

**GENERAL SPECIFICATION**  
(unless noted otherwise on drawings or engineer's design)

Concrete deep strip 30 N/mm<sup>2</sup> strength sulphate resisting cement. Depth & width provisionally as plan but final depth & width to be agreed on site with building inspection. Drains running through foundations or under new walls to have 2x 140(h) x 100(w) PCC lintels over with 50 clearance (unless larger beam shown on drawings or engineers design). 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 confined 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 MSc dowels.

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. 500 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. Floor to achieve U-value of 0.18W/m2K.

Cavity wall of 100 Celcon Standard lightweight cement ( $K=0.15 \text{ W/m}^2\text{K}$ ) to inner & outer skin. 1:1:6 mortar mix. Class B eng brick with sulphate resisting cement below DPC. 150 cavity with 150 Knauf DrTherm-32 full U-value of 0.18 W/m<sup>2</sup>K. Fill internally with 12.5 plasterboard cut & dabbled with wall with 3 skim. Wall to achieve U-value of 0.18 W/m<sup>2</sup>K. Dryline cavity with weak mix concrete to 225mm below DPC. Stainless steel ties 750 horiz. 450 vert. & 300 at reveals. Join to existing building with furfix movement joint. DPC to B5743 lapped to existing. Close cavity reveals with Thermabate insulated cavity closers. Render exterior to match existing 2 x 10 coat 1:1:6 mix & waterproof additive B55262 to blockwork. Stainless steel bell drip at DPC level. Bifold doors lintel as engineers design. 150 min bearings.

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.

175x50 C16 rafters at 400 cts spiked & B-mouthed to joists & wall plates. 5x30 MS anchor straps at 1200 max cts screw fixed at three points to both roof structure and wall. 150mm Celotex XR4000 insulation between rafters & 30mm Celotex TB4000 insulation beneath rafters to achieve U-value of 0.15W/m2K. Tyvek breathable membrane. 19x38 battens. Redland 49 interlocking tiles with headlap laid to suit low pitch (or similar approved). Tile colour to match existing. 9 plasterbd + skim to soffit. New ridge tiles to be bedded on mortar in addition to a mechanical fixing.

100x50 C24 joists at 400 cts steel joist hangers. 5x30 MS anchor straps at 2000 max cts. 1 in 40 firrings. 12 WBP ply. Bond vapour control layer to ply (Alutrich 60A or similar). Strip of 1200 gauge sheet between warm deck and pitched roofs. Fully bond 150mm Celotex GA4000 to VCL. 18 OSB. Loose lay venting layer. 3 layer felt to BS747 hot bonded to OSB decking. Ceiling 9 plasterboard + skim. Roof to achieve U-value of 0.15w/m2K.

Install with manufacturers upstand/flashing kit and all to manufacturers instructions. 15 degree min pitch for Velux rooflight. Doubled up rafters and trimmers around opening to be bolted together with M12 bolts @ 600cts.

Windows/doors to match existing & provide vent of min 1/20 floor area & built in adjustable 8000mm<sup>2</sup> min vent. Open plan kitchen diners to have 3x8000mm<sup>2</sup> vents. Install power vent to WC 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.

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 manufactures spec (only on private non shared drains). Drains shown on drawings are estimated and are to be confirmed on site before any work commences.

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.

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

Double glazed with 16 air gap and soft low E coating. Built in 8000mm<sup>2</sup> adjustable vent. Windows & doors to achieve U value of 1.4 w/m<sup>2</sup>K. All glass below 800mm, glass in doors or within 300mm of a door to be toughened safety glass.

Basin with 32 dia waste with 75 D/S traps & rodding access at bends. WC with 110 dia waste. Plumbing to comply with British Standards. Air admittance valves (Durgro) to be installed above level of highest fitting that it serves. Wholesome water (ie water provided by statutory water supplier via a compliant water supply installation) to be provided to all taps.

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.

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.

