THISTLE HOUSE, WOODSIDE ROAD
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SPECIFICATION NOTES

Contract Number	41447
Specification Revision	0
Description of Work	Proposed Kitchen Extension
Client	Mr & Mrs Beattie
Address	10 Deemount Avenue, Aberdeen AB11 7UF

215MM CONCRETE BLOCK EXTERNAL WALL – KINGSPAN INSULATION BRIDGED

External walls to comprise of 20mm roughcast to match existing on 215mm dense concrete blockwork, 25mm air space, 50x95mm treated framing at 600mm centres with 90mm Kingspan TW55 (or equal & approved) polyurethane infill, 40mm Kingspan TW55 (or equal & approved) continuous insulation polyurethane infill layer, 45x45mm treated framing to create service void and 12.5mm duplex plasterboard with vapour control layer backing, 100x12mm wp skirting to match existing. Blockwork to be 7.3 N/mm^2 strength and 1500 kg/m^3 density built in 1:4 cement mortar below DPC and 1:6 above DPC. New walls to be tied to existing walls with 2No. vertical rows of BAT Expamet (or equal & approved) stainless steel Multi-Starters, type MSSS (fixed to wall per manufacturer's instructions in MSSFIX pack), with "turn n slide" ties at 330mm maximum vertical centres. End frames to be fixed to existing walls with Hilti (or equal & approved) HRD-U 8 frame anchors, with a minimum embedment into existing wall of 60mm, at 300mm vertical centres. *[0.17 W/m^2K U-Value]*

FOUNDATIONS

Concrete foundations to be cast in RC 28/35 grade concrete and reinforced with 1No. layer of A393 mesh, bottom, 50mm min. cover to a minimum depth of 200mm, with 200mm minimum scarcements. Foundations to be taken down to firm natural bearing ground with a minimum cover of 450mm, from finished ground level to top of foundation, or to the invert level of any adjacent drainage whichever is the lower. All vegetable matter to be removed from the footprint of the proposals. Whilst the highlighted areas are indications of services below ground there may be others out with, therefore all excavations should incorporate extreme care and diligence.

SITE WORKS

Any neighbouring footpaths to be regularly cleaned and kept free of building debris and related materials. Any unfinished or partially complete works to be kept safe and secure. All in accordance with Regulations 14 & 15.

DRAINAGE

Key terrain or equal PVC soil and waste system with both 140 & 141 holderbats at specified distances both vertically and horizontally. All drainage and sanitary pipework to be tested in accordance with BS EN 12056-2:2000. All new gutters and rainwater pipes to be constructed and installed in accordance with the recommendations described in BS EN 12056-3: 2000. All new manholes to BS EN 12056-1:2000. PVC drainage to be surrounded with 5-10mm pea gravel and laid as per manufacturers printed instructions. Pipes to be lintelled over when passing through walls. Any existing drains to be suitably protected, re-routed, or re-constructed.

CONCRETE FLOOR

Floor to comprise 100mm concrete slab, cast in grade RC 28/35 concrete and reinforced with 1No. Layer of A142 mesh mid depth of slab, on 125mm Kingspan TF70 (or equal & approved) floor insulation on 1200g polythene DPM on blinded and consolidated upfill. Floor DPM to be turned up walls and lapped with wall DPC. Wall DPC to be 150mm minimum above finished ground level. All joints in the DPM & DPC to be suitably sealed to prevent excessive radon gas from entering the extension – all in accordance with part 3.2.1 & 3.2.2 of the Building Standards. Any existing sub floor ventilators covered by works to be re-routed to external air/ new 215x150mm / 215x75mm sub floor vents to be provided where shown. Insulation must be installed between the sub floor vent and the concrete floor to prevent thermal bridging. 25mm thick Kingspan TF70 (or equal & approved) insulation to be fitted around perimeter of concrete floor. *[0.14 W/m²K U-Value]*

'JOINER MADE' TILED ROOF

New tiled roof, colour and profile to match existing property. 50x25mm treated tile battens on 25x15mm treated counter battens, on 1No. layer breather roof membrane BBA Cert No. 96/3320 (or equal & approved) on 22mm thk. w/w sarking board (unless specified otherwise) on "joiner made" timber roof trusses of 47x195mm C16 grade treated timber rafters and 47x150mm C16 grade treated timber raised ties at 600mm centres. Rafter/tie connections to be with a minimum of 2No. M12mm dia. Grade 4.6 bolts through timbers. Rafters to be fixed to treated timber wallplate / headbinder / eaves ring beam / lintel with Simpson Strong-Tie TCP truss clips, type TCP50, fully nailed (unless otherwise stated). Treated timber wallplates to be tied to block walls with 30x2.5mm BAT straps 1000mm (min.) long at 1200mm maximum centres. Eaves ring beam / lintel to be 2No. 47x200mm C16 grade treated timber joists, spiked together, supported on single / double 63/47x125mm C16 grade treated timber corner / end / intermediate posts. Insulation to be carried down behind ring beam to prevent thermal bridging. All doubled up members to be spiked together using M4mm dia. galvanised nails x 90mm long at 300mm maximum staggered centres. All structural timber to be grade C16 (unless otherwise stated).

SLOPED CEILING – KINGSPAN INSULATION

Insulation to the sloping area of ceiling to be 180mm Kingspan Thermapitch TP10 (or equal & approved) polyurethane with a 15mm airspace minimum being maintained between the top of the insulation and the underside of the sarking. Rafter at slope to be framed out internally with treated 40mm Kingspan TW55 (or equal & approved) continuous insulation polyurethane infill layer, 45x45mm treated framing at 400mm centres to create service void and 12.5mm duplex plasterboard with vapour control layer backing to internal face. *[0.12 W/m²K U-Value]*

FLAT LEVEL CEILING

Insulation to flat level section of ceiling to be 200mm glasswool between rafters with 200mm glasswool laid at right angles to rafters and 12.5mm duplex plasterboard with vapour control layer backing to internal face. *[0.11 W/m²K U-Value]*

RUBISLAW RANGE WINDOWS & DOORS

Window & Door units to be External white / Internal white uPVC Optiwhite argon gas filled double glazed with 'KS' inner pane coating with warm air edge spacer (1.30 W/m²K U-value/1.40 W/m²K U-value). Bottom rail to be fixed to wallhead with M6mm dia. x 130mm long Lightning Bolts (by Forgefix Ltd) at 400mm centres. Top and sides rails to be fixed to timber eaves beam / lintel and support posts with 4.5mm dia. (9 gauge) x 100mm min. long woodscrews at 400mm centres. Trickle vents to be fitted to opening sashes as shown to achieve 12000mm^2. Opening parts as per shown on drawing. Glass in doors and any adjacent windows to be toughened on inside pane; laminated on outer, designed to resist human impact and where all, or part, of a pane is: within 800mm of floor level; or part of a door leaf; or within 300mm of a door leaf and within 1.5m of floor level to be toughened on inside pane as set in BS 6262 Part 4: 2005. Low threshold door(s) to be fitted on ramps and / or at low level access. 25mm Kingspan insulation to be fitted at jamb, head and cills to prevent thermal bridging.

WINDOWS & DOORS SECURITY

4.13.1 to 4.13.4 Windows and doors meet recommendations for physical security in Section 2 of 'Secured by Design' (ACPO, 2009) for 4.13.2, OR PAS 24: 2007 (doors)/ BS7950: 1997 (windows) for 4.13.3.

4.13.4 Windows and doors to be installed in accordance with the general recommendation in BS 7412: 2007:, openable windows to be fitted with a removable key locking system, together with a glazing with incorporating toughened glass or similar robust glazing material, hinges fitted to an outward opening doors to be of a type that does not permit the hinge pin to be removed unless the door is open, use multipoint locking system to BS EN 1303: 2005, secondary leaf of French door to be secured at head and foot to allow primary leaf to be securely locked.

4.13.5Windows and doors to be installed in accordance with BS8213-4: 2007 or manufacturers written instructions where these meet or exceed the Recommendations of the British Standard.

LOADBEARING FRAMING – TO FACE OF EXISTING "HOST" WALL

47x100mm C16 grade timber studs at 600mm centres with double bottom & top rails and 1No. row of dwangs at mid height of studs. 12.5mm duplex plasterboard with vapour control layer backing, 100x12mm wp skirting to match existing.

LEAD WORK
Lead flashing (Code 4) to be raggled & sealed (chased).

SMOKE & HEAT DETECTORS
Optical smoke detector to be hardwired and to have 'integral standby' (battery powered backup, sufficient to power alarms in dormant mode for at least 72 hours whilst giving audible/visual warning of power supply failure) and interlinked on a separate circuit to BS EN 14604:2005; all to comply with part 2.11.9 of the current edition of the Domestic Scottish Technical Standards and in accordance with BS 5839: Part 6: 2019. Smoke detectors to be mains wired and interconnected with existing house detectors where practical. Radio linked interconnection between hard wired smoke alarms and/or heat alarms may be used for a Grade D system.

Smoke alarms should be located in circulation spaces:

- not more than 7 m from the door to a living room or kitchen
- not more than 3 m from every bedroom door, and
- in circulation spaces more than 7.5 m long, no point within the circulation space should be more than 7.5 m from the nearest smoke alarm.

Smoke alarms located in an access room (which could include a stair and landing), serving an inner room should not be more than 3 m from the door of the inner room. A smoke alarm in the principal habitable room should be sited such that no point in the room is more than 7.5 m from the nearest smoke alarm and in the case of a heat alarm, no point in the kitchen should be more than 5.3 m from the nearest heat detector. All dimensions should be measured horizontally.

Heat alarms to be installed in accordance with BS 5839: Part 6: 2019 and BS 5446: Part 2: 2003 to have fixed-temperature elements and operate on the principle of responding to the temperature of the fire gases in the immediate vicinity of the heat alarm.

<u>CONTRACTOR TO ENSURE THE FOLLOWING:</u>

- at least 1 smoke alarm installed in the principal habitable room
- at least 1 smoke alarm in every circulation space on each storey such as hallways and landings
- at least 1 smoke alarm in every access room serving an inner room
- at least 1 heat alarm installed in every kitchen.
- at least 1 CO detector where the boiler is located with habitable accommodation

CARBON MONOXIDE DETECTOR
Carbon monoxide detectors should comply with BS EN 50291-1:2010 and be powered by a battery designed to operate for the working life of the detector. The detector should incorporate a warning device to alert the users when its working life is due to expire. Hard wired mains operated carbon monoxide detectors complying with BS EN 50291-1:2010

A carbon monoxide detection system to alert occupants to the presence of carbon monoxide should consist of at least:

- 1No. carbon monoxide detector in every space containing a fixed combustion appliance (excluding an appliance used solely for cooking), and
- 1No.carbon monoxide detector to provide early warning to high risk accommodation, that is, a bedroom or principal habitable room, where a flue passes through these rooms.

Unless otherwise indicated by the manufacturer, carbon monoxide detectors should be either:

- ceiling mounted and positioned at least 300 mm from any wall, or
- wall mounted and positioned at least 150 mm below the ceiling and higher than any door or window in the room.

Carbon monoxide detectors in the space containing the combustion appliance should be sited between 1m and 3m from the appliance.

KITCHEN FAN
150mm Xpelair (or equal & approved) extract fan on separate switch to achieve minimum of 60 l/s extraction rate. Fan ducted to external air at soffit.

EXTERNAL STEPS
External steps to have 170 maximum rise and 250mm minimum going. Aggregate of 2x rise plus going to be 550mm minimum, 700mm maximum. Handrail to be fitted if FFL to ground level exceeds 600mm.

HEATING & ELECTRICAL

Positions of Electrical & Heating items are shown on plan indicatively for the purpose of Building Warrant approval. Final locations to be confirmed onsite with client prior to installation; and to comply with Part 4.6.4 & Part 4.8.5 of the recent edition of the Domestic Scottish Technical Standards.

All new hot water and heating pipework to be insulated (where reasonably practical) and to comply with BS 5422: 2023. New Radiator(s) to be fitted with Thermostatic Radiator Valve (TRV) and all new pipework insulated with rigid foam insulation. Insulation thickness to pipes should be calculated in accordance with BS EN ISO 12241.

Double Sockets	1No. Required (Kitchen Sockets BY OTHERS)
Light Switch	1No. Required
Ceiling Pendant Light	2No. Required
Extract Fan	1No. Required
Smoke Detectors	1No. Required
New Radiators	1No. Required

All electrical work to be carried out in strict accordance with the latest I.E.E regulations and to comply with the 18TH edition of the BS 7671: 2018 'The Requirements for Electrical Installations'.

Outlets and controls of electrical fixtures and systems should be positioned at least 350mm from any internal corner, projecting wall or similar obstruction and, unless the need for a higher location can be demonstrated, not more than 1.2m above floor level. This would include fixtures such as sockets, switches, fire alarm call points and timer controls or programmers. Within this height range:

- Light switches should be positioned at a height of between 900mm and 1100mm above floor level.
- Standard switched or unswitched socket outlets and outlets for other services such as telephone or television should be positioned at least 400mm above floor level. Above an obstruction, such as a worktop, fixtures should be at least 150mm above the projecting surface.

Where socket outlets are concealed, separate switching should be provided in an accessible position, to allow appliances to be isolated.

An openable window and roof light, to have controls for opening, positioned at least 350mm from any corner, projection wall or any obstruction with a height of;

- No more than 1700mm above floor level where access to controls is unobstructed,
- No more than 1500mm above floor where access control is limited by a fixed obstruction, no more than 900mm High, 600mm max projection.
- No more than 1200mm above floor level, in unobstructed location, within an enhanced apartment or within accessible sanitary accommodation.

LIGHTING

All fixed light fittings and lamps installed in a *dwelling* should be low energy type and designed to achieve appropriate lighting levels to the activity in the space. Light fittings to be either:

- Dedicated fitting which will have separate control gear and will take only low energy lamps (e.g., Pin based fluorescent or compact fluorescent lamps); or
- Standard fitting supplied with low energy lamps with integrated control gear (e.g., bayonet or Edison screw base compact fluorescent lamps)

Fixed internal lighting:

- All internal light fittings to have a minimum luminous efficacy of 75 lamp lumens per circuit watt
- Local controls for separate control of each space or zone. Controls may be automatic, manual or a combination of both

Fixed external lighting:

Where fixed external lighting is installed, light fittings to be provided with the following characteristics:

- Automatic controls to switch off the luminaires in response to daylight
- If the lamp efficacy is 75 lamp lumens per circuit watt or less, external light fittings should have automatic controls which switch luminaires off in response to occupancy, otherwise manual control is acceptable.