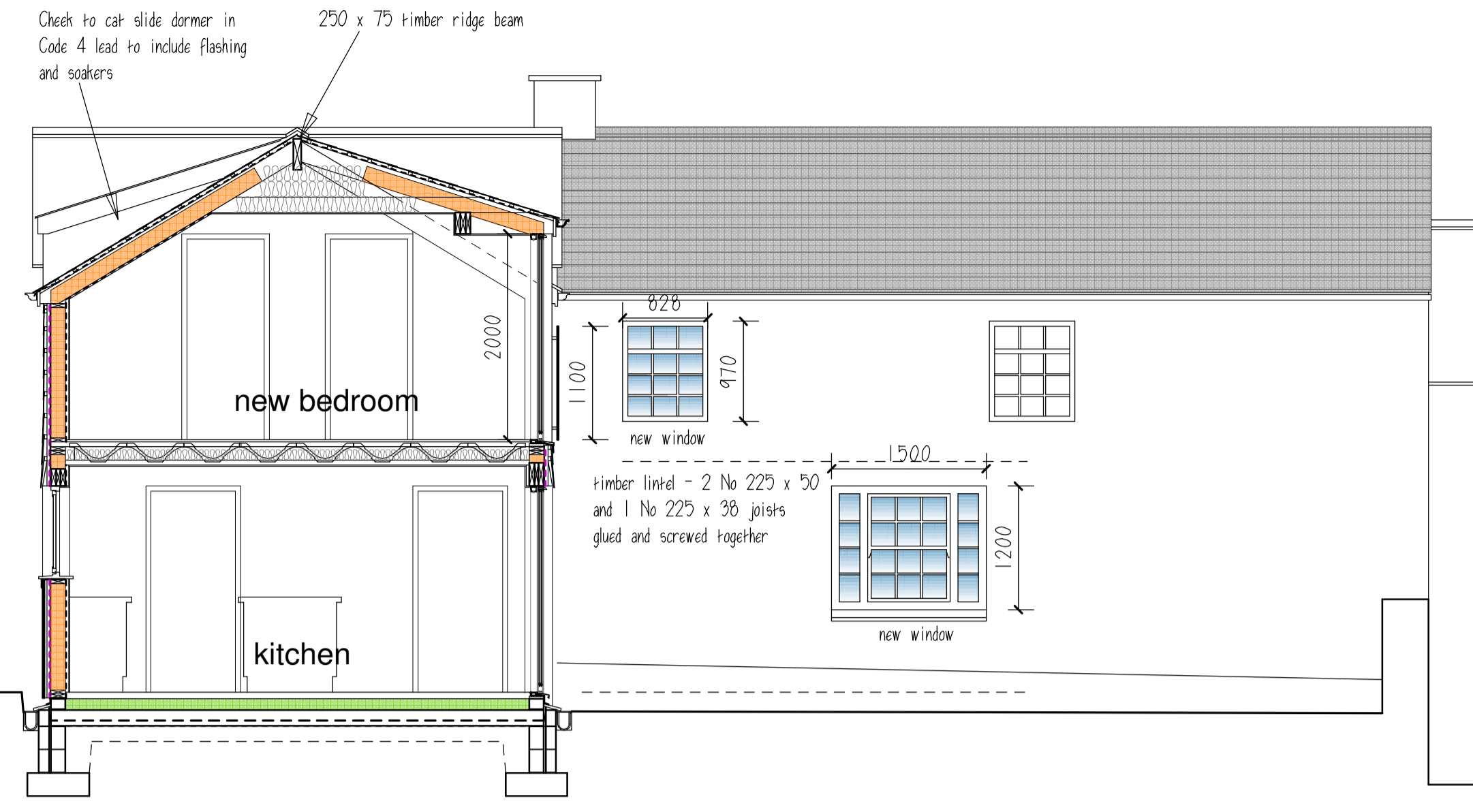


Section 1

Roof - Grey natural slates nailed and clipped for severe weather exposure on 25 x 38 treated softwood battens on Tyvek breathable roofing felt on 175 x 50 rafters at 600 centres
 Windbracing Diagonal - 100 x 25
 Lateral - 75 x 25 Galvanised steel anchor straps at 2.0m centres over first 3 No ceiling joists and rafters at gables.
 450mm glass fibre insulation quilt laid with 150mm between ceiling joists and 300mm laid over and at 90° to trusses
 150mm Rockwool Flexi full fill between rafters to sloping ceilings
 U value - 0.2W/m²K

Clipped verge detail with pointed jointing at gables.
 Osma OGEE rainwater gutters with 63mm diameter plastic downpipes to discharge into sealed but roddable gullies.
 Flashings, soakers, valley gutters to be formed out of Code 4 lead in accordance with the Code of Practice for Leadwork.
 All lead to be treated with paraffin oil immediately after it has been laid

First floor 22mm t & g waterproofed plywood on Mitek Posi-joists at 600 centres with solid noggings at edge beam
 Provide additional joists below baths and partitions where they run parallel.
 Ceilings - First floor - 12.5mm plasterboard
 Ground floor - 12.5mm Firdline plasterboard
 All with taped joints to receive 5mm gypsum skim to be decorated.



Section 2

Heating and hot water: Worcester Bosch air source heat pump to serve underfloor heating to ground floor and wall mounted radiators to first floor. Pipework within 1.0m of the hot water tank to be fully insulated
 All room radiators to be fitted with individual thermostatic control valves
 Hot water supply to baths to be limited to 48°C with 250litre hot water storage tank.

Provide mechanical ventilation in addition to windows to kitchen, utility and bathroom vented to external air
 Extraction rates: Kitchen and utility - 60 litres per second
 Bathrooms and ensuite showers - 15 litres per second

Smoke alarms and heat detectors to be mains operated, interconnected and independently fused at main fuse board.
 All alarms to conform to BS5446: Part 1 and sited a minimum 1.0m from ceiling mounted fittings
 All electrical switches and sockets to be sited between 450mm and 1200mm above finished floor level.
 All light fittings to use low energy bulbs with a luminous efficacy greater than 40 lumens per circuit watt.
 All fittings to be of low energy design.
 All the electrical installation will be designed and installed, inspected and tested in accordance with BS7671 (IEE Wiring Regulations 17th Edition). The works to be carried out by an installer registered under a suitable electrical self certification scheme or a suitably qualified person with a certificate of compliance by that person to the Building Control Surveyor on completion of the works.
 Electrical layout in accordance with CRHA specification

Walls - External walls - timber frame panels - 140 x 38 ds studwork at 600 centres with head and sole plates and half height noggings faced externally with 10mm OSB sheathing ply and Tyvek insulated breather membrane. Internally faced with 500g polythene vapour barrier and 12.5mm plasterboard with batten off service void dry lined to receive decoration.
 Provide 140mm Rockwool Flexi insulation friction fixed between studs. U value - 0.22-23W/m²K
 Internal walls - ex 100 x 38 ds studwork at 600 centres with head and sole plates and half height noggings.
 Load bearing partitions to be faced with 10mm sheathing ply to prevent racking.
 All partitions to be faced with 12.5mm plasterboard dry lined to receive decoration.
 Partitions which are to receive ceramic tiling to be faced with Knauf 'Aquadpanel'.
 Linelists - Timber linelists - 2 No 200 x 50 sc4 joists with 36 x 200 packer glued and screwed with 140 x 50 ds plate and 10 mm sheathing ply bearing on 1 or 2 cripple studs depending on span each end.
 Span drains where they pass under walls with 100 x 75 or 140 x 75 Westlake precast concrete linelists.

Windows: Dual framed 2 colour UPVC casement windows with trickle vents equivalent to 8,000 sq mm for all main rooms and 4,000 sq mm to bathrooms, shower rooms, kitchen and utility all with 4/16/4 double glazed sealed units to achieve a minimum Uvalue of 1.4W/m²K
 Windows with a sill height less than 800mm, within 300mm of a door, glazed doors and side screens to be fitted with toughened safety glass to BS 6206 and bear the requisite stamp.
 All main rooms to have a window designated as an escape window with minimum clear opening dimensions of a minimum 450mm x 750mm high with a sill height between 800mm and 1100mm
 Sub-sills to be 25mm natural slate with Hyload dpc and cavity tray and drainage weep holes.
 Front entrance door to be fitted with mobility threshold to stand no higher than 15mm above finished floor level.
 Actual door to have a minimum clear opening of 800mm and all internal doors to ground floor to be 838mm wide.
 Concrete slab pathway from road to front door to be level or ramped at no more than 1 in 20

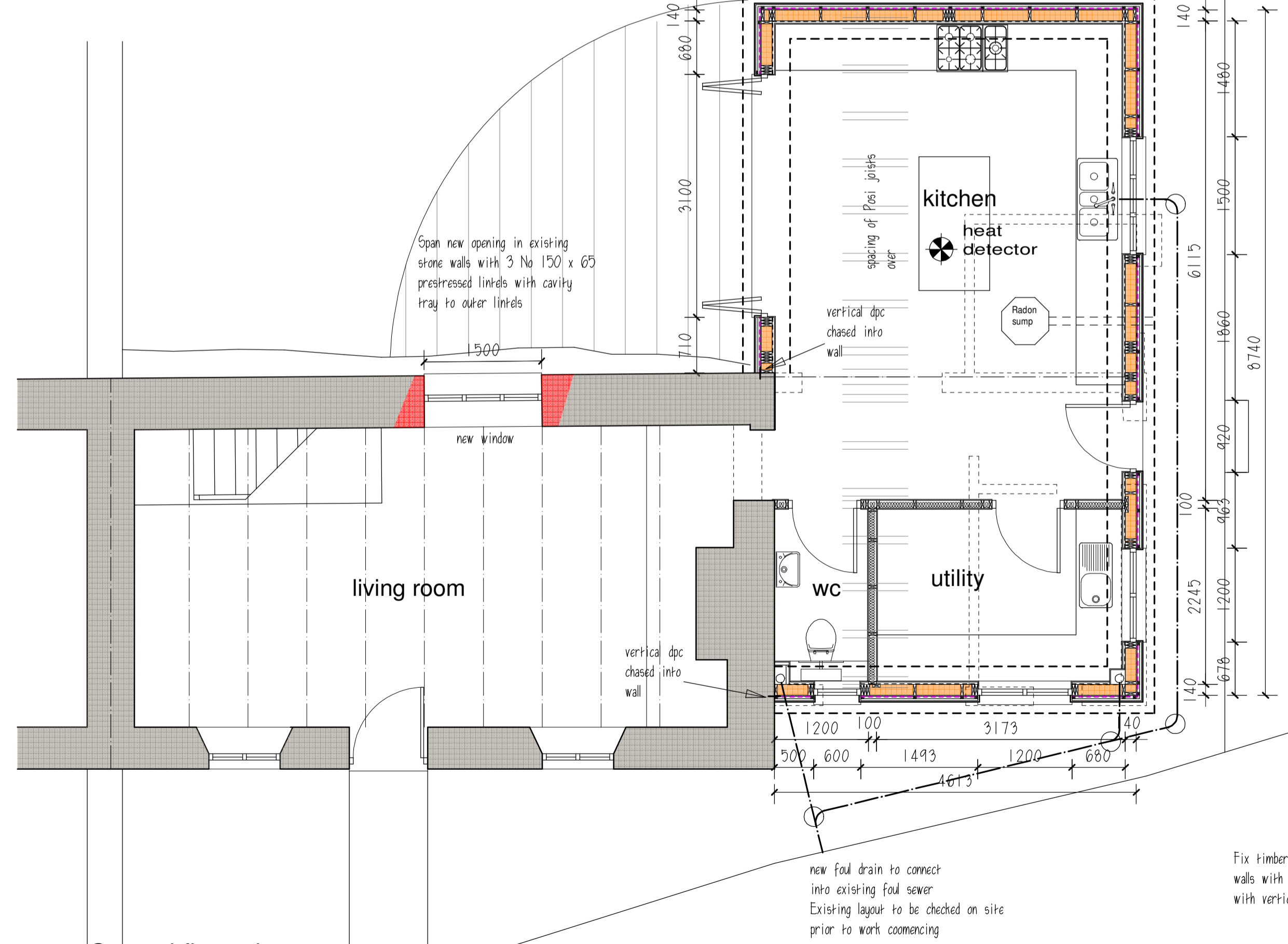
First floor: 22mm waterproofed Weyroc on Mitek Posi-joists P59 (225mm) 97 x 47 timber grade TR26 at 600mm centres with double joists under partitions and baths with 100mm dense glass fibre sound insulation throughout.

Ground floor: 65mm Cement/ sand screed or 22mm waterproofed T and G Weyroc on 500g polythene vapour barrier on 100mm Celotex GA30100Z flooring grade insulation laid with foil face upwards and taped joints on 150mm C30 concrete floor slab with A142 mesh anti crack reinforcement at mid depth on 1200g polythene dpm/ radon barrier to extend completely across ground floor area with all joints folded and taped to give a gas tight seal and lapped with Hyload dpc/ cavity tray at cavity walls on 25mm sand blinding on minimum 150mm clean broken and well consolidated hardcore. U value - 0.16W/m²K

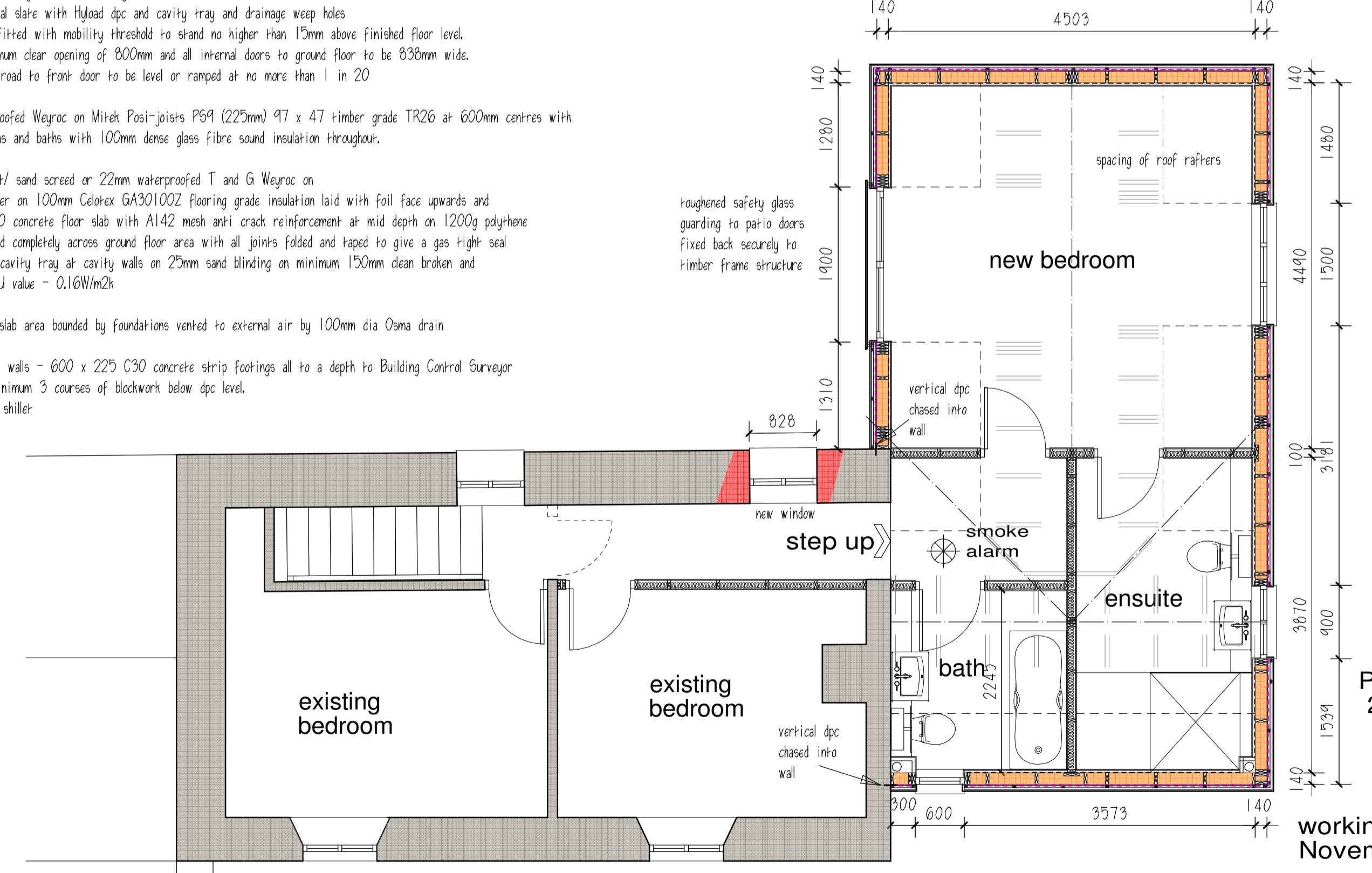
Radon sumps in each under slab area bounded by foundations vented to external air by 100mm dia Osma drain

Foundations: 300mm cavity walls - 600 x 225 C30 concrete strip footings all to a depth to Building Control Surveyor on site inspection but a minimum 3 courses of blockwork below dpc level.
 Assumed ground condition - shiller

Fix timber frame panels to existing stone/ block walls with 250mm long resin bolts at 600mm centres with vertical dpc chased into existing stone work



Ground floor plan
 Existing area - 62.50sqm
 extension area - 24.0sqm



First floor plan
 Existing area - 42.40sqm
 extension area - 44.10sqm

Drainage: Above ground - Waste sizes - baths, showers and sinks - 40mm diameter; hand basins - 32mm diameter
 All with deep seal anti syphon traps and rodding access at all changes in direction.
 110mm diameter soil and vent pipes vented to external air a minimum 1.0m above window head at head of run and with air admittance valves sited a minimum 450mm above the flood level of the highest appliance. All boxed in with 36 x 36 treated softwood framing with 12mm plasterboard and screwed access panels at all connections

Below ground: 100mm diameter Osma drain laid to fall a minimum 1 in 70 on bed of pea gravel between Osma plastic manholes bedded and set in lean mix concrete to discharge to existing foul sewer connection
 Rainwater: from sealed gullies at base of downpipes discharge to soakways via 100mm diameter Osma drain laid as noted for the foul sewer a minimum 50m from building and boundaries. Provide access chamber on drain run immediately before discharging into soakway.
 Size of soakway to be determined once results of site percolation test has been carried out.

Proposed extension to
 2 Penmayne Cottage
 Penmayne
 Rock
 for Mr M Clayton
 working plans and sections 1:50
 November 2023 23032/03



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