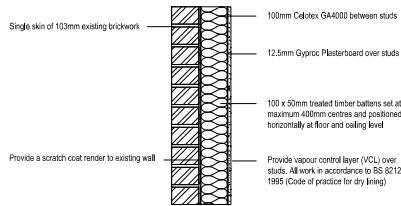


6

UPGRADING 100mm WALL

Cold adjoining space



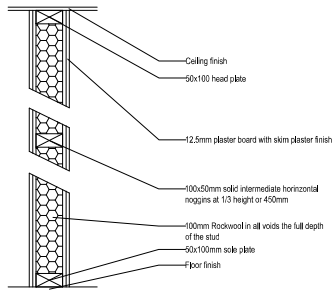
UPGRADING EXISTING SINGLE SKIN PARTY WALL (cold adjoining space)

The existing walls must be checked for stability and be free from defects as required by the Building Control Officer. Provide a scratch coat render to existing wall. Construct a studwork lining using 100mm x 50mm treated timbers with head and sole plates and nogginns at 400mm centres. 100mm Celotex GA4000 insulation to be provided between studs and Gyproc plasterboard with VCL over studs.

Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.

7

STUD WALL

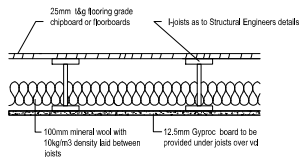


INTERNAL STUD PARTITIONS

100mm x 50mm softwood treated timbers studs at 400mm ctrs with 50 x 100mm head and sole plates and solid intermediate horizontal nogginns at 1/3 height or 450mm. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Iso wool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off double stud joists where partitions run parallel or provide nogginns where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

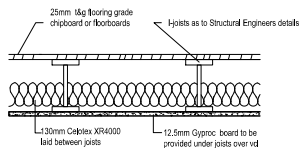
8

INTERMEDIATE I-JOIST FLOOR



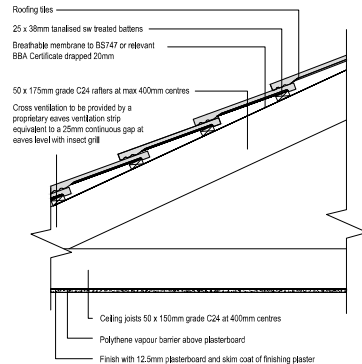
9

I-JOIST FLOOR ABOVE GARAGE



10

COLD PITCHED ROOF



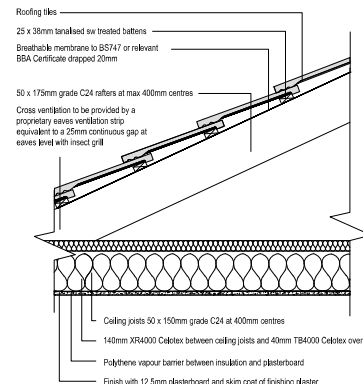
PITCHED ROOF WITH FLAT CEILING ABOVE GARAGE

Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1. Roofing tiles to match existing on 25 x 38mm tanalised sw treated battens on breathable membrane supported on 50 x 150mm grade C24 rafters at max 400mm centres. Rafters supported on 100 x 50mm sw wall plates.

Construct ceiling using sw joists at 400mm centres, finished with 12.5mm plasterboard and skim coat of finishing plaster. Provide polythene vapour barrier above plasterboard. Provide opening at eaves level at least equal to continuous strip 25mm wide in two opposite sides to promote cross-ventilation. Mono pitched roofs to have ridge/high level ventilation equivalent to a 5mm gap via proprietary tile vents spaced in accordance with manufacturer's details.

11

COLD PITCHED ROOF



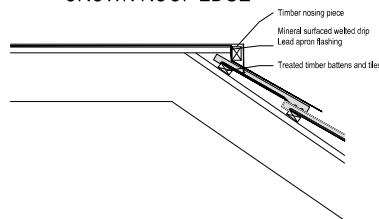
PITCHED ROOF INSULATION AT CEILING LEVEL

To achieve U value of 0.15 W/m²K

Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1. Roofing tiles to match existing on 25 x 38mm tanalised sw treated battens on breathable membrane supported on 50 x 150mm grade C24 rafters at max 400mm centres. Rafters supported on 100 x 50mm sw wall plates. Insulation at ceiling level to be 140mm XRA4000 Celotex between ceiling joists with a further 40mm TB4000 Celotex over joists.

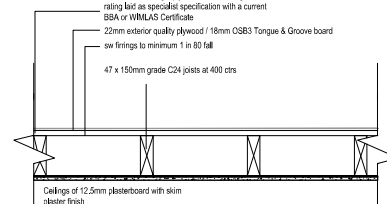
Construct ceiling using sw joists at 400mm centres, finished with 12.5mm plasterboard and skim coat of finishing plaster. Provide polythene vapour barrier between insulation and plasterboard. Provide opening at eaves level at least equal to continuous strip 25mm wide in two opposite sides to promote cross-ventilation. Mono pitched roofs to have ridge/high level ventilation equivalent to a 5mm gap via proprietary tile vents spaced in accordance with manufacturer's details.

CROWN ROOF EDGE



12

FLAT MEMBRANE ROOF



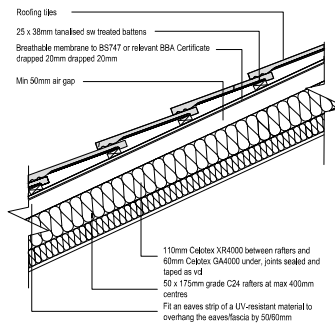
FLAT ROOF

(imposed load max 1.0 kN/m² + dead load max 0.75 kN/m²)

Flat roof to be single ply membrane roofing providing as fire rating for surface spread of flame with a current BBA or WIMLAS Certificate and laid to specialist specification. Single ply membrane to be fixed to 22mm exterior quality plywood / 18mm OSB3 Tongue & Groove board on sw fixings to minimum 1 in 80 fall on sw treated 47 x 150mm C24 flat roof joists at 400mm ctrs. Underside of joists to have 12.5mm plasterboard and skim. Provide cavity tray to existing house where new roof abuts existing house.

13

COLD PITCHED ROOF



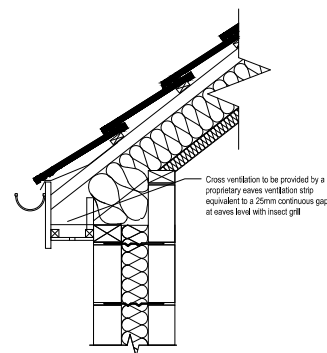
PITCHED ROOF

(imposed load max 0.75 kN/m² + dead load max 0.75 kN/m²)

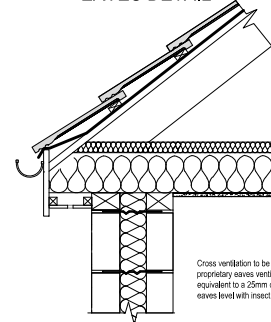
To achieve U-value 0.15 W/m²K

Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1. Roofing tiles to match existing on 25 x 38mm tanalised sw treated battens on breathable membrane to relevant BBA Certificate. Supported on 50 x 175mm grade C24 rafters at max 400mm centres. Rafters supported on 100 x 50mm sw wall plates. Insulation to be 110mm Celotex XRA4000 between rafters and 60mm Celotex GA4000 under, joints sealed and taped as v/d. Finish with skim coat of finishing plaster.

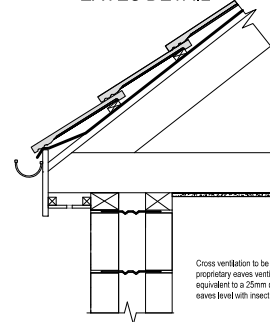
COLD ROOF EAVES DETAIL



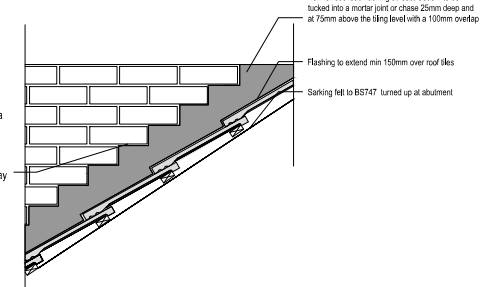
EAVES DETAIL



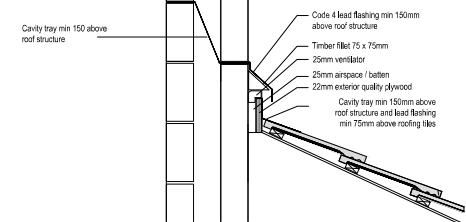
EAVES DETAIL



PITCHED ROOF ABUTMENT WITH CAVITY WALL



COLD PITCHED ROOF / CAVITY WALL ABUTMENT



Arkiplan

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Site	20 Town Drive, Quadding, Spalding PE114PU	Date	15.05.2023
		Sheet	23-0800 D09 REV 0
Title Number	LL358263	Job	New Extension
		Scale	Not To Scale
Title	LL358263	Title	Section Detail Drawings 1:10