

WARM FLAT ROOF
 (imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²)
 To achieve U value 0.18 W/m²K
 Flat roof to be single ply membrane roofing providing aa fire rating for surface spread of flame with a current BBA or WIMLAS Certificate and laid to specialist specification. Single ply membrane to be fixed to 22mm exterior quality plywood over 140mm Celotex TA4000.
 Insulation bonded to vcl on 22mm external quality plywood decking or similar approved on sw firings to minimum 1 in 80 fall on sw treated 47 x 195mm C24 flat roof joists at 400mm ctrs to give a max span of 3.9m or as Structural Engineer's details and calculations. Underside of joists to have 12.5mm foil backed plasterboard and skim.
 Provide restraint to flat roof by fixing of 30 x 5 x 1000mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.

All first floor external wall lintels to be 3No. 47 x 147mm C24 bolted together with M10 Gr. 4.6 bolts @ 400mm ctrs. (2No. bolts over supports).

Timber cladding

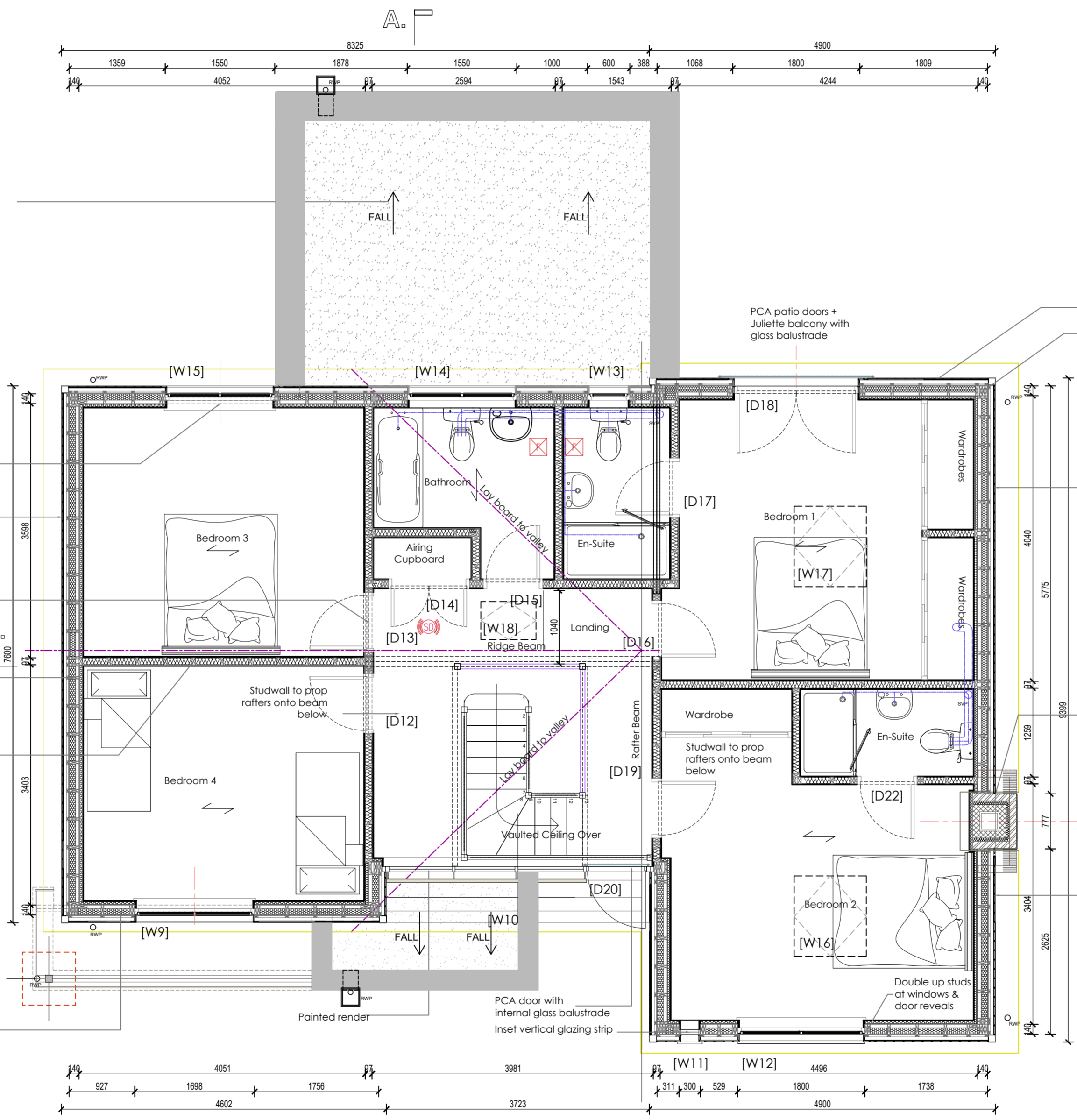
All first floor internal wall lintels to be 2No. 47 x 147mm C24 bolted together with M10 Gr. 4.6 bolts @ 400mm ctrs. (2No. bolts over supports).

First floor external walls to be 38 x 140mm C16 studs at 400mm ctrs. with 9mm OSB/3 sheathing fixed to studs with 4mm dia. nails/screws @ 150mm ctrs.

First floor internal walls to be 47 x 97mm C16 studs @ 400mm ctrs. with 9mm OSB/3 sheathing fixed to both sides with 4mm dia. nails/screws @ 150mm ctrs.

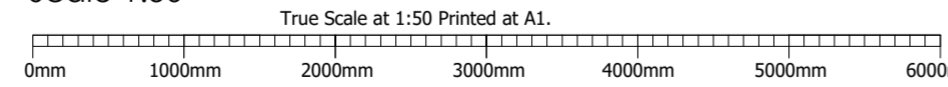
TIMBER FRAME WALL - Vertical Timber Cladding

To achieve minimum U Value of 0.28W/m²K
 New timber frame walls to consist of external vertical timber cladding Western Red Cedar 18 x 143mm (125mm face) Matchboard 1 & g treated with specialist coloured preservative applied on site prior to fixing boards and strictly as per manufacturer's recommendations on 38 x 38mm horizontal preservative treated battens at 600mm centres with chamfered top (15 degree) - falling towards cavity on min 25x38mm vertical preservative treated battens at 600mm centres - with insect mesh to top and bottom of ventilation path over Tyvek Housewrap or other similar approved breather membrane over 9mm OSB fixed back to 38 x 140mm C16 timbers at 400mm centres. 90mm Celotex GA4000 or FR5000 insulation fixed between studs to line with outer face thereby forming a 50mm service void. Clad inside face of studwork in 9mm OSB with 37.5mm Celotex PL4000 insulation bonded plasterboard fixed over strictly as per manufacturer's specification so as to act as VCL with joints between boards tightly butted to maintain vapour seal using self-adhesive foil tape.
 U-Value of 0.14 W/m²K designed.



First Floor Plan

Scale 1:50



GLASS BALUSTRADING INTERNALLY TO DOOR D20
 All balcony balustrades to be min 1.1m in height. Balustrades to be in toughened glass in accordance with Part K (Part N in Wales) of the Building Regulations and designed to resist the horizontal force given in BS 6180:2011. No openings in any balustrading should allow the passage of a 100mm sphere and children should not readily be able to climb the guarding.

Timber cladding
 Tripple up studs at corners

Timber cladding

Chimney to be formed as an external cavity wall - nominal 300mm full-fill insulated cavity - to achieve 0.23 w/m²k u-value. 102.5mm face brick outer leaf; 100mm cavity full filled with 100mm Ditherm insulation, installed strictly in accordance with manufacturers details; 100mm / 200mm medium weight concrete block inner leaf block (lambda to be 0.69 W/m K or less) + plasterboard with finishing plaster finish. Wall ties should be stainless steel of length to suit cavity width and insulation batts installed at 450mm centres vertically and 750mm centres horizontally and laid staggered. Reduce to 300mm vertical centres at reveals ensure ties are fitted with insulation retaining disks. Below DPC level provide 103mm thick common brick inner and outer leaf using selected facing brick in outer leaf where above GL fill void between inner and outer leaf with weak mix concrete to within 225mm of DPC.
 Contractor to supply and install a Riva Studio 2, 950mm wide inset woodburner and suitable flexible SS flu-liner strictly as per manufacturer's instructions so as to fully comply with Part J of the Building Regulations.
 Air supply to be via suitably sized airbrick to rear of and directly into appliance.

Timber cladding

WARM FLAT ROOF - VESTIBULE ROOF
 (imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²)
 To achieve U value 0.18 W/m²K
 Flat roof to be single ply membrane roofing providing aa fire rating for surface spread of flame with a current BBA or WIMLAS Certificate and laid to specialist specification. Single ply membrane to be fixed to 22mm exterior quality plywood over 140mm Celotex TA4000.
 Insulation bonded to vcl on 22mm external quality plywood decking or similar approved on sw firings to minimum 1 in 80 fall on sw treated 47 x 97mm C24 flat roof joists at 400mm ctrs to give a max span of 3.9m or as Structural Engineer's details and calculations. Underside of joists to have 12.5mm foil backed plasterboard and skim.
 Provide restraint to flat roof by fixing of 30 x 5 x 1000mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall. Rainwater to discharge to hopper and rainwater downpipe to new soakaway.