is punctuated by a deep purple façade, referencing Scotland's famous blooming heather, whilst a feature 32m-wide 'window to the world' provides a view into the Digital Factory where the future of manufacturing will be explored and delivered, and the dramatic timber Glulam structure sits internally above the office and collaborative spaces.

Leading the way in sustainable design, the facility also features innovative low carbon solutions to mitigate its impact on the environment. This includes a large rooftop solar array for electricity generation, access to a state-of-the-art low carbon district heating network, and a rainwater harvesting system.

Our early involvement from the project's feasibility stage allowed us to fully understand the various technical aspects that governed the civil and structural design. Future flexibility was a key requirement of the project brief, and our team accommodated this by ensuring that any future servicing requirements can be accommodated with minimal disruption to the main structure. Flexibility has also been designed-in to the scheme by locating services below the slabs within a fully accessible services trench cast into the ground floor slab. Elsewhere, our design also incorporated additional drainage pop-ups and associated below ground drainage to areas where potential additional toilet or kitchen facilities may be needed in the future.

Our structures team worked closely with HLM Architects to ensure sustainability was embedded throughout the design, helping NMIS achieve a BREEAM 'Outstanding' certification. As part of the overall whole life carbon



analysis, we carried out extensive comparative studies of the embodied carbon within different structural frame solutions. This involved reviewing the materials and frame options against the original building concept, shape and form, resulting in the selection of a hybrid steel/timber frame. A timber-based design was chosen for part of the building featuring cross-laminate timber (CLT) with glulam timber beams and columns for the collaborative space, whilst a steel frame was selected for the digital factory.

Externally, sustainable drainage systems improve water quality and control surface water run-off, whilst a range of ground improvement solutions reduced the volume of excavated and imported material. Through a collaborative engagement with Renfrewshire Council, we secured permission to retain the excavated material on site for re-use in future projects and developments.

Alun Rae, Waterman's Director for Structures, commented: "Designing and delivering NMIS was a truly collaborative team effort, and the outcome is a highly sustainable development which will stand the test of time. I'm certain this exceptional facility will provide a huge boost to advanced manufacturing in Scotland, helping businesses across the sector become world leaders in innovation."

Alun Rae  
Director, Structures  
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## West Midlands Mayor clocks in at our Birmingham office

Friday July 7 saw our Birmingham office welcome the Mayor of the West Midlands, Andy Street, accompanied by Cllr. Alex Yip.

During their visit, our next generation showcased their experiences as part of our Apprenticeship and Graduate schemes and gave their insights on high-profile projects they've helped deliver across the region. The Mayor was particularly pleased to hear from early careers professionals, praising their contributions to the thriving West Midlands' built environment sector.



## Triple award shortlisting for Rising Stars

We're thrilled that three of our female rising stars have been shortlisted in upcoming industry awards, reflecting their career achievements and industry contributions.

Best of luck to Laura, Hiba and Georgia!



### Laura Smith

Laura from our Nottingham team is a finalist for the 'Rising Star – Commercial' category at Property Week's Inspiring Women in Property Awards. As a Senior Consultant in our transport planning team, Laura has contributed to many projects, most notably Graven Hill, a major development near Bicester set to offer 1,900 new self-build homes.



### Hiba Talmoust

Hiba from our sustainability team has been shortlisted in the 'Graduate of the Year' category at the upcoming CIBSE Young Engineer Awards. As a Net Zero and Sustainability Consultant currently pursuing a PhD on the carbon impact of M&E systems, Hiba focuses on Net Zero strategy, whole life carbon, circular economy and energy.



### Georgia Lilley

Structures Design Engineer Georgia has been shortlisted at the BCO NextGen Awards in the 'Rising Star London & South-East' category. Georgia recently graduated from London South Bank University in Civil Engineering after completing a Degree Apprenticeship with us.



## NLA Circular London report to support greener future for the capital

New London Architecture's (NLA's) Circular London report aims to support the delivery of a greener future for London's built environment sector, helping the capital become a Net-Zero city by 2030.

Bringing together all the latest circular economy research, innovations and exemplary projects from across our industry, the report outlines what's already being done to embed circularity and shift our collective design approach towards reusing materials. To help drive this momentum forward, key recommendations for government policy, funding and legislation changes are also incorporated.

Inspired by the challenge our sector faces, Waterman has joined fellow industry leaders in contributing leading-edge research, initiatives and case studies to the Circular London report, all of which demonstrate how we're collectively minimising embodied carbon, whilst championing circularity in material selection.

Along with a selection of our low environmental impact projects, the report showcases Waterman's innovative Materials Passports (MPs) initiative which is helping maximise the circularity of construction materials by documenting their key credentials throughout their lifecycle. MPs are currently being piloted at BauMont Real Estate Capital and YardNine's City of London Edenica commercial development, where they are helping increase the material lifespan and whole life value of key building elements.

Commenting on the importance of the Circular London report, Waterman's Director for Structures, Charlie Scott, said: "This report is a clear indication that our industry has the creativity, expertise and desire needed to deliver a Net Zero future for the UK's built environment. As part of NLA's Net Zero Group, I've seen first-hand just how far we've come in recent years, and I believe creating a thriving circular economy is absolutely fundamental if we are to deliver on our sector's Net Zero targets."



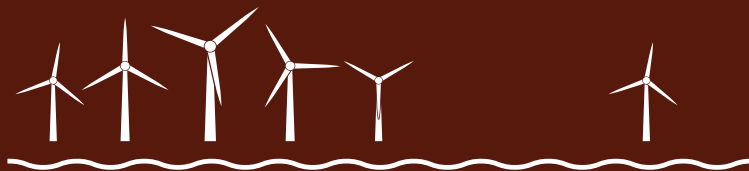
### Key framework appointment supports Scottish growth plans

Our engineering experts have been selected to offer consultancy services on the Scotland Excel Framework, which helps public organisations source a range of specialist services to support construction and development schemes across Scotland.

Through this four-year appointment, our team will offer civil and structural design services for 32 local authorities and over 100 associate members, including universities, housing associations, Crown Estates Scotland, Scottish Police Authority and many other public bodies. The framework aims to deliver a programme of collaborative procurement to support public services in a truly sustainable manner.

Commenting on the appointment, Richard Whitehead, Waterman's Managing Director for Structures, commented: "We are thrilled to have secured a place on this key framework. This appointment supports our ongoing growth plans in Scotland, and we look forward to delivering collaborative and sustainable projects for existing and new clients."





# Giant Teesside turbine base factory to drive growth in offshore energy sector

With renewables now accounting for nearly 50% of UK electricity generation, the sector is making strong progress towards government targets that will see the British electricity system decarbonised by 2035. The north-east of England has become a world-leader in offshore renewables, and this looks set to continue with South Korean steel manufacturer, SeAH Wind, choosing Teesside's Freeport as the home for its giant new offshore turbine base factory.

The largest of its kind in the world at over 800m in length, the enormous facility presents a range of design and construction challenges including its scale, low energy design and an accelerated programme. Once completed, it will offer 1.13million sq ft of high-quality factory space for the production of monopiles up to 120m in length, 15.5m in diameter and weighing 3,000 tons which are used to support offshore wind turbines. Since securing planning consent in June 2022, work on the £300m, 40-metre-tall facility is now well underway at the site of the former Redcar steelworks, with over 5,000 piles and the first of the monumental steel columns already installed.

Occupying a 90-acre site, the scheme will ultimately see the creation of 1,500 supply chain and construction jobs, along with a further 750 roles when the site is fully operational. The facility has been designed to accommodate the production of new extra-large monopiles and will become SeAH Wind's first such resource outside South Korea. SeAH Teesside is expected to produce between 100 and 150 monopiles per year which will be transported directly from the factory to Teesworks' new South Bank Quay before heading to the North Sea for installation using specialised pile driving equipment.

Comprising the new 93,324 sqm main monopile manufacturing building, a 3,873 sqm administration office, maintenance station, paint facility and site-specific power stations, the scheme will also include a range of staff welfare facilities. Ashton Smith Associates' architectural design responds directly to the challenges of creating a space with an optimal capacity for monopile construction. The layout has been carefully developed to achieve a configuration which satisfies SeAH Wind's requirements, ensuring each space is interconnected efficiently and safely, with all disciplines operating under one roof.



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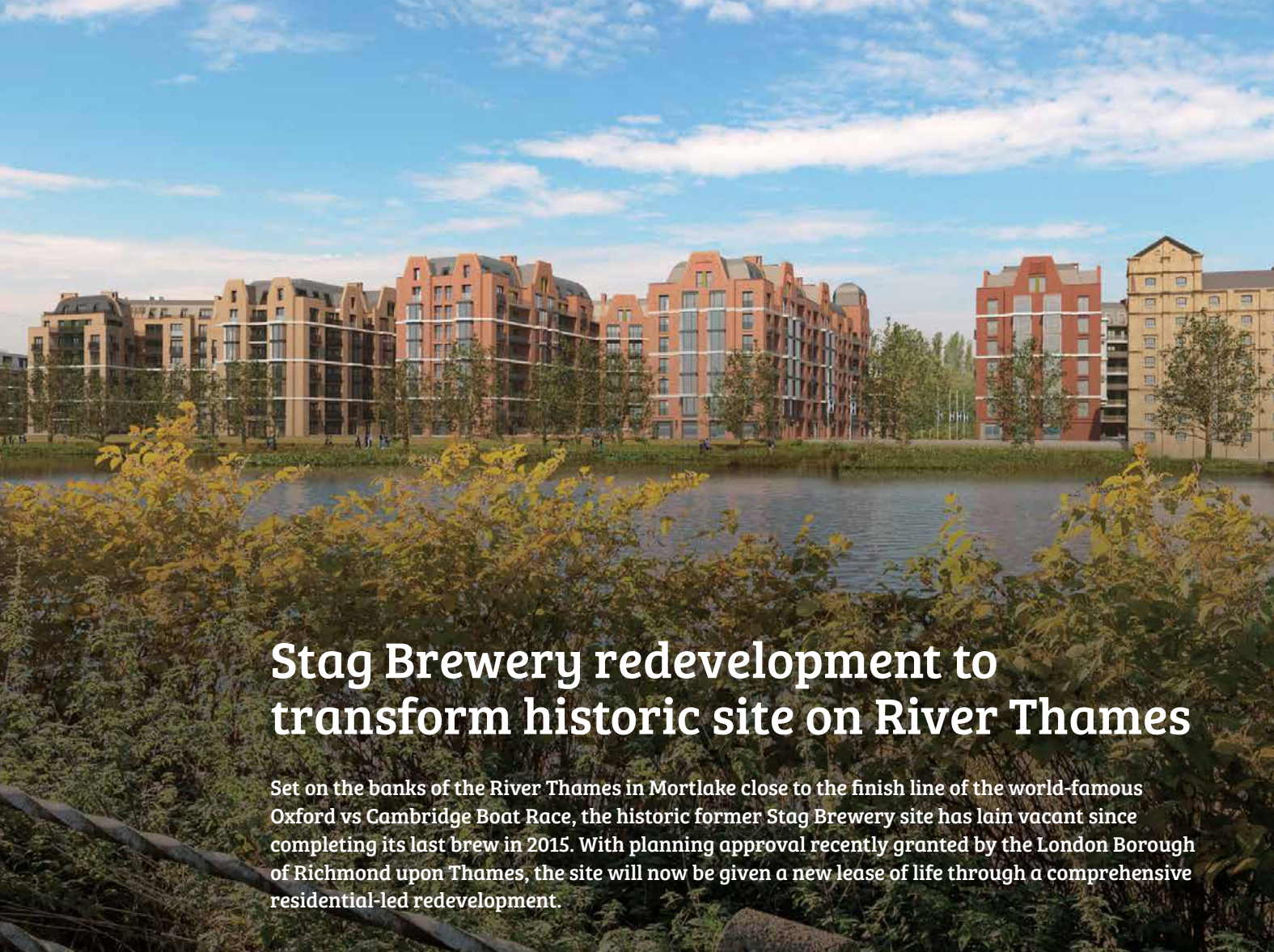
Waterman's building services design focuses on energy efficiency in operation, whilst also offering a high level of environmental controllability to maximise material longevity and ensure the production of a premium quality end product. The main manufacturing building is an unheated space, with the services concentrating on air quality and adaptable lighting to provide an optimum working environment for occupants, whilst ensuring low energy consumption in use. The building's ventilation system incorporates high and low level automatically controlled ventilation openings, linked to internal air quality sensors to control temperature and air quality. Meanwhile, electrical lighting will be combined with natural light from rooflights to ensure lux levels are maintained throughout operational hours, providing visual comfort and further reducing the building's energy footprint.

Commenting on the unprecedented scale of the scheme, Waterman's Managing Director for Building Services North, Jonathan Purcell, said: "We've thoroughly enjoyed supporting this major scheme! SeAH Teesside is one of the largest stand-alone industrial developments we've tackled, so it's been a great challenge for the team to ensure our low-energy design provides optimum manufacturing conditions for the cavernous spaces. This landmark facility will help support the UK's journey to Net Zero, whilst bringing vital employment opportunities to the north-east, and I look forward to seeing work progress onsite over the coming months."

Jonathan Purcell  
Managing Director, Building Services North  
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# Stag Brewery redevelopment to transform historic site on River Thames

Set on the banks of the River Thames in Mortlake close to the finish line of the world-famous Oxford vs Cambridge Boat Race, the historic former Stag Brewery site has lain vacant since completing its last brew in 2015. With planning approval recently granted by the London Borough of Richmond upon Thames, the site will now be given a new lease of life through a comprehensive residential-led redevelopment.



**S**pread across 22 acres, this mixed-use scheme will add 1,068 homes, a new 1,200-pupil secondary school, offices, a hotel and a full-sized community football pitch, whilst a range of retail units, a cinema, bars and restaurants will help create a thriving new high street. Green and open spaces will punctuate the site, with new pedestrian and cyclist access routes enabling access to the river.

Acting as development manager, Dartmouth Capital Partners are leading the scheme on behalf of Reselton Properties Limited, which will see historic elements of the site retained and enhanced as well as upgrading the existing flood defences. In addition, a range of associated highway works will support the development.

With sustainability high on the agenda, the energy strategy for the Squire & Partners-designed development follows an all-electric heating strategy incorporating low carbon technologies such as Air Source Heat Pump and rooftop Photovoltaic panels. Recognising the importance of air quality in Richmond, the scheme aligns directly with Air Quality Positive London Plan Guidance. Significant ecological enhancement measures are incorporated with the development achieving a Biodiversity Net Gain.

Waterman has been involved with the Stag Brewery redevelopment since its outset in 2016, providing multidisciplinary support spanning the site's appraisal and acquisition through to the planning submissions and beyond.



Images courtesy of Squire & Partners

As Lead Environmental Consultant, our specialists coordinated the Environmental Impact Assessment and delivered the Environmental Statement, in addition to a wide range of in-house technical surveys and reports, including air quality, noise and vibration, ground conditions and contamination, ecology, arboriculture, flood risk and drainage, townscape, visual and heritage. Our specialists supported the lengthy public consultation process and worked closely with the London Borough of Richmond Upon Thames and statutory consultees including the Environment Agency to secure their approval for the proposed flood defence works.

Focused on maximising the usable space available across the various elements, our structural design helped unlock the site's potential, whilst also accommodating the retention of the historic maltings building, along with the bottling plant's façade and the former hotel.

Commenting on the impact of this significant development, Polly Clifton, Waterman's Technical Director for Infrastructure and Environment, said: *"This major scheme will sensitively transform the historic Stag Brewery site to create a new community hub for this thriving area whilst upgrading the existing flood defences and improving access to the river. With the availability of housing a significant issue in London, the addition of over a thousand new homes will be welcome news to many. Having been involved with the site for many years, I'm delighted to see the development progress to this point."*

Polly Clifton  
Technical Director, Infrastructure and Environment  
polly.clifton@watermangroup.com

**Spread across 22 acres, this mixed-use scheme will add 1,068 homes, a new 1,200-pupil secondary school, offices, a hotel and a full-sized community football pitch, whilst a range of retail units, a cinema, bars and restaurants will help create a thriving new high street.**







## Landmark Clery's Quarter regeneration closes in on completion

**Spread across three buildings with five diverse elements, this landmark mixed-use development in the heart of Dublin is now closing in on completion, with fit-out works expected to be finalised in Q4 this year.**

The 60,000 sq ft historic department store, Block A, has been substantially redeveloped and incorporates the addition of Clery's rooftop bar and restaurant above, complete with breathtaking cityscape views including the world's tallest sculpture – The Spire – which soars into the Dublin skyline from its home nearby on O'Connell Street. Elsewhere, a new 176-bedroom boutique hotel named The Clery has been added, and 92,000 sq ft of premium Grade A office space created at The Earl Building, with 8,500 sq ft of new food and beverage amenities at Earl Place Market completing the scheme.

Our team provided civil and structural engineering design services for the scheme to maximise the potential of the redevelopment whilst preserving the historic building for future generations to enjoy. The design included the careful removal of multiple layers of historic shop fit-out and modifications to allow the original structure to be revealed. Evidencing the design's comprehensive integration of smart technology, the scheme received a platinum WiredScore rating.

Developed by Oakmount in partnership with Europa Capital and Core Capital, this remarkable scheme received a Commendation at this year's Structural Steel Design Awards.



## Regional framework portfolio grows with key North East appointment

Waterman has secured a place on the NEPO212 Framework which will see us provide essential support services for built environment schemes across North East England.

Under this four-year appointment, our team will provide multidisciplinary highways, transportation and civil engineering services to NEPO members, in addition to providing specialist Principal Designer support.

As a central purchasing entity, NEPO procures services for 12 local authorities in the North East, along with 800 associate members across the public sector. This encompasses government bodies, emergency services, educational institutions, charities and registered social landlords.

John Hughes, Waterman's Infrastructure and Environment Director for the North, said: "We are delighted to have been appointed on this vital framework which aligns with our expansion goals for the North East. We look forward to working with NEPO and its members to deliver positive and sustainable outcomes for local communities."



## New Adamstown homes on the horizon as latest phase of development gets under way

The latest phase of the prestigious Aderrig residential development in Dublin's Adamstown is now under way. The Quintain Ireland scheme includes a range of spacious own-door two-and three-bed duplex apartments in this vibrant growing neighbourhood. Situated just 16km west of Dublin city centre, residents will also benefit from access to the 27-acre Airlie Park on the site's doorstep.

Working alongside BKD Architects, our team has provided civils, building services, structural and PSDP consultancy and design services throughout the scheme.



# Circular economy drives design creativity at Paper Garden

Nestled at the heart of British Land's 53-acre Canada Water mixed-use regeneration in London's Docklands, the Paper Garden Education Shed is a unique community facility which has the potential to totally transform our industry's approach to sustainable design.

The project was driven by a strong client aspiration: to deliver a building from harvested circular economy components which was built by the community for the community, and this creative freedom sparked the design team's imagination, seeing them challenge the status quo and fully embrace circularity.

## A new approach to design

Led by Jan Kattein Architects, Waterman's structures specialists teamed-up with Wates Construction and woods craftsmen, Yes Make, on a voluntary basis to design and build the Shed in the least carbon-intensive way possible.

Celebrating the team's cohesiveness and drive to deliver something remarkable, Waterman's Director for Structures, Charlie Scott, said: *"Paper Garden gave us an opportunity to take a truly collaborative and integrated design and construction approach, and this challenged us all to rethink our established project roles. Historically, buildings have been designed by first developing a solution to meet a very specific brief, with the most suitable materials then selected to get the job done. But here we knew we had to think 'materials first' and then create a practical and highly buildable design from what was available, all with the aim of minimising embodied carbon."*

Joel De Mowbray, founder of Yes Make, described the process as *"the difference between studying a recipe book and heading to the supermarket to buy the specific ingredients, or just opening the fridge and coming up with something amazing!"* Joel continued: *"This really fuelled our creativity and led to a whole range of brilliant solutions which the design team would never have arrived at using the traditional design route."*

## Crafting a hub for the community

The result is London's largest circular economy building at 300 sqm which features a structure built from 60% recycled materials. Offering an indoor crafting space and classroom along with an outdoor food growing area and garden, the Shed is utilised by environmental education charity, Global Generation, for their educational workshops and classes with local schools, colleges and community groups.

Commenting on the impact of the Paper Garden Education Shed, Jane Riddiford, Global Generation's Founding Director said: *"The flexibility this incredible facility offers has been fundamental to the success of our environmental education program at Canada Water. We've used the space to help build a greater sense of community in the area, seeing groups of all ages coming together to learn, grow, cook and eat."*

## Circularity in action

With Paper Garden situated in the footprint of the former Daily Mail Printworks, the design team made use of a whole host of recycled building components from the existing buildings across the Canada Water site, liaising closely with demolition contractor, Clifford Devlin, to identify key usable elements, including staircases, rigging



Image courtesy of Jan Kattein Architects Ltd

steelwork and pressed metal z purlins from the Shed itself. Alongside this, the team approached contacts across their live project networks to seek out materials from a huge range of sources. The sleepers were supplied by Network Rail, the flooring is constructed using doors from a demolition site, timber studs, ply sheets, linear lights and the kitchen were sourced from nearby development schemes, whilst bathroom porcelain sets came from a construction project where incorrect items had been ordered. Externally, the staircase is salvaged from the 81 Newgate refurbishment scheme and sections of sedum ground cover planting were reclaimed from a neighbouring site.

Rising to seven metres, the recycled steel-framed structure spans the length of the site, encapsulating both the building and external areas. With flexibility integral to the design, spare z purlins were taken from the open roof above the garden area and re-purposed to strengthen the roof above the internal spaces to accommodate suspended ceilings below.

The Shed's double-height internal space is home to an open plan classroom area, whilst office space, kitchen and toilets are arranged around a service core with a mezzanine deck level above offering further learning and breakout space. Externally, the structure is punctuated by stunning Mondrian window walls at each end which are constructed from discarded window sets from NorDan, whilst expansive exposed cordwood walls complete the building's envelope. Created using timber from Epping Forest's sustainable woodland management regime, the wood for these walls was kiln dried before being sent to site for splitting and de-barking. Finally, it was cut to size and installed by volunteers on site using traditional lime mortar.

**The Shed's double-height internal space is home to an open plan classroom area, whilst office space, kitchen and toilets are arranged around a service core with a mezzanine deck level above offering further learning and breakout space.**

## Extending material lifespans

Aiming to embed future circularity in all elements of the design, Jan Kattein Architect's Associate, Heloise Desaissement, said: *"After selecting recycled materials wherever possible, we wanted to ensure that their journeys didn't end at Paper Garden. This meant we designed the whole building for disassembly so each component could then be re-purposed elsewhere to extend material lifespans even further. Everything, right down to the lime mortar used in the cordwood walls, can be removed and repurposed, and it's clear that treating each building component with this level of respect is central to unlocking the potential of the circular economy in the built environment."*

By taking an unorthodox approach to design and material selection, the Paper Garden project team faced a number of challenges along the way. Highlighting the difficulties, Heloise said: *"Perhaps the biggest challenge was securing planning consent for our proposals, given the fluid nature of material selection and the visual impact this had on the external façade design in particular. The other major issue related to gaining Building Control sign-off since the majority of materials selected were reused. To overcome these issues, we started our dialogue early in the design process, but the cordwood walls were particularly challenging because there is no specific design code covering this system."*



To tackle this issue, the team worked together to develop a technical framework for approval. Heloise covered the thermal and façade performance aspects by using historical design guides for cordwood, coupled with detailing in accordance with Building Control requirements for cavity walls, whilst Waterman's team focused on their structural performance.

Since the walls are formed from timber frames using repurposed railway sleepers, the Eurocode for timber design could be applied. These frames were then infilled with cordwood panels, and the team referenced established cordwood design guides to demonstrate precedence for the design and ultimately achieve sign-off.

## Looking to the future

Contemplating the lessons learnt during the material selection, design and build process at Paper Garden, Charlie Scott said: *"Paper Garden taught us many things about getting to grips with the circular economy. It's clear that the materials are out there but finding them needs to be much simpler. Our industry needs to improve accessibility to the vast array of discarded, used or waste materials. This could be achieved through an aggregated materials database demonstrating precisely what's available and where it is, and a supporting storage and distribution network would need to be established. Whilst this would take industry-wide collaboration and investment to set up, the environmental benefits of doing so would be enormous."*

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# Making a DIFFERENCE

Community | Education | Charity

## Introducing our new charity partnerships

It's the time of year when our people vote for the charity we'll be supporting over the coming 12 months. With the result too close to call, we selected the leading two choices - the Children's Bereavement Centre and the Loiyangalani Trust. Both charities deliver outstanding support for young people in their communities, and we're delighted to help them make a lasting difference through their work.

### The Children's Bereavement Centre

Based in Newark, the Children's Bereavement Centre offers a wide range of services and support, completely free of charge, for children and young people to help them cope with the grieving process. They provide group and one-to-one support, and their specialist knowledge and care has helped children in many different ways through very distressing and overwhelming experiences. Options for support when a child is bereaved are few, so their work is incredibly important, covering very young children, sibling groups and in-person sessions.

To find out more visit [childrensbereavementcentre.co.uk](http://childrensbereavementcentre.co.uk).



### The Loiyangalani Trust

The Loiyangalani Trust was founded by Anthony Mitchel in 2009 following a series of visits to the small town of Loiyangalani, located on the south-eastern coast of Lake Turkana in Kenya. Situated many miles north of the capital city, Nairobi, the resident Turkana people receive minimal support from larger charities for education. Upon returning home, Anthony gathered a group of friends and described the lack of education opportunities available to the people of Loiyangalani, leading to the establishment of the Trust. Since then, the Trust has provided ongoing funding and in-person support, seeing them redevelop and kit-out a local school, whilst also sponsoring individual students. Their work helps pay students' fees, provides uniforms, books and supplies, and also ensures students have access to nutritious meals each day.

To find out more visit [loiyangalanitrust.org.uk](http://loiyangalanitrust.org.uk).



### Setting the pace at Dublin Docklands 5k

Our team in Dublin put their best feet forward to take part in the Docklands 5k race, joining companies from across the Docklands area in supporting Crusaders AC's ambitions to promote sport, health and wellbeing in the community.

After crossing the finish line, our team enjoyed catching up over well-earned drinks and food in the sunshine next to Capital Dock, an award-winning 4.8 acre-waterfront scheme that we are very proud to have helped deliver.



### 'Making Safety Seen' during this year's INWED

This year's International Women in Engineering Week (INWED) focused on 'making safety seen.' Our fantastic facilities management expert Emma Chapman has been championing the cause of safety and inclusivity across Waterman for many years. She's helped source and trial the best PPE to suit everybody, and is helping raise awareness of why this is such an important thing to get right.

Celebrating the initiative, Emma commented: "It's so important that every team member has access to effective PPE which is suited to them individually. We recognise the varying requirements of our diverse workforce so we've built a relationship with Bunzl Greenham to develop a wider range of PPE as part of promoting a safer way of working for everyone in our industry."



### Star bakers rise to the challenge for Children's Health Ireland

Our Ireland team dusted down their recipe books to support a special bake-off in aid of Children's Health Ireland (CHI). Ten of our Dublin-based star bakers took part in the challenge, and their delicious creations helped raise vital funds for life-saving equipment for wards, theatres, departments and ICUs in children's hospitals.

CHI are involved with the clinical and operational transformation of acute paediatric healthcare and which includes hospitals at Crumlin, Temple Street and Tallaght as well as an Urgent Care Centre at Connolly hospital in Blanchardstown.



# Making a DIFFERENCE

Community | Education | Charity



## Paddle & Pick on London's Grand Union Canal

In August, our structural and civil engineers joined fellow Brentford Lock West Phase 3 project team members from McAleer & Rushe, Gardiner & Theobald and Muse in donning their lifejackets for a special 'Paddle & Pick' event.

Taking to London's Grand Union canal aboard paddleboards, canoes and kayaks, the intrepid team spent the afternoon collecting litter to help improve water quality, all whilst raising awareness of the damaging impacts discarded rubbish has on our aquatic habitats.



## Goals galore at charity football tournament

Earlier this summer, our Dublin team took to the field in aid of Ronald McDonald House Ireland at the Staycity Group Charity Soccer Tournament. After a strong start, our team came up short in the semi-finals, with Davy taking home the trophy after an epic final.

The Ronald McDonald House Charities provide care, accommodation and support for families who have children with long-term illnesses. They give families the opportunity to stay together in a comfortable environment, in locations close to the hospital care their sick children need.



## Paddles up for the Bristol Dragon Boat Festival

Back in June, our Bristol team headed to the Bristol Docks to take part in the Dragon Boat Festival, raising funds for The Green House Charity who provide specialist support services for children, young adults and families who have experienced sexual abuse.

Our team, named 'Waterman Gondoliers', won two out of three races in their heats. Although they didn't make it through to the finals, all rowers did amazingly well. Overall, this much-loved event raised an incredible £17,000 for a range of charities.

Launched by the Rotary Club of Bristol Breakfast in 2001, the annual festival sees 40-foot dragon boats battle it out to raise vital funds in support of a variety of important causes.

## Mental Health Awareness Week: Shedding light on coping with anxiety

This year's Mental Health Awareness Week focused on 'anxiety', and aimed to help people and organisations understand the differences between anxiety and associated disorders, whilst highlighting the resources and support available for everyone.

Our offices across the UK ran a series of coffee morning catch-ups, quizzes, art classes and 'Wear it Green' days throughout the week, offering an informal opportunity to talk to colleagues and our group-wide network of Wellbeing Champions about anxiety and mental health. Meanwhile, some of our people shared their own experiences of living with anxiety, detailing how it affects their lives and what they do to cope with these challenges.

Run by the UK's leading mental health charity, the Mental Health Foundation, Mental Health Awareness Week is a nationwide campaign which helps people and organisations set aside time to think about mental health, tackle stigma and learn more about the support available to everyone.



Spending time in nature and exercising were the most popular ways our people de-stress.





# Need help to identify and address RAAC?

**The issue of RAAC (Reinforced Autoclaved Aerated Concrete) in schools, hospitals and many other buildings across the UK has raised significant concerns and demands appropriate action.**

Our dedicated team of Chartered Structural Engineers is here to assist you. We will promptly identify the presence of RAAC in your buildings and, more importantly, provide guidance on how to manage it safely and effectively.

SCHOOL  
CLOSED

**We offer nationwide support!**

For expert guidance and assistance, please do not hesitate to reach out to us at

**[joe.smith@watermangroup.com](mailto:joe.smith@watermangroup.com)**