BUILDING REGULATIONS NOTES

PLANNING NOTE
It is recommended that the Agent contact the local planning authority for advice on all matters concerning permitted development.

A loft conversion for your house is considered to be permitted development and not requiring an application for planning permission, subject to the following limits and conditions:
- Materials must be similar in appearance to the existing house.
- Volume of enlargement (including any previous enlargement) must not exceed the original roof space by more than:
 40 cubic metres for terraced houses; or
 50 cubic metres otherwise.
- Must not exceed the height of the existing roof.
- On the principal elevation of the house (where it fronts a highway), must not extend beyond the existing roof slope.
- Must not include:
 verandas, balconies* or raised platforms; or
 installation, alteration or replacement of any chimney, flue, or 'soil and vent pipe'.
- Side-facing windows must be obscure-glazed; and, if opening, to be 1.7 metres above the floor of the room in which they are installed.
- Construction must ensure that:

1. The eaves of the original roof are maintained (or reinstated)
2. Any enlargement is set back, so far as practicable, at least 20cm from the original eaves
3. The roof enlargement does not overhang the outer face of the wall of the original house

With the exceptions that:
Points 1 and 2 do not apply to the relevant parts of any hip-to-gable enlargement
None of these three points apply to the relevant parts of any enlargement that joins the original roof to the roof of a side or rear extension.

(Ref - planningportal.gov.uk)

PARTY WALL ACT
The owner should they need to do so under the requirements of the Party Wall Act 1996 has a duty to serve a Party Structure Notice on any adjoining owner if the building work involves works on or to an existing Party Wall including:
- Support of beam
- Insertion of DPC through wall
- Raising of wall or cutting of projections
- Demolition and rebuilding
- Underpinning
- Insertion of lead flashings
- Excavations within 3 metres of an existing structure where the new foundations will go deeper than adjoining foundations, or within 6 metres of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.

A Party wall agreement is to be in place prior to start of works on site.

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).

MATERIALS AND WORKMANSHIP
All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

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.

BEAMS AND STRUCTURE
Engineer's Structural calculations and details are to be provided for all beams, roof, lintels, joists, bearings, padstones and any other load bearing elements before works commence on site. New steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

DORMER CONSTRUCTION
To achieve minimum U Value of 0.18W/m²K
Weatherboard cladding fixed to 25 x 38mm preservative-treated battens (provide counter battens to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick WBP external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 100mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm ctrs or to s/engineer's details & calculations. Insulation to be 90mm Celotex GA4000 between studs plus 50mm Celotex GA4000 insulated plasterboard with VCL over. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. Walls within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides. Timber cladding to be treated with Fire Retardant Coating for Timber (ESVFR & QVFR) or similar paint system to achieve class 0 and 1 EU SBI/B/s1/d0.

STUD ASHLAR/DWARF WALL
To achieve minimum U Value of 0.18W/m²K
Construct stud wall using 100mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm centres or to structural engineer's details and calculations. Insulation to be 50mm Celotex TB4000 external to structure. Insulation to be 90mm Celotex GA4000 between studs with VCL inside. 12.5mm plasterboard.
Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.

UPGRADING CAVITY PARTY WALL (cold adjoining space)
To achieve min U-value 0.18 W/m²K
The existing walls must be checked for stability and be free from defects as required by the Building Control Officer. Provide a scratch coat render to existing wall. Insulate wall on the warm side using 100mm PIR insulation, e.g. Celotex GA4000 insulation board, fixed to 25 x 50mm battens at 600mm centres to provide a nominal 25mm cavity between the masonry and insulation.
Fix a vapour control layer on the warm side of the insulation. Finish with 12.5 plasterboard and a plaster skim. All work in accordance with BS 8212 (Code of practice for dry lining).

DRY LINING EXISTING CAVITY WALL
To achieve min U-value 0.18W/m²K
The existing external walls must be checked for stability and be free from defects as required by the Building Control Officer. Insulate existing wall on the inside using 100mm Celotex GA4000 insulation board fixed to 25 x 50mm battens at 600mm centres to provide a nominal 25mm cavity between the masonry and insulation (50mm cavity to be provided if required by building control).
Fix a vapour control layer on the warm side of the insulation. Finish with 12.5mm plasterboard with a plaster skim.

UPGRADE OF PITCHED ROOF
(imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²)
Vented roof – pitch 22-45°
To achieve U-value 0.15 W/m²K
Existing roof structure to be assessed by a Structural Engineer and any alterations to be carried out in strict accordance with Structural Engineer's details and calculations, which must be approved by building control before works commence on site. The existing roof condition must be checked and be free from defects, as required by the Building Control Officer, any defective coverings or felt to be replaced in accordance with manufacturer's details.
Roof construction - 47 x 150mm Grade C24 rafters at max 600mm centres alongside existing, max span 3.47m. Insulation to be 100mm Celotex GA4000 between rafters and 50mm under rafters. Fix 12.5mm plasterboard (joints staggered) over VCL. Finish with 3mm skim coat of finishing plaster to the underside of all ceilings.
(Cavity of 25mm provided by fixing battens between plasterboard and under rafter insulation recommended where insulation under rafters exceeds 50mm).
Maintain a 50mm air gap above insulation to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation or provide equivalent high and low level tile vents in accordance with manufacturer's details.

UPGRADE OF EXISTING FLOORS
Ensure first floor achieves modified half-hour fire resistance either by means of fire resistant boards or over paint such as Zeroflame Fire Retardant Paint or similar where sound insulation is not suffecient fire retarder.
New second floor –Joists to be 50mm minimum from chimney breasts. (joist size to structural engineer's details and calculations) Provide min 20mm t and g chipboard or timber board flooring. In areas such as kitchens, utility rooms and bathrooms flooring to be moisture resistant grade in accordance with BS EN 312).
Identification marking must be laid upper most to allow easy identification. To upgrade to half hour fire resistance and provide adequate sound insulation lay minimum 150mm Rockwool insulating material or equivalent on chicken wire between joists and extended to eaves. Chicken wire to be fixed to the joists with nails or staples these should penetrate the joists side to a minimum depth of 20mm, in accordance with BRE-Digest 208 1988. Joists spans over 2.5m to be strutted at mid span use 38 x 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). Provide lateral restraint where joists run parallel to walls. Floors are to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x ¾ depth solid noggins between joists at strap positions.

WARM FLAT ROOF
(imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²)
To achieve U value 0.15 W/m²K
To Structural Engineer's details. Flat roof to be single ply membrane roofing providing aa fire rating for surface spread of flame with a current BBA or WIMLAS Certificate and laid to specialist specification. Single ply membrane to be fixed to 12mm exterior quality plywood over 150mm Celotex XR4000 insulation.
Insulation bonded to 18mm external quality plywood decking or similar approved on sw firings to minimum 1 in 40 fall on sw treated 47 x 195mm C24 flat roof joists at 400mm c/cs max span 4.51m or as Structural Engineer's details and calculations. Underside of joists to have 12.5mm foil backed plasterboard and skim.
Provide restraint to flat roof by fixing of 30 x 5 x 1000mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.

LEAD WORK AND FLASHINGS
All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all jambs and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

INTERNAL STUD PARTITIONS
100mm x 50mm softwood treated timbers studs at 400mm cts with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm c/cs. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

NEW STAIRCASE
Dimensions to be checked and measured on site prior to fabrication of stairs. Timber stairs to comply with BS585 and with Part K of the Building Regulations. Max rise 220mm, min going 220mm. Two risers plus one going should be between 550 and 700mm. Tapered treads to have going in centre of tread at least the same as the going on the straight. Min 50mm going of tapered treads measured at narrow end. Pitch not to exceed 42 degrees. The width and length of every landing should be at least as great as the smallest width of the flight. Doors which swing across a landing at the bottom of a flight should leave a clear space of at least 400mm across the full width of the flight. Min 2.0m headroom measured vertically above pitch line of stairs and landings. However, if there is not enough space to achieve this height the headroom will be satisfactory if the height measured at the centre of the stair width is l.9 m reducing to 1.8m at one side of the stair. Handrail on staircase to be 900mm above the pitchline, handrail to be at least one side if stairs are less than 1m wide and on both sides if they are wider. Ensure a clear width between handrails of minimum 600mm. Balustrading designed to be unclimbable and should contain no space through which a 100mm sphere could pass. Allow for all structure as designed by a Structural Engineer.

ELECTRICAL WORKS
All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to the Council.

INTERNAL LIGHTING
Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations.

HEATING
Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities by laws, Gas safety requirements and IEEE regulations.

MEANS OF ESCAPE - 2 exits at ground floor
The first and second storeys should be served by a protected stairway, the structure forming this enclosure must have 30 minute fire resistance including floors and ceilings above and below rooms. The doors must be FD20 rated fire doors to BS 476-22:1987 (fitted with intumescent strips rebated around sides & top of door or frame if required by BCO). The enclosure should lead to at least two alternative escape routes at ground level, which should be separated from each other by fire-resisting construction and fire doors. Where applicable, any glazing in walls or doors enclosing the protected stairs is to have 30 minutes fire resistance. (no inner rooms allowed)

SMOKE DETECTION
Mains operated linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D category LD3 standard to be mains powered with battery back up to be placed on each storey with an additional interlinked heat detector at ceiling level in kitchens if required by BCO. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ storeys and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

ROOF LIGHTS
Min U-value of 1.6 W/m²K.
Roof-lights to be double glazed with16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturer's instructions with rafters doubled up to sides and suitable flashings etc.

SAFETY GLAZING
All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

NEW AND REPLACEMENT WINDOWS
New and replacement windows to be double glazed with 16-20mm argon gap and soft coat low-E glass. Window Energy Rating to be Band B or better and to achieve U-value of 1.4 W/m²K. The door and window openings should be limited to 25% of the loft room floor area. Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals.
Windows and door frames to be taped to surrounding openings using air sealing tape.

BACKGROUND VENTILATION
Controllable background ventilation at least 1700mm above floor level to be provided to new habitable rooms and kitchens at a rate of min 8,000mm², and to bathrooms at a rate of min 4000mm.
Background ventilators to be tested to BS EN 13141-1
Background ventilator equivalent area and operation to be measured and recorded.

PURGE VENTILATION
Minimum total area of opening in accordance with Table 1.4 Approved Document F1.
Hinged or pivot windows with an opening angle of 15 to 30 degrees to have an openable area in excess 1/10 of the floor area of the room.
External doors and sash, hinged or pivot windows with an opening angle of equal to or greater than 30 degrees to have an openable area in excess of 1/20 of the floor area of the room.
Purge ventilation should be capable of extracting at least 4 air changes per hour per room directly to the outside.
Internal doors should be provided with a 10mm gap below the door to aid air circulation.

PITCHED ROOF VENTILATION
Maintain a 50mm air gap above insulation in the roof pitch to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation.

FLAT ROOF VENTILATION
Cross ventilation to be provided on opposing sides by a proprietary eaves ventilation strip equivalent to 25mm continuous with fly proof screen. Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a continuous 50mm air gap above the insulation for ventilation.

RAINWATER DRAINAGE
New rainwater goods to be new 110mm upvc half round gutters taken to and connected into 68mm dia upvc downpipes

Revision		Date	Initial
P2	Updated to BCO comments	03/05/23	PM
P1	BUILDING REGS ISSUE	25/04/23	PM

BIM Enabled Practice

This project was delivered using **Autodesk Revit©**

All dimensions are to be checked on site and any discrepancies reported to the architect before work commences. Figured dimensions only are to be taken from this drawing. This drawing is to be read in conjunction with all relevant consultants and/or specialists drawings/documents and any discrepancies or variations notified to the architect before work commences. This drawing is copyright and may not be reproduced, wholly or in part, without the consent of the architect.

Loft Conversion

3 The Heathers
SO50 5JZ

Mr and Mrs Mavrodaris
Building Regs Notes

BUILDING REGULATIONS

Scale @ A1	Drawn	Checked	Date
	PM	CM	25/04/23

Job Number & Drawing Number	Revision
114 - BR04	P2