

FUTURE COMMUNITIES

DELIVERING ENERGY AND SUSTAINABILITY STRATEGIES

SO, WHAT DOES A COMMUNITY LOOK LIKE WHEN BUILDING OUT 10 TO 20 YEARS FROM NOW?



Image credit: Feilden Clegg Bradley Studios



Image credit: Clifton Emery Design

HOW CAN IT BE ZERO-CARBON?
HOW CAN IT BE ENERGY POSITIVE?
HOW CAN IT HAVE PEOPLE'S WELLBEING
AT IT'S HEART?
HOW CAN IT BE CLIMATE RESILIENT?

TACKLING THE BIG ISSUES

At Hydrock, we pride ourselves on creating places, communities and buildings that everyone can be proud of.

As specialists in energy, sustainability and engineering design, we help our clients develop sustainable, energy efficient, and future-proofed property and infrastructure assets that meet net-zero goals and reflect the increasing focus on ESG by the investor community.

OUR SMART ENERGY & SUSTAINABILITY TEAM

From strategic land promotion, to real estate portfolios, to boardroom strategy, our specialist team is putting energy and sustainability strategies centre-stage. Our team can advise you on:

- Creating an holistic strategy to achieve your net zero target and wider sustainability goals
- Whole-life cycle carbon strategies and assessments
- Renewable energy and storage including battery storage
- Energy efficiency and carbon management strategies
- Utilities infrastructure design and management

It's our job to help you navigate the complex, evolving energy landscape. We will give you clear, pragmatic and commercially sound advice to help you achieve your goals – from decarbonisation to resilience, to cost savings to revenue generation.

HYDROCK – AT A GLANCE

- Multi-disciplinary design consultancy
- 500 staff UK-wide
- Key locations include: London, Manchester, Birmingham, Bristol, Cardiff, Glasgow, Wetherby and Southampton
- Member of the UK Green Building Council
- Six consecutive listings in the Sunday Times 100 Best Companies to Work For
- Committed to operate as a net zero business by 2030
- Signed up to the Science Based Targets Initiative (SBTi)

Award-winning projects



Photo credit: AHR



Photo credit: Global Shots

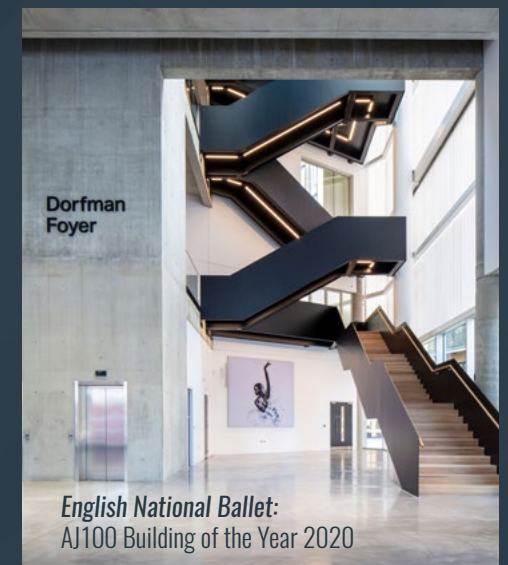


Photo credit: Tom Green Photography

SHAPING FUTURE COMMUNITIES

Our Smart Energy and Sustainability team is at the forefront of science-based targets and guidance and will help you to shape a sustainable development and respond to the climate change emergency at a strategic level.

We offer clear, pragmatic and commercially sound energy and sustainability advice to masterplanning and site promotion activities. We will ensure that your development proposals are aligned to the ever-evolving regulatory and planning framework and demonstrate decarbonisation, climate resilience and social cohesion. We'll help you answer the big questions.

HOW CAN YOU CREATE
**NEIGHBOURHOOD
COMMUNITIES** AND ENHANCE
THE **PUBLIC REALM**?

WHAT INFRASTRUCTURE
DO YOU NEED FOR YOUR
EV CHARGING STRATEGY?

WHAT ARE THE **ENERGY
NETWORK CAPACITY**
THRESHOLDS?

WHAT **ALTERNATIVE** SOURCES
OF **HEAT, POWER AND WATER**
CAN BE CONSIDERED?

WHAT INFRASTRUCTURE
IS REQUIRED TO PROMOTE
SUSTAINABLE MODES OF
TRANSPORT?

WHAT OPPORTUNITIES ARE
THERE FOR **BEHIND-THE-
METER** ENERGY GENERATION?

COULD YOU INVEST IN AND
GENERATE INCOME FROM
ENERGY STORAGE?

WHAT **ADAPTATION
STRATEGIES** DO YOU NEED?

WILL THE SITE LINK TO AN
EXISTING **DISTRICT HEATING
NETWORK**?

WHAT'S THE OUTCOME OF
ADOPTING **PASSIVHAUS**
PRINCIPLES?

HOW CAN YOU **PRIORITISE
PEDESTRIANS**?

HOW CAN THE BUILDINGS
MAXIMISE **SMART
TECHNOLOGIES** THAT ARE
EASY TO USE AND MINIMISE
ENERGY USE?

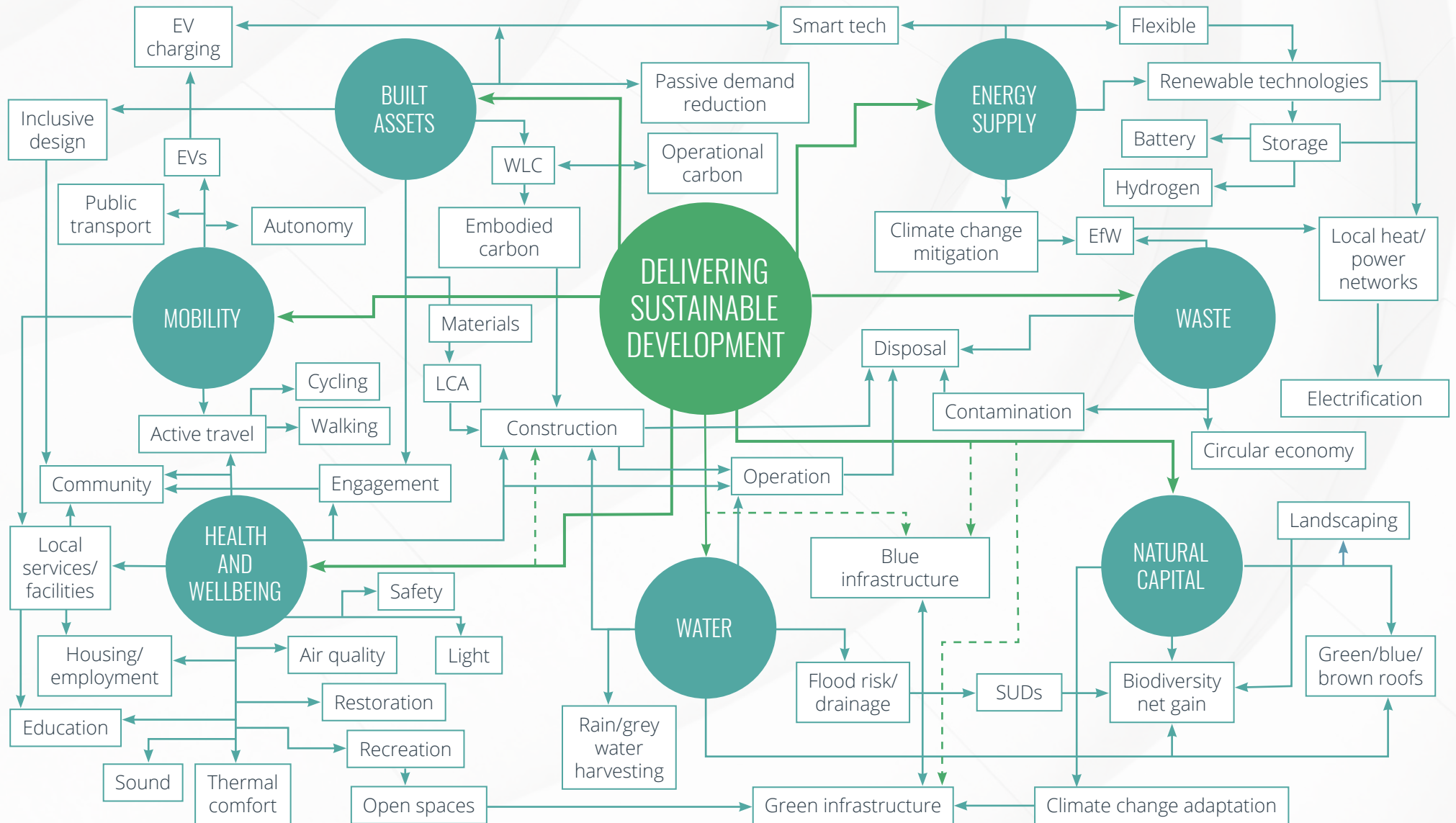
WHAT IS YOUR **WASTE
MANAGEMENT** STRATEGY?

CAN OFFSITE MANUFACTURING
REDUCE MATERIAL WASTE
AND IMPROVE YOUR
SUSTAINABILITY CREDENTIALS

HOW CAN YOUR **MATERIAL
SPECIFICATIONS** PRIORITISE
RECYCLED CONTENT TO
REDUCE EMBODIED CARBON?

HOW CAN YOUR DEVELOPMENT
BE MADE **CLIMATE RESILIENT**?

A JOINED-UP APPROACH



WHO WE WORK WITH

We're helping our clients to create sustainable communities with a focus on the health and wellbeing of the people who live and work in these environments.

We typically work with:

- Strategic masterplan developers
- Local authorities
- Planning consultants
- Architects
- Project managers and quantity surveyors

THE IMPORTANCE OF ESG FACTORS

It's exciting to witness the increasing attention placed by investors on environmental, social and governance (ESG) factors within their investment portfolios.

Rest assured, we understand this and will be at your side to help you identify, cost and articulate the energy, sustainability and community benefits that your future developments can bring, securing the funding you need for your plans.



Image credit: Clifton Emery Design

OUR TRACK RECORD

PROPOSED GARDEN COMMUNITIES

In **East Anglia**, we are supporting the development of a new, carbon-neutral, energy positive garden town which will deliver 9,000 homes and associated educational, leisure, employment and retail uses.

With extensive utility reinforcements required, our role is in assessing alternative sources of heat, power and water supply, the feasibility studies to deploy low-to-zero technologies and the opportunities for capacity trading and therefore income generation through energy storage. We are also delivering a roadmap to net-zero for the site from the construction programme to operation and use.

In **Hampshire**, we are also supporting the development of a new landscape led garden community. Surrounded by an Area of Outstanding Natural Beauty, the scheme will provide a range of mixed use and leisure facilities underpinned by the highest level of sustainability standards including being energy positive and net zero in operation.

CORNWALL COUNCIL HOUSING DEVELOPMENT PROGRAMME

Our energy and sustainability delivery are part of our overall engineering delivery on a £200m investment programme by the Council to build 1,000 new homes for private rent and affordable housing over five years.

We are helping the Council to establish zero carbon principles and an energy strategy for the new housing developments. In addition to undertaking renewable and low carbon technology options appraisals and utility capacity assessments, our team has advised on strategies to reduce core operating costs and generate revenue.

Hydrock is assisting the Council to seek grant funding and the eventual development of a delivery model, through establishing a new ESCo model, that could be deployed across its building portfolio, enabling the Council's ultimate aim of developing an in-house energy service company that can self-fund.



Image credit: Feilden Clegg Bradley Studios

OUR TRACK RECORD

ENERGY POSITIVE GARDEN VILLAGE MASTERPLAN, EAST MIDLANDS

We are helping deliver proposals for a new 5,000 home development which aims to exceed the sustainable design standards in the TPCA Garden Village principles.

With significant constraints around power provision, we are advising on on-site renewable energy generation and storage microgrid as a means to reduce infrastructure costs. As climate change coordinator for the scheme, we are advising on how to meet a number of key sustainability criteria including net zero emissions and sustainable transport, linking the energy strategy with EV transport hubs to provide access to adjacent local employment sites.

HOMES ENGLAND

As part of Hydrock's multi-disciplinary consultancy team, supporting Avison Young on behalf of Homes England, we are advising on the masterplan for sites such as the 200ha redevelopment of RAF Henlow in Bedfordshire.

Our strategic advice is assisting Avison Young in promoting the base for allocation for development in the emerging Central Bedfordshire Local Plan.

Additionally, we are also supporting the development of a Supplementary Planning Document (SPD) for Cheltenham Cyber Park (Golden Valley). We are delivering masterplanning support for this strategic exemplar development that embraces the highest standards of environmental sustainability. The scheme will help demonstrate to all those in the development industry the far reaching and long-term benefits of planning positively for more sustainable living.



OUR COMPLETE ENERGY AND SUSTAINABILITY OFFERING

A SUMMARY

FUTURE COMMUNITIES

- Site-wide energy and sustainability strategy, and masterplanning/ visioning
- Microclimate, daylight and sunlight, amenity and impact assessment
- Design for health and wellbeing
- Methodologies and frameworks, e.g. BREEAM, WELL, LETI
- Low or zero carbon technology feasibility studies
- On/off site energy generation and storage viability
- Climate mitigation and adaptation strategies
- Social value benefits



Net-zero strategy

- Decarbonisation strategies and corporate GHG reporting
- Toolkit development for reporting
- Life cycle assessment and life cycle costing
- Energy grants, funding and innovation advice
- Estate management and carbon offsetting
- SECR, PAS 2060, SBTi and others

Utility management and infrastructure

- Renewable energy technologies and energy storage
- Energy capacity and resilience modelling and strategies
- Futureproofing capacity
- EV charging demand studies and modelling
- Demand side response and load shifting
- Due diligence, diversions and infrastructure design

Renewables and battery storage

- Site feasibility
- Transactional due diligence
- Financial modelling and assembly
- Planning and technical design
- Delivery and risk management
- Asset management, operation and maintenance

OUR COMPLETE MULTI-DISCIPLINARY DELIVERY

Across Hydrock, our teams work with clients from feasibility, through planning to detailed design and on to construction and handover, and can deliver the following services:

MECHANICAL & ELECTRICAL ENGINEERING DESIGN

Influencing the performance of a building from the earliest conceptual stage, we focus on services that are simple, easy to use, create value and deliver comfort and wellbeing.

Our work includes renewable technologies, lighting design, utilities infrastructure, M&E procurement and building optimisation studies.

CIVIL AND STRUCTURAL ENGINEERING DESIGN

Designing efficient, sustainable, resilient and high-functioning structures. Our work includes foundation and sub-structure design, basement and retaining wall design, modular and off-site design, and steel, timber, masonry and concrete building design.

Our civils works include access roads, car parks, on-and-off site highways, drainage systems, site levels and cut/fill analysis, and flood risk assessments and mitigation strategies.

GEO-ENVIRONMENTAL AND GEOTECHNICAL DESIGN

Our site investigations and assessments help to understand ground and ground water conditions, and our geotechnical designs enable sites to realise their true value.

Our work includes Phase I desk studies, site investigations, remediation strategies, materials management plans, asbestos in soils consultancy, earthworks specification and regulatory approvals.

TRANSPORT PLANNING

Analysing the strategic impact of proposed development and infrastructure we deliver transport assessments, transport statements, travel plans, access and junction design, traffic modelling, road safety audits, Section 106 and 278 agreements and public consultations.

FIRE SAFETY

We deliver the optimal fire safety solutions during preconstruction and on completed and existing buildings. We specialise in fire safety strategies, fire engineering design, multi-site fire risk assessments and external wall fire review process.

SUSTAINABILITY AND ENERGY SERVICES

We help clients at planning stage with their energy and sustainability commitments and we help clients navigate the energy landscape by selecting the right mix of technology for their development, with a focus on decarbonisation, capacity, resilience, cost savings and revenue generation.

Key services include environmental assessments such as BREEAM and WELL, sunlight and daylight modelling, passive and zero/low energy design, sustainability and energy statements, and a full remit of 'smart energy' solutions.

ACOUSTICS AND AIR QUALITY

We can deliver a 'soundscape' design appropriate to the masterplan vision and will support planning submissions with air quality audits and a range of environmental noise/vibration surveys and assessments.

Our acoustics capability extends into construction and demolition noise and vibration studies, transport noise studies, architectural acoustics, room acoustics and vibration isolation.



Engineers.
Designers.
Consultants.

LET'S TALK

To discuss your ideas and our capabilities further,
please contact:



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Our Smart Energy & Sustainability team helps you focus on:

REVENUE

DECARBONISATION

RESILIENCE

COST SAVINGS

CAPACITY



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