

**FLAT ROOF**  
 3 layer felt roof system on 120mm of Kingspan flat roof insulation on 18mm WPB plywood on firrings to provide 1 in 40 fall. New joists to be 200 x 50 treated C16 timber at 400mm centres Ceiling formed using 12.5mm foil backed plasterboard with 3mm skim finish

**PITCHED ROOF**  
 Interlocking concrete tiles on 50 x 38 tanalised battens on Tyvek breathable felt on 100x50 c16 rafters at 400mm c/s pitched roof to be vented at eaves and ridge minimum 50mm ventilation space over insulation 50mm Kingspan insulation between rafters and 72mm composite board fixed beneath

**ELECTRICS**  
 Electrical works to be undertaken by qualified electrician and in accordance with Approved Document P

**SMOKE AND HEAT DETECTION**  
 Mains wired, interlinked smoke detectors to be placed in each circulation space, with a heat detector in the kitchen

**NEW WINDOWS**  
 New UPVC windows with double glazed units to min 1.6W/m<sup>2</sup> Windows provided with 10,000mm<sup>2</sup> background ventilation Windows adjacent to doors to be toughened glass Windows to have openable area equivalent to 1/20th of rooms floor area

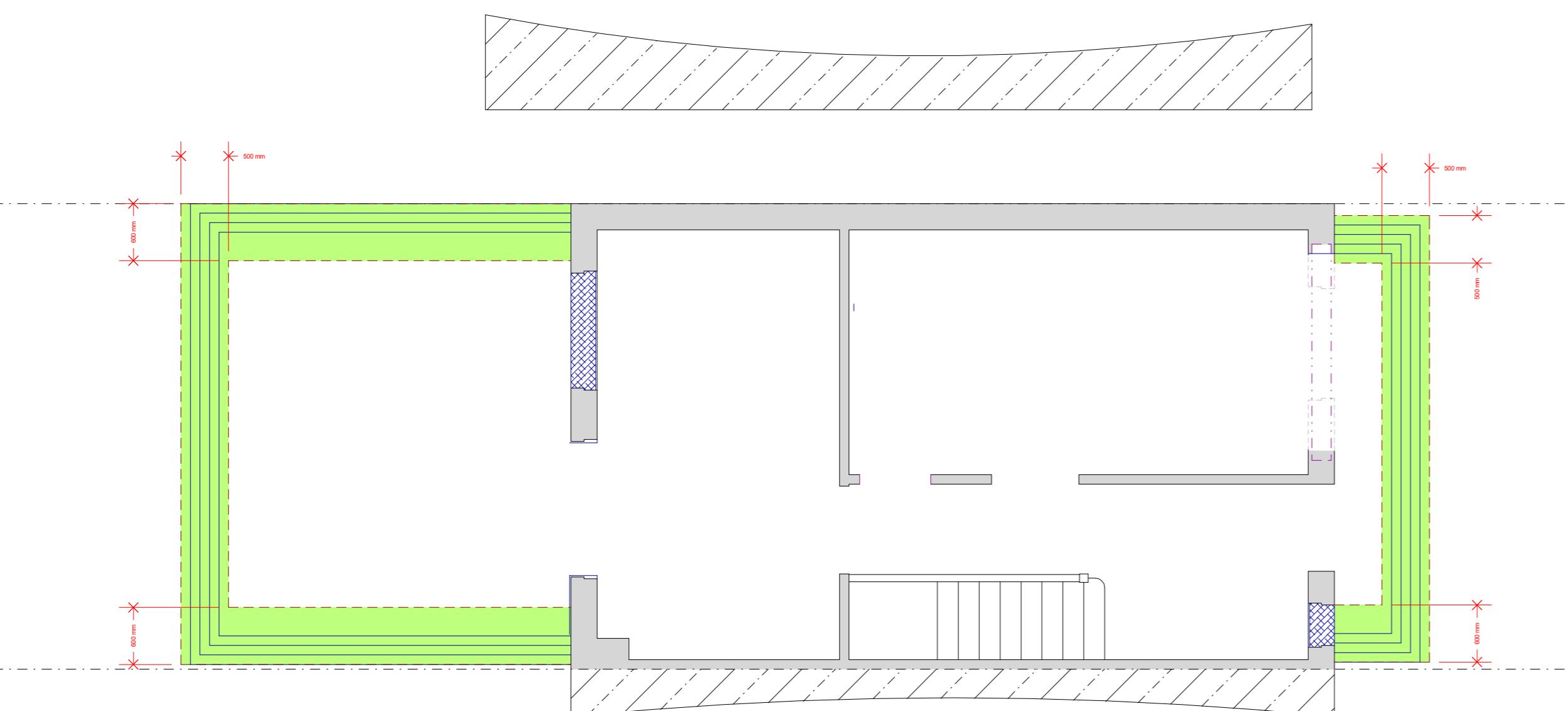
**WASTES**  
 40mm sink waste, combined wastes to be 50mm All wastes to have deep seal traps

**EXTERNAL WALLS**  
 105mm brickwork 90mm Kingspan K106 with 10mm residual cavity, cavity tied with 5No wall ties/m<sup>2</sup> (doubled at openings)  
 100mm Celcon Solar inner leaf, finished internally with 12mm bonding plaster with set finish

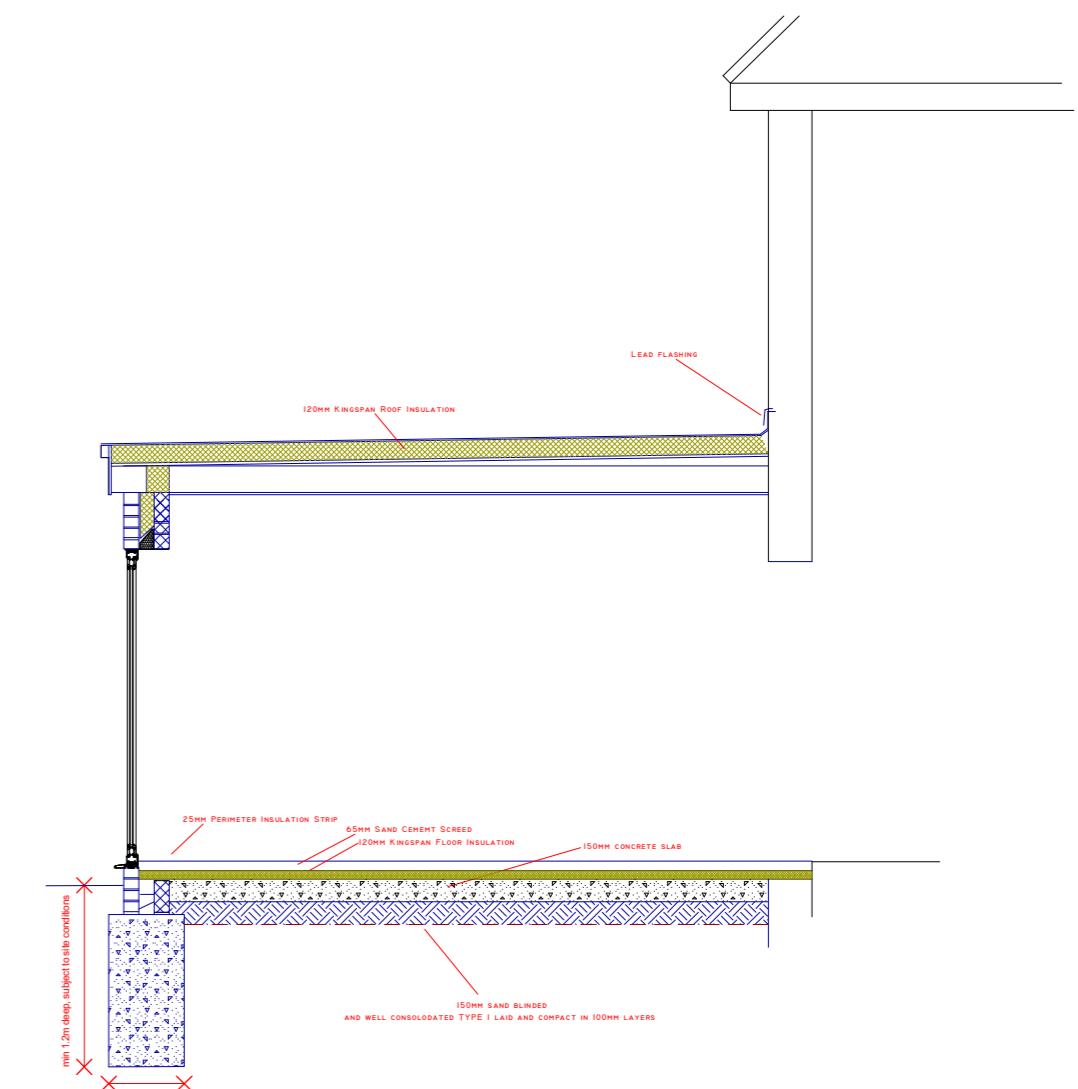
**MECHANICAL VENTILATION**  
 WC to have 6l/s fan, Kitchen to have 30l/s fan in extract hood over hob., All fans to discharge to external air via appropriate size duct

**FOUNDATIONS**  
 Mass fill concrete foundations to min 1.2m deep, subject to review by building control Depths should be in accordance with NHBC guidelines for foundations on clay soils

**FLOORS**  
 65mm sand cement screed on 120mm PIR floor insulation on 100mm concrete slab. 1200g polythene DPM linked to new and existing DPCs on 150mm sand blinded and well consolidated MOT type 1



**PROPOSED FOUNDATION**



**PROPOSED SECTION**