

CREATING ENTERPRISE MODULAR SOLUTIONS







Creating Enterprise, a subsidiary of Cartrefi Conwy Housing Association, is an award winning building and maintenance contractor specialising in building homes to a Passivhaus standard.

Our new partnership agreement with Beattie Passive gives us exclusive rights to their pioneering build system in North Wales. This allows us to build the very best in terms of energy efficient, zero carbon homes, certified by Beattie Passive.

As a social enterprise, Creating Enterprise is different. All commercial profits are invested into our social purpose, which is to help tenants and local people into employment. We're serious about improving lives and creating better futures for tenants and the wider community.

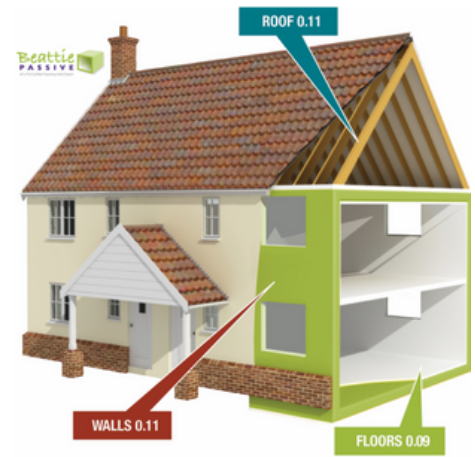
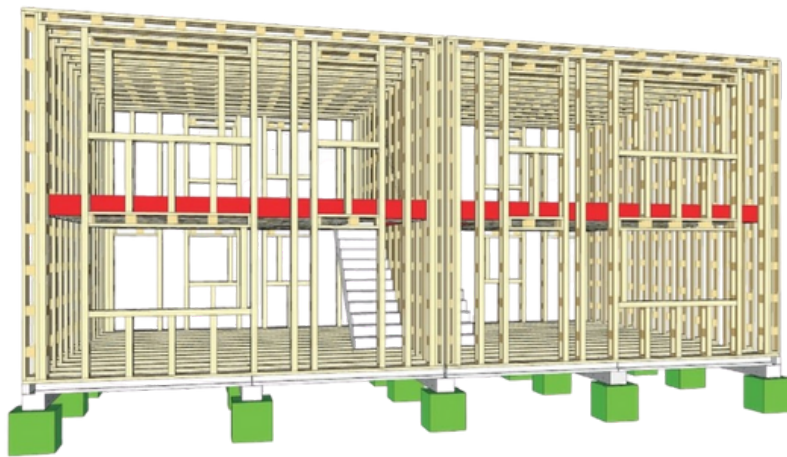


WHAT IS PASSIVHAUS?

Passivhaus is an advanced low energy construction standard for buildings, providing excellent health and comfort conditions, whilst using very little energy for heating and cooling.

Good quality design and craftsmanship paired with superior windows and doors, high levels of insulation and heat recovery ventilation are the key elements that set Passivhaus construction apart from standard building regulations.

This fabric first build system is a Passivhaus timber frame structure that can be designed into any style, shape and size of property, delivering significant cost, time saving and environmental benefits. This adaptable system transforms any design into high performance Passivhaus standard homes and is built with traditional and readily available construction materials.



The Beattie Passive Building System is an innovative super insulated timber frame system that incorporates a unique and patented construction method that provides a continuous insulated layer around the core of a timber framed structure.

Using Passivhaus energy efficiency principles, the Beattie Passive system delivers a construction from foundation beams, ground floor, walls and roof, all built to form a continuous layer. Once in place, high performance insulation material is injected into the floor, wall and ceiling cavities, creating one continuous seal which results in no joints and no leaks.

The system delivers exceptional, Passivhaus levels of energy efficiency performance at construction costs which are similar to or less than the costs of standard construction.



WHY BUILD WITH CREATING ENTERPRISE?

With a proud heritage in British design and manufacture, Beattie Passive is a family run, forward thinking and innovative company that is passionate about all things Passivhaus.

High standards

Beattie Passive buildings are designed for long life and high performance. The very high standard of Passivhaus construction negates common building faults. Meticulous attention to detail, rigorous design and construction and an exacting certification process ensure that what is designed is built, and what is built performs as it was designed.

Extremely low heating and cooling costs

The Passivhaus heat recovery and ventilation system uses up to 80% less heating and cooling energy, massively reducing energy bills for the occupant.

High levels of comfort

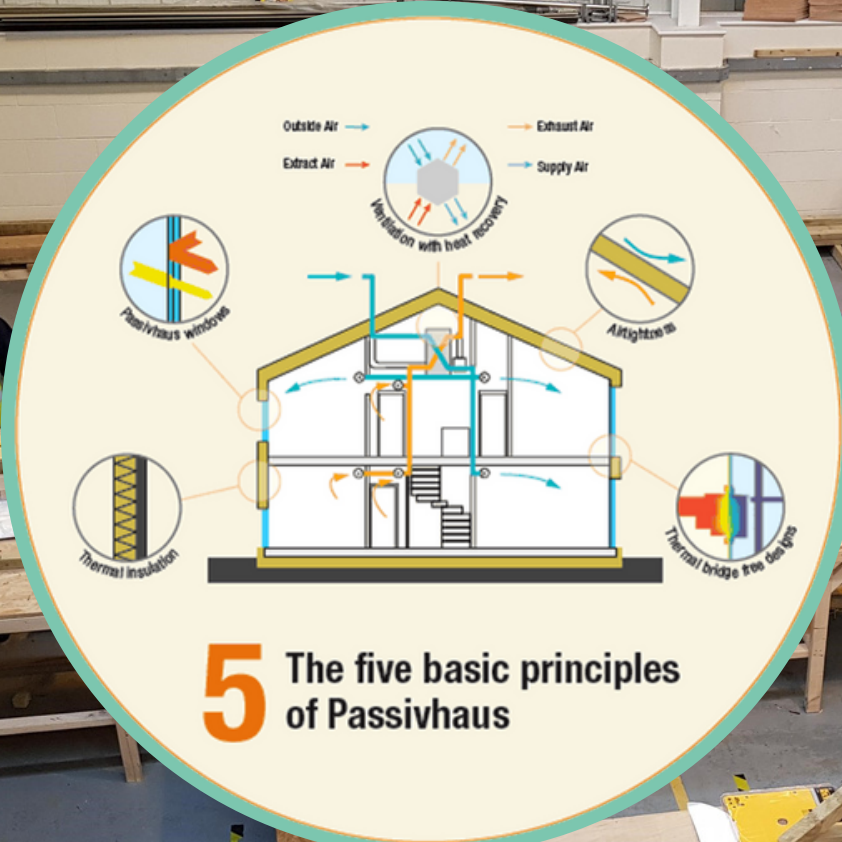
Passivhaus buildings have consistent indoor temperatures so no nasty draughts during the cold winter months. High performance windows with superior insulation also prevent unwanted noise from outside.

Consistent airflow throughout the building

Mechanical Ventilation and Heat Recovery (MVHR) is integrated within all Beattie Passive buildings. This creates a continuous, consistent airflow at room temperature, ensuring high indoor air quality. The filters remove airborne pollutants, reducing allergies for residents.

Affordability

As there is no requirement for radiators or other heating / cooling systems, the running costs for the building are a lot less than more traditional construction methods. Passivhaus is now being recognised in the market with a higher asset value than traditional construction.



5 The five basic principles of Passivhaus



Perform as designed

Passivhaus buildings perform as designed. In an industry where there is often a discrepancy of as much as 100% between the drawing board and as-built performance, this is crucial.

High quality

Passivhaus standards require a high level of quality in building materials and construction methods to achieve the levels of air tightness and insulation required.

Structural longevity

Due to the airtight design and ventilation system, Passivhaus buildings are always mould free with a highly reduced risk of moisture damage.

Sustainable – up to 100% reduction in CO2

As no heat escapes from a Passivhaus and very little, if any, extra energy is spent on heating, carbon emissions are minimal. Some Passivhaus buildings are also fitted with solar panels to provide electricity and hot water, making them completely carbon neutral.

ADDITIONAL BENEFITS



Easy maintenance: All Beattie Passive houses have a continuous service void around all floors, walls, ceilings and roofs allowing for ease of maintenance, alteration and access to all services.



High standards: Beattie Passive raises the benchmark for quality and standards, exceeding current building standards on:

Fire safety:

Beattie Passive provides you with two hours of fire protection as standard as opposed to one hour for building regulations. This means that it takes double the length of time for a fire to penetrate through a Beattie Passive wall, roof or ceiling.

Sound:

Beattie Passive delivers 57db which is six times better than build regulations giving a dramatic reduction in sound related issues between dwellings. This will help reduce housing management time for these homes.

Energy efficiency:

Beattie Passive can achieve thermal efficiency of 0.11 and below compared to building regulations of 0.28. This means that the building loses less heat, therefore heating costs are reduced for the occupant by up to 80%.



Health: The system is designed to improve occupants' health and wellbeing, taking into account health issues related to Radon and airtightness. Radon proofing is designed into the system as standard to prevent ever-increasing risk of Radon Cancer caused by gases entering our home. Mechanical ventilation delivers fresh filtered air into your home, creating a healthier environment and reducing the causes of respiratory issues.



Flood protection: Flood protection is incorporated into all Beattie Passive houses as standard, providing you with the assurance that your home is tanked to protect you from flood water.



High level of living comfort: No more drafts in winter and overheating in summer. The system responds positively to changing climate (overheating and cooling) due to the innovative design and lightweight structure.



Local manufacture: Beattie Passive is designed to be locally manufactured at any location using readily available materials. The simplicity of the system allows for fast onsite erection.





Off-site manufacture possible: The Beattie Passive panel system allows for off-site development and rapid on-site erection, reducing risks and time. Less time on site also reduces disruption for local residents.



Limited waste: The use of our bespoke modelling allows all materials to be measured to within 1mm, which greatly reduces on-site waste, as well as controlling the over-ordering of materials.



Sustainability: All materials used are sourced from fully certified supply chains. They are A+ rated in the BRE Green Guide.



Solve skills shortage issues: Given the inherent simplicity of the Beattie Passive Build System, our designs produce high performance, low cost homes using local semi skilled labour, solving your skills shortage issues.



Any design, shape or size: The Beattie Passive system has no restrictions on design. The design team will incorporate any design, shape or style.





FLYING FACTORY

Creating Enterprise can set up a flying factory onsite which allows us to build Passivhaus standard homes using local labour and supply chains.

Benefits include:

- Reduction in logistical challenges and transport costs;
- Faster delivery, as sticks and panels are moved straight from manufacture to site;
- Highly flexible, the flying factory can easily be scaled up, scaled down, relocated or mothballed to align with demand and build schedule;
- An ideal base to support the training of unskilled people in the skills of carpentry and construction.



SUPPORTING LOCAL PEOPLE INTO EMPLOYMENT

On each development, we aim to provide job and training opportunities for unemployed people in local areas. Due to the simplicity of the build system, the designs produce high performance, low cost homes using local semi skilled labour, solving skills shortage issues. It provides opportunities for local unemployed people to retrain and benefit both financially and socially from a return to the workplace.

We believe that the training and skills development of local communities (e.g. apprenticeships and work experience) is fundamental to developing long term sustainable construction solutions. Trainees learn new skills whilst working alongside qualified trades in new methods of construction, enabling them to better themselves and their future prospects.



CARTER'S STORY

Carter was the first volunteer on our modular construction site in Holyhead, Anglesey. Having walked past the development every morning while taking his younger siblings to school, one day he popped in to ask for some work experience - and he hasn't looked back since. Carter is now employed as one of our Modular Assistants, and says:

I just love it. I get on well with everyone on site and I'm learning every day. I feel like I'm a different person.

TESTIMONIALS

We felt that Creating Enterprise offered us a product that was truly innovative. As a Local Authority, engaging and supporting a local supply chain is important to us and these revolutionary homes offer not only the very best in terms of energy efficiency but also significant cost savings and health advantages for our tenants.

A key objective is to bring local people back into employment and provide them with skills to secure a brighter future and Creating Enterprise provided this through their Employment Academy.

Ned Michael

Isle of Anglesey County Council



CYNGOR SIR
YNYS MÔN
ISLE OF ANGLESEY
COUNTY COUNCIL



We are delighted to be working with Creating Enterprise as we near completion of our first modular homes development, an innovative scheme providing eight one bedroom quality homes for people at risk of homelessness. We are looking to build on this success with further modular developments already in construction to support our tenants' wellbeing and deliver high standard energy efficient homes that will look to alleviate fuel poverty, saving up to 80% on fuel bills.

In conjunction with the Creating Enterprise Employment Academy the construction of these homes also provides training and job opportunities for those furthest from the job market in our communities, a legacy we are proud to support.

Katie Clubb

Managing Director, Cartrefi Conwy

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Creating Enterprise

Cartrefi Conwy Business Park
Station Road, Mochdre
Colwyn Bay, LL28 5EF

01492 588 980

www.creatingenterprise.org.uk

info@creatingenterprise.org.uk

