

ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN TEAM OF ANY DISCREPANCY BETWEEN DRAWINGS, SPECIFICATION AND SITE DIMENSIONS. DO NOT SCALE FROM THIS DRAWING.

INTRODUCTION

Prepared to comply with the current building regulations. This specification is to be read in conjunction with Architects drawings and details, Mechanical & Electrical specification, Structural Engineers specification, calculations and details for foundations and all other structural elements, and all relevant specialist suppliers details and calculations, all materials and workmanship to be as defined in the approved document to regulation 7 of the building regulations and carried out in a proper workmanlike manner in accordance with current good practice and British Standards.

All insulants (including cylinder) to be ODP, HCFC & CFC free and low global warming potential.

EXISTING WALL

Existing cavity fill to be investigated and topped up if required

EXTERNAL WALL TIMBER FRAME

To comply with requirements of Approved Documents A, C and L1B

For details of Wall Panel Construction, refer to Indesign drawing no. 18-1530-508, latest revision.

50mm cavity between ECO100 and external face of existing building to be full-filled with 50mm insulation, rock / mineral wool nominal density 45 kg/m³, prior to installation of ECO100 main frame panel.

ECO100 main frame panel to consist of (nominal finished size) 95mm x 45mm treated (class 2) timbers with void fully filled with a layer of 100mm - rock / mineral wool nominal density 45kg/m³ (or as specified for project) by Factory. Inner face of timber main frame to be applied with breather membrane over. Externally frame is to receive 9mm OSB covered with a breather membrane.

Tenmat VFB (Ventilated Fire Barrier on a Roll) 'open-state' cavity barrier system for cavities up to 50mm, located within ventilated batten void to external wall cladding. Refer to section details and Indesign dwg nos. 18-1530-515 and 516, latest revision.

EXTERNAL FINISH

Hardie plank horizontal cementitious cladding (Class '0') fixed to 38x50mm vertical treated SW battens. Battens to be fixed to 9mm OSB sheathing (or 9mm Class '0' Versaliner board, if specified) through into main frame vertical studs.

STRUCTURAL

All structural design to Structural Engineer's details, specification and approval. Structural details built into external wall timber frame in accordance with Timber frame suppliers requirements.

INTERNAL FINISHES

The surface linings of walls and ceilings to be in compliance with 'Section 4: Wall and Ceiling linings' of Approved Document B1.
'Surface flame spread' classification of surface linings to be in compliance with Requirement B2: Internal fire spread (linings) of AD Part B1.

Decoration to be included, but extends to touching up and making good localised areas of existing decoration which have been disturbed as a consequence of carrying out the works relating to this contract.

All finishes to match existing, and to be Approved by Client, prior to any works being carried out.

Wall Finishes:

All internal walls where necessary due to works carried out, unless indicated otherwise shall be plastered/dry lined and skimmed and fully sealed and then painted with 1 x mist coat and 2 x coats of matt emulsion paint.

Ceilings Finishes:

Internal ceilings works, where necessary (following prior approval of Client) to include installation of plaster boarding to u/s joists and redecorating works (in bathrooms, allowing for 12.5mm foil backed plasterboard or continuous vapour control layer to match existing installation).

New and existing ceiling to line through flush, redecorated / painted (with 2/3mm skim coat) to match existing.

STEELWORK

Where fire protection of existing structural steelwork is necessary and works have not already been carried out, or new steelwork is being installed; this will be achieved by fully encasing the beam with proprietary fire resistant insulation, or using intumescent paint to provide 1 hour FR unless agreed / confirmed otherwise by Building Control. Refer to drawings for further details.

Glulam beams to provide fire resistance to allow for 1 hour charring.

All fire resistant works / applications to steelwork to be carried out in accordance with the manufacturers recommendations.

ROOF

To comply with requirements of Approved Documents A, C, F, B1 and L1B.

New flat roof to achieve U value in accordance with SAP calculations.

Specialist roofing contractor to install new ply decking, VCL, insulation, and re-roofing works over including waterproof membrane system, underlayer, and capping sheet, all to specialist details. Roof membrane flashing to be dressed up min. 150mm up parapet and wrapped over wall panel to manufacturers details.

Roof specialist to replace 4no. existing roof lights with new to match existing, ensuring new roof lights meet Building Regulation requirements, and allow the roof to achieve the overall average U-Value requirement in accordance with SAP calculations. Roof lights to be triple skin polycarbonate to meet BR compliance, with 150mm upstand (raised kerb) to specialist details. Specialist roofing contractor to undertake works as necessary to seal / waterproof around the new roof lights.

Proposed flat roof to be able to accommodate Photo Voltaic Panels (as per SAP Assessor's recommendations)

Fire Compartmentation at Junction of Compartment Wall with Roof to provide 1 hour FR in compliance with the requirements of Building Control.

Roof detail to be in compliance with Approved Document B1, Diagram 5.2b 'Junction of compartment wall with roof' and provide compliance with Party Wall Detail, where deck is combustible and roof system achieves Broof T4 in accordance with Building Regulations.

Refer to drawings for further details.

LIMITING AIR LEAKAGE

Insulation to be added to all areas / service voids where works are to be carried out to prevent cold bridging, and maintaining continuity of insulation by overlapping with existing insulation.

Further cold bridging prevented by installing insulation to specific areas in accordance with SAP assessors recommendations

Gaps sealed between dry lining and at all edges where works have been disturbed or to be carried out, including wall, floor / ceiling junctions. All boxing for concealed services is to be sealed at floor and ceiling levels and all pipe services are to be sealed where they penetrate into hollow or void areas.

MECHANICAL AND ELECTRICAL SERVICES

Mechanical and Electrical Services and Specification, all to approved design, details and specification of specialist sub-contractor.

All existing M&E services (e.g. ventilation, heating, lighting etc.) to be adapted as necessary where required, to accommodate works relating to this contract and in compliance with Building Control requirements. Refer to appointed M&E specialist subcontractor for design and details.

VENTILATION

To comply with Approved Documents F and L1B.

Bathrooms and Kitchens - an appropriate mechanical extract ventilation system with humidifier sensors to be provided, designed and detailed by the specialist supplier all in accordance with the regulations.

Mechanical ventilation to extract thru external walls. Extracts to be co-ordinated with Factory panels, and installed and sized to suit horizontal cladding by Specialist M&E Contractor

Specialist M&E consultant to confirm MEV system provides adequate background ventilation in accordance with Part F, fan motor efficiency in accordance with Part L of the Building Regulations. Maximum noise level of any continuous system not to exceed 35db in compliance with Part F of the Building Regulations.

Air Changes per Hour (ACH) in accordance with Approved Doc Part F.

M&E services, to be adapted as necessary where required, to accommodate existing floor plan layouts and proposed works in compliance with requirements of Building Control. Refer to appointed M&E specialist subcontractor for design and details.

GAS INSTALLATION

New gas boilers to be installed - Potterton Assure or similar

All gas supplies to be installed in accordance with BS 1387 / BS EN 10216-2:2013 for steel pipework; and BS 2871 Part 1 / BS EN 12449:2016 for copper pipework. All pipework ducting to be ventilated. Gas appliances to have adequate venting. Stainless steel or non-ferrous boiler flues to BS EN 1856-1:2003.

For gas installation, refer to M&E details and specifications. Installation in accordance with Building Regulations and Gas Safe Regulations.

HEATING/HOT WATER INSTALLATION

To comply with Approved Documents G, J and L, and SAP calculations

Heating controls to allow for Programmer, Room thermostats and TRV's. Thermostat to include delayed start feature.

For heating/hot water installation, refer to M&E details and specifications. Installation in accordance with Gas Safe Regulations.

WATER SYSTEM

To comply with requirements of Approved Document G.

All hot and cold water to be fed through plastic plumbing system. All fittings, valves and controls to be provided to effect satisfactory completion and performance of the installation. Pipes shall be sized to provide sufficient capacity and flow for appliance(s) served.

ELECTRICAL INSTALLATION

To comply with requirements of Approved Documents P.

Installation to be designed, effected and certified by a person competent to do so as defined within Part P of the Building Regulations; all to comply with BS 7671. An approved test certificate shall be provided on completion of the works.

Electrical installation, all to approved design, details and specification of specialist M&E sub-contractor.

FIRE RESISTANCE AND COMPARTMENTATION

To comply with requirements of Approved Document B1.

For details of Cavity Closers and Fire Compartmentation, refer to Indesign dwg nos. 18-1530-515 and 516, latest revisions.

The contractor shall ensure that all structural components are provided with one hours fire resistance, unless agreed / confirmed otherwise by Building Control. For locations of new fire resisting construction, refer to drawings.

M&E contractors to provide any necessary penetration seals (i.e. intumescent fire collars/dampers etc. fire rated as per B.Control requirements) to heating, ventilation ducting and pipework services penetrating all fire resisting construction.

Any M&E service penetrations or apertures through the compartment floor to be adequately resealed using a proprietary fire proof caulking to prevent the spread of smoke and or flame to maintain the integrity and insulation performance of the separating element for the duration of the specified fire resistance period, all in compliance with the requirements of Building Control.

All external cladding to be in compliance with Requirement B4: External fire spread, of Approved Document B1. Supplier to confirm external surfaces (surface spread of flames) to be in compliance with Table 10.1 Reaction to fire performance of external surface of walls.

All installed in strict accordance with manufacturers instructions and recommendations and in compliance with current British Standards.

U VALUES

To comply with requirements of Approved Document L1A.

U Values stated below in accordance with SAP calculations :

External walls	0.18 W/m ² K
Exposed floor / soffit	0.20w/m ² K
Flat roof	0.18 W/m ² K

LINTELS / BEAMS

All lintels and beams (steel, timber and/or concrete) to Structural Engineer's specification.

O/a length to be checked on site before ordering.

TIMBER

Structural timbers to LoCaL Homes Structural Engineer's specification.

Structural timber should be specified according to the strength classes in BS EN 338. Timber specifications when using BS 4978 grading rules (eg GS) should be in accordance with BS EN 1912 or strength class specified and also include the timber species.

TIMBER PRESERVATION

All structural timber including battens, grounds etc shall be vacuum impregnated with an approved preservative.

WORKMANSHIP AND MATERIALS

Workmanship and materials to comply with Building Regulations, British Standards, Codes of Practice and NHBC requirements. All materials shall be fixed, applied or mixed in accordance with manufacturers instructions and specification. All materials shall be suitable for the purpose they are to be used for. The Contractor shall take into account everything necessary for the proper execution of the works, to the satisfaction of the 'Inspector' whether or not indicated on the drawings or in this specification.

B	Notation revised to confirm replacement of roof lights and mechanical ventilation thru walls	25/09/20	RP
A	Spec updated in reference to fire protection of steelwork in compliance with B.Control	21/09/20	RP

rev	note	date	by
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title	Specification
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