



Open Vistas – Batman House

> Text by Tim Roberts, Photography supplied by Ian Wallace

Batman House, a striking glass-encased residence in Tasmania's north, demonstrates glazing's capacity to enhance vibrant living spaces with strong links to their natural surroundings.

The structure of Batman House is wrapped in performance double-glazing, with framing a combination of Architectural Window Systems (AWS) Magnum and Elevate. According to the architect, choosing a supplier for the window frames was a 'no-brainer'. Praising the ability to mix and match window suites within this custom-built project, the architect contacted Michael Dalton, Manager of Glass Supplies and the Tasmanian fabricator for AWS.

As Michael explains, each element of the glazing for this ambitious project was carefully chosen. 'Batman House contains a wide mix of residential and commercial glazing,' he says. 'This includes a range of IGUs, coupled with ComfortPlus™ low-E

ranging from 6.38mm to 10.38mm for the single-glazed applications and Viridian translucent glazing in the bathrooms for privacy. The high proportion of onsite glazing was made necessary by the sheer size of the windows.

'Low-E glass was used for the small highlight windows, which were too delicate to take double glazing. These were glazed in a channel fixed to the steelwork, as the owners wanted a minimalistic look with little of the framing visible,' Michael points out.

The IGUs and low-E glass were chosen for their thermal properties. 'Due to the vast area of glazing in Batman House, minimising heat loss and gain was essential,' Michael says. 'This region in Tasmania experiences a wide fluctuation in temperatures, ranging from around -3°C in winter to the mid-30s in summer, so achieving stability in this area was a key challenge.'



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(Batman House continued)

The picturesque site provided the motivation to push window sizes to their limit. 'The north-facing aspect was built to take advantage of the sun, in combination with the view of the Tamar River and the surroundings,' says Michael. 'One aim was to capture available daylight during months with little sun. The glazing allows the owners to capture the precious available light for most of the day.'

Batman House is equally notable for its environmentally sustainable concepts. As the house utilises the properties of passive solar design created by facing the axis of the residence north towards Batman Bridge, the structure's high thermal mass provides a huge advantage. Batman House features insulated slab floors as an energy-saving measure, tempered by a visual lightness making the building seem as if it's floating on air.

This environmentally conscious design played a further role in Batman House's ability to combine impressive energy efficiency with a high degree of light transmission. These are essential assets in a building with a memorable natural outlook, with the openness to sunlight cutting energy use by reducing artificial lighting.

The house's aesthetics are intense and unmistakable. A range of finishes and

materials grace Batman House throughout, with the sleek exterior merging brightly coloured planes and glazed sheets with prominent steel supporting cables. Notable features include a glass-walled bathroom and master bedroom with views onto the property, small decorative corner windows, and a streamlined home office bathed in natural light.

Close attention was also paid to the selection of the fittings and hardware. The interior includes locally made custom furniture and exposed aggregate stacked blockwork, complemented by 424 CentreGLAZE™ windows, 704 SlideMASTER™ doors, and framing by AWS.

Another of Batman House's notable features is the glass-encased kitchen and adjacent dining room, offering the closest possible experience to cooking and dining within nature. 'The dining room and kitchen area projects outwards toward the lounge,' Michael observes. 'This leads onto a deck with a stacking door and those oversized windows on either side, yielding enviable views of the Tamar River spanned by Batman Bridge.'

This level of innovation carries right through to the external features. Many elements of Batman House's construction are a one-off, designed in response to the exquisite setting.

Built on a difficult site with poor bearings for the foundation, the building is unique in its lack of traditional double-storey foundation walls and footings. To remedy this, columns were used to support the entire structure.

The arresting exterior, with its cable-supported structure and strikingly positioned living area, vividly echoes the project's visual inspiration, Batman Bridge. The suspended slab on which the house rests is covered in slate tiles. Minimalist gardens and surrounding stone-paved water features, drawing on motifs of Japanese design, complement this elegant selection of materials.

The AGGA judging panel, when reviewing Batman House, complimented the builder and designer's skills, praising the 'great use of solar passive' principles and 'exceptionally clean' finish. The judges also noted the building's ability to utilise technically difficult materials to the residents' advantage.

Effortlessly combining sustainability, spectacle and sumptuousness, Batman House defines a balanced architectural style that exists in harmony with its beautiful surroundings. **GA**