

FOUNDATIONS

Concrete deep strip 30 N/mm² strength sulphate resisting cement. Depth & width provisionally as plan but final depth & width to be agreed on site with building inspector. Drains running through foundations or under walls to have 150 RC lintel over with 50 clearance. Foundations exceeding 1500 deep to have 75 claymaster to inside face kept 500 from bottom of excavation. Foundations dug next to neighbouring structures to be constructed in 'hit & miss' sequence. Excavate alternate bays not exceeding 1m long. Fill with concrete and dig next bay after concrete has fully set. Connect pins with M16 MS dowels. Any eccentrically loaded foundation to be 600mm wide with the outer face of wall 60 from foundation edge.

GROUND FLOOR – GROUND BEARING CONCRETE SLAB

Min 150 rammed hardcore blinded with 50 sand 1200 PVC DPM lapped to DPC. 100 concrete. 100 Celotex GA4000 insulation slab with staggered & taped joints. 75 screed. 50 gauge polythene separating layer between insulation & screed. All existing air vents ducted through 100 dia PVC pipe under DPC. Strip of insulation to perimeter of screed.

EXTERNAL CAVITY WALLS WITH FACING BRICK OUTER SKIN

Cavity wall of 100 Celcon 7N lightweight block inner skin. Section of rear ground floor wall with 215 inner leaf as shown on plan. 102 facing brick outer skin to match existing outer skin. 1:1:6 mortar mix. Class B eng brick with sulphate resisting cement below DPC. 100 cavity with 100 Knauf Dritherm-32 full fill insulation. Dryline internally with 52.5 Celotex PL4000 insulation backed plasterboard & dabs to wall with 3 skim. Wall to achieve U-value of 0.18W/m²K. Fill cavity with weak mix concrete to 225mm below DPC. Stainless steel ties (225 long) 750 horiz, 450 vert & 300 at reveals. Join to existing building with furfix movement joint. Provide thermalite expansion joint to external leaf on spans in excess of 6m. DPC to BS743 lapped to existing. Close cavity reveals with Thermabaté insulated cavity closers. Bifold door lintel as engineers design. Other openings to have Cantic CG90/100 lintels with 150 min bearings.

INTERNAL BLOCKWORK PARTITIONS

100 Celcon Standard lightweight block (K=0.15 W/m²K). 1:1:6 mortar mix. Class B eng brick with sulphate resisting cement below DPC. Bond into new external walls. Join to existing building with furfix movement joint. DPC to BS743 lapped to existing.

STEELWORK

Beams to be clad with 12.5 fireline plasterboard + skim to provide 30 min fire rating. Alternatively steelwork to be painted with intumescent paint by suitably trained person to approval of building inspector on site.

FIRST FLOOR

200x50 C16 joists at 400 cts. Steel joist hangers. 22mm moisture resistant T&G particle board (18 WBP ply to bathrooms) 5x30 steel restraint straps at 2000 cts over 2 joists & located in brick or blockwork. 200x38 straight strutting between joists. Soffit clad with 9 plasterboard + skim. 100 acoustic quilt between joists

INTERNAL STUD PARTITIONS

75x50 stud. 12.5 plasterboard + skim. 1981x762 doorways unless shown otherwise on plan. Lay DPC under sole plates where on concrete ground floor. Double up joists under partition bolting together with M12 bolts @ 600cts if on timber floor. All partitions to contain 75 acoustic quilt. Clad bath/shower room partitions with 12.5 soundblock + 3 skim each side.

PITCHED MAIN ROOF

100x50 C16 rafters at 400 cts. Spiked & B-mouthing to joists & wall plates. 200x50 C16 hip & valley rafters. 200x38 ridge board. 150x75 purlins. 100x50 C16 ceiling joists to 400cts. 1 layer roof felt. 19x38 battens. 5x30 MS anchor straps at 1200 max cts screw fixed at three points to both roof structure and wall. Roof tiles to match existing. Chutes to valleys. Pitch to match existing. Ventilate at eaves. 300 fibreglass quilt laid between joists & over joists. Thru vents installed to perimeter to allow through eaves ventilation. 9 plasterbd + 3 skim to underside of joists. New hip & ridge tiles to be bedded on mortar in addition to a mechanical fixing

PITCHED GROUND FLOOR ROOF (WITH SLOPING SOFFIT) - UNVENTILATED

150x50 C16 rafters at 400 cts spiked & B-mouthing to joists & wall plates. 5x30 MS anchor straps at 1200 max cts screw fixed at three points to both roof structure and wall. 120mm Celotex XR4000 insulation between rafters & 50mm Celotex TB4000 insulation beneath rafters to achieve U-value of 0.15W/m²K. Tyvek breathable membrane. 19x38 battens. Sandtoft 20/20 interlocking clay tiles with 100 headlap laid to suit low pitch (or similar approved). Tile colour to match existing. 9 plasterbd + skim to soffit.

ROOFLIGHTS - PITCHED ROOFS

Install with manufacturers upstand/flashings kit and all to manufacturers instructions. Doubled up rafters and trimmers around opening to be bolted together with M12 bolts @ 600cts.

VENTILATION

Windows/doors to match existing & provide vent of min 1/20 floor area & built in adjustable 8000mm² min vent. Open plan kitchen diners to have 38000mm² vents. Install power vent to kitchen to achieve 30 litres/sec if over a cooker or 60 litres/sec if elsewhere. Utility room to achieve 30 litres/sec. WC/Bath/shower room to achieve 15 litres/sec and be connected to light switch with 15 min overrun. Vent to be ducted at ceiling level to outside air.

DRAINS

Clay 100 dia pipe laid in 150 pea shingle to fall min 1 in 40. Inspection chambers 150 concrete base. Osma preformed IC all to manufacturers spec (only on private non shared drains). Drains shown on drawings are estimated and are to be confirmed on site before any work commences.

SURFACE WATER

112 dia PVC gutters. 68 dia PVC downpipes. Surface water downpipes connected to soakaway minimum 5 metres from any building. Volume of 1 cubic metre per 16.5 square metres of roof area served. Fill with hardcore. If clay found use crate system soakaway.

ABUTMENTS

All exterior abutments to have code 4 lead min 150 flashing let into brickwork or blockwork.

WINDOWS & DOORS

Double glazed with 16 air gap and soft low E coating. Built in 8000mm² adjustable vent. Windows & doors to achieve U value of 1.4 w/m²K. All glass below 800mm, glass in doors or within 300mm of a door to be toughened safety glass.

ABOVE GROUND DRAINAGE AND PLUMBING

Sink, bath & shower to have 40 dia waste. Basin with 32 dia waste. All with 75 D/S traps & rodding access at bends. WC with 110 dia waste. Plumbing to comply with British Standards. SVPs to vent 900 above any openable window within 3m. Wholesome water (ie water provided by statutory water supplier via a compliant water supply installation to be provided to all taps. Baths & shower taps to be thermostatically controlled to ensure water does not exceed 48 deg C

ELECTRICAL WORK

All electrical work required to meet the requirements of Part P (Electrical Safety). Must be designed, installed, inspected & tested by a person competent to do so. Prior to completion the council should be satisfied the Part P has been complied with. This may require an appropriate BS7671 electrical installation certificate to be issued for the work by a person competent to do so. New light fittings to have LED bulbs. Electrical switches and sockets to be installed between 450mm and 1200mm from floor level where practical.

HEATING

If replaced any new boiler to be of condensing type and have minimum SEDUM rating of 92%. Flue to be 600 min from boundary and 300 min from any openings. New radiators to be fitted with thermostatic valves. Work to gas pipework, boilers & appliances to be carried out, tested and certified by Gas Safe registered person.

