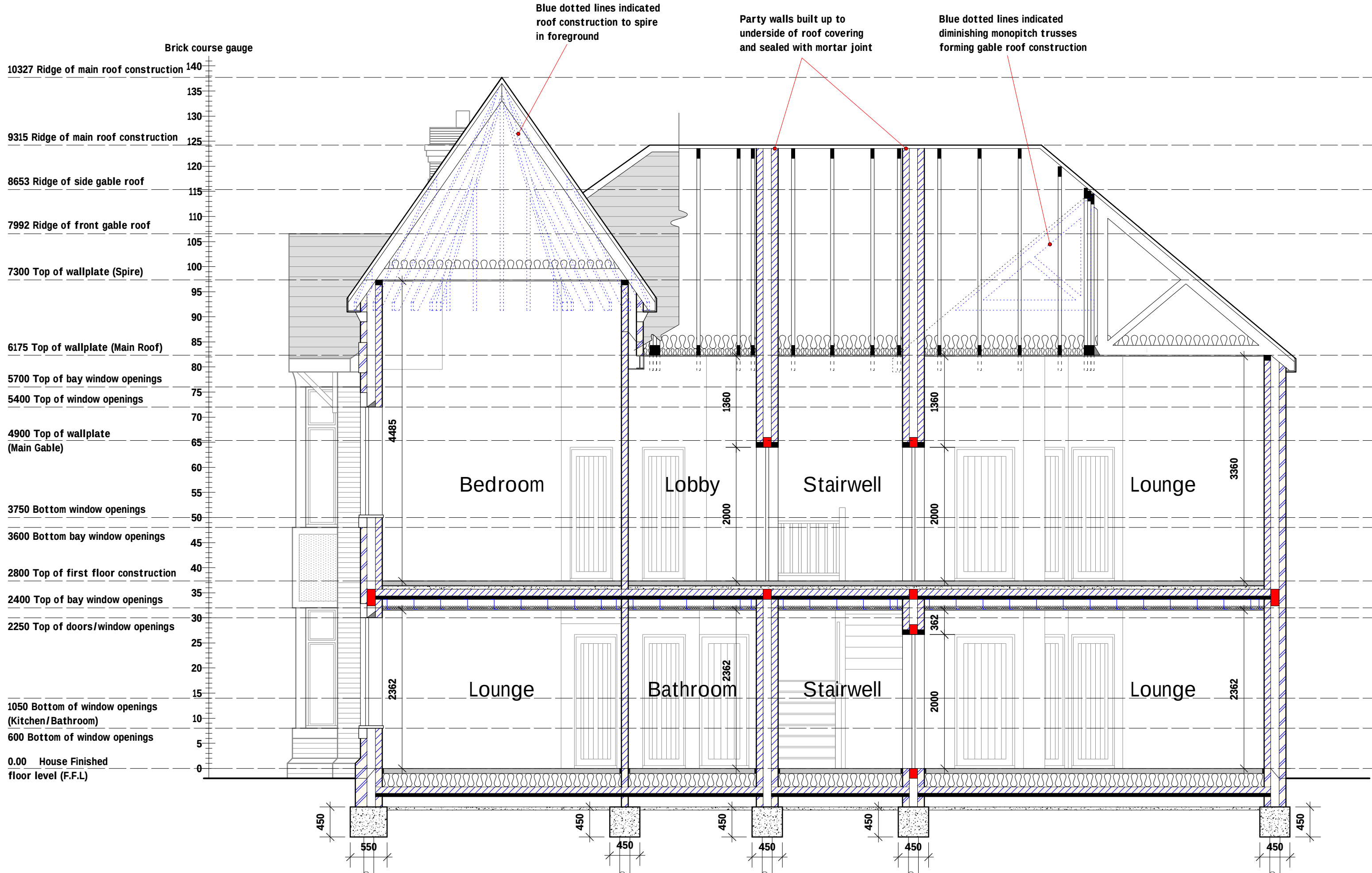




TIMBER FIRST FLOOR CONSTRUCTION (Maisonette)

Floor boarding is to comprise 22mm thick tongued and grooved Weyroc board on softwood floor joists. Joists to be 195mm x 50mm C24 softwood floor joists set at 400mm maximum centres. Joists to have 90mm minimum embedment within new cavity walls or supported off internal blockwork walls where applicable. Joists lying parallel and adjacent to external walls are to be anchored to walls at 1800mm centres with 1200mm long x 30mm x 6mm galvanised mild steel straps carried over 3 No. joists. Provide 100mm x 50mm softwood noggins between joists at strap locations. First floor to be provided with softwood noggins of similar section to floor joists at mid-point of span. Allow for doubled/tripled up joists below new stud stud partitions that are running parallel to floor joists, support points to bath and for trimming around staircase where applicable. Ceilings to comprise 12.5mm plasterboard (minimum mass per unit area of at least 10kg/m²) with 3mm nominal skim plaster finish. Provide single layer of 100mm thick mineral wool between joists, minimum density 10kg/m² to ensure passage of sound is minimised.

CONCRETE BEAM & BLOCK FIRST FLOOR CONSTRUCTION (Between Apartments)

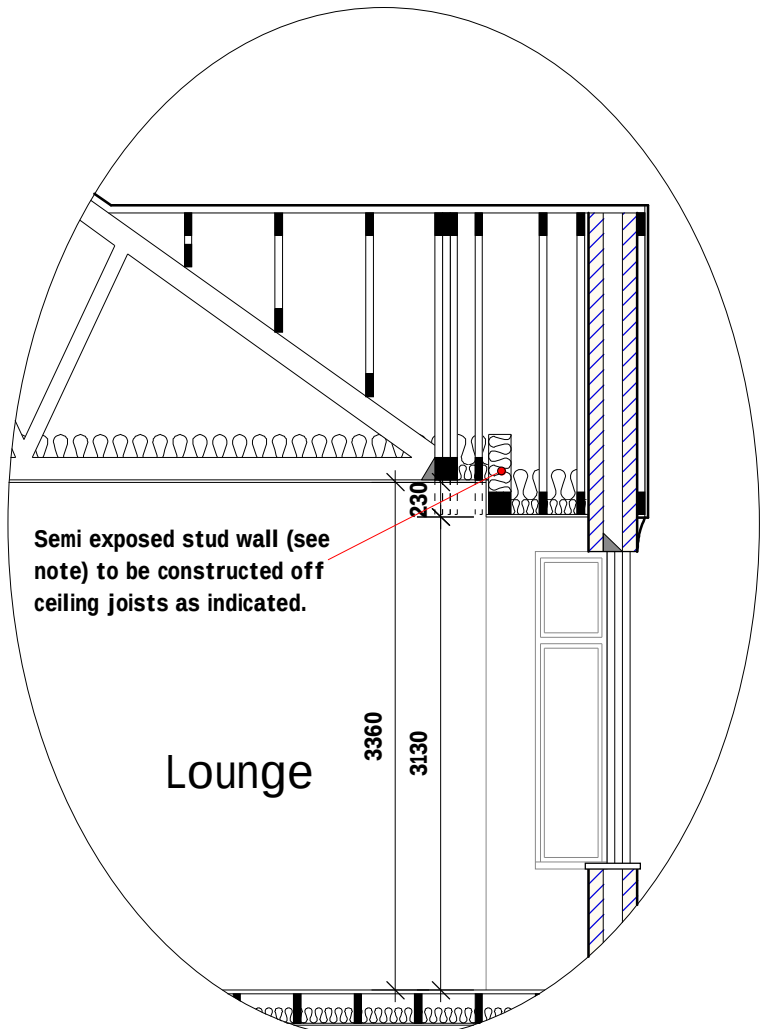
Beam & block flooring system (minimum 150mm in depth) to be installed in strict accordance with manufacturer's designs and calculations. Concrete beams to be 150mm deep pre-stressed concrete beams formed using the "mould cast" technique in accordance with BS8110:1985 Class 2. Infill blocks to be 100mm wide dense blocks designed for use in this location. *Block and beam floor layout is to be designed and specified by supplier.* Prior to manufacturing of concrete floor beams, specialist manufacturer to check measurements on site. Beam and block flooring to be topped with 50mm thick concrete (min strength class C20) to ensure 300kg/m² combined mass per unit area. 8mm Regupol E48 (dimple side down) to be laid above, ensuring resilient layer is fully lapped up walls and Regupol tape for jointing is used. 0.2mm minimum waterproof membrane (joint overlapped) with 65mm minimum sand/cement screed (nominal 80 kg/m² mass per unit area) above. Ceiling formed using syspended metal frame, minimum depth between top of concrete beams and ceiling board to be 300mm. Contractor to install minimum 50mm mineral fibre quilt (min 10kg/m²) with one layer of 10kg/m² gypsum-based plaster board finished with nominal skim finish. *Flooring system to be constructed to Robust Details E-FC-6.*

PARTY WALLS

Party walls to be formed with 2No. 100mm thick leaves of blockwork. Blockwork to be minimum of 1850kg/m² solid blocks with 225mm coursing. At ground floor level 7N concrete block to be used to support beam and block floor above. 125mm cavity filled with 125mm thick DrTherm S2 (0.032 thermal conductivity) insulation to achieve a U-value 0.21W/m²K. Wall ties to be butterfly ties to BS1243:1978 and spaced at 450mm vertical and 900mm horizontal centres. Wall Ties are to be Type A wall ties and confirmed by manufacturer. Gypsum-based board (nominal 8 kg/m²) mounted on dabs on cement-sand render (nominal 8mm) with scratch finish Gypsum board finished with 3mm nominal skim plaster. Minimum mass of wall construction to be at least 300kg/m² to ensure adequate protection from sound transmission between apartments. Walls constructed off raft foundations & treated with MONARFLOOR & BRIDGESTOP systems as specified by robust details *Wall construction to match robust detail E-WM-3.*

SEMI EXPOSED STUD PARTITIONS

Semi exposed stud partitions to comprise of 175mm x 50mm softwood stud framing set at 400mm centres. Framework is to be formed off tripled up ceiling joists. Additional framing to be installed as required. Internally fix 12.5mm thick foil backed plasterboard with nominal skim finish. Provide 150mm thick Celotex R-Zero XR4000 insulation to cavity between studding to achieve a minimum U-value of 0.21W/m²K.



Typical Bay Section 1:50

STUD FRAMED PARTITIONS

Stud framed partitions are to comprise 12.5mm thick plasterboard fixed to both sides of 75mm x 50mm softwood stud framing set at 400mm centre's. Framework is to be formed on 75mm x 50mm softwood soleplate. Additional framing to be installed where required i.e. around openings. All joints in boards are to be filled and scrimmed prior to the application of skim plaster. Allow for absorbent layer of 25mm thick wire reinforced mineral wool quilt to be suspended in cavity of stud framing to walls as indicated on floor plans to resist the passage of sound.

INTERNAL BLOCKWORK WALLS

100mm Medium Density Blockwork (7N Block where walls provide support to beam and block floor above). Walls to be taken down to foundation level as indicated on ground floor plan. Each side of internal blockwork wall to be finished with 12.5mm plasterboard and nominal 3mm skim finish.

CAVITY WALL CONSTRUCTION

External cavity walls are to comprise of brickwork plinths at low level where applicable as indicated on elevations and sections. 100mm thick brickwork or blockwork (Bay Windows) where applicable. External brickwork to be laid in a bond pattern to replicate the existing building. 125mm wide cavity fully filled with 125mm thick DrTherm S2 (0.032 thermal conductivity). At Ground Floor Level inner leaf to be 100mm wide Thermalite Aircrete Hi-Strength 7 block (0.18 thermal conductivity). At First Floor Level inner leaf to be 100mm wide Thermalite Turbo block (0.11 thermal conductivity). Internal face of blockwork to be finished 12.5mm thick plasterboard with 3mm thick nominal skim finish. Wall construction to achieve a minimum U-value of 0.21W/m²K. Where external leaf of cavity walls are blockwork, contractor to apply 20mm render and timber cladding to client discretion (Bay Windows). Fixing of timber cladding to be specified by specialist manufacturer. Provide insulated Keystone lintels over openings as specified on plans. All lintels to have a minimum of 150mm end bearing length. Keystone lintels can be supplied by Huws Gray (01978 264269). Original re-claimed header/cills to be used on elevations facing Belgrave Road and Percy Road any shortfall in original headers and cills facing Percy Road/Belgrave Road to be natural stone to match. New header/cills elsewhere on building to be Forticrete cast stone products to replicate existing supplied by Huws Gray (01978 264269). Provide stainless steel wall ties across cavity, ties are to be based on double triangle ties as per BR443. Wall ties set at 750mm horizontal and 450mm vertical staggered centre's. Provide additional wall ties at 300mm vertical centres within 225mm of all openings and roof verges. All openings in cavity, i.e. around window and door openings, are to be closed with Thermabate 100 insulated cavity closers to prevent thermal bridging. DPC to be installed in new cavity wall as indicated, cavity trays to be lapped onto DPC with weep holes installed at 900mm centres to outer leaf of wall to ensure any moisture within cavity is dispersed of adequately.

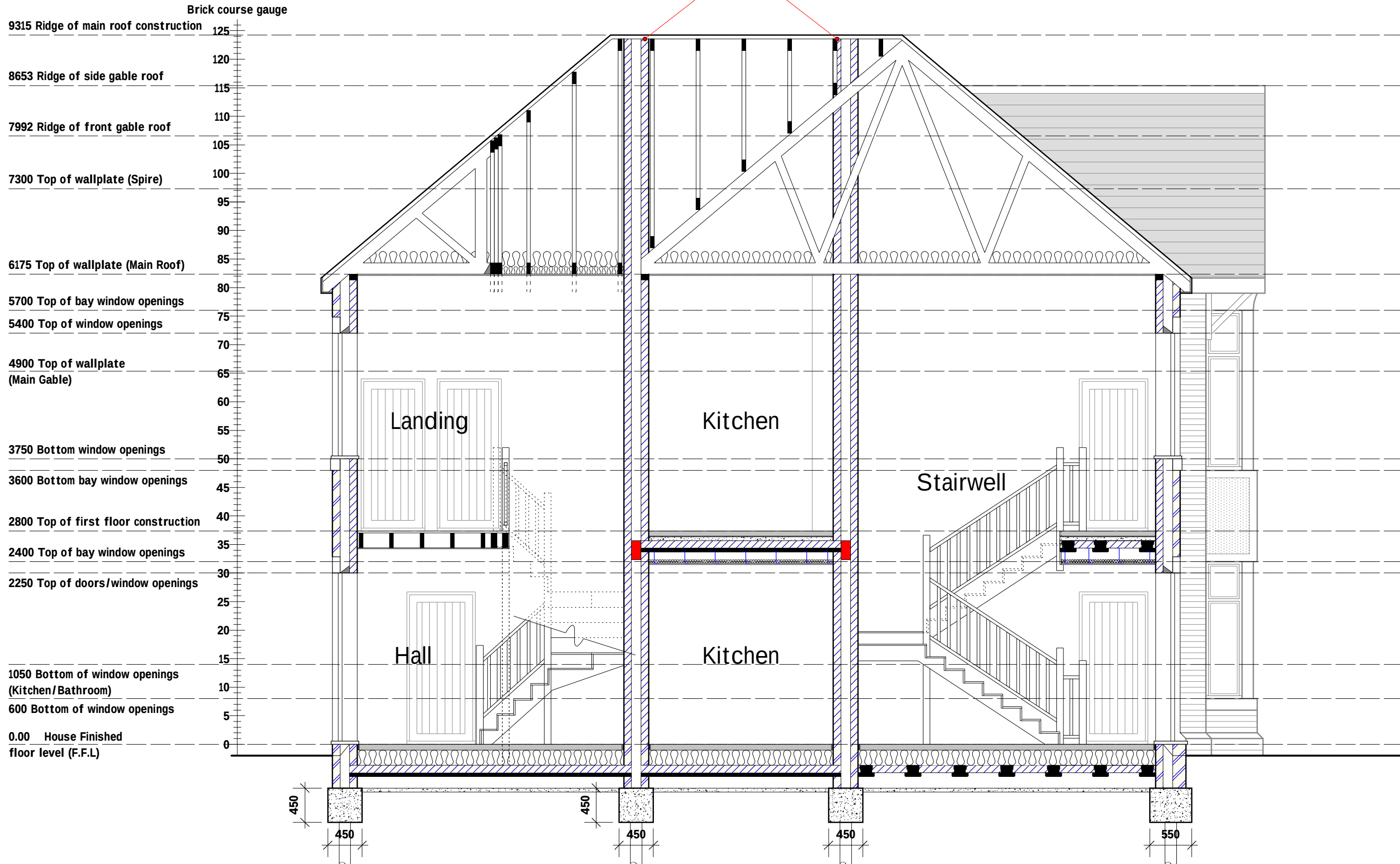
Walls below DPC level and above finished ground level are to be constructed with facing brick, below ground level use class B engineering brick down to trench block. Cavity insulation is to continue in 100mm cavity to prevent thermal bridging down to trench block. Inner leaf of wall to be formed with class B engineering brick. All walls are to be constructed centrally on supporting foundations.

GROUND FLOOR BEAM & BLOCK FLOOR CONSTRUCTION

Ground to be excavated and 50mm minimum oversite concrete laid to prevent growth of vegetation below beam and block floor. Beam and block floor to comprise 75mm thick sand/cement screed. 200mm thick Celotex XR4000 rigid polyisocyanurate foam insulation (to ensure U-value of 0.09W/m²K). 1200G visqueen DPM where applicable with all joints to have 300mm minimum overlap and be securely taped. Infill blocks to be 100mm wide dense blocks designed for use in this location. Block and beam floor layout is to be designed and specified by supplier. Prior to manufacturing of concrete floor beams specialist manufacturer to check measurements on site. Periscope vents installed in external cavity walls at 1800mm centres to provide ventilation below beam and block floor, additionally allow for cavity trays as shown on sections to provide full radon protection.

FOUNDATION CONSTRUCTION

Piling and reinforced ring beam to be constructed in accordance with *Structural Engineer's design and calculations*. Piles filled with concrete once all piling operations are complete. *Concrete and all reinforcing for foundations as specified by Structural Engineer*. Reinforced ring beam to be cast in one pour to prevent joints in concrete. Concrete can be supplied by Huws Gray (01978 759516).



Accredited Construction Details to be adopted throughout.

Contractor to ensure an air permeability rate of 4.00m³/m²hr or less is achieved.

DO NOT SCALE FROM DRAWINGS IF IN DOUBT ASK.

Please read in conjunction with Structural Engineer's Specification and SAP Assessor's Report

F	02/20	Conservation Officer's Amends	D.J.E.
E	07/19	Conservation Officer's Amends	S.M.E.
D	06/19	SAP & Structural Calcs Added	S.M.E.
C	04/19	Conditional Approval Obtained	D.J.E.
B	03/19	Services Termination Points Added	S.M.E.
A	03/19	Design Amends	D.J.F.
Rev	Date	Detail	Initial

Project: Proposed Development at Ryecroft, Belgrave Road, Wrexham.	
Title: Sections	Scale: (A1) 1:50
Drawn By: S M Eltham	Date: Feb 2019
Drawing No: L064/005	Sheet: 3 of 4

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