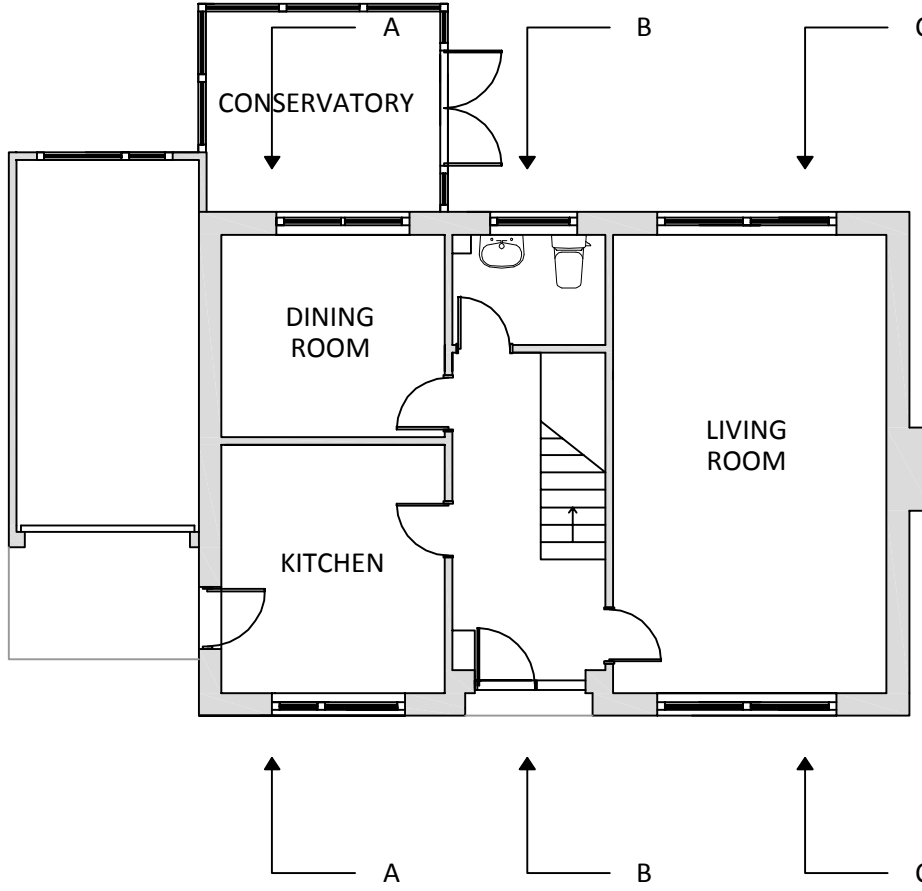
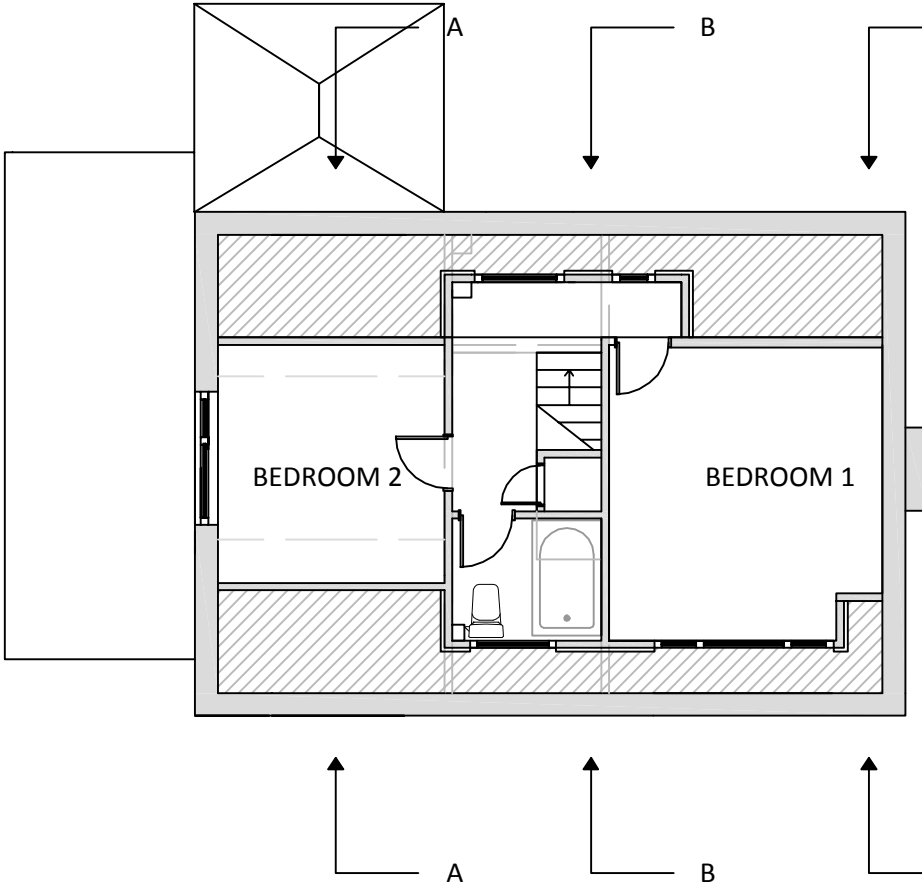


EXISTING PLANS

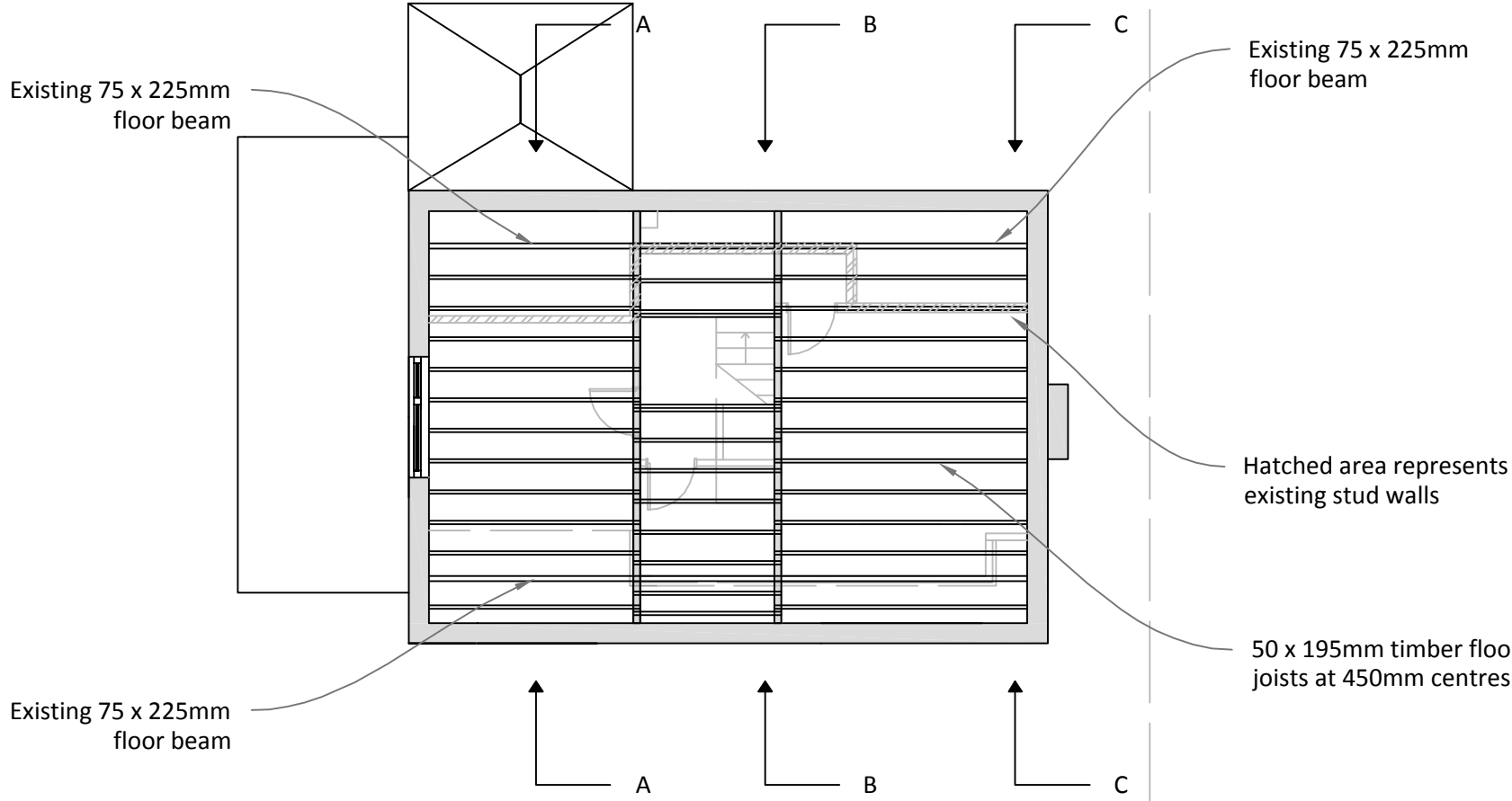
GROUND FLOOR LAYOUT PLAN - TO REMAIN UNCHANGED APART FROM INSTALLATION OF INTER LINKED SD AT GROUND FLOOR



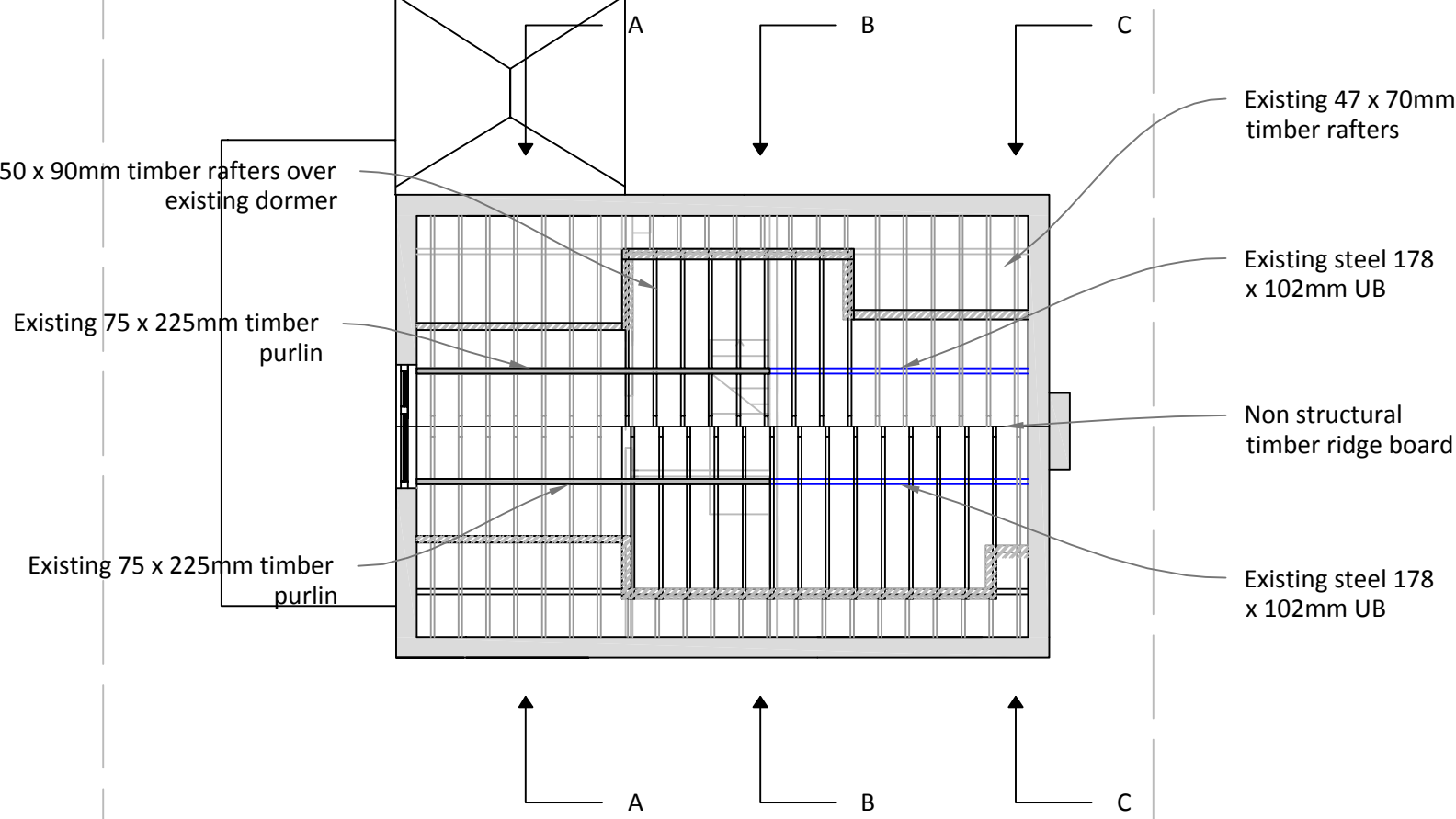
FIRST FLOOR LAYOUT PLAN



FIRST FLOOR STRUCTURAL LAYOUT PLAN

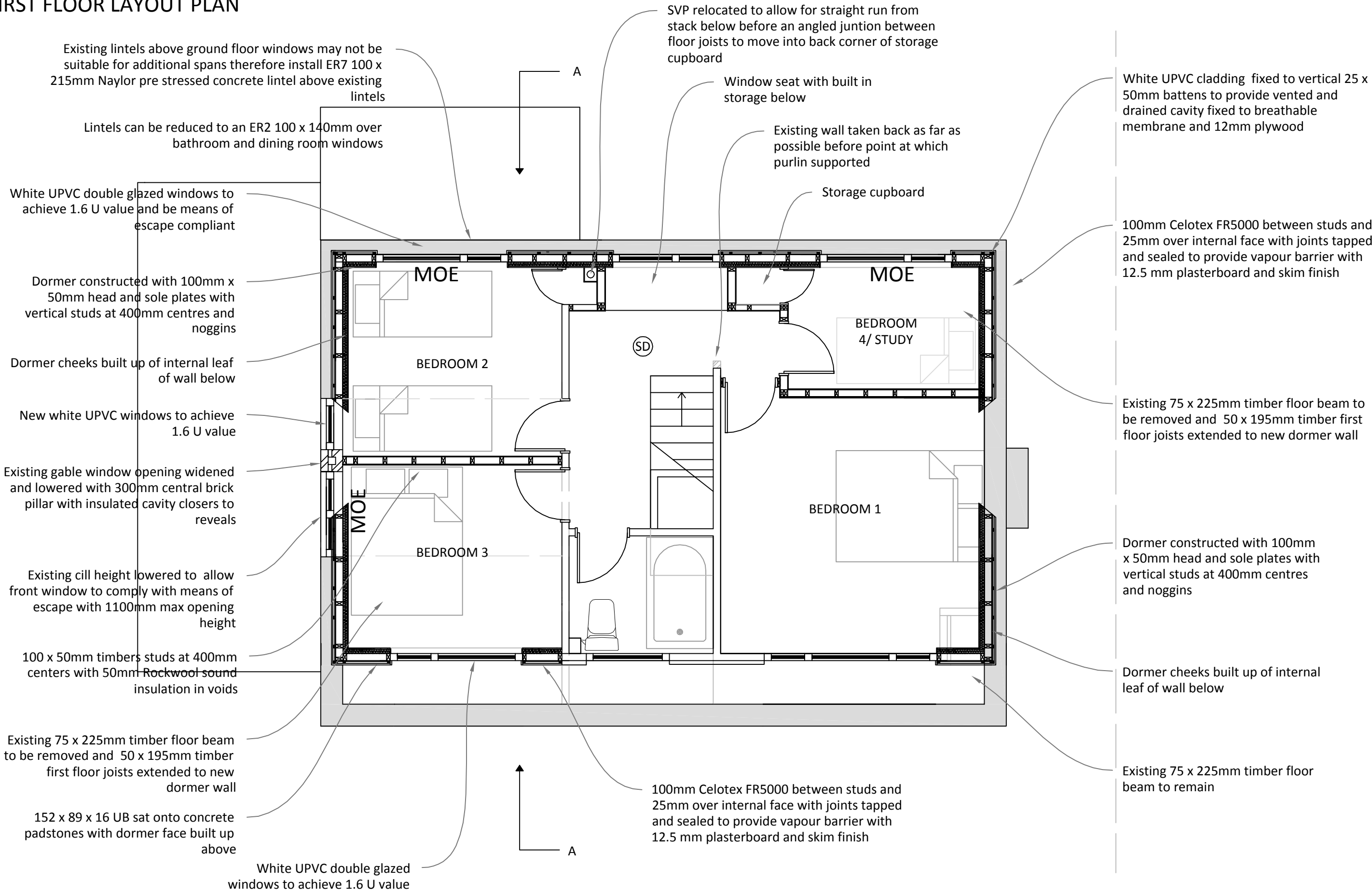


ROOF STRUCTURAL LAYOUT PLAN

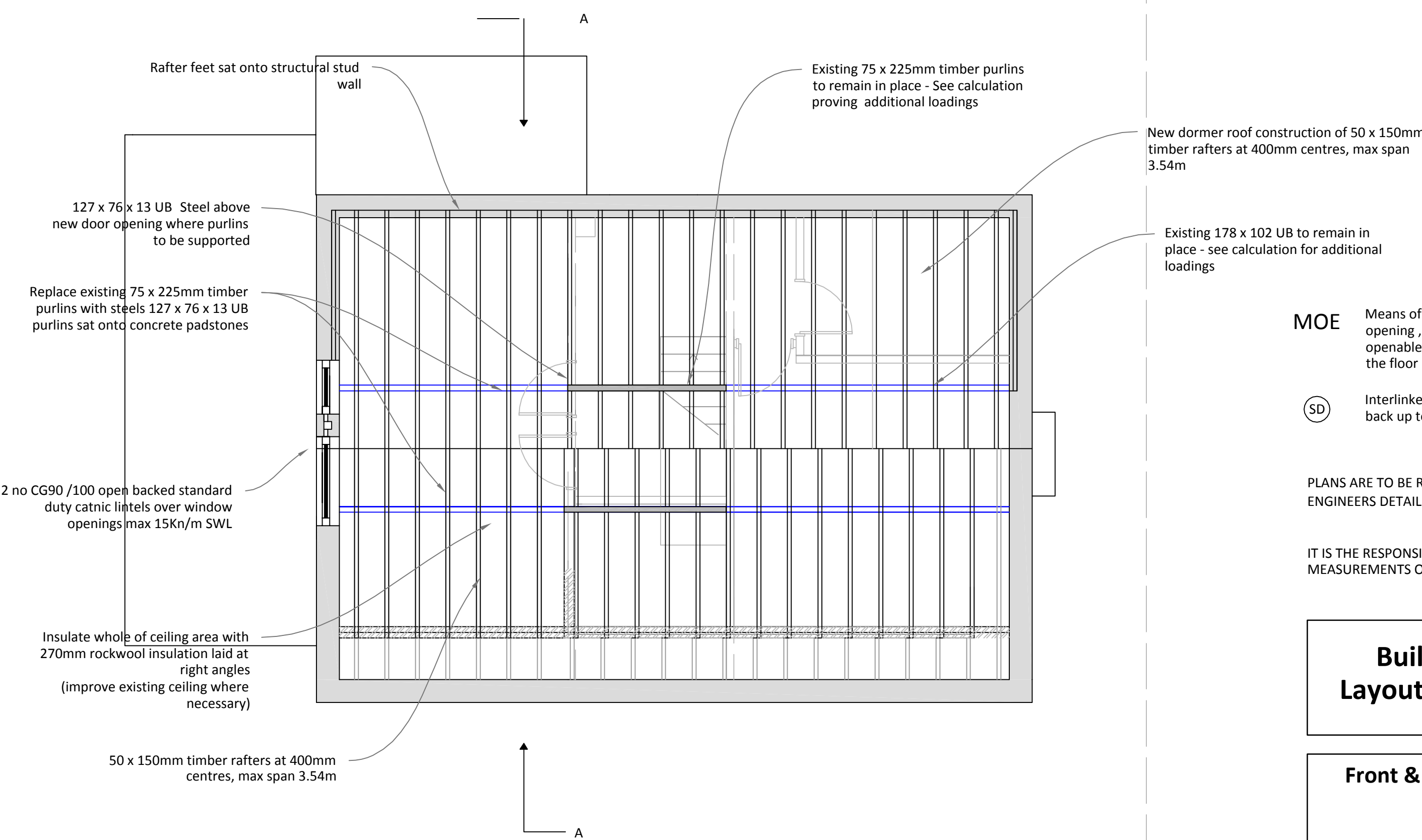


PROPOSED PLANS 1:50

FIRST FLOOR LAYOUT PLAN



ROOF STRUCTURAL LAYOUT PLAN



MOE Means of escape window to have 450mm min wide opening , minimum 0.33m sq, the bottom of the openable area should be not more than 1100mm above the floor

SD Interlinked smoke detection hardwired with battery back up to circulation spaces as all floors

PLANS ARE TO BE READ IN CONJUNCTION WITH STRUCTURAL ENGINEERS DETAILS

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK ALL MEASUREMENTS ON SITE PRIOR TO WORK COMMENCING

Building Regulation Layout & Structural Plans

Front & Rear Dormer Extension
1 Beech Rise
Whaley Bridge
High Peak
SK23 7EQ

Scale - 1:100 @ A1
unless stated
Drawn By - EH
Date - 11.14

Rev Description Date

DRAWING REF: BR/BR/02

THERMAL BRIDGING

Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings).

MATERIALS AND WORKMANSHIP

All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

EXISTING STRUCTURE

Existing structure including foundations, floor, beams, walls, roof and lintels are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.

BEAMS AND STRUCTURE

Engineer's Structural calculations and details are to be provided for all beams, roof, lintels, joists, bearings, padstones and any other load bearing elements before works commence on site. New steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

DORMER CONSTRUCTION

To achieve minimum U Value of 0.28W/m²K

UPVC cladding to match existing hung vertically on 25 x 38mm preservative treated battens (vertical counter battens to be provided to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick W.B.P external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 100mm x 50mm head and sole plates and vertical studs

(with noggins) at 400mm centres with verticle studs doubled up either side of window openings with a 100 x 170mm timber beam over to support the rafter feet. Insulation to be 100mm Celotex GA4000 between studs 25mm celotex GA400 over the studs plus 12.5mm Knauf wallboard over. Provide a vapour control layer fixed to internal face of insulation and finish with 3mm skim coat of finishing plaster.

All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. Dormer walls built off existing masonry walls to have galvanised mild steel straps placed at 900 centres. Dormer cheeks within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides. (Provide an additional 15mm pur insulation over studs to prevent cold bridging if required)

DORMER PITCHED ROOF INSULATION AT CEILING LEVEL

Pitch 22-45° (imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²) To achieve U value of 0.16 W/m²K Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design.

Calculations to be based on BS EN 1995-1-1. Roofing tiles to be laid at min 17.5 degrees smooth brown marley modern interlocking concrete tiles to match existing on 25 x 38mm tanalised sw treated battens on Glidevale breatherable felt supported on 47 x 150mm grade C16 rafters at max 400mm centres max span 3.47m. Rafters supported on 100 x 50mm sw wall plates. Insulation at ceiling level to be 150mm Rockwool insulation laid between ceiling joists with a further 170mm layer over joists (cross direction).

Construct ceiling using sw joists at 400mm centres, finished internally with 12.5mm plasterboard and min 3mm thistle multi-finish plaster. Provide opening at eaves level at least equal to continuous strip 25mm wide on two opposite sides to promote cross ventilation. Restraint strapping -100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1000 x 30 x 5mm galvanized straps or other approved to BSEN 845-1 at 2m centres.

LEAD WORK AND FLASHINGS

All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all jambs and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

INSULATION AT CEILING LEVEL

To achieve U value of 0.16 W/m²K

Insulation at ceiling level to be 100mm Rockwool insulation laid between ceiling joists with a further 170mm layer over joists (cross direction). Construct ceiling using sw joists at 400mm centres, finished internally with 12.5mm plasterboard and min 3mm thistle multi-finish plaster. Provide opening at eaves level at least equal to continuous strip 25mm wide in two opposite sides to promote cross ventilation.

INTERNAL STUD PARTITIONS

100mm x 50mm softwood treated timbers studs at 400mm cts with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm c/c.

Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

MEANS OF ESCAPE

Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed openable area of 450mm high x 450mm wide, minimum 0.33m sq, the bottom of the openable area should be not more than 1100mm above the floor. The window should enable the person to reach a place free from danger from fire.

SMOKE DETECTION

Mains operated linked smoke alarm detection system to BS EN 14604 and BS5839-6:2004 to at least a Grade D category LD3 standard to be mains powered with battery back up to be placed on each storey with an additional interlinked heat detector at ceiling level in kitchens if required by BCO. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ storeys and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

BACKGROUND AND PURGE VENTILATION

Background ventilation - Controllable background ventilation via trickle vents to BS EN 13141-3 within the window frame to be provided to new habitable rooms at a rate of min 5000mm²; and to kitchens, bathrooms, WCs and utility rooms at a rate of 2500mm² .

Purge ventilation - New windows/rooflights to have openable area in excess of 1/20th of the floor area, if the window opens more than 30° or 1/10th of the floor area if the window opens less than 30°. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide.

ABOVE GROUND DRAINAGE

All new above ground drainage and plumbing to comply with BS EN 12056-2:2000 for sanitary pipework. All drainage to be in accordance with part H of the Building Regulations. All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m. Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.