

Single stack plumbing system installed in accordance with BS 5572 - 1978.  
 100mm dia. Plastic soil and vent pipes connected to vertical terminals or air admittance valves.  
 Basin wastes 32mm dia. for lengths not exceeding 17m and 18mm, whose length exceeds 1.7m. Bath, shower and sink wastes to be 38mm dia. W.C. wastes to be 100mm dia. - all waste pipes to be fitted with 75mm deep red traps and rodding access as necessary. Where shower wastes exceed 3.0m in length size to be increased to 50mm dia.  
 Large radial bend and rodding access plate to be fixed at base of each soil stack.

**DRAINAGE BELOW GROUND**

All new drains to be BS 1301.  
 Carefully locate all existing drains prior to commencement of the works. Grab up existing redundant gullies and seal off redundant drains in concrete. Excavate and form new manhole chambers on 150mm concrete slab, bed new channels and X sprayed bands set in benching trowelled smooth.  
 Build up 225mm class B engineering brickwork sides and set in case iron cover and frame.  
 Chamber 600mm x 750mm if invert level 1000mm  
 Chamber 1200mm x 750mm if invert level 1000mm  
 Slop level at 300mm cosine  
 Present concrete and PVC chambers to be used with Local Authority Approval.  
 Drains to be formed using 100mm dia 'Superslow' or similar pipes with flexible polypropylene couplings laid on and surrounded with pea shingle. Drains below the building are to be encased and back-filled with concrete. Flexible rubber joints to be provided to drains 150mm each side where passing through foundation walls and precast concrete lintels to be built in over drainage and services openings.

**FOUNDATIONS**

All structural engineers details.

**FLOORS**

Ground floor to be R.C. slab to structural engineers details on 150mm thick well consolidated hardcore blinded with bogging.  
 120G polythene damp proof membrane laid over floor slab with minimum laps of 300mm and lapped with 48mm thick Celotex GA2048 rigid slab insulation covered with polythene DPM lapped as before and finished with 65mm thick screed with mesh reinforcement.  
 Damp proof membrane to extend up walls, partitions and vertical abutments and lapped with DPC all round.

External walls to be constructed in 245mm cavity construction with 100mm facing bricks to outer leaf. 45mm wide cavity filled together with stainless steel wall ties at centres to be agreed with the structural engineer. Cavity to be fully filled with 45mm 'Rockwool' wall bats. Inner skin of cavity to be 140mm insulating blockwork. Structural strength of blockwork to be specified by structural engineer. Care to be taken at reveals and joints with insulated cavity chaser built in as recommended by manufacturer.  
 Existing external walls to be lined internally with 40mm thick 'Celotex' self-R boards reference GA3040C to achieve a minimum U/V value of 0.15W/m2K.  
 Fix 25mm x 50mm treated softwood battens to insulation board to provide fixing for wall boards. Ensure that positions of battens coincide with fixing board joints.  
 Line windows and door reveals with GA34122 to reduce risk of thermal bridging.

Internal dividing walls between bedrooms to be constructed from 'Oxypro' or similar approved metal stud partitions.  
 Stud partitioning to be fixed with 'Lafarge' hardwood boards or 'Oxypro' durable boards fixed in accordance with manufacturers instructions. Board to have top and filled joints to receive fasteners. Void between boards to be filled with 100mm quilt insulation.  
 Internal walls within rooms and studies to be constructed from 'Oxypro' or similar approved metal stud partitions. Stud partitioning to be fixed with 'Lafarge' hardwood boards or 'Oxypro' durable boards fixed in accordance with manufacturers instructions. Board to have top and filled joints to receive fasteners. Void between boards to be filled with 100mm quilt insulation.

Lift shaftwork to be constructed from 200mm cavity construction with 100mm outer leaf of dense concrete blockwork. 50mm wide cavity filled together with stainless steel wall ties at centres to be agreed with the structural engineer. Cavity to be fully filled with 25mm 'Isolther' or similar insulation. Inner skin of cavity to be 140mm dense concrete blockwork structural strength of blockwork to be specified by structural engineer.

**KITCHEN AND BATHROOM VENTILATION**

Mechanical ventilation to be provided to kitchen in accordance with current Building Regulations. Extraction rate in kitchen to be 30 litres / sec provided by an extraction cooker hood or 60 litres / sec by an extractor fan unit. Extraction rates in bathrooms to be provided by 'Vilvair' ventilation system installed in accordance with manufacturers details and specification, designed in accordance with BRE digest 398, 'Continuous Means of Ventilation in Buildings'.

All windows as indicated on drawings to have a maximum of 1/20 area openable to all seasons, total window area to each room to be less than 1/10 of floor area.  
 New windows fixed by galvanneal lugs set into brick / blockwork, between cills on apr and run mastic in reveals.  
 External doors with hardwood threshold and weather. Bed threshold on apr and run mastic in reveals.  
 Safety glazing to be installed in critical areas inside building. These areas are as follows:-  
 in doors and door side lights between finished floor level and 1500mm high in internal and external walls and partitions between finish floor and 800mm high.  
 NOTE - all safety glazing to comply with BS 6206.

**SAFETY GLASS**

Safety glass to be fitted to all opening doors and all windows, any part of which is below 800mm above floor level. Glazing to doors and windows adjacent to doors to be safety glass to BS 6206 for a height of 1500mm above floor level. Tinted or laminated glass to be fitted to first floor windows with cill levels below 800mm above floor level.

**ROOF CONSTRUCTION**

Existing roof covering to be stripped back to roof deck.  
 Prepare deck and apply mastic asphalt in two coats to a total depth of 20mm on black sheathing felt to BS 747.  
 Asphalt to be finished with solar reflective paint.  
 New roof covering to be laid to existing falls on 85mm Celotex Double-R RG 2085 or similar approved thermal insulation.  
 Install 150mm x 40mm x 20mm softwood batten to perimeter of roof and drive with mastic asphalt on expanded metal lath.  
 Code 4 lead covering flashing to be chased into perimeter parapet wall and dressed down over new lath.  
 All leadwork to be in accordance with lead producers instructions.

