

THE FERN PASSIVHAUS CONCEPT

REDFERN, NSW

CASE
STUDY

PROJECT DESCRIPTION

Located in Redfern, one of Sydney's most sought-after inner city addresses and opened by Sydney Mayor Clover Moore, The Fern is the first group of Passivhaus Apartments in the Southern Hemisphere. Utilising the 'Passivhaus' concept; a revolutionary way of building that creates an airtight, super-insulated envelope with 24/7 filtered fresh air, forming a healthy, clean, quiet sanctuary in the city, The Fern sets a new standard for sustainable 21st century city living.

Local Architect, builder and developer, Oliver Steele, has spent the last 4 years designing and detailing each and every aspect of his latest creation. He's overseen the Steele Associates team with the uncompromising precision that's earned them a swathe of industry awards in the past decade.

Comprising of 11 one-bedroom, 'next-gen' serviced apartments, the building features triple glazed doors and windows which are six times more energy efficient than code compliant equivalents plus airtight construction, said to be 40 times better than average homes, keeping out dust, noise and insects - boasts 9.3-10 star NatHERS energy ratings - the highest achieved by apartments in Australia.

PROJECT REQUIREMENTS & CHALLENGES

The challenge for MHIAA was to meet the requirements for constant fresh, hypo-allergenic filtered air free of dust, pollen and pollution through heat recovery ventilation, now a code compliant ventilation solution. The project also required a compact and modern split system air-conditioner that was energy efficient enough to abide by the buildings strict energy efficiency requirements.

PROJECT DETAILS

The Fern
Redfern, Sydney, NSW

COMPLETION DATE

September 2019

INDOOR UNITS INSTALLED

11 x Avanti PLUS® Split Systems



SUPERIOR TECHNOLOGY THAT
OUTLASTS AND OUTPERFORMS

 **MITSUBISHI
HEAVY INDUSTRIES**

AIR CONDITIONING



MHIAA'S SOLUTION

MHIAA's solution was to provide 11, 2.0kW Avanti PLUS® split systems for The Fern's rooms and other spaces. The Avanti PLUS® is our platinum series of split systems which boasts industry leading energy ratings. The model installed at The Fern has a 7 Star energy rating – the highest of any air-conditioner in Australia.

The Avanti PLUS® incorporates advanced components and energy saving features and functions such as an intelligent motion sensor which detects human activity and adjusts the operation to save energy. Like many of MHIAA's other products it is an award winner, recently claiming an Australian Good Design Award for its modern design and energy efficiency.

MHIAA will continue to give high priority to innovation through research and development with MHIAA's Managing Director, Yuji Ito explaining - "Celebrating our 20th anniversary has given us new impetus to ensure we remain a market leader in what is now a very competitive market. We want to ensure our customers have the very best in new climate control technology available to them, like the Avanti PLUS® series."



SUPERIOR TECHNOLOGY THAT
OUTLASTS AND OUTPERFORMS

 **MITSUBISHI
HEAVY INDUSTRIES**

AIR CONDITIONING