MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS

UNIVERSITY OF CAMBRIDGE

Cavendish Laboratories

Department of Physics

Mansfield Pollard Air Handling
Project Profile

ULTIMATE PERFORMANCE

A WORLD CLASS RESEARCH FACILITY

Cavendish laboratories have been home to the Department of Physics since 1874. The **£250 million** redevelopment has provided a purpose-built centre for world-leading research, bringing together all of the Cavendish's research groups under one roof. The flagship building is the **Ray Dolby Centre**, in recognition of a £75million gift from the estate of sound pioneer Ray Dolby.

With a gross internal area of around **354,000 sq ft** (33,000 sq m), the Ray Dolby Centre will house a range of laboratories, offices, clean rooms, workshops and multiple lecture theaters. An independent 50,000 sq ft (4,700 sq m) **shared facilities hub** will provide catering, collaborative teaching, meeting, study and library spaces to the campus.

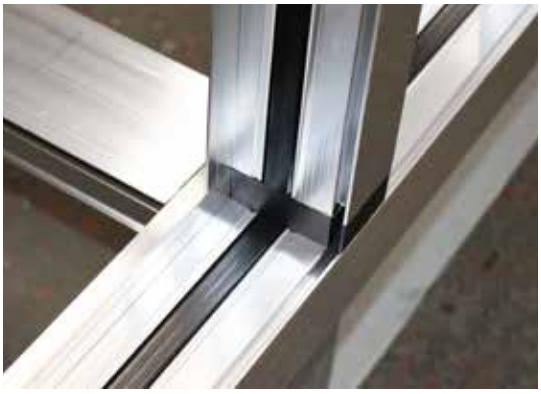
A PARTNERSHIP APPROACH

With **supplier sustainability** and technical expertise being key partnership drivers, Mansfield Pollard were engaged by main contractor **Bouygues UK** to design, manufacture and install air handling units, serving all areas of the 33,000m² development and contribute to the delivery of a **BREEAM** rating of **EXCELLENT** for the full development.

CODE FOR A SUSTAINABLE BUILT ENVIRONMENT
BREEAM UK
EXCELLENT

Cambridge University and Mansfield Pollard

MAXIMUM EFFICIENCY



Thermal Break Profile

Specialist aluminium profile to achieve class TB2(M)

Double Heat Recovery Loop

Innovative dual coil runaround system for maximum efficiency.

Acoustic Control

Bespoke attenuation to achieve stringent noise reduction levels

x4 EC Fan Array

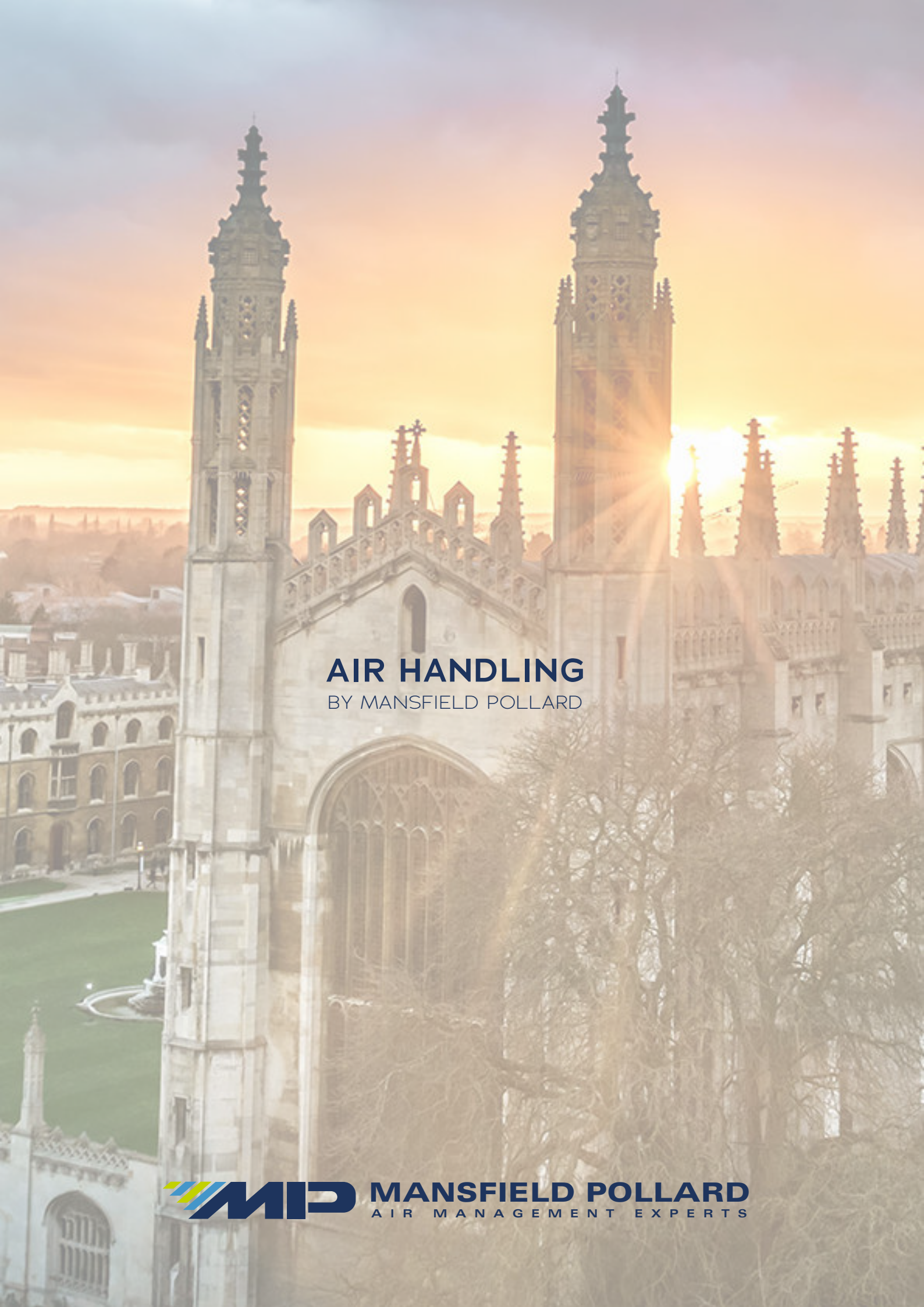
Offering the ultimate in flexibility, efficiency and low noise levels

PROJECT HIGHLIGHTS

Twenty precision air handling units were required to provide critical ventilation to all areas of the new Cavendish Laboratories redevelopment. All AHU's were manufactured using specialist thermal-break aluminium profile. Achieving a **thermal bridging factor in excess of TB2(M)** not only improves energy efficiency, but also minimises the risk of any condensation forming internally or externally, protecting the units from both corrosion and micro-organism growth.

To further improve the energy efficiency the recovery system, all supply and extract units serving the new Laboratories incorporated **dual run-around coil systems** comprising four multi-row finned tube coils connected via a pumped pipework circuit.

Cambridge University and Mansfield Pollard



AIR HANDLING

BY MANSFIELD POLLARD

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