

# NOTES

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05 MAY 2016

SUPPORT SERVICES

1. All works shall be done in accordance with the latest Building Regulation Requirements:

A: Structure (2004 edition) including TRADA span tables for solid timber members in floors, ceilings and roofs for dwellings (2nd edition 2008);  
 B1: Fire safety in dwelling houses (2006 edition);  
 C: Site preparation and resistance to contaminants & moisture (2004 edition);  
 D: Toxic substances (1992 with 2002 amendments);  
 E: Resistance to the passage of sound (2003 with 2004 amendments);  
 F: Ventilation (2010 edition);  
 G: Sanitation, hot water safety and water efficiency (2010 edition);  
 H: Drainage and waste disposal (2002 edition);  
 L1A: Conservation of fuel and power in new dwellings (2010 edition);  
 N: Glazing – Safety in relation to impact, opening & cleaning (1998 with 2000 amendments);  
 P: Electrical safety (2006 edition);  
 Regulation 7 Materials and workmanship (1992 with 2000 amendments)

2. All plumbing, drainage, heating, electrical services to be carried out by suitably qualified & experience specialists or registered competent persons, tested & appropriate certification issued where required in this specification.
3. There is no asbestos hazard at Site.
4. Ground to be prepared for new works as described including location and alteration/modifications to all existing services as necessary, including sealing up, capping off, disconnecting, removing redundant services as necessary.
5. Prior to and during works, the person carrying out the works is to liaise with and meet the requirements of the relevant Service Authorities, including the location and protection of all services as necessary.
6. External paths, drives, patios, walls, fences & gardens etc, to be taken up and relayed/extended as necessary to accommodate the new works as described.
7. All structural timber is to be grade C24, stress graded to BS 4978 and sawn to BS 4471. All timber is to be protected on site to minimize moisture content which must not exceed 22%.
8. Foundations to be constructed at a minimum depth of 1000mm, below the influence of drains, on level firm natural undisturbed ground of adequate ground bearing capacity to the approval of the building control surveyor. Strip foundations to be a minimum width of 600mm and thickness of 225mm and trench fill foundations should have a minimum width of 450mm and a minimum 500mm thickness of concrete. The concrete mix should be ST2 or GEN1.
9. Walls below DPC level up to 1m deep are to be constructed with two skins of 7N/mm<sup>2</sup> 100mm concrete blocks 1:3 cement mortar in-filled with concrete to a maximum of 225mm below DPC level. Block and cavity width and wall tie spacing, etc, to be same as the wall above, but with a row of wall ties to support the cavity wall insulation below DPC level.
10. Cavity walls (worst case U-value 0.30- suggested U-value 0.18 W/m<sup>2</sup>.K) Walls to consist of 103mm tooled flush jointed brickwork with a 100mm thick lightweight high performance 2.8N/mm<sup>2</sup> insulation block with a 13mm lightweight plaster finish. Ensure all gaps & all voids are sealed to prevent any air leakage.
11. Walls to be built with 1:1:6 cement mortar and tied with BBA approved 250mm long Ancon ST1 stainless steel wall ties or other approved double dip type tie in compliance with BS 5628 & BS EN 845-1, embedded 75mm min into each wall at maximum spacing in compliance with wall tie manufacturers details and typically at 600mm max horizontal, 450mm max vertical and 225mm max at reveals, verges and closings for cavities up to 125mm wide.
12. Cavity width and insulation details to be constructed to achieve a 'U' value of not more than 0.28 W/m<sup>2</sup>.K. Wall insulation to be continuous with roof insulation level and taken below floor insulation levels as manufacturer's details.
13. Proprietary manufactured lintels to current British Standards/Euro codes are to be provided over all structural openings as shown in detail drawings. The positions, types, sizes, end bearings etc of lintels are in compliance with the lintel manufacturers requirements.
14. Cavity Closers: Proprietary acoustic/insulated fire stop cavity closers, or similar are to be provided to all cavity openings/closings, tops of walls and junctions with other properties.
15. Non-load bearing stud partitions are to be constructed of 100 x 50mm soft wood with head and sole plates and intermediate noggins fixed at 600mm with a minimum of 25 mm of 10Kg/m<sup>3</sup> proprietary sound insulation quilt suspended in the stud and finished with 15 mm plasterboard and skim both sides.
16. SVP pipe boxing to consist of soft wood framing, 2 layers of 15mm plasterboard and skim and void filled with mineral wall quilt for sound insulation and fire/smoke stopping. Boxing to be continuously carried up to roof space for soil and vent pipe. Ensure all gaps & all voids are sealed to prevent any air leakage.
17. Flat roof to be carried out as detailed on the drawings.
  - a. Moisture content of timber should not exceed 20% and to be kiln dried & grade C24. All timber to be treated using CCA vacuum/pressure or O/S double vacuum to BS 5268:5, including all cut ends of timber etc 300mm of any joint.
  - b. Workmanship to comply to BS 8000:4.
  - c. All fixings to be proprietary stainless steel or galvanized steel. Waterproof covering to be either:
    - i. 3 layers of high performance felt (hot bonded together with bitumen) to a current BBA Certificate in compliance with BS8217
    - ii. reinforced plastic (GRP) system with a current BBA or other approved accreditation

- d. Waterproof covering to be laid in compliance with manufacturers details by flat roofing specialist onto separating layer over roof insulation layer to fixed between joists, fixed to 22mm external quality plywood decking or similar approved laid to gradient as shown in details, fixed onto timber flat roof joists constructed of kiln dried structural grade timber with sizes and spacing as annotated on the drawing.
  - e. Flat roof to have a surface finish of bitumen bedded stone chippings covering the whole surface to a depth of 13mm to achieve a class AA (or B (t4) European class) fire rated designation for surface spread of flame.
  - f. Restrain flat roof to external walls by the provision of 30 x 5 x 1000mm lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and internal wall faces
  - g. Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a continuous 50mm air gap above the insulation in ventilated cold decks. Cross ventilation to be provided on opposing sides by a proprietary eaves ventilation strip equivalent to a 25mm continuous gap at eaves level with insect grill.
  - h. Metallic roof trims to be of non-corrodible material & resistant to sunlight & not fixed through the water proof covering.
  - i. All flat roofing works to be carried out by a specialist flat roofing contractor and all materials etc to be fitted in compliance with manufacturer's details. Work should not be carried out during wet weather or when the deck has not fully dried out. A 500g vapour control barrier is required on the underside of the roof below the insulation level. Fix 12.5mm foil backed plasterboard (joints staggered) and 5mm skim coat of finishing plaster to the underside of all ceilings using galvanized plasterboard nails.
18. Horizontal Dpc's and Dpc trays with weep holes at 1.0m centres to be provided 150mm above ground level continuous with and sealed to the floor Dpm & radon dpc tray.
  19. Stepped and horizontal Dpc/cavity trays are to be provided over all openings, roof abutments/projections and over existing walls with different construction or materials. Install vertical dpc or proprietary insulated cavity closers at all closings, returns, abutments to cavity work and openings etc.
  20. Sound insulation details between internal walls of a room containing a WC shall be in accordance with the relevant details contained within this guidance and Approved Document E.
  21. Opening windows are provided for natural ventilation to the kitchen and bath/wc which have external walls, ~~the~~
  22. Mechanical ventilation is to be provided in the kitchen directly ducted to the outside air equivalent at 30 litres per second over the hob.
  23. Sinks with hot and cold running water is to be provided in the kitchen and the toilet which is fitted with a shower. Outlets from domestic hot water storage vessels to be fitted with an in line hot water supply tempering valve to prevent water temperatures exceeding 60 °C. Toilet and Shower to be fitted with an in line mixing valve to restrict the temperature to 48 degrees C max
  24. Both storm and foul drainage to consist of 100mm diameter UPVC proprietary underground drainage laid at a minimum gradient of 1:40 where serves up to one wc or 1:80 where serves two or more W/C's, surrounded in pea/single size gravel a minimum of 400mm depth.
  25. All W/Cs to have trapped outlet connected to 100mm diameter pipes. Sanitary appliances such as wash hand basin, baths, showers, sinks etc, to be provided with 50mm diameter waste pipes laid to falls and 75mm deep seal traps. Where waste pipe runs exceed 4m BBA approved air admittance valves are to be fitted above appliance spill over level. Waste pipes to either discharge below trapped gully grating or into soil and vent pipes via proprietary waste manifolds or bossed junctions. Internally all waste and drainage pipes to have rodding access eyes at changes of direction and be adequately clipped and supported.
  26. Rainwater gutters and down pipe sizes and number to be as follows and fixed in compliance with manufactures details. See H3 of ADH for further information
    - a. Gutter 100 mm
    - b. Downpipe outlet 63 mm diameter
  27. Thermal insulation standards shall achieve the following starting point U values:
    - a. All roof types: U-value 0.13 W/m<sup>2</sup>.K
    - b. Walls: U-value 0.18 W/m<sup>2</sup>.K
    - c. Floors: U-value 0.13 W/m<sup>2</sup>.K
  28. Energy efficient lighting Fixed internal & external energy efficient lighting systems to be provided in compliance with paragraph 4.13 of ADL1A as follows:
    - a. Fixed internal lighting Fixed internal energy efficient lighting in Kitchen, Toilet and Coats area will be at least 75% of all the fixed low energy light fittings (fixed lights or lighting units) in the main dwelling spaces (excluding cupboards & storage areas).
    - b. Fitted with lamps which must have a luminous efficiency greater than 40 lumens per circuit-watt and a total output greater than 400 lamp lumens. (note: light fittings with less than 5 circuit-watts are excluded)