

Case Study

Piercefield Lane, Aberystwyth

LOWFIELD
TIMBER FRAMES

Case Study

Project Name

Piercefield Lane

Location

Aberystwyth

Project Type

Residential

Specification

EPC- A





The Project

The Piercefield Lane Development is a high-quality residential housing scheme designed to provide sustainable, energy-efficient homes while responding to a challenging site environment. Phase One, known as Maes Gwenalt, comprises 33 homes including apartments, houses and bungalows ranging from one-bedroom apartments to four-bedroom family homes. Phase Two will deliver a further 16 properties, creating a diverse housing offer that meets the needs of a wide demographic.

A modern timber frame construction system was selected as the primary building method, supporting the project's objectives for sustainability, build quality, programme certainty and long-term performance. All homes are designed to achieve EPC A ratings and incorporate a range of low-carbon technologies including Air Source Heat Pumps, Solar PV panels, Mechanical Ventilation with Heat Recovery systems and underfloor heating throughout. These measures significantly reduce operational energy demand while improving occupant comfort and lowering running costs.

The use of timber frame construction enabled efficient off-site manufacture, improved quality control and accelerated installation compared with traditional masonry alternatives. The system also supported the project's sustainability ambitions by reducing embodied carbon and site waste while delivering excellent thermal performance.

The completed development will provide attractive, future-proofed homes that respond to modern housing needs while contributing positively to the local community.

The project demonstrates how timber technology can successfully combine environmental responsibility, engineering excellence and high-quality residential design. Architectural designs were developed by Barcud, with construction delivered by SJ Roberts Construction.



Scope of Services

Timber frame construction was specified as the central construction method because it aligned directly with the project's objectives for sustainability, programme efficiency, quality and long-term building performance. From the outset, the development sought to deliver highly energy-efficient homes capable of achieving EPC A ratings while reducing embodied carbon and supporting future net-zero ambitions.

The challenging site conditions at Piercefield Lane further reinforced the benefits of timber construction.

The lighter structural weight of timber frame systems reduced foundation loads and simplified construction on a site requiring extensive retaining structures and level changes.

Timber also enabled a faster and more predictable build programme, reducing exposure to adverse weather conditions and labour shortages often associated with traditional methods. This improved programme certainty and provided greater cost predictability for both contractor and client.

“ The lighter structural weight of timber frame systems reduced foundation loads”

Outcome

The development demonstrates how modern timber technology can provide innovative solutions to contemporary housing challenges while outperforming traditional construction approaches.

The project combines timber frame construction with a fully integrated low-carbon energy strategy, creating homes that achieve exceptional environmental performance while maintaining high design quality.

Off-site timber manufacture improved quality control, reduced waste and enhanced health and safety performance by minimising high-risk site activities and reducing the overall construction period. This approach also lowered disruption to the surrounding community.

The flexibility of timber construction enabled a varied mix of apartments, houses and bungalows to be delivered efficiently across a challenging sloping site. Despite significant changes in ground levels, the project maintained design consistency and high-quality finishes throughout.

Main Contractors SJ Roberts Construction conducted social value sessions in the local primary school Ysgol Llwyn-Yr-Oes where they gave talks to the children on Health and Safety. They also spoke with them about the site and how the houses are being constructed, they also funded 2B Enterprising for the school for 2 years which teaches children enterprising, employability and life skills.



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Client

Barcud

Main Contractor

SJ Roberts Construction

Structural Engineer

Couch Consulting Engineers



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