



Steps toward decentralization in the built environment

Designing and operating buildings to improve energy efficiency

Renewable Energy Association Decentralisation Conference

03 December 2024

We are BAM

At BAM, we imagine, create and enrich buildings and infrastructure across the UK & Ireland.









Our vision is to **build a sustainable tomorrow**. We think beyond the build and focus on the bigger impact. It's how we make the iconic buildings and infrastructure that shape our society.

And that's why we're on a mission to **make possible**.

Guided by our strong values



A growing multi-billion-euro business

 €3,139 million BAM UK & Ireland revenue 2023	 €121.5 million Adjusted EBITDA	 €4,533 million Order book at year-end 2023	 6,743 Employees
 €6,270 million Royal BAM revenue 2023	 €304.3 million Adjusted EBITDA	 €9,809 million Order book at year-end 2023	 13,897 Employees

Focus: 3 stages of a typical 'building lifecycle'

1

New buildings

A clean sheet for high performing built environment



2

'Deep' refurbishment

Re-imagining exiting structures and securing low embodied carbon

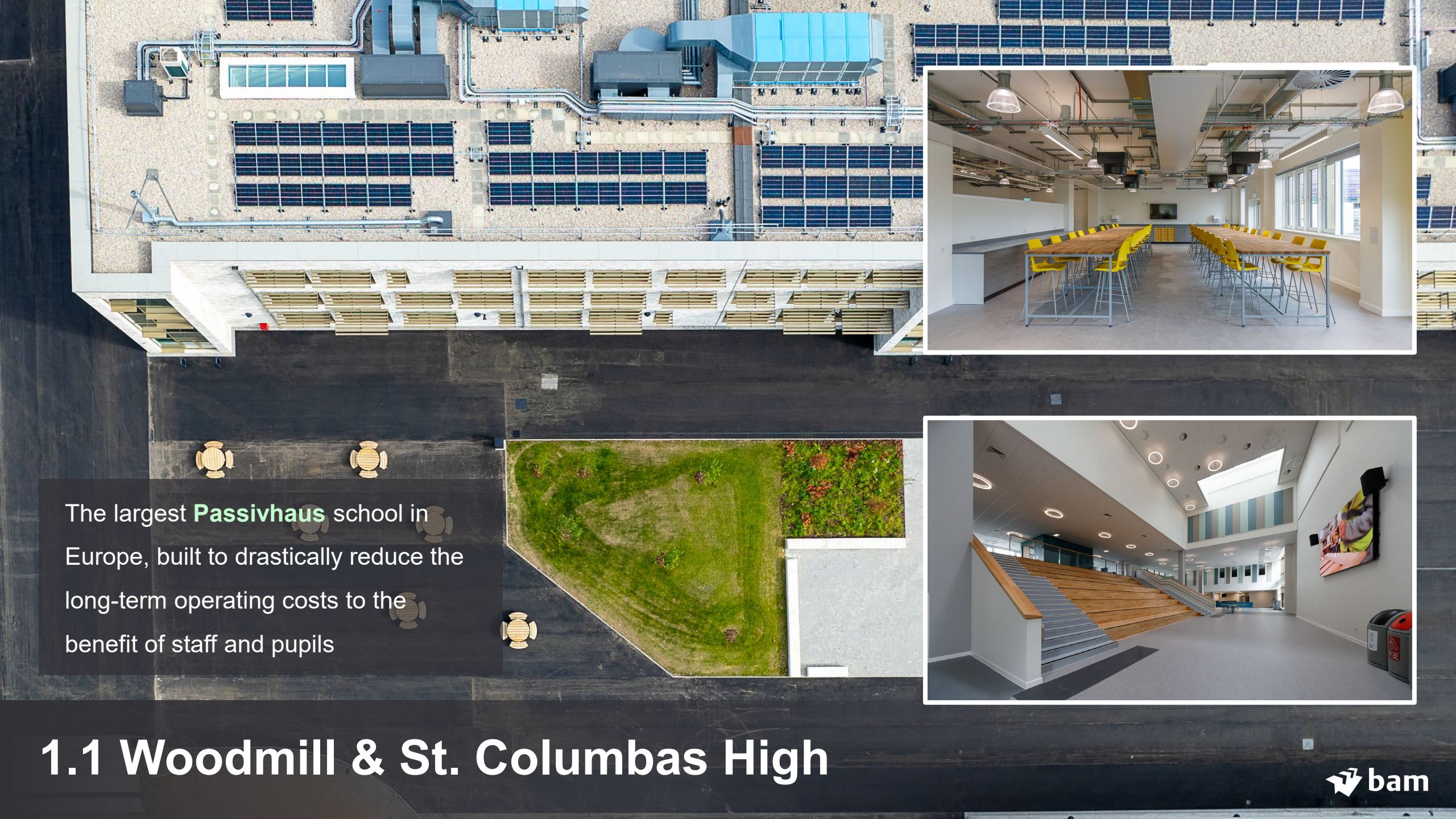


3

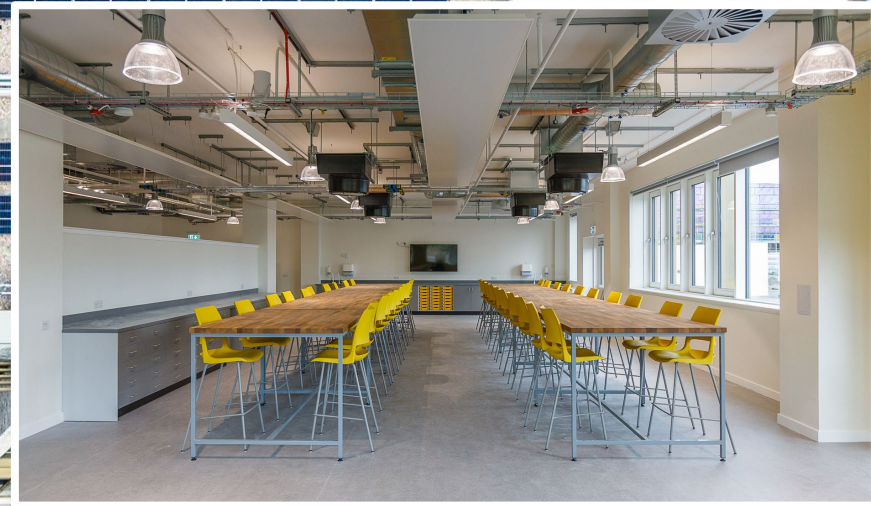
Multi-step 'lifecycle'

Existing built environment is improved based on a decarbonisation plan coordinated with lifecycle replacement





The largest **Passivhaus** school in Europe, built to drastically reduce the long-term operating costs to the benefit of staff and pupils



1.1 Woodmill & St. Columbas High

An aerial photograph of a modern building complex. The building features large glass windows and a green roof. A central courtyard is paved with light-colored stones and contains several large, rounded green bushes and a small circular water feature. A curved wooden bench is situated in the courtyard. The building is surrounded by a street with yellow road markings and a sidewalk.

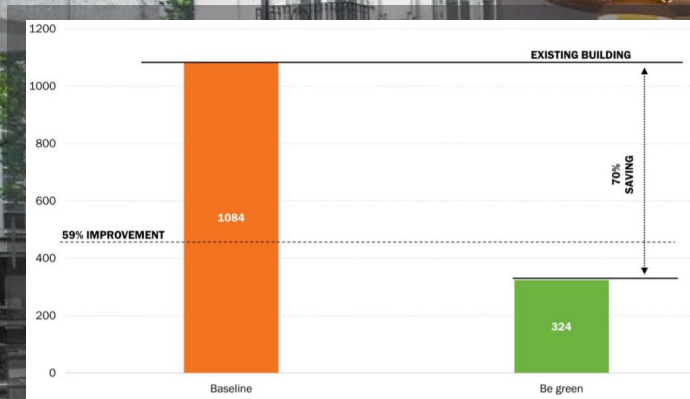
BREEAM 'Outstanding' building
5.5 NABERS rating - first to achieve
in the UK

1.2 Belgrave Road



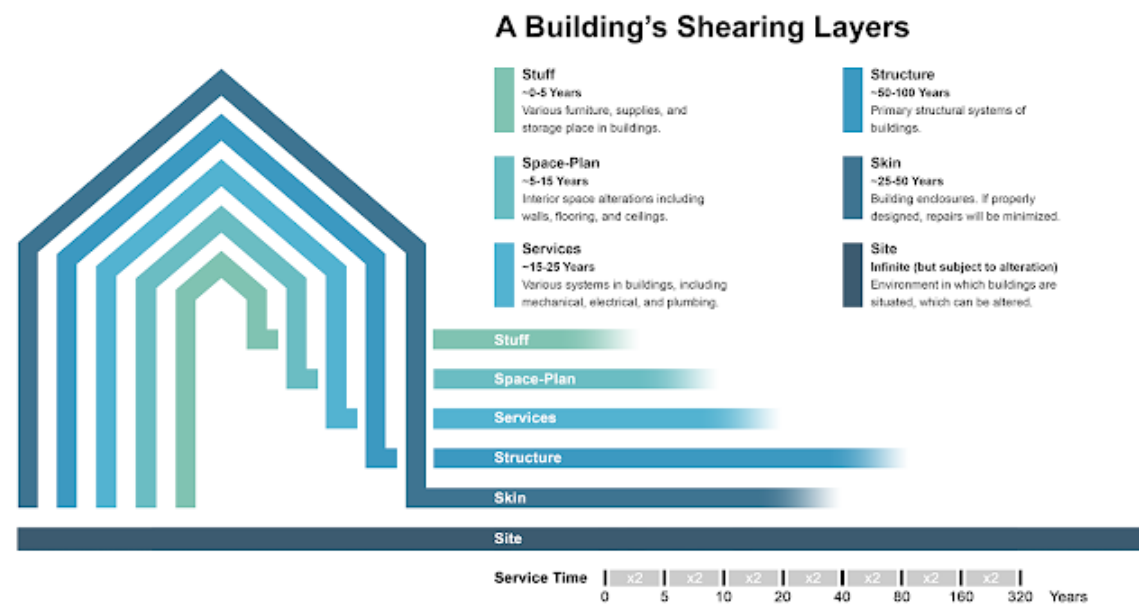
A 'Net Zero Carbon in Operation' school, also focused on optimising the wellbeing of teachers and students.

1.3 Farrington Community Academy

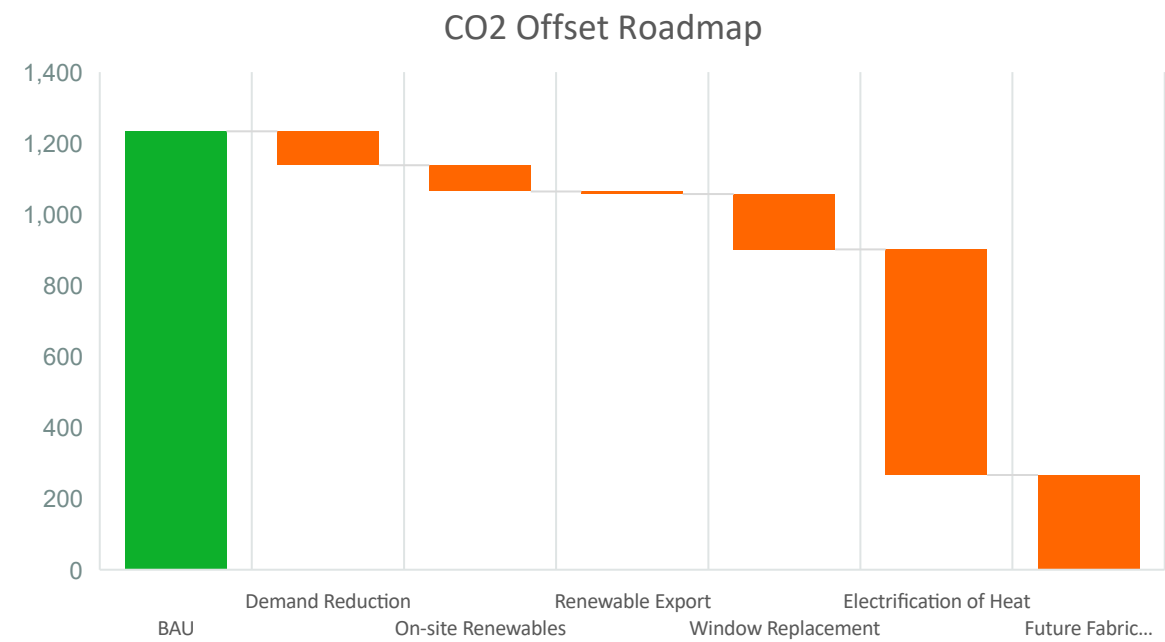


2. Space House

3 Multi-step 'lifecycle'



Credit Frank Duffy.
Illustration by BE
Building Enclosure





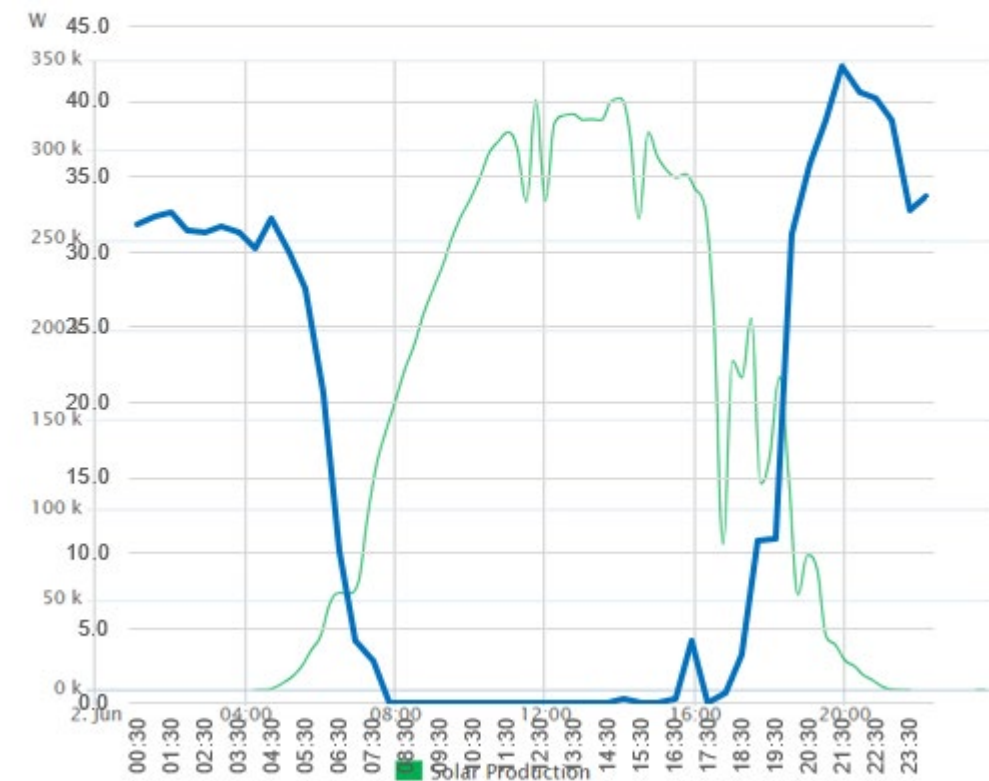
Car park PV system as part of multi-measure decarbonisation plan targeting net zero by 2040

3.1 Wharfedale Hospital

System Production: **3.01 MWh**

02/06/24

solaredge





Victorian rail depot introducing
multi-measure decarbonisation
using ASHP's and Solar PV

3.2 Ashford Depot



Challenges

1. Speed of change and high cost of change
2. Integration of systems
3. Connection of individual buildings into districts / neighbourhoods
4. Skills and knowledge transfer

