Refer to Building Regulation Drawings for Full Specifications - Please Note: We Recommend All Drainage is Surveyed

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A1

0m 1m 2m 3m 4m 5m

VISUAL SCALE 1:50 @ A1

0m 2m 4m 6m 8m 10m

VISUAL SCALE 1:100 @ A1

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 extension floor area plus the area of any existing openings covered by the extension.
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.
Windows to be fitted with trickle vents to provide adequate background ventilation in accordance with Approved Document F.

NEW AND REPLACEMENT DOORS
New and replacement doors to achieve a U-Value of 1.4W/m²K. Glazed areas to be double glazed with 16-20mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) of the current Building Regulations.
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.

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 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.

ESCAPE WINDOWS
Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms.
Windows to have an unobstructed openable area that complies with:
- minimum height of 450mm and minimum width of 450mm.
- minimum area 0.33m².
- the bottom of the openable area should be not more than 1100mm above the floor.
The window should enable the person to reach a place free from danger from fire.

TRUSSED RAFTER ROOF
To achieve U-value 0.15 W/m²K
Pitched roof to be formed using proprietary prefabricated manufactured trusses. Design of roof trusses to be produced by specialist truss manufacturer to BS EN 1995-1-1:2004 Eurocode 5: Design of timber structures and submitted to Building Control for approval prior to commencement of work. Trusses to be placed at max 400ctrs in accordance with BS 8103-3:2009 and BS EN 1995-1 on suitable wall plates fixed using proprietary galvanised steel truss clips. All strapping, fixing and bracing to be in accordance with manufacturer's instructions. Mechanically fix trusses to 100 x 50mm sw treated wall plates using galvanized steel truss clips.
Form ceiling using 12.5mm plasterboard and min 3mm thistle multi-finish plaster. Insulation at ceiling level to be two layers of Rockwool insulation to total 300mm laid between over joists (cross direction). Provide polythene vapour barrier between insulation and plasterboard.
Where required provide opening at eaves level at least equal to continuous strip 25mm wide on two opposite sides to promote cross-ventilation and provide mono pitched roofs with ridge/high level ventilation equivalent to a 5mm gap via proprietary tile vents spaced in accordance with manufacturer 's details.
Loft hatches should be suitable designed and installed to ensure optimum air tightness.

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 and to be mains powered with battery back up. 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.

FULL FILL CAVITY WALL
To achieve minimum U Value of 0.18 W/m²K (actual U Value achieved 0.15 W/m²K)
New cavity wall to comprise of 103mm suitable facing brick. Full fill the cavity with 115mm Celotex Thermaclass Cavity Wall 21 as manufacturer's details. Inner leaf constructed using 100mm lightweight block, 0.15 W/m²K, e.g. Celcon solar, Thermalite turbo. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1:6 cement mortar.
Vertical joints in the board must be staggered and all joints tightly butted.
All details including corner and junction to be as relevant BBA certificate.
Location to be assessed for suitability of insulation boards.
10mm cavity to be provided if required.

SOLID FLOOR INSULATION OVER SLAB
To meet min U value required of 0.18 W/m²K
P/A ratio 0.5
Solid ground floor to consist of 150mm consolidated well-rammed hardcore, Blinded with 50mm sand blinding. Provide 100mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2 over a 1200 gauge polythene DPM. DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min 90mm thick Celotex GA4000. 25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed. Finish with 65mm sand/cement finishing screed with light mesh reinforcement.
Where drain runs pass under new floor, provide A142 mesh 1.0m wide and min 50mm concrete cover over length of drain.
Where existing suspended timber floor air bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia UPVC pipes with 100mm concrete cover laid under the extension. Pipes to terminate at new 65mm x 215mm air bricks with cavity tray over.

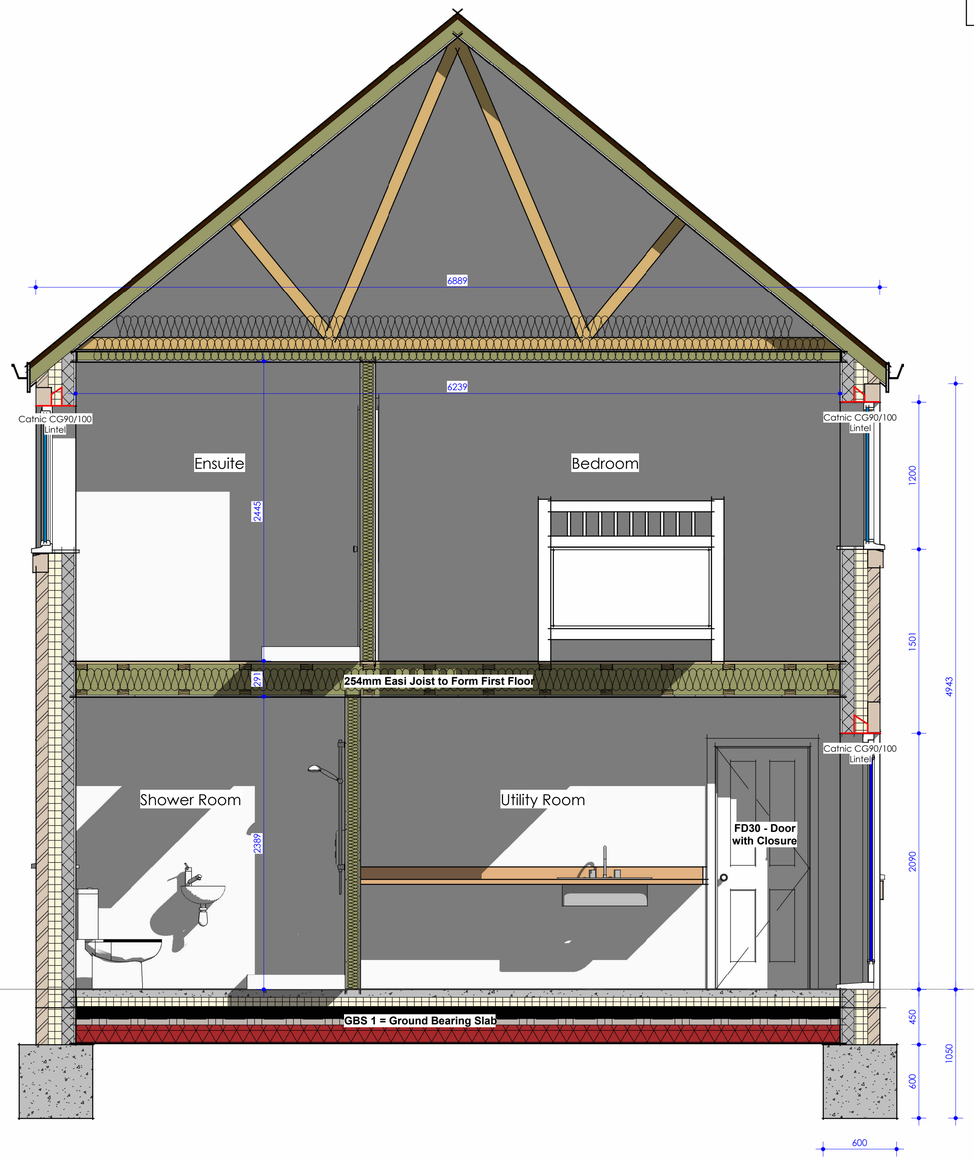
TRENCH FOUNDATION
Provide 600mm x 600mm trench fill foundations, concrete mix to conform to BS EN 206 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2010 Building Regulations A1/2 and BS 8004 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. 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 of a structural engineer should be sought.

WALLS BELOW GROUND
All new walls below ground to be constructed using blockwork compliant with BS EN 771 and suitable for below ground level or semi engineering brickwork. Walls to be built using 1:4 masonry mortar mix or equal approved specification to BS EN 1996-1-1. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes.

PIPES PASSING THROUGH TRENCH FOUNDATIONS
The load-bearing capability of foundations must not be affected where services pass through.
The pipe work should be sleeved and be provided with 'rocker pipes' at a distance of 150mm either side of the foundation concrete. The 'rocker pipes' should have flexible joints and be a maximum length of 600mm.
Alternatively
Pipework should pass through a suitably strengthened opening in the foundation, i.e. foundation shuttered and a provided with suitable lintel over the pipe allowing for sufficient space for movement to ensure that the drain is capable of maintaining line and gradient. Opening should be masked with granular backfill (pea shingle) around pipe.
DPC to be provided as required by BCO.
Advice from Building Control to be sought on suitability of pipe running through foundation before construction.

PIPES PASSING THROUGH WALLS
Walls above pipes passing through substructure walls to be supported on suitable lintel on semi-engineering bricks. Pipe to be provided with a 50mm clearance all round, opening to be masked with granular backfill (pea shingle) around pipe. DPC to be provided as required by BCO.
Alternatively
Where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a maximum length of 600mm.

STEPPED FOUNDATION (trench)
Stepped foundations should overlap by twice the height of the step, or 1m whichever is the greater. The height of the step should not be greater than the thickness of the foundation.



1 Sectional View
1 : 25

Single Power Socket
Double Power Socket
Cooker Point
Unswitched Fused Spur
External Power Socket
Telephone Point
Cat 6 Data Point
Extract Vent
Fire Alarm Panel
Shaver Socket
Speaker Point
TV Aerial Point
Floor Box
Floor Socket
Passive Extract
Mechanical Extract
Distribution Board
Smoke Detector
Heat Detector
Carbon Monoxide Detector
Extract fan
Underfloor heating control

Wall Structure Key:

- Cavity Wall: Render
- Cavity Wall: Face Brick
- Block Work: 100mm
- Studwork Wall: 75mm
- Metal Frame: 70mm
- Solid Brick Wall: 215mm
- Solid Block Wall: 215mm
- Structural Opening
- Walls Removed

Please note:
All drawings are for the purposes of planning only unless marked for construction.

All builders to site measure to confirm measurements.

Report all discrepancies to the person named below, do not proceed without instruction.

BRO take no responsibility should any drawing/s unless specified are used for building purposes and measurements aren't checked on site.

All drawings remain the property of BRO Architecture

Drainage Key

S	Storm Drainage
MH	Manhole
FD	Foul Drainage
SVP	Soil Vent Pipe
GP	Gulley Pot
RWP	Rainwater Pipe
AD	ACO Drain

Ducting Colour & Use

Red	Electric cable
Yellow	Gas Pipe
Blue	Water pipes
Green	Data/Comms
Grey	BT
Purple	Security - Cameras
Orange	Garden Lighting non Security

DRAWING NUMBER
B1-0

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PROJECT NAME
Proposed Two Storey Side Extension

DRAWING NAME
Proposed Sectional View

DATE
18th Nov 23

REV

DRAWN BY
SH

SCALE (@ A1)
1 : 25

CHECKED BY
Client

PROJECT NUMBER
SH/BRO/171123-RC