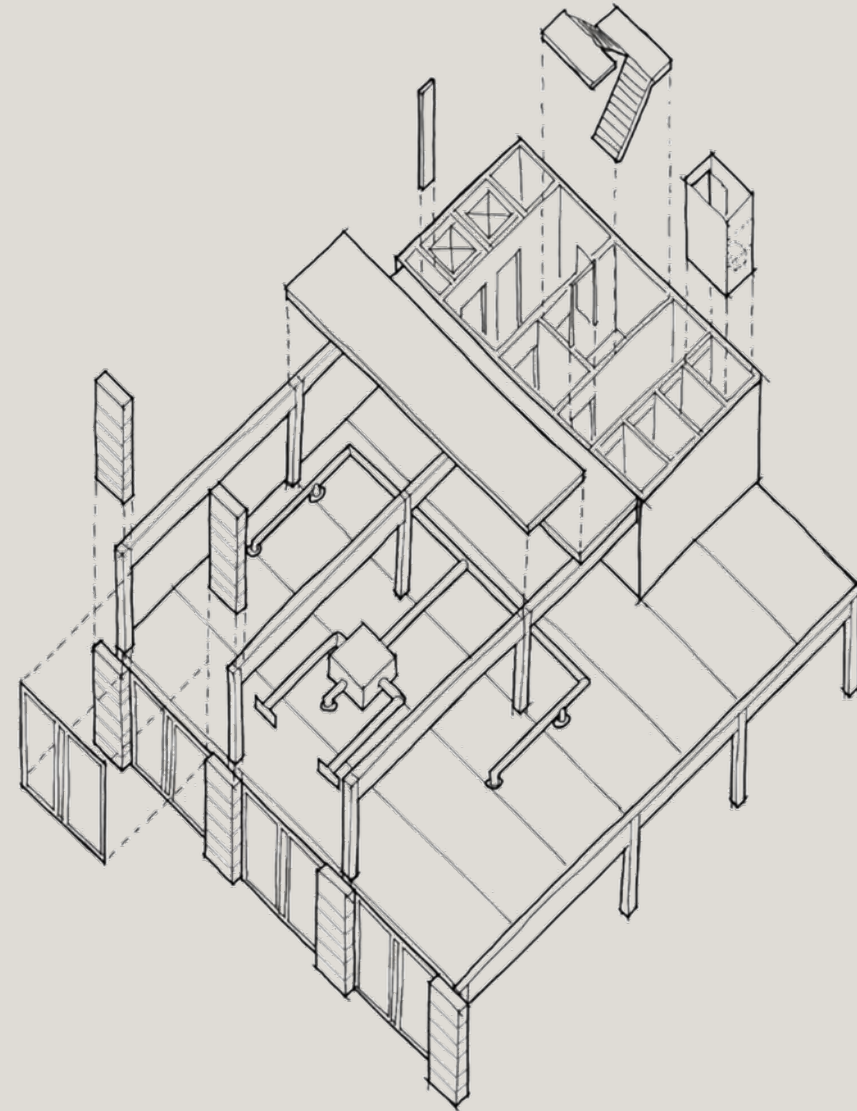

Bennetts Associates

More With Less:

Rethinking cost, carbon and complexity through a systems approach

May 2025 – V2

Reference



More With Less

Less stuff. Less cost. Less carbon.

At a time when buildings are harder to deliver, more complex and less forgiving to operate, we have been asking a simple question: What if we could do more with less?

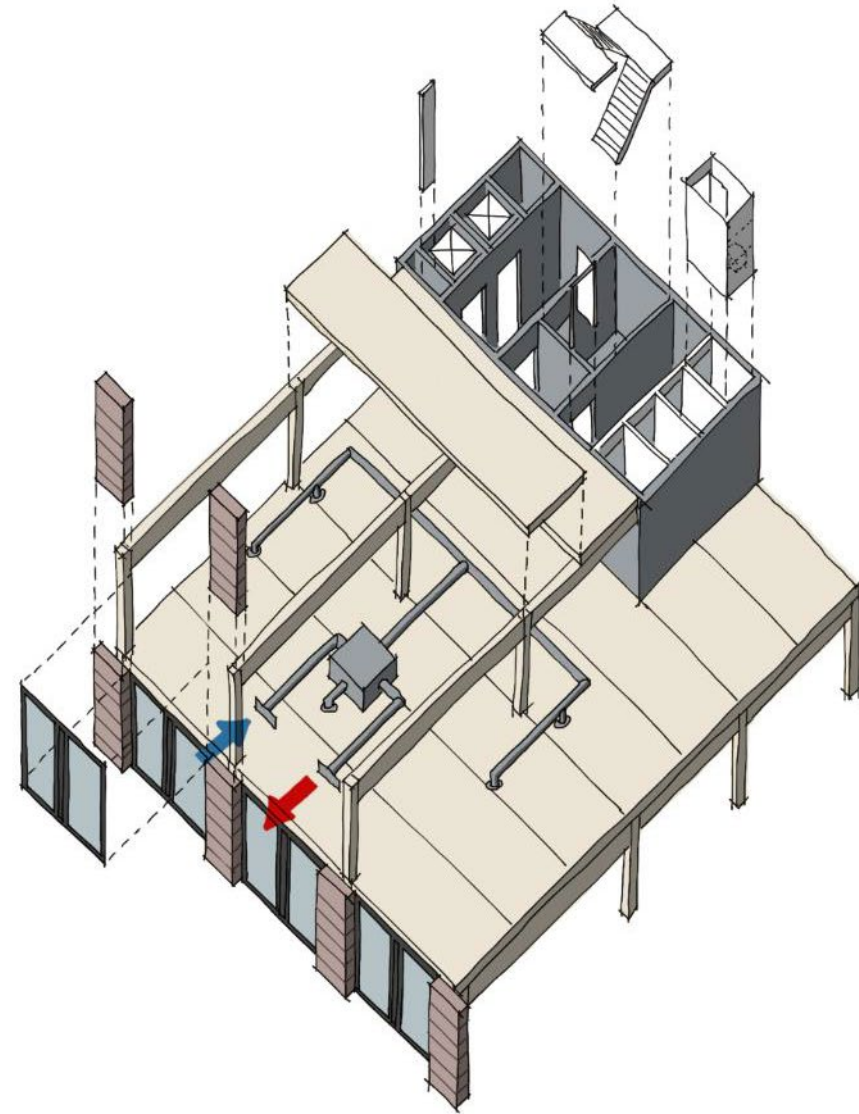
‘More With Less’ is our research programme exploring how buildings can be radically simplified. Rooted in sufficiency and systems thinking, it challenges the industry’s default complexity by rethinking the four key systems that shape every project: core, structure, MEP and façade.

Rather than optimising each part in isolation, we’re examining how they interact. Asking where the real leverage lies to reduce cost, carbon and risk, while improving adaptability, usability and long-term value.

The outcome will be a modular, interoperable Kit-of-Parts: not a prescriptive solution, but a flexible design logic that evolves through continual improvement.

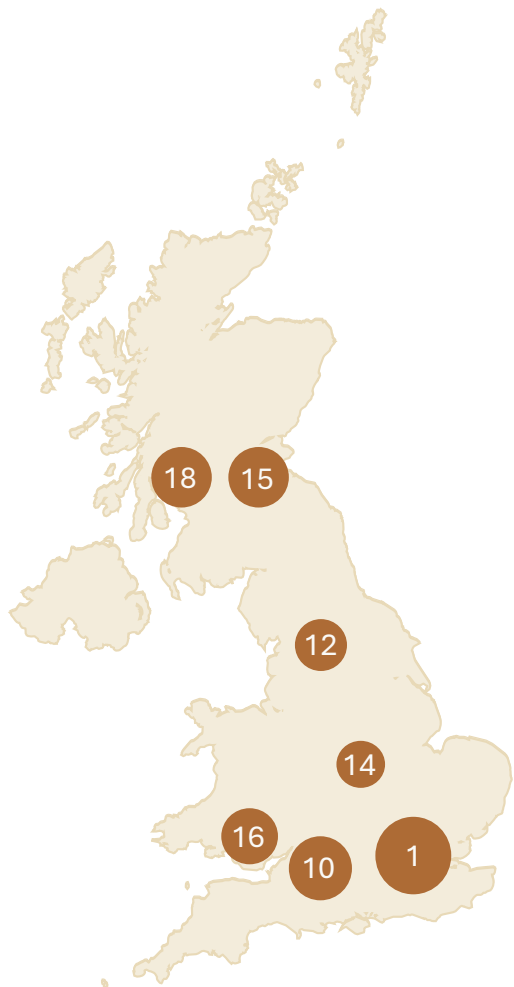
This isn’t about doing the same with less. It’s about doing better with less. Unlocking performance, clarity and resilience by removing friction and over-design.

Less stuff. Less cost. Less carbon

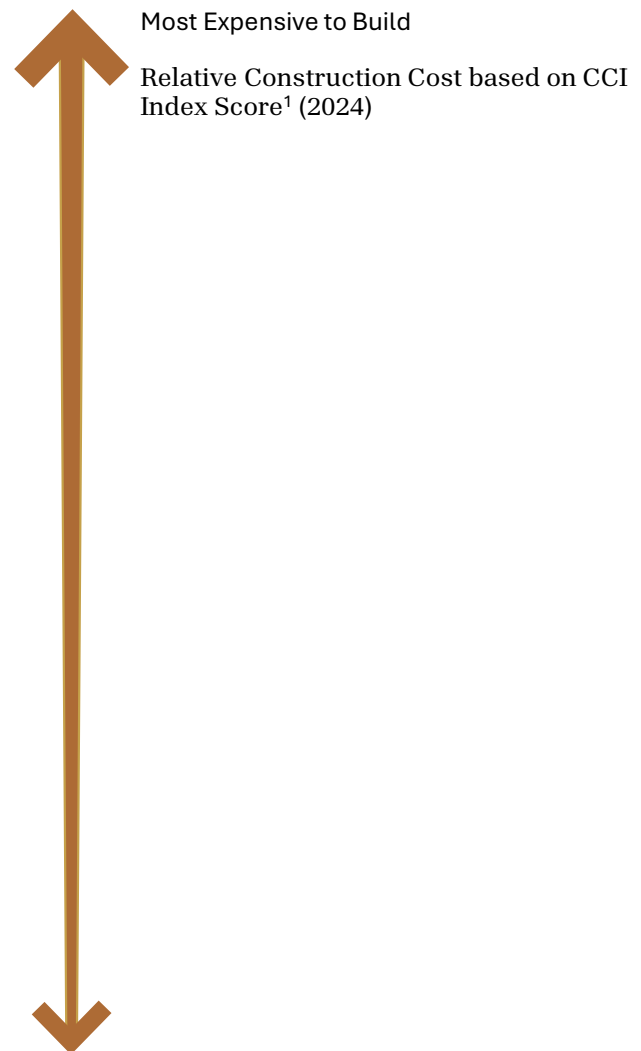


Construction in the UK is expensive

London has the highest build costs in the world, with five other UK cities in top 20. This is a major hinderance to project viability.

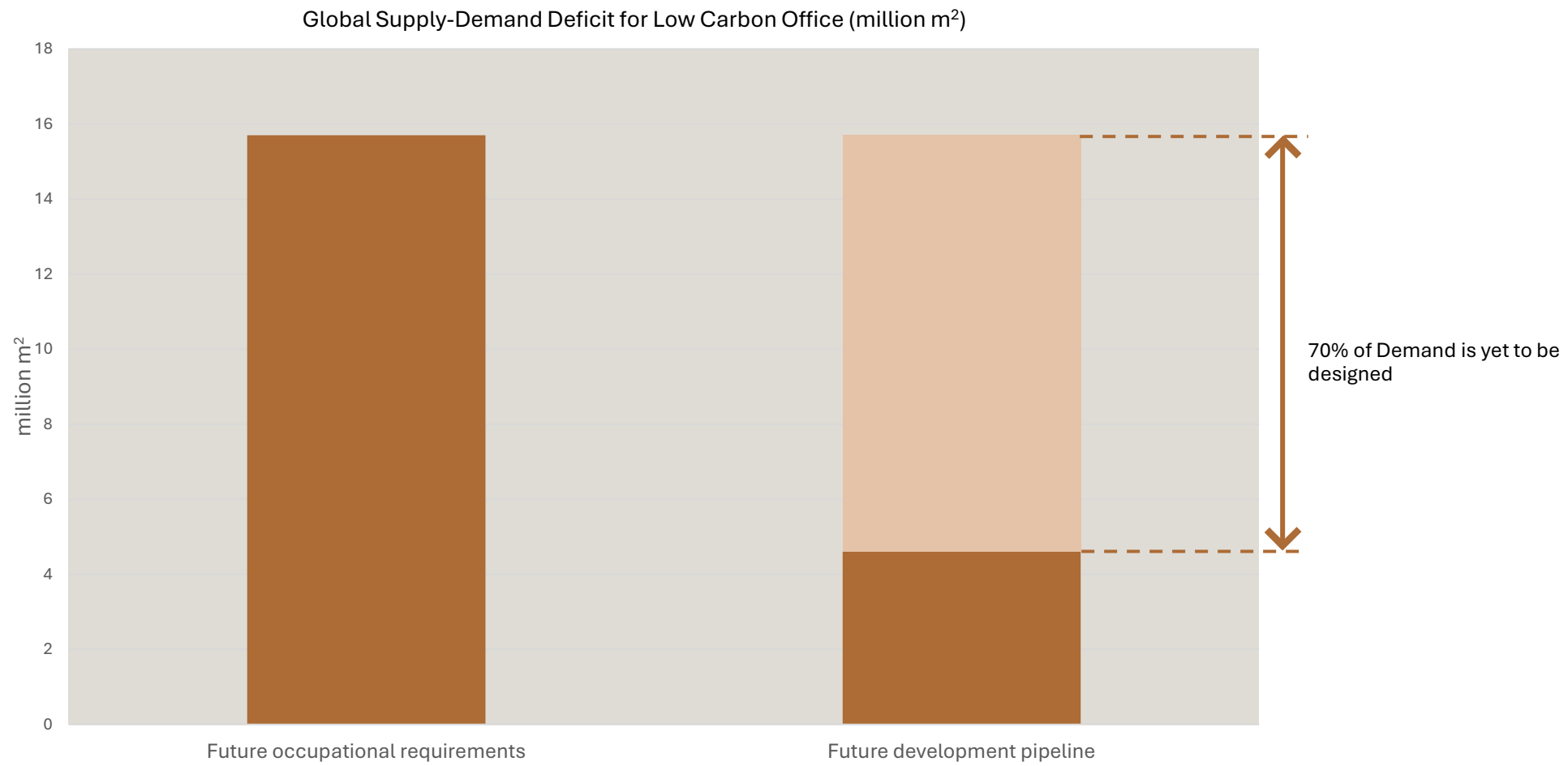


- 1 London
- 2 Geneva
- 3 Zurich
- 4 Munich
- 5 New York City
- 6 San Francisco
- 7 Philadelphia
- 8 Copenhagen
- 9 Hong Kong
- 10 Bristol
- 11 Macau
- 12 Manchester
- 13 Boston
- 14 Birmingham
- 15 Edinburgh
- 16 Cardiff
- 17 Seattle
- 18 Glasgow
- 19 Dublin
- 20 Los Angeles



Unmet demand for low carbon workspace

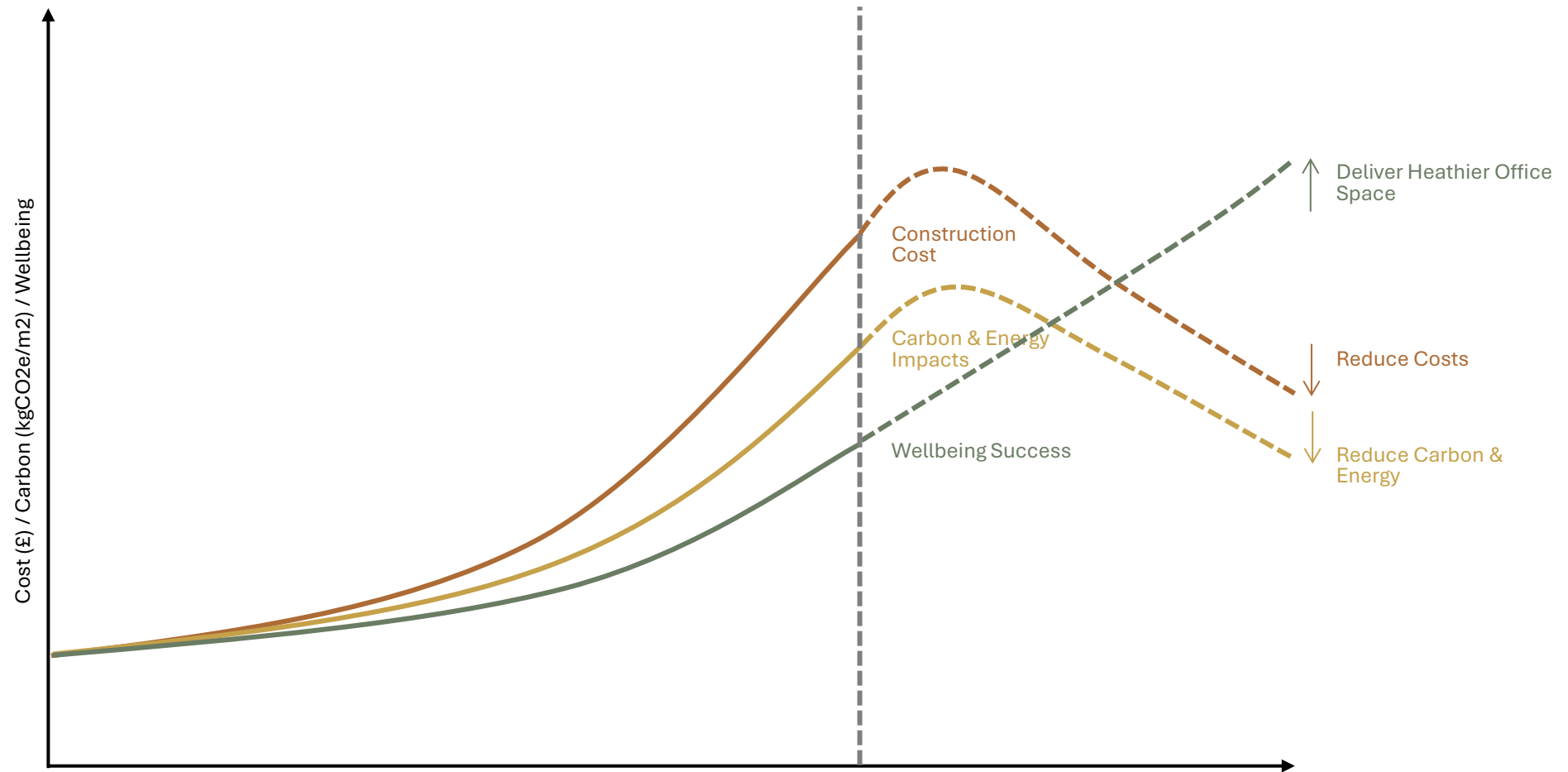
With growth in NZC commitments, there is a pipeline deficit of low carbon office space that is especially acute in London.



JLL Research, The green tipping point: Is 2024 the year when carbon commitments change lease markets at scale?

Less cost & carbon, more wellbeing?

By radically simplify our buildings we can meet the challenges of cost, carbon and wellbeing



Experience Rooted in Practice

'More With Less' has evolved through live projects that have laid the groundwork for research-led systems-thinking.

6



Timber Square, Southwark

Steel/CLT hybrid structure

Centralised fan-coil system

Self-finished materials

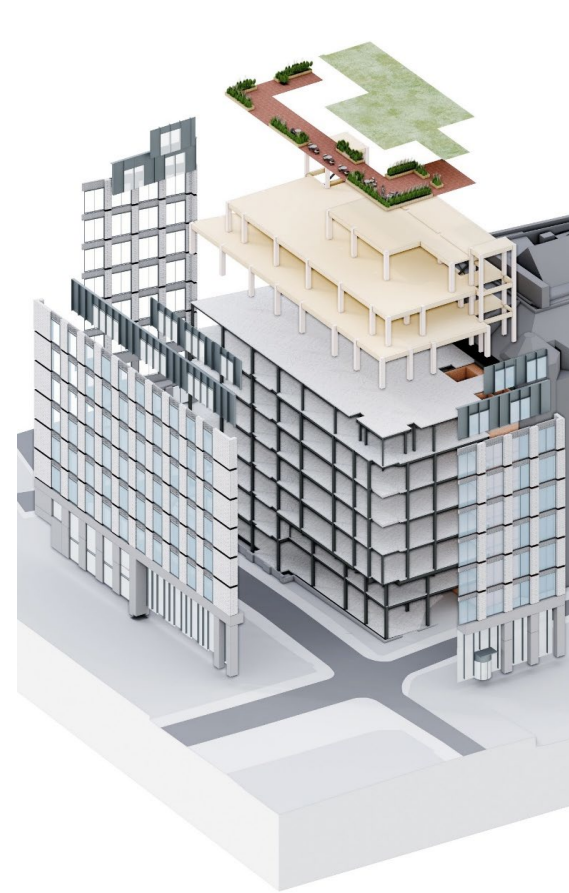


2 Copper Square, Brent Cross Town

Full-timber structure

Centralised under-floor system or Decentralised MVHR option

Self-finished materials



35 Fountain Street, Manchester

Reuse and timber extension

Decentralised MVHR system

Circular materials



Stevenage Hub

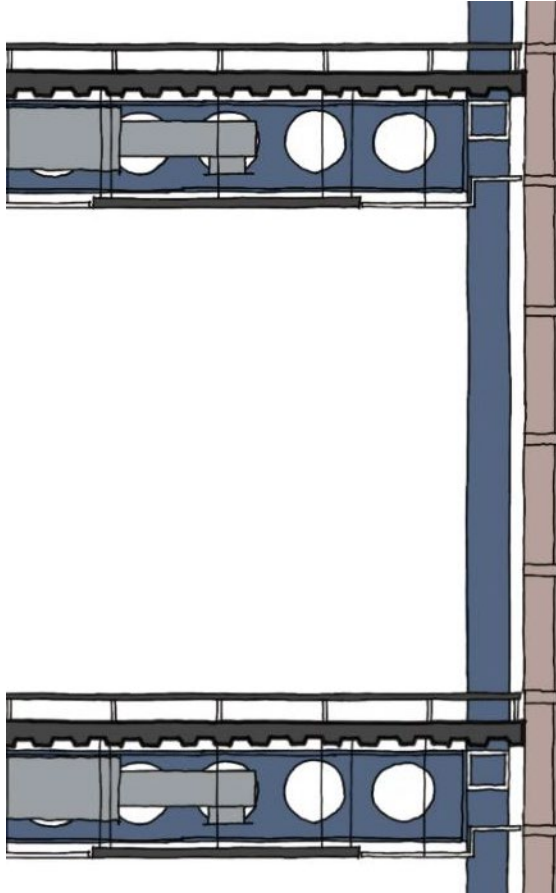
Full-timber structure

Natural ventilation with local MVHR upgrade route

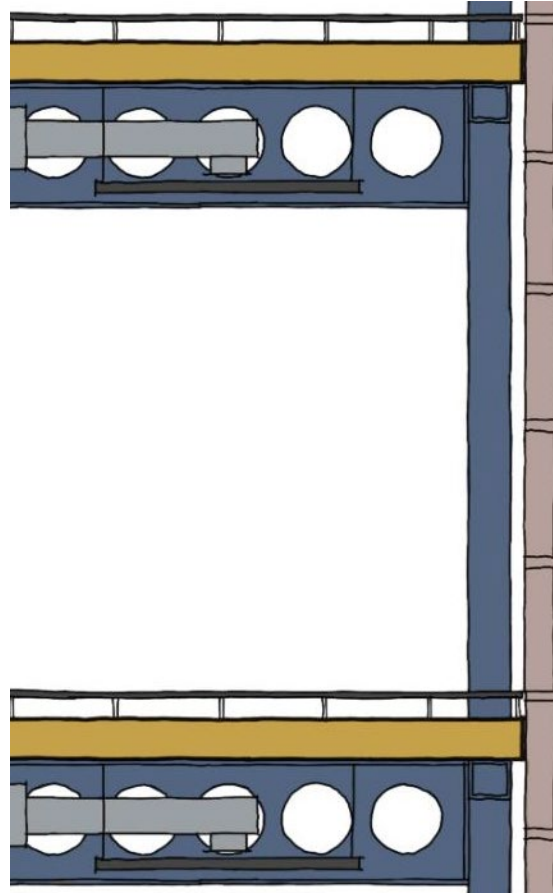
Minimal services

Driving Simplification

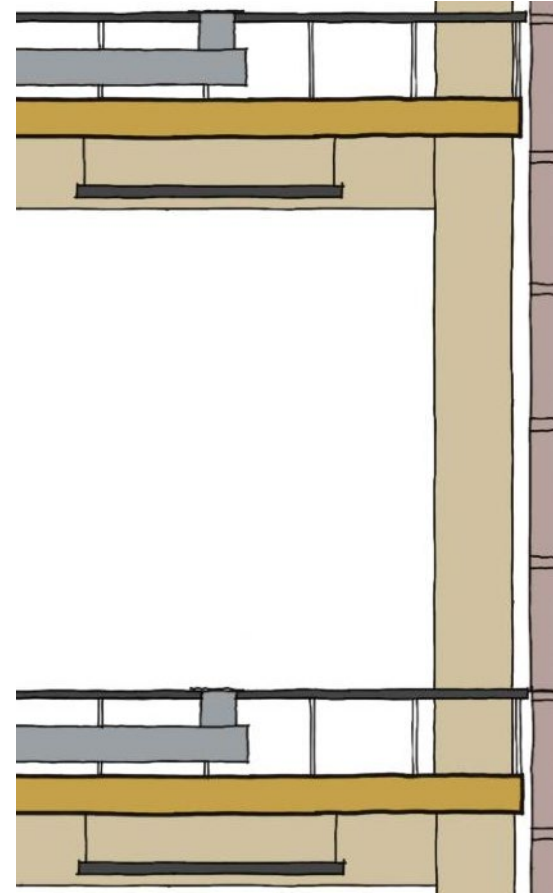
Looking across recent projects, common strategies began to emerge – less structure, fewer finishes, simpler services.



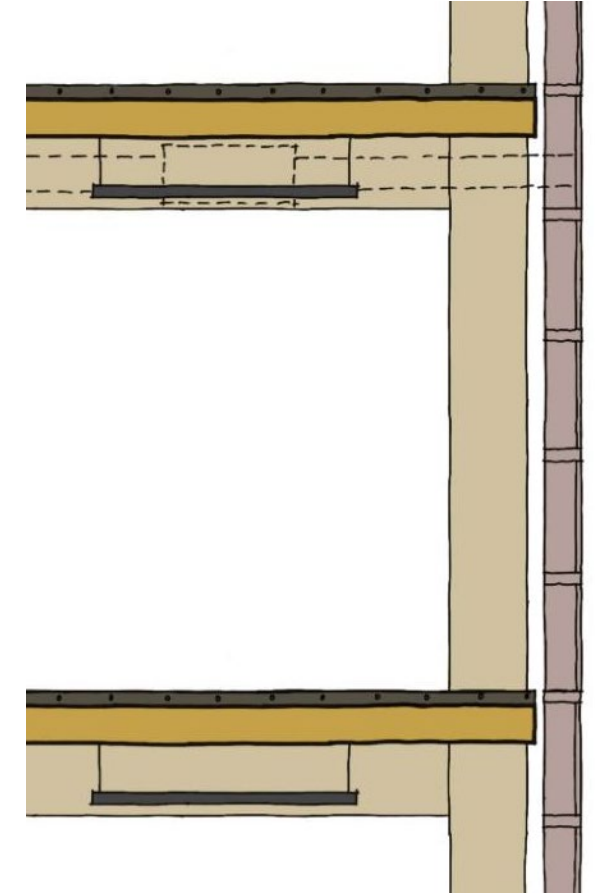
Standard Section



Timber Square, Southwark



2 Copper Square, Brent Cross Town



Stevenage Hub

Together, these buildings point towards how we might simplify architecture without compromise, laying the groundwork for a systemic rethink of how we design and deliver buildings that are simpler, easier to coordinate and more robust.

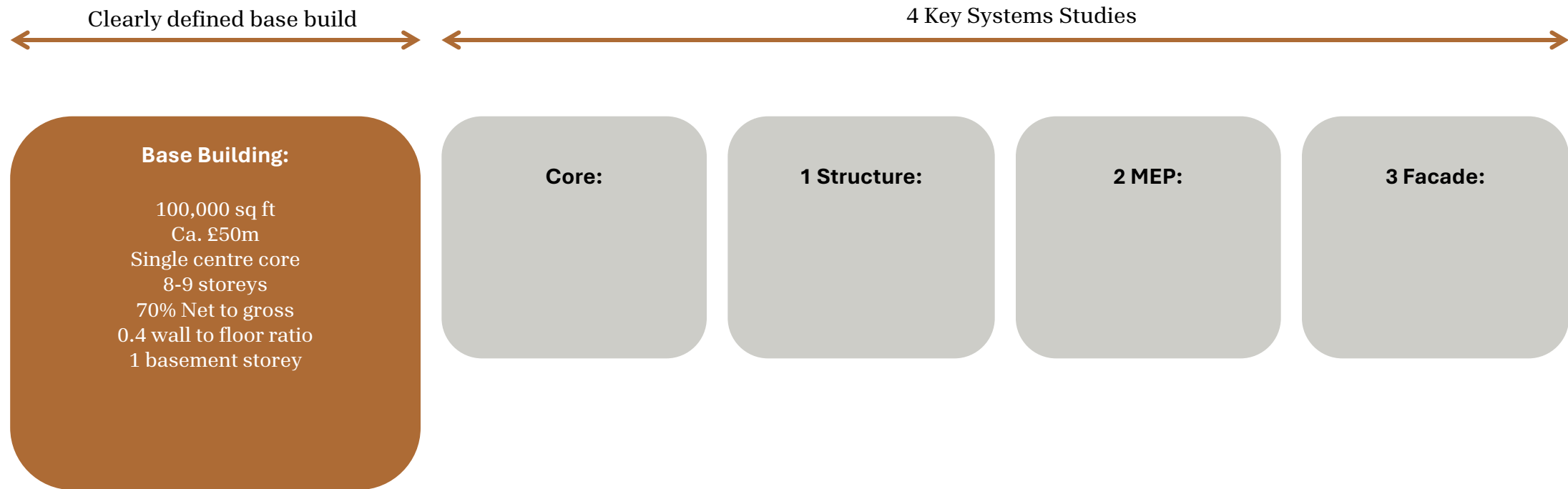
A Systems-Based Framework for Simplification

Rethinking cost, carbon and complexity

‘More With Less’ is structured as a four-part study exploring how buildings can radically simplified by rethinking their key systems – **Core, Structure, MEP and Façade**.

Rather than optimising each part in isolation, we’re studying their interdependencies – how decisions in one area affect cost, carbon, buildability and usability across the whole building.

The outcome will be an **interoperable Kit-Of-Parts** not a prescriptive solution, but a repeatable design logic for early-stage decision-making.



What if the core became a kit?

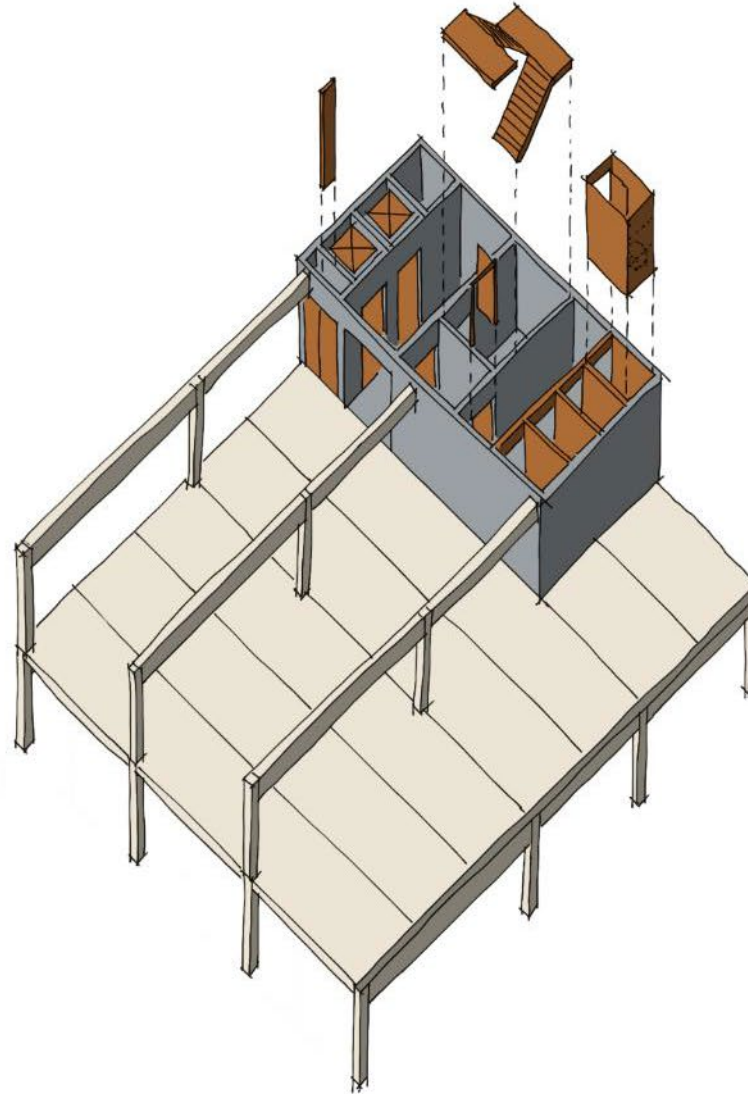
A single, centralised core with repeatable, prefabricated elements (stairs, lifts, WCs)
reduced coordination risk and simplifies construction.

Core:

Single centre core
Exposed jump-form
Modular stairs, WCs, Doors, Shaftwalls
Explore calcined clay
Twinwall

1 Structure:

RC Frame
Steel PC Plank
Steel/CLT
PC/CLT
Full Timber



2 MEP:

4 pipe FCU
Air in the floor
Decentralised MVHR
Reduce fire dampers
No heating/cooling

3 Facade:

Unitized Curtain Walling
Handset Stone Bricks/Composite
Modular Stone/Composite Windows
PC Stone/Alu Windows

Simplicity Starts with Structure

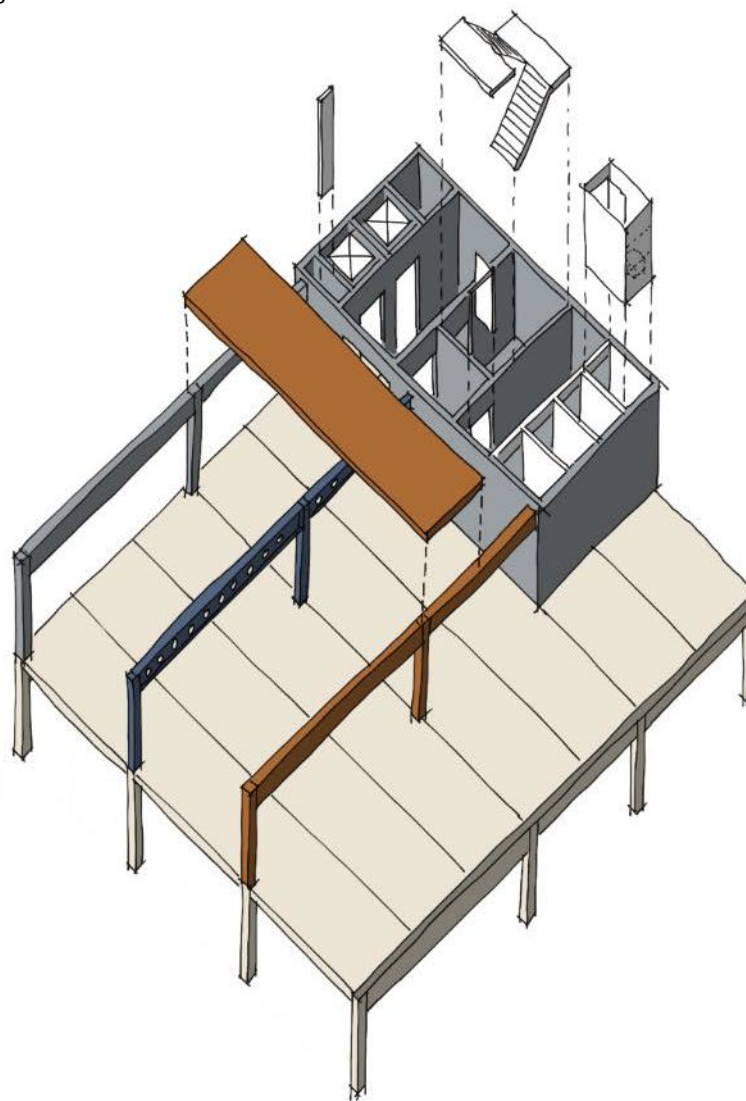
A flexible logic not a fixed recipe – a clear 6m grid all timber and hybrid systems.
Minimal penetrations. A disciplined, low-carbon foundation for everything else.

Core:

Single centre core
Exposed jump-form
Modular stairs, WCs, Doors, Shaftwalls
Explore calcined clay
Twinwall

1 Structure:

RC Frame
Steel PC Plank
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Can we simplify services without compromising comfort?

11

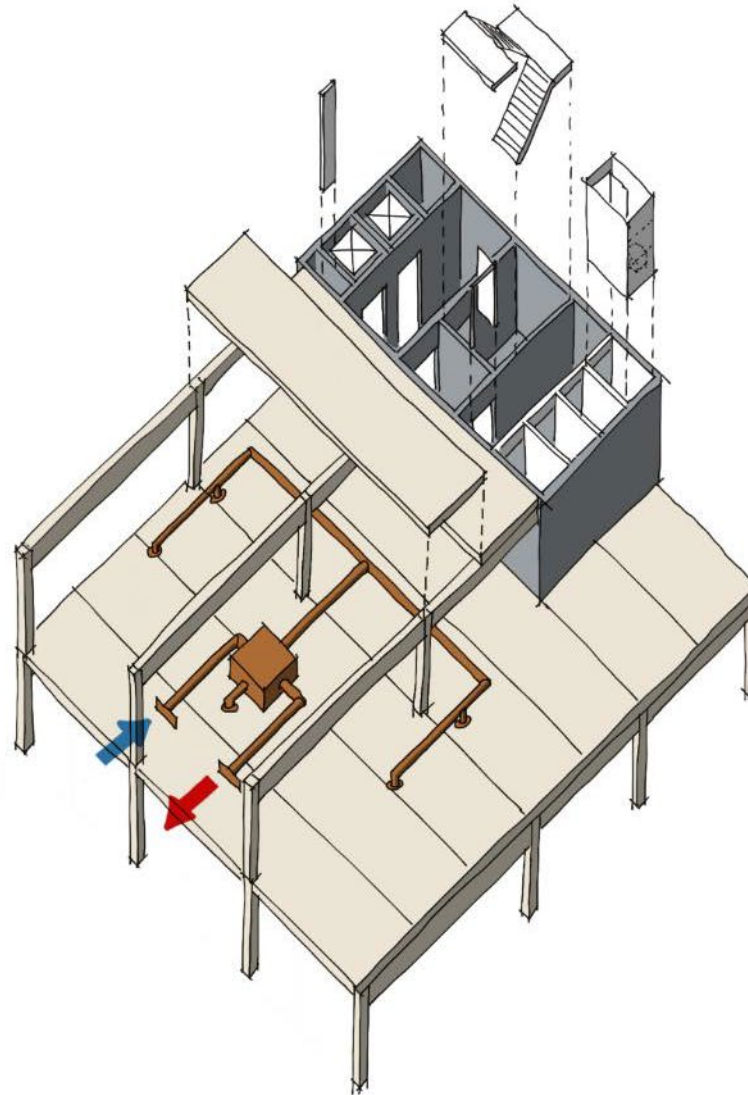
Decentralised and modular systems reduce ductwork, risers and complexity – cutting upfront carbon, improving flexibility and resilience.

Core:

Single centre core
Exposed jump-form
Modular stairs, WCs, Doors, Shaftwalls
Explore calcined clay
Twinwall

1 Structure:

RC Frame
Steel PC Plank
Steel/CLT
PC/CLT
Full Timber



2 MEP:

4 pipe FCU
Air in the floor
Decentralised MVHR
Reduce fire dampers
No heating/cooling

3 Facade:

Unitized Curtain Walling
Handset Stone Bricks/Composite
Modular Stone/Composite Windows
PC Stone/Alu Windows

Can Can façades integrate more and cost less?

12

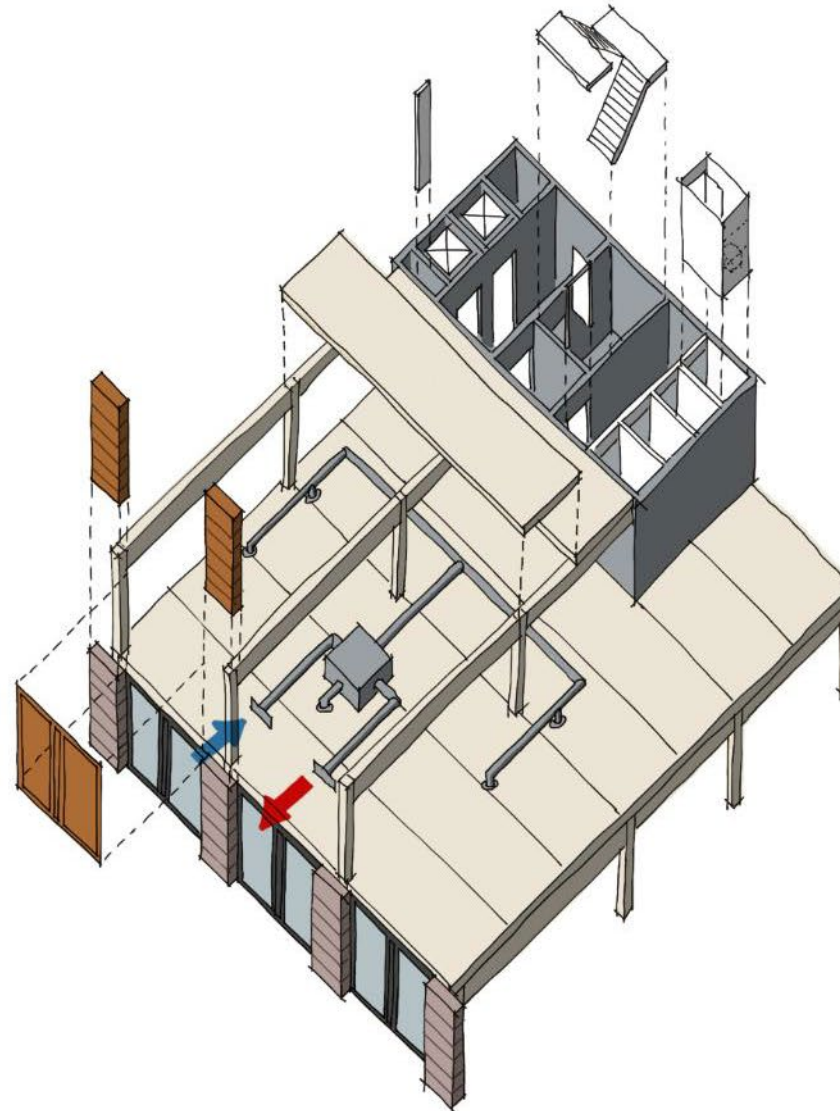
Moving from bespoke unitised façades to modular systems with integrated ventilation can reduce cost, speed up construction and cut emissions.

Core:

- Single centre core
- Exposed jump-form
- Modular stairs, WCs, Doors, Shaftwalls
- Explore calcined clay
- Twinwall

1 Structure:

- RC Frame
- Steel PC Plank
- Steel/CLT
- PC/CLT
- Full Timber



2 MEP:

- 4 pipe FCU
- Air in the floor
- Decentralised MVHR
- Reduce fire dampers
- No heating/cooling

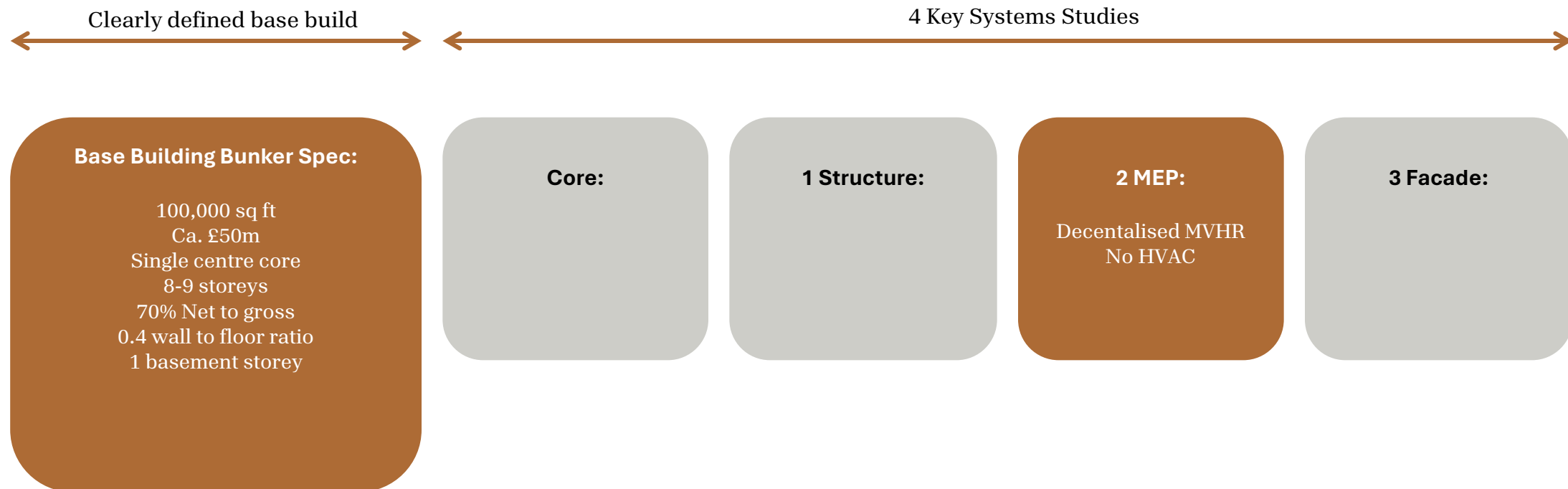
3 Facade:

- Unitized Curtain Walling
- Handset Stone Bricks/Composite
- Modular Stone/Composite Windows
- PC Stone/Alu Windows

Next Steps: Bunker Specification & HVAC Study

13

- Building services are carbon-intensive, costly and complex to coordinate.
- Poorly standardised, hard to coordinate and often oversized.
- How far services can be simplified without losing comfort or adaptability?
- Working with engineers, Qs and clients to explore decentralised and modular approaches.
- Can some buildings operate with no active systems?



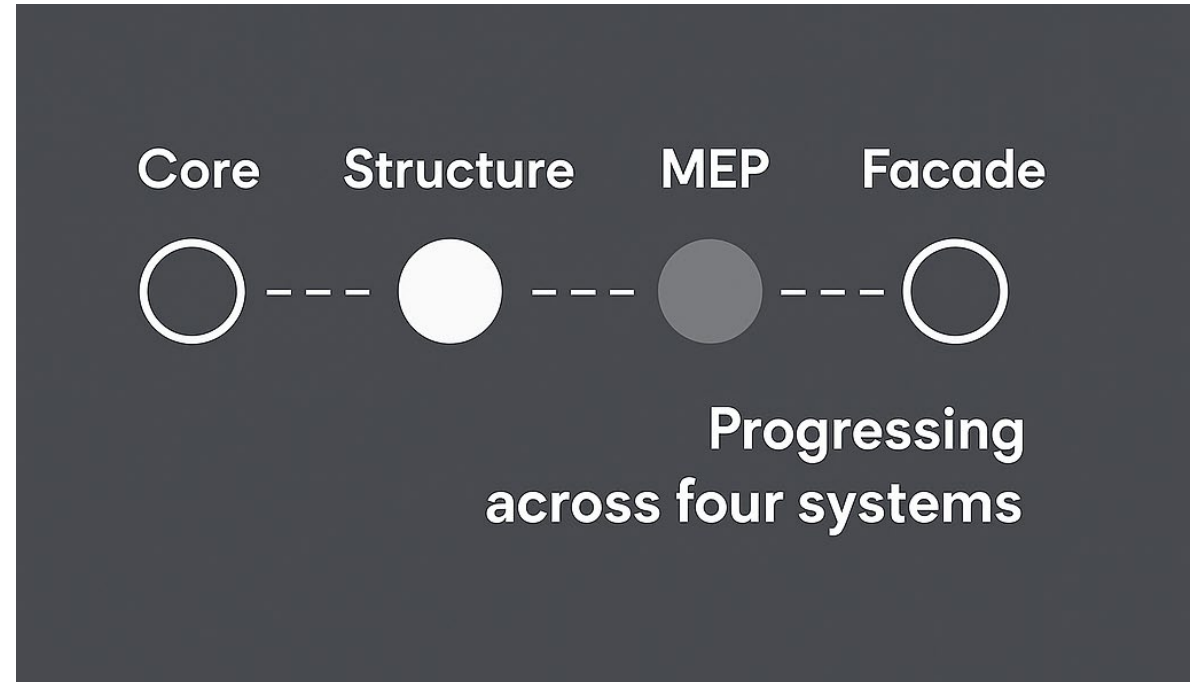
Programme Update – All Four Systems

Where We Are in the Journey?

Our research is structured around four systems – **Core**, **Structure**, **MEP** and **Façade** – each assessed for its cost, carbon, buildability and architectural implications. The aim is not to create a single solution, but a flexible, interoperable Kit-of-Parts that supports simpler, more resilient buildings.

We've already gathered substantial data on structure, drawn from recent projects. This includes timber, hybrid and precast systems, and shows clear opportunities to reduce complexity and cost. Our task now is to organise, benchmark and distil that knowledge.

The next focus is MEP. It's the most nebulous system, the hardest to simplify, and often the greatest source of friction between design, coordination and cost. It also offers the biggest prize – both in carbon and clarity – if we can rethink it radically.



Each system touches the others. This is about rethinking how they work together, not in isolation.

MEP Study – Next Steps

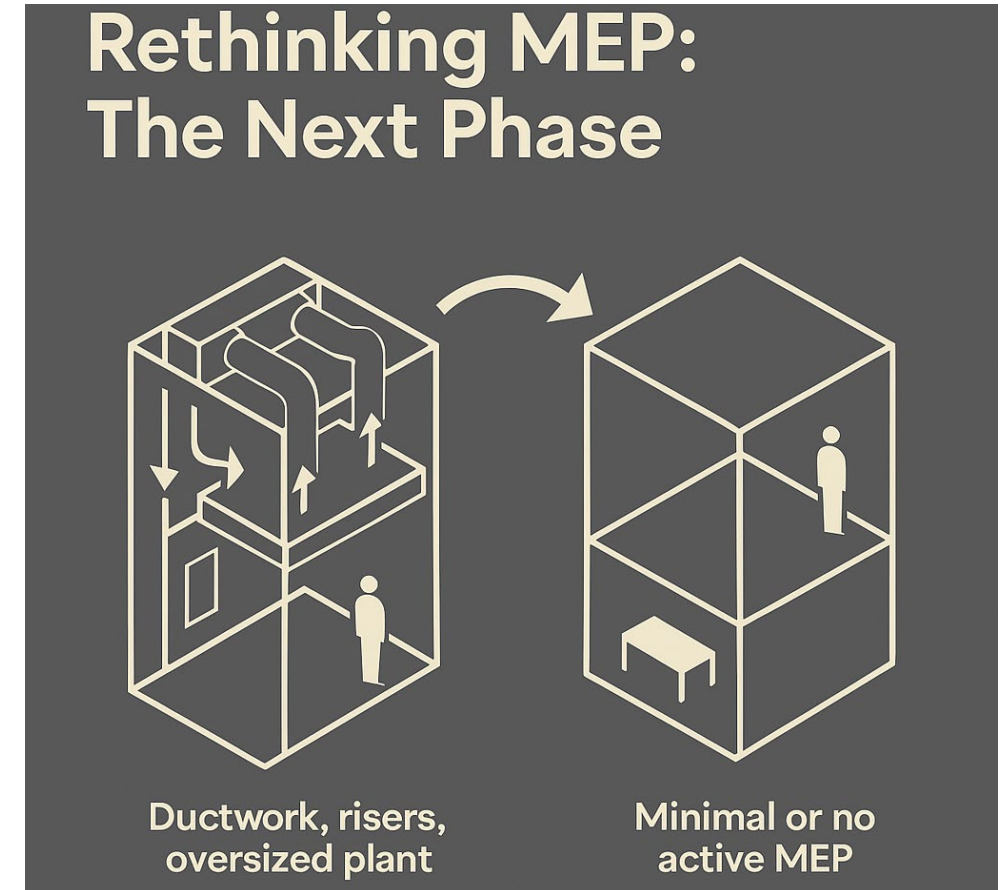
Rethinking Services: The Next Phase

Building services are now one of the most carbon-intensive, costly and complex parts of a building. MEP often accounts for 15–30% of upfront carbon, yet remains poorly standardised, difficult to coordinate, and disproportionately complicated. Ductwork, risers, and oversized plant can undermine both spatial efficiency and long-term usability—introducing hidden costs, friction, and inflexibility.

Our next study will explore how far we can simplify services without compromising comfort or adaptability. Working with Qs, engineers and clients, we want to test decentralised and modular systems, seeking to cut carbon, improve coordination and reclaim usable space.

At the radical end, we'll ask whether some buildings could function with minimal or no active mechanical systems, drawing inspiration from ultra-low-energy precedents like 2226 Haus.

This isn't about removing services – it's about challenging assumptions, clarifying what adds value and designing leaner, more resilient systems.



From hidden complexity to visible clarity: rethinking what building services could be.

Bennetts Associates

If you're interested in collaborating or learning more, we'd be glad to hear from you:

Peter.Fisher@BennettsAssociates.com