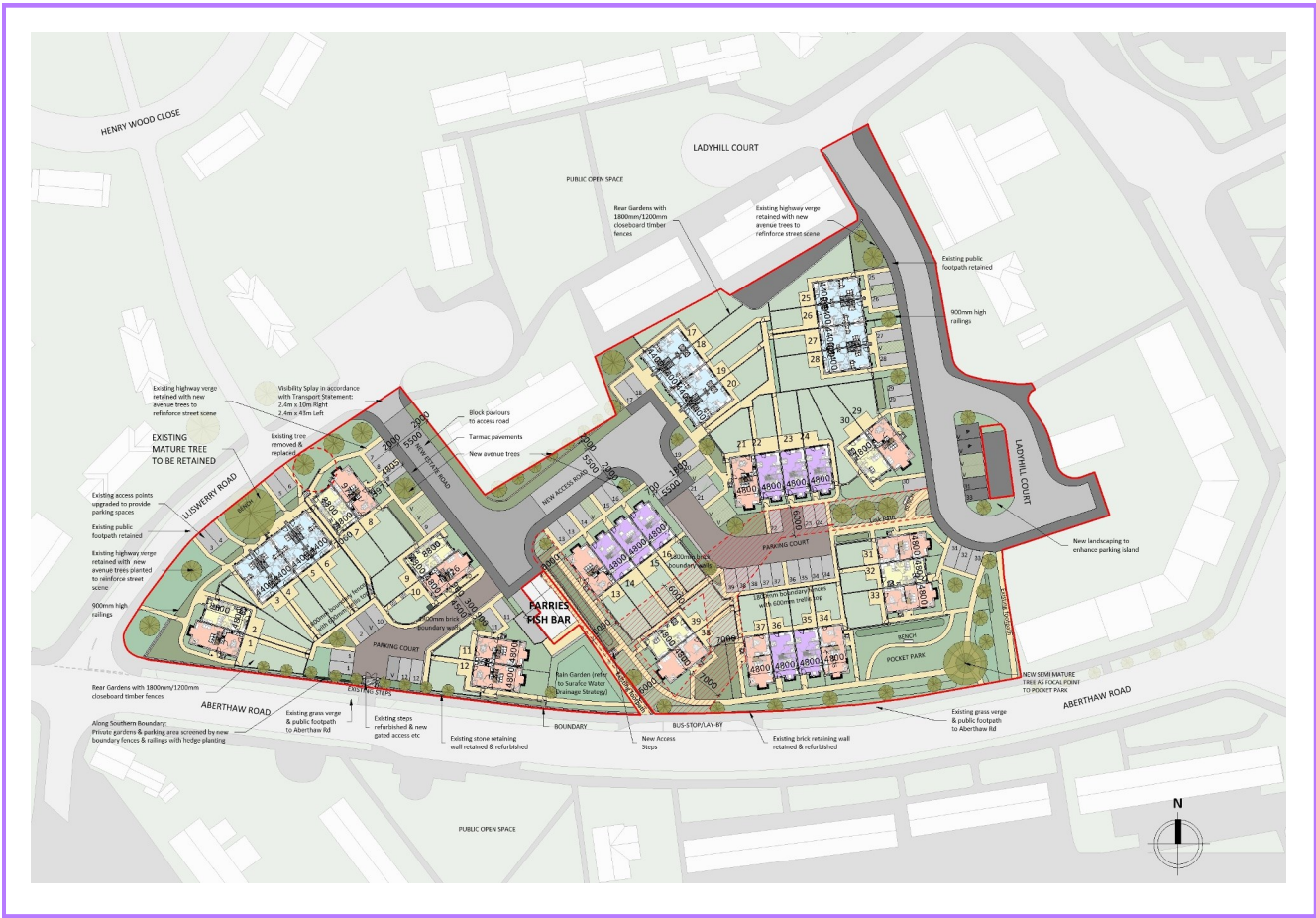




CASE STUDY: HOUSING
LADYHILL LOW CARBON HOUSING





Sustainability Strategy

The homes have been designed with future proofing in mind. By designing as passively as possible; maximising natural light, reducing demands for heating and ventilation, the development's energy consumption and CO₂ emissions will be dramatically lower than that of a standard development.

The use of local materials will ensure the embodied energy within the construction materials is kept to a minimum and also mean's that the build can support local commerce.

Sustainable features such as solar photovoltaic panels, water butts and composting facilities, along with generous garden spaces promote a more sustainable way of living.

With the ability to make internal changes to each dwelling to match future needs, we hope to highlight the importance of being able to adapt a home as lifestyles adapt, creating a more sustainable means of living.

Sustainability Overview

- IHP4 MMC / Modern Methods of Construction
- Developing an important brownfield site
- Roof-mounted photovoltaic solar panels
- ASHP with MVHR
- Use of 'A' rated appliances and low energy light fittings throughout
- External drying areas to minimise energy usage
- Water butts and composting facilities provided.
- Materials; green guide rated at 'A' +
- Locally sourced materials where possible
- Low maintenance robust facing materials to reduce running costs
- Lifetime homes & DQR compliant

CASE STUDY: HOUSING

LADYHILL LOW CARBON HOUSING

Name of Project

Ladyhill Low Carbon Housing, Newport

Planning Consent

January 2021

Project Cost

£5.5m

Building Type

Affordable Housing

Location

Alway, Newport

Client

Pobl Group

Main Contractor

J.G Hale Construction

Environmental Performance

Low Carbon Housing SAP 100 EPC A

Scheme Overview

This new development of thirty nine affordable homes is located in the centre of Alway, Newport; on the site of the former Ladyhill Centre & Sevenstiles Public House.

The development provides a high quality, cohesive and sustainable community, providing a natural infill to residential development in Alway led by strong Green Infrastructure & Placemaking ideologies. The scheme is highly sustainable, enabling 'low carbon living' and embracing cutting-edge energy and drainage technology.

Landscape enhancements consisting of grasscrete/ rain garden parking; and pocket parks to improve the quality of green infrastructure on site and incorporate areas of informal play and seating.

These combustion free homes will be attractive, contemporary and set in a landscaped setting. The proposal seeks to drive down the cost of production through early engagement with a design to manufacture process and through introducing technologies which seek to eliminate fuel poverty.

Modern Methods of Construction

The homes promote a fabric first approach to meet future WG Part L 2025 standard and achieve a SAP 100 and EPC rating of A.

The homes are constructed from panelised, pre-insulated timber frame construction. External façade treatment part-applied in factory, providing flexibility for choice of elevational treatments to suit local context and provide variety. The homes are all electric with zero on-site combustion for homes and a clear path to net zero carbon future. Solar photovoltaic panels generate zero carbon energy on site and batteries store for use for on-plot EV facilities with potential for two-way charging and integration with grid.

