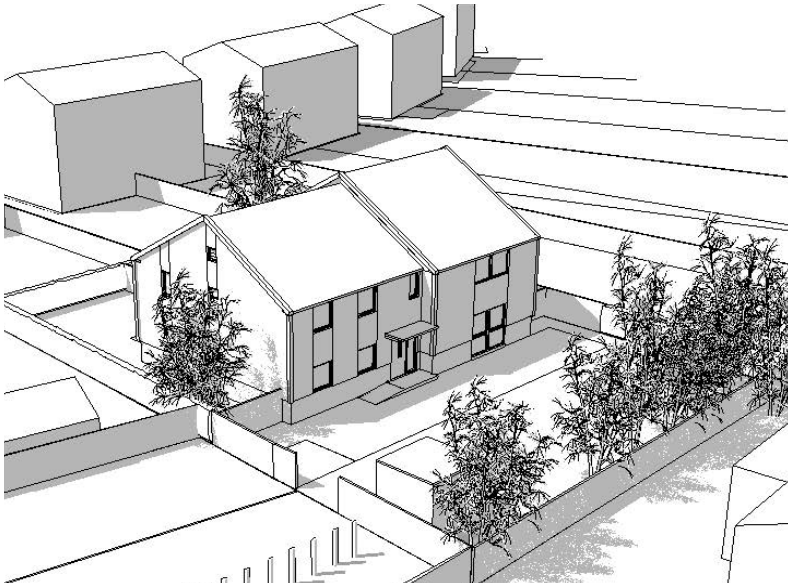
OXFORDSHIRE COMMUNITY LAND TRUST

Dean Court Cooperative

Oxfordshire Community Land Trust



DESIGN

The final proposal comprises a single building arranged as six flats with massing reminiscent of a pair of semi detached houses and roofs aligned on the same axis as the houses to the rear. They are to operate as rented affordable accommodation for local people and maintained as a tenant-managed housing cooperative.

SUSTAINABILITY

This development aspires to not only offer homes at affordable rent but also keep household energy bills to a very low level. The scheme will be built to Code for Sustainable Homes Level 5 and to a very high level of thermal performance.

The building utilises Mechanical Ventilation with Heat Recovery (MVHR). Energy generated from photovoltaic panels on the south-facing roof (11.76kWp). Various designs have been run through FSAP 2012.

The design will incorporate low-water-use fittings. Materials will be selected on the basis of recyclability, low-maintenance, responsible-sourcing and low polluting.

Rainwater will be captured for garden irrigation, landscaping within the site will be permeable to minimise water run-off. There will be a combined waste and recycling store to facilitate sorting of waste for recycling; and a collective composting area to facilitate recycling of organic material on-site.

The proposal will include facilities to encourage walking, cycling and use of public transport. There will be a car-share scheme for the coop members on site.

PROJECT OVERVIEW

Site Location: **51°44'57.1"N 1°18'44.5"W**
Status: **Pre-tender**
Gross Internal Area: **230m^2**
Construction Type: **Kingspan SIPs**
Architect: **AskewCavanna, Bristol**
Consultants: **- Energy - Piers Sadler Consulting; QS Employers Agent- Manson Surveying; Civil & Structural Engineers- Ecos Maclean**

SUSTAINABILITY FEATURES

Primary Energy Demand**: 87** kWh/m2.a (-8.6 kWh/m2.a including PV)

Heating Demand: **8.1** kWh/m2.a

Heating Load: **21.0** W/m2

Ventilation strategy: **Paul Novus 450 MVHR** (94.5% heat recovery efficiency and 450 m^3/h ventilation rates)

Heating strategy: **Gas boilers, Living room and bathroom radiators, + solar hot water** (tbc)

Boiler: **Atag Q51c** (high-effiency combination boiler)

U values: **Exterior wall 0.15, Roof 0.13, Floor 0.15, Windows 0.8, Doors 1.0 (W/m^{2}K)**

Air permeability: **2m3/m2/hr at 50Pa**

Thermostat Control: Honeywell CM921 (bedroom and living rooms)

Lighting: **LED**

Other features: Co-operative management structure; electricity grid with solar PV input (PV not linked to individual flats); low car ownership with car-share

Funded by:

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