**PREDROW** 

# LANGLEY GRANGE

CASE STUDY



### LANGLEY GRANGE, SCISSETT IN SUMMARY

This West Yorkshire development is a living example of Redrow's commitment to biodiversity and sustainability, with achievements on so many fronts – from over six acres of public open space, including three newt ponds, meadow habitats, bird and bat boxes and even special under-passes for great crested newts; to ground-breaking projects focused on reducing the amount of waste created when we build our homes and creating a prototype gas-free, low carbon home.





### **GREAT HOMES** IN GREEN SURROUNDINGS

The two, three and four-bedroom homes from Redrow's Arts & Crafts inspired Heritage Collection are surrounded by beautiful green spaces for residents and wildlife to enjoy.

A detailed landscape masterplan has been followed whilst developing what had previously been a network of farm fields. We have enhanced many of the existing features and introduced new green areas to create a better place to live. These include:

- Keeping extensive elements of the existing landscape in the form of tree belts, hedgerows and areas of open space
- Retaining existing dry-stone walls and construction of new ones
- Creating a naturalistic area of open space at the eastern end of the site to safeguard the setting of the River Dearne
- Adding new areas of planting which reflect existing mix of species

We have also ensured the new homes are wellspaced from neighbouring properties to create a development that feels open; and kept homes an appropriate distance from some of the green areas and habitats to allow wildlife to flourish. Extensive environmental and ecological surveys were undertaken prior to development. While a small amount of hedgerow and trees were lost to make way for roads and other building work, these were replaced plus an additional 730 metres of species-rich hedgerow was created. We also retained all other existing hedges and increased the overall number of trees and amount of woodland/scrub cover.



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Our development has also increased the potential roosting and nesting resources for bats and birds within the area, via new tree-mounted bat boxes, tree-mounted bird boxes, and the incorporation of 30 bat tubes/ cavity bat boxes, and 20 bird boxes (for house sparrow, house martin, starling and swift) within or on the new properties.

Both the great crested newts on site, and any bats roosting within the old Langley Farm were protected during construction works. The newts were captured by ecologists and moved to a safe receptor site using standard newt fencing and pitfall traps, while demolition of the farm building only took place once any bats had been safely excluded.

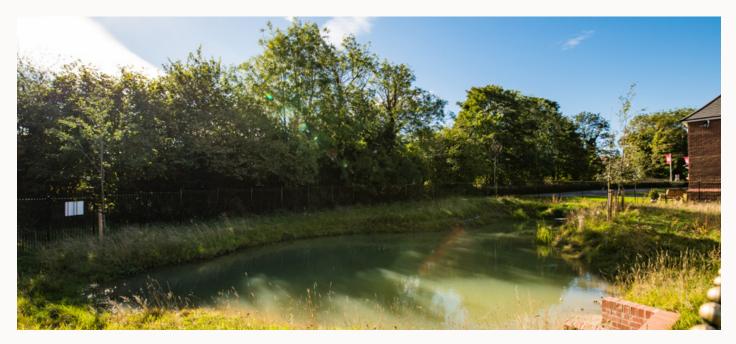
Three new ponds have been constructed by Redrow and were designed specifically to provide new breeding sites for great crested newts. We've created hibernacula (winter refuge) which, along with the retention of existing hedges and trees, provide terrestrial habitat. We've also made sure the newts can safely navigate the new development with underpasses, kerbs, walls and gully pots.



The new breeding ponds should ensure that the local great crested newt population increases and expands as a result of our development. We'll be monitoring the newt population until approximately 2029, dependent on when the site is completed.

The more naturalistic meadow habitats at Langley Grange reflect the aims of our **Nature for People** biodiversity strategy to create less formal landscaped areas that can support a wide variety of wildlife and play a part in helping us go beyond the requirements of the Environment Act 2021 and achieve more than a 10% biodiversity net gain on all of our future developments.





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## **REDUCE** THE RUBBLE

## Complementing the strong ecological legacy of Langley Grange, the development has also played a key role in a project designed to minimise the amount of waste generated during construction of our homes.

Reduce the Rubble tracked all waste produced during construction of a standard four-bedroom detached 'Oxford' house across three sites (including Langley Grange) and reviewed how this could be reduced in future during procurement, design and construction.

Waste produced was segregated into specific containers (tonne bags or skips), each containing a different waste stream: plasterboard; wood; plastic; cardboard; electrical; inert (bricks, tiles, concrete, rubble); and hazardous waste. Redrow's waste broker weighed each waste stream, and reported weight, amount diverted from landfill and cost per stream for evaluation.

Project leaders were asked to identify key causes of waste and record this in a 'Waste Table', including material type, date, supplier, delivery accuracy/time, build stage and reasons for waste. The table also enabled site teams to identify and record potential opportunities for waste elimination, reduction or reuse.

Reduce the Rubble has resulted in significant changes to the design of the Oxford and other homes in the Redrow portfolio to reduce waste, while altering how our construction teams think about waste. An informal survey of those working on the project found 96% are now actively working to reduce the amount of waste they create outside the workplace; 53% had shared recommendations on how materials can be better recycled/reused with key team members.

The project is driving improvements such as better waste segregation and practices on site. Extra training delivered via Tool Box talks, plus Waste and Resource Efficiency Workshops, attended by commercial and construction teams, in collaboration with the Supply Chain Sustainability School, have reinforced the importance of waste reduction to our business.





### WOOD RECYCLING & UPSKILLING

Throughout Redrow sites in Yorkshire, unused waste wood is collected and utilised by the national Community Wood Recycling Scheme, which sees waste wood repurposed.

At Leeds Community Wood Recycling, for example, after being de-nailed and made good, 60% of timber has been redirected to a reclaimed timber shop and 30% has been used for free community woodwork training.

With social value in mind, the Leeds Wood Recycling social enterprise launched its Skill Tree Project in 2020. It sees volunteers learn to make products for the organisation's shop in Leeds with wood collected from building sites including Redrow's. Volunteers are able to pass on their new-found knowledge to their peers, thus building a confident capable workforce.



Charlie Stanley, from Leeds Wood Recycling said: "Through Skill Tree, we've been able to create new paid jobs and training opportunities for local people, which is making a real difference to our local communities. Giving a new purpose to wood that ordinarily would end up being chipped at best and in landfill at worst supports the economy and reduces the demand for new materials."





### INTRODUCING THE GAS-FREE, LOW-CARBON SMART HOME

Redrow has announced a commitment to achieving science-based net zero emissions by no later than 2050 across our operations, homes and supply chain.

As part of this we have begun some significant trials to ensure our homes meet the carbon emissions reductions required by the Government's Future Homes Standard, whilst also enhancing the overall experience for our customers.

At Langley Grange, we've built a gas-free, low-carbon smart home, which is now occupied. The home utilises Wondrwall technology, designed to turn any house into a sustainable, energy efficient home via artificial intelligence and renewable energy. The system includes complete home automation, gas-free heating (including infrared heating panels and intelligent hot water cylinder), solar PV and battery storage solutions.

During 12 months of monitoring, the home has been paired with a 'control' house next door which has a traditional gas boiler. Data is being collected on the overall energy efficiency of the home, to evaluate its carbon footprint and assess the viability of offering the technology to future home buyers. Regular interviews with the homeowners will also collect qualitative data and feedback. This pilot is fundamental to Redrow's commitment to building responsibly and will help Redrow to define its approach towards zero-carbon homes. Trials are also taking place on other developments to assess the viability of air source heat pumps as an option to meet the requirements of the Future Homes Standards.





### TIMELINE

#### Oct 2013

Outline approval given for up to 200 new homes on former farmland off Pilling Lane

**April 2015** Reserved matters approval from Kirklees Council for 200 homes

**April 2018** Redrow launches first phase of Langley Grange

#### Nov 2018

Oxford and Ludlow show homes launched to promote phase one

Feb 2020 Reduce the Rubble project launches

April 2020 First new pond installed

#### August 2020

Redrow opens new Oxford Lifestyle, Stratford and Shrewsbury show homes

#### Feb 2022

New gas-free, low-carbon smart home occupied, and 12-month monitoring period commences

### May 2022

Third and final new pond completed

#### Dec 2022

Redrow expects to take final reservation at Langley Grange

#### June 2023

Development due to be build complete

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### SEE THE FULL RANGE OF HOMES ON OFFER AT LANGLEY GRANGE

### Now in its fifth and final year, Redrow expects to take the final reservation at Langley Grange before the end of 2022.

Until then, there remains a selection of family friendly three-bedroom semi-detached and three and fourbedroom detached Heritage Collection homes.

All properties enjoy the key advantage of being more energy-efficient and economical to run than older second-hand properties, a big bonus in the current climate. They also come with FttP (Fibre to the Premises) for ultrafast broadband, making them ideal for people who frequently work from home. Then there's the convenient location; Scissett is a semi-rural village, with local shops including a Tesco Express, while Huddersfield, Barnsley and Wakefield are all within a 10-mile drive.

redrow.co.uk/langleygrange

