



BUILDING THE FUTURE

**AWS JOINS AVS WINDOWS AND DOORS IN SUPPORTING FUTURE HOMES 2010
SUPPLYING INNOVATIVE THERMALHEART™ SYSTEMS FROM VANTAGE ALUMINIUM**



Our climatic future is unpredictable. The task for builders and home designers is to meet these evolving challenges with innovative thinking. The Future Homes 2010 (FH10) competition was launched to encourage young students to think about how they would respond to their changing environment. The brief? To design a 20m² home that was carbon neutral and easily moved. The idea was to build a dwelling that was functional yet sustainable, and which maximised the use of the environment to heat and cool the building.

The FH10 project is the brainchild of Central Coast builder, Craig Riddle, of Living Green Designer Homes. Riddle felt strongly that students should be given a platform from which to think about their own future homes. As an additional incentive, Riddle offered to build the winning design and involve the students directly in the building process. Entries to the competition flooded in from Year 9 and 10 students all over the Hunter Central Coast region.

Students determined the most efficient use of space, as well as how to incorporate water/energy-saving features into their home designs. The proud winners were four Year-9 Technology and Applied Studies students from Merewether High School in Newcastle: Macfarlane Amey, Claire Burgess, Nina Long and James McMurray.

The four students designed a quadrant-shaped house with a roof angle of about 23 to 24 degrees, which they calculated was the most efficient way to harness solar power. The students also wanted to gain as much sun from the northern aspect as possible, while ensuring the best thermal results. To meet their design ambitions, local window expert, Darren Andrews of AVS Windows & Doors (AVS), was consulted. Following discussions with Darren, the Merewether High School students identified ThermalHEART™ window and door systems as the ideal solution for their project. ThermalHEART™ systems are the most recent



Vantage Designer Series ThermalHEART™

- Maximise energy efficiency and comfort with Vantage's new range of thermally broken windows and doors. ThermalHEART™ is the technology that lies at the core of the new Vantage range of thermally efficient aluminium windows and doors.
- Released as part of Vantage's Designer Series, this innovative product range is ideal for applications where minimising cold and heat transfer is a priority. ThermalHEART™ products include a glass fibre-reinforced nylon insulator or thermal break between the aluminium exterior and interior elements. This break minimises heat transfer between the interior and exterior elements.
- When combined with double-glazing, ThermalHEART™ products perform approximately 32% better than standard double glazed units.

In addition to the Vantage range of residential windows and doors, these innovative systems incorporate a thermal break to reduce the transfer of heat across the window frame, enabling better control over interior temperatures, to maximise efficiency and comfort. Architectural Windows Systems, in conjunction with AVS Windows and Doors, agreed to donate their knowledge, time and products to this unique project.

The ThermalHEART™ windows were delivered to Riddle's warehouse, where the students were building the home using Hebel blocks, recycled timber and metal orb roofing.

Once complete, the home was delivered to Merewether High School in two parts, and the site now hosts a ground-breaking dwelling of

the future. The results have been outstanding with the structure achieving highly favourable interior comfort levels and thermal efficiency. It will be used as a learning space, and as a means of engaging new students and partners to take the FH10 initiative forward into 2011 and 2012. With the support of people like Craig Riddle, and suppliers and fabricators like AWS and AVS, the future will involve even more students making very real contributions to innovation in the building industry.

Scan the QR Code to View the Youtube video about this project



AVS Windows & Doors is one of 150 licensed manufacturers of Vantage and Elevate™ Aluminium Systems products around Australia. Located in Tuggerah on the NSW Central Coast, AVS are focused on effectively and efficiently servicing the Newcastle, Central Coast and Sydney regions. Liz and Darren have over fifty years experience within the window manufacturing / building industry and are able to assist you with selecting the right product for your project.

NEED MORE INFORMATION?

For the latest technical information regarding the Vantage Designer Series ThermalHEART™ or other Vantage products, visit our website: www.vantagealuminium.com.au

2D & 3D CAD FILES AVAILABLE

Download the Vantage Designer Series ThermalHEART™ CAD & Revit 3D Files to use in your projects from the SpecifyAWS Website: www.specifyaws.com.au



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