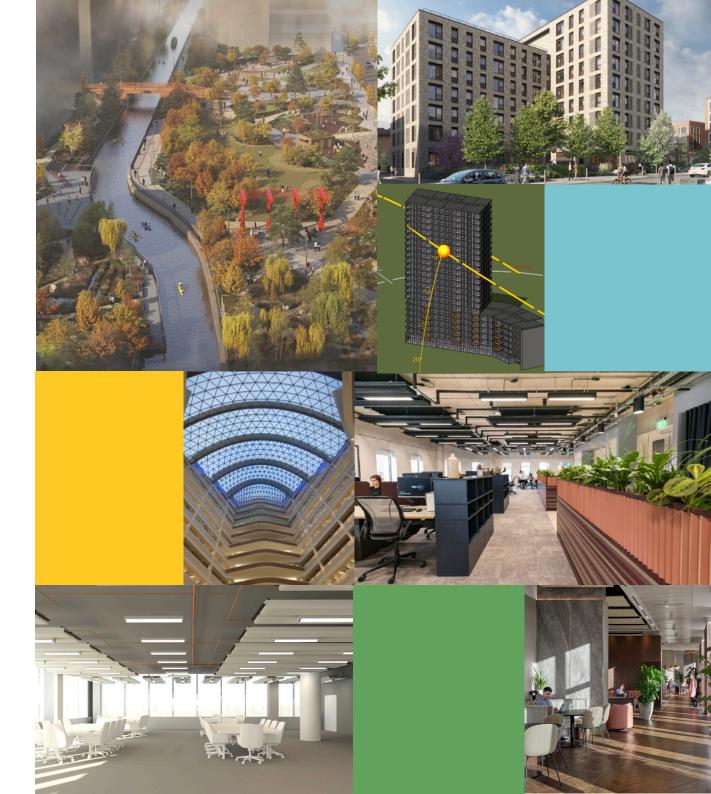


## Sustainability Services





## Introductions

Hannan Associates was established in 1983 by Bill Hannan as an engineering consultancy to provide Building Services Design solutions to the construction industry.

We focus on providing **Building** Services Engineering, Sustainability and Utilities Infrastructure Consultancy, tailored around the unique requirements of each of our clients.





# What do we stand for?



Our Mission is To develop building services engineering solutions that help create happy, healthy, safe places to live, work and play that don't 'cost the earth!'

Our vision is to be known as the go to, independent MEP consultancy for innovative and dependable advice regarding high performance, low energy building services systems.

## Sustainability & the Built Environment



Hannan Associates MEP Design Solutions

Awareness of the negative ways in which the built environment can impact the climate, natural environment and its occupants has increased significantly in recent years.

There is a need for more sustainable developments and it is vital that the construction industry reduces its impact on the environment whilst limiting global temperature increases. Hannan Associates is well placed to support property developers, investors and landlords manage this reduction, and help deliver highly sustainable developments.

All new developments should have a defined sustainability strategy in place to highlight and drive the green agenda. An increasing number of clients are seeking direction regarding the best ways to develop this strategy and meet their legislative and organisational targets, as they face increasing pressure from investors and occupiers.

At Hannan Associates we believe green building design is more effective when approached in a holistic way incorporating all the individual elements and should be driven by extensive collaboration between the client, their vision and project team members, at the earliest stage possible in the project lifecycle.



# How can we help you?



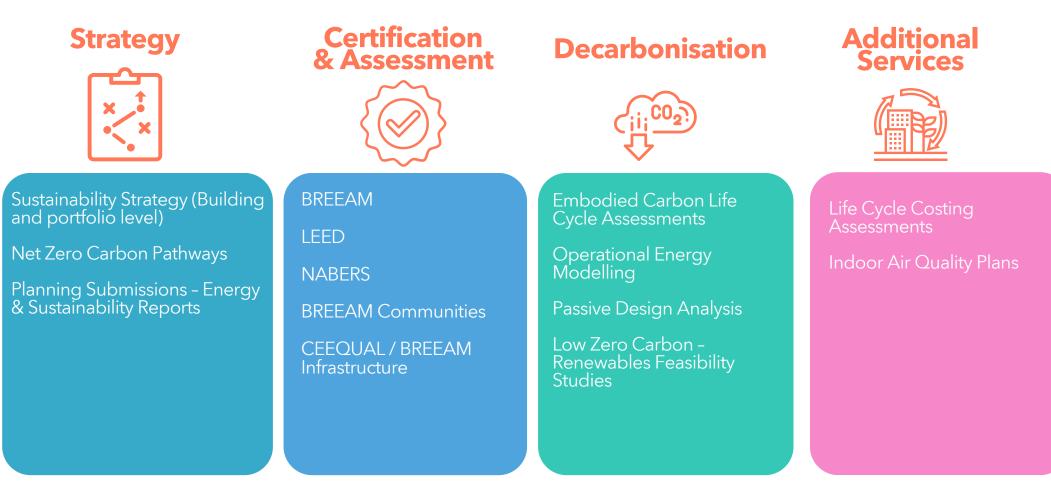
As Building Services Engineering Consultants, sustainability has always featured at the heart of our design process and we have a big part to play in helping our clients & the built environment meet their green objectives.

Hannan Associates have 40 years experience in the design of highly efficient, sustainable MEP systems. Importantly, we have a team of dedicated sustainability specialists with over 20 years' experience delivering sustainable strategy and advice across all sectors. This combined knowledge makes us well positioned to help our clients.

We provide a wide range of sustainability focused advice using in-house engineers and specialist partners to define ways of achieving sustainability targets related to Site wide Sustainability, Net Zero Carbon, NABERS UK & performance modelling, Building certification and Wellness.

We help our clients develop targets and strategy bespoke to their own individual requirements. These targets can be used on single developments and portfolio wide but also as a basis for future projects.

# Sustainability services



Hannan

Associates MEP Design Solutions

### PROJECT: Prestwich Village

> Client: Muse & Bury Council

#### > Architect: Jon Matthews Architects

> Project Value: £100M+

> Project Duration: 2023 – ongoing



Hannan Associates are currently working to deliver a £100million regeneration scheme within Prestwich Town Centre. The scheme is being brought forward via a joint venture partnership formed between Muse & Bury Council.

Proposed works for the first phase of Prestwich Village include:

- $\circ~$  A Community hub building with a library and community space
- o Retail and leisure spaces
- New market hall
- Village square.
- Multi-storey mobility hub including 20% EVC provision

#### Our role includes the following:

- Assessing works associated with existing utilities networks to accommodate the new development proposals.
- Consultation regarding new utility supply requirements.
- Providing MEP design duties for each plot and the associated public realm.
- Assessing the anticipated building performance using operational energy modelling techniques.
- $\circ$   $\,$  Undertaking the BREEAM assessments for the relevant plots.



Each of the plots have been designed to reduce operational energy and carbon emissions, employing a fossil fuel free all-electric strategy.

Passive measures have been prioritised to reduce energy demand, including enhanced fabric performance and air permeability, along with optimised glazing design.

Active measures have been taken to optimise the energy efficiency of fixed base build systems, i.e. Mechanical ventilation incorporating heat recovery, low flow sanitaryware, energy efficient LED lighting and controls systems.

Low & Zero Carbon Technologies have been incorporated where applicable in the form of high efficiency heat pumps to generate space heating, and allocation of dedicated zones at roof level for installation of a PV array.

Each of the schemes have been designed to achieve a minimum of BREEAM 'Excellent' rating.

Proposed works for the second phase of the scheme includes 200 new homes, a mix of apartments and townhouses.

We are working alongside Jon Mathews Architects; Chroma Consulting; Planit, Civic Engineers; MAC Construction Consultants; Hoare Lea; Design Fire Consultants, & Asteer Planning on the design team.

### PROJECT: LOC8 Business Park, Maidstone

Client: Clearbell Capital LLP
Architect: PRC Architects



Hannan Associates are working for Clearbell Capital on the development of this new mixed-use business park, known as LOC8. This new employment area, which has the potential to create up to 1,200 new jobs will deliver a range of modern and sustainable buildings.

As a part of our role we are providing:

- Building Services Engineering
- Utilities Infrastructure
- Sustainability Consultancy
- o BREEAM

Phase 1 was completed in May 2023 and includes eleven units of 5,000 sq ft to 60,000 sq ft, which have achieved a BREEAM "Very Good" rating. Occupiers include: Zehnder; Hitachi Construction; Edmundson Electrical; and AT&T.

Phase 2 of the development reached practical completion in December 2024, adding another 186,900 sq ft to the business park across 7 units. Units are pre-let to: Technical Fixings Solutions; Huws Gray; Nivek Catering Supplies; and Ocura Healthcare, with three units remaining.

Each of the units are built to BREEAM "Excellent" standard, achieving EPC A+ ratings, and have been provided with electric vehicle charge points and solar PVS.

Responsibly sourced and climate resilient materials were a key driver during procurement and installation. Extensive landscaping and new habitats have been provided across the sight to support existing species and enhance biodiversity.

We have been working alongside Belshaw, PRC Architects, EPCA, Lloyd Bore, Savills, Goodrich Consulting, Patrick Parsons on the design team.

## PROJECT: Plot C2 New Bailey, Salford Central



Client: The English Cities Fund > Project Duration: Nov 2021 – ongoing
Architect: Hawkins Brown Architects



Plot C2 New Bailey will be a 23-storey residential tower providing 196 apartments for build-to-rent, within the wider New Bailey development.

The building is currently under construction by Morgan Sindall and is the second phase of the Zone C development, sitting adjacent to Plot C1 Novella, which will be connected by the existing six-storey podium.

The Hannan residential team are providing MEP Performance and monitoring duties, comprising of:

- Early-stage technical review and development of plant space options & requirements
- Utilities coordination based on proposal to connect to existing infrastructure installed under the Phase 1 (C1 Novella) works.
- o Building Regulations Part L Design Stage Compliance Assessments
- Limiting Overheating Analysis
- o Ongoing site inspections & reporting during the construction period

Other members of the team include: Hawkins Brown Architects, Buro Four, Walker Sime, Renaissance, Design Fire Consultants, Project Four and HED Landscape Architects.

The New Bailey development sits on the River Irwell in Salford, and forms part of the English Cities Fund's £1bn regeneration of Salford Central.

The English Cities Fund is a joint venture between Muse, Legal & General and Homes England, in conjunction with Salford City Council.

### PROJECT: Chatterley Valley

- > **Client:** Harworth Group
- > Architect: AEW Architects

> **Project Duration:** 2022 – ongoing

#### PROJECT: Wingates

> Project Duration: 2021 – ongoing

> Client: Harworth Group



Our client, Harworth Group, have secured outline planning consent to deliver 1.2 million sq ft of industrial and logistics space at their Chatterley Valley site in Staffordshire. Currently working on the design of a 76,000 sq ft office, production and distribution building, known as unit D1.

Hannan Associates are providing:

- o Building services
- Utilities infrastructure
- o BREEAM assessor duties

We are pleased to be working alongside AEW Architects, WSP, BE Design, RPS, JPW Consulting and FCPR.

Chatterley Valley is located in the heart of the Ceramic Valley Enterprise Zone and will meet growing industrial and logistics occupier demand in Staffordshire, support around 1,700 new jobs and investment in the area. Our client, Harworth Group, has secured planning for the development of up to 1.1 million sq ft logistics and manufacturing space at their Wingates site in Bolton, which could potentially create 1,500 new jobs.

Hannan Associates are providing:

- Building services
- Utilities infrastructure
- o Sustainabilty consultancy services for the proposed scheme

We are pleased to be working alongside Johnson Mowat, Fisher German, Mosodi, RSK, Hydrock, RPS Group, TEP, Walker Sime , JPW Consulting and BE Design.

Alongside the commercial space, the proposed Wingates development will deliver significant upgrades to highway, drainage and utilities infrastructure, including a new access road. It will also provide boundary landscaping and an ecological enhancement area, as part of Harworth's ongoing commitment to promoting green spaces and protecting local biodiversity.

#### PROJECT: Greenhaus, Salford

> Client: The English Cities Fund

> Project Duration: 2020 - 2024

> Architect: Buttress Architects



Completed in March 2024, Greenhaus is the first and largest Passivhaus certified, affordable development in the North West.

The highly sustainable residential development on Chapel Street, Salford includes 96 eco-friendly, affordable apartments designed and built to Passivhaus 'Classic' standard.

Greenhaus is one of the latest regeneration chapters in the Chapel Street area of Salford Central led by The English Cities Fund. This scheme has been developed alongside Salix Homes who are the housing association partner for the scheme.

#### **Building Services Engineering Strategy**

Hannan Associates provided the role of Building Services Engineering Consultant on the design team, working in collaboration with the Passivhaus Designer to develop the most effective design Strategy. Our duties included:

- Technical review and development of MEP strategy options and plant space requirements to achieve Passivhaus Certification
- o Provide MEP design input into the PHPP assessment
- Building Regulations Part L Design Stage Compliance Assessments
- o Limiting Overheating Analysis
- $\circ$   $\,$  Ongoing site inspections & reporting during the construction period

The Passivhaus certification was achieved by prioritising passive measures such as enhanced building fabric, triple glazing, and significantly improved air tightness. This was complemented by an all-electric strategy incorporating heat pump technology used to generate domestic hot water and employing high efficiency MVHR units for residential ventilation.

Other members of the team included: Buttress Architects; Appleyard & Trew; Alan Johnston Partnership; Max Fordham; Design Fire Consultants; Planit IE; main contractor Eric Wright Construction and MEP Contractor Ameon Building Services.

#### **English Cities Fund and Salford Central**

Greenhaus is part of ECF's wider £1bn regeneration scheme transforming the area of Salford Central. The masterplan contains commercial, retail and residential buildings creating a new and vibrant destination for people to live, work and relax.

The English Cities Fund is a joint venture between Muse, Legal & General and Homes England, in conjunction with Salford City Council.

### PROJECT: DWP Hub, Talbot Gateway Blackpool

> Client: Muse

> Architect: Make Architects

> Project Duration: 2020 – 2025



The recently completed 215,000 sq ft, £100m office development forms part of the third phase of the Talbot Gateway regeneration scheme in Blackpool, led by Muse.

The seven storey office building is now home to over 3000 staff from the Department of Work and Pensions.

Hannan Associate's duties have included:

- o Energy & Sustainability Statement
- o Net Zero Carbon in Operation Assessment incl. Operational Energy Modelling
- BREEAM Assessor duties
- o Building Services Engineering Consultancy

The building has been designed to be ultra-low energy. Low-carbon heating and cooling to the office have been provided via air source heat pumps. Demanddriven ventilation has also been provided, helping improve indoor air quality while saving energy during periods of reduced occupancy.

The building has been designed to achieve a BREEAM 'Excellent' rating. We worked alongside Make Architects, RPS, Chroma, Arup on Muse's design team.

The Talbot Gateway regeneration is transforming Blackpool town centre and will comprise of a new business district and civic quarter, grade A offices, retail space, event space and a new public transport interchange.

### PROJECT: Ralli Quays, Salford



> Client: Legal & General> Architect: EPR Architects

> Project Duration: 2018 – Ongoing



Hannan Associates are part of Legal & General Investment Management's team for the design of the Ralli Quays office and hotel scheme on the River Irwell in Salford.

The client is targeting net zero carbon via a combination of the UKGBC 2030 targets and carbon offset for both construction and operation, including a high NABERS Star Energy Rating.

The building is also targeting BREEAM excellent and EPC A.

Our role on the project includes:

- Sustainability Services
- o BREEAM Assessment
- o Building Services Engineering Design

Ralli Quays was one of only fourteen developments in the UK that pioneered the Better Buildings Partnership Design for Performance initiative. The key objective of the Pilot Programme was to provide a strong evidence base for proceeding to a fully-fledged DfP Scheme.

As part of our package we are utilising complex thermal modelling software to accurately simulate HVAC plant and control networks for each building in order to ascertain the predicted in use operational energy consumptions for a variety of on-axis and off-axis scenarios. This is vital in providing a building-integrated approach where the HVAC systems and building are assessed as a whole all gains/losses, heat transfer and thermal mass in the building to be accounted for alongside system performance.

This allows us to address the performance gap that has been created by the out of date methodology to design buildings for compliance, as we can accurately assess the results of simulations and check against the latest Energy Performance Targets based on the Australian NABERS approach.

We are very pleased to join EPR Architects, DPP One, Turner & Townsend, Walker Sime, Clancy Consulting and Colliers on the project design team.





> Client: Muse Places

> Project Duration: 2021 – 2024

> Architect: Ryder Architecture



Phase four works at Stockport Exchange included the design and construction of '3 Stockport Exchange', 64,000 sq ft Grade A office space across six floors. The building has been designed to achieve a BREEAM 'Excellent' rating and an EPC A rating. The building incorporates low energy features such as LED lighting, high efficiency VRF heating & cooling and heat recovery ventilation. Tenant facilities include cycle racks, showers, lockers and a communal roof terrace.

Hannan Associates duties on the project included:

- o Building Services Engineering
- o BREEAM assessor
- o Site Utilities Infrastructure
- Passive Design Analysis
- o Energy and Sustainability Report
- o Part L2A Compliance Report
- Operational Energy Modelling

This phase of development also included the construction of a 399-space multistorey car park with a green wall façade and EV charging points.

We are proud to have been a part of Muse's team for this development over the last 13 years and to have witnessed firsthand the transformation of the former Grand Central precent to a high-quality commercial quarter with attractive public realm, hotel, retail, improved car parking and better connectivity between the station and the town centre.

Muse Places are Stockport Council's development partner for Stockport Exchange, which forms part of the council's wider £1bn town centre regeneration plan for Stockport.

Other members of the project team include Ryder Architecture, RPS Group, Gillespies, Buro Four, Curtins Consulting and main contractor Galliford Try.





- > Client: The Co-operative Group
- > Architect: 3D Reid

- > Project Value: £100M
- **> Project Duration:** 2010 2012



The Hannan team designed the MEP Services for the 320,000 sq ft Co-operative Group Headquarters building, as part of the Spectrum MEP Consortium team.

Opened by the Queen on 14th November 2013, this innovative office building at One Angel Square, Manchester was at the time officially the world's greenest office building with a BREEAM score of 95.16% - 'Outstanding.'

The design of the building was driven by the Co-operative Group's desire to create a Carbon Negative building. The sixteen storey office building was designed to achieve a BREEAM Outstanding rating, as well as an EPC 'A' rated near zero carbon building, with cutting edge integrated design.

Hannan Associates led the team to develop and design in detail, the cutting edge building services on this landmark award winning low carbon office scheme, with Buro Happold providing structural design.

The services design included 3D modelling, together with building modelling and dynamic simulation to calculate and assess the buildings energy consumption and potential EPC and DEC ratings.

The full glazed scheme was designed to include a number of low energy and low carbon features resulting in a near zero carbon predicted operation with an A+ rated EPC of - (minus) 58.

The building incorporates passive chilled beams which were designed to maximize the effect of the low carbon technologies including pure plant oil CHP, active façade, earth ducts, absorption chiller, cooling towers and air to water and water to air heat recovery. The unusual building design comprising an exposed structure and precast units required a high degree of coordination with the services to integrate the exposed combined services chilled beam rafts with the curved pre cast units.

The high level of coordination and teamwork involved integration of fixings into the pre cast units to support the services. In addition, all services on each floor were required to pass though the pre cast units and structural steel. Close coordination was achieved by sharing 3D models to develop the integrated solution. Early information required to coordinate holes in the three slip formed riser cores was achieved by intensive coordination workshops where a close working relationship succeeded in maintaining the required design programme.

The project won numerous honours including both Design & Innovation, and Overall Project of the Year at the 2013 RICS Awards, BCO 2013 Corporate workplace of the year, Property Week 2012 Sustainability Achievement Award, and a 2013 BREEAM Award.



## Contact us

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# Hannan Associates MEP Design Solutions

Building Services | Sustainability | Building Performance | Utilities Infrastructure

