

SPECIFICATION FOR THE BUILDING WORK.

1. SUBSTRUCTURE

- 1.1 Foundations to be 600 x 230mm (or 450 x 230mm where shown) concrete strip (C20P mix) on firm trench bottoms to local authority approval. Substructure wall to be 300 mm dense aggregate concrete blockwork in two skins (100mm outer and 100mm Inner) with concrete cavity fill to external ground level. Foundations to be taken 450mm minimum to top of concrete strip below finished ground levels. Hardcore backfill to trenches and to make up levels to be laid and compacted in 300mm layers.

2. GROUND FLOORS

- 2.1 These are to comprise floor finish on 50mm sand/cement screed on 125mm concrete slab on 75mm Celotex Fast-R FF 3000 insulation on 1200-gauge polythene damp proof membrane lapped and welted 150mm minimum consolidated and blinded hardcore or substrate stripped of all organic topsoil. U value of 0.15 W/m²K.

3. NEW SUBSTRUCTURE WALLS

- 3.1 These are to be 300mm (except where shown otherwise) external cavity walls comprising 102mm facing brickwork external skin, 110mm cavity wall with 60mm Celotex insulation, 100mm lightweight (7N/mm² minimum) concrete celon solar insulating blockwork plastered internally with 15mm sand/cement render and Gypsum Thistle finish.
- 3.2 Total wall construction to provide 'U' Value of less than 0.18 W/m² degrees C.
- 3.3 Cavity walls to be tied together with stainless steel insulation retaining wall ties to BS1243, built in at 750 maximum horizontal centres and 400mm maximum vertical centres staggered on plan at 450mm horizontal centres within 300mm of all openings.
- 3.4 Cavities to be closed at eaves with slate or supalux with dpc. and at all openings with dpc. separations.
- 3.5 All openings in external walls, unless shown otherwise, to be formed using galvanised steel lintel LI/HD110 by LG Lintels Ltd, with 150 end bearings and tray dpc all as recommended by manufacturer.
- 3.6 In all rooms where open fires or conventional flue boilers are installed, combustion air is to be provided by means of 225 x 150mm air bricks in external wall, sleeve through cavity and internal fixed vent with fly screen.

4. DPC's

- 4.1 Build in horizontal dpc's at finished floor slab level (min 150mm above ground floor level) with 100mm lap with dpm. Dpc's to be Hyload pitch polymer, or similar approved, at ground floor level. Tray dpc's under window cills and vertical dpc's at window and door reveals.

5. TIMBER SUSPENDED FLOORS

- 5.1 21mm T&G softwood boarding on gauged treated softwood SC3 grade joists to the sizes shown.
- 5.2 Floor joists to be braced with herringbone strutting where spans exceed 240mm.
- 5.3 Ceilings to ground floor accommodation to be 12.5mm plasterboard and skim on joists at 400mm centres.
- 5.4 Ceilings to first floor accommodation to be 12.5mm Duplux plasterboard and skim on rafters at 400mm centres. Noggins to be provided at perimeters at plasterboard sheets.

6. CHIMNEYS

- 6.1 Construct new facing brickwork chimneys including 225mm diameter or 185mm square related flue liners (spigot down) corbelled to terminate in brick stack with concrete capping and clay pots on centre line or ridge. Code 4 lead flashings are to be provided in accordance with Lead Development Association recommended details.

7. BOILER FLUE

- 7.1 To comprise balanced flue outlets in accordance with British Gas requirements.

8. ROOFS

- 8.1 To comprise interlocking tiles on 25 x 38mm treated softwood battens on untearable roofing felt on trussed rafters (or traditional cut rafters) to BS 5268 Part 3: 1985 at 600mm centres on 100 x 50mm softwood wall plates anchored at 2m centres with standard BAT galvanised mild steel straps taken down cavity and built into wall. Rafters to be 150mm minimum depth where insulation follows roof slope.
- 8.2 Insulation to roof void to be 300mm minimum thickness fibreglass quilt laid between rafters.
- 8.3 Roof space to have through ventilation provided at eaves level with a minimum of 15mm air gap with fly screen to the total perimeter of the fascia. Eaves ventilation to be maintained by means of Marley or similar eaves ventilators fixed by rafters.
- 8.4 Lean-to roofs and roofs where insulation follows the roof slope to have 100mm fibreglass insulation laid between rafters and Glidevale Type FV250, 25mm continuous ventilators at abutments and eaves to provide 25mm continuous ventilation opening. (see drawing for any amendments)
- 8.5 Roofs to be braced with 75 x 50mm longitudinal ties and 100 x 38mm diagonal wind bracing in accordance with the recommendation in BS5268 Part 3: 1985.
- 8.6 Roof insulation generally to achieve a minimum 'U' value of 0.13 W/m², Water tanks in roof space to be enclosed in insulation except between ceiling and underside of the tanks
- 8.7 Ridge tiles and hip tiles to be half round or universal angle clay tiles (butt jointed and not interlocking type) and fixed in accordance with manufacturer's recommendations including galvanised hip irons. Allow for insulation of ridge ventilator tiles and SVP ridge vents.

- 8.8 Valleys to be formed in code 4 lead sheet supported on 19mm WBP plywood. Clear width of valley to be not less than 100mm. Lead sheet not to exceed 1500mm in length with a minimum lap of 200mm at joints.
- 8.9 Roofing felt to comply with BS747 Type IF. Felt to be properly dressed into gutters and over ridges, hips and valleys.
- 8.10 Abutment flashings to compromise preformed flashings manufactured by Cavity Trays Ltd or similar approved and installed in accordance with manufacturer's recommendations.

9. LATERAL RESTRAINTS

- 9.1 To be provided by means of 30 x 5mm galvanised mild steel straps at 1900mm centres maximum at the following positions: -
1. At roof wall plate level straps to be fixed to wall plate and secured to inner skin of cavity wall to manufacturer's recommendations and requirements of the Building Regulations.
 2. At gable walls to extend over three trusses or rafters supported with 76 x 50mm noggin between and built into inner skin of cavity wall to manufacturer's recommendations.
 3. At first floor level fixed over 2 No. joists with support noggin.

10. INTERNAL PARTITIONS

- 10.1 Internal load bearing walls to be constructed in 100 or 140mm light bearing blockwork (7N/mm²) as dimensioned on drawings, plastered with 15mm sand cement render and Gypsum Thistle Finish.
- 10.2 Internal non load bearing timber stud partitions to be constructed in 100 x 50mm softwood studding at 400mm centres with 12.7mm plasterboard and skim both sides. Spaces between studding to be filled with rockwool batts or similar.
- 10.3 Generally, where partitions on timber suspended floors, joists below to be doubled up and blocked for lateral restraint.
- 10.4 Blockwork partitions on ground bearing concrete slabs to be provided with horizontal dpc.

11. PRESERVATIVE

- 11.1 All structural timber, battens etc. to be pressure impregnated with preservative.

12. ROOF DRAINAGE

- 12.1 Brown uPVC 112mm diameter half round gutters and fittings with 68mm diameter brown uPVC downpipes taken into roddable back inlet gulley's (colour could alter per contract)

13. STAIRS

- 13.1 Timber stairs to be constructed as follows: -
Equal risers of between 165 and 200mm used with equal goings of between 220 and 305mm
Effective clear stair width between handrail and wall (or between handrails) to be not less than 800mm.
Handrails to be 900mm above pitch line.

13. STAIRS (cont'd)

Balustrading to landings shall not be less than 900mm high.
Balustrading as Boulton and Paul Type B7 'Turned Colonial'
Openings in balustrades shall not exceed 99mm
Minimum headroom measured vertically above pitch line shall be 2m.

14. WINDOWS

- 14.1 To be uPVC double glazed windows complete with cills and a minimum of 400mm trickle ventilation (see drawing for any amendments)
- 14.2 Window areas generally to provide a minimum of $1/20^{\text{th}}$ of the associated floor area in natural ventilation opening and a minimum $1/10^{\text{th}}$ of the associated floor area for natural light.
- 14.3 Single panel glazed doors to be 44mm (finished thickness) treated softwood with 125 end stiles and 250mm bottom rail glazed and safety glass (laminated or toughened) to BS6206. Doors to have decorative stain finish.

15. ROOF WINDOW

- 15.1 To be Velux roof window as indicated on drawings complete with proprietary flashings to suit roof covering.

16. DRAINAGE ABOVE GROUND

- 16.1 All drainage above ground to comply with BS5572 1978.
- 16.2 All traps to be 75mm deep seal anti siphon bottle traps.
- 16.3 Soil and vent pipes to be 100mm diameter (or 75mm for vent pipes only above highest connection) with softwood framing and plasterboard covering to form duct with access panels for rodding eyes. Soundproofing material to be incorporated within duct.
- 16.4 Wash hand basins and bidets to have 32mm diameter waste pipes connected to SVP via traps.
- 16.5 Baths and showers to have 38mm diameter waste pipes connected to SVP via deep seal traps.
- 16.6 SVP to terminate in proprietary ridge vent tiles or dergo air inlet valves as shown.

17. DRAINAGE BELOW GROUND

- 17.1 All underground drainage to be laid in accordance with BS360 and with requirements of Local Authority supervisory.
- 17.2 100mm and 150mm diameter plastics and vitreous clayware pipes and fitting to be laid in accordance with the manufacturer's recommendations for both soil and surface water drains.
- 17.3 Lintels to be built into walls to bridge openings in cavity walls where drains pass through leaving clearance of 38mm.

17. DRAINAGE BELOW GROUND (cont'd)

- 17.4 Brick manholes to be constructed in 215mm class 'B' engineering brickwork on 150mm concrete base with access covers to BS497 Part 1 1976.
- 17.5 Stormwater drainage to be taken to 2 m x 2m deep soakaway filled with clean stone, broken brick etc., to Local Authority approval. (see drawings)

18. ADDITIONAL MECHANICAL VENTILATION IN KITCHENS AND BATHROOMS

- 18.1 All new kitchens are to have additional mechanical ventilation (Vent Axia or equivalent) producing minimum extract rate of 60 litres per second.
- 18.2 All new bathrooms are to have additional mechanical ventilation (Vent Axia or equivalent) producing minimum extract rate of 15 litres per second.