

Irebuild

DO NOT SCALE FROM PLAN



RENOVATE, RECLAIM, RECYCLE

Who we are

Based in Devon, Irebuild Building Company offers bespoke environmentally-conscious (or common sense) building and design.

Our services include: project management and consultancy, demolitions, renovations and conversions, living roofs, and timber frame construction.

Projects range from small-scale renovations and extensions, to large-scale and ambitious new builds and conversions.

We take a common sense approach to building: wherever possible, the materials that we use are low-impact, locally-sourced, reclaimed and recycled. If we demolish it, we will reuse it.

What makes us different



We calculate the embodied energy of our projects and give our clients the opportunity to offset their carbon footprint by planting trees, grasses, flowers and shrubs.

We also offer education and employment opportunities to vulnerable people. In the case of some of our larger projects, we even organise community days so that local organisations and individuals can learn more about eco-conscious building.

What you can expect from us



We do not scale from plan, but instead take a truly bespoke, hands-on and common sense approach to everything that we do. This is why we attract high calibre clients, including the 2019 RIBA award-winning architecture company, Amin Taha, and Channel 4's Grand Designs' Otter Farm.

We employ experienced, reputable local contractors and subcontractors. Many are trained in unique techniques from all over the world, including traditional Devonshire cob building and Japanese larch burning.

How we "eco" build

Whilst even the most green of techniques have a negative impact on the environment, we take a common sense approach to building by creating low-impact, long-lasting structures.

- **On-site recycling** – we recycle any usable materials such as bricks and tiles
- **On-site sourcing** – we source raw materials like clay, sand and timber from the site itself if possible
- **Reclaiming** – we reclaim materials from other building and demolition sites and scrap yards
- **Restoring** – we preserve and restore original structures and features
- **Using sustainable materials and methods** – the Irebuild team are accustomed to using a wide variety of low-impact methods and materials, including ancient cob building, Pulverised Fly Ash (PFA), and insulation fashioned from recycled materials
- **Buying local** – as well as sourcing our materials locally, we employ local subcontractors. As well as supporting local communities, this greatly reduces the fuel emissions involved in commuting
- **Insulation** - this can be made from sustainable materials such as recycled paper
- **Cob walls** - an ancient Devonshire building material fashioned from clay and straw, cob is environmentally-friendly and is a great insulator
- **Living roofs** - these are flat roofs covered in foliage, creating a roof garden
- **Triple-glazed windows**
- **Thermodynamic solar panels and heating systems**

Off-set your carbon footprint

The total carbon emissions involved in both the construction phase and maintenance of a building is known as the 'embodied energy' calculation.

We work with our clients to calculate the embodied energy of their projects and then offset this number by planting trees and other foliage.

Find out more on our website:

<http://www.irebuild.co.uk/eco-building/>



Otter Farm

AS FEATURED ON CHANNEL 4'S GRAND DESIGNS



A Devon-based new build, Otter Farm consists of two separate buildings: a family home and a rustic commercial kitchen.

The home is a bespoke timber-frame structure lined with thick insulation made from recycled paper. It contains an expansive kitchen, mezzanine, office, living area, four bedrooms and two bathrooms.

The commercial kitchen is founded on a steel frame. It boasts rustic by cob walls. Cob is an excellent insulator and has very little impact on the environment. All of the clay used in the cob was sourced from the site itself.

Both buildings are housed by plough-shaped, living roofs which provide insulation and promote biodiversity.

Other environmental credentials include: thermodynamic system providing underfloor heating and hot water, and triple glazed windows that collect and retain passive solar energy.

Find out more on our website:

www.irebuild.co.uk/projects/otter-farm



"Over the course of the ten months we were filming...the Irebuild team made our time on site a sheer delight. I couldn't have met a nicer, happier and more skilled bunch of guys."

Claire Lasko, Director
Grand Designs



The Linhay

ECO-LEARNING CENTRE AND COMMUNITY BUILDING



All of the materials came from within a 15 mile radius. Every tree was individually selected, and each brick was reclaimed from nearby demolition sites.

The “green” and sustainable materials include:

- 83 tonnes of recycled stone and recycled enviroblocks
- 100 tonnes of recycled bricks salvaged from demolition sites, as well as from the house opposite. All were cleaned by hand
- 300 tonnes of crushed hardcore sourced from the site itself
- 5 tonnes of recycled lathe
- 40 granite plinths handcrafted on site
- All oak timber sourced from nearby forests
- Pulverised Fly Ash (PVA) recycled from power stations
- Clay and shillet used for the cob walls came from the site itself through excavations
- All tiles were stripped from demolition projects

Find out more on our website:

www.irebuild.co.uk/projects/eco-learning-centre/



Tevina Hill, Crackington Haven

RENOVATION, RESTORATION & NEW BUILD



The property was originally built as an 1860s barn and was later converted into three houses in the 1980s. Rather than demolishing the estate, the Irebuild team converted the three small homes into a single 5-bedroom family house. An additional extension was built by demolishing an adjacent cottage and recycling its materials.

Tevina Hill is a **passive house**, meaning that it requires very little energy for heating and cooling. This is thanks to Irebuild's unique combination of insulation technology and green materials.

Additionally, it has its own extensive **circular energy system**. This consists of more than 1km of water and electric pipes, a thermodynamics system, solar panels, a sonnen battery-power wall, a rainwater collection system, and three plant rooms.



We calculated the embodied energy of the construction phase of the project. The **total carbon footprint** of the project (including transport of materials to site) was **41 tonnes of fossil CO₂e**. This is **50% less than the average new build**.

Finally, we helped the clients start 7 acres of tree planting and habitat enhancement, and successfully preserved a family of sparrows and other wildlife.



Tevina Hill's environmental credentials



- 100 tonnes of hardcore reclaimed from original cottage. This made a saving of 0.5 tonnes of CO2, plus transportation emissions
- Zero red bricks or stones used
- Circular energy system (heat and water)
- Self-cooling larder
- Bespoke insulation techniques
- Cob walls which act as a natural heat sink
- Lime mortar rather than cement
- Cork flooring (provides sustainable insulation)
- Larch cladding
- Locally-sourced materials
- Cornish slate (as opposed to cheaper sources such as India)
- Reduced waste costs by recycling and reclaiming project waste
- Oak sourced from nearby forest and also reclaimed from cottage demolition



Social Impact

The project has also provided numerous employment and education opportunities for people, including two carpentry apprenticeships and 14 national qualifications in courses such as digger and dumper driving.

We also hosted more than 100 local school children who had the opportunity to learn about the environment and building.

Crucially, we had 64 young people from Exeter Chief's Hitz programme. As well as learning about environmental construction, the students enjoyed hands-on learning (for instance, cob building), and had the opportunity to surf, kayak, paddleboard and/or boogie board.

Find out more on our website:

<http://www.irebuild.co.uk/projects/crackington-haven/>



Eco-flat conversion and renovation

HISTORICAL RESTORATION AND CONVERSION



Irebuild converted an original Victorian manor into five contemporary period apartments using the latest environmental building techniques.

We restored the original ceilings and floors. The original fireplaces were also restored to full working order.

Scan Clean Burn Log Stoves were installed to provide passive solar underfloor heating. All of the walls were insulated.

Find out more on our website:

www.irebuild.co.uk/projects/eco-flat



Timber frame construction

BOTH DOMESTIC AND COMMERCIAL STRUCTURES



Irebuild specialises in bespoke timber frame structures.

As well as simple summer houses and extensions, Irebuild have extensive experience constructing large-scale timber frames for new homes and commercial buildings.

Domestic examples include The Linhay (p.3), Otter Farm (p.4), and Tevina Hill (p.5).

One of our commercial timber frame projects is the award-winning Caddsdow Industrial Estate.

We've also worked with the Eden Project to build unique timber structures.

Timber can be sourced locally and also reclaimed from the site itself, or from other demolition projects.

Find out more on our website:

www.irebuild.co.uk/projects/timber-frame-construction/



Eden Project (Chelsea Flower Show)

SILVER MEDAL: PLACES OF CHANGE SHOW GARDEN



Conceptual Site Plan

The 'Places of Change' Show Garden was set up by the Eden Project in partnership with more than 500 volunteers and agencies supporting marginalised people such as the homeless and ex-offenders.

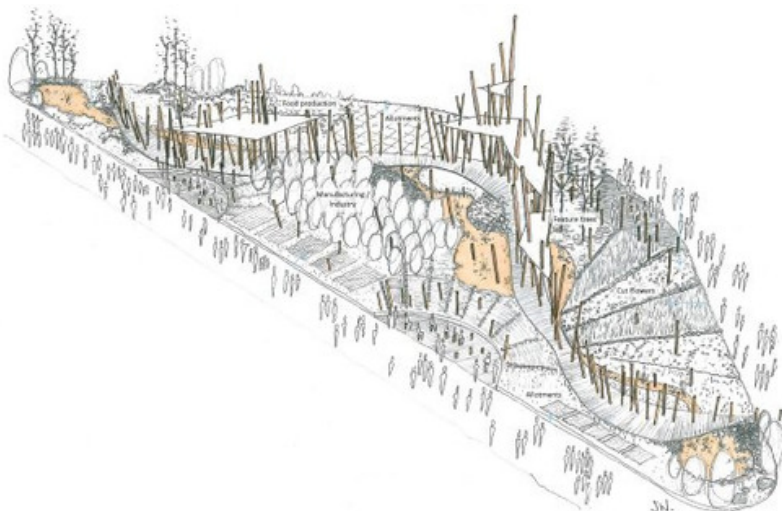
As well as providing materials and labour, Irebuild offered mentoring and education to those in need.

Specifically, our team was responsible for the construction of a timber "spine" that ran from one end of the garden to the other. The timber was reclaimed from our other demolition projects in Cornwall. Moreover, our team had a fantastic time building the spine with numerous individuals in the rehabilitation programme.

The garden was a great success, receiving very positive feedback from both the press and members of the public, and went on to win a Silver Medal.

Find out more on our website:

www.irebuild.co.uk/projects/chelsea-flower-show/



Giving back

A big part of our ethos is to give education and employment to vulnerable people, and to reach out to our clients' local communities.

We do this in a number of ways:

1. Upskilling - Our business offers support, flexibility and training to young people from troubled circumstances. Through apprenticeships, personal mentoring and training these individuals are able to gain vital skills and qualifications that enable them to build new futures

2. Community Days - In the case of some of our larger projects (for example, Tevina Hill and The Linhay), we invite local schools, young people and adults alike to visit the site so that they can learn more about construction work and the environment.

In particular, we work with the Exeter Chief's Hitz programme. This programme is designed to offer hands-on education and recreational opportunities to underprivileged young people.

Find out more on our website:

www.irebuild.co.uk/about/giving-back



Contact us



If you would like a quote or any other information, please email us at info@irebuild.co.uk

We can then arrange for a member of our team to visit your property and evaluate the work that will need to be done. We can also advise you about potential areas for reclamation, recycling and preservation.

You can also find us over on our website: www.irebuild.co.uk