



CONSEQUENTIAL IMPROVEMENTS

Due to the extension increasing the habitable space of the dwelling by over 10m², the following improvements are required

- If the dwelling has uninsulated or partially insulated cavity walls, cavity to be filled with insulation where possible (Cavity wall insulation may not be suitable for sites exposed to driving rain)
- If there is no or less than 200mm thick insulation within the loft space, provide 250mm insulation or increase to 250mm thick

All consequential improvements are to only be undertaken where they are technically, functionally or economically feasible

MECHANICAL VENTILATION

Provide mechanical ventilation to Kitchen by means of Vent Axia or similar electrically operated fan, extracting directly to external air to the following requirements:

Kitchen: Cooker hood to extract at a rate of 30 litres per second.

Vents to be covered with weather proof grills or tile vent terminal at discharge to external air.

GLASS ATRIUM

Specialist manufacturer to specify glass atrium. Glass atrium to sit on doubled up flat roof joists (To specified by Structural Engineer) as indicated. Glass atrium to be fitted in strict accordance with manufacturer's details. Measurements to be taken on site prior to commissioning of work. All windows within atrium comprise sealed double glazed units set within good quality uPVC frames to local authority approval. Sealed double glazed units are to have 16mm minimum air gap and Low-E (soft-coated) glass. Windows within atrium are to achieve a minimum U-value of 1.6 W/m²K. Glazing is to consist of laminated toughened safety glass in accordance with BS 6206 and permanently marked.

DOORS/GLAZING

New doors are to comprise sealed double glazed units set within good quality uPVC frames to local authority approval. Sealed double glazed units are to have 16mm minimum air gap and Low-E (soft-coated) glass to styles generally as indicated. Provide background ventilation to habitable rooms by means of 8000mm² controllable trickle ventilators set in head frame member of windows. Glazing in critical locations, such as within 1500mm of floor level to doors are to consist of toughened safety glass in accordance with BS 6206 and permanently marked.

FLAT ROOF CONSTRUCTION

Rainwater to discharge to RWG in position as indicated on ground floor plan. Roof coverings to be Polyroof 185 flat roofing system from Polyroof Products Ltd. 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 18mm thick external quality ply over 150mm thick Celotex XR4000 insulation on 18mm exterior grade plywood fixed to softwood firings to enable roof to discharge surface water at a rate of 150. Firings fixed to U5mm x 50mm C24 softwood joists set at 400mm centres to achieve a minimum U-Value of 0.15W/m²K. Joists to have 90mm minimum embedment into new cavity walls or be supported off joist hanger to new and existing cavity walls. Contractor to install doubled up joists to allow trimming around atrium. Structural Engineer to confirm adequacy of doubled up joists to support Atrium. 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. Roof covering to lap up inside of wall to underside of coping stone. Copings to be mechanically fixed to wall below.

CAVITY WALL CONSTRUCTION

External cavity walls are to comprise of 100mm thick brickwork, 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. Provide Universal Steel Beam with plate or Keystone lintels over opening 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). Universal Steel Beams, Plate and connection details to be specified by Structural Engineer. 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 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.

GROIND 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 650mm x 650mm x 450mm 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. Contractor to ensure 150mm outcrop is achieved to all loadbearing walls. 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 and to be taken below invert level of existing drainage. Concrete can be supplied by Huws Gray (01978 759516).

External Facing Materials

External walls are to comprise facing brick to Local Authority approval and to match existing.

Roofing Materials

Roof coverings are to be Polyroof 185 flat roofing system to Local Authority approval.

All windows are to comprise sealed double glazed units set in white uPVC frames.

Rainwater to be collected in square uPVC gutting and uPVC downpipes, to discharge to soakaways located in garden.

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

DO NOT SCALE FROM DRAWINGS IF IN DOUBT ASK

PLANS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENGINEER'S DESIGNS AND CALCULATIONS

C	06/22	Sparrow Terrace Box Added	D.J.E.
B	05/22	Structural Calculations	E.M.J.
A	04/22	Design Changes	E.M.J.
Rev	Date	Detail	Initial

Project: Proposed Alterations to, 8 Haydock Road, Bangor On Dee, Wrexham, LL13 0JD	
Title: Section # Elevations	Scale: (A1) 1:50 # 1:100
Drawn By: E.M.Jackson	Date: April 2022
Drawing No: LO93/005	Sheet: 2 of 2

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