

ISSUE 14 | 2025

INSIGHT

Catch up with the team and more:

- **Charity Updates**
- **Project Case Studies**
- **Award Announcements**
- **Team Interviews**
- **Industry Insights**



www.morson-projects.co.uk



www.waldeckconsulting.com



www.ematics.co.uk

MORSON GROUP BUILDS ON ENGINEERING CAPABILITIES WITH ORANGE SOLUTIONS LTD ACQUISITION

Morson Group has added to its portfolio of engineering consultancy businesses with the acquisition of Orange Solutions Ltd, a niche safety and control systems engineering company.



The deal further strengthens the range and reach of Morson's engineering capabilities, which already includes Morson Projects, Waldeck and Ematics, providing skilled and experienced engineers for mission critical projects across an array of key sectors, including aerospace, marine, defence, and energy.

Complementing the control systems and SCADA design expertise of Ematics, Orange Solutions is a well-established engineering business with an enviable reputation for the supply of full turnkey control

system projects, including design, manufacture, engineering, testing, installation management, and commissioning.

Orange Solutions has been involved in safety critical projects across a variety of sectors, including utilities, oil & gas, marine, renewables (offshore and onshore), petrochemicals, pharmaceutical, transport infrastructure, and heavy industry, both in the UK and internationally. Its track record includes safety critical systems for fire detection, fire protection, and environmental monitoring for offshore wind generation, oil and gas, and major construction sites.

Morson's engineering businesses already have a long-standing and collaborative working relationship with Orange Solutions, which has involved working in partnership with both Ematics and Morson Projects on a number of past and current projects. The strategic investment by Morson will enable Orange Solutions to maximise its potential for growth, supported by the Group's existing engineering businesses and wider portfolio, while benefitting Morson's clients with niche expertise in a specialist and safety critical field.

Following the acquisition, Orange Solutions's founder and managing director, Tony Hynes, will remain in post, along with the company's experienced team of engineers. Paul Ward, Associate Director of Morson's Power and Control Division, has worked on projects with Mr Hynes for three decades, in addition to working on a number of projects with Orange Solutions.

Paul Ward commented: "The knowledge, skills and experience offered by Orange Solutions are in high demand, thanks to increasing use of automation across a wide range of industries, along with the need to control extremely

"As part of the Morson Group, we will continue to build on our reputation, while enabling our clients to tap into the 1,200 engineers employed across Morson's engineering division."

complex systems and manage safety." Morson's group CEO, Ged Mason added: "The synergy between Orange Solutions' track record and client base, and our Ematics business will enable us to offer clients even more expertise from within the Morson Group, with additional capacity and capabilities to resource projects effectively."

Tony Hynes added: "Orange Solutions has grown by providing the knowledge and experience needed to deliver complex projects on time. With so much potential in our sectors, the time was right for us to seek a strategic partner that can support our continued growth."

"The synergy and existing relationship with Morson, which is based locally to our existing HQ, made them an ideal fit. As part of the Morson Group, we will continue to build on our reputation, while enabling our clients to tap into the 1,200 engineers employed across Morson's engineering division."

Morson was advised by Beyond Corporate and RSM UK Corporate Finance LL.

WALDECK UPDATE

Waldeck are an award-winning multi-disciplinary consultancy with almost 30 years' experience across the engineering, construction and asset management landscape.

We work collaboratively with clients to deliver sustainable and innovative solutions across the built environment and major infrastructure.

Our team offer a range of solutions throughout our six key disciplines: Architecture; BIM Consultancy; Civil and Structural Engineering; Commercial and Risk Management; Digital Capture; Mechanical, Electrical and Building Services Design.

We support our clients across seven key sectors: Buildings and Development; Defence, Security and Aerospace; Energy; Logistics and Transportation; Nuclear; Manufacturing and Technology; Rail; Waste and Utilities.

Find out more about our latest news throughout this issue of our INSIGHT magazine.

06

WALDECK CELEBRATES 'SMALL CONSULTANCY OF THE YEAR' WIN



10

CELEBRATING 10 YEARS ON-SITE AT HINKLEY POINT C

34

BEHIND THE SCENES WITH WALDECK'S POWER CIVILS LEAD



WALDECK CELEBRATES 'SMALL CONSULTANCY OF THE YEAR' WIN AT CIBSE YORKSHIRE AWARDS



Waldeck proudly took home the 'Small Consultancy of the Year' award at the recent CIBSE Yorkshire Awards.

These prestigious awards celebrate engineering excellence across the Yorkshire region, bringing together forward-thinking organisations to recognise their achievements.

Adam Machan, Waldeck's Mechanical & Electrical Building Services Design Director, shared: "This achievement highlights our commitment to delivering sustainable, high-performance building solutions across the built environment. It reflects the dedication, expertise, and innovative thinking of our team, as well as our collaborative approach with clients and partners.

"At Waldeck, we are passionate about driving positive change—whether it's through low-carbon design, advanced energy management, or enhancing occupant wellbeing. Winning this award is not just recognition of our past efforts but motivation to continue pushing boundaries and setting new standards in the industry. A huge well done to the team for this fantastic acknowledgement."

The award submission, which focussed on our Sheffield-based Mechanical & Electrical Building Services Design team highlighted key areas of excellence across the team, including:

DRIVING EXCELLENCE IN BUILDING PERFORMANCE

Waldeck's approach to building performance focuses on low carbon design, energy efficiency, occupant satisfaction, and health and wellbeing. Key initiatives include:

1. Low Carbon Design

Employing renewable energy sources, advanced insulation, and energy-optimised systems to minimise environmental impact.

2. Energy Efficiency

Using tools like advanced modelling and smart building technologies to create cost-effective, energy-efficient designs.

3. Occupant Satisfaction

Ensuring designs are user-centric, emphasising functionality, thermal comfort, and adaptability.

4. Health & Wellbeing

Incorporating natural light, ventilation, and green spaces to enhance physical and mental health.

COLLABORATIVE SUCCESS AND INNOVATION

Waldeck's success lies in their collaborative processes. The Mechanical & Electrical team work seamlessly with major contractors like NG Bailey and T Clarke using innovative tools such as BIM360 for transparent clash detection and Microsoft Teams for real-time collaboration.

Their expertise extends to energy management innovations, such as integrating Socomec's DIRIS Digiware metering systems, reducing embodied carbon and enabling efficient energy monitoring for facilities management teams.

CONTINUOUS LEARNING AND DEVELOPMENT

At the core of Waldeck's culture is a focus on employee development:

• Training Programmes

From CPD courses to structured coaching, employees are equipped with cutting-edge skills.

• Early Careers Development Programme

Supporting young professionals while fostering mentorship opportunities for senior staff.

• Recognition of Excellence

Waldeck has earned a 3-star world-class rating in the annual bHeard employee engagement survey, reflecting a highly satisfied and motivated workforce.

KNOWLEDGE SHARING AND INDUSTRY ENGAGEMENT

Waldeck actively collaborates with local academia, including Leeds Beckett and Sheffield Hallam Universities, supporting degree apprenticeships and careers events. The Mechanical & Electrical team contributes to professional development through active involvement with institutions like CIBSE and IET, ensuring continuous learning and spreading best practices across the sector.

This award celebrates Waldeck's vision of creating sustainable, innovative, and human-centric building solutions, reflecting their dedication to advancing the built environment industry.

Waldeck's win reinforces their position as a leader in consultancy, pushing boundaries in sustainability and technical excellence.

WALDECK TEAM MEMBERS RECOGNISED AHEAD OF HINKLEY POINT C EXCELLENCE AWARDS

Continuing an annual tradition, several of the Waldeck HPC team have received nominations as part of their project teams for EDF Energy's prestigious Hinkley Point C (HPC) Excellence Awards. These annual awards celebrate outstanding achievements and contributions to the HPC project, one of Europe's largest infrastructure programmes.

Following the Excellence Awards dinner in Weston-super-Mare on the 27th November, we are pleased to share that the 'Main Civils Works Modularisation' initiative has been recognised as the Winner in the 'Best Innovation, Learning or Efficiency' category. This project team includes representatives from the Joint Design Office, with Waldeck's Pete Cliffin playing a pivotal role. Pete has been instrumental in managing engineering challenges related to modifying how reinforcement cages are fabricated, a critical component of the project's success.

Adding to the team's strength is Ibrahim Uz Zaman, who recently joined Waldeck and is also contributing to this scope of work. Congratulations to Pete and Ibrahim for their valuable contributions to the project. Reflecting on the team's win, Pete shared: "The modularisation initiative has all been about providing the contractor with the flexibility to make modifications to the rebar arrangements that allows for prefabrication of

large slabs and wall panels, all whilst keeping in line with the strict design requirements. The new process allows for drastic efficiencies to be made in the installation and construction process and will contribute greatly to the contractor meeting their construction schedule.

"Setting up new ways of working is always challenging, particularly on a nuclear power plant, but it's a challenge we've managed to overcome through close collaboration between client, designer and contractor. We are already seeing the positive impacts realised on site and we hope for this to continue into next year!

"The Excellence Awards event was a testament to the hard work of many individuals and a celebration of their inspiring accomplishments this year. A great opportunity to showcase people's efforts that you might not have necessarily known about, working on such a large project as HPC.

"Incredibly pleased to have taken home the Gold Award, it was a real achievement for everyone involved and it's great to be recognised by the project for all the hard work that's gone into this workstream over the course of this year."



"Setting up new ways of working is always challenging, particularly on a nuclear power plant, but it's a challenge we've managed to overcome through close collaboration between client, designer and contractor."



WALDECK CELEBRATES 10 YEARS ON-SITE AT HINKLEY POINT C

As 2024 drew to a close, Waldeck celebrated our tenth year on-site as one of EDF Energy's Hinkley Point C's framework engineering firms.

A brief history

Following Waldeck's successful involvement in the delivery of EDF Energy's West Burton CCGT project from 2008-2013, Waldeck were appointed on EDF Energy's engineering framework for Hinkley Point C in 2014, two years before construction on site was given the green light.

A team of our engineers have been working alongside EDF Energy on the project ever since, functioning as a technical specialist and management consultancy. The team have been delivering engineering support for site enabling works, management and co-ordination of works packages, BIM and, most recently, acting as Intelligent Customer in the management of engineering and construction issues during the construction phase.

On completion, the Hinkley Point C site will host two new nuclear reactors, the first in a new generation of nuclear power stations in Britain providing zero-carbon electricity for around six million homes.

The £19.6bn project is expected to have created 22,000 job opportunities during the 10 years of construction and provide huge opportunities for local, national and international businesses throughout its 60-year lifecycle.

"Waldeck, supported by Morson Group are in a unique position to attract, upskill and deploy the right people to help deliver the UK's nuclear ambitions; supporting the demands and needs of our supply chain partners whilst securing rewarding careers for our engineers."

Celebrating 10 years

Richard Sargent, Waldeck's Nuclear Director, who heads up Waldeck's Hinkley Point C team shared of the milestone:

"It is amazing to see just how much has progressed during the past ten years, as the project continues to hit key milestones in its construction.

"In the last month I have really noticed how the intensity on site has increased further as more and more MEH works are being installed, all while the civils phase continues at the same pace it has been for the last 5 years.

"During its 60 years of operation, Hinkley Point C will play a vital part in the UK's fight against climate change and it was fascinating to see up-close how Waldeck are playing their part in EDF Energy's mission to deliver clean, affordable, and sustainable energy for all.

"Waldeck, supported by Morson Group are in a unique position to attract, upskill and deploy the right people to help deliver the UK's nuclear ambitions; supporting the demands and needs of our supply chain partners whilst securing rewarding careers for our engineers.

"I'd like to take this opportunity to say a huge thank you to the Waldeck HPC team, past and present who have been on this incredible journey with us, and I look forward to getting the team together to celebrate soon!"



PHENIX SUITES OPEN THEIR FOURTH UK SITE IN LIVERPOOL

Phenix Salon Suites, who offer an alternative option for stylists beyond renting a chair or salon ownership, have opened a space in Liverpool city centre after the success of their first three UK venues in Manchester, Birmingham and Nottingham.

The brand already has over 350 locations in the United States. Having been involved in the previous three sites, Waldeck's Architecture & Digital Capture teams have been working closely with Phenix Salon Suites and their UK franchisee to deliver the new Liverpool space, providing services for the internal design, layout and delivery.

The space, which opened earlier this year, consists of 35 units located at the Corn Exchange Building. Tenants will be given the option to decorate or brand their unit as they wish, with no long-term contracts or hidden costs. There will be a custom-built mezzanine floor, exclusive colour bar, air conditioning in each suite, and high-spec finishes throughout.

Within the new development, hairdressers and barbers will be provided with a backwash, styling chair and hair trolley, while nail artists, beauty therapists and aestheticians will be offered sink units, storage trolleys, and a treatment bed.

All tenants have the access to a break room/ kitchen space, an on-site laundry room with free use of commercial equipment for fast washing and drying, and 24/7 access via an intercom system.

Stuart Denniss, Director of Architecture at Waldeck, shared: "Phenix Salon Suites are bringing a unique offering to the UK and we are excited to be part of their journey, having supported their first three sites in Manchester, Birmingham and Nottingham and now the new site in Liverpool. "The Waldeck team were chosen because of our past client experience and the team's proven delivery of food and retail units for household names across the industry. "It's great to see the fourth of hopefully many salons open its doors."



WALDECK PARTNERS WITH LIDS FOR BRISTOL STORE OPENING

Waldeck has been working closely with the American athleisure headwear brand, Lids, to support the opening of its first store in Bristol. Lids, renowned for its NBA, NFL, and MLB baseball caps, snapbacks, and merchandise, is making its debut at Cabot Circus, a premier shopping destination in the heart of Broadmead, Bristol.

The new 600 sq ft store is a significant addition to Cabot Circus, which is undergoing ongoing improvements to enhance the shopping experience. This latest store opening is part of a broader strategy by Hammerson, the owner and developer of Cabot Circus, to revitalise the city centre by attracting popular brands and innovative concepts.

Cabot Circus is welcoming four new openings, including well-known retailers and a restaurant. These developments are part of Hammerson's efforts to reimagine the space and stimulate new demand, making Cabot Circus a dynamic and engaging place for shoppers and visitors.

Stuart Denniss, Director of Architecture shared: "The scope of works for our team consists of not only refurbishment and new-build works throughout all RIBA Stages

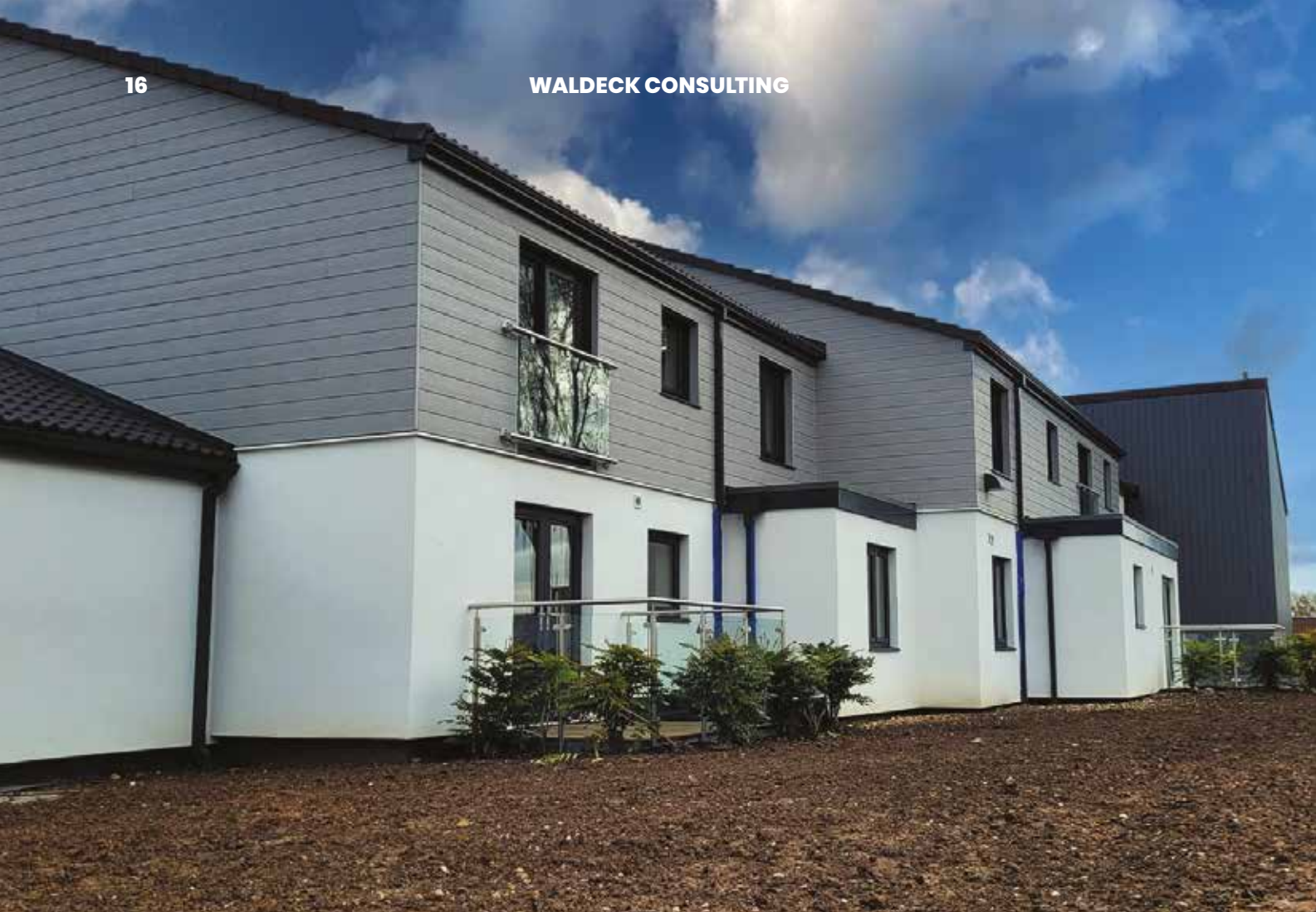
(1-6) but also assisting with the legal sign-off of information for the redevelopment. "This is the first project for Waldeck working alongside Lids' UK team, the project has been a great success and we look forward to working with them again as they continue their store expansions across the UK."

Toby Tait, Director of Asset Management at Hammerson, emphasised the importance of these new signings in achieving their strategic goals. He commented: "These new signings further demonstrate the success of our strategic focus to reposition Cabot Circus. Expanding our occupier mix, bringing in new, exciting brands alongside introducing social and entertainment partners."

"The arrival of Lids and other new tenants underscores Hammerson's commitment to enhancing the retail and entertainment offerings at Cabot Circus. By targeting sought-after brands and fresh concepts, Cabot Circus aims to provide a vibrant and diverse shopping experience that meets the evolving preferences of its visitors."



"The arrival of Lids and other new tenants underscores Hammerson's commitment to enhancing the retail and entertainment offerings at Cabot Circus."



WALDECK SUPPORT FORTEM WITH £2MILLION INDEPENDENT LIVING CENTER REFURBISHMENT AT LARWOOD HOUSE

Waldeck recently provided a multi-disciplinary service for Fortem, in order to deliver a refurbishment of an independent living centre on the outskirts of Worksop for Bassetlaw District Council.

Waldeck were appointed to provide the much needed refurbishment of an independent living centre worth £2million. The project included the conversion of the existing 32 studio flats into 18 one bed apartments, plus amendments to ancillary/ back of house spaces.

Scope of Services

The Waldeck team delivered a one-stop-shop design solution including Digital Surveying and BIM, Architectural Design, Civil and Structural Engineering and M&E Design.

Waldeck advanced the scheme from concept stage, through a negotiated tender and also over saw the construction phase of the project, working alongside the contractor.

David Foster, Associate Architect Architecture shared: "Waldeck are pleased to share the case study of the completed refurbishment of Larwood House in Worksop, in association with Fortem and Bassetlaw District Council".

"Tackling fire safety issues and fuel poverty our multi-disciplinary team delivered the internal remodeling, external façade upgrade and M&E replacement of the independent living centre providing 18 apartments alongside ancillary facilities. The significant refurbishment provides the residents with larger living spaces, fully accessible wet rooms and either a patio or balcony elevating the standard of accommodation.

"Environmental improvements through the installation of photovoltaics and air source heat pumps will help energy requirements and provide long-term benefits to the residents."

"The project was a great example of a Council investing in upgrading their existing building stock and giving the centre a new lease on life which will no doubt benefit its residents and provide a contemporary home in a community setting".

The project consisted of a full modernisation of the facility internally and externally including associated landscaping works. A new reception and entranceway has been delivered along with new access and egress points around the buildings. The reconfiguration of the flats provided larger, modernised living accommodation and updated communal facilities.

The new accommodation is designed to 'Lifetime Homes' and dementia friendly standards, and as part of the future proofing exercise, the property is completely over clad in contemporary materials. While design standards were prescriptive in terms of the geometric design of the internal spaces and the requisite fixtures and fittings, the general arrangement and material selection has been designed by Waldeck to re-use and optimise the existing structures and below ground infrastructure.

With no record drawings for the facility, our digital survey team commenced the design stage by capturing the above and below ground data, which has informed the working models for architectural and engineering disciplines.

Fortem were established in 2002, with commitment to best practice and exemplary quality, together with a genuine partnered approach, ensures we achieve excellent outcomes for our partners, clients and customers. We have an established track record of improving communities and creating better places for people to work and live.

UNIVERSITY OF LINCOLN STUDENTS RETURN TO CAREERS FAIR WITH WALDECK

The University of Lincoln's annual Careers Fair recently welcomed back employers from across the UK, offering students and recent graduates the chance to network and explore career opportunities.

Waldeck representatives had the opportunity to meet hundreds of students, sharing insights into the company and providing career advice.

University of Lincoln alumni, Sophie Vanstone and current student Nina Windmann, both first met Waldeck through this careers fair in previous years. They joined senior members of the team to share their own experience as part of Waldeck.

Architectural Technician, Sophie Vanstone

Sophie, who joined Waldeck after graduating from the University of Lincoln two years ago, shared her thoughts on her journey from student to industry professional: "During my final year studying, I attended the University of Lincoln's annual Careers Fair, where I had the opportunity to connect with the team at Waldeck. It was great to come back to the University's Annual Careers Fair 2 years later, but instead as a full-time employee at Waldeck to help inspire the next generation of undergraduates beginning their career in the industry."

"Now, as a Architectural Technician at Waldeck, I'm part of a team working on a variety of projects across multiple sectors, including residential, commercial, and retail. It's been an incredible learning experience, and I'm grateful for the opportunities Waldeck has given me to grow professionally."

Marketing Assistant, Nina Windmann

Nina, a recent addition to the Waldeck team, reflected on her experience as a second year University of Lincoln student: "When I attended the Careers Fair last year, I never expected I'd be back so soon, representing Waldeck! I remember attending this event last year, full of curiosity and excitement about where my career might take me."

"I started my role in the Marketing team nearly a year ago, and it's been a whirlwind. This is just an insight into a few of the projects I have achieved over the year, starting from our annual summer conference to working with Waldeck's SEO and Design Agencies."

"From this experience I am gaining so much more than I ever imagined, and the support from my colleagues has been amazing. Looking back, I can confidently say that this experience and ongoing placement has exceeded my expectations and is shaping my understanding of the marketing world."

Both Sophie and Nina emphasised the importance of attending events like the Careers Fair, as it provides valuable networking opportunities and helps students gain insights into different career paths.





ARCHITECTURE SUMMER WORK PLACEMENT

SOPHIE LINCOLN

As the summer holidays drew to a close, we caught up with Sophie Lincoln, a talented and ambitious student who joined Waldeck's Architecture team this summer for a work placement.

Having recently completed her first year of studying for a BArch (Hons) Bachelor of Architecture with Honours at the University of Lincoln, Sophie joined our team in Wellingore Hall to get some practical experience, before returning to begin her second year on the course.

A Summer to Remember

Sophie started her summer placement with us at the beginning of July, and what was initially a short-term work experience quickly turned into a full summer placement.

Reflecting on her time with us, Sophie shared: "My experience at Waldeck has been incredibly rewarding. I highly recommend a summer placement to any university student. The hands-on project work and collaborative atmosphere have been invaluable in allowing me to apply my

academic knowledge to real-world situations. It's also been a fantastic opportunity to grow and develop my skills.

"The team have been really welcoming, I've also been invited along to some industry networking events and team days out, which has been interesting and fun."

A Promising Future in Architecture

Associate Architect, David Foster, who has been Sophie's mentor during her placement, shared: "As Sophie returns to university for her second year, we're confident she'll continue to excel in her studies and future pursuits. During her time with us, she has demonstrated the passion and talent essential for success in architecture, while also acquiring new skills such as Revit and point cloud scanning.

"We're proud to have been part of Sophie's initial journey and are excited to see where her architectural career leads her. Thank you for your contributions, Sophie, and keep up the great work!"



"My experience at Waldeck has been incredibly rewarding. I highly recommend a summer placement to any university student."

WHAT IS THE MOST EFFECTIVE BRIDGE DESIGN?

KEY FACTORS FOR STRUCTURAL INTEGRITY & LONGEVITY

Bridge design is a fascinating field of engineering that combines art and science. Engineers must consider many factors when creating a bridge, such as the span length, expected loads and environmental conditions. The goal is to build a structure that is both strong and cost-effective.

The most effective bridge design depends on the specific situation. However, truss bridges are often considered highly efficient for their strength-to-weight ratio. Truss bridges use a series of connected triangles to distribute forces evenly, making them ideal for long spans and heavy loads. They are commonly used for railway bridges and highway overpasses.

Other effective designs include arch bridges, which excel at transferring weight to supports at each end, and suspension bridges, which can span great distances. Each type has its strengths and weaknesses, and engineers must carefully analyse the requirements of each project to determine the best solution. The design choice can significantly impact a bridge's longevity, safety and cost.

FUNDAMENTAL PRINCIPLES OF BRIDGE DESIGN

Bridge design relies on fundamental principles that ensure structures can withstand loads and environmental forces. These principles focus on load capacity, force distribution, and proper material selection to create safe and durable bridges.

LOAD-BEARING CAPACITY

Load-bearing capacity is crucial for bridge stability. Engineers must calculate the maximum weight a bridge can support, including its weight and expected traffic loads.

Static loads come from the bridge's structure and permanent fixtures. Meanwhile, dynamic loads

result from moving vehicles, wind and earthquakes.

Safety factors are built in (to account for unexpected stresses). These factors ensure the bridge can handle loads beyond normal conditions.

Designers use computer models to simulate various load scenarios. This helps identify weak points and optimise the structure before construction begins.

FORCE DISTRIBUTION

Effective force distribution is vital for bridge integrity. Different bridge types handle forces uniquely.

For example, arch bridges excel at compressive force management. The arch shape transfers loads to the abutments at each end.

Meanwhile, suspension bridges use cables to distribute tensile forces. These cables transfer loads from the deck to the towers and anchorages.

Lastly, truss bridges employ a network of connected elements. This design distributes forces evenly across the structure.

Engineers must also consider both vertical and horizontal forces. For example, wind loads can cause significant lateral stress on tall structures.

MATERIAL SELECTION

Choosing suitable materials is essential for bridge longevity and performance. Common materials include steel, concrete and composites.

Steel offers a high strength-to-weight ratio and flexibility. It's ideal for long-span bridges but requires regular maintenance to prevent corrosion. Conversely, concrete provides durability and compression strength. Reinforced concrete combines these properties with steel's tensile strength. Meanwhile, modern composite materials

offer lightweight strength. These can be used for specific bridge components or entire structures.

Material selection depends on span length, environmental conditions and budget. Engineers must balance strength, cost and maintenance requirements.

Innovations in materials science continue to expand design possibilities. New high-performance concrete and steel alloys offer improved strength and durability.

TYPES OF BRIDGES

Bridges come in several designs, each suited for different spans and loads. Engineers choose the most effective type based on cost, materials and location. The seven main bridge types each have unique strengths and applications.

BEAM BRIDGES

Beam bridges are the simplest type of bridge structure. They consist of horizontal beams supported at each end by piers. The weight of the deck and traffic pushes straight down on the beams and piers.

Beam bridges work well for short spans, typically under 80 metres. They're cost-effective and quick to build. Motorway overpasses often use this design.

Engineers add more supports or use stronger materials for longer spans. Steel and prestressed concrete allow beam bridges to reach 300 metres, but beyond that, other bridge types become more practical.

ARCH BRIDGES

Arch bridges use curved structures to support the deck. The arch shape transfers the weight to the abutments at each end. This design is very strong and can span long distances. Stone arch bridges have stood for centuries. Meanwhile, modern versions use

steel or concrete. They can span up to 500 metres. Arch bridges suit deep valleys or rivers with strong banks. They're beautiful but require extensive foundations. The arch must push against solid ground to stay up.

TRUSS BRIDGES

Truss bridges use a framework of connected elements. These form triangular units that spread the load across the structure. The design is lightweight yet strong. Engineers use trusses for medium-length spans, typically 20 to 375 metres. They're often made of steel and can support heavy loads. Railways frequently use truss bridges. The open design lets trains pass through the structure, keeping the deck low and stable.

SUSPENSION BRIDGES

Suspension bridges can cross the longest spans. They use huge main cables anchored at each end, and smaller vertical cables hang from these to support the deck. The main cables transfer the bridge's weight to the towers and anchors. This design can span over 2,000 metres, and the Humber Bridge in England reaches 1,410 metres. Suspension bridges are suitable for wide rivers or deep valleys. They use less material than other types for long spans but need massive anchorages to hold the cables.

CANTILEVER BRIDGES

Cantilever bridges use horizontal beams supported at only one end. Two cantilever arms reach out from the shores, and a central span often connects them. This design can handle up to about 500 metres of medium to long

spans. It's useful when the middle of the gap is hard to build on. The Forth Bridge in Scotland is a famous example. Its two 207-metre cantilever spans were a significant feat in 1890. The design is still used today for its strength and versatility.

CABLE-STAYED BRIDGES

Cable-stayed bridges use cables running directly from towers to the deck. This creates a fan-like pattern of supports. The design is efficient and can span 500 to 1,000 metres. It uses less cable than suspension bridges and is stiffer. Cable-stayed bridges have become popular since the 1970s. They're attractive and work well in urban areas. The deck can be thinner than other bridge types, saving materials.

TIED-ARCH BRIDGES

Tied-arch bridges combine arch and suspension designs. The arch rises above the deck, supported by cables or rods hanging down. The deck acts as a tie, holding the arch ends together. This stops them from spreading out and allows the bridge to span gaps without strong side support. Tied-arch bridges suit spans of 40 to 300 metres. They're elegant and efficient and work well for river crossings where the banks can't take much sideways force.

ENGINEERING CONSIDERATIONS

Bridge design requires careful analysis of structural and environmental factors. Engineers must balance stability, strength and efficiency while accounting for site-specific conditions.



STABILITY AND STRENGTH

Successful bridge design must prioritise stability and strength. Engineers use advanced modelling techniques to analyse load distribution and stress points. Key factors include:

- **Material selection (steel, concrete, composites)**
- **Support structures (piers, abutments)**
- **Deck design and thickness**
- **Cable or truss configurations**
- **Dynamic loads from traffic, wind and seismic activity must be accounted for**

Engineers conduct rigorous testing to ensure the bridge can withstand expected forces over its lifespan.

EFFECTS OF ENVIRONMENTAL FACTORS

Environmental conditions significantly impact bridge performance and longevity. Engineers must consider:

- **Climate (temperature fluctuations, rainfall, humidity)**
- **Water flow and erosion for river crossings**
- **Wind patterns and potential storm forces**
- **Seismic activity in earthquake-prone regions**
- **Robust bridge design incorporates features to mitigate environmental risks. This may include expansion joints, corrosion-resistant materials, or specialised foundations.**

Designers also assess environmental impact. They aim to minimise disruption to local ecosystems during construction and operation.

EFFICIENCY AND CONSTRUCTION METHODS

Efficient bridge design balances performance with cost-effectiveness and constructability. Engineers consider:

- **Span length and height requirements**
- **Available materials and transportation logistics**
- **Site accessibility and equipment needs**
- **Construction time and labour requirements**
- **Modern construction methods, such as prefabrication and modular assembly, can reduce on-site work and improve quality control. They can also help lower costs and speed up the construction process.**

Computer-aided design tools also play a crucial role. They help engineers optimise structural elements for maximum efficiency. Engineers also evaluate long-term maintenance needs. They aim to minimise lifecycle costs through durable designs and easily replaceable components.

BRIDGE DESIGN BRITISH STANDARDS KEY UPDATES FOR 2025

Bridge design in the United Kingdom follows strict guidelines and standards to ensure safety and durability. These standards are outlined in the Design Manual for Roads and Bridges (DMRB), which provides comprehensive guidance for engineers and architects.

The manual covers various aspects of bridge construction, including deck types, waterproofing and structural requirements.

Engineers working on bridge projects in the UK must adhere to these standards to create structures that can withstand heavy traffic loads and environmental factors.

The manual addresses different bridge types, such as concrete bridges and accommodation bridges, ensuring that each design meets specific criteria for its intended use.

British Standards for bridge design are regularly updated to incorporate new technologies and best practices. This ongoing revision process helps maintain the UK's reputation for building safe and efficient transport infrastructure.

Engineers and designers can access resources and consultancy services to stay current with the latest standards and apply them effectively in their projects.

HISTORICAL CONTEXT OF BRITISH BRIDGE DESIGN

British bridge design has a rich history spanning centuries. Early bridges were simple wooden structures, later replaced by stone arches.

The Industrial Revolution brought significant changes to bridge engineering.

Iron and steel became popular bridge materials in the 18th and 19th centuries. Engineers like

Thomas Telford pioneered new designs, including Scotland's 45-metre flat arch Craigellachie Bridge.

Historical documents played a crucial role in the evolution of bridge design. Early handbooks and manuals guided engineers, though standards were not yet formalised.

Classifications of details emerged as bridge types diversified. Engineers categorised structures by material, span length and load-bearing capacity. This system helped streamline design processes.

Reinforced concrete became a popular bridge material in the 20th century. However, early designs lacked standardised criteria, leading to durability issues in some structures.

British Standards for bridge design developed gradually. They aimed to ensure safety, efficiency and consistency across projects. These standards evolved with advances in materials and engineering knowledge.

By 2010, a significant shift occurred. Eurocodes replaced British Standards as the main design standards for UK bridges. This change aligned British practice with European norms.

OVERVIEW OF BRITISH STANDARDS FOR BRIDGES

British Standards are crucial in ensuring the safety and quality of bridge design and construction. The Design Manual for Roads and Bridges (DMRB) is the primary reference for bridge engineers in the UK.

The DMRB contains comprehensive standards and guidelines for all road and bridge design aspects. It covers topics such as:

- **Structural requirements**
- **Loading calculations**

- **Material specifications**
- **Durability considerations**
- **Safety measures**

Bridge designers must adhere to the DMRB standards to ensure their projects meet regulatory requirements.

These standards are regularly updated to reflect advances in engineering knowledge and practices.

The Standards for Highways organisation maintains and publishes the DMRB. They work closely with industry experts to develop and refine the standards.

Key elements of British bridge design standards include:

- **Structural integrity**
- **Serviceability**
- **Durability**
- **Sustainability**
- **Aesthetic considerations**

Engineers can create safe, functional and long-lasting bridges by following these standards. The DMRB provides a solid foundation for bridge design in the UK, ensuring consistency and quality across projects.

LEGISLATIVE FRAMEWORK

The United Kingdom has a robust system for bridge design standards. These standards ensure safety and consistency across the country's infrastructure projects.

The Design Manual for Roads and Bridges (DMRB) is a key document in this framework. It provides comprehensive guidance for highway structures, including bridges. Alongside the DMRB, the Manual of Contract Documents for Highway Works (MCHW) plays a crucial role. The MCHW outlines contractual and technical requirements for highway projects.

These documents work together to create a solid legislative foundation. They cover



everything from initial design to construction and maintenance. Critical aspects of the legislative framework include:

- **Safety regulations**
- **Environmental considerations**
- **Accessibility requirements**
- **Material specifications**

Engineers and contractors must adhere to these standards. Failure to do so can result in project delays or legal consequences.

The framework is regularly updated to reflect new technologies and best practices, ensuring that UK bridge design remains at the forefront of innovation and safety.

THE DESIGN MANUAL FOR ROADS AND BRIDGES
The Design Manual for Roads and Bridges (DMRB) is crucial for UK road and bridge design. It provides comprehensive standards and specifications for engineers and designers working on motorways and trunk roads.

Importance in Design Specification
The DMRB contains current design standards for UK motorway and trunk road projects.

It covers various topics, including materials, workmanship and design requirements. Engineers rely on the DMRB to ensure their designs meet safety and quality standards.

The manual is regularly updated to reflect new technologies and best practices, helping maintain the highest road and bridge construction standards.

The DMRB also includes guidance on assessment and operation, making it valuable throughout a project's lifecycle.

For bridge design, the DMRB provides specific requirements. These cover aspects like waterproofing and surfacing of concrete decks. Such details are critical for ensuring the longevity and safety of bridge structures.

Using the DMRB Website
The DMRB website is a key tool for accessing up-to-date standards. It offers a user-friendly interface for designers to find relevant information quickly. The site includes a search function to locate specific standards or topics.

Users can access both current and older versions of standards.

This feature is helpful for ongoing projects that may reference previous versions. The website also provides an index of all published documents, making it easy to navigate the extensive collection.

Regular updates to the website ensure that users always have access to the latest standards. This helps maintain consistency and quality across different projects.

Feedback and Communications
The DMRB team actively seeks input from industry professionals. This helps improve the manual and keep it relevant.

Users can send feedback on DMRB documents to a dedicated email address.

National Highways manages the DMRB and communicates updates and changes through the website. They also guide the implementation of new standards.

This open communication helps ensure that all stakeholders are aware of current requirements.

The feedback process allows for continuous improvement of the DMRB. It ensures that the manual remains a valuable and up-to-date resource for the industry.

MATERIAL SPECIFICATIONS AND STANDARDS
British Standards guide the use of materials in bridge construction. These standards ensure safety, durability and performance. They cover steel, concrete and composite materials used in modern bridges.

Steel in Bridge Construction
Steel plays a crucial role in bridge design. British Standards for steel in bridges set strict requirements.

These include strength, toughness and corrosion resistance.

Steel grades like S355 and S460 are common in bridge construction. They offer high strength-to-weight ratios, allowing for longer spans and slimmer designs.

Welding standards are crucial for steel bridges. They ensure joints can handle stress and fatigue. Regular inspections check for cracks or rust.

Protective coatings extend the life of steel bridges. These must meet British Standards for durability and environmental safety.

Concrete in Bridge Construction
Concrete is vital in bridge building. British Standards specify mix designs, strength classes and durability requirements.

Key elements, such as bridge decks and support columns, are often made of high-strength

concrete, often above 50 MPa. Additives improve concrete properties. These may boost strength or reduce water content. All must comply with British Standards.

Reinforced and pre-stressed concrete are common in bridges. Standards cover steel reinforcement placement and tensioning methods.

Testing is critical to ensuring concrete quality. This includes slump tests, cube strength tests and durability assessments.

Advances in Composite Bridges
Composite bridges blend steel and concrete benefits. They're gaining popularity in the UK.

Fibre-reinforced polymers (FRPs) are new in bridge design. They offer high strength and low weight. British Standards are evolving to cover their use.

Carbon fibre composites are used in some bridge elements. They resist corrosion better than steel, which can lower maintenance costs.

Composite decks often use steel beams with concrete slabs. This creates a strong, lightweight structure.

British Standards now include guidelines for composite bridge design. These cover material properties, load calculations and long-term performance.

BRIDGE DESIGN CONSIDERATIONS
Bridge design in the UK involves careful planning to meet safety standards and performance requirements. Engineers must account for various factors when developing bridge designs.

Highway and Motorway Context
Bridges on highways and motorways face unique challenges. Traffic volume and vehicle types influence design choices.

Engineers consider road classifications like all-purpose

trunk roads when planning. Deck width must accommodate lanes and hard shoulders. Clearance heights vary based on expected vehicles. Motorway bridges often need wider decks and higher clearances than local road bridges.

Bridge approaches require careful grading to ensure smooth transitions.

Drainage systems prevent water pooling on decks. Noise barriers may be needed in populated areas.

Load Classifications and Fatigue
Bridges must withstand various loads. Dead loads include the structure's weight. Meanwhile, live loads come from traffic and environmental factors.

Load capacities are based on expected traffic. Heavy goods vehicles have a significant impact, and wind and temperature changes create additional stresses.

Engineers use load models to simulate long-term effects. This helps them predict how repeated loading can cause material failure over time. Then, they give extra attention to high-stress areas in design and inspection plans.

Code of Practice and Workmanship
UK bridge design follows strict codes of practice. These ensure consistency and safety across projects. The Design Manual for Roads and Bridges (DMRB) is a key reference.

Workmanship standards cover construction quality. This includes concrete mixing, steel fabrication, and welding. Regular inspections verify compliance during building.

Material testing confirms strength and durability; non-destructive testing checks for hidden flaws. Quality control measures continue throughout the bridge's lifespan.

Design for Steel Bridges

Steel bridges offer strength and span flexibility. Common types include plate girders and box girders. Meanwhile, truss designs suit longer spans.

Corrosion protection is crucial. Painting systems and weathering steel are common solutions. Then, deck systems often combine steel beams with concrete slabs.

Connections also require careful detailing. Bolted and welded joints must effectively transfer loads, and thermal expansion joints allow movement without stress.

Design for Concrete Bridges

Concrete bridges suit various span lengths. Reinforced and prestressed designs are common. Post-tensioning enhances strength in longer spans.

Deck waterproofing prevents water damage. Expansion joints manage thermal movement, and drainage systems protect structural elements.

Concrete mix design balances strength and durability. Admixtures improve workability and frost resistance. Lastly, curing methods ensure proper strength development.

BRIDGE BEARINGS AND COMPONENTS

Bridge bearings play a crucial role in bridge design. They connect the deck to the substructure and allow for movement caused by temperature changes, traffic loads and other factors.

The British Standards for bridge bearings include BS EN 1337 and BS 5400. These standards guide bearing design, materials and installation. Types of bridge bearings include:

- **Elastomeric bearings**
- **Pot bearings**
- **Spherical bearings**
- **Roller bearings**
- **Each type has specific uses depending on the bridge design and expected loads.**

Bridge designers must consider several factors when selecting bearings:

- **Vertical and horizontal loads**
- **Rotational requirements**
- **Movement range**
- **Durability and maintenance needs**
- **The Design Manual for Roads and Bridges also offers guidance on bridge bearing selection and design. This resource is widely used in the UK for highway bridge projects.**

Proper installation and maintenance of bridge bearings are essential. Regular inspections help ensure they continue functioning as intended throughout the bridge's lifespan. Other important bridge components include:

- **Piers**
- **Abutments**
- **Deck systems**
- **Expansion joints**
- **These elements work together with bearings to create a safe and efficient bridge structure.**

MAINTENANCE AND INSPECTION

British Standards for bridge design emphasise the importance of regular maintenance and inspection. These practices help ensure the safety and longevity of bridge structures.

Bridge inspections are typically carried out at set intervals. They may include visual checks, structural assessments, and component testing. Maintenance activities often focus on:

- **Cleaning and clearing debris**
- **Repairing damaged elements**
- **Replacing worn components**
- **Treating corrosion**
- **Updating safety features**
- **Pavements are a crucial part of bridge maintenance. Regular checks help identify issues like cracking, wear or drainage problems.**

The Design Manual for Roads and Bridges (DMRB) guides maintenance and inspection procedures. It outlines best practices for UK bridge engineers and maintenance teams.

Proper record-keeping is essential. Detailed logs of inspections and maintenance work help track the bridge's condition over time.

Advanced technologies are increasingly used in bridge maintenance. These may include:

- **Drones for visual inspections**
- **Sensors for real-time monitoring**
- **3D scanning for precise measurements**

"Corrosion protection is crucial. Painting systems and weathering steel are common solutions. Then, deck systems often combine steel beams with concrete slabs. Connections also require careful detailing. Bolted and welded joints must effectively transfer loads, and thermal expansion joints allow movement without stress."

STRUCTURES AND DURABILITY

British Standards for bridge design place great emphasis on durability. This focus helps ensure structures last longer and require less maintenance over time.

The Design Manual for Roads and Bridges outlines key durability requirements for highway structures. These standards apply to bridges, retaining walls and abutments. Designers must consider several factors when planning for durability:

- **Environmental conditions**
- **Material selection**
- **Construction methods**
- **Maintenance strategies**
- **One crucial aspect is waterproofing bridge decks. This protects concrete from water and salt damage, extending the structure's lifespan.**

British Standards also address specific types of structures. For example, they guide the design of accommodation bridges and footbridges. To enhance durability, designers often use advanced materials and techniques. These may include:

- **High-performance concrete**
- **Corrosion-resistant reinforcement**
- **Protective coatings**

DATE FILTER AND RELEVANCE

The Design Manual for Roads and Bridges (DMRB) offers a helpful date filter feature for accessing archived copies of standards. This tool helps engineers and designers find relevant information

from specific periods. Standards evolve to reflect new research, technologies and best practices. The date filter lets users view standards applicable at a particular historical point. This feature is especially valuable when:

- **Assessing older structures**
- **Reviewing historical design decisions**
- **Researching the evolution of standards**
- **Ensuring that the most up-to-date standards are used for new designs is crucial. However, accessing older versions provides essential context and historical perspective.**

The relevance of standards can vary based on factors such as:

- **Project type**
- **Geographic location**
- **Specific design requirements**
- **Engineers must carefully consider which standards apply to their projects, using current and historical information as appropriate.**

MEET WALDECK'S BRIDGE ENGINEERING TEAM PEYMAN BAND

"His passion for creating sustainable and efficient bridge structures sets him apart as a leader in the field of bridge engineering."

As part of a series of 'Meet the Team' interviews, we caught up with Associate Engineer, Peyman Band, a seasoned bridge design engineer with a wealth of experience and a passion for creating innovative and sustainable bridge structures.

With nearly 10 years of experience, Peyman has developed extensive expertise in the conceptual and detailed design, structural analysis, and authority approval process for short and mid-span bridges.

His work has focused on multi-girder steel composite bridges and precast, prestressed concrete bridges, demonstrating his proficiency across these key bridge types and his ability to deliver innovative solutions within these specialised areas.

Peyman is a Chartered Engineer with the Institution of Civil Engineers (ICE) and holds an MSc in Structural Engineering, specialising in Bridge Engineering. His qualifications, combined with his hands-on experience, make him a valuable asset in the field of bridge design.

Peyman's skills extend to the use of advanced design, analysis, and modelling software, with a particular proficiency in MIDAS Civil and Autodesk Structural Bridge Design. Additionally, Peyman has a proven track record in obtaining and managing approvals from relevant authorities, demonstrating his commitment to delivering projects that meet regulatory standards. We caught up with Peyman to find out more.

Hi Peyman! What aspects of bridge design do you find most rewarding?

"I particularly enjoy working closely with clients, architects, contractors, and other stakeholders to design

bridges that not only meet project requirements but also overcome technical, programmatic, and site-specific challenges. I take pride in considering the whole life cycle sustainability of bridge projects, ensuring that they serve their purpose for many years to come and have a minimum impact on the environment."

What bridge projects have you recently worked on?

"Throughout my career, I've worked on a variety of bridge projects, a few highlights for me have been:

4 Integral Bridges for Logistics Capital Partners, Waldeck

Located in the West Midlands Interchange, these bridges utilised Waldeck's ability to deliver complex engineering solutions that meet the demands of large-scale infrastructure projects.

2 Precast Single-Span Bridges for the Environmental Agency, Previous Employer

These bridges highlighted Waldeck's skill in designing environmentally sensitive structures that align with the goals of sustainability and durability.

A Multi-Span Bridge for the Port of Dover, Previous Employer

This project required precise engineering to accommodate the high traffic and unique site conditions at one of the UK's busiest ports.

A Cable-Stayed Bridge for the York Potash Project, Previous Employer

This project involved designing a cable-stayed bridge that balances aesthetics with functionality."

What's unique about Waldeck's bridge engineering offering to clients?

"Waldeck brings a holistic approach to bridge engineering by combining structural, civil,

and transportation engineering expertise. This allows us to offer solutions that are not only structurally sound but also optimised for long-term performance, safety, and sustainability. We stand out with our collaborative and client and contractor-centric approach.

"By working closely with both clients and contractors, we ensure that our bridge engineering solutions are tailored to the unique needs and objectives of every stakeholder. Offering an integrated suite of services, from concept design and feasibility studies to construction support and maintenance planning."

Tim Leach, Waldeck's Civil & Structural Engineering Director, shared: "What sets Peyman apart is his dedication to collaborating closely with clients, architects, contractors, and other stakeholders to address project requirements and overcome technical, programmatic, and site-specific challenges. He takes pride in considering the whole life cycle sustainability of bridge projects, ensuring that they not only fulfil their purpose for many years but also have a minimal impact on the environment.

"Peyman's commitment to excellence, coupled with his holistic approach to bridge design, makes him a valuable partner for any bridge project. His passion for creating sustainable and efficient bridge structures sets him apart as a leader in the field of bridge engineering."

BEHIND THE SCENES WITH
WALDECK’S POWER CIVILS LEAD
A CONVERSATION
WITH CHRIS EVANS

As Waldeck’s Power Civils team continues to grow, we had the opportunity to speak with Chris Evans, Waldeck’s Power Civils Lead. Chris shared insights about his role, the challenges and achievements of his team, and his vision for the future of power infrastructure projects.

Chris Evans holds a pivotal role at Waldeck as the head of Power Civils. His team’s responsibilities span civil and structural engineering for electrical civil works. This includes everything from designing electrical equipment support structures and foundations to on-site drainage, cable duct installations, and even control buildings for housing critical protection and control circuits.

Chris also oversees design compliance with District Network Operators’ (DNO) technical specifications and acts as Civil Design Assurance Engineer (CDAE) for National Grid. In addition to technical oversight, Chris is actively involved in client

engagement and pricing for new projects. “Every day presents unique challenges,” Chris shared. “Balancing technical precision with client needs and ensuring our designs meet stringent safety and quality standards keeps me motivated.” Chris explains more...

Power infrastructure projects often require a lot of co-ordination and planning. How does your team approach collaboration and problem-solving across disciplines?
“Power infrastructure projects demand seamless collaboration across multiple disciplines. At Waldeck, the process starts with an approved primary layout.

“Our civil design team works closely with the Primary Engineers to ensure designs meet both electrical safety clearances and structural integrity,” Chris explained. “We use Revit to create detailed 3D models, which we share across disciplines. This allows us to perform clash detection and ensure smooth transitions into the construction

phase. Regular design assurance reviews with the DNO capture any changes or discrepancies early, reducing risks for all stakeholders.”

What innovations or emerging trends in power civils engineering excite you the most, and how do you see them shaping the future of infrastructure?

“The growing adoption of 3D design technologies within the power industry allows all stakeholders to collaborate their respective designs and eliminate any issues before the construction phase begins.

“By integrating 3D modelling and tools like LiDAR and point cloud surveys, we can capture existing environments with unprecedented accuracy, adding to the wealth of 2D information already available. This will give the end client better value and peace of mind for the project.”

What makes Waldeck a trusted partner?

According to Chris, Waldeck’s multi-disciplinary expertise is

“Team spirit is crucial, he emphasised. “I want to foster an environment where ideas are freely shared, added-value delivery is best-practice and collaboration thrives.”



a key differentiator. “Our team includes Structural Engineers, Civil Engineers, Digital Surveyors, Mechanical and Electrical Engineers, Quantity Surveyors and many more experts,” he highlighted. “This in-house expertise gives us a huge advantage; as we have direct links to each department which enables us to deliver comprehensive designs efficiently and without the usual hassles. Clients trust us to deliver not just solutions, but value.”

Outside of work, what interests or hobbies help you recharge and bring a fresh perspective to your role?

Outside of work, Chris finds balance through DIY projects and angling. “I am a great believer that you should be able to switch work mode off at weekends and during annual leave breaks. I achieve this by DIY whether it be inside or outside. I am also a keen angler and take solace in relaxing by a river, pond, or lake. It’s a great way to recharge and return to work with fresh ideas.”

What’s next for Waldeck’s Power Civils team?

“Onwards and upwards! The sector is incredibly busy now, and it’s only expected to get busier as we all strive for Net Zero. We want to expand our portfolio of successful projects with existing customers, and to continue growing our client base throughout the UK and Ireland. We know that to do this, we need to grow the team.” Looking ahead, Chris envisions a closely-knit team based in Waldeck’s soon-to-open Nottingham office.

“Team spirit is crucial,” he emphasised. “I want to foster an environment where ideas are freely shared, added-value delivery is best-practice and collaboration thrives. We’re planning social events and gatherings to strengthen bonds and create a positive, cohesive culture. Together, we’ll continue delivering exceptional results for our clients.”

Waldeck’s Power Civils team is ready to tackle the challenges of the evolving power infrastructure landscape.



WALDECK SUPPORT KEON HOMES LIMITED'S RECENT CHARITY FOOTBALL TOURNAMENT

Waldeck were thrilled to support Keon Homes Limited's recent charity football tournament by sponsoring their team shirts!

The event was a fantastic effort to raise funds for Sense, a charity dedicated for everyone who is deafblind. For everyone who is living with complex disabilities.

Everything we do supports individuals to express themselves, to develop their skills and confidence, to make choices and to live a full life.

Keon Homes has the capability and financial strength to handle medium to large-scale, complex projects, including Extra Care schemes and residential housing. Keon Homes is part of the Tara Group, a family-owned company founded in 1974 by Noel Sweeney, which also includes Cameron Homes and Chasetown Civil Engineering.

Keon Homes key value is 'Doing the right thing' and that ethos runs throughout the company.



WALDECK'S BIRMINGHAM TEAM SMASHES 815-MILE CHALLENGE FOR BIRMINGHAM HOSPICE

"The funds we have raised will go directly to Birmingham Hospice, a charity that provides compassionate care and support to terminally ill patients and their families."



From Sunday, 8th September to Saturday, 14th September, our Birmingham team took on an ambitious challenge, virtually walking from Land's End to John O'Groats, aiming to cover an impressive 815 miles in just one week.

A huge congratulations to the team, who not only managed to meet their target, but they went above and beyond, finishing with a remarkable total of 885.52 miles, raising an incredible £1,225 in sponsorship.

A special congratulations to Kelly, who earned the title of Walker of the Week by walking an amazing 82.78 miles!

Project Director Zoe Jones reflected on the team's efforts: "With only 16 of us to cover 815 miles in one week, I just want to start by saying thank you to everyone for embracing the challenge and putting in all the effort you have last week. It's been exhausting, but hopefully, you all had fun taking part and pushing yourselves.

"The funds we have raised will go directly to Birmingham Hospice, a charity that provides compassionate care and support to terminally ill patients and their families. Their work is truly remarkable, and we're proud to have contributed to such a meaningful cause.

Thank you again to everyone who participated and supported this challenge.

WALDECK SECURES PLACE ON LONDON AND QUADRANT HOUSING TRUST'S DYNAMIC PURCHASING SYSTEM

We are excited to announce that Waldeck has been successfully appointed to the London and Quadrant Housing Trust's (L&Q) Multi-Disciplinary Consultancy Services Dynamic Purchasing System (DPS).

Following a rigorous tender evaluation process, Waldeck has been selected for its expertise and comprehensive service offerings, securing a place across three critical service Lots in Manchester and surrounding areas.

The DPS serves as a framework for L&Q to procure essential consultancy services, ensuring the highest standards in the delivery of housing projects across the UK. Waldeck's successful bid reflects its strong reputation in the industry and its proven capabilities in delivering top-tier services in the fields of Employer's Agent, Quality Monitoring, and Quantity Surveying. Waldeck has been appointed to the following Lots within the DPS:

- **Lot 1: Employer's Agent**
Manchester and Surrounding Area
- **Lot 2: Quality Monitoring**
Manchester and Surrounding Area
- **Lot 3: Quantity Surveying**
Manchester and Surrounding Area

Waldeck's Commercial Director, Graham Wright, shared: "Following this news, we look forward to contributing to L&Q's housing development programmes. We are delighted to be further expanding our North West pipeline, adding to our existing project workload across Salford and Preston.

"Waldeck's multi-disciplinary approach enables projects to benefit from a seamless integration of services, leading to efficient project delivery and enhanced quality outcomes. Our expertise in Employer's Agent services enables projects to be managed effectively from inception to completion, whilst our Quality Monitoring and Quantity Surveying services are able to safeguard the financial and structural integrity of any future developments.

"Waldeck are looking forward to this new chapter of collaboration with London and Quadrant Housing Trust, contributing to an array of housing projects that meet the needs of communities across Manchester and beyond."



"Waldeck's multi-disciplinary approach enables projects to benefit from a seamless integration of services, leading to efficient project delivery and enhanced quality outcomes."

WALDECK AWARDED A PLACE ON THE WEST MIDLANDS & WORCESTERSHIRE DEVELOPMENT FRAMEWORK

Waldeck are delighted to be announced as a preferred supplier for Employer's Agent duties on the new Worcestershire and West Midlands Development Framework, recently launched by Pretium Frameworks and Community Housing.

The new five-year regional development framework aims to provide a single point of access to works and services for all parts of the development process, from site preparation to a wide range of consultancy services.

Developed with Contracting Authority Community Housing, the Worcestershire and West Midlands Development framework will serve organisations in the Wyre Forest and areas surrounding Worcestershire and the Midlands.

The framework is designed to ensure best practice is at the heart of development activity and is suitable for the construction of homes and non-dwelling units including shops, offices, and light industrial and industrial units, as well as commercial, community and educational buildings.

Pretium Frameworks shared: "We're absolutely delighted to launch the new Worcestershire and West Midlands Development framework, and to be working in partnership with Contracting Authority Community Housing. "It has been designed with flexibility,

customer service and best practice in mind, and can change with the needs of authorised users to offer bespoke solutions. We look forward to building relationships with our new suppliers and seeing the first projects get off the ground".

Community Housing added: "We have worked with Pretium to create a development focussed framework that will bring greater efficiency and value for money to our supply chain procurement. The framework has attracted a diverse range of superb suppliers and is structured appropriately to tackle all sizes of projects.

"The framework has been developed to balance both cost and quality, also bringing a strong emphasis on success through collaborative partnerships. We are looking forward to seeing our first projects being brought to life through this exciting framework."

Graham Wright, Executive Director at Waldeck, commented: "We are very pleased to have been appointed to the West Midlands and Worcestershire Development Framework. This exciting new framework is a great opportunity for both Waldeck and the broader supply chain, and we look forward to collaborating closely with and WMWDF and all stakeholders to deliver exceptional outcomes."

"We are very pleased to have been appointed to the West Midlands and Worcestershire Development Framework."

WALDECK ANNOUNCED AS QUALIFIED SUPPLIER ON THE CHIC DEVELOPMENT DPS

Communities & Housing Investment Consortium (CHIC) is a collaborative, not for profit, member owned and governed consortium that delivers compliant procurement solutions and commercial support to our members in partnership with the supply chain.

Following an examination of the information submitted to become a Qualified Supplier on the CHIC Development DPS, Waldeck are pleased to share that we have been approved and therefore are now included on their Approved List of Consultants and Contractors.

Waldeck are approved for the following services:

- **Architects**
- **Principal Designer**
- **Cost Consultants**
- **Employers Agent**
- **Project Manager**
- **Purchasers Agent**
- **CDM Co-Ordinator**
- **Clerk of Works**
- **Structural Engineer**
- **Quantity Surveyor**
- **Party Wall Surveyor**
- **Building Surveyor**
- **Highways Engineers**

As well as construction management services for programmes up to £1,500,000.

All of which cover England across the following regions:

- **North West with Cumbria**
- **North East**
- **Yorkshire and The Humber**
- **East Midlands**
- **West Midlands**
- **East of England**
- **South West**

Graham Wright, Waldeck's Commercial Director shared: "Joining the CHIC framework offers our clients an alternative flexible route to market. We're excited to be further expanding our framework portfolio and look forward to building strong relationships with both new and existing clients as a result of our Qualified Supplier status."

To procure our services through CHIC, please follow the link below: www.chic ltd.co.uk



EARLY CAREERS DEVELOPMENT PROGRAMME 2024

HIGHLIGHT GALLERY



We recently welcomed almost 150 mentees and mentors from across Morson Projects, Waldeck and Ematics teams to Freight Island in Manchester for our third annual Early Careers Event!

"This year marked the debut of the Early Careers Development Programme Awards, a new initiative recognising individuals who embody and demonstrate our company's core values of Care, Collaboration, Courage, and Curiosity."



The event celebrated the achievements of our emerging talent in the programme and included team-building activities, a Q&A panel, networking opportunities and awards announcements, followed by dinner and entertainment at Roxy's Ballroom.

We've collated some of our favourite photos from the event to share in our 'Highlights Gallery' below, as we relive the day.

The event began with a welcome and company update from Executive Director, Chris Burke and Operations Director, Gareth Beck, followed by an introduction from the Early Careers Committee represented by Head of Engineering Delivery, Chris Summers.

We then introduced Engineering Manager, Anna Davanzo who is also our Head of Mentoring, who kicked off the day with an engaging icebreaker activity. The game had everyone testing their drawing skills and sparking creativity.

The day also welcomed Assistant Chief Stress Engineer, Nick Lester and Chris Summers to the stage, who outlined our careers roadmap and shared key competencies.

We were then fortunate enough to hear from a colleague who has been part of the ECDP for over 2 years, Stress Engineer, Cameron Michael who stepped outside of his comfort zone as he shared his

professional development review with best practice examples. Cameron shared top tips and advice to mentees on taking those first steps in their careers.

Early Careers Coordinator, Fran Enefer-Davies hosted our Q&A panel with a mix of mentees and mentors. Stress Engineer, Lawrence Leavy, Assistant Project, Lead Josh Bateman, Proposal Lead, Lucy Cliff and Stress Engineer, Chloe Hughes. This opportunity allowed everyone to ask questions providing invaluable insights and advice.

After a morning focused on our Early Careers Employees, we then welcomed the programme's Mentors to the event, as we set a MEGA Team Challenge, encouraging collaboration and strategy among the teams.

Following all the networking we wrapped up the day by celebrating our emerging talent!

This year marked the debut of the Early Careers Development Programme Awards, a new initiative recognising individuals who embody and demonstrate our company's core values of Care, Collaboration, Courage, and Curiosity.

A huge congratulations to this year's winners and highly commended participants!



MORSON PROJECTS & EMATICS UPDATE

Morson Projects and Ematics are two multi-disciplinary engineering consultancies with over 40 years' experience across the UK.

Our highly qualified engineering teams deliver capability and experience across numerous engineering disciplines, enabling the provision of complete end-to-end project management, design and delivery services to our valued long-term client partnerships.

We support our clients across five key sectors: Aerospace & Defence; Nuclear; Power & Renewable Energy; Industrial & Process and Infrastructure & Transportation.

Find out more about our latest news throughout this issue of our INSIGHT magazine.



61

**MORSON PROJECTS
BECOME SCHNEIDER
ELECTRIC ALLIANCE
PARTNER**

62

**NEW INNOVATIVE
NETWORK RAIL 'TPCMS'
GOES LIVE**



68

**ROYAL
AERONAUTICAL
SOCIETY
INTERVIEW:
BECKY VEAL**

MORSON GROUP AWARDED SUPPLIER STATUS ON G-CLOUD 14 FRAMEWORK ACROSS MULTIPLE ENTITIES

We're proud to share that Morson Projects are one of four Morson Group companies that have secured positions on the prestigious Crown Commercial Service (CCS) G-Cloud 14 Framework.

This milestone highlights our dedication to delivering innovative, high-quality cloud solutions that drive efficiency and transformation across the public sector through the government's Digital Marketplace.

Morson Projects has made its debut on the G-Cloud 14 framework, offering services such as cyber security, machine learning, and DevOps. This recognition not only showcases our technical expertise but also positions us to deliver impactful IT solutions, from large-scale transformation initiatives to smaller, focused projects. It's an exciting opportunity to support public sector organisations in maximising their IT investments and overcoming their most pressing challenges.

Morson Projects' Operational Director, Gareth Beck shared: "We are incredibly proud to join the government's G-Cloud 14 Framework. Our teams are looking forward to helping framework buyers maximise the value and impact of their IT project investments, whether they take the form of complex change projects or smaller discrete work packages, by delivering effective and efficient solutions to their challenges."

We're also celebrating Astraerus Consulting's inclusion in Lot 4 of the framework, a category designed for large-scale projects that help organisations transition to cloud software or hosting services. Joining a distinguished group that includes firms like Deloitte, Capgemini UK, and Ernst & Young is a testament to the growth and expansion of our consulting services. This prestigious status allows Astraerus to play a pivotal role in driving digital transformation across the public sector, enabling organisations to implement robust cloud strategies that deliver long-term value. Our continued presence on the G-Cloud framework through Bridge Technology Partners and InterQuest further cements our position as leaders in cloud-based solutions. Their dedication to innovation empowers public sector organisations to boost efficiency, foster innovation, and unlock new value. The retention of their supplier status reinforces our commitment to helping shape future-ready public services and delivering technology solutions that address the evolving needs of the sector.

As a Group, this collective achievement reflects the strength of our technical expertise,



"We are incredibly proud to join the government's G-Cloud 14 Framework. Our teams are looking forward to helping framework buyers maximise the value and impact of their IT project investments..."

robust project governance, and commitment to innovation. Securing G-Cloud 14 awards across four of our entities, including the highly competitive Lot 4, is a significant step forward. Each business will now leverage its unique strengths to accelerate digital transformation and support public sector organisations in delivering modern, efficient, and impactful services.

The G-Cloud Framework simplifies public sector procurement by providing pre-approved suppliers through the Digital Marketplace, enabling faster, more transparent access to cloud-based services. This recognition is a reflection of our ongoing dedication to helping public sector organisations thrive in a digital-first world, and we're excited to collaborate on transformative cloud solutions that shape the future of public services.

This is just the beginning of our journey on G-Cloud 14, and we're ready to make a meaningful impact across the sector.

The G-Cloud Framework went live on 29 October 2024 with services available to buy via the Digital Marketplace.



MORSON PROJECTS' ENGINEERS INSPIRE FUTURE TALENT AT THE UNIVERSITY OF BATH

Representatives from our Bristol office recently attended the University of Bath having been contacted by Kishna Haldipur, who had completed a week of work experience with us in September 2024.

Reflecting on his time with Morson Projects, Kishna shared how he felt "inspired and gained essential skills that have been crucial in my career development." In his continued journey, Kishna reached out to inquire whether we could provide an engineering guest speaker for his committee at the University of Bath.

In response, our Chief Design Engineer, Sam Pike, and Chief Stress Engineer, Nick Lester, visited the University of Bath to deliver an engaging lecture to students. The session provided invaluable insights into the engineering industry, from current trends to practical advice on career development, helping students broaden their perspectives and connect with experienced professionals.

Key topics covered during the lecture included:

- Inspiration for pursuing a career in engineering
- Career journeys and notable projects
- Practical advice on enhancing career prospects and maximising the university experience
- Insights into emerging industry trends
- Skills and qualities companies like Morson Projects value in graduates

The session concluded with a lively Q&A, allowing students to engage directly with Sam and Nick, further emphasising the importance of knowledge-sharing and networking.

Meet our Speaker:

Chief Design Engineer Sam Pike

Sam has over 25 years of experience in the aerospace industry, starting with an apprenticeship at Airbus. His expertise spans test and development of composite structures, engineering methods for prototype aircraft, and automotive development projects. At Morson Projects,

Sam is Assistant Chief Design Engineer in the Aerospace and Defense division, ensuring the quality and robustness of design solutions for clients such as Leonardo Helicopters, Marshall Aerospace, and Adient Aerospace.

Meet our Speaker:

Chief Stress Engineer, Nick Lester

Nick brings over 19 years of aerospace industry experience, holding a 2.1 (Hons) degree in Aerospace Engineering from the University of Hertfordshire. Formerly Chief Stress Engineer at MBDA, he has worked on high-profile projects such as the Airbus A350 Wing Fixed Leading Edge, the AW101 aircraft, and the Bloodhound supersonic car. At Morson Projects, Nick is Assistant Chief Stress Engineer, overseeing technical quality for clients like Leonardo Helicopters, DRAGEN Europe, and Marshall Aerospace.

This event showcased just one way in which we commit to inspiring and supporting the next generation of engineering talent. Together, we're helping shape the future of the engineering industry.



UNIVERSITY OF BRISTOL STUDENTS VISIT LEONARDO HELICOPTERS ON STEM MENTORSHIP TRIP

A group of four University of Bristol engineering students enjoyed an insightful visit to Leonardo Helicopters in Yeovil on Thursday, 14th November, organised by Morson Projects' Senior Structural Analysis Engineer, Andrew Franks.

The visit, hosted by members of Leonardo's STEM team, offered the students a behind-the-scenes look at key facilities, including the Training Academy, blade production and overhaul areas, the wind tunnel, and test labs.

Andrew Franks, a STEM mentor and Senior Structural Analysis Engineer at Morson Projects, accompanied the students and highlighted the value of the experience: "At the site, we were hosted by members of the Leonardo STEM team. The tour involved visiting the Training Academy, blade production and overhaul, the wind tunnel and test labs. I was also able to show the students how my work in Engineering relates to some of the other disciplines required to deliver world class products to the customer. It has been a privilege that the close working relationship between Morson Projects and Leonardo Helicopters made this visit possible."

Through the universities Industrial Mentoring Scheme Andrew has mentored groups of 4-6 students annually for over a decade, seeing the real value of such initiatives in helping shape the next generation of engineers.

Become a Mentor 2025

The Industrial Mentoring Scheme provides first-year engineering students with valuable exposure to real-world engineering roles and insights into the industry.

Recruitment is now open for engineers to join the Industrial Mentoring Scheme as mentors for the 2025 cohort. The program includes an introductory meeting in late January or early February, followed by 2-3 additional meetings with mentees throughout the year.

Morson Group's Commitment to STEM

Alongside our parent Company, Morson Group, we are working to pave pathways into STEM for all through funding, engagement and training. With the immense demand for STEM skills in the UK, we are investing in education and aspiration, working collaboratively with industry partners to ensure a sustainable future for the industry and the wider economy.

MORSON PROJECTS' HULL EARLY CAREERS ENGINEERS VISIT BRISTOL OFFICE

Morson Projects' Bristol team recently welcomed our Early Careers Engineers from Hull to their office at Bristol Business Park.

The office hosted an Early Careers workshop delivered by our Early Careers Development Programme's Technical Co-ordinator, Francis Enefer-Davies, followed by an evening of team building and socialising.

Associate Director, Becky Veal shared: "It was a fantastic opportunity for two of our Aerospace & Defence teams to spend quality time together. The workshop really opened up new ideas for collaboration opportunities as well as discussions around new programmes of work, and reviews of the future development opportunities across the team."

Assistant Chief Design Engineer, Sam Pike shared: "It was good to get so many people together in the office who are all starting out in their careers. Seeing how they seamlessly interacted with each other and started to form the connections which will be used as their careers move forward."

This is just one example of how our Early Careers Development Programme supports our graduates and apprentices. Morson Projects are able to provide our people with a wide range of unique training and opportunities to help them kick-start their journey.



MORSON PROJECTS BELFAST TEAM JOINED THE NI INTERNATIONAL AIRSHOW 2024

Morson Projects' Belfast office recently had the pleasure of exhibiting at the NI International Airshow 2024, held in Portrush.

This event provided an exciting platform to connect with people of all ages and backgrounds while showcasing our ongoing projects and hosting engaging STEM-based activities.

The exhibit offered hands-on experiences designed to inspire future engineers. The interactive STEM activities, such as building small circuit boards to power fans and light bulbs, were particularly popular with younger attendees. Parents and older students showed great interest in learning more about careers in STEM, especially in aerospace engineering. We had the opportunity to engage in meaningful discussions about the opportunities and pathways in these fields.

It was a highly successful weekend, with our stall drawing attention not only from children and parents but also from other leading companies in the STEM industry. The positive reception Morson Projects received reinforced the value of our work in promoting engineering and STEM education.

Morson Projects was proudly represented by Gareth McAllister, Karthikeyan Gopalakrishnan, Baskaran Nagavel, Ranjan Mukherjee, Krantikumar Dannana, Poorna Shanmugam, and Jason Ohagan. The event also featured prominent companies such as Spirit Aerosystems, Collins Aerospace, Boeing, and Thales, creating a fantastic environment for networking and industry collaboration.

Overall, the NI International Airshow 2024 was a resounding success in raising awareness of both Morson Projects and the importance of STEM education. We look forward to continuing our efforts in inspiring the next generation of engineers.

Jason O'Hagan, Graduate Stress Engineer shared: "It was fantastic to be joined by our colleagues across our Belfast office, with another great opportunity to engage with people of all ages and backgrounds and introduce them to our company. Hopefully this inspired those who attended our exhibit to get involved in engineering in the future."





IGNITION

STEM SUMMER SCHOOL FOR GREATER MANCHESTER STUDENTS RETURNS

IGNITION STEM Summer School is part of the annual programme of events, networking, workshops and mentoring activities from The Morson STEM Foundation to support people from all backgrounds to explore, and pursue, pathways into engineering-related careers.

IGNITION, The University of Salford's summer school programme, returned this summer for three-days of learning, innovation and fun.

Organised by the Morson Maker Space in collaboration with the university's outreach team, Salford Racing and Morson Projects, IGNITION gave Year 12 students from across Greater Manchester the opportunity to dive hands-on into the world of engineering.

With state-of-the-art technology like 3D printers and laser cutters at their fingertips, the future STEM leaders didn't just learn; they created, innovated and excelled.

From conceptualising to racing remote-controlled cars, the spirit of engineering was evident, fuelled by the presence of Morson Projects' experienced industry experts.

The key objective for IGNITION is to ensure attendees get an authentic experience of being Salford students by learning a range of new skills, including:

- **Team building and confidence**
- **Analytical thinking skills**
- **How to iterate, test and improve a designs**
- **How to digitally manufacture parts using the Maker Space technical equipment**
- **Understanding of campus life experience, seeing what it's like to be a student**
- **Experience other student society activities outside of and aligned with academic study**

As we reflect on this year's summer school, we wanted to share some of the students' feedback, which demonstrate the value

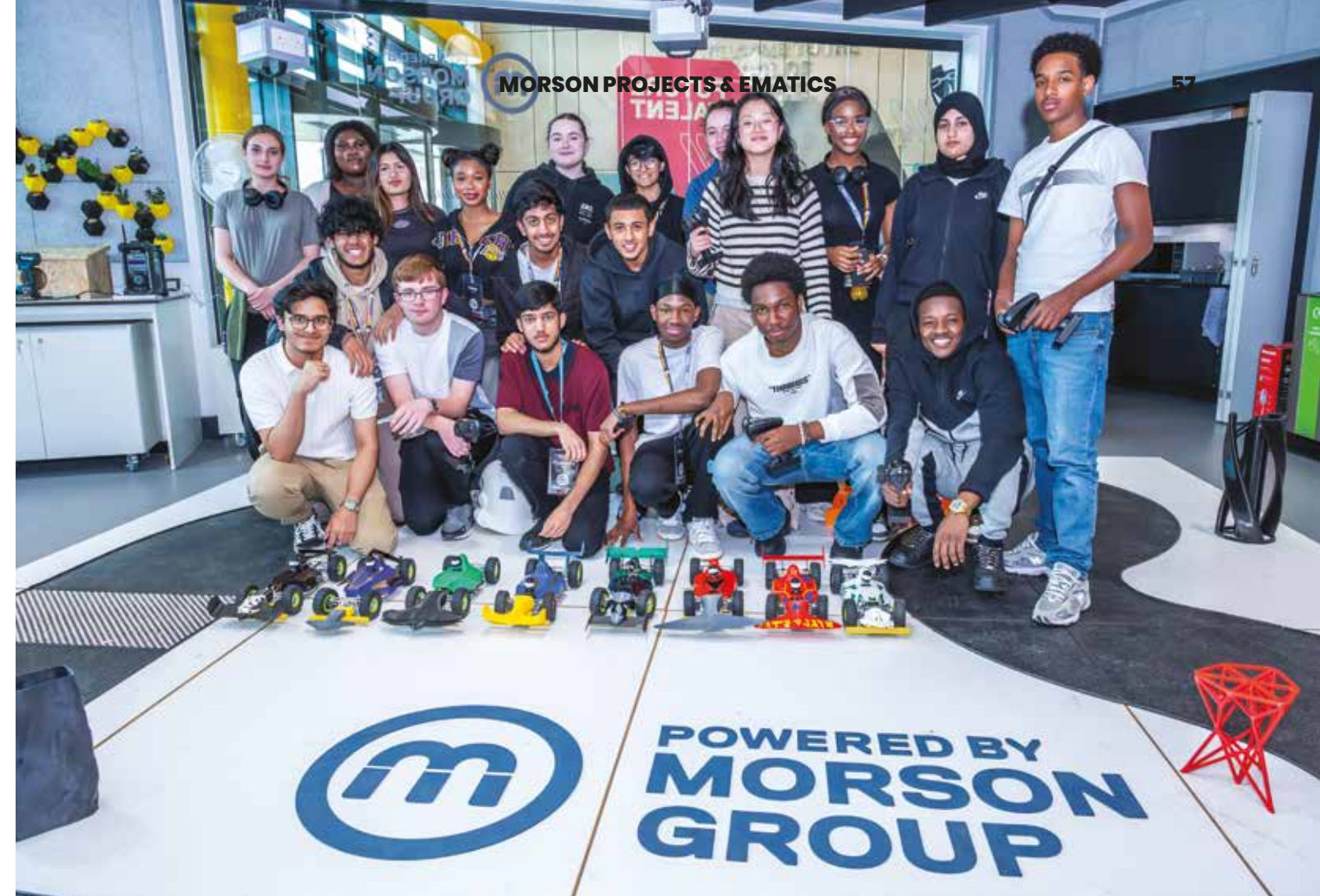
of supporting young people from all backgrounds to explore and pursue pathways into STEM careers:

"It was extremely fun. I really enjoyed making new friends and having a look at the engineering campus."

"The engineering session was really informative but in a way that kept everyone engaged and the staff and ambassadors were all really friendly and welcoming."

"It has improved my collaborative skills, as well as my critical thinking skills. It's also shed light into future career prospects in engineering."

The IGNITION STEM Summer School is just part of the annual programme of events, networking, workshops and mentoring activities from The Morson STEM Foundation to support people from all backgrounds to explore, and pursue, pathways into engineering-related careers.



"Not only have they learned teamwork and negotiation skills, but the tenacity and that sense of resilience for when things don't go right. They grow with all of those 'smart skills'."

SALFORD RACING EXCEL IN FORMULA STUDENT 2024 AT SILVERSTONE

The 2024 Salford Racing team celebrated a significant milestone in July at the annual Formula Student event, achieving 8th place globally in this esteemed student engineering competition.

Held every year at Silverstone, the iconic British racing circuit, the IMechE Formula Student event is an engineering challenge designed to cultivate the next generation of elite engineers.

Students are tasked with designing and constructing a race car from the ground up and then testing their engineering and business acumen through various challenges, including tests for chassis, noise, and brakes.

Morson Projects proudly sponsors the team as part of our STEM Foundation programme, which aims to expand the talent pool for STEM careers by promoting participation and creating educational and training pathways. Part of this includes investment in the Maker Space, a campus facility that features state-of-the-art engineering, design and manufacturing technology that was used by the students for parts of their build.

The Salford Racing team of 2024 not only cleared all scrutineering challenges for the first time, but also successfully competed in the endurance race, a 22km test of the cars' reliability and overall performance. The final stage, completed by two drivers, earned the team an impressive 8th place finish, outpacing all other universities in the North West, such as the University of Central Lancashire, the University of Manchester, and the University of Bolton.

This achievement marks the team's best performance to date (46th in 2023, 31st in 2022, and

58th in 2019). In 2023, the team couldn't pass the noise test due to an engine issue that necessitated a rushed rebuild, resulting in insufficient time. This year, however, they completed the build 48 hours ahead of their 2023 schedule, avoiding similar setbacks.

The car features a single-cylinder engine and a space-frame chassis constructed from steel tubes. The students purchase 6-meter lengths of steel tubing, laser cut and weld them into their design. Once assembled, the car undergoes several scrutineering challenges to evaluate its overall quality. Design judging requires students to explain their engineering choices, while cost and manufacturing assessments evaluate their understanding of real-world production implications, such as component costs and manufacturing processes.

Scrutineering Challenges

Before the engine can be started and the car moved, the team must demonstrate to motorsport safety experts and IMechE scrutineering volunteers that it is safe. Technical scrutineering involves a detailed checklist to ensure compliance with the 190-page Formula Student rulebook and general engineering practices. Safety checks include ensuring drivers can exit the car within 5 seconds from a fully strapped position, with both feet on the ground, and verifying that safety equipment is current and undamaged.

Chassis checks ensure the car's structure matches the detailed design submitted for review, ensuring driver safety in the event of a crash. Tilt tests evaluate the car's center of gravity and fluid containment, while noise tests



ensure the car meets maximum noise levels at specified RPMs. Brake tests assess the car's braking efficiency.

After passing scrutineering, the car is tested on a custom track at Copse corner on the Silverstone circuit. The endurance race tests the car's reliability and speed over 25 laps, determining the final competition ranking.

Having never previously passed all scrutineering stages, the Salford Racing team made their track debut and completed the endurance race successfully, finishing in the top 10 globally.

Andy Hassall, Associate Director shared: "The IMechE Formula Student program is essential for aspiring engineers as it provides them with real-world experience in designing, building, and racing a competitive vehicle. This hands-on learning opportunity challenges students to apply their theoretical knowledge in a practical setting, teaching them valuable problem-solving and teamwork skills that are crucial for success in the industry.

"Salford Racing Formula Student's dream became a reality as they finally made it onto track at Silverstone. Amazing testimony to team for their hard work and dedication!

"Morson Projects have supported the Salford Racing's Formula student team for over 4 years. We have seen real progress year-on-year culminating in this year's track success. I'm proud of the support the wider Morson Projects team has given to the team. They have spared their own time to mentor the team on design, composites, analysis, project management. A special mention should go to Chris, Jon, Graham, Mike and the rest of the Morson Projects engineers for their valuable

input and support." Chris Summers, Head of Engineering Delivery added: "Programs like Formula Student, which challenge participants to engage in multi disciplinary teams including engineering, media business and finance... develop teamwork, communication and compromise.

"This is the closest reproduction of the environment they will find once they enter engineering teams in industry.

"Over the period of my involvement through Morson Projects, this experience of collaboration, working to budgets and to tight deadlines has produced some of the best graduate candidates we have ever seen."

Dr Maria Stukoff, Director of the Morson Maker Space at the University of Salford, commented: "I'm just proud as punch of the team for making the track for the first time ever. Last year's team had real battles on their hands, having to work through the night to even get through to scrutineering but ran out of time. But the 2023 team, some of whom form part of the 2024 cohort, was able to pass on their experience and learning onto this year's team, which really showcases how successful it is when students have that longevity to pass on what they learn to the next generation.

"I see students come into first year and join Salford Racing and go all the way through to graduate, there's so much personal learning that goes on. Not only have they learned teamwork and negotiation skills, but the tenacity and that sense of resilience for when things don't go right. They grow with all of those 'smart skills'."

MORSON PROJECTS' CONTROL SYSTEMS TEAM RECEIVE TRAINING EXCELLENCE AWARD AT ANNUAL SCHNEIDER ELECTRIC FORUM

A huge congratulations to Morson Projects' specialist controls system division, Ematics, who picked up the Training Excellence Award at the annual Schneider Electric UK & Ireland Alliance Systems Integrators Partner Forum last week.

Ematics' Software Systems Manager, Howard Morrison, and Associate Technical Sales Director, Andrés Mederos, collected the award in person – presented for Morson Projects having completed the most training hours on Schneider hardware and software products across the SE System Integrator Alliance, showcasing a commitment to maintaining technical expertise in leading industrial solutions and bringing forward the next generation of engineers.

Andrés, pictured collecting the award, shared: "Ematics are proud to be a part of the SE Alliance and would like to thank Schneider Electric for the award and for putting on an outstanding event. Special thanks go to Craig Cowan, John Armstrong, Brian Ellison and Jocelyn Golding on the Schneider team."

Ematics are a Schneider Alliance Certified Industrial System Integrator Partner and are currently applying for SE specialisation qualifications in the Transport, Water, and Consumer Packaged Goods segments.



MORSON PROJECTS BECOME SCHNEIDER ELECTRIC ALLIANCE PARTNER FOR CONSUMER PACKAGED GOODS, WATER & WASTEWATER AND TRANSPORTATION

Morson Projects are pleased to announce that our controls systems specialist division, Ematics, have achieved recognition from Schneider Electric as an Alliance Partner in the following three sectors: 'Consumer Packaged Goods', 'Water & Wastewater' and 'Transportation'.

Andrés Mederos, Associate Director at Morson Projects, shared of the news: "At Ematics we have a very long-standing relationship with Schneider Electric, which involves delivery of projects over 40 years to many clients using the Schneider Electric portfolio of hardware and software. In recent times we have further expanded this experience and relationship, with a focus on training in several areas including current software offers, legacy control systems migration, and focused segment training.

"This has led to our recent segment specialisation specialists' badges in the Schneider Electric Alliance Partner Program for Water & Waste Water, Consumer Packaged Goods and Transportation. We have ambitions to expand these segment specialisations, as well as looking forward to increased growth and projects in these areas. The needs of AMP8 in the water segment alone will need the water authorities to look outside their usual framework suppliers in order to meet the skills shortage and current resource capacity.

"With the momentum, recognition and skills we already have, and the backing of our in-house technical recruitment divisions within the Morson Group, we feel we are in a strong position to assist with these demands. These are certainly exciting times, and we are preparing for the journey".

The Ematics team welcome the additional support and opportunities for collaboration that this recognition will bring and look forward to working closely with Schneider Electric in this, and other industrial markets.

"Over this period, we have successfully delivered hundreds of Scada, PLC, lighting control systems and related infrastructure in tunnels throughout the UK and beyond."



NEW VERSION OF INNOVATIVE RAILWAY ELECTRICAL CONTROL SYSTEM TPCMS GOES LIVE

Morson Projects' Ematics division have successfully delivered a new version of innovative railway electrical control system TPCMS.

A milestone was recently reached in delivering a national SCADA platform for Network Rail's electrical network.

The new and improved 'Version 5' of the TPCMS has successfully gone live in the London area of Raynes Park. The delivery of this control system marks a new era of intelligent control software which will improve safety and provides a contemporary platform for future innovation.

This project is part of a consolidation of all existing Network Rail SCADA systems into a single national SCADA platform; Traction Power Centralised Management System (TPCMS). This control system will eventually provide the control of power delivery of the UK railway network across England and Scotland, controlling thousands of kilometres of track from 13 distributed control rooms.

Ematics, Morson Projects' Control, Systems & Integration division, was brought in by partner Telent in 2021 to design, implement, and supply a new version of TPCMS from the ground up to fulfil all requirements set out by Network Rail in the original project specification from 2013, drawing off Ematics' extensive experience of large-scale control system delivery projects for clients such as

Drax Power Station, Transport for London, and Argent Energy.

Software Features

A distinctive feature that TPCMS version 5 implements is an intelligent electrical network model that tracks the flow of electricity throughout the Network Rail electrical network. Using the live statuses of circuit breakers, TPCMS calculates the expected energisation state of the railway supply within milliseconds. This data is then used to warn operators of unexpected states, improving safety versus the existing railway control systems.

The time to implement isolations on the railway for maintenance work and upgrade activities is a key metric for Network Rail, time lost during these outages could result in delays and significant costs. Thus, to streamline the isolation process, TPCMS version 5 provides Switching Schedule functionality which allows operators to automate isolation activities, considerably reducing the time to de-energise and re-energise the network.

Feedback and Future

Network Rail Programme Engineering Manager Steven Pope commented: "The TPCMS control system platform is fundamental to our pursuit of improving

safety and efficiency for our passengers. "Ematics thoroughly reviewed the contracted scope and collaborated closely with internal clients and stakeholders at Network Rail. This systematic approach resulted in a clear design that provides Network Rail with a system that, as innovations are identified in the future, will allow continued development of the system architecture."

Network Rail AC Subject Matter Expert Chris McClelln said: "The feedback so far from the operators during training on the new system has been overwhelmingly positive, TPCMS version 5 delivers a modern user interface which vastly improves our ability to control and monitor the railway."

Ematics SCADA Lead Jake Pike said: "TPCMS has been a challenging but rewarding project that is driving the evolution of how we view control systems via the inclusion of forward-thinking functionality for automating day-to-day operations, taking the pressure off operators."

We look forward to continuing to be part of the team comprising Ematics, Telent, Network Rail and Codra as TPCMS continues its deployment to the remaining areas of the UK.



"TPCMS has been a challenging but rewarding project that is driving the evolution of how we view control systems via the inclusion of forward-thinking functionality for automating day-to-day operations, taking the pressure off operators."

MAX MENDLE BRINGS HOME MEDALS FOR ENGLAND AT EUROPEAN CHAMPIONSHIPS

Max's passion took him to Warsaw, Poland where he represented England at the European Championships.

This year's karate and kobudo event has brought together over 2000 participants, athletes, coaches and referees, and more than 4000 spectators from 30 European countries.

Electrical Engineer, Max Mendle shared: "Last week, our squad of 14 had an incredible time in Poland, competing and representing our country. I'm thrilled to share that we brought home 1 gold, 3 silvers, and 3 bronze medals!

"On a personal note, I faced a challenging draw with over 60 fighters in my section but made it through to the round of 16. It was a fantastic experience overall, and I'm proud of the entire team's performance and camaraderie. A huge thank you to Morson Projects for sponsoring us, and here's to more success in the future!"



MORSON PROJECTS SPONSORS MALTIMA JASHARI FOR THE FORMULA WOMAN NATIONS CUP IN DUBAI



Morson Projects are proud to sponsor the talented and determined young racing driver, Maltina Jashari, who is competing in the prestigious Formula Woman Nations Cup in Dubai this December.

This groundbreaking competition aims to elevate women in motorsport and inspire the next generation of female drivers to pursue their dreams on the track. Maltina's participation is a powerful symbol of her dedication, skill, and determination to break down barriers in a sport historically dominated by men.

Maltina is not only passionate about motorsport but also a driven student pursuing a degree in Architectural Engineering at The University of Salford. Her journey has already seen her make history as Salford Racing Team's first-ever female driver, as she prepares for the annual iMechE Formula Student event in 2025. She is showing the world that with hard work, determination, and support, women can achieve anything, both on the track and in academia.

Please join us in wishing Maltina the best of luck as she takes on the challenge in Dubai. We look forward to seeing her continue to break new ground in motorsport, and we are excited to support her as she inspires future generations of female drivers.

As part of the excitement surrounding the Formula Woman Nations Cup, we caught up with Maltina in Manchester to discuss her preparations for this major event.

Follow the link in the QR code to see her video interview.





MORSON PROJECTS SPONSOR WORKINGTON RED JUNIORS

Morson Projects' Cumbria team are proud to sponsor the Workington Reds Juniors U9's football kit.

Morson Projects' Cumbria team recently announced their sponsorship of the Workington Reds Juniors U9's football kit. The team is delighted to see the young players looking sharp in their new gear and is proud to support the local community and the development of young talent.

The Workington Reds Juniors Football Club has teams ranging from U6s up to U18s, catering to all abilities. With over 600 members, Workington Reds has a rich history of football in the local area. Interestingly, it served as the starting place of Bill Shankly's successful career in football management at Liverpool FC.

As part of Morson Projects' ongoing commitment to providing social value in local communities, the team is pleased to support the Workington Red Juniors football team based in Cumbria. We're excited to be a part of their journey and look forward to seeing their continued success on and off the field.

MORSON PROJECTS SPONSOR WATH BROW HORNETS YOUTH ENGLAND PLAYERS

Morson Projects recently sponsored two Wath Brow Hornets Youth England Community Lions players, as they joined the teams Summer France tour.

As part of our on-going commitment to provide social value in our local communities, Morson Projects have sponsored two Wath Brow Hornets Youth Players Tom Clarke and Matty Creasey.

Wath Brow Hornets are a leading amateur team in England based in Cumbria near our Sellafield team. Operating a successful Youth system with teams from U6's to U18's, the local but nationally recognised club has seen significant success in local and national competitions over many years.

Head of Engineering Delivery Sellafield, Ian Woodburn shares: "Our association with the team began several years ago when our recently retired colleague, Ian Ross became involved with the club through a client and has supported

the club with sponsorships over the years." In 2023, we sponsored the club with an advertising sign pitch-side and committed to further sponsorship for 2024. This included the Morson Projects logo on the back of new playing shorts for all five new team strips. Additionally, we arranged for sponsorship to help two youth players, Tom Clarke and Matty Creasey, to travel as part of the England U17 team on their Summer France 2024 tour.

"Morson Projects are proud to support local talent to develop their obvious skills in the wider international arena and it is rewarding to see that both played well and above all enjoyed this fantastic experience."

Wath Brow Player, Tom Clarke shares: "I would just like to take this opportunity to thank Morson Projects for their sponsorship

which helped provide me with an experience of a lifetime. I feel very privileged that I could represent my country and Wath Brow Hornets, the trip allowed me to play against some brilliant professional players and gain friends from across the country. Thank you again Morson Projects."

Wath Brow Player, Matty Creasey shares: "Thank you so much for sponsoring me so I was able to travel and represent my country, it was a wonderful experience that myself and my family won't forget! I played in both games and was invited to the local fanzone area where we helped with the rugby league activities. It was a great experience and I feel very privileged to have been there. Thank you for your support".





ROYAL AERONAUTICAL SOCIETY INTERVIEW

BECKY VEAL



Becky Veal, Associate Director – Engineering Delivery for Morson Projects' Aerospace & Defence division recently sat down for an interview with the Royal Aeronautical Society's Yeovil branch. In the discussion, Becky shared insights into her career journey, reflecting on the challenges she has encountered and the opportunities she has embraced along the way.

Becky began her engineering career in 1998 as a Technical Administrator at a Bath-based Engineering Consultancy. Over the next decade, as the organisation expanded, she advanced through various roles, including Recruitment Consultant, HR & Technical Recruitment Manager, Project Manager, and eventually Programmes Director. During this period, Becky led significant projects, contributing to the company's growth and success.

Following the birth of her son in 2010, Becky sought a new challenge and transitioned her career in 2012. After extensive research and networking, she collaborated with industry

experts to launch a recruitment and consultancy venture in the Aerospace and Defence sector.

In its first year, the business secured a contract with Leonardo Helicopters, supporting the Technical Publications Department. Becky found the experience of building a business from scratch to be exhilarating, exposing her to entrepreneurship aspects like branding, marketing, payroll, recruitment, and client relationships, providing valuable insights into boardroom dynamics and business operations.

The business was acquired by Morson Projects in 2015, where Becky took on the role of Business Unit Manager and continued to have the freedom to expand the business. In 2023, she transitioned into the role of Associate Director – Engineering Delivery for the Aerospace Sector. In this capacity, Becky supports engineering teams across Morson Projects' UK offices on critical defence programs.

Reflecting on her journey, Becky expressed pride in being recognised as one of the first women to hold such a position within the organisation's

aerospace division, and how she wholeheartedly cherishes her career choices and profession over the years.

Hi Becky! Thank you for speaking with us today. What initially drew you to Engineering?

Although I never initially harboured aspirations of becoming an engineer, my journey into the field was shaped by the passionate individuals I encountered and the innovative ideas they were bringing to life. From the outset, I found myself surrounded by a team whose enthusiasm for problem-solving and ingenuity was contagious. Their dedication to pushing the boundaries of what's possible inspired me daily.

One pivotal experience that shaped my appreciation for engineering was the opportunity to visit client sites, seeing first-hand the intricate processes and meticulous attention to detail that go into designing and creating products. These visits allowed me to witness the tangible impact of engineering on everyday life, turning abstract concepts into functional, ground-breaking

Continued >

products. It was through these experiences that I developed a genuine admiration for the industry. I consider myself incredibly fortunate to have been exposed to such a dynamic and creative environment early in my career. This exposure not only broadened my understanding of engineering but also ignited a passion within me to contribute to a field that is constantly evolving and improving the world around us.

What led to you starting your own recruitment and consultancy business, which now forms part of Morsons?

After the arrival of my son, I took the opportunity to reassess and redefine my career goals. As a mother, I became acutely aware of the value of time and the importance of making it truly meaningful, both personally and professionally. It was during this time that I realised my ambition to establish my own recruitment and consultancy business.

As a mother, I became acutely aware of the need for flexibility and the desire to create a venture that could provide not only for my family but also contribute positively to the industry. I understood that while the dream was mine, the journey to success would require collaboration with industry experts. Recognising the necessity of building a strong foundation, I sought out partnerships and mentorships to gain insights and knowledge from professionals within the industry.

Despite the demanding learning curve, my unwavering determination and dedication propelled me to new heights in my professional journey. My pursuit of excellence allowed me to develop a business that stood out in the competitive landscape.

Eventually, this journey led to the integration of my business with Morsons, a move that not only expanded our capabilities

but also aligned with my original goal of meaningful collaboration. Together, we have been able to achieve so much, combining our strengths to deliver exceptional value to our clients and candidates alike.

Tell us about an achievement that you're most proud of during your career?

One of the achievements I'm most proud of during my career is being invited to join the panel session at this year's AeroWomen event. This opportunity was particularly meaningful because AeroWomen is a renowned annual conference dedicated to celebrating and empowering women in the aerospace industry through a series of workshops, speakers, and panel discussions.

During the event, I had the privilege of sharing my personal experiences and career journey spanning over 20 years in the aerospace sector. It was a powerful moment to reflect on the challenges I've overcome and to offer insights and encouragement to other women in the field. Being able to engage with and inspire a room full of talented and passionate women was incredibly rewarding. Moreover, I had the chance to collaborate with other influential women in the industry, such as Charlea Boucher, Shanice Woodman, and Mavis Rowland, under the moderation of Helen Haxell. Their stories and achievements were truly inspiring and reinforced the importance of fostering an inclusive and supportive environment for women in aerospace.

I'm looking forward to now contributing to the Next Gen Mentoring programme. This initiative aligns perfectly with my commitment to supporting the next generation of women in STEM. By mentoring young professionals, I hope to be able to facilitate their personal and professional growth, helping them navigate

their careers and reach their full potential. Perhaps, providing the support I wish I had had when starting out in the industry.

Tell us about the biggest challenge you have faced during your career?

The biggest challenge I have faced during my career came after twelve years in my initial role. When the business owners decided to sell the company, it marked a significant turning point and introduced uncertainty into my professional life for the first time. What had previously been a secure and familiar position within a close-knit, small company suddenly transformed into part of a dynamic American organisation with ambitious plans for extensive transformation.

This pivotal moment forced me to confront the unknown and evaluate my career path. Instead of retreating from the challenge, I saw it as an opportunity for growth and development. I chose to embrace the change and took proactive steps to secure a pivotal role in the new organisation. Recognising the potential for both personal and professional growth, I decided to put myself forward for the Programmes Director position.

This decision required me to step out of my comfort zone and adapt to a new corporate culture with different expectations and goals. It was a daunting process that demanded resilience, strategic thinking, and the ability to navigate through uncertainty. However, it also allowed me to showcase my leadership skills, adapt to a rapidly changing environment, and ultimately contribute to the successful integration and transformation of the company. This experience not only reinforced my ability to manage significant transitions but also solidified my confidence in embracing future challenges.





MEET THE TEAM

TRAINEE COMPLIANCE OFFICER GRACE RATHBONE

Congratulations to Trainee Compliance Officer, Grace Rathbone for completing her Regulatory Compliance Apprenticeship

A huge congratulations to Trainee Compliance Officer, Grace Rathbone, for completing her Level 4 Apprenticeship in Regulatory Compliance at the Babington Business College.

Grace has been working at Morson Projects since 2022 where at the age of 19 we welcomed her to our in-house Compliance team, based in our Head Office in Manchester.

We caught up with Grace to find out more about her career journey so far, as part of our Early Careers Development Programme:

Hi Grace! Congratulations on completing your Apprenticeship. What has your education journey been like so far?

Thank you so much! My education journey has been both

enriching and transformative. I decided to pursue a regulatory compliance course to deepen my understanding of the legal frameworks and ethical standards that govern organisations.

Throughout the course, I engaged with key topics such as risk management, policy development, and compliance audits, which enhanced my analytical skills and practical knowledge.

What are some of the most interesting projects you've worked on?

The hands-on assignments and case studies allowed me to connect theory with real-world applications, making the learning experience even more impactful.

"Overall, Morson Projects fosters a supportive environment that prioritises feedback and collaboration, allowing me to learn from my peers and contribute meaningfully to projects and the wider business objectives."

Most of all I have enjoyed working on projects such as creating my own project to help people develop a better understanding of the importance of compliance, which included hands-on activities and working as a team.

What motivates you in your work?

As a compliance apprentice, my motivation stems from a strong desire to ensure that organisations operate ethically and adhere to legal standards.

Completing my compliance course has deepened my understanding of the crucial role compliance plays in safeguarding both the organisation and its stakeholders. I am driven by the challenge of navigating complex regulations and the opportunity to contribute to a culture of integrity.

Additionally, I find fulfilment in helping develop effective compliance strategies that promote transparency and accountability. Ultimately, my passion for fostering trust and compliance within the organisation inspires me to excel in my role.

How does the company support your professional growth and development?

Morson Projects are committed to supporting my growth and development through a variety of initiatives.

They provide access to ongoing training and professional development programs such as our Early Careers Development Programme, which often includes training days and workshops



where I get to network and collaborate with other Early Careers employees.

Additionally, I am encouraged to engage in mentorship opportunities, where experienced colleagues provide valuable guidance and insights based on their expertise. Overall, Morson Projects fosters a supportive environment that prioritises feedback and collaboration, allowing me to learn from my peers and contribute meaningfully to projects and the wider business objectives.

What are your career aspirations for the next five years?

Looking ahead, I am excited to apply what I've learned to contribute to compliance efforts in my career and continue

exploring this field further. Overall, this journey has reinforced my commitment to upholding standards and promoting ethical practices within organisations.

What tips would you give to others starting out in the industry?

For those starting out in the compliance industry, it's essential to familiarise yourself with relevant regulations and seek mentorship from experienced professionals who can offer valuable insights.

Staying informed about industry trends and updates is crucial, as is building a strong network within the field. Developing effective communication skills will help you communicate compliance requirements clearly.



MEET THE TEAM

MARKETING & COMMUNICATIONS ASSISTANT NINA WINDMANN

As part of our 'Meet the team' series, we caught up with Marketing and Communications Assistant, Nina Windmann, who has joined our in-house Marketing team on a Placement.



Based in our Wellingore office, Nina joined Morson Projects in January 2024 for a 3-month internship, before being offered to continue her role with an on-going placement.

Nina is currently studying a Business and Marketing Degree at the University of Lincoln and is due to finish in 2026.

"The best advice I can give to someone is to say yes to things outside of your comfort zone, be confident and don't forget to ask"

We caught up with Nina to hear more about her journey so far:

Hi Nina! What has your education journey been like so far?

I started off like everyone else, by doing my GCSEs and then went into sixth form, completing four A-Levels.

During my summer holidays, I organised a variety of internships, both internationally and in England, with several global companies. These experiences helped me identify my desired career path and gave me the confidence that my chosen field of study aligns with my long-term professional goals.

At the start of September 2023, I began my degree in Business and Marketing at the University of Lincoln, due to really enjoying both design and business in my A-Levels. For a while I was searching for an apprenticeship as I liked the fact you get both the theory and the practical experience, however it was

extremely hard to find something in my chosen field of study.

In October 2023 I attended the University of Lincoln careers fair and met Morson Projects Head of Marketing, Hannah Cook as I was seeking some work experience alongside my studies. Shortly after this it became a placement job, and this is where I am today.

What are some of the most interesting projects you've worked on?

I thoroughly enjoyed working on some super exciting projects such as our annual Summer Conference. I also took the lead in organising The Royal Bath and West Show, which as a company we attended for the first time.

Another project I've been involved in is creating a diverse range of content, across platforms such as the company website, Instagram, LinkedIn and Twitter. I then have been involved in using this content to create our bi-annual company newsletter, collaborating with our external design agency, UnitedAgency, to ensure a slick design. I have also

enjoyed working with our SEO agency, EComOne, learning about the intricacies of Search Engine Optimisation to maximise quality website traffic.

What motivates you in your work?

What motivates me at work is the opportunity for personal growth, as I thrive on developing my skills and advancing my career.

I'm also driven by the desire to make a positive impact, both within the organisation and in my team, knowing that our collective efforts lead to meaningful outcomes.

Continuous learning is another key motivator for me, as I enjoy expanding my knowledge and staying updated with industry trends to remain effective and innovative in my role.

What are your career aspirations for the next five years?

Having just completed my first year of studies with an overall 'First', I am looking forward to continuing a further two years at the University of Lincoln alongside my Marketing Assistant role with Morson Projects. To further challenge myself

during my studies, I have chosen to spend a semester abroad in Zurich, Switzerland, which I'm really looking forward to.

What tips would you give to others starting out in industry?

The best advice I can give from personal experience is to say yes to things outside of your comfort zone, be confident, don't forget to ask and to take any given opportunity and go for it.

What do you enjoy doing outside of work?

Outside of work, I enjoy going to the gym, meeting friends, and regularly visiting my hometown in Germany to spend time with my family.

I love exploring the world and last summer, I went interrailing around Europe for three weeks. Some of my favorite places I have been to so far have been Copenhagen and Berlin, but the most memorable holiday must have been Mauritius.



