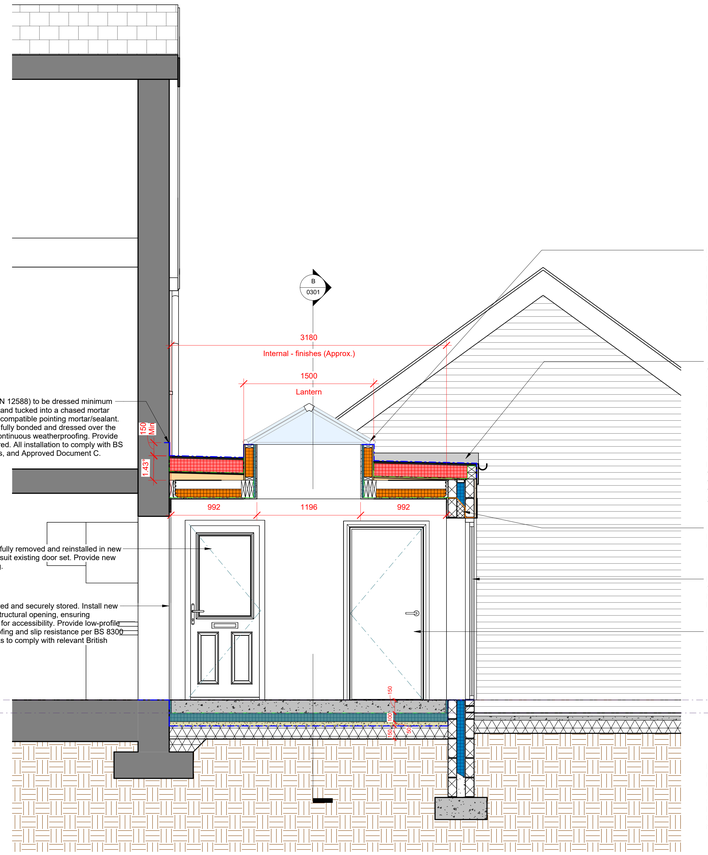


Lead flashing (Code 4 milled lead, BS EN 12588) to be dressed minimum 150 mm up the brickwork rear elevation and tucked into a chased mortar joint or fixed with lead wedges and lead-compatible pointing mortar/sealant. Flat roof waterproofing membrane to be fully bonded and dressed over the upstand of the lead flashing to ensure continuous weatherproofing. Provide cavity tray and DPC at junction as required. All installation to comply with BS 6229, Lead Sheet Association guidelines, and Approved Document C.

Existing external garage door to be carefully removed and reinstalled in new location with structural opening sized to suit existing door set. Provide new lintel with minimum 150 mm end bearing.

Existing patio door to be carefully removed and securely stored. Install new white folding slatted door to fit existing structural opening, ensuring compliance with Approved Document M for accessibility. Provide low-profile threshold strip with suitable weatherproofing and slip resistance per BS 8300 and manufacturer's instructions. All works to comply with relevant British Standards.

Powder-coated aluminium framed double-glazed roof lantern, overall size 2500 × 1500 mm, incorporating toughened outer pane and laminated inner pane to BS EN 12150 & BS EN 14449, double-glazed unit to BS EN 1279, minimum U-value 1.4 W/m²K. Lantern to be factory-assembled where possible and installed to manufacturerls details on a minimum 150 mm high insulated timber upstand, with Code 4 lead or proprietary flashing system, DPC, and weatherproof seals. Structural performance to be confirmed by manufacturer to withstand imposed (snow) and wind loads in accordance with BS EN 1991-1-3 & BS EN 1991-1-4. Compliance with Approved Documents L (thermal), K (safety), and where applicable F (ventilation) to be demonstrated.

Junction between new flat roof extension and existing gable end to be fully weatherproofed with continuous lead flashing (Code 4 milled lead, BS EN 12588) dressed minimum 150 mm onto the flat roof covering and into a chased mortar joint in the gable wall, sealed with lead-compatible mortar or approved sealant. 25 mm chase, max 1.5 m lengths, 100 mm laps, fixed to LSA/BS 6915:2001.

Where required flashing to be dressed continuously behind existing roofing tiles or slates by carefully lifting and temporarily removing tiles to allow the lead to be inserted beneath the tiling battens, ensuring full coverage behind the tile course.

Provide continuous cavity tray and DPC at the abutment. Flat roof waterproofing to be single-ply membrane (e.g. EPDM or reinforced bitumen) with minimum 1:80 falls, fully bonded and dressed up wall at least 150 mm. All works to comply with BS 6229, Lead Sheet Association guidelines, and Approved Documents C and L.

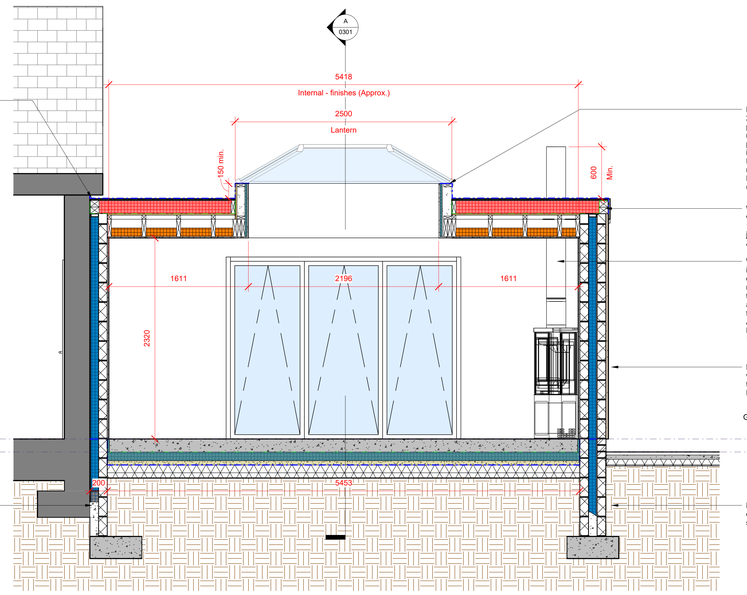
Catnic CG90/100 lintel or equal approved, to suit 2700 mm clear opening for bifold doors, installed with min. 150 mm end bearings, cavity tray, DPC, and insulation, to Catnic load span tables & BS EN 845-2.

Powder-coated aluminium double-glazed bifold door, 2700 mm wide, min. U-value 1.4 W/m²K, safety glazing to BS EN 12150 / BS EN 1279, fitted with trickle ventilation to Approved Document F, compliant with Approved Documents L & Q.

Existing external door carefully removed and stored ready for re use. New internal door to be timber or solid-core composite, style to clients request. Door and frame to comply with relevant BS EN 1634 and installed per manufacturer's instructions. Ironmongery to include lever handles, and compliant with Approved Document M for accessibility where applicable. Door size and clear opening to suit existing 910mm opening.

New foundations adjacent to existing foundations to be constructed so as not to undermine or load existing structure. Excavate in short alternate sections to maintain stability. Minimum 600 mm wide × depth to match existing or to suitable bearing strata (min. 1.0 m below ground level or as determined on site), concrete grade C25/30 to BS EN 206-1, with trench sides vertical and bottoms clean and level. Where required, insert compressible material (e.g. Clayboard) against existing foundation face to prevent load transfer. All work to comply with Approved Document A and site engineerls recommendations.

A Section A-A
1 : 25



Powder-coated aluminium framed double-glazed roof lantern, overall size 2500 × 1500 mm, incorporating toughened outer pane and laminated inner pane to BS EN 12150 & BS EN 14449, double-glazed unit to BS EN 1279, minimum U-value 1.4 W/m²K. Lantern to be factory-assembled where possible and installed to manufacturerls details on a minimum 150 mm high insulated timber upstand, with Code 4 lead or proprietary flashing system, DPC, and weatherproof seals. Structural performance to be confirmed by manufacturer to withstand imposed (snow) and wind loads in accordance with BS EN 1991-1-3 & BS EN 1991-1-4. Compliance with Approved Documents L (thermal), K (safety), and where applicable F (ventilation) to be demonstrated.

Warm flat roof comprising of EPDM/single-ply membrane on 18mm waterproof ply, 150mm Celotex XR4000, Sopravap Stick Alu S16 AVCL, 18mm waterproof ply on firrings providing min. 1:80 fall, 150x50mm C16 joists, 12.5mm plasterboard with skim finish. Install per BS 6229 and Approved Document C.

Wood-burning stove installation to be carried out by HETAS-registered installer in accordance with Approved Document J. Stove to be CE-marked, output to suit room size, connected to insulated twin-wall flue system with minimum 150 mm diameter (or as manufacturer's instructions). Flue to terminate at least 600 mm above roof/ridge and 2.3 m horizontally clear of any structure. Provide non-combustible hearth extending min. 300 mm in front and 150 mm to sides, minimum 125 mm thick if on combustible floor. Adequate permanent ventilation to be provided in accordance with Approved Document J Table 1. All materials and workmanship to comply with BS EN 15287-1 and manufacturer's installation instructions.

Powder-coated aluminium double-glazed bifold door, 2700 mm wide, min. U-value 1.4 W/m²K, safety glazing to BS EN 12150 / BS EN 1279, fitted with trickle ventilation to Approved Document F, compliant with Approved Documents L & Q.

Min. 600 mm wide foundations to suitable bearing strata≥1.0 m depth, concrete C25/30 (BS EN 206-1), per Approved Document A & engineerls specs; trench level and clean.

B Section B-B
1 : 25

GENERAL NOTES:
All works are to be carried out in accordance with current Building Regulations, British standards/Codes of practice, & statutory Authorities Bye-Laws and recommendations. The Principal Contractor must maintain and control the site in accordance with The Construction (Design and Management) Regulations 2015. The Principal Contractor is to check and verify all dimensions, levels etc. onsite prior to commencing the works.

PART A - STRUCTURE
Foundations
Foundations to be mass concrete trench fill or strip, minimum 600 mm wide, depth to be taken to suitable loadbearing strata (generally not less than 1.0 m below finished ground level, or as determined by site conditions and Building Control). Concrete to be C25/30 in accordance with BS EN 206-1 and BS 8500. Trench bottoms to be clean, level, and free from loose material. Width, depth, and reinforcement (if required) to comply with Approved Document A and structural engineer's specification. Where adjacent to existing structures, excavate in short alternate sections to maintain stability.

Any eccentrically loaded foundations or foundations that require underpinning or ties to existing are to be designed by structural engineer.

Below DPC New Plinth Walls
Below DPC the outer leaf shall comprise of a minimum of two courses (150mm) of Metric sized Class B, smooth faced Red engineering brick in stretcher bond with grade II strength mortar. Inner Leaf to Comprise 7.3N/mm² 100mm PLASMOR 'Fibolite Block', suitable for use below DPC. A clear cavity of 100mm shall be created, filled with 'lean mix' concrete fill with a fall toward the outer leaf and 'Perp Weeps' shall be installed to allow moisture to escape the cavity. Suggested specification: CAVITY TRAYS 105mm x 65mm PVC 'beak weep' positioned at mir' 450mm horizontal centres two courses below DPC (to the base of the struck lean mix). Weep vents to be clear plastic or colour to match mortar.

Above DPC New Masonry Walls (STANDARD - 100mm Cavity)
Above DPC, new masonry walls shall comprise a 100mm thick 7.3N/mm2 100mm PLASMOR Fibolite blocks laid in stretcher bond to receive a 15mm full application of K-REND Render system in colour selected to match existing. All applied in full accordance with the manufacturers guidance / best practice. A clear cavity of 100mm shall be created, to receive 90mm CELOTEX 'Thermaclass Cavity Wall 21' insulation with a 10mm residual cavity.

The inner leaf comprises 7.3N/mm2 100mm PLASMOR Fibolite blocks laid in stretcher bond in class III mortar (1 part cement: 1 part lime: 5 parts sand). Walls are to be tied together using AMCON 'Staifix HRT4 225mm' long wall ties at max. 450mm vertical spacing and max. 900mm horizontal spacing. Around 'Movement Joints' and 'Openings' the rate of wall ties shall increase to within 225mm vertical spacing and 225mm horizontally all in accordance with BS 5268-6.1: 1996 and BS 6399-2: 1997. Internally, masonry to be lined using 12.5mm BRITISH GYPSUM 'Wallboard' on plaster dabs with a 3mm smooth skimmed finish using 'Board Finish' plaster.

The following construction achieves a U-value of 0.17w/m2K.

DPC
DPC to use CAVITY TRAYS LTD. 'Caviroll Premium DPC' to all new masonry walls at minimum 150mm above external ground level (unless detailed otherwise elsewhere), two DPC's shall be provided on cavity walls. Where joints occur the DPC is lapped Min' 150mm. Follow manufacturer's recommendations and good practice as BS5628: part 3, BS8000: part 3 and BS8215.

Movement joints
Install movement joints to the Brickwork at 10-12m intervals. Install to blockwork at 6m centres. Contractor to determine exact position being mindful to avoid windows, greater than 899mm from an external corner (or 550mm from an internal corner) and where possible install a full height movement joint from foundation to wallplate height. All masonry expansion joints to comprise a 15mm wide FOSROC 'Expandafoam' joint sealed on the external face using FOSROC 'Nitroseal MS100' one part facade sealant, colour to match mortar. Masonry either side of movement joints to be bonded together using 225mm ANCON 'PPS Sleeved' wall tie bedded in mortar joints at 225mm vertical centres. All to be installed to manufacturer's recommendation and BS5628- part3.

Ground Floor Construction
F.F.L downwards the Ground Floor construction shall comprise of RC35 Grade 150mm thick 'Cast In-Situ' Ground bearing Slab with 1 Layer of A193 Mesh reinforcement with 50mm cover to all faces provides the structure installed over a 500 gauge polythene separating layer with all joints lapped 150mm and taped. This separates the slab from 100mm thick CELOTEX 'GA4000' PIR Insulation Board with 25mm insulated upstands to all edges at wall intersections. Waterproofing is provided by a 1200g DPM by VISQUEEN under / round the Insulation lapped up the face of the external /internal wall to link into the DPC with all joints taped. Use a 50mm layer of 'Blinding Sand' to protect the DPM from damage and a 150mm layer of clean consolodated Hardcore over the excavated ground.

The following construction achieves a U-value of 0.17 w/m²K.

Wall Plates for Roof
To the top of masonry walls (eaves) a C16 Grade 75x100 Timber Wall plate shall be bedded on a 10mm mortar joint and the roof structure fixed to distribute and transmit loads, and prevent uplift. Wall plates should generally be in lengths of not less than 3m but shorter lengths should extend over at least 3 members. Wall plates should be joined using half-lap joints at corners and in running lengths. Stainless Steel Straps Min' 1m length, Max' 2m centres shall be used. Min' size 30mm x 5mm. Min' anchorage downturn 100mm. Where necessary to acheive the desired heights the 75mm Wall Plate may be varied to a single C16 Grade 50x100mm or 100x100mm Timber size.

Flat Roof Construction
From top downwards the Flat Roof shall comprise of a EPDM / Single Ply Waterproof Roof Membrane lapped up the face of exterior walls and linked to a CAVITY TRAY DPC system. Installed over 18mm WBP Exterior Grade Plywood Deck which will be adhered bonded to 150mm thick CELOTEX 'XR4000' or equal equivalent with Lambda Value of 0.022 above the Joists. This will be installed over a 18mm WBP Exterior Grade Plywood fixed to the oversized Joists or Firrings is preferred. Compliant to BS EN 636, Class 3.

A 'Timber Firring' will be fixed directly over roof Joist. Firrings are designed to a fall of 1-40 (to ensure falls of 1-80 are achieved). At 1:40 Gradient 90mm of fall is required on the Flat Roof. Create the Firring from 125mm x 47 C16 Joists sawn to falls diminishing to Min' 50mm thickness. Install an 18mm WBP Plywood Deck over the Firrings to receive Insulation, secondary Deck, and Waterproofing membrane.

50 × 200 mm C16 timber joists at 400 mm centres with maximum permissible span of 3.7 m. Install a central row of Solid Timber Noggins. Side-to-side rooflight trimmers formed from 2 no. 50 × 200 mm C24 timbers bolted together at 500 mm centres using M12 4.6g bolts with sleeves. Front-to-back trimmers formed from 3 no. 50 × 200 mm C24 timbers bolted together at 500 mm centres with M12 4.6g bolts and sleeves. All fixings to comply with BS 5975 for temporary works where applicable. Below the structural Joists a 500 Gauge Vapour Control Membrane (VCL) should be installed. A standard duty ceiling below using 12.5mm BRITISH GYPSUM 'Wallboard' with a 3mm smooth skimmed finish using 'Board Finish' plaster. Should Steelwork be utilised ensure Fire Protection via use of 15mm BRITISH GYPSUM 'Fireline'.

The following construction achieves a U-value of 0.15 W/m²K.

Lateral Restraint
Lateral Restraint straps must be used to provide stability to walls which run parallel to the Joists. Stainless Steel Straps shall be a minimum size of 30mm x 5mm and have a minimum anchorage downturn to 100mm. The length shall be to restrain a minimum of 3 rafters/trusses. This requires an 1200mm strap length where the rafters are installed at 400mm centres or 1800mm to suit 600mm centres. Install timber 'noggins' between the rafters to provide a secure fixing for the strap.

Lintels
Lintels for doors and windows to generally be CATNIC CG or IG Standard duty series insulated lintel with integrated cavity tray. Ensure an end bearing of Min' 150mm to both ends beyond the opening size. Ensure external wall lintels provide integrated cavity tray or install CAVITY TRAYS LTD. preformed cavity tray. Always provide 105mm x 65mm PVC 'beak weep' positioned at min' 450mm horizontal centres over lintel.

PART B - FIRE SAFETY
A fire detection and alarm system is a mandatory requirement to a minimum standard of Grade D2 Category LD3 standard, in accordance with the relevant recommendations of BS 5839-6. The property is considered a 'large dwelling' (AD Part B Volume 1) as the Ground Floor Plan exceeds 200m2. It is optional / good practise to install a Grade A Category LD3 fire detection and alarm system. Grade A will have control and indicating equipment installed to BS 5839: Part 1.

Smoke alarms should be mains operated and conform to BS EN 14604. Heat alarms should be mains operated and conform to BS 5446-2. Smoke and heat alarms should have a standby power supply, such as a battery (rechargeable or non-rechargeable) or capacitor. For more information on power supplies see clause 15 of BS 5839-6. The minimum standard is for detectors within 7.5m of the door to every habitable room, in circulation spaces, this meets the LD3 standard. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be a compatible interlinked heat detector in the kitchen, in addition to smoke alarms required in the circulation spaces. Ceiling mounted fittings to be at least 300mm from any wall/ light fitting.

Any new steel supporting structure to be encased in 1 layer of BRITISH GYPSUM 'Fireline' 15mm plasterboard with all joints and edges/perimeters sealed with Gyproc Intumescent sealant, in conjunction with 'Gyproc GA1 steel angles' where necessary, to provide a Min' 30mins fire resistance. Walls and Ceilings separating rooms will generally provide 30 Min' Fire resistance. In walls this can be achieved by a single layer of skimmed plasterboard to both sides with a stud thickness greater than 63mm. In ceilings this requires a joist depth of 175mm or greater, a 100mm insulation infill and a single layer of regular 12.5mm plasterboard below, skimmed.

Means of Escape
All **habitable rooms** (excluding kitchens) should have either:
- An opening directly onto a hall leading to a final exit.
- An Escape Grade window or door, described below:
To be suitable for **means of escape** windows/doors must have an unobstructed operable area that is at least 0.33 m², with Min' 450mm width or height. The window cill should be 1100mm or less from floor level. Window hinges opening through 90° are required for escape purposes.

PART C - SITE PREPERATIONS
The Contractor must first ascertain the position, size and depth of all the existing drainage, services and utilities within the site prior to the commencement of work.

GENERAL: Excavate topsoil and deleterious material to 150mm below the specified finished level where there will be re-grading or construction work. Break out and seal off drain ends. Remove any contaminated earth if applicable. All excess excavations to be backfilled with a well graded granular material. Under oversite concrete and pavings: use Hardcore / MOT Type 1. Under grassed or soil areas: Use material excavated from site, laid and compacted in 300 mm layers. SURPLUS EXCAVATED MATERIAL: Topsoil: Spread and level on site. Remaining material: Remove from site.
HARDCORE Fill: To be granular material, free from harmful matter and excessive dust or clay, well graded, all pieces less than 75 mm in any direction. Filling: Spread and level both backfilling and general filling in layers not exceeding 150 mm. Thoroughly compact each layer. BLINDING TO HARDCORE: Surfaces to receive sheet overlays (DPM etc.) or concrete: Blind with: Sand, fine gravel, or other approved fine material applied to provide a closed smooth surface. Permissible deviation on surface level: +0 -25mm.
HAZARDOUS, AGGRESSIVE OR UNSTABLE MATERIALS: Do not import or use fill materials which would, either in themselves or in combination with other material or ground water, give rise to a health hazard, damage to building structures or instability in the filling.
WATER: Keep excavations free from water until formations are covered, foundations and below ground constructions are completed, and structures (including basements and retaining walls) are able to resist leakage, water pressure and flotation.
FROST SUSCEPTIBILITY: All fill must be non-frost-susceptible. Frost-susceptible fill may only be used within the external walls of buildings below spaces that will be heated. Protect from frost during construction.

PART C - RESISTANCE TO MOISTURE
Horizontal DPC's to be CAVITY TRAYS LTD. 'Caviroll Premium DPC' provided to all new masonry walls at minimum 150mm above external ground level (unless detailed otherwise elsewhere), two DPC's shall be provided on cavity walls. Where joints occur the DPC is lapped Min' 150mm. Follow manufacturer's recommendations and good practice as BS5628: part 3, BS8000: part 3 and BS8215. Install CAVITY TRAYS 'Perp Weeps' at 450mm intervals along external leaf. The Floor Slab will be installed over a 1200 gauge VISQUEEN DPM interlinked to the DPC.

Ensure all external windows and door openings receive lintels which provide integrated cavity tray or install CAVITY TRAYS LTD. preformed cavity tray. Always provide 105mm x 65mm PVC 'beak weep' positioned at min' 450mm horizontal centres over lintel. Weep vents to be in colour to match mortar. Use Cavity Tray over all steel beams and plates. All windows and doors to receive integrated window cill door cills with overhang and drip detail to take moisture away from the building. All other trims to openings, fascia, verges, to be formed in a way that takes moisture away from the structure.

Where the Roof design creates 'Valleys' these should be weathered with CAVITY TRAYS 'Type VG-T' Glass reinforced polyester, waterproof preformed valleys. Alternatively use Code 5 Lead in accordance with the design and BS 5534. Lead should be supported on gutter boards of a minimum 19mm exterior grade plywood to BS EN 636-3, laid in strips no longer than 1.5m, lapped by a minimum of 150mm, where pitches are above 30°, all in accordance with the Lead Sheet Training Academy 'The complete manual'. Lead Valleys may be either Code 4 (blue) or Code 5 (red) at the discretion of the Client / Contractor, Code 5 will provide greater durability.

PART D - TOXIC SUBSTANCES
No Urea Formaldehyde based insulation within the cavity. Flat Ceilings and Internal walls to receive KNAUF 'Earthwool Loft Roll 44'. The First Floor void shall receive KNAUF 'Acoustic Roll' Both of these products are non-combustible with the best possible Euroclass A1 reaction to fire classification to BS EN 13501-1. ECOTHERM / CELOTEX products shall be used in the Vaulted Roof and Floor. These products are combustible and acheive Euroclass F reaction to fire classification to BS EN 13501-1. In Combustion products will include toxic gases such as carbon dioxide (CO2), carbon monoxide (CO), nitrogen oxides (NOx) and hydrogen cyanide (HCN). However, when used in this application (two storey dwelling) with the prescence of Plasterboard Linings this is considered to meet all relevant national Building Regulations and guidance.

PART E - SOUND
All new timber studwork walls to receive 50mm loosely draped KNAUF Earthwool Acoustic Roll Insulation continuously. Exact thickness TBC depending on Clients choice of Studwork size. Use 75mm Insulation in a 100mm Stud / 50mm Insulation in a 75mm Stud. Note: All Setting Out dimensions assume a 75mm Stud for robust construction, the Minimum permissible size is 63x38mm CLS. All ceiling voids shall provisionally receive Min' 100mm KNAUF 'Acoustic Roll' insulation continuously. If greater noise reduction performance is desired consider the use of ROCKWOLL 'RWA45 Insulation Slabs'.

PART F - VENTILATION
Natural Ventilation
Windows to incorporate trickle vents at the head Min' 5000mm² ventilated opening per habitable room and 8000mm² to wet room, all to be controllable. All windows to habitable rooms to provide a min. 1/20th of the floor area as operable for natural ventilation and 1/10th for natural illumination. If an MVHR system is installed Windows will not require 'Trickle Vents'.

Mechanical Extraction
Mechanical ventilation to be provided in all Kitchen, Utilities, Bathroom and En-Suites. Extract ventilation rates to achieve recommendations in the current approved documents For intermittent extraction provide a minimum of the following:
Kitchen - 30l/s adjacent to a hob or 60l/s elsewhere, Utility - 30l/s, Bathroom - 15l/s, Ensuite - 15l/s, WC - 6l/s

PART G - SANITATION, HOT WATER AND WATER EFFICIENCY
Hot and cold water supplies provided in accordance with Part G where required. All taps and valves are to be fitted with an accessible isolator / service valve. All hot and cold pipework passing through an unheated space is to be insulated. A competent person must provide certification that the hot water system has been properly commissioned on completion of the works. All rooms to be fitted with suitable appliances to meet water efficiency standards.

PART H - DRAINAGE AND WASTE DISPOSAL
Foul Drainage
Above ground foul water to be drained using MARLEY products in 32,40, 50 and 110 mm sizes with falls to comply with the approved documents. Below ground MARLEY 110mm plastic drainage pipework will be installed to falls no less than 1-80 gradient. Foul drainage to be routed to existing Sewers on routes indicated on the floor plans and site plan. Where drainage pipes pass through external walls provide flexible joint min 150mm away from wall/ foundation and form a 600mm long rocker pipe as manufacturers recommendations to allow for possible differential movement. Pipework beyond the building to be laid in class 'S' granular material bed and surround subject to analysis and confirmation of ground conditions/soil types. Generally 110mm diameter drains having less than 450mm cover are all to be encased in 150mm concrete as the manufacturer's recommendations.

Surface Water Drainage
The overall 'effective area' of each section of the Roof is provided in the Proposed Roof Plan. Drawing Reference: 25-01-XX-XX-DR-A-0205. The Roof Plan describes the recommended requirement for each section of roof. Rainwater Goods will be slightly oversized to the following specification:

- 100mm Ø Half Round profile gutters to extension
- 63mm Ø Round Downpipes at position specified on drawings

Surface Water shall be routed to Existing Drainage / New Soakaways if necessary
If a new soakaway is preferred use POLYSTORM 'Soakaway Crate' (6ST) 1000x500x400(depth) subject to a 'Percolation Test' proving that the land has adequate drainage capacity. Install Crates Min' 500mm below external ground level. Wrap Crates in 'Heavy-duty Geotextile Membrane'. Provide 150mm sharp sand / pea gravel fill to surrounds Crates / Membrane for protection.

Inspection Chambers
All inspection chambers to be polypropylene with 225 / 300/ 450mm diameter at inverts specified on Drawing Reference: 25-01-XX-XX-DR-A-0205 (Proposed Floor Plans). Any additional chambers installed within the driveway / vehicle areas to have B125 rating, suitable for 12.5 tonne. Any installed chambers to garden areas to be A15 rating suitable for 1.5ton 15kN sealed to accept paving finish where applicable. Installation in strict accordance with manufacturers technical guidance.

PART K - PROTECTION FROM FALLING
Toughened safety glass shall be installed in all windows below 800mm from FFL. All glazing within doors shall be toughened safety glass as described in requirement K4 of approved document K to BS. 6206:1981. Toughened glass shall also be used in all Guarding's to provide protection from falling where applicable. All Guardings to be Min' 1100mm height, all internal Handrails to be 900mm height.

PART L - CONSERVATION OF FUEL & POWER
The level of proposed glazing must not exceed 25% to comply with Approved Document L1B, Section 4.2. Total new glazing (windows + rooflight) not to exceed 25% of the proposed floor area plus any existing openings removed.

Proposed extension floor area = 18 m².
Permitted glazing area = 25% × 18 m² = 4.5 m² + existing glazing 2.20 m² = 6.7 m² total allowable.
Proposed new glazing = 4.38 m² (vertical) + 3.75 m² (lantern) = 8.13 m², which **exceeds 25%** allowance; compliance to be demonstrated via compensatory measures or SAP calculation in accordance with AD L1B. Alternatively, a smaller lantern roof light of maximum area of 2.3m² will be utilised which will not exceed 25%.

Heating
Heating to be by specialist design. Commissioning of heating system to be carried out in accordance with Approved Document Part L. Certification to be provided on completion.

Roof / Wall / Floor Construction
The overall roof build-up has been designed to achieve a U-value of 0.15 w/m²k.
The overall wall build-up has been designed to achieve a U-value of 0.18 w/m²k.
The overall floor build-up has been designed to achieve a U-value of 0.18 w/m²k.

Glazing (Windows & Doors)
All windows to be thermally broken UPVC / Aluminium framed Double / Triple Glazed units to achieve a minimum U-value of 1.4 w/m²k / Energy Rating of Grade B. All External fenestration to be as shown on the Elevations on Drawing Ref 25-01-XX-XX-DR-A-0402 (Proposed Elevations). To reduce thermal bridges around openings, provide YBS 'Easi-Close XPS Cavity Closer 100-150mm' 150mm cavity closers at all vertical and horizontal windows and door openings. Within window reveals use 25mm PIR insulation to the top / window head to reduce thermal bridges through lintel / steel supports.

Toughened safety glass shall be installed in all windows below 800mm from FFL. All glazing within doors shall be toughened safety glass as described in requirement K4 of approved document K to BS. 6206:1981.

External doors should be manufactured to meet BS PAS 24:2012. External doors should avoid the use of letter plates or be located or designed to hinder access. External windows should be designed to meet BS PAS 24:2012 or either of the following: STS 204 Issue 3:2012, LPS 1175 Issue 7:2010 rating 1 or LPS 2081 Issue 1:2015 rating A.

Controlled Fittings
All new light fittings must be LED or low energy, defined as either Efficiency greater than 45 lamp lumens/circuitW or Delivering at least 400lm. All external lighting must feature low energy lamps or have 'Light and Motion' sensors.

Air Leakage Testing
An air leakage test is not required as this is an Extension project. Nevertheless during construction works observe the following:
- To all dot and dab plasterboarding ensure a continuous ribbon of adhesive is used to edges.
- Allow for sealing around skirting boards, apply mastic behind, seal above and below.
- All contractors and subcontractors to infill any service penetrations.

PART M - ACCESS TO AND USE OF BUILDINGS Vol. 1
Compliance with Part M is considered good practice, however is not statutory. Any entrance door leaf size should provide a Minimum clear opening: 775mm. Internally minimum corridor widths shall be 900mm and minimum clear widths of doors openings shall be 750mm. NOTE. A standard 826 or 838mm door is deemed to achieve the 775mm clear opening width. A WC arrangement is within the existing plan on the ground floor plan. This exceeds 1500mm length and has the minimum width which exceeds 900mm (It is not advised to reduce this). All new switches, sockets and electrical controls to be located between 450-1200mm from finished floor level. If applicable, new Consumer Units to be located with switches 1350-1450mm from finished floor level.

Level Threshold Entrance / Patio Area
To the rear it may also be desirable to create a 'level threshold' detail between doors and a Patio Area. Patio area using a Stone Groundcover to the colour and specification selected by the Client. This will suitably primed to the bottom side and bedded on a 50mm layer wet mix of sharp sand and cement at a 3-1 ratio. The F.F.L / patio shall feature a 'level access threshold' detail. To achieve this an ACO Raindrain Domestic Channel Drain 1m x 118mm x 97mm - A15 shall be installed along the level threshold junction.

PART O - OVERHEATING
Glazing to comply with overheating mitigation requirements in Approved Document O where applicable and Approved Document L & F for all works. Provide solar-control glazing to south/west elevations, adequate purge ventilation (min. 1/20th floor area), and cross-ventilation where possible to limit summer overheating."

PART P - ELECTRICAL SAFETY
All electrical installation by a contractor registered with an approved self-certification scheme authorised by the secretary of state, who shall also be an NICEIC registered subcontractor. All work in strict accordance with the requirements of the 17th edition IEE wiring regulations, BS7671: 2003 (including amendment 2). On completion the installer shall provide to the building owner a certificate of installation in accordance with BS7671:2001. The installations shall also be tested to prove acceptable results in terms of continuity of conductors and insulation, separation of circuits, polarity, earthing and bonding provisions. For all new installations, ensure that they are installed with 30ma rcd protection to all new circuits. Generally electrical installation is to comply with the current IEE regulations and any bye-laws or statutory authorities rules and regulations applicable. Mains operated battery backup type smoke detectors to be installed wired back to separate isolator in the consumer unit.

PART R - INFRASTRUCTURE FOR HIGH SPEED ELECTRONIC COM' NETWORK
Provide CAT 6 Data Cabling extended off existing house network, this must be capable of network speeds up to 30Mbps.

PART S - INFRASTRUCTURE FOR THE CHARGING OF ELECTRIC VEHICLES
Provide 1 No. of Electric Vehicle Charging Point in accordance with S3 Paragraph 2.10. alongside Proposed Garage Building. (No planning conditions were imposed in this regard).

DECORATION

Pipework and boxing
All pipework to be boxed in 50mm x 50mm timber framework with 1 layer 12.5mm plasterboard and skim finish with sound insulation quilt to void. Ensure min 25mm gap around pipework.

Decorative Timber
All new work to include decorative skirting to base of walls and architraves to doors. Size, material and finish to clients discretion. All external joints to be mitred, all internal corners to be butted flush or shaped if required and joints filled. Provide Satin Paint Finish. Supply and fit architrave to all door frames. Minimum size 69 x 18mm. All joints to be mitred at 45 degrees and joints filled. Provide Skirting Boards to base of all walls. Minimum size 120 x 21mm.

Notes

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Only figured dimensions to be refererenced from these drawings, if in doubt please ask for further dimensions. All figures to be checked on site prior to commencement.
This drawing is intended for planning or building regulations use only, NJarchitecturaldesign and the author have not prepared this drawing for construction purposes. It is indicative for specification purposes only. Deviation from this drawing will not be permitted without prior written consent.

The recipient of this drawing shall make themselves aware of any obligations under CDM 2015 (Construction Design and Management).NJ architectural design have considered all foreseeable design risks involved with the architectural elements; however are not the 'Principle Designer' role.

The recipient of this drawing shall make themselves aware of any obligations under the Party Wall Act 1996. The information on this drawing is for indicative purposes and does not overrule any requirement within the act.

All drainage information is indicative and must be confirmed on site prior to commencement.

Target U-Values

Building Element / System	Target U-Value
Openable Areas (Window / Doors)	25% Floor Area
External Walls	0.18 w/m²K
Floors	0.18 w/m²K
Roof	0.15 w/m²K
Windows	1.4 w/m²K
Roof Windows	2.2 w/m²K
Opaque Doors (<30%)	1.4 w/m²K
Semi-Glazed Doors (30-60%)	1.4 w/m²K
Fully-Glazed Doors (60%>)	1.4 w/m²K

Source: Table 4.2, Approved Document L, 2023 Edition

Key to Insulation / Membrane Linetype

Floor Insulation
Thermal / PIR type Insulation. 100mm thick CELOTEX 'GA4000' or equal equivalent with Lambda Value of 0.022 for below 150mm thick Floor Slab. 25mm upstands used to all edges.

Wall Insulation
Thermal / Cavity Slab Insulation to fully fill the Cavity created for External Walls. For New Walls from the Foundation this will be 90mm CELOTEX 'Thermaclass Cavity Wall 21' or equivalent with Lambda Value of 0.021.

Acoustic / Mineral Wool type Insulation. Use 50mm KNAUF 'Earthwool / Acoustic Roll' loosely draped within Internal Stud Walls.

Warm Roof Insulation
Thermal / Flat Roof Insulation over firrings drained to 1:40 falls. Roof to comprise of 150mm thick CELOTEX 'XR4000' or equal equivalent with Lambda Value of 0.022 specifically for 'Warm Roof' Flat Roofing applications suitable to receive an adhered EDPM / Single Ply Membrane over an 18mm WBP Plywood substrate.

Dashed Green line to signify a 'Vapour Control Layer' or 'Separation Layer'. The VCL restricts warm, moist air from inside entering the fabric of the building. Use Polythene 500 Gauge Membrane or similar.

Dashed Blue line to signify a 'Flat Roof Membrane' / 'Damp Proof Membrane' or 'Breathable Membrane' (also a form of waterproofing). Use VISQUEEN 1200 Gauge membrane. For Breather use TYVEK 'Supro' membrane or similar.

Rev	Date	By	Detail

Drawing status
RIBA Stage 4 - Planning

Client
Liam Wildish

Project/Location
Proposed Single-Storey Extension to
S Hall Close
Cheadle
ST10 1GB

Title	Date	Drawn
Proposed Sections & Specificaton	13/08/25	
Drawing Ref	**Scale(s)**	**Revision**
25-01-XX-XX-DR-A-0301	As indicated @A0	