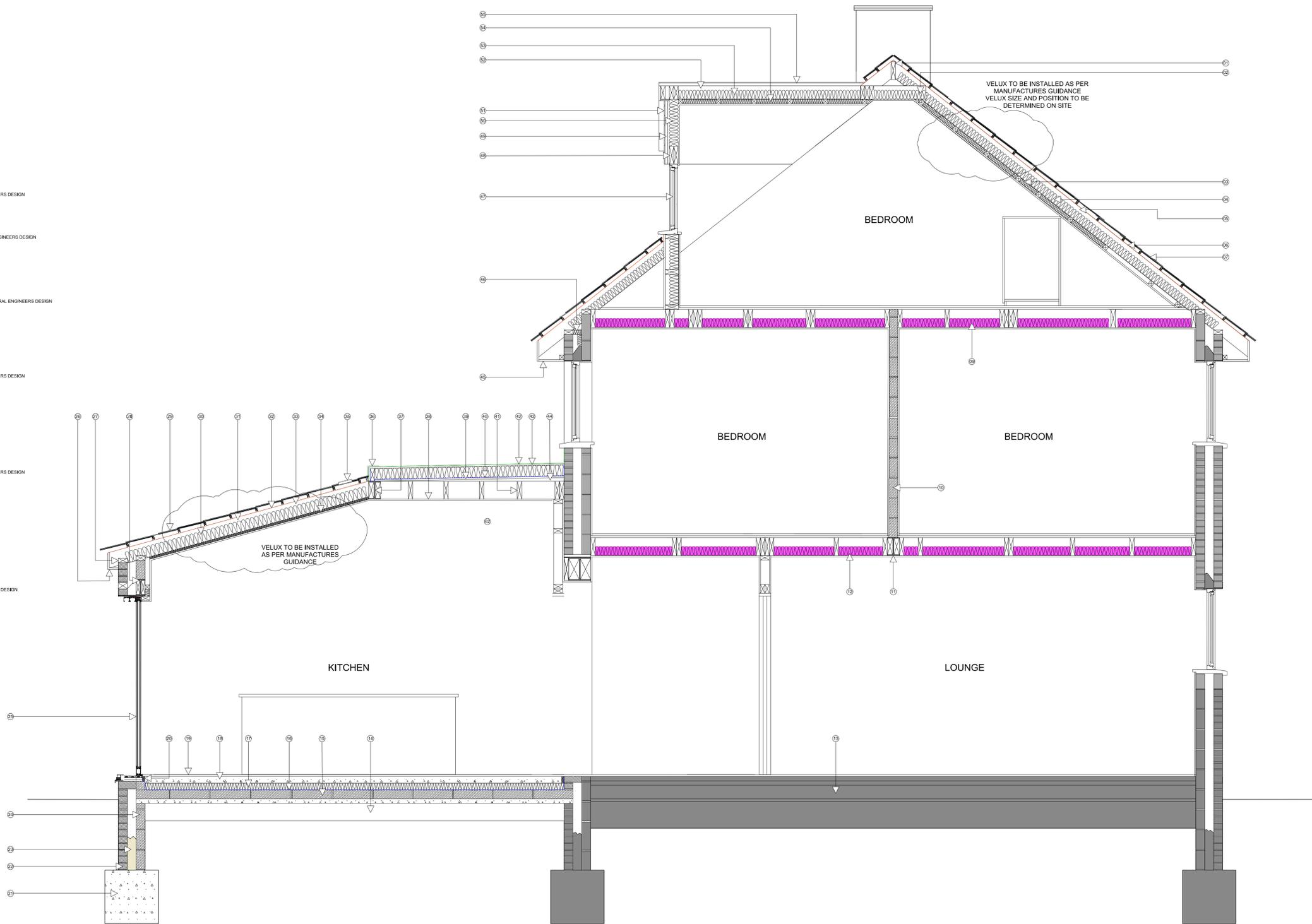


- ① EXISTING RIDGE TILE
- ② 150X30MM C24 COLLAR TIE
- ③ 50MM CELOTEX GA4000
- ④ 100MM CELOTEX GA4000
- ⑤ 50MM AIR GAP
- ⑥ UNTEARABLE BREATHER MEMBRANE
- ⑦ TILE TO MATCH EXISTING
- ⑧ NOT IN USE
- ⑨ 100MM ACOUSTIC INSULATION
- ⑩ 100MM PLASMOR FIBOLITE 7N
- ⑪ STEEL BEAM AS PER STRUCTURAL ENGINEERS DESIGN
- ⑫ 100MM ACOUSTIC INSULATION
- ⑬ EXISTING SLAB
- ⑭ 200MM VOID
- ⑮ BLOCK AND BEAM AS PER STRUCTURAL ENGINEERS DESIGN
- ⑯ 1200 GAUGE DPM
- ⑰ 75MM CELOTEX GA4000
- ⑱ 75MM SAND CEMENT SCREED
- ⑲ FLOOR FINISH
- ⑳ 25MM CELOTEX TB4000
- ㉑ CONCRETE FOUNDATION AS PER STRUCTURAL ENGINEERS DESIGN
- ㉒ BRICK TO MATCH EXISTING
- ㉓ LEAN MIX INFILL
- ㉔ 100MM PLASMOR FIBOLITE 7N
- ㉕ SLIDING DOORS
- ㉖ VENTED SOFFIT
- ㉗ 100X30MM C24 WALL PLATE
- ㉘ STEEL BEAM AS PER STRUCTURAL ENGINEERS DESIGN
- ㉙ SHALLOW PITCH ROOF TILE
- ㉚ 125MM CELOTEX GA4000
- ㉛ 50MM AIR GAP
- ㉜ UNTEARABLE BREATHER MEMBRANE
- ㉝ 175X30MM C24 RAFTER
- ㉞ 25MM CELOTEX TB4000
- ㉟ TILE VENT
- ㊱ CODE 5 LEAD FLASHING
- ㊲ STEEL BEAM AS PER STRUCTURAL ENGINEERS DESIGN
- ㊳ 12.5MM PLASTER BOARD WITH SKIM FINISH
- ㊴ 18MM WBP
- ㊵ 1000 GAUGE DPM
- ㊶ 200X30MM C24 ROOF JOIST
- ㊷ SINGLE PLY EPDM
- ㊸ 18MM WBP
- ㊹ 1.50 FRING
- ㊺ VENTED SOFFIT
- ㊻ INSULATED CAVITY CLOSER
- ㊼ DOUBLE GLAZED WINDOW
- ㊽ TRIMMER AS PER STRUCTURAL ENGINEERS DESIGN
- ㊾ CLADDING BATTEN
- ㊿ 100MM CELOTEX GA4000
- 1 WEATHERBOARDING
- 2 RIDGE BEAM
- 3 100MM CELOTEX GA4000
- 4 50MM CELOTEX GA4000
- 5 VENTED RIDGE TILE



**SPECIFICATION NOTES**

**IMPORTANT NOTE:** It is the Principle Contractor's responsibility to ensure that proposals are constructed within accordance of the consented scheme under Planning Consent granted by Welwyn and Hatfield District Council and that all conditions of these consents are adhered to. Please ensure the Design Team are consulted prior to any construction work to ensure all consents and approvals are in place.

CDM2015: It is the Principle Contractor's responsibility to assess whether this project is notifiable to the HSE under the new notification criteria and if so, notify the HSE and produce a Construction Phase Plan (CPP) prior to commencement of the works.

**IMPORTANT HEALTH & SAFETY NOTE**  
No Asbestos survey has been carried out as there is no visible evidence of the material being present. Caution and vigilance should be applied when removing existing structures or materials.

Any existing Artexed ceilings to be replaced or skimmed over will require a specialist Asbestos Survey to confirm it is possible to do so safely and that the material contains no asbestos.

**MATERIALS & MOISTURE GENERAL NOTE**  
It is the Principle Contractor's to offload and store all materials according to manufacturer's specification and guidance and to ensure that materials are kept dry. Trapped construction moisture is serious potential problem so all materials must be stored in dry conditions and every effort must be taken to maintain a dry installation. Should materials get wet then the Principle Contractor must take full responsibility for ensuring appropriate measures are taken to dry the materials and structure out completely before sealing up and finishing the construction. This is particularly relevant on roof structures.

**DEMOLITIONS & SITE CLEARANCE**  
Before any demolition work or removal of walls is carried out existing structure to be opened up and checked for bearings and to ensure construction is as assumed. If differences found inform design team immediately.

Site to be prepared by uplifting existing patio slabs and setting aside for use in making good at the end of the project. It is the Main Contractor's responsibility to make good the patio to the rear once works are completed.

Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc. on or in the ground covered, or to be covered by the building.

**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. Particular care must be taken if the existing external wall is single leaf construction with piers, checks for stability and defects must be performed.

**BASIC RADON PROTECTION**  
Provide a 1200g (300 um) radon membrane over existing floor slab, lapped 300mm, double welded and taped with gas proof tape at joints and service entry points. Carry membrane over cavity and provide suitable cavity tray and weep holes.

**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).

**FOUNDATIONS**  
Foundations to be built in accordance with DB Structural design  
Provide 600mm wide trench fill foundations for external walls with concrete mix to conform to BS EN 206-1 & BS 8500-2. All foundations to be a minimum of 1000mm below ground level or as specified by DB Structural, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004:1986 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice from the structural engineer should be sought. Foundation to be either GEN3 (C20) ready mixed concrete to BS 5328 or NHBC ST3 site mixed concrete. Foundations to comply with NHBC practice note 4-2.

**GROUND FLOOR CONSTRUCTION**  
Ground floor to be built in accordance with DB Structural design  
Floor finish to be specified by client. Min 75mm 3:1 sand/cement mesh or fibre reinforced screed with integral wet under floor heating on 500 gauge polythene VCL over 75mm Celotex GA4000 insulation with thermal conductivity of 0.021W/mK with 20mm Celotex TB4000 edge insulation to all perimeter abutments on 1200g Visqueen d.p.m with min 150mm lapped joints taped and sealed with d.p.m linked to d.p.c in walls on CUB66 or similar 150mm pre-cast concrete beam and 100mm light weight block floor with beams at 488mm centres giving max clear span of 4 metres. To give design U-Value 0.21W/m<sup>2</sup>K. Please refer to Celotex installation guide. Beams to sit on hyload d.p.c at all contact points with new and existing external walls. Where floor blocks bear onto inner leaf of external cavity walls use CUB66 slip bricks laid on hyload d.p.c to maintain correct level. Where new pre-cast floor beams bear off existing external walls beams to be pigeon holed into existing masonry sitting on hyload d.p.c at all contact points. Calculations based on F/A of 0.5. Cub66 lid to verify beam & block floor design.

CUB66 or similar stepped floor vents to be installed to provide underfloor ventilation along all 3 sides of extension. Vents to be installed at max. 3 metre centres and within 450mm from any external corner. Vents to be provided to all new cavity wall lengths (rear & sides) to provide good cross flow due to all other floors in the existing if suspended. Any existing ventilation in external walls that become internal must be maintained. CUB66 vents provide 6600mm<sup>2</sup> of free ventilation area.

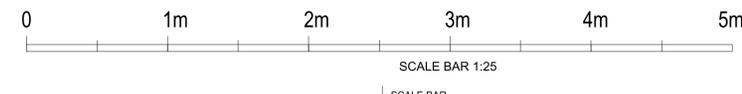
**EXTERNAL CAVITY WALL CONSTRUCTION**  
External Walls to be built in accordance with DB Structural Engineer's design  
300mm brick and block cavity walls. 100mm brick outer skin with 100mm part fill cavity with 50mm Celotex GA4000 cavity insulation with a thermal conductivity of 0.021W/mK with 100mm Plasmor Fibolite 7N/mm<sup>2</sup> inner skin with render & set finish or 12.5mm plasterboard on dabs with skim finish to match existing internally. To give design U-Value 0.26W/m<sup>2</sup>K. New cavity walls to be tied to existing using Firris or similar approved profiles. BBA approved stainless steel wall ties and clips to BS1243 with first row of board retaining wall ties to be installed at least one course below damp and positioned at max 600mm horizontally to provide min support of 2 ties per 1200mm board. Second and subsequent rows of ties should be installed at 450mm centres vertically and max 900mm centres horizontally. Ties doubled up at reveals. Walls to be built with 1:1.6 cement mortar. Please refer to Celotex installation guide.

BBA approved dpc cavity trays to be used with plastic weep hole inserts to manufacturer's specification. BBA approved cavity trays to be used with plastic weep hole inserts to manufacturer's specification over all cavity wall lintels. Provide horizontal strip polymer (Hyload) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPC's and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed. Lean mix cavity fill to max 225mm below d.p.c. Approved insulated cavity closures to be used at all closure points.

Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abuts the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

**INTERNAL PARTITION WALLS**  
New internal timber partition walls to be 50x100mm C24 treated timber studs with 50x100mm C24 sole and head plates with vertical studs at 400mm centres and horizontal studs at 1200mm centres with 100mm mineral wool packed between all studs with 12mm WBP ply to face surface fixed at max 150mm centres with 12.5mm plasterboard and skim finish both sides.

**INTERNAL DOORS**  
New doors to match existing unless otherwise instructed by Client.



SCALE BAR