QUAD-LOCK® PROJECT PROFILE

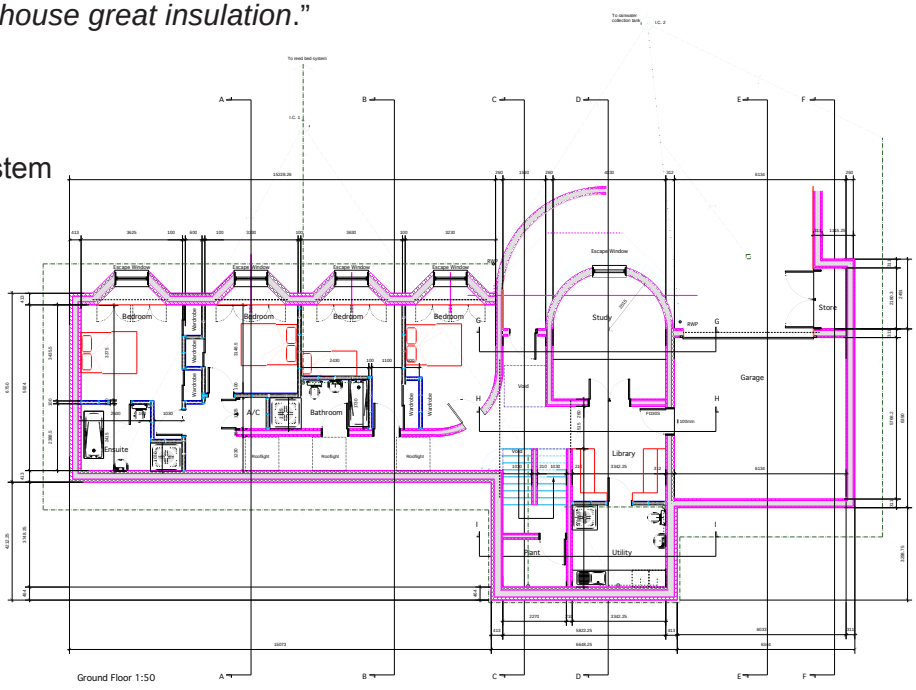
Sedum House
Green Dream Home in England

Tom Ground, an architect based in Norfolk, England, has built his own green dream home set in a steep sand hill. The house is highly insulated as not only are its walls formed with Quad-Lock insulating concrete forms, but by being part of the hillside, this makes it an earth-sheltered home as well. It is roofed with sedum grass, features a glass frontage and traditional local flints to blend into the native habitat and landscape. Toilets that flush with rainwater, a geothermal heat pump, and a three pond sewerage system with reed beds make the house even more environmentally friendly.

Mr. Ground, who did much of the building and decorating work himself, says, "*As an architect, I did not want to live in a house I hadn't designed myself. I wanted to make full use of the land by building it into the bank, and it gives the house great insulation*."

Eco-House Features:

- Whole house ventilation system
- Under-floor heating
- Walk-able glass panels
- Heat recovery system
- Rainwater harvesting
- No drainpipes
- Green roof of sedum
- Designed around sun



Green Dream Home in England...cont'd

North Norfolk District Councillors were full of praise of this design when they granted planning permission. They thought it was innovative and different and hoped that it would encourage others to build eco-houses like it.

A high density of steel was required to resist the extreme sheer loading of the sand earth sheltering. Quad-Lock's inherent tie position flexibility allowed working around this extreme steel density a simple task. The home had many radius walls and angles which were handled efficiently with Quad-Lock, the easiest system for forming these types of architectural features. The home was built by Tom and his family, in their spare time. "*It was easy, and the kids helped*," Tom says.

The home was designed to utilize the natural elements of the sun. The curved wooden peak roof, designed like a baseball cap, shields the interior in the hottest months when the sun is highest. In the cooler months, when the sun is lower, it heats the glass and warms up the home. There are four bedrooms embedded into the dunes in an underground tunnel and the natural cover of the ground, in addition to the Quad-Lock insulating concrete forms, keeps this eco-house extremely well insulated and energy efficient.

The Grounds have opened their home on numerous occasions, to showcase this unique and sustainable house of the future. "*When I started building this it was difficult to find sources for information on green buildings, so I don't mind giving up a weekend to show and talk to people who want to do it too. I am happy to share it*."

Architectural Rendering

Completed Eco-House

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