

CASE STUDIES

NAME

Cuerden Valley Park

LOCATION

Preston, UK

Latitude: 53.707722 | Longitude: -2.663086

CLIENT / BUILDING OWNER

Cuerden Valley Park Trust

PROJECT TEAM

DESIGN, MATERIALS SPECIFICATION:

Barbara Jones, Straw Works

PROJECT MANAGEMENT: Simon Thorpe,

John Stainton CVP Trust

CONSTRUCTION: CVP Trust Volunteers. Straw Works Training Courses.

LIVING BUILDING CHALLENGE / SUSTAINABILITY

ADVISOR: Martin Brown. Fairsnape

THEME / TYPOGRAPHY

NEW BUILDING

public

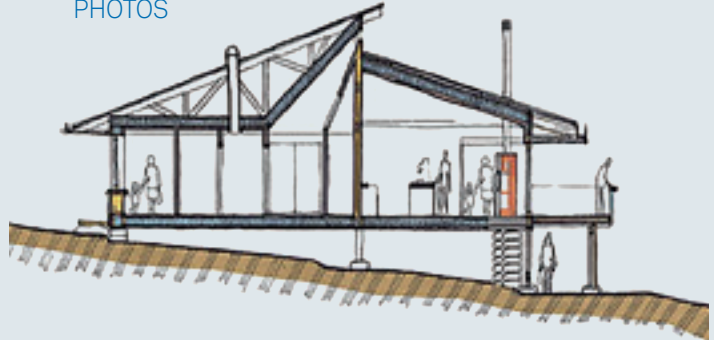
CONSTRUCTION / COMPLETION YEAR

2018

BUILDING

This Visitor Centre has been designed and constructed to meet the requirements of the Living Building Challenge. The design concept is driven by the desire not only to minimize the impact of fossil fuel energy reserves during the building phase but also to consume minimal fossil fuel energy during the lifetime of the building. Natural and local materials will be used where possible and those selected will have low embodied energy. The building sits on foundations made from old tyres compacted with stone. The outer walls were built using straw bales, finished with lime rendering and much of the wood used in the building is from larch trees grown in the Park. In addition no concrete, PVC, nor formaldehyde releasing materials have been used in our building's construction or furnishings. The building, the first LBC registered project in the UK has been designed and constructed to be Red List compliant and is currently seeking Living Building Certification.

PHOTOS



Cuerden Valley Park – under construction
(<https://cuerdenvalleypark.org.uk/visitor-centre/#jp-carousel-531>)

REGENERATIVE SUSTAINABILITY

Place: Designed and constructed on biophilic design principles, the building's purpose is to reinforce the buildings connection with nature, inspire visitors to explore, enjoy and better understand the park's biodiversity. The café offers inspiring views over the River Cuerdon and the Park from a prominent position near the Arboretum.

Energy: Solar panels on the adjacent barn generate energy for the visitor center. The building utilises a ground source heat pump to provide under floor heating, and benefits from passive solar gain from the large double glazed windows.

Carbon: Due to the design and materials, predominantly local, waste and repurposed materials, used in construction it is anticipated the building will be carbon negative. The timber-framed, straw bale construction contains no cement and is Red List material compliant. Construction was through local volunteer and contractors, minimising travel carbon.

Water: Toilets are flushed with harvested rainwater feed into and collected from large underground tanks. Future reed beds and wetland areas will deal with blackwater discharge.

Resources: The build utilises recycled tyres for the foundation, timber frame, straw bales infill for the walls, sheep's wool insulation, lime plaster walls and shingles for the roof. Most of the wood has been sourced from the Park. Internal furnishings and furniture has been repurposed. Although still to be verified the building has been designed and constructed to be Red List compliant.

Education: In addition to public café and educational facilities, the Visitor Centre will provide space for Trust staff. The project is a volunteer and community built project which incorporates on-project craft training in straw-bale construction and other crafts. The Visitor Centre will also provide a new space for the Park's established environmental education program with local schools, and will become a hub for the UK Living Building Challenge Collaborative.

AWARDS / (certificates)

Seeking Living Building Challenge full petal certification.

LINKs

cuerdenvalleypark.org.uk/visitor-centre-details

CONTRIBUTOR: Szabina Várnagy

