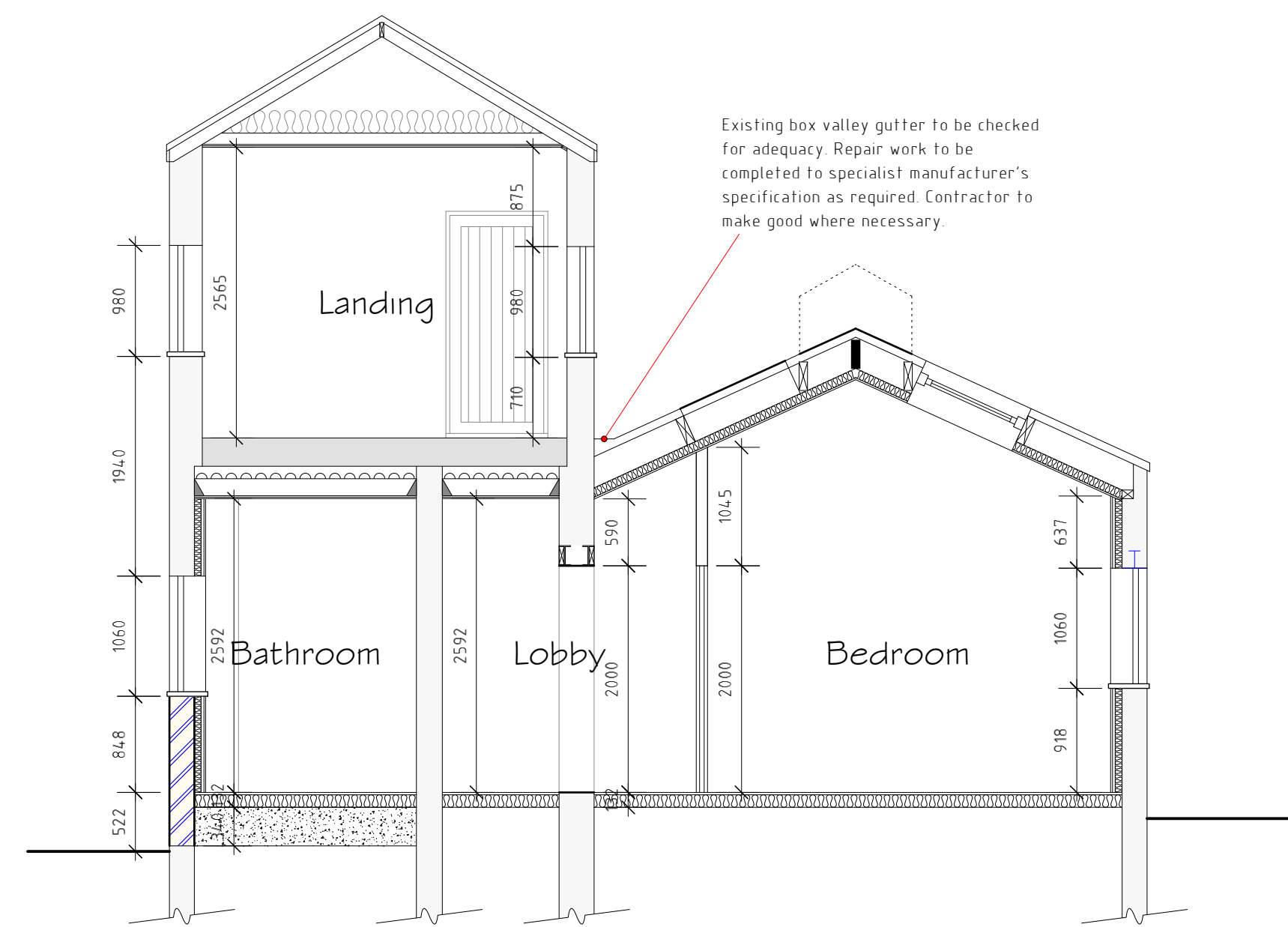




Section X-X 1:50

SOLID MASONRY WALLS
Solid masonry walls to comprise brickwork/blockwork walls to match existing wall thicknesses or 100mm thick where applicable, with 12.5mm plasterboard fixed to internal face and 3mm nominal skim finish. Walls to be constructed off existing/new foundations or existing concrete slab where applicable. Existing foundations/floor construction to be inspected for adequacy due to additional loading. Below internal blockwork walls use class B engineering brick for wall construction down to foundation.

COMPARTMENT STUD PARTITIONS (Wall Type A/B)
Stud framed partitions are to comprise 2no. layers of 12.5mm thick plasterboard fixed to 2no. skins or single skin where applicable of 75mm x 50mm softwood stud framing set at 400mm centres. Framework is to be formed on 75mm x 50mm softwood soleplate. Addition framing to installed where required i.e., around openings. All joints in boards are to be filled and skimmed prior to application of 5mm thick skim plaster finish (26kg/m). New partition studwork & plasterboard to be moulded around existing internal features and sealed with intumescent fire strips. Allow for absorbent layer of 60mm thick wire reinforced mineral wool quilt (density 10kg/m³) to be suspended in cavity of stud framing to walls as indicated on floor plans and detail. Any service pipes ducting through walls to be fitted with fire collars to ensure sufficient fire break is achieved between apartments. Compartment walls are to be built up off existing slab or first floor construction where applicable. Existing floor constructions to be inspected for adequacy due to additional loading.

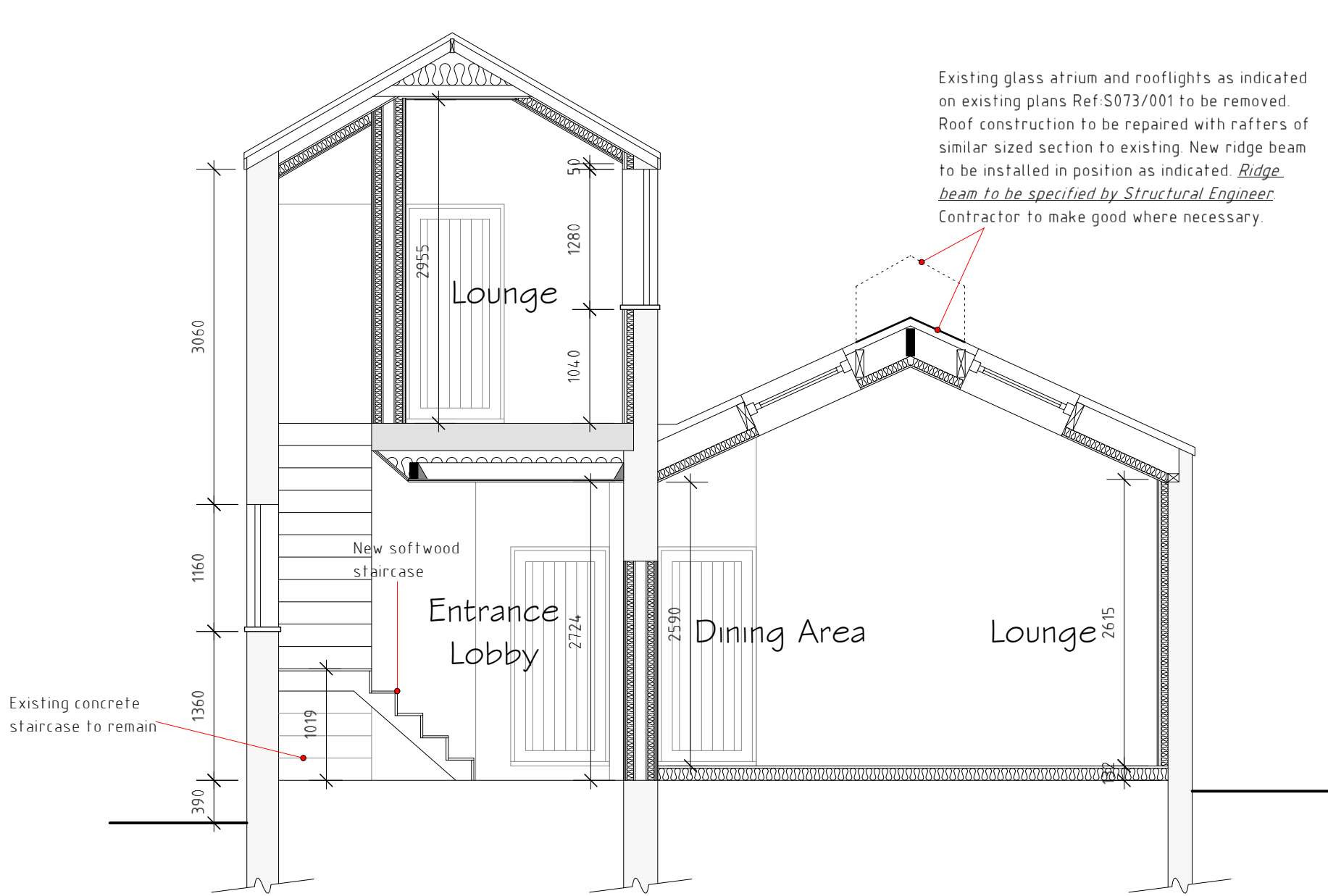
EXISTING EXTERNAL WALLS (See Wall Treatment Detail)
Existing external walls to be pointed up and rebuilt where necessary. Prior to application of 60mm thick GA3000 celotex insulation boards onto the existing external walls the substrate must be checked for soundness. Large uneven projections should be removed and all holes filled and leveled. Strip any existing gloss paint or vinyl wall paper. For optimum thermal performance the unprinted foil surface should face the battens cavity. Fix horizontal battens over the insulation at top and bottom of the wall to hold the boards in place, battens should be a minimum 50mm x 25mm. All insulation board joints sealed using celotex insulation tape. Further vertical battens to be fixed over the insulation at appropriate spacing to provide adequate fixings to secure 12.5mm thick plasterboard which is to be finished with nominal skim finish to the timber battens to achieve a U value of 0.30 W/m²K.

GROUND FLOOR ALTERATIONS (Apartments)
Existing concrete floor structure to remain. Trial holes to be completed to check for existing membrane is installed for the protection against moisture and radon. If no membrane is found, 1200 gauge visqueen barrier to be laid above existing ground floor slab. Contractor to chase out a 25mm deep groove to external walls above floor slab level to allow for membrane to be installed into the 25mm deep groove. All joints to membrane have 300mm minimum overlap and be securely taped. 50mm Celotex GA3000 or 100mm Celotex XRA000 insulation to be installed above membrane with 22mm thick tongued and grooved Weyroc board above to achieve a minimum U-value of 0.25W/m²K. Different insulation thicknesses to be used due to existing varied floor levels. Contractor to ensure new Finished Floor Level (FFL) is maintained throughout each individual apartment. Steps formed between heated and unheated areas. Contractor to make good where necessary.

GROUND FLOOR CONSTRUCTION (Extension)
New ground floor construction to be laid to ensure continuation to floor levels in maintained between new and altered floor constructions. 100mm thick concrete slab which is to be continued over inner leaf of cavity wall, allow for 1000mm wide A193 mesh to perimeter of slab. 100mm thick Celotex tuff-R GA4000 rigid polyisocyanurate foam insulation (to ensure U-value <0.18 W/m²K), with 1200G visqueen DPM below, all joints to have 300mm minimum overlap and be securely taped. 50mm sand blinding on 150mm minimum well consolidated hardcore. Build 650x650x450 high radon protection pump form with 50mm thick concrete paving slab. Walls of sump to be 100mm brick laid honeycomb bond with perpends left open. Cover with another 50mm concrete paving slab. 100mm diameter uPVC pipe to run from sump to duct to outside air, outlet to be capped at finished ground level. Additionally provide cavity tray as indicated in section bridging the two masonry courses to seal cavity against ingress of radon gas.

EXTENDING EXISTING FOUNDATION
Existing neighbouring foundation to be extended to ensure 150mm cover to outcrop of new internal blockwork wall. Existing foundation to be checked for adequacy. New foundation to be formed by surrounding existing with concrete as indicated on Section Z-Z. Dowel bars to be drilled into all of existing foundation at 450mm centres to ensure new part of foundation has a good key and can tie into existing foundation adequately. Foundations are to be cast in one pour to prevent joints in concrete. All works in relation to extending existing foundation to be completed to Building Inspector's approval on site. Contractor to make good where necessary.

FOUNDATION CONSTRUCTION
Provide 650mm wide x 200mm deep concrete foundation below new cavity wall construction as indicated on ground floor plan and section. Provide 600mm wide x 200mm deep concrete foundation below new solid brickwork/blockwork walls as indicated on ground floor plan. 750mm x 750mm x 200mm deep concrete pad foundation below new brickwork pier as indicated on ground floor plan *unless otherwise stipulated by Structural Engineer*. All foundations are to be cast onto suitable load bearing strata to the satisfaction of the Local Authority Building Inspector. Foundations are to be cast in one pour to prevent joints in concrete. Contractor to ensure new foundations do not undermine existing foundations on site. Concrete can be supplied by Huws Gray (01978 759516).



Section Y-Y 1:50

FIRST FLOOR ALTERATIONS (Apartment 3)
Existing concrete floor structure to remain. 50mm Celotex GA4000 Insulation to be installed above floor construction with 22mm thick tongued and grooved Weyroc board above. Contractor to ensure a maximum step of 220mm is achieved between Lobby and Kitchen/Dining/Lounge Room. Existing steps in floors to be checked prior to ordering materials specified. Contractor to make good where necessary.

FIRST FLOOR CONSTRUCTION
Floor boarding is to comprise 22mm thick tongued and grooved Weyroc board on WS200 Wolf easi-joists manufactured to BS5268 set at 400 centres. Where spans do not exceed 5150mm chord dimensions to be 97mm x 47mm. Floor joist layout plan and calculations supplied by specialist manufacturer to be submitted to Local Authority. Allow for doubled up joists below stud partitions running parallel to joists where applicable. Ceilings are to comprise 2no. layers of 12.5mm plasterboard (minimum mass per unit area of at least 20kg/m²). Provide single layer of 100mm thick mineral wool, minimum density 10kg/m³ to ensure passage of sound is minimised. All bracing, straps and fitting of joist system to be fitted in accordance with manufacturers instruction. *Manufacturer to measure spans on site prior to manufacture of joists*. Where first floor construction is exposed to the elements, contractor to fix 2 layers of 12.5mm plasterboard joints overlapped with 19mm thick external quality ply to underside of joists prior to cladding with 19mm thick T & G boarding. Allow for 150mm of Celotex XRA000 is to be installed between floor joists to achieve a minimum U-value of 0.18W/m²K.

NEW SUSPENDED CEILINGS
Contractor to install ceiling joists as indicated to provide adequate sound protection between apartments. Contractor to install new ceiling joists below existing concrete floor or new timber floor constructions. Where the spans are no greater than 3560mm, Contractor to install 150mm x 50mm C24 softwood ceiling joists. Where spans are greater than 3560mm but no more than 5070mm, Contractor to install 195mm x 50mm C24 ceiling joists. New joists to be set at 400mm centres. Joists to have 90mm minimum embedment within new cavity walls, supported off steel beams or supported off existing masonry walls using joist hangers where applicable. Where compartment floors are between apartments, provide single layer of 100mm thick mineral wool, minimum density 10kg/m³ to ensure passage of sound is minimised. Where compartment floors are located between apartment and unheated space, allow for 200mm fibreglass quilt insulation minimum density of 33kg/m³ to be between ceiling joists to achieve a minimum U-value of 0.25W/m²K. Ceilings are to comprise 2no. layers of 12.5mm plasterboard with joints staggered (minimum mass per unit area of at least 20kg/m²) to provide adequate fire protection to apartments. *All works in relation to soundproofing between apartments to be specified by Sound and Acoustic Specialist*.

STAIRCASE ALTERATIONS
Existing solid concrete staircase to remain in place. New staircase to be construction above to allow for quarter landing as indicated. Staircase to be purpose made in softwood with total rise of 1019mm to newly formed quarter landing (Height to be confirmed on site). Staircase to comprise of equal treads and rises to match existing. Angle of pitch to be 42° maximum. Flight to be 850mm wide between wall and handrail. Treads are to be out of 30mm minimum thick softwood. Stringers are to be out of 330mm x 30mm minimum section softwood. Provide softwood handrail to flight set at 900mm above nosings which is supported on balustrade or fixed to walls where applicable. Balustrade formed out of softwood turned balusters. Balustrade supporting handrail is to be positioned at intervals restricting the passage of a 100mm diameter ball. Newel posts to be formed out of 90mm x 90mm section softwood and provided at changes in direction of handrail. *All dimensions to be checked on site prior to manufacture*. Stairs to have 2000mm clear vertical headroom throughout.

STRUCTURAL TIMBERS
All existing structural timbers on site are to be treated with a dual purpose fungicide/insecticide applied by a BBA approved specialist contractor in accordance with the relevant British Standard and the Agreement Board Certificate relating to the manufacturer's system. This work is to carry a 30 year term, assurance backed guarantee covering workmanship and materials. Include a report along with the tender on the condition of the structural timbers in the property from the nominated specialist sub-contractor.

STUD PARTITIONS
Stud framed partitions are to comprise 12.5mm plasterboard (minimum mass per unit area of at least 10kg/m²) fixed to both sides of 75mm x 50mm softwood stud framing set at 400mm centres. Framework is to be formed on 75mm x 50mm softwood soleplate. Additional framing to installed where required i.e., around openings. All joints in boards are to be filled and skimmed prior to 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.

CAVITY WALL CONSTRUCTION
External cavity walls are to comprise of 100mm thick brickwork, 125mm wide cavity fully filled with 125mm thick DrTherm 32 (0.032-thermal conductivity), with an inner leaf of 100mm thick thermolite turbo block. Internal face of blockwork to be finished with 12.5mm thick plasterboard with 3mm thick nominal skim finish. Wall construction to achieve a minimum U-value of 0.21W/m²K. 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). Stone headers to be Forticrete cast stone products, headers can be 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 centres. Provide additional wall ties at 300mm vertical centres within 225mm of all openings and roof verges. All openings in cavity, ie, around window and door openings, are to be closed with Thermabate 125 insulated cavity closers to prevent thermal bridging. DPC to be installed in new cavity wall as indicated, Cavity trays to be tapped 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 Thermalite French block. Cavity insulation is to continue in 125mm cavity to prevent thermal bridging down to French block. All walls are to be constructed centrally on supporting foundations.

WINDOWS/DOORS/GLAZING
Where applicable, existing windows/doors on site to be removed and replaced with new windows/doors and frames. All dimensions to be checked on site prior to manufacturing of windows/doors. Existing lintels to be checked for adequacy prior to installation of new windows. New Keystone lintels to be installed as required. All new windows and doors (where applicable) are to comprise sealed double glazed units set within good quality softwood frames to local authority approval. *Windows that face directly onto the boundary are to comprise of sealed double glazed units set in good quality hardwood frames and to be non-openable*. Sealed double glazed units are to have 16mm minimum air gap and Low-E (soft-coated) glass to styles generally as indicated. Windows/doors are to achieve a minimum U-value of 1.6 W/m²K. Opening areas of windows are to be equal to at least 5% of enclosed floor area with part of the opening set at 1750mm above floor level. Provide background ventilation to habitable rooms by means of 8000mm² controllable trickle ventilators set in head frame member of windows/doors. Windows to habitable rooms at first floor level and Bedroom/Lounge of Flat 2 to have opening lights of at least 0.33m² with a minimum clear opening of 750mm high x 450mm wide. The bottom of the openable area within the window should be no more than 1100mm above finished floor level. Window Glis positioned within 800mm of First Floor level to have removable guarding fitted. Glazing in critical locations, such as within 800mm of floor level to windows, within 1500mm of floor level to doors, and windows adjacent to doors are to consist of toughened safety glass in accordance with BS 6206 and permanently marked.

ROOFLIGHT WINDOWS
Rooflight windows to be 990mm x 550mm GGL conservation style or similar rooflights as indicated. Windows are to comprise sealed double glazed units with 16mm minimum air gap and Low-E (soft-coated). Rooflights to be fitted in strict accordance with manufacturers instruction with recommended flashing kit to ensure weather tight construction. Opening areas of rooflight windows are to be equal to at least 5% of enclosed floor area with part of the opening set at 1750mm above floor level. Opening mechanism for rooflights to be remotely operated to allow for adequate ventilation to habitable rooms in accordance with BS5925. *All works in relation to remotely operated mechanism to be specified by specialist manufacturer*. Provide background ventilation to habitable rooms by means of 8000mm² controllable trickle ventilators set in head frame member of windows. Windows not to exceed a U-value of 1.6W/m²K.

ENGINEERED STEEL BEAMS
All engineered steel beams are to be installed in positions as indicated. Steel beams are to be protected from fire by means of 2no. layers of 12.5mm plasterboard joints overlapped with 3mm nominal skim finish to provide 60 minutes fire protection. *All works in relation to Steel Beams to be as per Structural Engineers specification*.

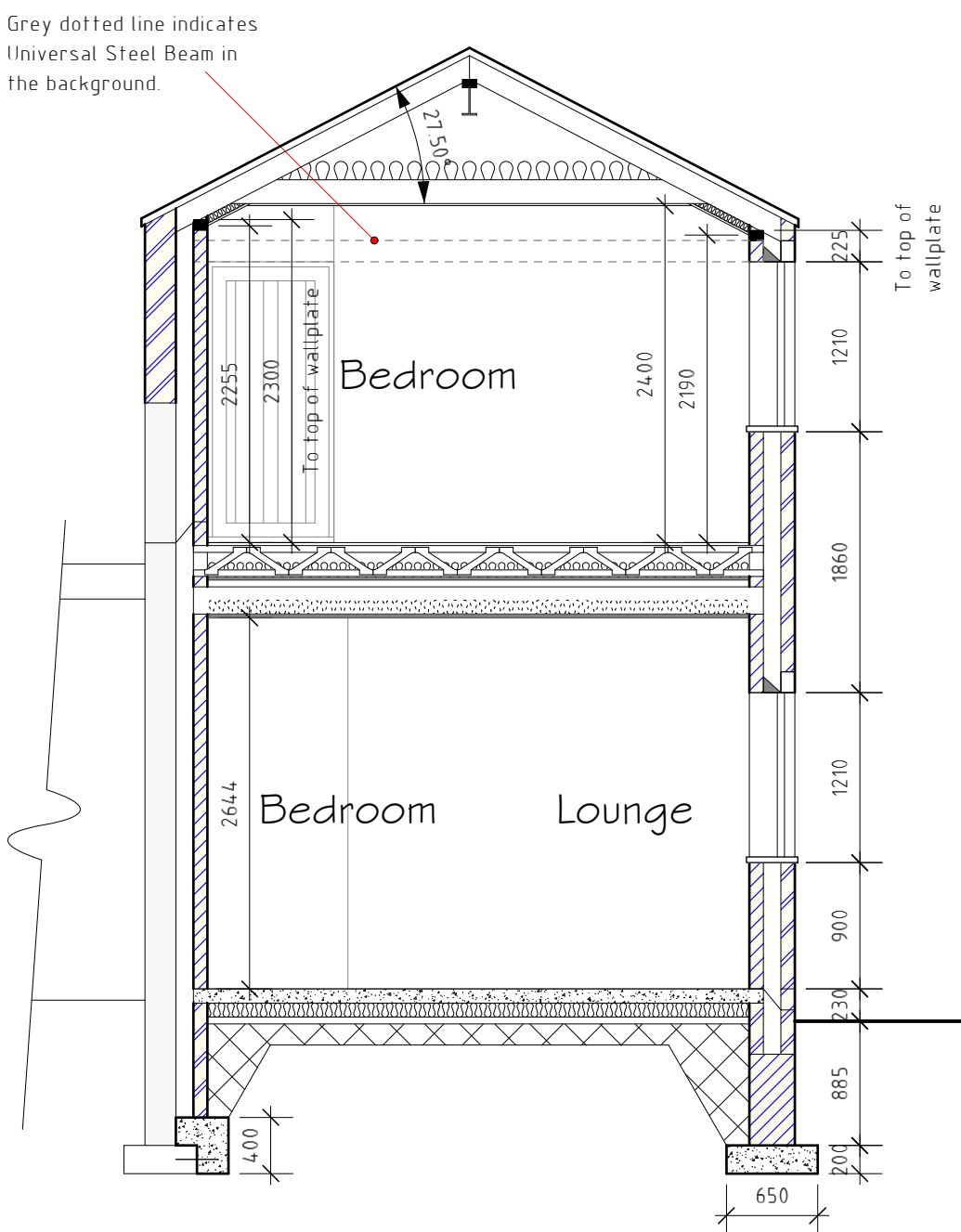
HEATING
Each apartment to be heated by means of Electric boiler system fitted with time and temperature zone control system. No radiators to be fitted in positions which would reduce landings / walkways to less than 900mm wide. All radiators to be fitted with thermostatic control valves (TRV). Boilers and heating system to be installed and commissioned by NICEIC registered installer.

ELECTRICAL WORKS
All electrical works are to be completed by a competent person registered with an electrical self-certification scheme and to take full responsibility to ensure that new works are in compliance with BS7671:2001. On completion the client should receive certification signed by the designer, installer and person responsible for testing of the new electrical system. Ensure that electrical sockets and light switches are sited between 450mm and 1200mm above floor level. Avoid placing sockets back to back, stagger with 150mm minimum gap. Ensure cables to be sleeved where possible contact with polystyrene could occur.

EFFICIENT LIGHTING
100% of new fixed light fittings to be fitted with lighting outlets which take lamps of luminous efficacy of at least 40 lumens/circuit watts to ensure that each apartment has efficient light fittings of more than one per 25m². Otherwise, ensure 100% of all new fixed light fittings are fitted with lamps of at least 40 lumens/circuit watt luminous efficiency and replace all other bulbs within the property with energy efficient bulbs.

MECHANICAL VENTILATION
Provide mechanical ventilation to Kitchens, Bathrooms, Shower Rooms and En-suite by means of Vent Axia or similar electrically operated fan, extracting directly to external air to the following requirements:
Kitchens: Cookerhoods to extract at a rate of 30 litres per second.
Bathrooms & Shower Rooms: Wall mounted fans to extract at a rate of 15 litres per second. Fans to be operated in conjunction with light switch with a 15 minute over run facility.
En-suite: Ceiling mounted fan to extract at a rate of 15 litres per second. Fan to duct through roof void and terminate at hile vent terminal.
Fan to be operated in conjunction with light switch with a 15 minute over run facility. Door to En-suite to be undercut by 10mm to allow for continuous ventilation.

Vents to be covered with weather proof grilles at points of discharge to external air.



Section Z-Z 1:50

DO NOT SCALE FROM DRAWINGS IF IN DOUBT ASK.

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

Rev	Date	Detail	Initial
D	05/19	Fire Door Added	S.M.E
C	05/19	Building Regulation Amends	S.M.E
B	02/19	Design Amends	S.M.E
A	01/19	Drainage and Heating Amends	S.M.E

Project: Proposed Alterations to the rear of Glow Salon, Charles Street, Wrexham, LL13 8BT.	
Title: Sections	Scale: (A1) 1:50
Drawn By: S M Eltham	Date: Dec 2018
Drawing No: S073/005	Sheet: 2 of 3





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