



Front Elevation 1:100



Side Elevation 1:100



Side Elevation 1:100



Side Elevation 1:100

INTERNAL BLOCKWORK WALLS

Internal Blockwork walls to comprise 100mm Thermalite Medium Density Blockwork with 12.5mm plasterboard fixed to both sides and 3mm nominal skim finish. Walls to be taken down to foundations where indicated on ground floor plan. Below DPC level use class B engineering brick for wall construction. All walls are to be constructed centrally on supporting foundations.

STUD PARTITIONS (Between Bedrooms/Corridors)

Stud framed partitions are to comprise 12.5mm Gyproc Soundbloc board 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 be installed where required i.e. around openings. Where TV brackets are to be installed, contractor to allow for structural studwork. Structural studs to have 19mm ply fixed to one side prior to fixing of plasterboard. *Structural engineer to confirm design of structural stud walls.* All joints in boards are to be filled and skimmed prior to application of skim plaster. Allow for absorbent layer of 75mm thick wire reinforced mineral wool quilt to be suspended in cavity of stud framing to walls as indicated on floor plans to provide superior levels of sound prevention to bedrooms.

STUD PARTITIONS

Stud framed partitions are to comprise 12.5mm plasterboard 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 be 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 K-render (champagne in colour) to Local Authority approval applied to 100mm thick blockwork, 125mm wide cavity fully filled with 125mm thick DriTherm 0.032-lambda, 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. Contractor to allow for stonework quoins to front corners of extension as indicated on elevations. Quoins to be stone colour to clients discretion and to Local Authority approval. 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 cills to be Forticrete cast stone products, cills 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, i.e. 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 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 Thermalite trench block. Cavity insulation is to continue in 125mm cavity to prevent thermal bridging down to trench block. All walls are to be constructed centrally on supporting foundations.

GROUND FLOOR CONSTRUCTION

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 sump form with 50mm thick concrete paving slab. Walls of sump to be 100mm brick laid honeycomb bond with perpend 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.

FOUNDATION CONSTRUCTION

Provide 650mm wide x 200mm deep concrete foundation below new cavity wall construction as indicated on ground floor plan and section. Provide 450mm wide x 200mm deep concrete foundation below new 100mm thick internal blockwork walls as indicated on ground floor plan and section. 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).

MAIN ROOF CONSTRUCTION

New roof coverings are to be slates to match existing building and to Local Authority approval. Slates to be fixed to 50mm x 25mm treated softwood battens over Tyvek Supro permeable underlating membrane or similar (Tyvek membrane to be draped Approximately 10mm between the rafters for ventilation purposes). Tyvek to be laid on extended rafter roof trusses designed and manufactured by specialists in accordance with BS 5268 1985 and set at 600mm maximum centres. Trusses to be braced longitudinally between all unsupported node points and diagonally to underside of top chord of trusses. Bracing to be out of 100mm x 25mm sawn softwood double nailed at each fixing point. Trusses are to bear onto 100mm x 75mm softwood wallplates and are to be fixed by means of galvanised mild steel truss clips. Wallplates are to be anchored to walls at 1800mm centres with 30mm x 6mm mild steel straps. Straps are to be of sufficient length to be fixed to masonry of supporting walls, fixings are to be screwed or plugged and screwed. Contractor to double/triple up trusses to allow for support of dormer windows. Manufacturer is to specify extended rafter trusses, doubled/triple up trusses, loose cut rafters, ridgeboards and ceiling joists where applicable. *Position and sizes of rafter/ceiling members and positioning of wallplates may vary following Truss Manufacturer's specification.* Allow for 100mm fibreglass quilt insulation to be between ceiling member of trusses/ceiling joists with an additional 200mm layer laid across ceiling members/ceiling joists to achieve a minimum U-value of 0.15W/m²K. Ceilings to comprise of 12.5mm thick plasterboard with 3mm thick nominal skim finish. Where ceiling follows roof line, allow for 100mm thick Celotex GA4000 insulation between rafters ensuring minimum 50mm clear air gap is provided, with 50mm Celotex GA3000 fixed to underside prior to fixing 12.5mm thick plasterboard ceilings to achieve a minimum U-value of 0.15W/m²K. Allow for code 4 lead flashing at all roof/wall abutments. Where roof covering abuts extended parapet gable walls; stepped cavity tray with code 4 lead flashing to be installed.

DORMER WINDOW CONSTRUCTION

New roof coverings are to be slate to match existing building and fixed as per main roof construction. Tyvek to be laid on roof trusses designed and manufactured by specialists in accordance with BS 5268 1985 and set at 600mm maximum centres. Trusses to be braced longitudinally between all unsupported node points and diagonally to underside of top chord of trusses. Bracing to be out of 100mm x 25mm sawn softwood double nailed at each fixing point. Trusses are to bear onto 100mm x 75mm softwood wallplates over softwood stud framed dormer cheeks, softwood stud member is to be below each roof truss. *Position and sizes of rafter/ceiling members and positioning of wallplates may vary following Truss Manufacturer's specification.* Allow for 100mm fibreglass quilt insulation to be between ceiling joists with an additional 200mm layer laid across ceiling members, 12.5mm thick plasterboard fixed to ceiling member of truss with nominal skim finish to achieve a minimum U-value of 0.15W/m²K. Where ceiling follows roof line, allow for 100mm thick Celotex GA4000 insulation between rafters ensuring minimum 50mm clear air gap is provided, with 50mm Celotex GA3000 fixed to underside prior to fixing 12.5mm thick plasterboard ceilings to achieve a minimum U-value of 0.15W/m²K. Side cheeks to be supported on tripled up trusses. Dormer cheeks to have rendered finished applied to expanded metal over 19mm thick external quality ply. Allow for 500G visqueen vapour barrier fixed to 175mm x 50mm softwood stud framing set at 400mm centres. 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. Allow for code 4 lead flashing at all roof/wall abutments.

FLAT ROOF CONSTRUCTION

Provide softwood firings over roof to discharge surface water, Rainwater to discharge to RWG/Hopper in position as indicated on ground floor plan. Roof coverings to be Polyroof 185 flat roofing system from Polyroof Products Ltd. Firings to be set above flat roof joists and chamfer down to top of flat roof joists to ensure a fall of 1 in 50 is achieved. Liquid base coat resin applied evenly over substrate. Polymat laid to overlap by 50mm minimum with additional resin coat to be applied and consolidated to eliminate air bubbles. Liquid top coat resin with appropriate colour pigmentation applied over entire surface including all trims. Substrate to consist of 19mm thick external quality ply over 140mm thick Celotex Crown-Fix insulation on 12.5mm exterior grade plywood over 170mm x 50mm C16 softwood joists set at 400mm centres to achieve a minimum U-value of 0.15W/m²K. Joists to have 90mm minimum embedment within cavity walls, supported off joist hangers or Structural Wallplate where applicable. *Structural Wallplate and connection details to be specified by Structural Engineer.* 12.5mm of knauf wallboard fixed to the underside of joists with 3mm nominal skim plaster finish. Allow for cavity tray and code 4 lead flashing at all roof/wall abutments.

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 91mm 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 and at support points of showers where applicable. Ceilings are 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, 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.*

Key

- Mechanical ventilation wall termination point
- Mechanical ventilation slate termination point
- ⌘ Mechanical ventilation flat roof termination point
- Boiler termination point
- ⌘ SVP pipework/termination point
- ⌘ Surface water downpipes

Note: All external pipework, extracts, flues and vents to have powder coated black finish.

External Facing Materials
External walls are to comprise K-render (champagne in colour) to Local Authority approval.

Roofing Materials
Roof coverings are to be Slate to match existing and to Local Authority approval.

All windows are to comprise sealed double glazed units set in softwood frames.
Stone coloured Forticrete stone headers & cills to be provided to windows and doors.

All fascias and soffits are to comprise painted softwood to match existing.

Rainwater to be collected in aluminium guttering and aluminium downpipes to local authority approval. Surface water to discharge to existing drainage system.

PLANS HAVE NOT YET GAINED LOCAL AUTHORITY APPROVAL AND MAY BE SUBJECT TO CHANGE.

DO NOT SCALE FROM DRAWINGS IF IN DOUBT ASK

Please read in conjunction with Structural Engineer's Specification.

B	05/19	Planning Amends	S.M.E
A	04/19	Design Amends	S.M.E
Rev	Date	Detail	Initial

Project:

Proposed alterations at
The Lemon Tree
Wrexham
LL11 2LP

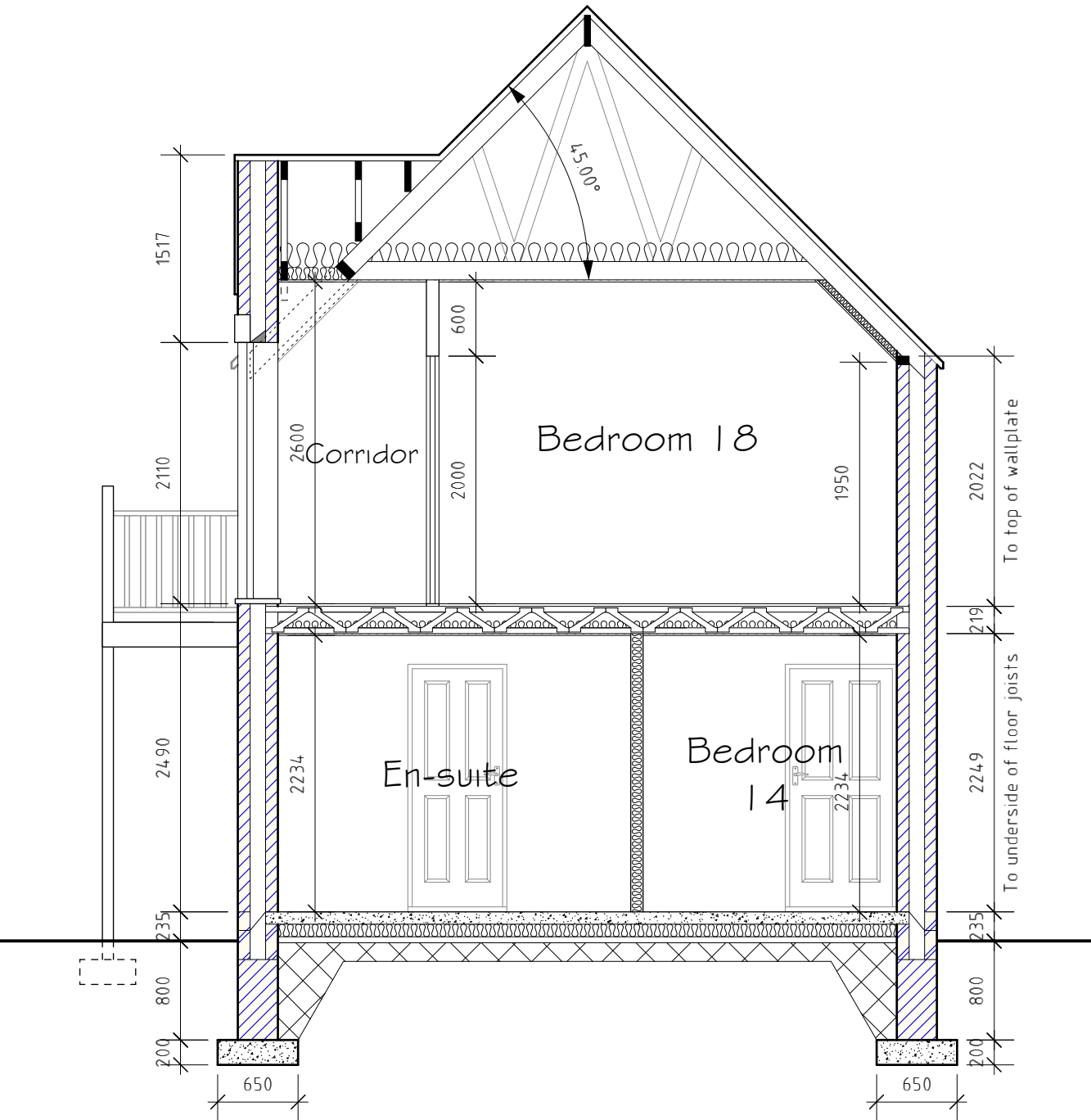
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Drawn By: S M Eltham
Date: Nov 2018

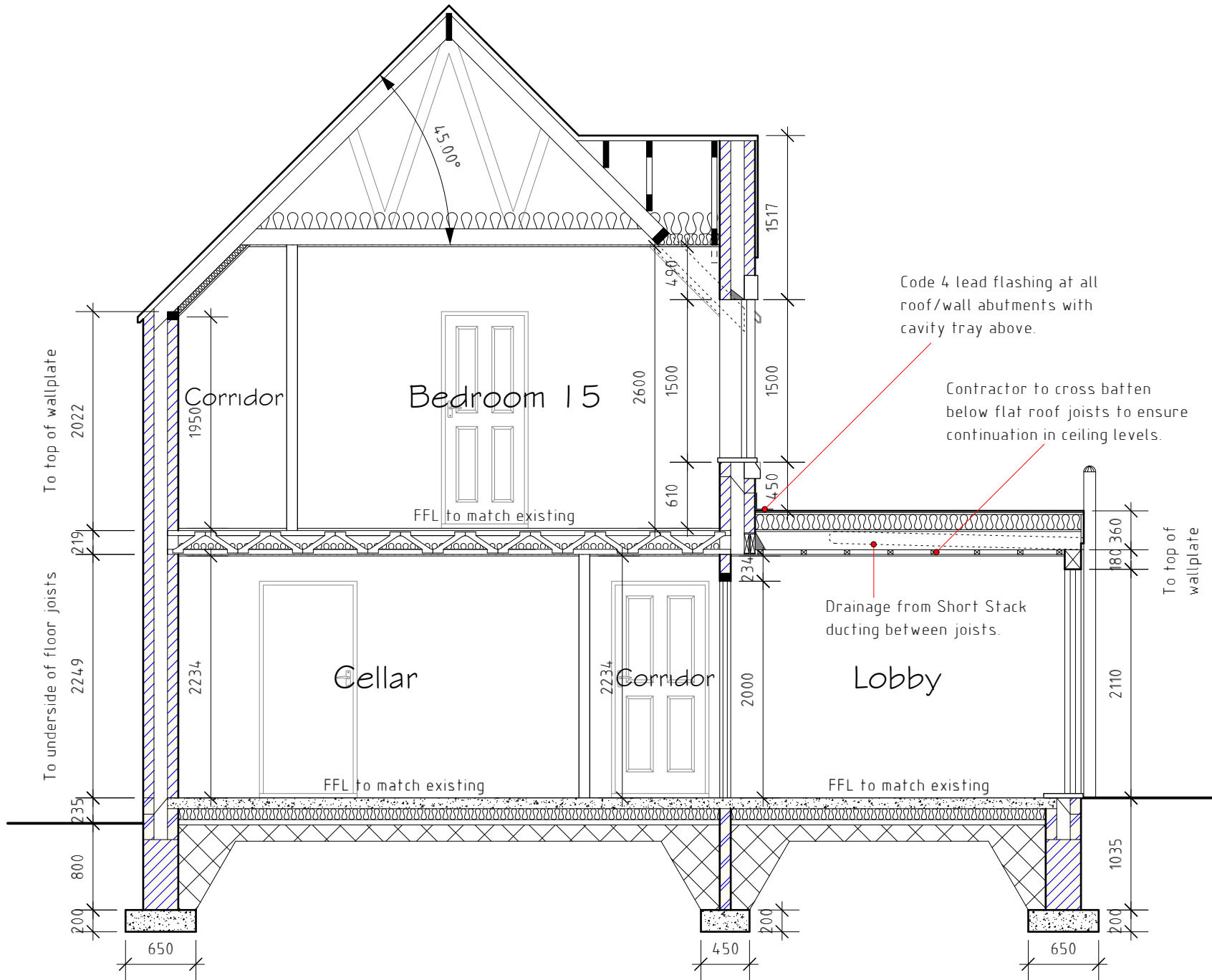
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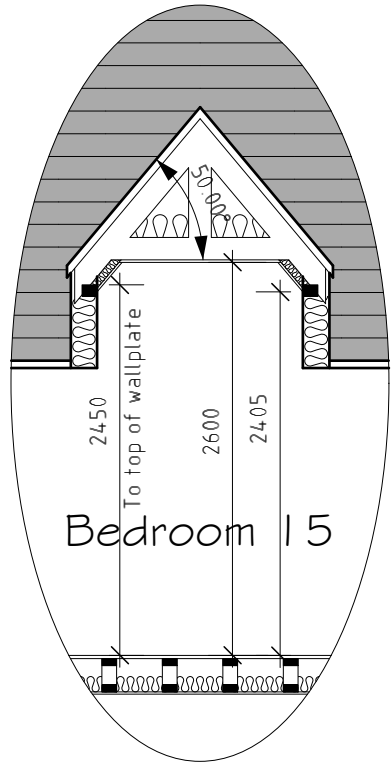
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Section Y-Y 1:50



Section Z-Z 1:50



Typical Dormer
Section 1:50