KENS ENERGY REDUCTION FOLLY !

Fish House Summary Statement: rev.January 2021.

130 Bohemia Road TN37 6RP

PROJECT PURPOSE

To create an as near to zero energy 2 bedroomed house as practical from a dilapidated late Victorian former fish shop with small flat over. And to do so in a way which also creates a small piece of **architecture** both with a presence in the street scene (tricky!) and with unexpected interest internally. The latter is to be largely achieved by combination of a long view right through the house from the front door and large rooflights bringing light down into the centre of the original part of the house via glass stairs and floors. (Light from above is more valuable than from the sides).

PRINCIPLE APPROACH

The low energy target is to be achieved by high levels of insulation and air tightness throughout together with triple and quadruple glazing. Heating is by a roof mounted air source heat pump (now fitted), and solar panels (water and photo-voltaic) which will be fitted in due course. Underfloor heating is fitted to the highly insulated ground floor area only (heat rises!) together with a heat store (hundreds of water filled bottles under the stair which will release heat slowly up through the central lightwell). The existing gas supply was cut-off.

BARRIERS TO PROGRESS/PROBLEMS TO BE SOLVED

In any such endeavour difficulties will be encountered along the way and have to be overcome to move forward. These include planning, building regulations and services provision (for example it took two years to have the water re-connected!). However, being placed directly onto a busy street (actually the A21!) with double yellow lines also presented problems in terms of delivery and off-loading of especially the heavy deliveries such as the windows and doors, the concrete and steel beams, the glass floors and the air source heat pump.

PROJECT PROGRESS in outline

The original building was completely stripped back to a bare shell (outer brick walls and roof only), the small rear bathroom (scullery?) was demolished, the overgrown garden was cleared out along with about 1m of soil to reduce level to that of the house. Structural repairs were necessary to front and rear main walls and internally to side walls where timber plates had rotted. Old broken drains were removed and new constructed. **Insulated** reinforced foundations were laid for the new rear extension together with concrete beam and block floor with insulation under (and later above too!). The concrete and brick floor within the old part was broken out to allow laying of new edge foundations direct to the sandstone bed. Old glass lemonade and beer bottles were found under the brick floor. New inner lightweight concrete block walls were progressively built up through 3 floors including placing of concrete beam and block floors to back and front sections of the building and a steel frame to the centre (stair and glass floor areas). This required progressive removal of the old pitched roof (that summer it rained a lot!), placing insulation between new blockwork and old brick walls and forming a new flat roof with composite timber beams, as well as making my own triple glazed roof lights. It was necessary to build a retaining wall to the neighbour’s property on the south-east side against which the new extension wall could be build, the brick garden wall on other side was tanked to minimise potential water ingress. All rear extension walls built up and heavily insulated, pitched roof built with 300mm of quilt insulation and finished with real slates.

The living/dining area is now plasterboarded and lighting, power, sound system fitted. Fitting out of ground floor kitchen, cloakroom (wc), and first floor bathroom and bedroom are now complete to a useable stage if not quite all the finishes!

WORKS TO COMPLETE

Cladding to front upper two floors, finish side insulated slate hanging, general balance of fitting out and services to the top floor including internal roof insulation (nearly done!), fit heat recovery ventilation throughout, landscape and plant the rear courtyard. General internal decoration. Fit overlaid pitched roof to completed flat roof (only if essential, long story) including water and photaic panels.

KD [kgdavis129@gmail.com](mailto:kgdavis129@gmail.com) 07847 622397