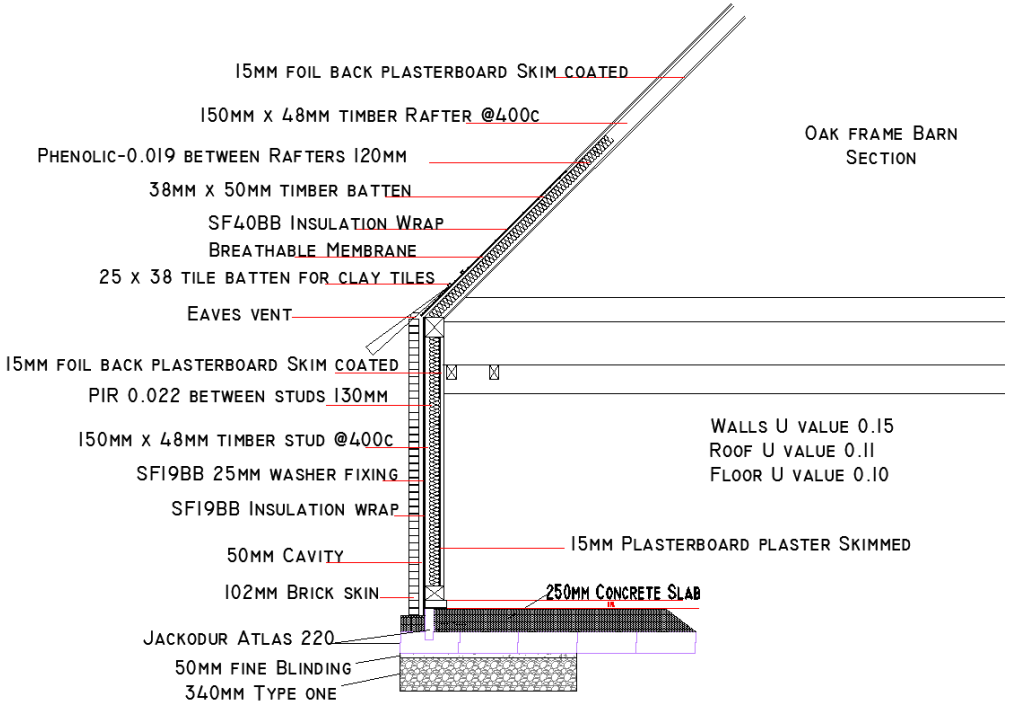
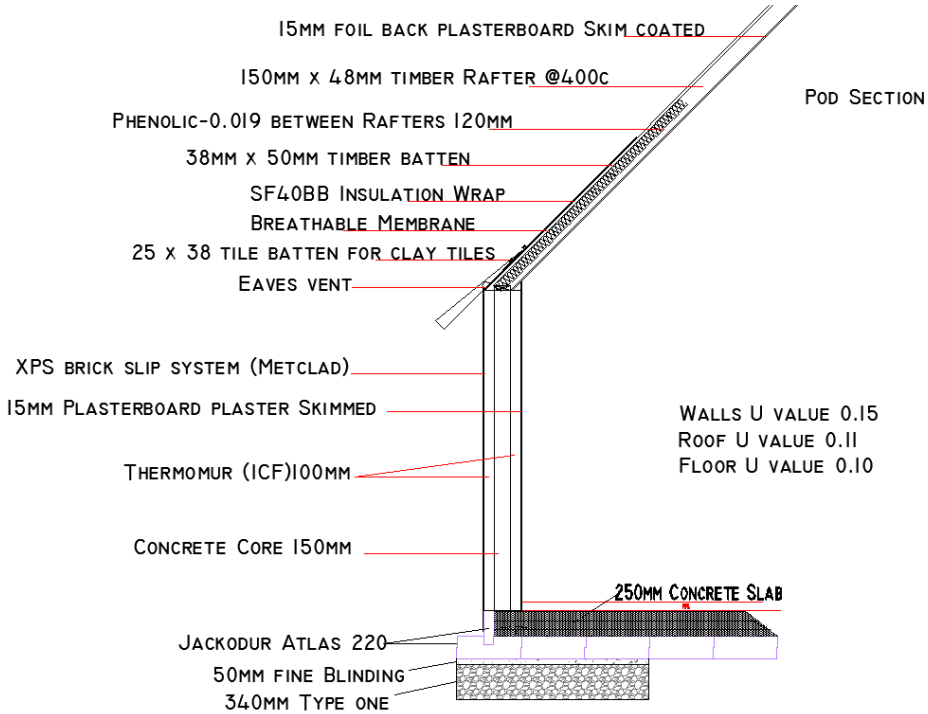




Oak frame section

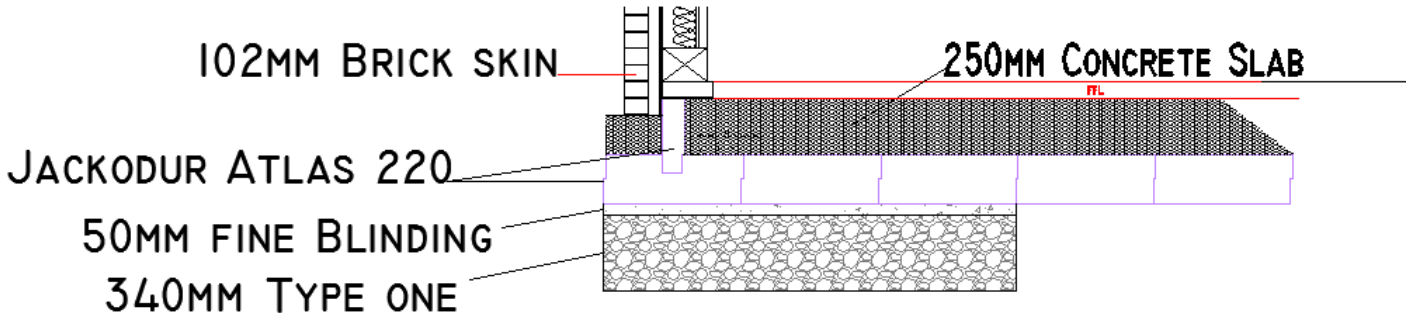
Structural oak frame with 150mm softwood infill studs @ 500 centres
Infill insulation between studs PIR 0.022 130mm, SF19BB Insulation wrap to external of studs.
50mm cavity 102mm reclaimed Brick skin in Flemish bond with sieved sharp sand and building sand mix with white cement mortar joint.
Internal 15mm plasterboard with a plaster skim

Roof Oak frame section
Principle Oak rafters and collars with 150mm softwood C24 treated timber@ 400 centres, collars to take load bearing onto crown perlin.
Infill insulation Phenolic-0.019 between Rafters 120mm over the rafters
SF40BB Insulation Wrap with 38mm x 50mm timber batten and Breathable Membrane over with 25 x 38 tile batten hand made clay tiles

Rear section (PODs)
Structure to be Thermomur (ICF)100mm with a poured concrete core of 150mm external finish XPS brick system with hand made brick slips to replicate existing structure with mortar to match barn section.
Internal finish 15mm plaster board with skim coat plaster

Roof section (PODs)
Principle Oak Trusses with 150mm softwood C24 treated timber@ 400 centres, collars to take load bearing onto crown perlin.
Infill insulation Phenolic-0.019 between Rafters 120mm over the rafters
SF40BB Insulation Wrap with 38mm x 50mm timber batten and Breathable Membrane over with 25 x 38 tile batten hand made clay tiles

Flat roof section 200mm joist 500mm centres with 18mm ply over, finished with PLX to specialist metal high seam roof
Insulated between with Phenolic-0.019 between Joist 150mm.
Internal finish 12.5 mm plasterboard with skim coat.

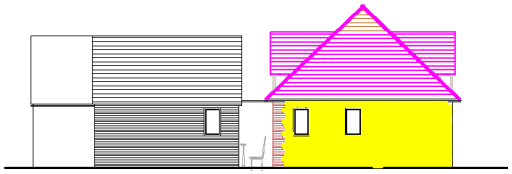


Ground slab

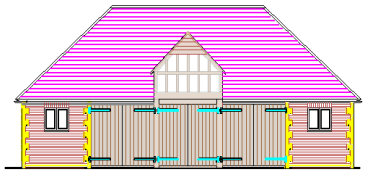
Reduce dig down to levels as per planning,
Reduce ground level for slab, lay and compact with roller 340mm of type one stone, blind and top with 50mm Fine blinding stone and compact.
Insulated permanent shutter Jackodur Atlas 220 laid level on to stone 250mm concrete pored with reinforcing to engineers specifications
70mm finish polished concrete floor over slab encasing under floor heating.
Ground level to be made up to 150mm below damp course.

Re-use of historic Material in proposed building

WEST ELEVATION (PROPOSED)

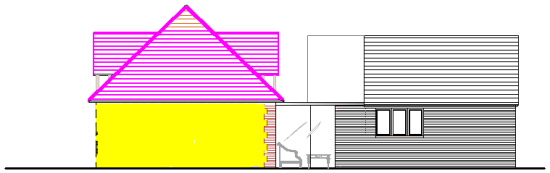


SOUTH ELEVATION (PROPOSED)

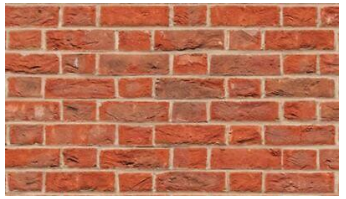


EAST ELEVATION (PROPOSED) shutters shown

EAST ELEVATION (PROPOSED - shutters omitted for clarity)



NORTH ELEVATION (PROPOSED)



Reclaimed Brick panel sample

Historic Roof tiles to be blended in with reclaimed tiles of the same material size and period

Historic Bricks to be mixed in with reclaimed bricks of the same dimension and colour and clay , bricks to be bedded with a sieved sharp sand and building sand mix, with white cement, struck flush left to set and copper brushed to give a historic lime mortar finish

Historic rag stone, North and south elevations to have the stone panels with brick quoins to the rear, rag stone to be cleaned with copper brush and redressed were required, Front elevation to have historic stone quoins stone to be redressed and cleaned with copper brush Stone to be bedded with a sieved sharp sand and building sand mix, with white cement, struck flush left to set and copper brushed to give a historic lime mortar finish.

Historic hinges and fixings Cup and ride hinges to be cleaned and painted prior to being installed on new doors

Historic Materials from existing building

Item	Estimated %	Re-used in construction
Historic roof tiles	10%	50%
Historic brick	5%	40%
Historic rag stone	40%	50%
Historic hinges	1%	100%

Heating System

The heat pump we have selected is a Daikin R32 monobloc LT 14K EDLA3V3 with a 300L cylinder we will be installing
the heat pump system with a low lost header to separate heating and domestic hot water the domestic hot water will have a bronze pump installed for hot water domestic return
Controls for heat pump will be wired by us all lose controls to do with the heating will be wired by ourselves and the
mains power will be wired by others. Flow and returns for domestic hot water will be run in plant room and left with isolation valves heating pipework to have isolation valves ready to be run to under floor main folds
All pipework installed will be lagged and retained by BBJ rubber clips.

supply the under floor heating to ground floor only, the pipework to be fixed to subfloor, pipework to be installed in zones back to one manifold. All pipework will be tested under
air pressure before screed is carried out. We will install the plastic membrane over the cellar Tex. We will run flow and return pipework to manifold from heat pump all in 28mm copper pipework.