

Specification & General Building Warrant Notes

To be read by all parties.

All drawings to be read in conjunction with all structural engineers' drawings, specifications and details.

Site Preparation

Topsoil to be removed to a cleared area of the site, and set-aside for re-use.

Foundations

Excavate area as necessary to required levels, to load-bearing sub-strata and remove all vegetable matter from foundation area. Concrete strip foundations to Structural Engineer's design. 450mm minimum ground cover to bottom of all concrete foundations.

Ground Construction

Excavate area as necessary to required levels and remove all vegetable matter from Floor area. 150mm insitu concrete floor slab as per Structural Engineer's specification, power floated to finish. 200mm PIR insulation board (min Lambda 0.027 W/mk) Visqueen 1200 DPM. Min 25mm sand blinding, Min 150mm type 1, well compacted hardcore sub-base

Intermediate First Floor Construction

22mm thick moisture-resistant chipboard flooring with glued T&G joints, on 245mm i joists @ nominal 400/600mm c/c. with 200mm Knauf Roll. 13mm resilient bars at 400mm ctrs, 12.5mm Gyproc wallboard min 10kg/m² taped and filled finish (i joists to be designed by specialist manufacturer/supplier)

External Wall Build-up - Block

Dry dash finish with white chips, base coat Nordic white/Iceberg strictly in accordance with manufacturer's guidance. 100mm blockwork with minivents to top & bottom & around windows & doors @ 900mm c/c. Wall ties at min 5/sqm nailed to studs. Ties every 225mm at window & door openings. Reflective Foil Breather Membrane, 9mm OSB, 140x38mm treated timber kit with, 140mm Knauf Earthwool Frametherm Omnifit 40 slab Insulation, Protect VC Foil Ultra Vapour Control Layer with all joints penetrations and junctions well taped (sealed) to create an airtight seal, 38x45mm battens forming a 50mm service void, 12.5mm Gyproc Wallboards T&F

Load-bearing Walls

140/89x38mm treated timber framing @ 600mm c/c., with 9mm OSB on one face (unless Engineering specification requires otherwise, and finished with 12.5mm taper-edged plasterboard with minimum weight of 10kg/m2 to both sides, all for Ames taping. Moisture-resistant plasterboard in vicinity of wet areas. Acoustic insulation of 100/140mm thick acoustic mineral wool (10kg/m3 minimum)between framing.

Non-loadbearing Partitions

38x89mm treated timber framing @ 600mm c/c. Finished with 12.5mm taper-edged plasterboard with minimum weight of 10kg/m2 to both sides, all for Ames taping. Moisture-resistant plasterboard in vicinity of wet areas. Acoustic insulation of 100mm thick acoustic mineral wool (10kg/m3 minimum) between framings.

Separating wall between dwellings

50mm cavity space between walls.Breather membrane, 9mm OSB, 38x89 timber kit with 100mm Earthwool Omnifit slab insulation, 19mm flanking board, Vapour control layer, 15mm Gypsom Fireline board T&F. Where services are necessary a 38x50mm timber batten is to form a void and finished with 12.5mm Gypsom wallboard T&F.

External Wall Build-up - Cement board cladding

Marley Eternit 10mm Weatherboard cladding, straigt/butt jointed. Fixed to the Vertical battens with stainless steel ring shank nails in accordance with manufacturers guidelines.Cladding should be fixed to at least three battens: if it is only fixed to two, then the batten spacing should be reduced to 400mm. Vertical 47x50mm treated SVV battens @600 c/c.Perforated closures should be screwed or nailed to both the top and bottom of battens to protect against vermin/insects. Reflective Foil Breather Membrane, 9mm OSB, 140x38mm treated timber kit with, 140mm Knauf Earthwool Frametherm Omnifit 40 slab Insulation, Protect VC Foil Ultra Vapour Control Layer with all joints, penetrations and junctions well taped (sealed) to create an airtight seal, 38x45mm timber battens forming a service void, 12.5mm Gyproc Wallboards T&F.All to be in accordance with Timber Frame Manufacturer's specifications and details. Timber frame to be tied down with galvanized mild steel. Tie down straps at 1200 mm centres and at each side of any openings in panels. All in accordance with Structural Engineer's design and specification.

Cavity Barriers

Concrete/stone blockwork- 50x50mm cavity barriers (with short fire resistance duration) are to be installed around the edges of the cavity. This included around all head, jambs and cills of an external door or windows opening. Also between the cavity and the roof space at the head of the kit, at all of the first floor connection and at all corner between 2 cavity. All cavity barriers to be lined with DPC all in accordance with terms of standard 2.4.1 Timber cladding building - Intumescent expanding cavity barriers (with short fire resistance duration) are to be installed around the edges of the cavity. This included between the cavity and the roof space at the head of the kit, at all of the first floor connection and at all corner between 2 cavities. 50x50mm cavity barriers are to be installed around the all head, jambs and cills of an external door or windows opening. All cavity barriers to be in accordance with terms of standard 2.4.1

Roof Construction

Marley Modern tile roof finish Smooth Grey to be installed strictly in accordance with manufacturer's guidance. 25x50mm timber battens on 12x38 mm counter timber battens.All battens must be Grade A and comply with BS 5534:2014. 9mm OSB . Roofing membrane with a vapour resistance of not more than 0.25 MN.s/g. Membrane to be installed strictly in accordance with manufacturers guidance.125x45mm Timber roof Trusses as per Structural Engineer's specification and details, Protect VC Foil Ultra Vapour Control Layer with all joints and junctions well taped (sealed) to create an airtight seal. 420mm Earthwool omnifit 40 slab (100mm between trusses, 320mm over trusses), 12.5mm Gyproc Wallboards T&F. White UPVC Soffit and Fascia.

Electricis

All electrical work are to be Designed, Constructed, Installed and Tested in accordance with BS7671:2008 and installed by a certifier of construction who is a member of a scheme approved by the BSD (Building Standards Division of the Scottish Government). All electrical work to be in installed in accordance with the current IEE regulations and any relevant amendments. All down lighters to be low energy LED high efficiency bulbs. Contractor to ensure dwelling is fitted with 100% low energy type bulbs. Outlets and controls of any electrical fixtures and systems to be positioned at least 350mm from any internal corner projecting wall or similar obstruction, not more than 1.2 m above floor level Light switches should be positioned at a height of between 900 mm and 1.1 m 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 150 mm above the projecting surface.

Access to Manual Controls. - Any openable windows, Roof light & ventilator is to have controls for opening positioned at least 350mm from any internal corner, projecting wall or similar obstruction and at a height of not more than 1.7m above floor level where access to controls is unobstructed or not more than 1.5mm above floor level where access to controls is limited or not more that 900mm high which projects not more that 600mm in front of the position of the controls and not more than 1.2m above floor level in an unobstructed location within an apartment or within an accessible sanitary accommodation

Lighting

100% of the new light fittings and bulbs/lamps to be low energy and have a minimum lifetime of 10years. All external lighting is to be rated at not more than 100 Lamp-watts per light fitting with automatic control by both movement detection PIR and photocell to ensure operated only when needed to prevent wasteful use of energy. All in accordance with terms of standard 6.5.2

Ventilation

All Bedroom/Apartment area to have 12000mm² and Kitchen, Bathroom & utility room to have 10000mm2. Opening area of windows min 1/30th of the floor area. Mechanical vents to Kitchen & utility to have a capable of at least 30l/sec. Mechanical vents to Bathroom to have a capable of at least 15l/sec. Decentralized mechanical extraction ventilation - dMEV Model Vectaire Elegance - EL1003 to be installed with manufacturers instructions.

Heating

Heating contractors design. System to include pumps, thermostatic control in each room and electronic digital timer control, automatic shut-off & weather compensating controller. Heating towel rails to bath room all in accordance with manufacturer's details. All heating and hot water pipes are to be insulated in accordance with BS5422 All Ducting to be insulated where they are passing through any cold voids. The temperature of hot water, at point of delivery to a bath or bidet, is to not exceed 48° C, this is to be achieved by use of a thermostatic mixing valve (TMV) or fitting complying with BS EN 1111 or BS EN 1287 fitted as close to the point of delivery as practicable The Proposed heating & Hot water system is to be designed by an approved heating engineer and in accordance with the Buildings standards terms 6.3 of the domestic reg's 2009 and the boiler manufacturer's guidance The occupier is to be shown how to use the heating & hot water system by the heating engineer and the occupier is to be provide with written instructions on the operation and maintenance of the systems.

Air Source Heat Pump: Mitsubishi EcoDan 8.5kw 210L Hot water Cylinder

Fire Alarm & Smoke Detector System

As the floor area of each storey is less than 200m2, A fire detection and alarm system is to be installed and designed by the electrician in accordance with BS5839 Part 6: 2004, and guidance in clause 2.11 for a grade D Type LD2 system. Smoke alarms are to be interconnected by hard wiring on a single final circuit. A standby power supply is to be provided in accordance with BS5446 Part 1: 2000 Type of Fire Detector: Heat Detector in all kitchens in accordance with BS5446: part 2 : 2003. Optical Smoke detector are to be installed in the Open Plan areas, principal habitable room (living room), Bedrooms where required (inner bedrooms) and hallways adjacent to kitchens in accordance with BS EN 14604:2005. Ionisation Smoke Detector to all Hallway adjacent to Bathroom/Shower rooms in accordance with BS EN 14604:2005. The installed monitoring equipment for CO2 should be mains operated and may take the form of a self-contained monitor/detector or a separate monitor and detector head. The monitor should have an easily understood visual indicator and be capable of logging data to allow the occupant to gain information on CO2 levels for at least the preceding 24 hour period. If the detector/monitor has an audible alarm this should be capable of being permanently deactivated. CO2 monitoring equipment should be capable of recording and displaying readings within a range of at least 0 – 5,000 parts per million. The equipment should also be capable of logging data at no more than 15 minute intervals, over a 24 hour period Carbon monoxide detector to comply with BS EN 50291-1:2010 and be powered by a battery designed to operate for the working life of the detector

Drainage

External Foul drainage all to engineer's specification and design. Please refer to engineers plans. Surface water drainage to engineer's specification and design. All too Scottish Waters Approval. All drainage to be laid to fall in a pea gravel bed. Drains to have lintel over where passing through walls, and reinforcement inserted in foundations to engineers specification where drains pass beneath. All drainage to be tested and witness by building control before backfilling. 110mm UPVC soil vent pipes and toilet connections, with 40mm UPVC pipes to all bath showers, basins and sinks all in accordance with the manufacturer's instructions. All sanitary pipe work to be installed to BS EN 12056-2: 2000. All Whb's, sinks, showers to be fitted with 75mm deep seal, anti-syphon, easy coupling type traps. Hand hole above highest item to each floor. All soil vents to terminate minimum 900mm above nearest window or air admittance valve as shown on drawing. All sanitary pipe work to be installed to BS EN 12056-2: 2000. Air Admittance Valves (AAV) should be installed in accordance with the recommendations set out in BS EN 12380: 2002 Ballofix valves to be fitted to all pipe runs to all fittings etc.

Water Efficient fitting are to be fitted to all WC's, shower and WHB's. WC dual & single flush is to be not more than 4.5litres and WHB tapes is to have a flow rate not more than 6litres per minute. Shower is to have a flow rate of 8 litres per minute.

Rainwater Goods

New gutters, brackets, stop ends, unions & rwp's all installed as per manufacturers design. Gutters supported at 900mm centres, downpipes supported at 1200mm centres, all fitted with hand access above ground level. All rainwater pipes below ground level to be a minimum of 75 mm dia. Bottom of down pipes to have shoes to grated gully. Top of rainwater pipes to be fixed with Mesh ball.

External Windows and Doors

UPVC windows, finished grey, Double glazed, Low E coated, Argon Filled, min U-Value 1.4 W/m2K Obscure glass to bathroom. DPC to all sides of frames. 10mm silicone sealant to all external edges of window frames (colour to match windows). All glazing within 800mm of the floor, glazed doors and side light, within 300mm of a door leaf and within 1.5mm of the floor level to be kite marked toughened safety glass and to resist human impact as set out in BS6262:Part 4 :2005 Toughened glass in accordance with BS 6262, Part 4: 1994. All of the doors and windows are to be design and installed to meeting the recommendations for physical security in Section 2 of the 'Secured by Design' (ACPO, 2009) **Emergency Escape Windows-** Where emergency escape window is noted on the drawings there should be a minimum of 0.33m2 clear opening escape area with neither the width or the height of the opening being less than 450mm. The Openable area is to be between 800mm & 1100mm above FFL. The Emergency escape windows on the upper storey at a height not more than 4.5m.

Internal Doors - All Areas

New Internal doors 838x21981mm as noted on the floor plans. Ensure clear opening width of 775mm minimum. All to be fitted in strict accordance with manufacturer's specification and details. All self closing fire doors and should have at least a medium fire resistance duration

Bathroom, Utility Room & Kitchen

All in accordance with the Building Standards, all activity space to be included as shown on the floor plans. All sanitary ware, Kitchen & Utility room units & appliances to be installed in accordance with manufacturer's specification and details. **Clothes Drying Facilities in utility room** - Mechanical extract fan of at least 15l/s, fitted with integral humidity sensor with humidity between 50 - 65%. All in accordance with terms of standard 3.11.6, 3.14.4

General Specification

All DPC's to be non-bitumen based. Hyload or equal and approved.

All materials used are to be in accordance with the latest British Standard specification (B.S.S where application. All Workmanship to be carried out in accordance with the latest codes of practice (C.P) where applicable. All Services to be installed in accordance with any local byelaws and the relevant approved bodies. Architectural drawings show the number & location of Electrical Fittings and drainage layout. It is the responsibility of the relevant contractor to complete the design and installation of these elements in accordance with the latest codes of practice

Contractor to include appropriate method statement for lifting and placing of all elements in accordance with current Health & Safety regulations. All combustion appliances to have suitably positioned indelibly marked labels stating limitations of use. All lintels beams and other structural members to be to engineer's specification and design. All services to be installed in accordance with any local byelaws and the relevant bodies approval. Expansion joints on new build portions all to be located and positioned by structural engineer. All timber to be treated against fungal and rot attack. Wall tie spacing to BS EN 845. Wall ties to 5/sqm. Max 450cc vertically & 600c/c horizontally, wall ties around openings and Conner to be at max 225mm vertically.

Contractor to ensure that the building will be built in accordance with BRE Report - BR 262 "thermal insulation, avoiding risks" Second Edition 1994 to limit thermal bridging as far as reasonably practical.

Landscape

Landscaping to clients specification and approval all by appropriate appointed contractor.

Access

An accessible route should be: • level, which is a gradient of not more than 1 in 50, or • gently sloping, which is a gradient of more than 1 in 50 and not more than 1 in 20, or • ramped, with a gradient of more than 1 in 20 and not more than 1 in 12 The cross-fall on any part of an accessible route should not exceed 1 in 40.

An accessible entrance to a building should: a. have an unobstructed entrance platform of at least 1.2m by 1.2m, with a cross fall of not more than 1 in 50, if required to prevent standing water, and b. have a means of automatic illumination above or adjacent to the door, and c. have an accessible threshold, and d. have a door leaf giving a clear opening width of at least 800mm in accordance with the diagram below, and e. if fitted with a door closing device, be operable with an opening force of not more than 30N (for first 30° of opening) and 22.5N (for remainder of swing) when measured at the leading edge of any door leaf, and f. if not a powered door, have an unobstructed space to the opening face of the door, next to the leading edge, of at least 300mm

Harmful or dangerous substances

Contractor to inspect the whole of the site including any buildings and associated land with any proposed works before any works start, for harmful or dangerous substances. Should the contractor be unsure of a substance or material is harmful or dangerous contractor to seek specialist advice. If any harmful or dangerous substances are found, works are to stop and the appropriate measures shall be taken to ensure that, the substance is correctly dealt with to stop any threat to the health of people and surrounding buildings.

Limiting air infiltration

All windows to be fitted with draught seals and to have the gap between the window and the lining fully filled with Compriband see detail. All Voids to be fully filled with insulation. At the connection between the roof and Blockwork, the Roof insulation is to meet the wall insulation to eliminate cold bridging.20mm Hydrocell perimeter insulation around all of the ground floor slab to eliminate cold bridging. All service penetrations to be fully sealed. All ducting to be insulated where they are passing through any cold voids.

Air permeability of the dwelling is to be constructed in accordance with air permeability set out in the SAP calculation. Design air permeability - 5.00m3/m2.h @ 50 Pa Max. Air permeability - 5.00m3/m2.h @ 50 Pa House to be air tested at completion by an accredited person. Testing to be in accordance with BS EN 13829: 2001 Test results are to be submitted to Angus Council prior to building completion.

Energy/Labels

The EPC (Energy Performance Certificate) is to be laminated and located by the electric meter, clear of any obstruction. The Sustainability Label is to be laminated and located by the electric meter, clear of any obstruction. The stove/fire installer is to provide a Label stove and flue in accordance with the building reg's and to be laminated and located by the electric meter, clear of any obstruction.

Rev C - Intermediate Floor Spec amended
CO2 detector note added
Roof spec amended

Project
Proposed Housing Development
Railway Field, Inverkeilor
DD11 5RP

Title
Specification

House Type
Ashton

Job no.
EH16013

Drawing no.
ASHTON-BW-12

Scale
NA

Rev.
C

BUILDING (SCOTLAND) ACT 2003

Approved on behalf of Angus Council



Authorised Officer



Eco House, Nobel road, Dundee, DD2 4XE
01382642067

• DO NOT SCALE THIS DRAWING
• ALL DIMENSIONS AND LEVELS TO BE CHECKED ON SITE
• ALL DISCREPANCIES TO BE REPORTED

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