IBP Awards 2019
New journalist of the year entry
Frances Williams, technical editor, Architects' Journal

Introduction

Fran has been a journalist for less than a year, yet she has proved herself exceptional in her critical and writing ability, and her editorial and organisational skills.

Coming fresh from architectural practice, she has brought a knowledge and practical understanding to her role as technical editor that has been of massive benefit to the whole AJ team.

With building studies, a key part of our coverage, Fran has intelligently applied her experience in practice to the analysis of new buildings, providing incisive and critical appraisals which have not been afraid to call out design shortcomings. She has a keen eye for detail and material but also for the human-side of stories – how buildings serve people's needs.

She has worked on features across the AJ, researching and reporting on news stories as well as providing digital content – bringing her technical understanding to bear in particular on analysis of embodied carbon, an invaluable contribution to AJ's ongoing climate crisis initiative.

Fran has led editorially on the research, commissioning and coordination of content for AJ's monthly technical supplement, AJ Specification. In this she has impressed through her ability to identify key projects across the UK that llustrate and expand the themes and issues each month.

Fran led brilliantly on the AJ Student issue, in particular taking the 80-page in-issue AJ Student Prize supplement, only in its second year, to a new level overseeing, managing and editing its content. Again, proving the worth of her background and contacts, she secured a 100 per cent entry rate for the main student prize, with all of the 51 RIBA-accredited schools entering.

On top of all this, she leads on sourcing, coordinating and content provision for the daily First Look feature on the best new buildings across the UK.

Fran has consistently proved to be a driven, organised and perceptive critic and journalist with a sharp eye for content, keeping to deadlines and demonstrating commitment and verve. Fran's contribution to the AJ title has been absolutely crucial to its success in 2019.

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Supporting material 1/3
Zero performance gap: Pollard Thomas Edwards' Virido development
28 February 2019

This one of the first building studies that Fran had written, was an exceptionally astute appraisal. Focussed on a key sector and issue, Fran's analysis review demonstrated an even-handed but unflinching approach to criticism and analysis, not pulling punches where the scheme fell down – in this case in its detailing and provision of social space. The piece provides a strong and perceptive analysis of the scheme.

www.architectsjournal.co.uk/buildings/zero-performance-gap-pollard-thomas-edwards-virido-development/10040365.article?search=https%3a%2f%2

Building study

Zero performance gap

The prototype homes in Pollard Thomas Edwards' Virido development are the first dwellings in the UK where as-built performance has been found to match that of the design. But where's the beauty of the scheme?

Pollard Thomas Edwards' (PTE's) Virido development at the southern edge of Cambridge is one of the UK's largest zero-carbon neighbourhoods. Comprising 208 new mixed-tenure homes (half of which are designated affordable) and commercial accommodation, the scheme is laid out in a grid of 'quads' surrounding a central open space. The homes are constructed with airtight timber structural insulated panels (SIPs), triple glazing and mechanical ventilation with heat recovery (MVHR), designed to reduce heat demand by 75 per cent compared with a standard new home. Two concept houses were built in advance of the main project and independently monitored over a year for environmental and social performance. The lessons learnt informed subsequent designs, particularly PTE's ongoing M1|M2 scheme in North-West Cambridge.

Words Fran Williams
Photography Tim Crocker

London-based Pollard Thomas Edwards (PTE) is known for its standard but reliable 'affordable' housing design. When I meet Tom Dollard, PTE's head of sustainable design and associate partner, at Virido he also points to the good work-life balance of the large practice and advocates its design-led approach, including in-office sounding boards every Friday. PTE is currently putting together a pattern book for its housing, to give them 'more time spent on the joy of architecture', as Dollard puts it. That said, while Virido achieves Code for Sustainable Homes Level 5 with no performance gap, it combines this superior environmental sustainability with disappointing aesthetics and an average piece of public realm.

Lying east of Trumpington Village, the site sits on former arable farmland and forms part of the Southern Fringe Expansion of Cambridge. Outline planning consent was granted in August 2010 for the wider Clay Farm site, including up to 2,300 new homes with accompanying community and sports facilities. PTE worked within this broader masterplan to provide Virido's 208 new homes. Positioned next to a Guided Bus route, you can be in the centre of Cambridge within 12 minutes, so the development potential of this site was good.

The modules are stacked, linked and arranged in a series of low-rise courtyard buildings containing on average 23 homes, wrapped around large semi-private spaces. A new landscaped square, Green Quad, sits at the heart of the site. Despite being fully occupied at the time of visit, the development seems deathly quiet. Understandably when visiting on a grey winter's day, mid-afternoon, mid-week, the maximum potential of housing like this was never going to be in evidence. The anonymous black timber blocks seem monotonous, only identified by the numbers on their doors and the random coloured window frames sprinkled here and there across the development – their tones of blue seeming brash and irrelevant.

It's not obvious how 'each quad is unique, differently decorated and landscaped', as the Design and Access Statement puts it.

Cambridge City Council is the sole freeholder of Clay Farm Plot 21 – the Virido plot – and retains ownership of all the affordable housing, of which 25 per cent is intermediate tenure. The scheme is described as 'tenancy blind' with 50 per cent of units being affordable rent, complying with the Affordable Housing Supplementary Planning Guidance for the area. It is only block 'Royce' that has mixed tenancy in reality. The affordable units have been pushed to the edges of the masterplan in 'prominent areas', close to the entrance to the site 'in order they are integrated with the wider community as well as within the Quad development', according to the statement.

In accordance with the Parameter Plans for the development, building heights vary from 1.5- to five storeys, with a density of 77 dwellings per hectare. All homes are Lifetime Homes-compliant, with room areas designed to London Housing Design Guide standards.

All nine typology plans have depths of a maximum of 8m, allowing for good daylighting and cross-ventilation, with dual-aspect kitchen/living spaces. Within the quads, each home has a private garden immediately adjacent, beyond which there is a 'moat' designating its perimeter and serving to define private and shared spaces, as well as providing rainwater storage and attenuation. All apartments have access to either a balcony, terrace or patio garden, but it's hard to tell these apart and they've largely been left bare and unused.

'The bin store is the success of the scheme,' says Dollard. With 509 cycle and 232 car parking spaces for 208 dwellings, these amenities are in abundance. Car parking is mainly located at ground

level beneath shared first-floor deck spaces and is screened along street frontages by commercial and residential accommodation, while bin stores have been successfully hidden within the quads.

On the whole, the residents seem happy with the development. Managed by L&Q Housing Trust, three-bedroomed flats can be rented for £1,200 a month and, with near-zero heating bills, this reflects the view that good location, newness and high thermal standards within dwellings are valued far higher than attractiveness and design by the general public. There is optimism that the development will liven up with the completion of additional retail space and further housing. But unfortunately the craftmanship at Virido does not seem to be wearing well. Poor attention to detail is demonstrated in the pop-out balconies on the interior of each shared courtyard. For example, there appears to be little logic as to how the balconies line up with the windows.

Despite this, the development still looks familiar as homes – the scale seems right. 'It certainly has its own identity. Whether you interpret this as positive or negative, I'm not going to say,' says Dollard.

From an ecological perspective, there is almost no performance gap and the properties approach Passivhaus standards (the 200mm Kingspan TEK SIP panels couldn't eliminate air leakage completely). As an exercise in compliance and meeting criteria for eco-housing, it's high-achieving, but in other respects it seems lacklustre, an unambitious scheme in a sector where we need architects to create real change in housing provision.

Virido was completed following a year-long analysis of two four-bedroomed concept houses constructed in 2014. Research was conducted by Leeds Beckett University's Sustainability Institute and led by Dollard and professors Chris Gorse and David Johnson, the purpose being to gain as much information as possible about how to best harness the benefits of an eco-house. Dollard describes the exercise as 'a nice process to go through; designing a prototype and then the main scheme'.

It was more than that, though. Volunteer residents Lorna and Dave Rayner won a year's rent-free accommodation in a concept house in a competition run by Hill in return for helping increase understanding of life in a 'zero-carbon' home and detailing their experiences in a blog.

The concept homes differed slightly from the rest of Virido, being clad in a light-coloured Metsa Thermowood, rather than the harsh black finish. Construction was similar, however. SIPs were used to create an airtight panel construction providing a high level of insulation largely free from thermal bridges and with low embodied energy.

The key thing to be adopted in view of the experimentation was the use of a Vent Axia Sentinel Kinetic MVHR system to circulate air and get rid of any humidity, stuffiness, damp and smells, meaning windows don't need to be regularly opened, helping to maintain a pleasant temperature. One private and one affordable house were built – for which energy performance monitoring was carried out on utility cost analysis, air quality, internal and external air temperature, MVHR effectiveness, rainwater harvesting and health and wellbeing. Adaptive comfort levels were shown through analysis to be acceptable, even though the respondents reported it to feel 'too warm'. Therefore, while taught the purpose of the MVHR, the concept homes' occupants felt they could live without it, but Hill persevered with integrating the system within the whole of Virido.

Further learnings that directly improved the rest of the project included changes to the specification of the MVHR units to make them more effective and quieter; adapting the glazing to reduce overheating; and integrating low-energy drying cupboards into each dwelling. Space heating reduction was a huge success, with heating bills dramatically less than comparable new homes.

Virido has achieved considerable environmental and sustainable success, and for that it should be applauded. But, architecturally, it has missed the opportunity to create an agenda-setting scheme.

Ridgeway Village plots M1/M2

Following Virido's completion, PTE has continued to work with housebuilder Hill and housing association L&Q in North-West Cambridge on higher-spec properties, creating the first 240 homes for sale within the University of Cambridge's sustainable new community, Ridgeway Village, on plots M1 and M2 of Alison Brooks Architects' masterplan.

The team incorporated lessons learnt from Virido into the design of the M1/M2 homes. The major differences at this site are that developments feed off a central power station and aesthetics must follow a design code set by AECOM.

Here the typologies are a mixture of apartments, private courtyards, terraces and semi-detached homes, mostly in mews. Their layout and hierarchy establish an understandable and coherent public realm where buildings are of a scale in keeping with the typology of each street. Traditional construction has been used for base storeys, with Kingspan SIPs for upper floors, here clad in metal, rather than timber. Rainwater is collected in channels laid in each street, then returned to the properties as grey water after processing.

These properties fall into the 'luxury' bracket. Four-to-six-bedroomed dwellings are laid out over three floors, with private courtyard gardens at multiple levels. Plots M1 and M2 by no means fit into the green-living 'eco-home' stereotype that Virido strives for and misses – but underlying sustainable aspects have been incorporated. For instance, they use the same MVHR system successfully deployed at Virido and feel comfortably warm on the cold winter's day of our visit. Grey water is used to flush toilets and a spacious drying cupboard has been incorporated, too, despite there being adequate space for hanging clothes outside and in.

Architect's view

Virido is laid out in a grid of 'quads' surrounding a central open space. Each quad is designed as a series of modules which are stacked, linked and arranged in different combinations of houses, duplexes and apartments. The quad is the essence of the masterplan. It sets out a rigorous hierarchy of spaces with a concentric layering of thresholds; from the street, through the home, across the grill edging the patio gardens and defining the shared space of the courtyard garden.

The buildings are made up of a chalky-cream brick base with maintenance-free Kebony timber vertical boarding to upper floors. The range of homes and terraces create distinctive elevations, offering a variety of recesses and slots within each volume of building. The variations are enhanced by contrasting cladding to the interior and exterior façades and textured cladding to south elevations, creating a play of light and shadow.

All the homes are zero-carbon in terms of operational CO_2 over a year. They exceed Code for Sustainable Homes Level 5 with rainwater harvesting, environmentally friendly construction and 'A' EPC ratings. The heat demand has been reduced by 75 per cent compared with a standard new home when modelled in PHPP and monitored in occupation.

Every home is dual-aspect, with high ceilings to allow daylight and natural cross-ventilation throughout. Roof areas are covered with photovoltaic panels over a biodiverse green roof. High-performance triple-glazed windows and effective natural purge ventilation ensure that the homes do not overheat in summer.

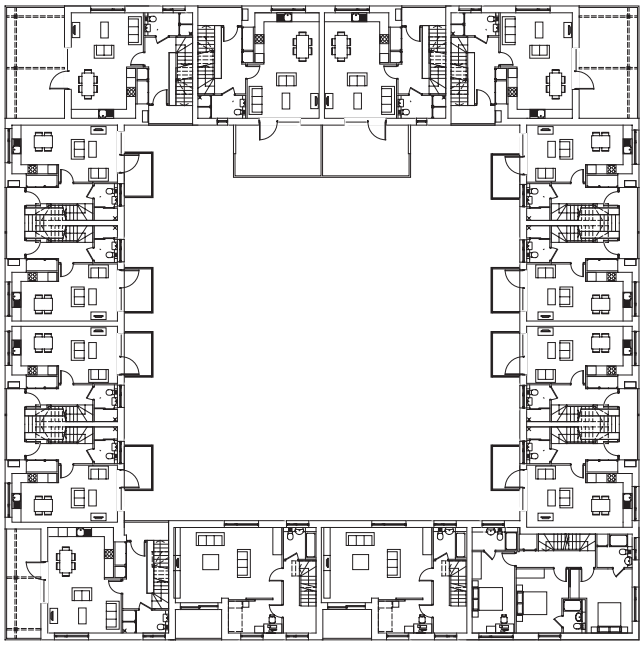
Tom Dollard, head of sustainable design and associate partner, Pollard Thomas Edwards

Project data

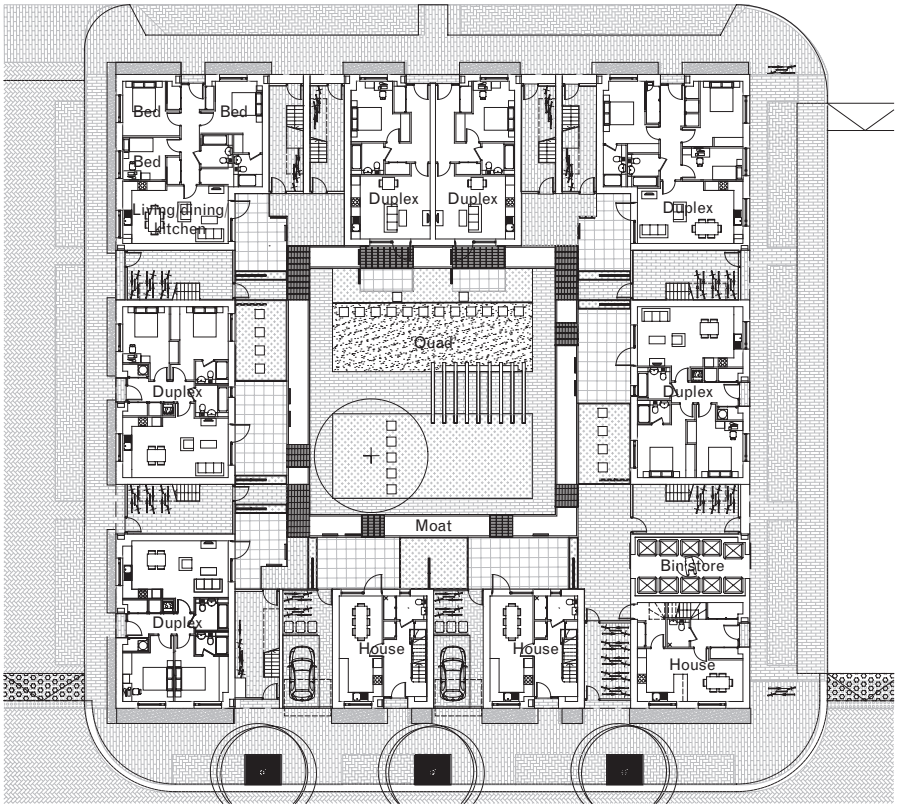
Start on site June 2015
Completion October 2017
Construction cost £46 million
Construction cost per m² £3,765
Architect Pollard Thomas Edwards
Executive architect
Pollard Thomas Edwards
Client Hill
Structural engineer (civil and structural) PEP
M&E consultant AECOM
CDM co-ordinator AECOM
Main contractor Hill
Landscape architects
Robert Myers Associates
Sustainability consultant Baily Garner
Annual CO_2 emissions –0.92kg/m²

Sustainability data

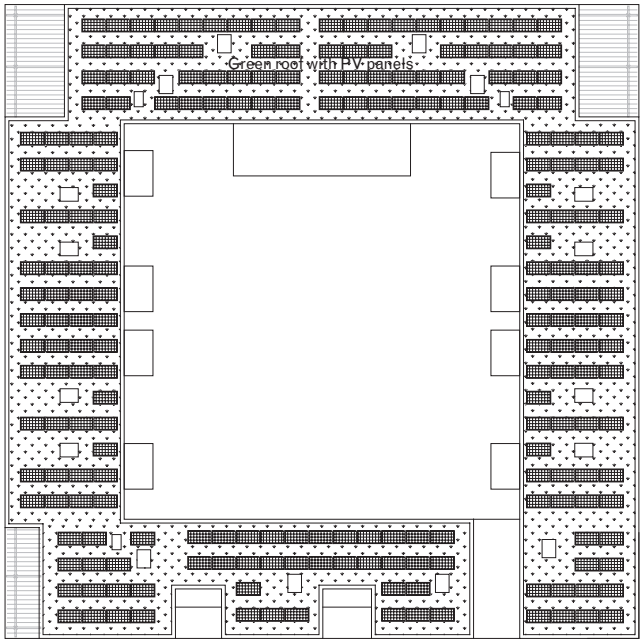
Percentage of floor area with daylight factor >2% 90%
Percentage of floor area with daylight factor >5% 50%
On-site energy generation
495MWh/yr from PV
Annual mains water consumption
29 m³/occupant
Airtightness at 50pa 1.5 m³/h.m²
Heating and hot water load 34.4kWh/m²/yr
Overall area-weighted U-value 0.2W/m²K



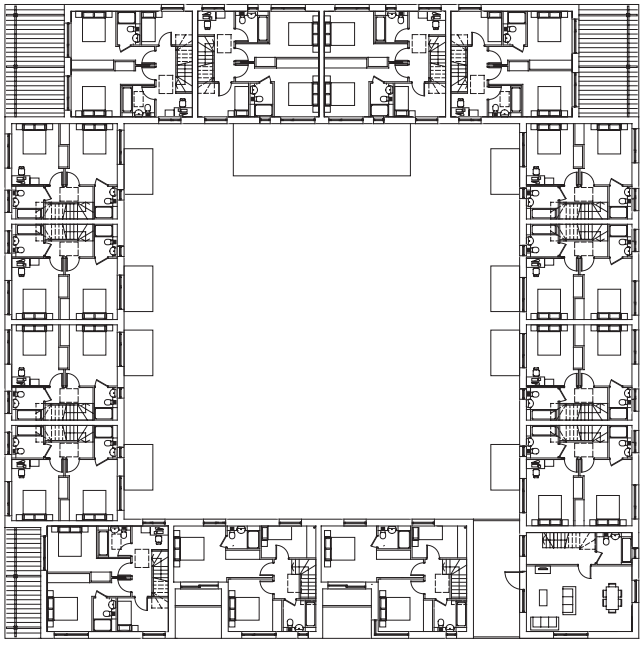
First floor plan



Typical ‘quad’ ground floor plan



Roof plan



Second floor plan

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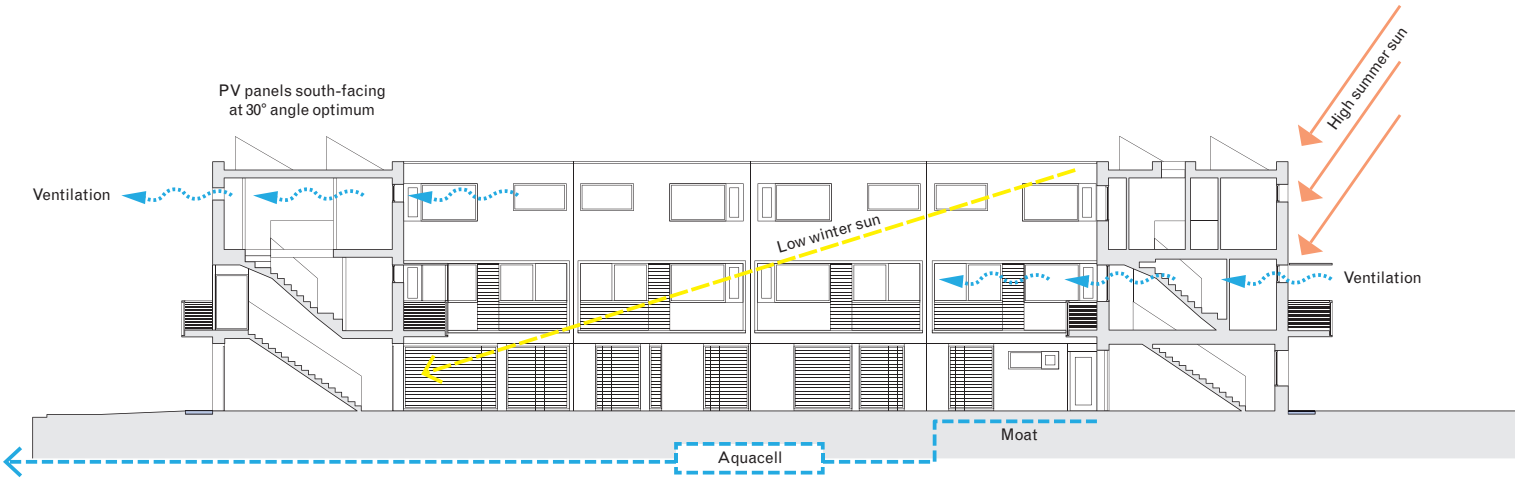


Virido section sustainability diagram

Client's view

Virido offers its residents a sustainable lifestyle. The community-oriented neighbourhood and energy-efficient homes were created in partnership with Cambridge City Council, with all homes reaching Code for Sustainable Homes Level 5.

Virido has a modular design, with eight quads around a green communal area. Each home contains a wealth of sustainable features, including triple glazing and special coatings to reflect heat back into the building, so that the homes lose around 80 per cent less heat than single glazing and 50 per cent less heat than double glazing.

Homes at Virido also benefit from a mechanical ventilation and heat recovery system that ensures a constant flow of clean, filtered air, removing stale air from kitchens and bathrooms and using the warmth from these to heat the fresh air supplied to bedroom and living spaces. Externally, the buildings have structural insulated panels (SIPs) that ensure the homes achieve four times the amount of insulation than an average new-build property, and the walls offer 20 per cent less heat loss than a typical building, without compromising on size.

This is a landmark site for us as a developer, but also for Cambridge. It emphasises that the city is one of the UK's innovation and technology hubs at the forefront of the sustainability agenda, and we are delighted to have been entrusted by the council to develop this important project.

By pioneering new technological advances in residential development this site is one of the largest and most sustainable of its kind in the country.

Rob Hall, deputy managing director, Hill

Sustainability consultant's view

Leeds Beckett University validated the quality of the design and construction of the Virido Prototype. Specifically, its technicians measured the performance gap between the design and as-built heat transfer coefficient (HTC). The HTC is an aggregate assessment of the convective (via infiltration) and conductive heat losses (via fabric elements), so it measures how much energy is needed to heat the home.

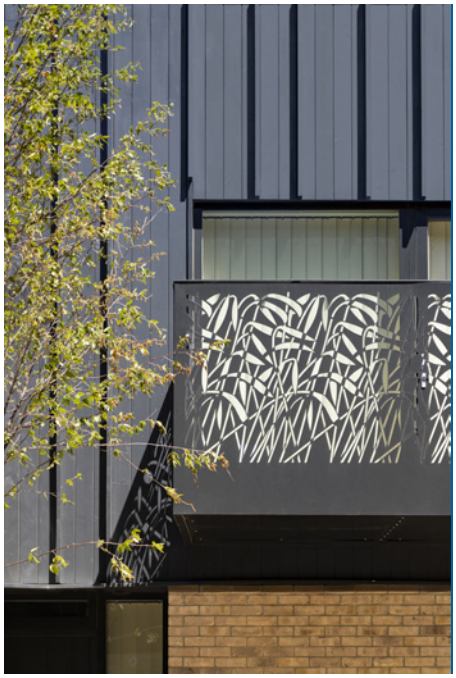
The as-built HTC can be measured by the electric co-heating test (developed by Leeds Beckett University), which monitors the power required to maintain a given interior temperature at known stable external conditions. Using this approach, we can observe the gap between design and as-built performance.

We have evaluated the performance gap for dozens of new-build homes and observed performance gaps measuring from 10 per cent up to 100 per cent and, in rare cases, more than this: ie in cases where houses needed more than twice the energy to heat them than was planned.

Generally, the more energy-efficient a home is designed to be, the lower its performance gap. Passivhaus homes we have tested usually had the lowest gaps, perhaps because of greater rigour in their specification, construction and quality assurance processes.

The Virido concept homes outperformed all the homes we have previously tested. The performance gap that was measured was within the margin of error of the test, meaning that this may be the first home built in the UK that has been tested and shown to be without any measurable performance gap at all.

David Glew, reader, Leeds Sustainability Institute, Leeds Beckett University



Working detail

Virido is constructed from offsite-manufactured timber-frame SIPs, made up of a 142mm insulated timber OSB sandwich panel, with an additional 50mm rigid insulation and internal service zone to minimise penetrations of the breather membrane. This construction achieves a U-value of 0.12W/m²K and is airtight to achieve the low heat demand.

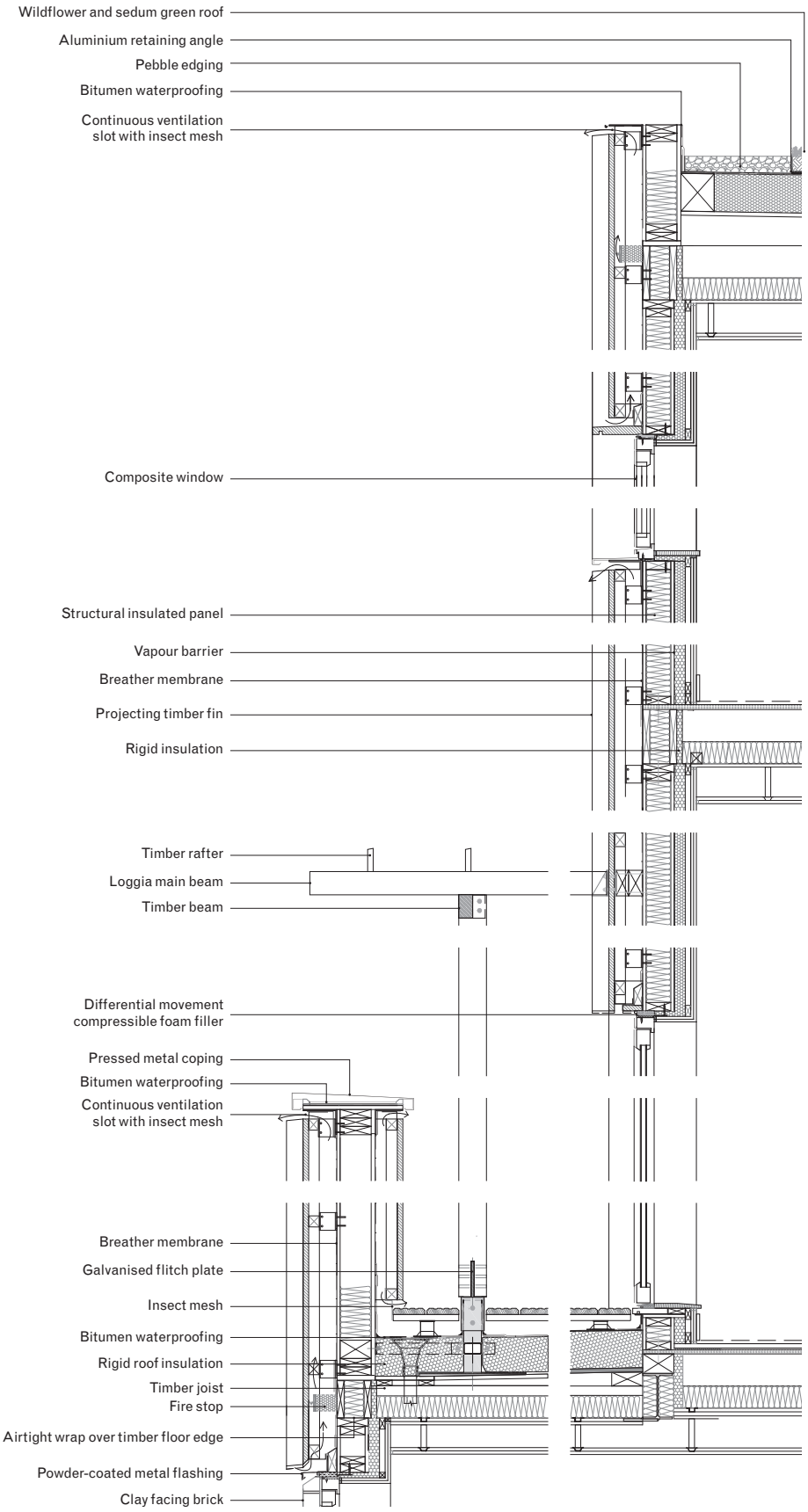
Triple-glazed windows of 0.8W/m²K are positioned overlapping the brick and insulation zone to form a weathertight seal and minimise thermal bridging.

The SIPs are clad in a full brick for a robust ground floor and in timber at the upper floors. The vertically oriented timber is Kebony, an environmentally sourced robust timber board that doesn't require maintenance.

The external wall detail has projecting timber for the south elevations to provide some shading for windows beneath and to create a play of light and shadow across the façade. Internal courtyard elevations have a contrasting lighter cladding that is laid flush, so the daylight in these enclosed spaces is enhanced.

A biodiverse green roof attenuates and collects rainwater. Solar PV panels are installed above these and benefit from the cooling effect of the green roof.

Tom Dollard, head of sustainable design and associate partner, Pollard Thomas Edwards



External wall detail section

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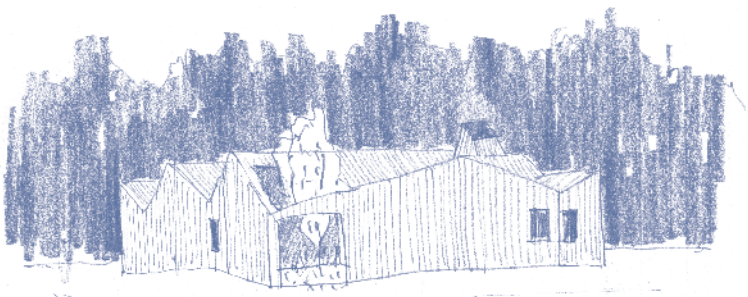
Supporting material 2/3
Maggie's Cardiff by Dow Jones: an oasis of Douglas fir-lined solace
24 April 2019

This piece shows the range of Fran's writing, providing a rich analysis piece of a piece of architecture that goes beyond standard description to indicate how a combination of material, site and function all combine to inform the building's design. As a piece of writing it provides a clear, succinct description of the project – communicating the facts while nicely weaving in observations, anecdotes and quotes to provide a rich and nuanced portrait.

www.architectsjournal.co.uk/buildings/maggies-cardiff-by-dow-jones-an-oasis-of-douglas-fir-lined-solace/10042121.article



Building study

An oasis of Douglas fir-lined solace

With the permanent facility on hold, Dow Jones has created an interim Cardiff Maggie's Centre on a car park plot, creating an engaging piece of experiential architecture. *Fran Williams* reports


V064 KHK
DV13 HKC
M50 GPJ
DY61 YSF
No Parking

This interim Maggie's Cardiff sits on a triangular site in the corner of the car park at Velindre Cancer Centre in Cardiff, backing on to an existing stand of trees. The building's form seeks to reflect the surrounding topography and provide uplifting spaces with a strong relationship to nature – taking one on a journey from car park bleakness to intimate courtyard garden to more contemplative spaces. The interior is lined with Douglas fir, contrasting with the weathered steel cladding and sleek polished concrete floor. At the heart of the building is the cwtch – a tall and intimate roof-lit space inspired by the simnau fawr (big chimneys) of vernacular Welsh architecture.

Words Fran Williams
Photography Anthony Coleman

I meet Dow Jones Architects' directors, Biba Dow and Alun Jones, on site just as the team is hanging artwork for Wales' new Maggie's Centre before it opens the following week. People come and go: ceramicist Lisa Krigel is delivering hand-made crockery inspired by Brutalist architecture and nurses are popping in to take a look. It feels informal and relaxed in the busy little building, perhaps a foresight of how it will feel in use.

The interim Maggie's Cardiff, also known as Maggie's De Ddwyrain Cymru, sits alongside the Velindre Cancer Centre in north-west Cardiff on a triangular site at the top of a car park – probably one of the strangest and most constrained sites Dow Jones has ever had to work with. The practice has designed a strikingly bright tin building with irregular sawtooth roofscape. Shed-like on its exterior, it hides an oasis of Douglas fir-lined solace within, almost turning its back on the bleak tarmac behind.

The building is an interim scheme in the sense that it is not intended to last more than 10 years. Five years ago, the design team won approval for a different site, but this was ruled out after Velindre Hospital was earmarked for a major redevelopment. This includes a new £200 million cancer centre to be built on a site in Whitchurch, just to the north of Maggie's Cardiff.

However, exactly when, or indeed whether, this plan will pull through is uncertain (particularly with its reliance on EU funding). The temporary Maggie's is very different in scale, cost and aesthetics

to that of the original proposal, and to the other Maggie's Centres across the UK that precede it. Impressively matching the architect's concept renders, the scheme is clad in what Jones calls 'wrinkly tin' – corrugated Cor-ten weathering steel, its rust colour echoing the hues of bracken on the surrounding hillsides. The undulating form of the roofline takes its inspiration from the silhouette of the mountains of Pen-y-Fan, 40 miles north, while its common 'shed' appearance is based on the vernacular of rural south-west farm buildings – what Jones refers to as the 'unexpected side of Wales'.

The full extent of the site has been cleverly used. It's a tight plot whose only redeeming feature is the row of up to 20 leylandii trees lining its northern edge. Since this is the only bit of 'nature' on the piece of land, it seems appropriate that the building faces up to and the architects take advantage of the tree-lined fence, conceptualising the schematic arrangement of the project as being about the experience of moving away from car park to the greenery beyond. The snugness of the plot's boundary is accentuated by carefully positioned Antony Gormley-designed bollards (versions of those placed by his own studio as part of a 1994 £60 million Peckham regeneration project), the cast iron treated in the same way as the building's cladding, their orange bulging forms a bit of fun against the site's dull backdrop.

You enter the centre through a courtyard – small but providing a vital threshold – in which a tree has been carefully planted by landscape designer Cleve West. This creates a sense of privacy from the onset, separating one from direct interface with the overlooking reception. The architects were keen to disconnect the experience of arrival from that of a generic health centre in order to be welcoming, and the positioning of the tree was part of a narrative where, says Jones, 'the trees have been taken away and then revealed back to you'.

The cwtch – Welsh for both a cubby hole and a cuddle – is a timber-lined alcove that can be shut off from the centre entirely

Once through the courtyard, you pass the accessible WC to the left, and immediately face the 'kitchen table' – the heart of every Maggie's. At 240m², Dow Jones' building is smaller than a typical Maggie's, yet it met the brief by taking out the 'library'. Therefore what remains is essentially three main therapy rooms surrounding the kitchen in cascading scales; small to medium to large. The beams of the ceiling's underside slant towards the trees at the back and away from the car park, almost encouraging you to move towards them. Jones describes the experience 'as part of a narrative connecting you to the

landscape' – as well as continuing to make clear connections to mountains through the ceiling folds.

Spatially, the scheme is conceptualised as a negotiation between 'wooden objects and space'. This is immediately encapsulated by a sort of solid timber-faced chimney structure in the kitchen. This is soon identified as the 'cwtch', the first such space in a Maggie's. 'Cwtch', Welsh for both a 'cubbyhole' and a 'cuddle' or 'hug', is a word that intrinsically evokes a sense of home. Jones describes it as 'like a space under the stairs', riffing on the idea of 'from space to embrace'. This timber-lined, tiny alcove provides just enough space to lie down. It can be shut off from the centre entirely, giving an experience that can only be compared to camping or meditation, providing an individualised relationship with the sky peeking through a high rooflight. On the wall, two drawings by artist Sean Edwards open up like a book, while a thick curtain acoustically screening the door is made out of a Welsh fabric, double-sided to feature two reverse patterns. A unique space in its physicality, it feels mentally restorative.

It is easy to forget that this is an interim building. Despite the use of materials often

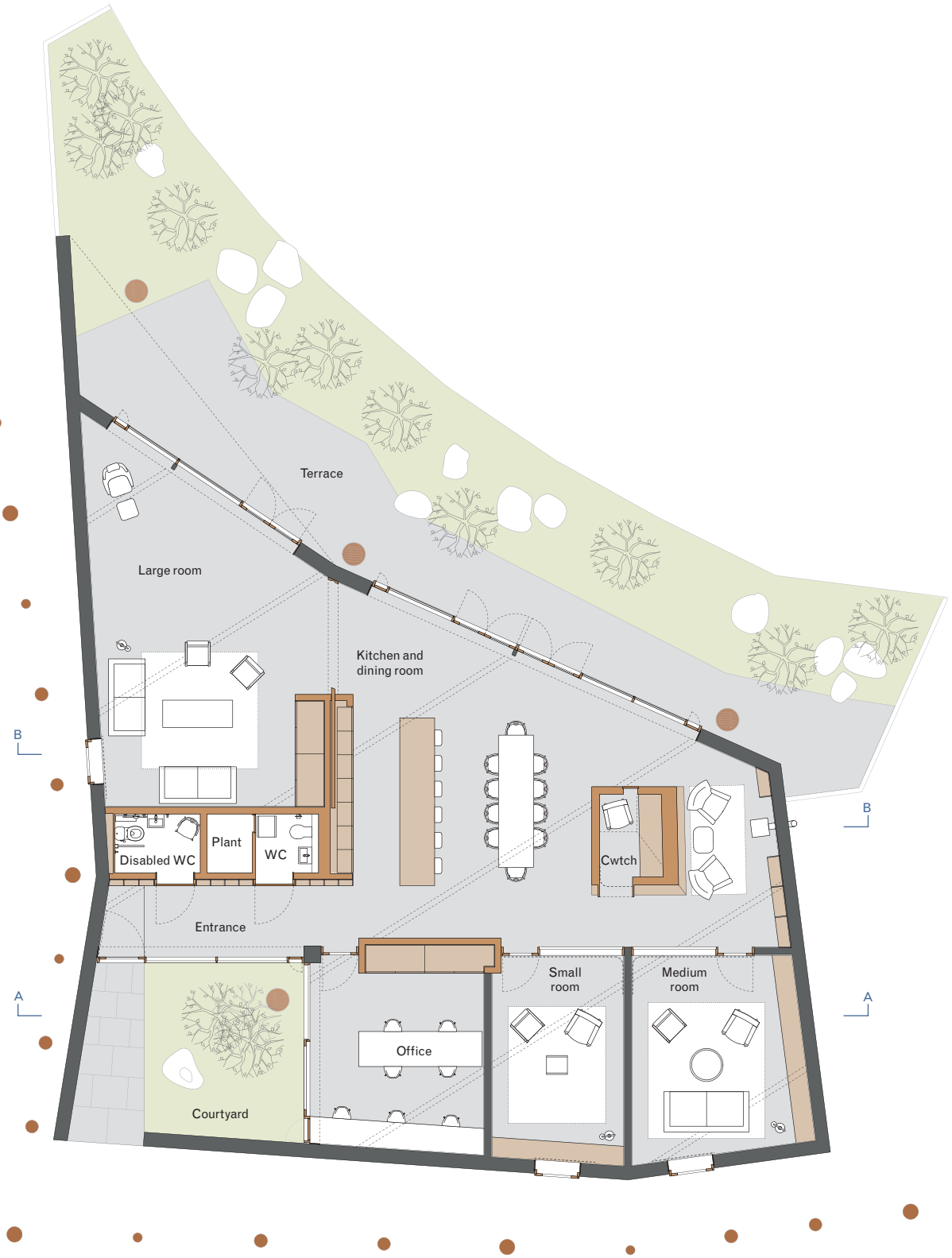
It is easy to forget this is an interim building. Despite the use of materials often associated with temporariness, it feels hard-wearing and solid

associated with temporariness – Douglas fir and corrugated metal – the building feels hard-wearing and solid. This is intentional and helps maintain the desired retreat-like quality. A caravan-like building wouldn't have the same resolve. It's also perhaps a reaction to the uncertainness of its planned permanent replacement – reflecting our own political and economic climate. The architects used the relatively low budget construction method of timber frame and OSB, but with nice finishes, spending money on the things that matter such as furniture, soft furnishings and crockery. The lighting consists of simple light bulbs hanging off purple wires, a wink of fun and quirkiness; though from a sustainability and longevity point of view, perhaps a bit of thought to reuse and design for deconstruction would have been good.

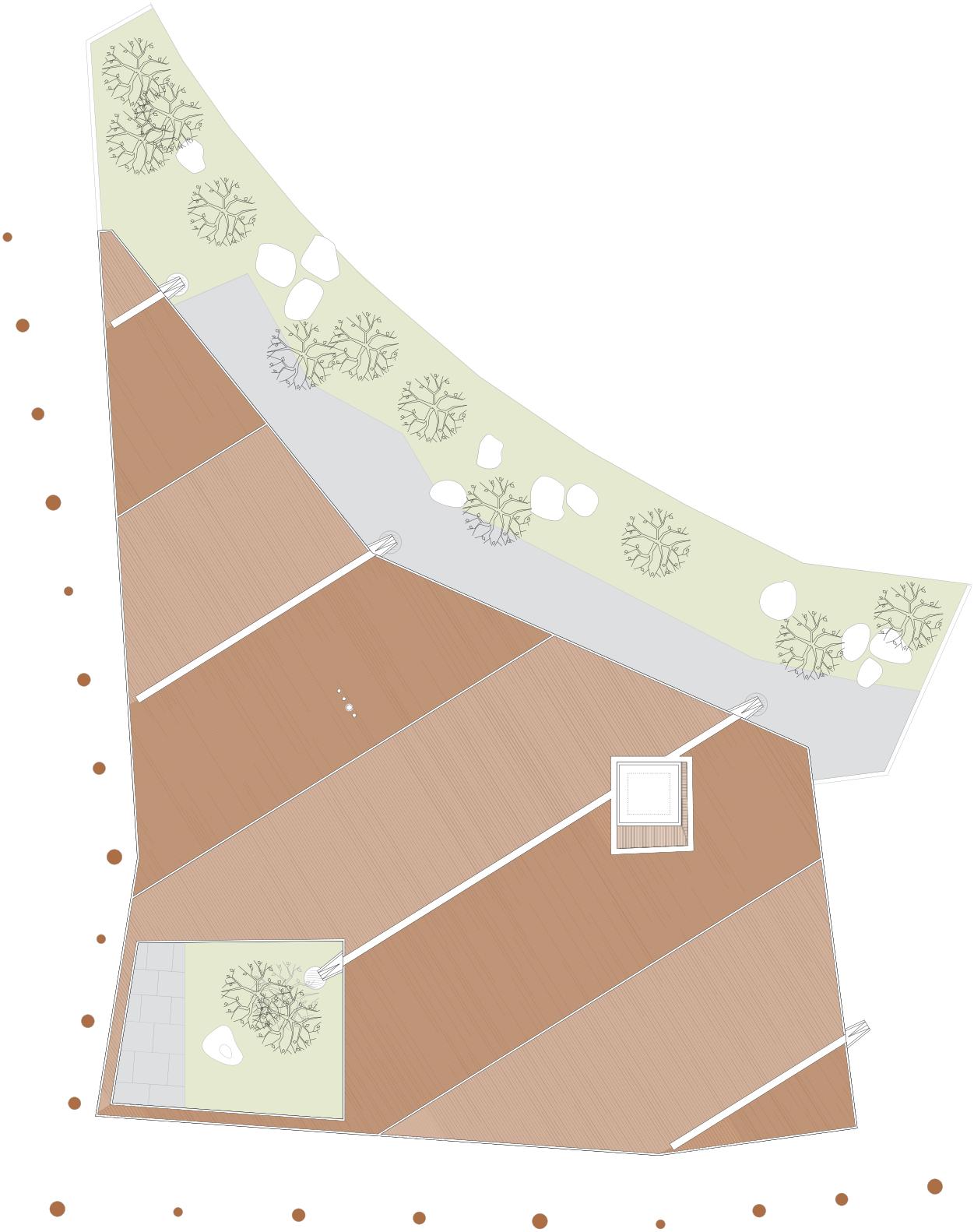
The stories that the art tells constantly remind of the project's purpose. Dow Jones commissioned curator Mike Tooby to choose the building's artwork, which will be rotated every couple of years. They met at a screening of *My Brief Eternity: Ar Awyr Le*, a short film featuring the artist Osi Rhys Osmond, whose mixed-media psychogeographical painting *Self Portrait* (2015) was to become the focal piece of the centre – and was gifted just before

The architects were keen to disconnect the experience of arrival from that of a generic health centre in order to be welcoming

he himself died of cancer in 2015. An overlaying of his memories, the piece coincidently features a mountain covered in orange bracken in the background. As Osmond says in the film, his art was part of his 'way of dealing with what may seem a hopeless experience'. One hopes the centre's current sense of familiarity and homeliness gives some indication as to what the building will feel like in the long run – sensitive to its cause. It feels like a lovely piece of experiential architecture but not overwhelming in any sense. On a busy day, there seems to be a good variety of spaces with lots of opportunity for privacy and serenity – curtains can be drawn over glazed doors in every room. It's secretive; it turns its back on the outside world; and, as one person pointed out to me, 'you cannot see the hospital from it'.



Ground floor plan



Roof plan

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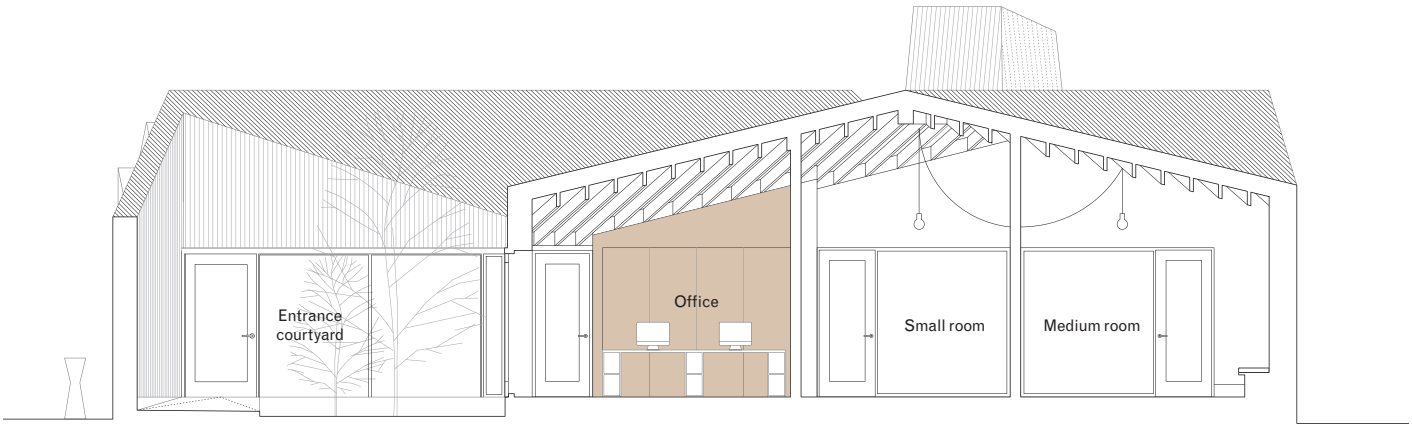
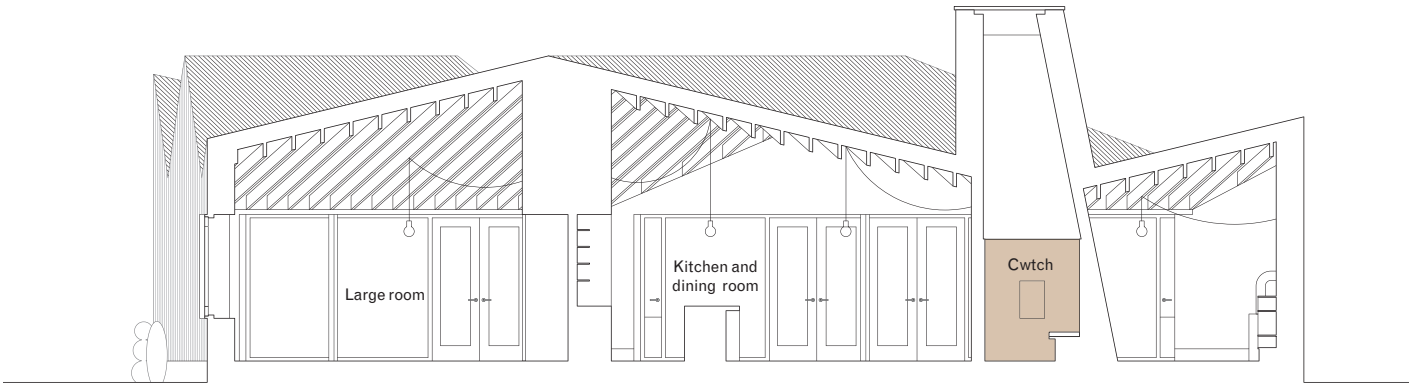


Section A-A



Section B-B

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Client's view

Architects often acknowledge that the more constraints they have, the better the building – and we have to say that this is absolutely borne out for our newest centre which opens very shortly at Velindre Cancer Hospital in Cardiff.

A number of visitors to Maggie's Swansea have travelled the 40 miles or so from the Cardiff area and we were desperate to create a similar facility at Velindre. However, finding a suitable site was a challenge in itself. Possibly the only viable site in the entire hospital campus was eventually located, though this oddly shaped site was hemmed in by car park, perimeter road and boundary fence. Add to this our very demanding Maggie's brief which calls for our buildings to be designed to provide hope and inspiration for all those affected by cancer, then the challenge was hugely increased.

We need not have worried! Alun Jones and Biba Dow have responded by creating for us a building that seems to relish the challenge, and which finds virtue from those enormous constraints. The building provides the anti-stress that our visitors need, one that is so light and airy, and which opens to the totally unexpected and beautifully planted garden created by garden designer Cleve West.

Chris Watson, property director, Maggie's Cancer Centres

Engineer's view

The form of the Maggie's Centre is an interesting combination of being simple yet complex. It appears from certain angles to be geometrically complicated, but when you rationalise it to a series of pitched roofs at an angle to the plan the resolution becomes quite straightforward. The design of the structural frame was driven by the desire to acknowledge this fact and to achieve something that would lead to a simple construction process.

The primary structure is formed from a simple stick frame. The steel beams, which define the ridges and valleys of the roof form, are supported by a mix of local steel columns and sheathed timber infill panels which provide racking stability. Prefabrication of both the steel frame and the structural timber racking panels was developed to reduce site construction time. A detailed three-dimensional CAD model of the frame and collaboration between the steel framing contractor, the timber framing and the architect, meant site modifications were minimised.

Foundations were rationalised into a shallow raft, reducing interaction with local site services and detailed appropriately to accommodate the volume-change potential of the clay ground conditions.

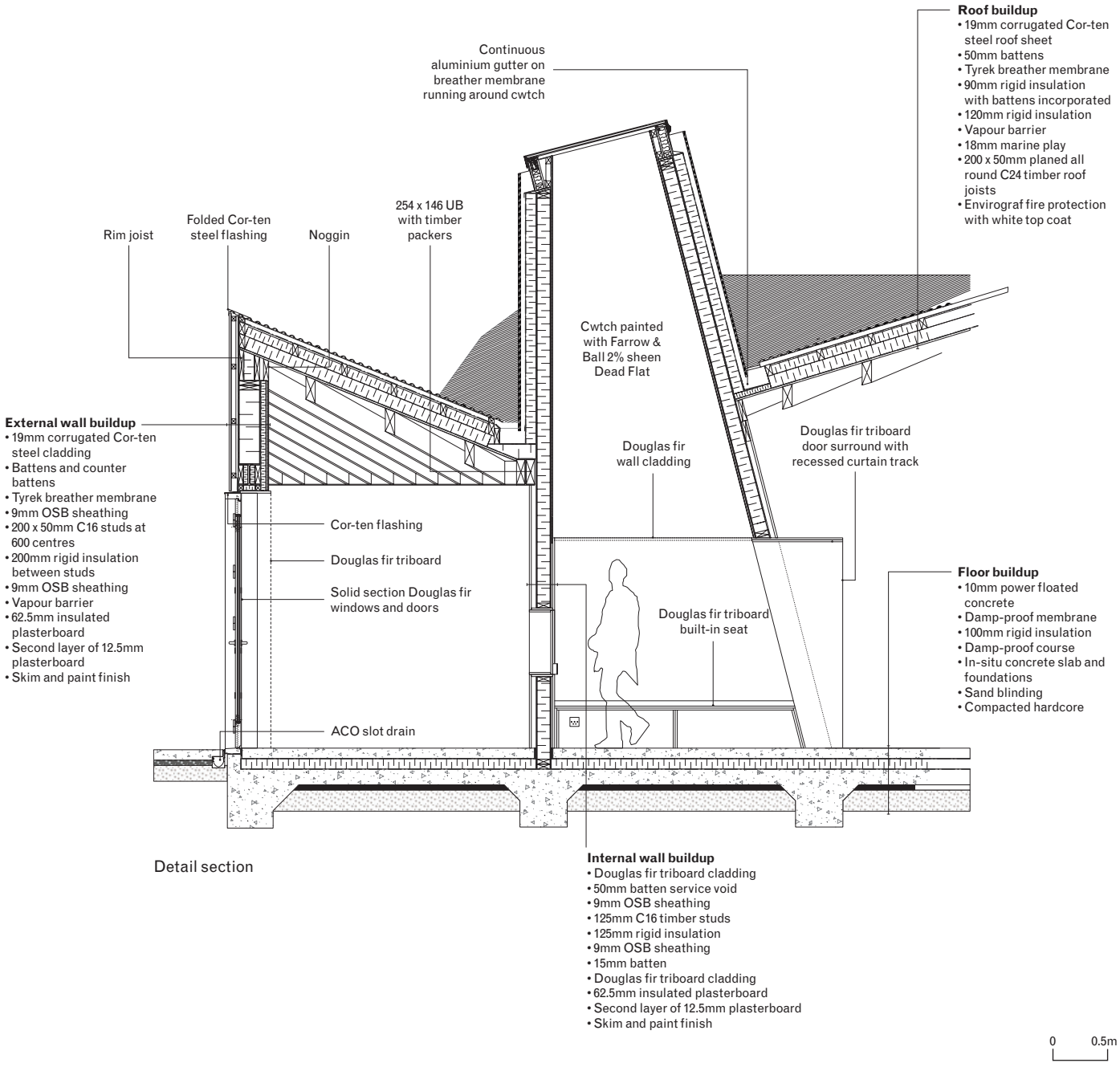
James Still, structural engineer, Momentum Structural Engineers

Performance data

On-site energy generation Nil
Heating and hot water load 98.6kWh/m²/yr
Total energy load 165.6kWh/m²/yr
Carbon emissions (all) 27.4kgCO_2eq/m²
Airtightness at 50pa 3m³/hr/m²
Overall thermal bridging heat transfer coefficient (Y-value) 0.025W/m²K
Overall area-weighted U-value 0.25W/m²K

Project data

Start on site April 2018
Completion March 2019
Gross internal floor area 240m²
Construction cost Undisclosed
Architect Dow Jones Architects
Structural engineer Momentum
M&E consultant Mott MacDonald
Quantity surveyor RPA Cardiff
Project manager Chris Watson, Maggie's
CDM co-ordinator CDM Scotland
Approved building inspector Butler & Young
Main contractor Knox & Wells
CAD software used Vectorworks
Landscape design Cleve West
Ceramic sign Pat O'Leary
Glass fritting and fireplace tile design Linda Florence
Bollards Antony Gormley
Furniture Coexistence



Detail section

Working detail

We decided at a very early stage to make the walls and roof of the building from a single material in order to realise the conceptual idea of the building appearing to be a little mountain range.

We have been interested in corrugated steel for a long time, having spent many years walking in the hills of the area, which is where I grew up. Hill farmers of south Wales use it as a cover-all-bases material, for walls and roofs, fencing and sheep-folds; it is so ingrained in the texture of the landscape it seemed an obvious choice for the building.

We were also very aware of the interim nature of the building, and so wanted to make a building that would be very cost effective and quick to build. So we used a prefabricated timber frame system of OSB and softwood, which we insulated beyond current part L requirements, then wrapped the whole form with Cor-ten corrugated steel sheet.

The building's interior makes a distinction between perimeter walls and internal furniture walls, which subdivide the spaces. The perimeter is simply lined with plasterboard, while the furniture walls are clad with Douglas fir triboard from Tilly in Austria.

The placement of the Douglas fir objects makes a deep spatial relationship with the landscape and serves to frame views through the building.

The building sits on a power-floated concrete floor slab, which drifts out into the landscape to make a terrace and conclude the idea of having a clear connection to what limited garden space was available.

Alun Jones, director, Dow Jones Architects

IBP Awards 2019
New journalist of the year entry
Frances Williams, technical editor, Architects' Journal

Supporting material 3/3
Degree show review 2019: The Bartlett
30 July 2019

This perceptive review of the Bartlett School at the University College London uses personal reflection to draw in the reader while providing a clear walk through. The piece gives a valuable overview of the show while zeroing in to provide astute analysis of individual student's work. It nicely draws out and praises common threads while also critically calling out the dangers of narrative in general in the work of the school.

www.architectsjournal.co.uk/news/culture/degree-show-review-2019-the-bartlett/10043789.article

The Bartlett

Fran Williams

Typically, the Bartlett show consists of an overwhelming, almost-dystopian mix of laboured and intricate work, distractingly overridden by crammed curation attempting to showcase more than 600 students' work across seven floors of crit space and stair core of the school's 22 Gordon Street home.

Upon reviewing it, one can get overwhelming flashbacks to previous portfolio hand-in, understanding how much time, stress and sweat went into their creation, but this time with an almost nostalgic reflection on the time and satisfaction spent in making such detailed, beautiful work.

One can always be critical of the Bartlett show: there's ethical issues with it for sure. The way the work is presented, the amount of printing and expensive techniques utilised, the study trips abroad as part of each unit's narrative and research always highlight the amount of time and money that goes into the making of the Bartlett's annual 'wow factor'. There is an unfairness in in resource when comparing it with other architecture schools, which just don't stand a chance in comparison when putting together their own degree shows.

The other issue that this show always highlights is the disjunction between architectural education and practice – just how relevant to current architectural discourse is this fascinating spectacle of a drawing collection? There's no denying that the drawings presented are utterly beautiful, graphically enthralling and demonstrate a great skillset and attention to detail but, in contrast with the live projects of Sheffield or CSM, for example, none of the units feel like they are aiming to 'save our communities'. It is very much a 'parallel world' that they are portraying instead. Though it is understandable that every student goes through the dilemma of how realistic a project should be, the work therefore feels indulgent.

Vilius Vizgaudis

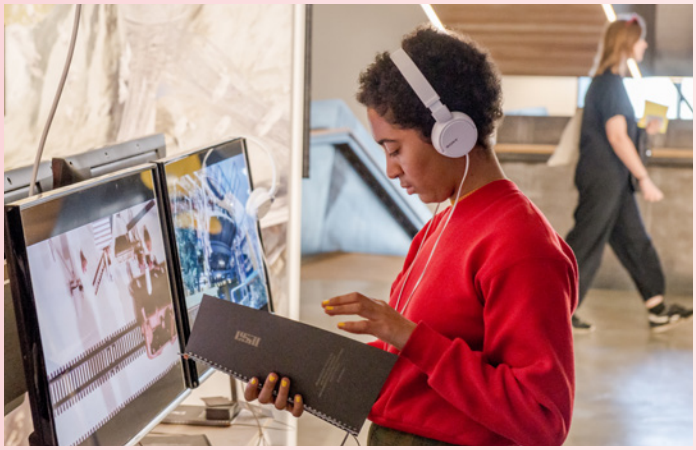
Cameron Overy

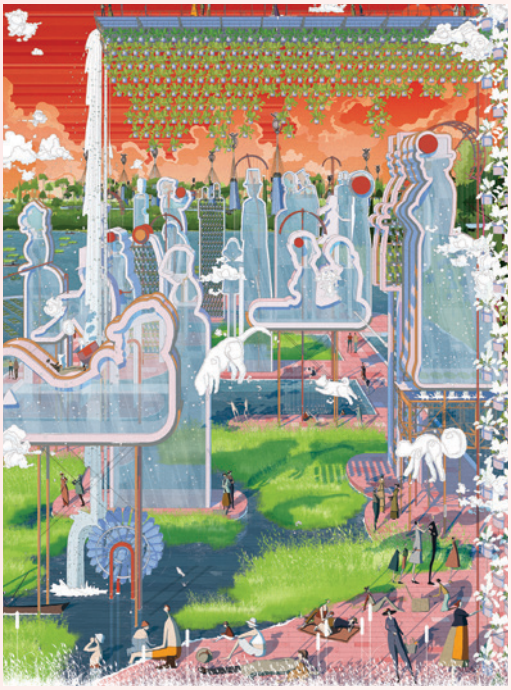
As there should be, this year there is a slight nod to our global political climate and current affairs. For example, Postgraduate Unit 10's Vilius Vizgaudis relates an interpretation of Hieronymus Bosch's painting *The Conjurer* to the Paris Climate Agreement. The whole unit, Virtues of Urban Resilience, stands out for its uniform, striking A0-sized statement posters, placed alongside bibles of fabrication manuals, immaculately put together with attention to detail which convinces and reassures that perhaps such an unworldly scheme would actually work.

Strangely, time and time again, the work of the Bartlett is a distorted mix of the organic bespoke versus rigidly standardised components, emphasising process and making much more than the building and function itself. The colourful models of Postgraduate Unit 13, Hidden Spectacle, look at 'fabrication as a spectacle' – seemingly a continuous theme throughout the show. Undergraduate Unit 4, Great Expectations, run by Office S&M, however, attempts to confront the 'generic' forms of the 'brick-chic' and 'biscuit architecture' of London's landscape, also through the medium of brightly coloured, fun models.

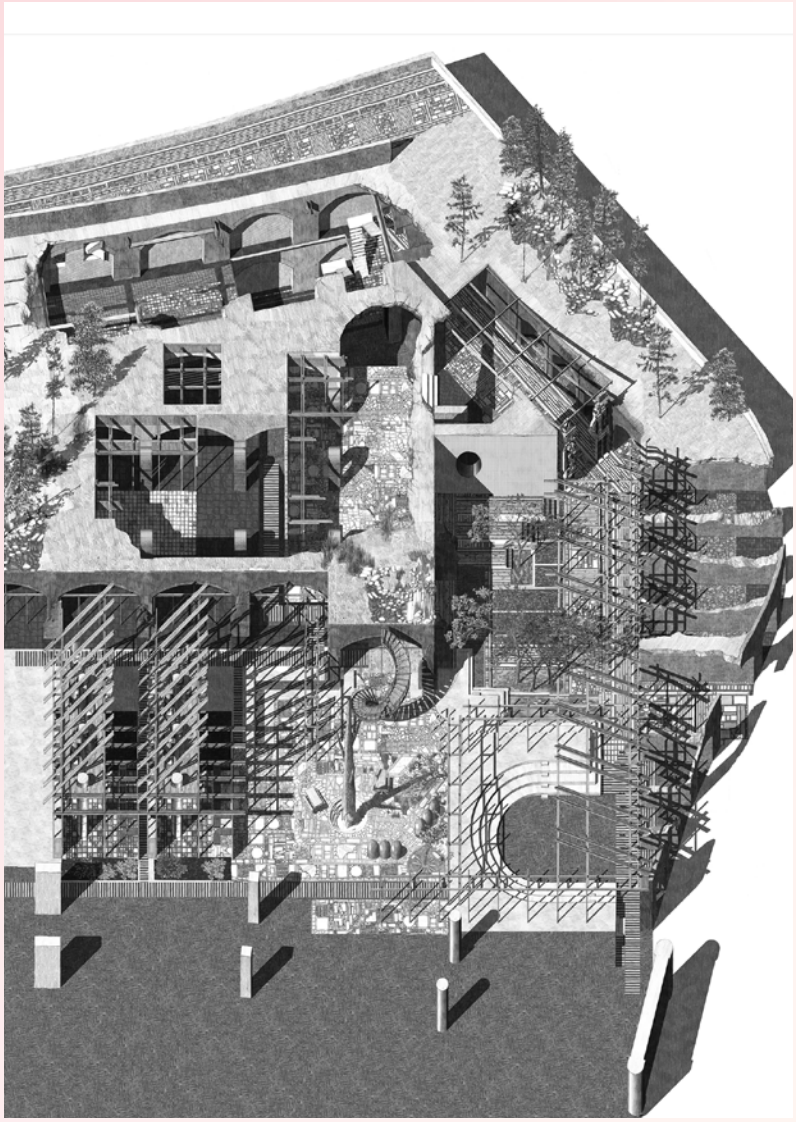
Hand-drawn perspectives and photoshopped axonometric views are often much more intriguing, inviting more imagination and evoking a greater sense of escapism than a CGI visual or rendered section. Undergraduate Unit 10's Megan King's The Lijnbaan Seam suggests an alternative structure for environmental fashion, the hand-drawn, layered sections utterly beautiful.

Despite a large proportion of visually dystopian drawings, as always, there seems to be a continuous theme of hope throughout the show. Postgraduate Unit 16, Quasi-Agency, Material Wonder and Explorations on the Edge of the World, explores architecture that re-emphasises our relationship with the





Vilius Vizgaudis



Francesca Savvides

environments we choose to inhabit. Cameron Overy's project The Policy of Space questions environmental policy relating to forestry cultivation in Sweden in an overarching discussion of rewilding.

Postgraduate Unit 15 Lost Architectures & New Tribes is particularly joyful for how it demonstrates the interdisciplinary aspects of art and architecture – their corner of the show creating more of a mini-museum, rather than an exhibition: a mix of drawings, objects and, weirdly, T-shirts.

Finally, Postgraduate Unit 12 student Francesca Savvides' project Building a Case for a New Practitioner is inspired by the current movement of architects to local authorities, such as is the case with Public Practice, but this time revisiting the unrealised work of post-war London. The drawings have just the right amount of dystopic monotone to evoke a feeling of Brutalism in abstract images of projects. The unit's introduction quotes: 'The architect is a 'physical novelist' as well as a "physical historian"'. One feels that this perhaps sums up what the Bartlett's show is sometimes in danger of only being about: graphic storytelling.