

Levitt Bernstein **People.Design**

# A grey and green AGEnda: The foundations of good Passivhaus design and sustainable communities for people in later life

Irene Craik, Director

Gillian Harrison, Senior Associate

Clare Murray, Associate / Head of Sustainability

Liz Alvey, Housing and Care Consultant

 @LevittBernstein



**Housing LIN**

*Connecting people, ideas and resources*



## Levitt Bernstein **People.Design**

Award winning practice

**Established in 1968**

130 people in London and Manchester studios

**Diverse projects**

Architecture

**Urban Design**

Landscape

**Interior Design**

Focus on end users



# Overview

## **A grey and green AGEnda: The foundations of good Passivhaus design and sustainable communities for people in later life**

- Passivhaus design
- Carlton Dene, Westminster - Case study
- The client perspective
- The Courtyards, Preston - Case study

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# Passivhaus design

# Passivhaus is the new normal



**Melfield Gardens, Lewisham**  
Client: Phoenix Community Housing



**Darwin House, Westminster**  
Client: Westminster City Council



**Ashley Road, Haringey**  
Client: Haringey Council



**Vorley Road, Islington**  
Client: Islington Council



**Cranwood House, Haringey**  
Client: Haringey Council



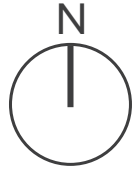
**Carlton Dene, Westminster**  
Client: Westminster City Council



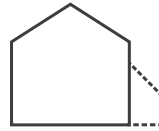
# Easi Guide to Passivhaus Design



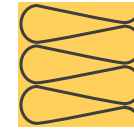
# Passivhaus principles



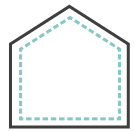
Free heat in winter



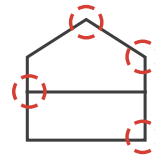
Simple building form



Highly insulated



Extremely airtight



Reduced thermal bridges



Window proportions  
based on orientation



Natural purge ventilation



Background MVHR



Predictive modelling

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# Carlton Dene, Westminster

Case study



HOUSINGDESIGNAWARDS

2022 WINNER







6

6

8

6

7

Kilburn Park Road

6

6

3

6

6

2

4

6

4

Carlton Vale

Main entrance to affordable housing building (Block B)

3











Kilburn Park Road

BUS STOP

Block A entrance

Café

Residents' lounge

Courtyard

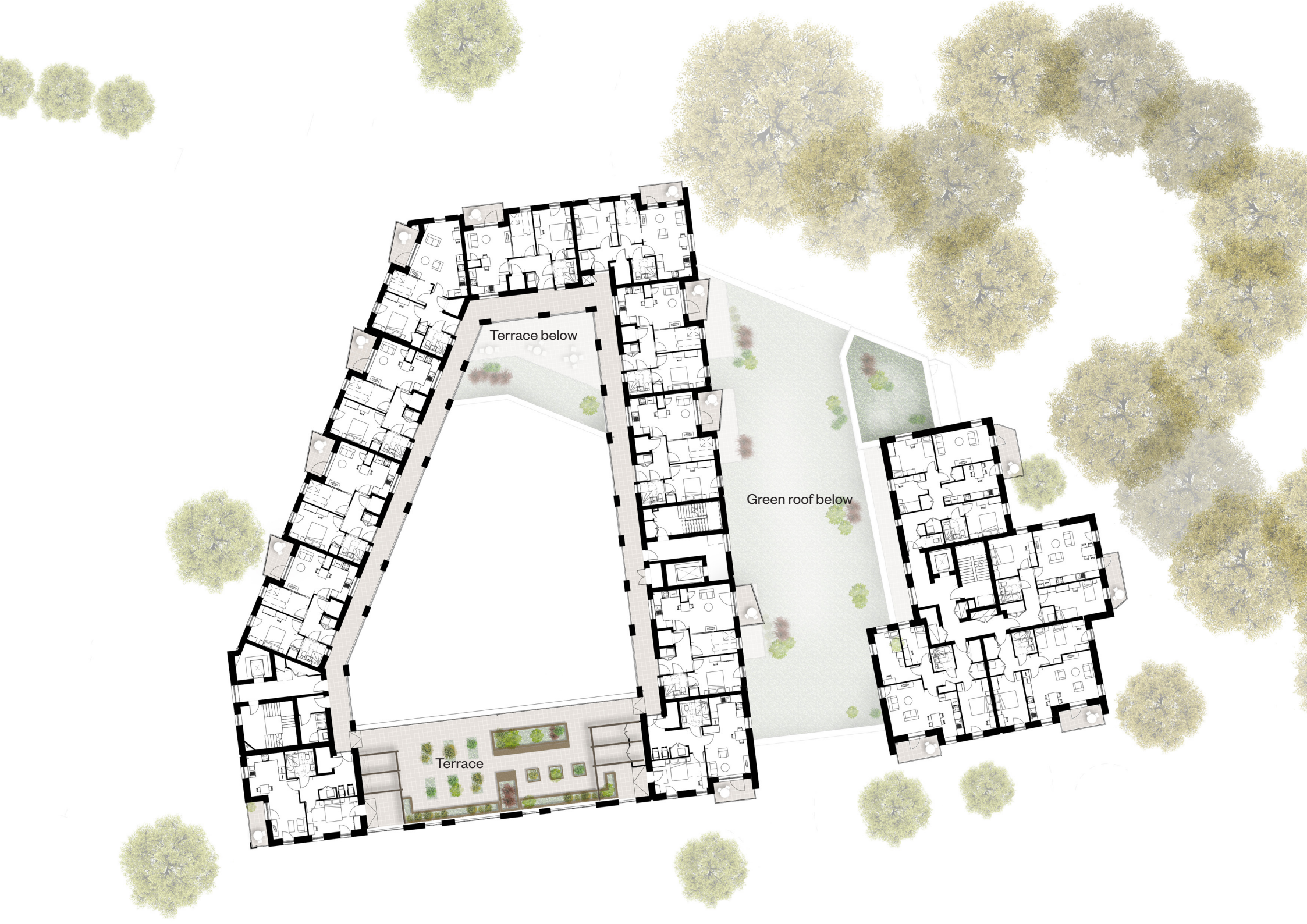
Parking undercroft

Block B entrance

Carlton Vale





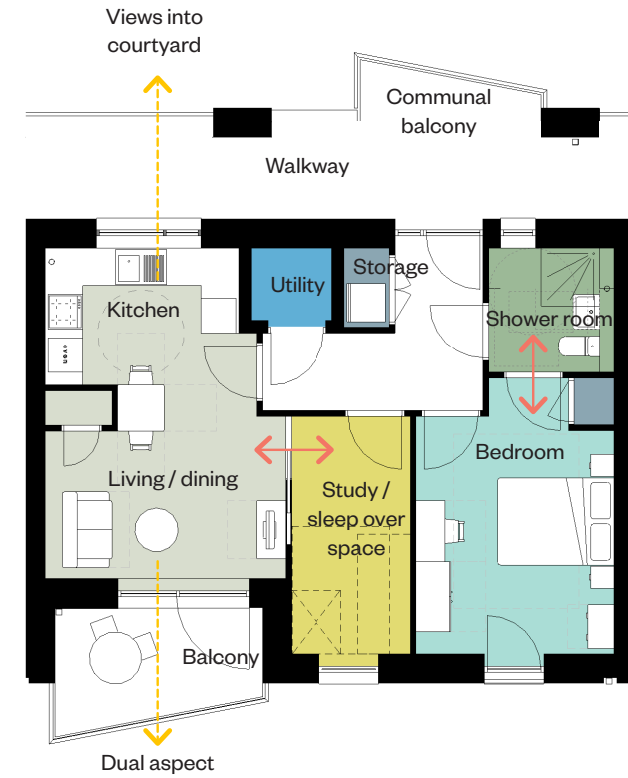
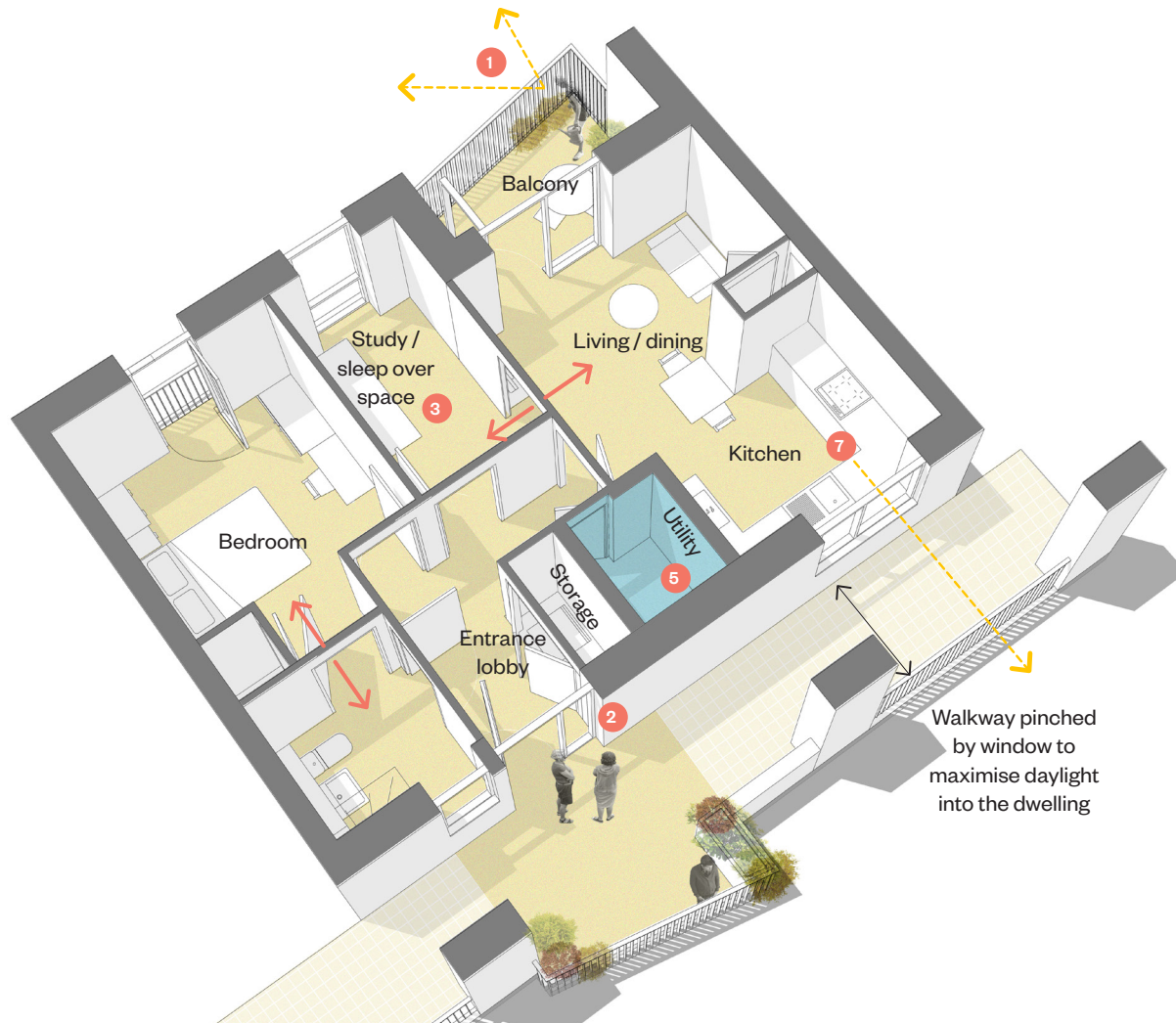


Terrace below

Green roof below

Terrace

# 1Bed+



Extra Care 1bed+  
60 sqm - CAT II









CAFE

URBAN  
COFFEE





# Energy and sustainability



Building form

Block A form factor - 1.93  
Block B form factor - 1.65



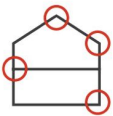
Elevation design

The proportions of windows range **between 10% and 23%**



Insulation

Block A walls - 0.16 W/m<sup>2</sup>.K  
Block B walls - 0.12 W/m<sup>2</sup>.K



Detailing

Block A air tightness - 1.0 m<sup>3</sup>/h/m<sup>2</sup> at 50Pa  
Block B air tightness - 0.6 m<sup>3</sup>/h/m<sup>2</sup> at 50Pa

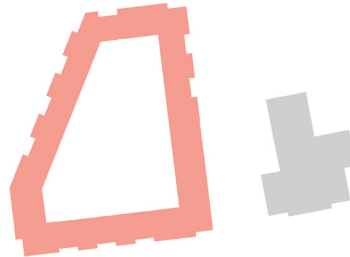


Mechanical ventilation

Mechanical Ventilation with Heat Recovery is provided in each unit (inc communal ambient loop ASHP).

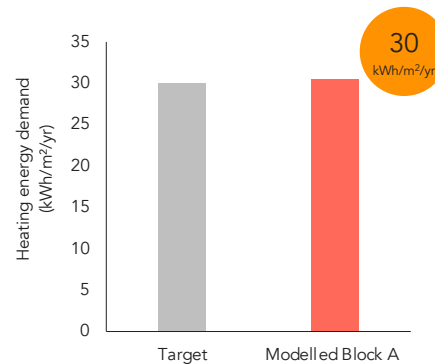
Block A (Extra Care)

PHI Low Energy standard.

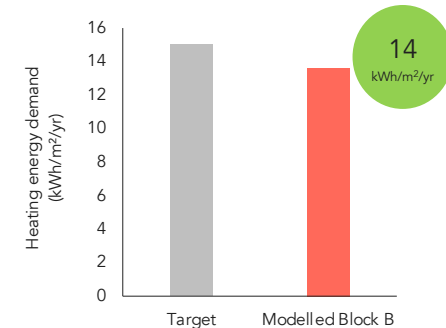


Block B (general needs)

Passivhaus Classic standard.



Total heating energy demand of building compared to the PHI Low Energy target of 30 kWh/m<sup>2</sup>/yr



Total heating energy demand of building compared to the PHI Low Energy target of 15 kWh/m<sup>2</sup>/yr







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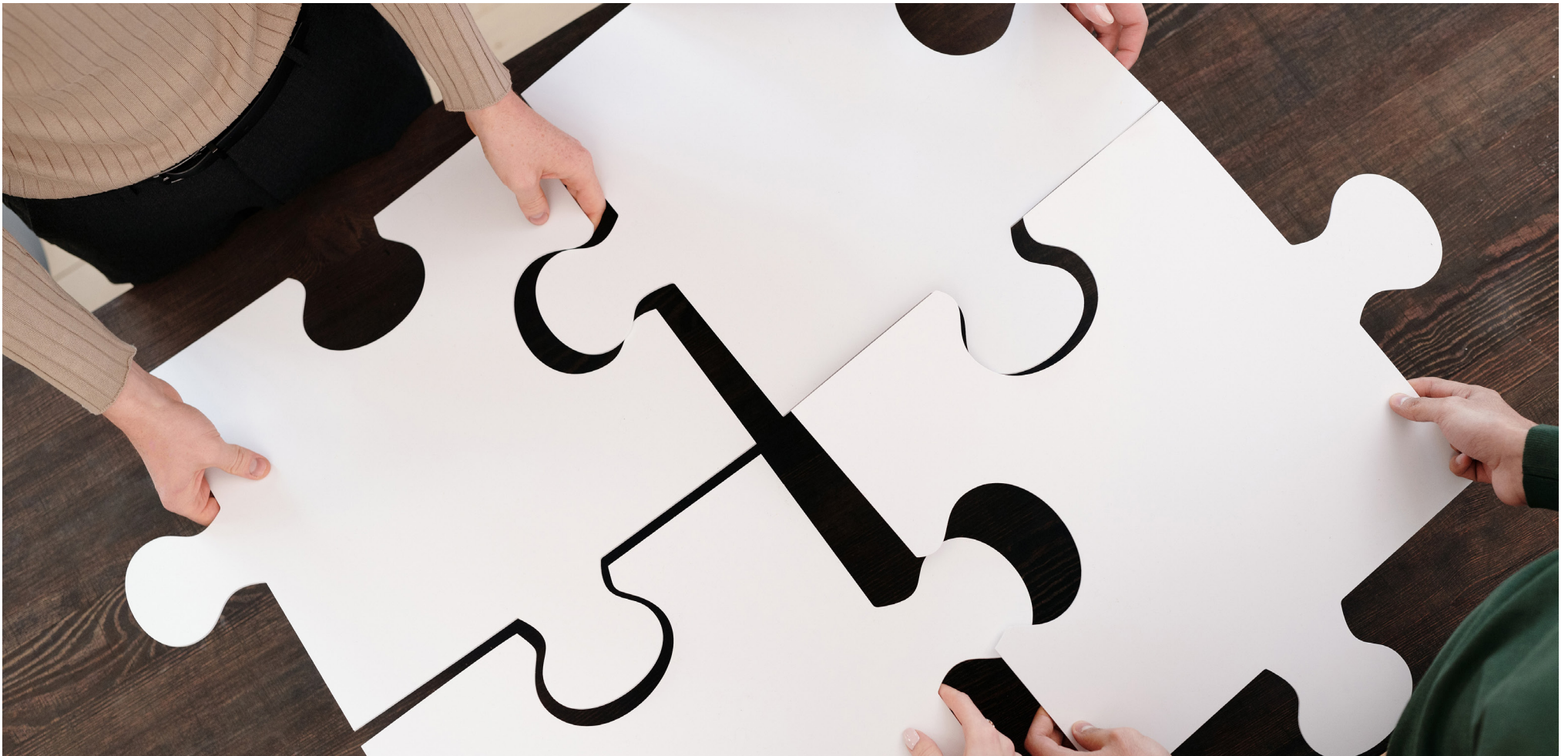
# The client perspective

Liz Alvey, Independent Consultant in housing and care for older people

[lizalveyconsulting@gmail.com](mailto:lizalveyconsulting@gmail.com)

# “Intelligent Client”

- Coordination and collaboration
- Specialist product knowledge

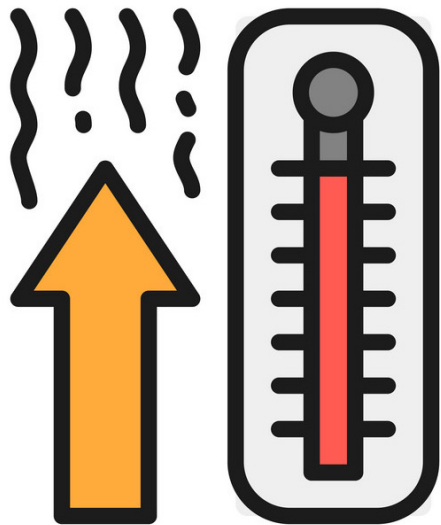
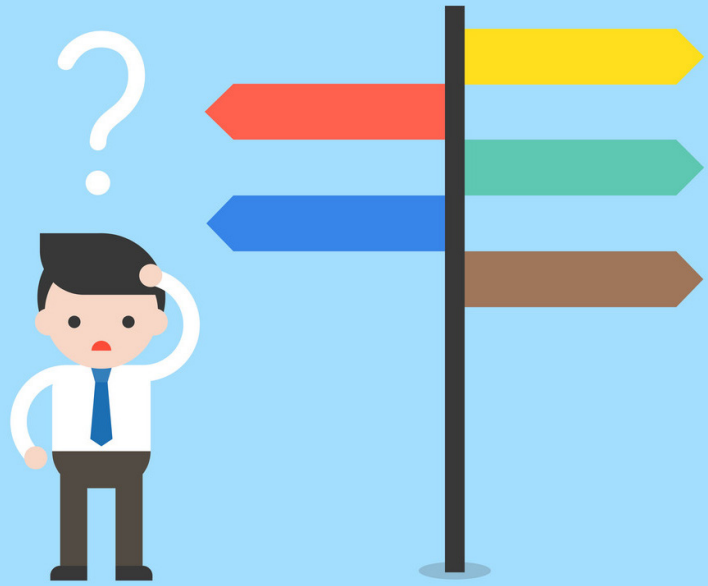




- People
- Place
- Pride
- Practicality









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# The Courtyards, Preston

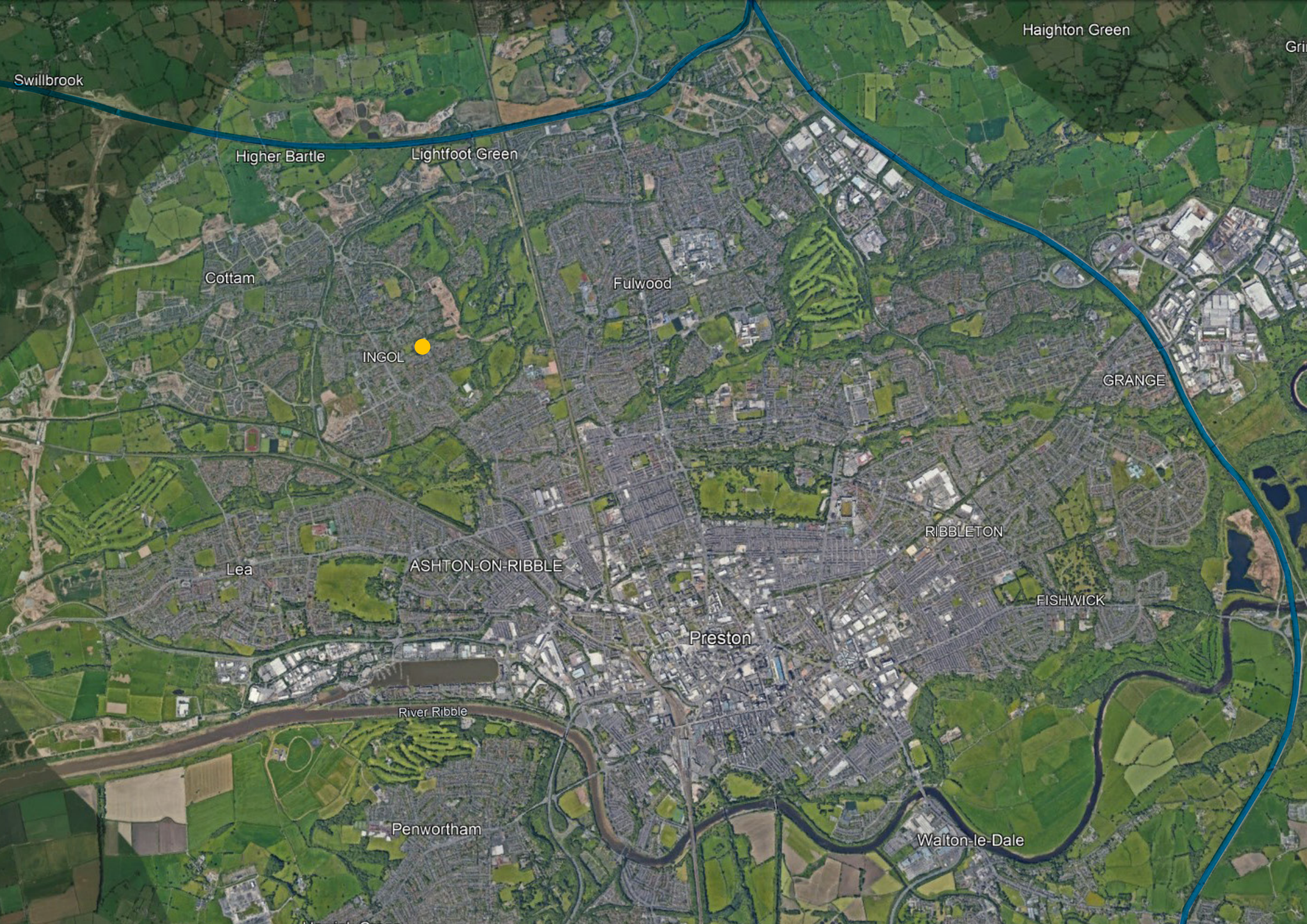
Case study



**HOUSINGDESIGNAWARDS**  
**2022** SHORTLISTED







Haighton Green

Gri

Swillbrook

Higher Bartle

Lightfoot Green

Cottam

Fulwood

INGOL

GRANGE

Lea

ASHTON-ON-RIBBLE

RIBBLETON

FISHWICK

Preston

River Ribble

Penwortham

Walton-le-Dale











Entrance

Bistro

Activity room





































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**Thank you**