

Refer to structural engineers drawings if required for confirmation of all lintels and for information about bearings.

I have shown a steel box section to provide support over the end gable screen. The intention is for this steel to be encased within the roof structure.

The structural engineer will need to look at the proposed roof structure over the first floor. I have shown a steel ridge purlin which will sit on a steel box frame which is set in the gable wall.

Ridge height of the new roof is to run into the level of the existing ridge on the main house.

New glazed gable screen to be constructed using powder coated aluminium.

Glass balustrade to be fixed outside WF9.

WG7 - create new window opening within the new work using a catnic CG90/100 or similar lintel above

The external walls of the new work is to have an inner skin of suitable 100mm blockwork, with an outer skin of suitable brickwork, with 50mm cellotex rigid foam insulation set within the 100mm cavity between.

There is to be either two layers of 47mm acoustic slab or 100mm glass fibre quilt laid within the floor void between the joists.

Allow for the use of a 25mm rigid foam edging strip to the perimeter of the floor slab.

Dpm to be set at minimum 150mm above external ground level.

The wall is to be built up to just below ground level in two skins of 100mm blockwork. The cavity is to be filled up to 225mm below the level of the dpc.

The new work is to be constructed above a 600 x 200mm mass concrete strip footing which is to be set at a minimum depth of 1000mm (to building control approval).

The builder is to confirm with Building Control whether a basic radon barrier is required prior to commencement.

New internal partitions on the first floor to be constructed in 50 x 75mm studs set at 600mm centres, with 12.5mm plasterboard and skim finish to either side. Suitable moisture resistant plasterboard to be used in the ensuite. Either glass fibre or rigid foam insulation to be packed between the studs.

The new first floor structure within RG1 is to have an oak beam set at mid span. The size of this oak beam will need to be calculated by the structural engineer but should be in the region of 250 x 250mm. The type of oak should be carefully shown to reduce shrinkage. This information should be shared with the clients so that they are aware of the difference between green oak / kiln dried and air dried oak.

New first floor construction to run flush with the existing floor levels within the existing house. Floor joists to be 50 x 150mm C16 treated softwood joists set at 450mm centres.

22mm floor finish to the first floor and 18mm plasterboard and skim ceiling finish below.

New fireplace to be constructed within the extension within RG1. The fireplace is to have an oak beam across the top of the opening.

A woodburner is to be installed and suitable notice plates are to be provided in accordance with the relevant building regs.

The details of the flue etc should be provided by the manufacturer of the woodburner.

A new ceiling is to be inserted to rooms RF2 and RF3 on the first floor. The level of this ceiling should match that within the existing parts of the first floor which adjoin these rooms.

The ceiling joists are to consist of 50 x 100 mm C16 grade treated softwood joists set at 450mm centres with 100mm glass fibre quilt is to be laid between the joists with a further 170mm glass fibre quilt laid above.

Ground floor construction to consist of a suitable floor finish which is to be agreed with the client, above 100mm concrete slab above 90mm rigid foam insulation above a 'Visqueen Super' dpm, above 150mm sand blinded hardcore.

A new section of roof will need to be constructed above the existing rafters where the old and new roof meet. The existing clay tiles in this area will need to be carefully removed and put aside for possible reuse. Any repairs to the fabric of the existing roof should be carried out as necessary. The new rafters will then be laid above the earlier roof.

The exact configuration of the existing roof structure is not known. I have assumed the existence of purlins.

ID10 - allow for the insertion of a new 762mm door and frame into RF4 and also a new door and frame ID11 to provide access into the airing cupboard.

An area of new masonry will be required to be constructed above the existing eaves of the original masonry to provide support for the new steel ridge purlin within the extension roof.

An opening will need to be allowed in this area of new masonry to allow access from the new work into the existing first floor rooms. This will be achieved by the use of prestressed concrete lintels.

I have provisionally shown the insertion of prestressed concrete lintels where the opening is to be created between the old and new work on the ground floor. Depending upon the detailing used for the infill of the staircase the use of prestressed concrete lintels may not be necessary and it may be that doubled floor joists can be used instead.

A new area of floor joists will be required where the existing staircase is to be removed. This area of floor is intended to be made good on a like for like basis to match the existing floor and ceiling finish which adjoins this area.

The new staircase is to consist of goings of 250mm and risers of approximately 210mm.

Suitable handrail and balustrade to be fitted around the opening for the new staircase. Handrail to be set at a minimum height of 900mm above finished floor level.

The finish of the treads and risers and the balustrade and handrail to the new staircase to be discussed with the client.

ID3 and ID4 - allow for the insertion of two new 838mm internal doors and frames.

Sockets and switches are to be located between 450 and 1200mm above finished floor level.

All new work is to be carried out in accordance with the 'Robust Construction details'.

