

New meets Old

How do you create a home extension with its own distinct identity which utilises new techniques while complementing the existing property?



When the owners of Denerigg, an innovative new property in West Saltoun, described their dream home to architects **LOW CARBON STUDIO**, their requirements were simple and holistic. They wanted a thoughtful, contemporary house with interesting spaces and innovative use of materials, one that fitted into the existing garden and was energy efficient. Above all, however, they wanted a welcoming family home, and that's exactly what they got.

Originally a farming community, West Saltoun has just 20 houses and is a cosy, intimate village. Built in the 1960s, Denerigg was an existing Dorrans kit house which Low Carbon Studio brought into the 21st century with a **crisp, contemporary, eco-friendly** design that sits comfortably in the natural landscape.

It's a design that complements the original property, working with it while having an identity all of its own. It's distinct and modern, but it doesn't jar, nestling comfortably against the older half of the house.

The existing property needed a lot of work to bring it up-to-date. The windows were single-glazed with retro fitted secondary glazing and elements of the existing house had little or no insulation. An original 1960s kitchen needed to be upgraded to make it a good modern family kitchen.

A large, well-kept garden left plenty of room for a big extension and that's exactly what the family opted for. The ambitious extension added nearly 1000 ft² to the property, opening it up to create a bright, light-filled space that makes the most of its surroundings.

The new design layout links a new **Douglas fir-framed structure** into the old house to make an open-plan family room and kitchen linking to the deck and garden beyond. The family area is a double-height space with lots of glazing giving views to the garden and over the fields. **Alba Green Oak Frames** were utilised in the large, open-plan living space, with beams left exposed to add texture and warmth.



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The new extension is on the south of the existing house and the double-pitched roof form matches the existing house profile. On the first floor of the extension there is a studio space which can be used as an en-suite bedroom, linking into the double height open plan family area.

The house is designed and detailed to be a low-energy property. It is positioned so that the extension faces south to maximise solar gain. The heating and hot water system is powered by an air-source heat pump linked to an under floor heating system.

The highly-insulated walls, roof and floors reduce heat loss while passive solar design with large windows facing south and high levels of natural light and ventilation help to maximise free energy. Furthermore, the concrete floor acts as a heat store and evens out the temperature of the house and a sustainable drainage system leads to a soak away.

Continuing with the eco-friendly theme, all the materials used are **natural, recyclable and sourced locally** where possible. The extension roof has **cedar shingles** and the extension façade is **rough sawn larch boarding**.

It's impressive stuff, particularly for a home in Scotland which needs to be kept cosy for much of the year. In fact, with no mains gas available, the only source of energy in the house is electricity, which powers everything including the heating and hot water via the heat pump.

"Green" is a word that's bounced around too much these days, but Denerigg truly is a green grand design. The owners wanted an extension which fitted their family's needs while sitting lightly in the surrounding landscape and leaving a minimal carbon footprint.

They wanted a sleek, contemporary design which would work seamlessly with a home that was built 50 years ago. And they wanted a home that would allow them to enjoy the beautiful surrounding East Lothian countryside to the fullest.

