

Net Zero Sustainability Services

We approach sustainability holistically, drawing on the skills and expertise of our engineers and consultants to develop bespoke solutions to tackle the climate emergency.

Harnessing our collective passion and skills to achieve a common goal

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02 We are committed

Waterman is committed to delivering a Net Zero built environment. Under our commitment to climate action and leading the transition to a Net Zero economy, We have pledged to reduce our carbon emissions and reach Net Zero in line with the requirements for keeping global temperature rise under 1.5°C. We are proud signatories of the Structural Engineers Declare, Building Services Engineers Declare and Civil Engineers Declare. These global petitions unite all strands of the engineering profession as both a public declaration of our planet's environmental crisis and a commitment to take positive action in response to climate breakdown and biodiversity collapse.

We work together to futureproof your assets and help secure a brighter future for our planet.



We guide you on your route to Net Zero

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As your sustainability partner we will support you throughout your journey towards net zero with our expertise, innovation and multidisciplinary approach.

Sustainability cannot be an isolated service; it requires collaboration between professionals from all aspects of the built environment through the various life cycle stages of the development. We understand the complexities of these interwoven links, which allows us to unlock your project's real potential. Having in-house knowledge of all key engineering disciplines, we are able to enhance and influence the sustainability solutions through optimised engineering design.

Your expert team

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Mark Terndrup
Managing Director



Ankit Singh
Director
Sustainability



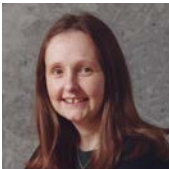
Ruth Marsh
Head of Sustainability -
London



Emily Wingrove
Head of Sustainability -
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Head of Sustainability -
North



Sophie Murray
Head of Sustainability -
South West & Defence



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Senior Carbon
Consultant



Dave Allen
Technical Director for Due
Diligence, Responsible
Investment and Climate
Resilience



Shaun Carpenter
Senior Consultant

Core services

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BREEAM Assessor and accredited professional

BREEAM Technical Reports

Sustainability frameworks and implementation support

Circular economy statements and implementation support

NABERS

Overheating analysis

Material Passporting

Whole life carbon assessments and implementation support

WELL guidance & support

Energy Statements and strategies

Climate Resilience advice

Sustainability statements

UKGBC Compliant Net Zero Strategies and Report

Ethical supply chain and Environmental Product Declaration advice

Overarching Sustainability Services

We are dedicated to unlocking the sustainability potential of each project.

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Our team of consultants is highly experienced in providing sustainability support to clients. Our cross-sector expertise spans all scales of project, from major master planning to individual buildings. We offer overarching Sustainability Services that focus on the following core themes of energy, circular economy, wellbeing, heritage, ethical supply chains, low carbon transport, natural capital and water resources.

Our sustainability experts fully embed themselves within the design team, providing clear guidance from the outset, covering all stages from feasibility through to detailed design, during construction and on into the operational phases.

We develop sustainability strategies and frameworks for projects during the feasibility stages. We help our clients to set performance targets and requirements for the core themes, and ensure that these aspects are fully considered, integrated and monitored through to project completion.



With the increasing demand for more sustainable buildings, we understand the need to communicate a building's environmental performance through recognised assessments and frameworks such as BREEAM, WELL and NABERS. Our team of qualified assessors work collaboratively with design teams to help ensure a smooth pathway towards certification.

Energy



Circular economy



Well-being



Heritage



Ethical supply chain



low carbon transport



Natural capital



Water resources



Our in-house team of consultants support projects and clients across a range of sustainability specialisms, helping maximise each development's sustainability credentials.

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Net Zero Services

Delivering design solutions that respond to the climate emergency.

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We are committed to the design and delivery of Net Zero Buildings. Net Zero buildings bring benefits that go beyond simply responding to climate change; they deliver lower energy costs, improved energy security and enhanced user health and wellbeing.

We approach Net Zero holistically, focusing on four key areas: carbon performance, energy performance, circular economy performance and waste management. We link our Net Zero approach with overarching sustainability assessments and Green Building Certificates.

Our expertise helps you define your route to Net Zero, developing a robust design brief with a clear overview on the requirements, responsibilities and targets for each discipline and for all the identified Net Zero metrics. We formulate cohesive strategies to achieve Net Zero designs in accordance with a project's aspirations and unique requirements. We provide

Creating innovative, low carbon design solutions that are underpinned by whole-life carbon and circular economy principles to deliver truly sustainable developments.

services throughout the whole life cycle of the building, delivering all the required studies and advice across all aspects of a development.

Our in-house team of sustainability specialists comprises experts in the fields of Whole Life Carbon and Circular Economy. We are experienced in guiding and supporting design teams from project inception right through to project completion, minimising the overall environmental impact of the development over its entire lifetime and maximising material value within the building.

Our multidisciplinary, collaborative approach means we ensure carbon and circularity are considered alongside architectural, MEP, structural and operational design parameters throughout the design process, helping to achieve optimal outcomes.

Carbon reduction at the heart of our designs

Whole-Life Carbon and Circular economy experts

Experts in embodied carbon assessment

Cross discipline carbon advisory capability

NABERS and Energy Analysis

Well and BREEAM advisory service

Climate Resilience and future proofing advice

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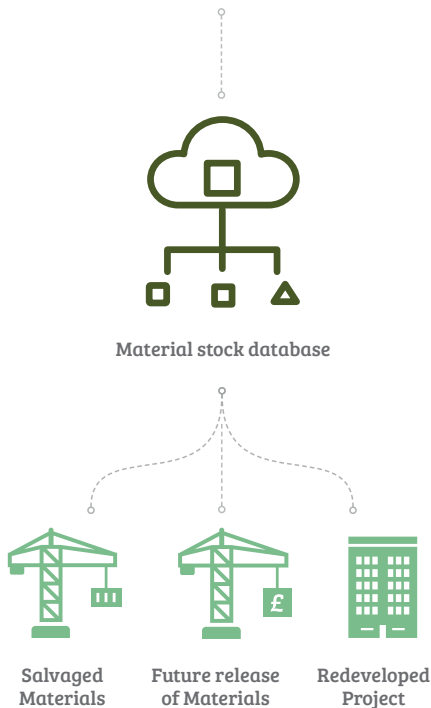
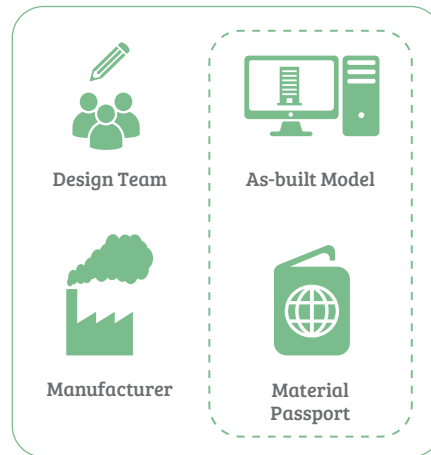
Material Passporting

We are pioneering the implementation of Material Passports in the UK built environment.

Material Passports are an innovative solution that unlocks materials' reuse potential. These are electronic and interoperable data sets designed to record and maintain information about the materials' performance and properties. This includes information about geometry of the elements, architectural, structural, and physical properties, their location in the building, physical stamps, hazardous constituents and circularity attributes.

We have developed an efficient methodology that allows the creation of Materials Passports based on the as-built BIM models. Additionally, we have provided technical advice on the development of an innovative online platform that allows the creation, viewing and maintenance of Materials Passports at building, development and city level.

We can help you to create and maintain Materials Passports for either existing or new buildings. The Materials Passports will be saved in a database for the building and will be linked with Operation and Maintenance and FM systems.



To design New Buildings

Overview of available resources



Material stock database

Design based on the available resources



Design team

Understanding existing buildings and their material stock



Physical tag on the material



Scan physical tag



Material stock database

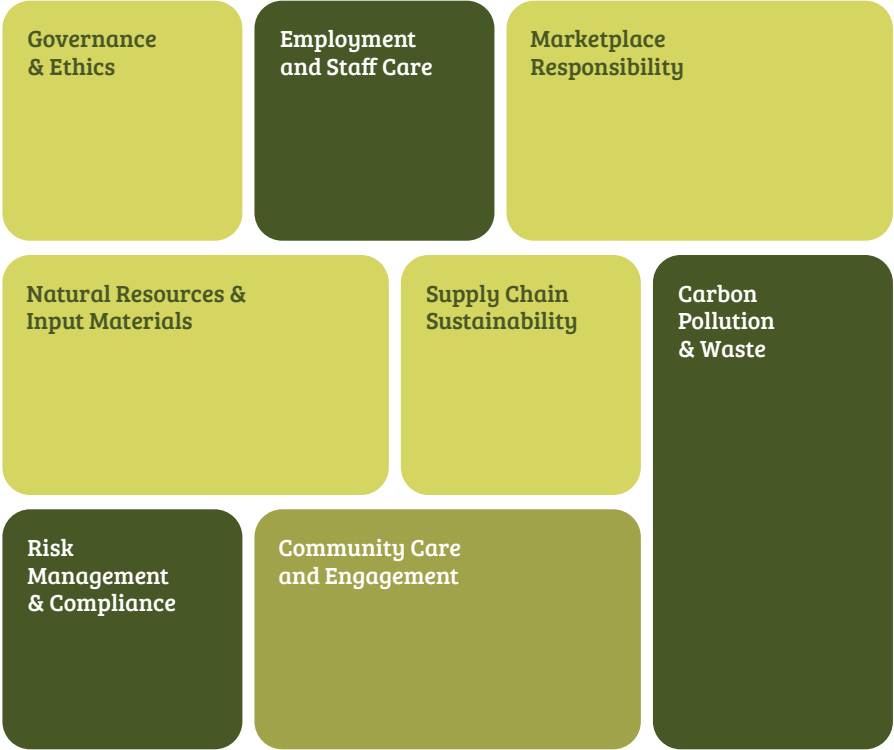
Environmental, Social and Governance (ESG) Consultancy

We help organisations build a strong approach to sustainability.

12 We support you in making sound business decisions and identifying effective and pragmatic ongoing actions to help position their businesses appropriately. This can be either explicit in the market-facing sustainability positioning of the business or, more often, implicit in operations to manage risk and protect reputation.

As part of our ESG advisory service, we carry out a full sustainability review of the business which draws out key ESG issues which are most important to your business, customers and other stakeholders.

Our reviews cover a wide range of topics including corporate decision-making, policies and processes, staff welfare and supply chain management, customer and service management. We work in partnership with our clients to identify and target areas for potential performance improvement in either incremental gain or, on occasions, in a step-change manner.



Our expertise and experience spans the implementation of whole life carbon, circular economy and energy analysis. We are perfectly positioned to help project teams deliver Net-Zero buildings, driving positive change and delivering truly sustainable developments as part of the design, construction and operation phases.



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We are rethinking the way we build. We are committed to the design and delivery of Net Zero Buildings.

Our Sustainability Goals

Public commitment to leading effective action on climate change – We have signed a commitment with the Science Based Targets Initiative (SBTi) to reduce our carbon emissions and reach Net Zero.

Reducing embodied and operational carbon through innovation, intelligent engineering, design and specification.

Targeting net zero carbon in construction and operation.

Integration of circular economy principles by designing-out waste and pollution, keeping products and materials in use and regenerating natural systems.

Flexible, adaptable and durable buildings designed for longevity and to service future needs and technology.

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Our sustainability experts are delivering exemplary projects across the UK and Ireland.

Edenica

Our latest scheme sees our team providing sustainability, energy, ecology, structures, building services and WELL assessment support for BauMont Real Estate and YardNine's stunning 94,000 sq ft commercial office development, Edenica. Situated in the heart of London's Holborn, this exceptional project will set a significant sustainability precedent for UK commercial buildings, harnessing the latest design techniques to optimise operational energy efficiency and slash embodied carbon, whilst also offering a best-in-class user experience.

Target Accreditations



'Platinum Enabled'

BREEAM®

'Outstanding'



EPC A-Rating



SmartScore
PLATINUM

SmartScore enabled
'Platinum'



WiredScore
PLATINUM

WiredScore
'Platinum'



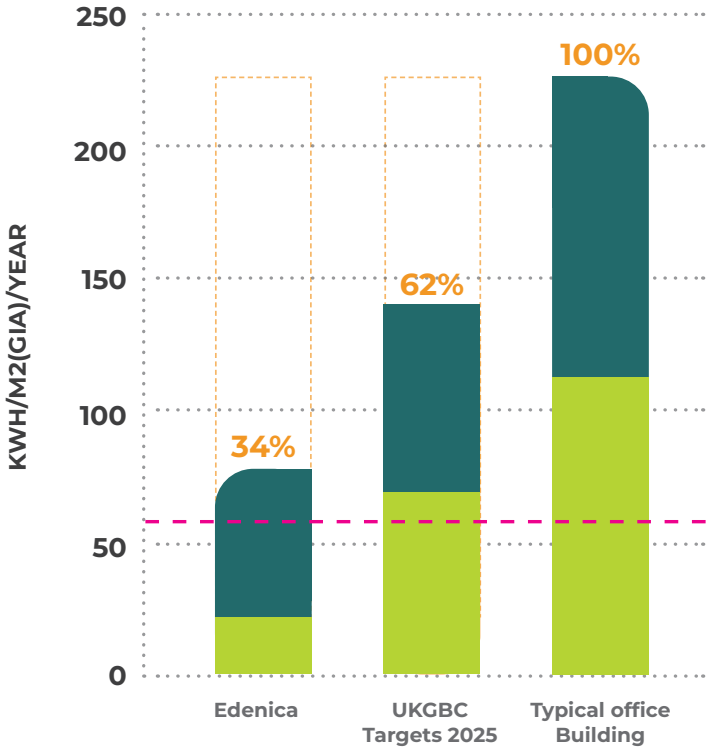
Workspace



Pathway to Net Zero

Energy Performance

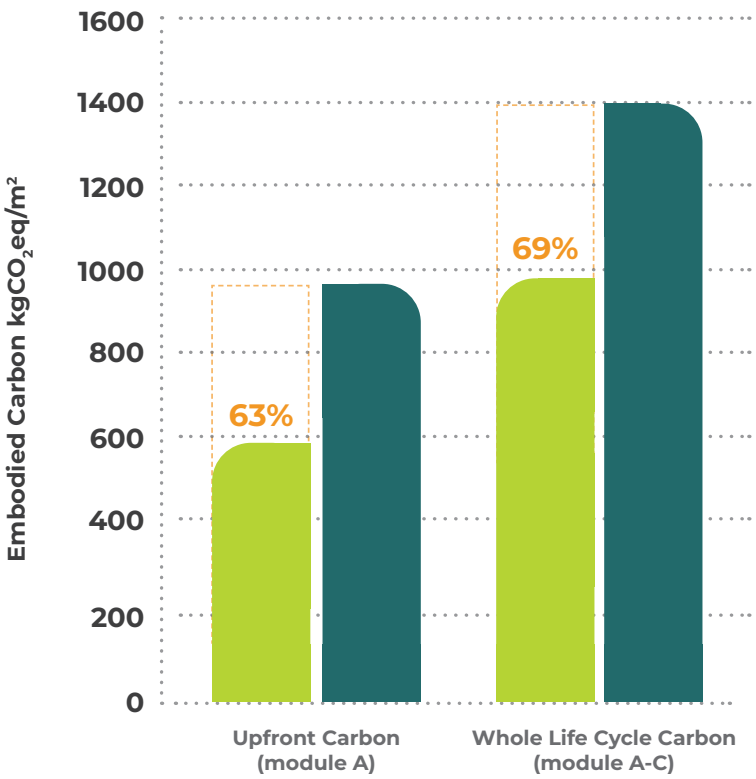
Base Build Tenant



LETI Net Zero Target Operational Energy:
55 kWh/m²/yr (GIA)

Embodied Carbon

Edenica Typical Office Building



Building Summary

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1. Mixed mode ventilation

Use of natural ventilation in combination with underfloor air distribution system.

2. Blue roof & water recycling

Rainwater capture through the blue roof and greywater.

3. Roof terraces

7,652 sq ft of above ground floor terraces.

4. Solar shading

Reduced solar gains through high performance glazing and solar fins.

5. 100% electric building

Air source heat pumps for heating, cooling and hot water generation.

6. Underfloor heating

Underfloor heating within shower and changing areas.

7. Communal green space

Immediate access to 5,600 sq ft at ground floor (Edenica Gardens and St Dunstan's Gardens).

8. Best in class cycle facilities

Located on ground and mezzanine levels and visible from street level.

9. Photovoltaics

Discreet PV Arrays provided on plant screen.

10. Flexible floorspace

Arrangement of steel beams and high floor to ceiling heights allowing for highly adaptable space.

11. Underfloor air system

Provides heating and cooling whilst delivering enhanced 3.4m ceiling heights.

12. Passive cooling strategy

Exposed concrete soffits reducing reliance on air conditioning.

13. Low carbon construction

Off-site production using recycled, low carbon material.

14. Converged network

Networked Backbone within the building to connect all building systems. SMART building expansion.

Low Carbon Construction

Use of prefabricated elements to reduce embodied carbon

Embodied carbon target aligned with LETI benchmarks

Meeting the UKGBC requirements for Net Zero in Construction

Protecting the Planet

100% electric building

Expected operational energy consumption lower than UKGBC 2030 target

Rain water capture through blue roof and smart tank attenuation combined with grey water harvesting to significantly reduce water consumption.

Best in class cycle facilities

Designed to be Net Zero in Operation

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Intelligent Design

'Mixed Mode' optimising natural ventilation use to reduce reliance on air conditioning

'Night Purge' strategy cools concrete soffits to absorb heat during the day – reducing peak cooling loads

Underfloor heating and cooling solution to reduce whole-life carbon

'Fabric First' strategy to reduce energy use with high performance glazing and solar shading fins to control solar gain

Minimum 3.4m floor to ceiling heights allowing for optimal volume, improving Wellness

Circular Economy

Material Passporting

Edenica is a pioneering scheme which is the first project in the City of London to use the building as a material bank, enabling future re-use of materials.



Buildings
with new and
reused materials



Materials
with
physical stamps



All material data
stored in a digital
material 'bank'



Material can be
dismantled or
recovered for future
developments

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Recycled Material

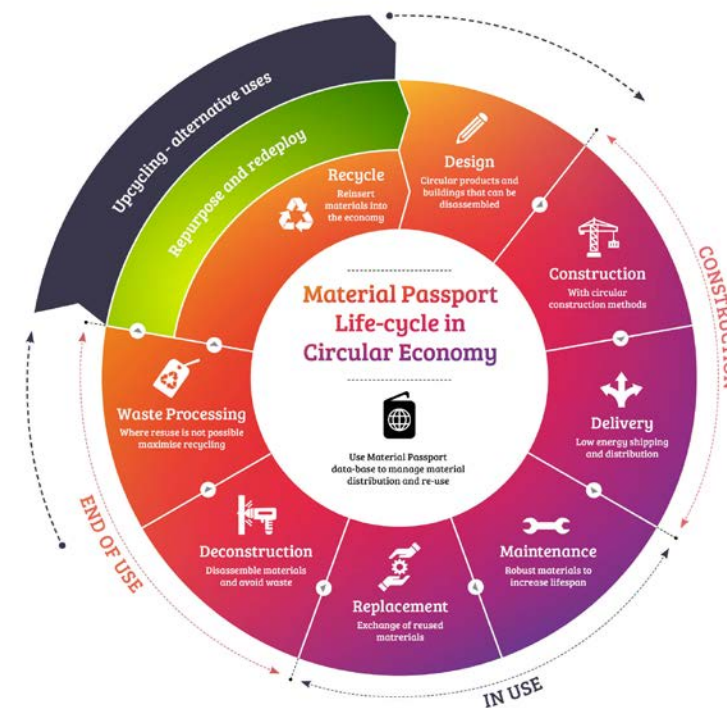
High recycled content of structural steel saving more than 238 tonnes CO₂. That's the equivalent of driving 600,000 miles in an average passenger vehicle.

Structural Intelligence

High percentage of cement replacement in the structure.

Lean Design Principles

Use of an underfloor air system to reduce the need for a significant amount of ductwork, allowing for clear ceilings. Wholelife carbon saving through minimising components that need to be maintained, repaired and altered in fit outs.



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Design based on available resources
using Material Passports



Implement Material Passports
on new construction elements



Accurately update Materials Passports
to reflect changes and adaptation



Use material Passports in 'materials
exchange' market place to enable
their re-use





Record end-of-life data in
Materials Passports



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