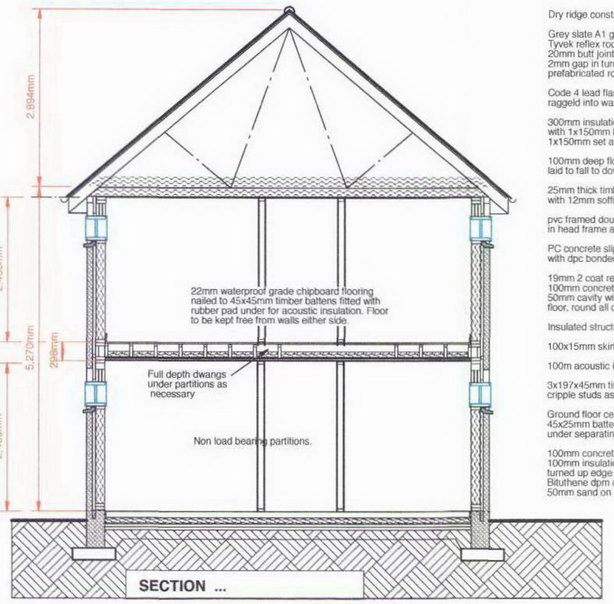


Dry ridge construction screw fixed

Grey slate A1 grade nailed through Tyvek reflex roofing membrane stitched to 20mm butt jointed sarking board swith 2mm gap in turn nailed to prefabricated roof trusses set at 600mm ctrs

Code 4 lead flashing at roof / wall junctions raggeld into wall and dressed under slate.

300mm insulation quilt throughout roof space with 1x150mm between ceiling timbers and 1x150mm set at right angles over roof.

100mm deep flow gutters fixed at 600mm ctrs laid to fall to downpipes.

25mm thick timber faced pvc fascia all round with 12mm soffit

pvc framed double glazed windows with vent in head frame as per elevations.

PC concrete slip cill coloured to match stone with dpc bonded on rear face

19mm 2 coat render applied to 100mm concrete blocks
50mm cavity with fire stops at ground ant first floor, round all openings and at ceiling level.

Insulated structural timber frame inner leaf

100x15mm skirting all round with door blocks.

100m acoustic insulation of floor/ceiling.

3x197x45mm timber lintels nailed together with cripple studs as per specifications

Ground floor ceiling plasterboard screwed to 45x25mm battens allowing space for services under separating structure.

100mm concrete floor laid over
100mm insulation board with 25mm thick board turned up edge of slab all round laid over
Bituthene dpm on 50mm concrete on
50mm sand on 150mm compacted hardcore.

Town & Country Planning (Scotland) Act, 1997
as amended

REFUSED

22.05.2012

Development Management
Environmental Services
The Moray Council

ENERGY...
All new construction elements require to have the minimum following U-values.

		Required	Actual
Walls		0.27 W/m2K	0.25
Roof	Coomb	0.20 W/m2K	
	Flat	0.20 W/m2K	
	Ceiling	0.16 W/m2K	0.14
Floor		0.22 W/m2K	0.28
Windows		1.80 W/m2K	1.6
Doors		1.80 W/m2K	1.6

The area of doors and windows in the external envelope should not exceed 25% of the floor area.

Gas Boiler should have minimum SEDBUK value of 86% with actual of 93%

Solar panel fitted to roof feeding HWT in hall cupboard having a total power rating of 1.7kW System to come complete with solar controllers, expansion vessel, solar pump station, solar collectors etc to allow system to be installed and working to optimum energy efficiency. All information regarding usage of solar panels to be provided to user.

Collector size	2039 x 1139 x 80mm giving 2.32sq.m.
Efficiency	76.1%
Heat Capacity	1.7kW
Maximum operating pressure	6 bar

Energy performance certificate to be located in cupboard beside Megaflo tank

IMPORTANT SAFETY NOTICE
This label must not be removed or covered

Property address.....

The fireplace located in the..... name of room
is at the base of a chimney with a designation string..... designation string

and, for example, is suitable for a.....
Chimney liner..... xx mm diameter

Installed on..... date

Any other information (optional).....

TYPICAL EXAMPLE FOR INDELIBLE LABEL FOR BOILERS...

*NOTE...
Fire Fighting.
Fire Hydrant located in Stotfield Road about every 50m . This property is well within distances required for adequate water supply for fire fighting requirements.

Window Control...
An openable window or rooflight, that provides natural ventilation to meet standard 3.14, should have controls for opening, positioned at least 350 mm from any internal corner, projecting wall or similar obstruction and at a height of:
• not more than 1.7 m above floor level, where access to controls is unobstructed; or
• not more than 1.5 m above floor level, where access to controls is limited by a fixed obstruction of not more than 900 mm high which projects not more than 600 mm in front of the position of the controls, such as a kitchen base unit. Where obstruction is greater, a remote means of opening, in an unobstructed location, should be provided; or
• not more than 1.2 m above floor level, in an unobstructed location, within an enhanced apartment (see clause 3.11.2) or within accessible sanitaryaccommodation (see clause 3.12.3) not provided with mechanical ventilation.

Secured by Design...
'Secured by Design' is the established police initiative to design out elements within development that may contribute to housebreaking and other crimes.
'Secured by Design' accreditation considers site design and layout as well as physical security measures and offers a more comprehensive solution than those physical provisions set out within this standard. As 'Secured by Design' is assessed on a site-specific basis, the police can also offer recommendations on appropriate additional measures in areas where the risk of crimes, such as housebreaking, are considered greater. All windows and doors should be lockable from inside.

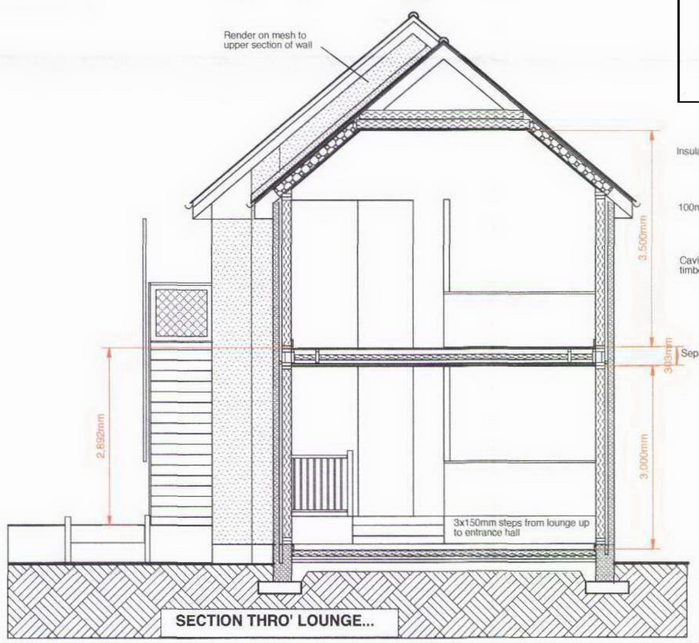
ELECTRICAL:
All electrical work to be installed as per current IEE regulations fitted with RCB's.
Kitchen/utility extract 60l/sec, bathroom, en-suite extract 15litre/sec
Switch outlets positioned min. 350mm from internal corners, projecting walls or similar obstructions and not more than 1.2m above floor level. Light switches positioned between 900and 1100mm above floor level. Sockets should be min. 400mm above flodeapor level and 150mm min. above worktops.
SMOKE DETECTORS/FIRE ALARM UNITS:
Electrically operated smoke detectors/fire alarms wired to independant circuit electrically protected consumer unit, complete with battery backup.
All detectors to be interconnected to ensure all operate when activated.
Smoke detectors located maximum 3m from bedrooms and 7m from lounge, 300mm from light fittings.
PLUMBING & DRAINAGE:
100mm dia. PVC deep flow gutters with brackets at 600mm crs & 68mm dia. PVC downpipes with holderbats at 1800mm crs, 100mm dia. UPVC drains laid to 1 : 60 fall with 600mm min. Invert depth complete with all fittings etc. laid as per manufacturers instructions and trenches backfilled with pea gravel, round pipes all as per BS 8301.
Where pipe passes under walls a lintol should be provided over opening formed to prevent any pressure on drainage.
Surface water to new soakaways noted on layout plan in garden, complete with rodding eyes at every junction and laid to fall max 1:100.
Waste water drain, 100mm dia pvc, connected with manholes to existing foul drains in adjacent road, see layout plan for details. Trenches backfilled with pea gravel min 600x600mm.
Internal drainage pipe sizes to be as follows:-

WC	100mm	uPVC
WHB	40mm	dia. ABS
BATH	40mm	dia. ABS
SINK	50mm	dia. ABS
SHOWER	40mm	dia. ABS...shower fitted with removable grate for cleaning purposes.

All traps to have 75mm deep seals.
All drainage pipework exceeding 6.0m to be vented
Internal access for rodding purposes to be located 1.0m above floor level.
Hot water storage should not be less than 60 degrees and distributed at a temperature of not less than 55 degrees C.
Discharge from sanitary fittings to prevent scalding should not exceed 48 degree C.
If thermostatic mixing valves are used then the above temperatures apply to BS EN 1111:1999 or BS EN1287: 1999 and fitted as close as possible to outlet.
S&VP to rise min 900mm above any window within 3.0metres.
Manholes to be 450mm diameter with light weight cover.
* Drainage pipes, gutters etc within 2m of stairs to be cast iron finish
SANITARYWARE:
Ceramic shower tray with one layer bituthene stuck to tray and turned up walls 450mm. Walls clad with ceramic wall tiles fixed with moisture resistant BAL grouting on
12.5mm moisture resistant plasterboard on timber framing.
Anti-scald valve fitted to BS:1415 to shower and bath
Trap to be accessable for cleaning
MECHANICAL VENTILATION:
Mechanical extract fan capacities ducted to external air wired to independant switch as follows:-
Kitchen...60l/sec, Utility room...60l/sec, bath, shower & wc...15l/sec
Vertical ducts to be fitted with condensation trap.
All ducted to soffit vent kept away from window openingsi
Trickle vent to all rooms to be 4000sq.mm under 10sq.m. with additional 400sq.mm for every sq.m above this.
AIR INFILTRATION:
Infiltration of air into buildings is to be prevented as far as reasonably practicable by:
A...sealing dry lining junctions between walls and ceilings and floors and at window, door and roof openings.
B...Sealing vapour control membranes intimber framed and other framed panel construction.
C...Sealing at services pipe penetrations through the fabric of the building and around pipe and other service boxing.
D...Fitting of draught exclusion stripos in the frames of opening sections of windows, external doors and rooflights.
CENTRAL HEATING:
Central heating pipework to thermostatically controlled radiators in all rooms fed from gas combi boiler in utility room complete with all pipework to make system work and be fully insulated
Heating to be gas fired with boiler in Utility.. flue through wall fitted with mesh guard, flue to be min 25mm from combustible materials...heating system to be pressurised. Boiler interlock fitted 25mm gybroc wallboard to line walls adjacent to boiler to give fire protection to structure.
Boiler to be fitted with indelible label indicating working capacity
Worcester oil fired boiler 93 SEDBUK rating, wall mounted.
Boiler fitted with 7 day programmer for both heating and hot water located in utility room Hot water tank fitted with separate electric immerser
Heating to be sufficient to maintain 21 degree temp in one room and 18 degrees throughout house when outside temperature is 1 degree
Heating installation to be commissioned to give optimum energy efficiency in accordance with manufacturers written instructions.
Written instuctions on the operation and maintenance of the heating and hot water system and any decentralised equipment for power generation to encourage optimum energy efficiency to be provided to occupant.
ACCESS STEPS / RAMP:
Access steps to be pre-cast concrete with 150mm rise and 300mm tread.
Threshold to be no higher than 15mm with a min. angle of 15 degrees
see detail... disabled access to be through front door having ramp access, min. 1200mm clear width with 100mm upstand edge protection at same pitch leading to paved patio having 1200x1200mm concrete platt at door.
Ramp to be min. 1 :12 gradient formed in pc concrete slabs min 1200mm wide accessed by 1200mm wide path from footpath/road adjoining site. A 1500mm long platt required at top and bottom of ramp for user.
At car parking area a solid path 1200x4800mm to be provided to allow safe transfer from parked vehicle as noted on layout plan.
Energy performance certificate to be indelible marked and located next to electric consumer unit.
HOT & COLD WATER:
All hot and cold water heating pipes and hot water pipes to be insulated to comply with BS:5422 : 2001
Thermostatic mixing valve limited to max 48oC and comply with BS EN1111:1999 or BS EN 1287: 1999
*Hot water is direct from Combi boiler in utility room, no storage water tanks
WINDOWS /DOORS: ...min.
Double glazed high performance timber faced pvc windows with adjustable vents (6000mm sq. min.). All safety/ toughened glazing to be designed to BS6262: Part 4 : 2005
External doors to be high performance with double glazed panels.
Trickle vents to give an average of 4000mm sq.m. up to 10sq.m thereafter an additional 400sq.mm for each additional square metre.
Apartments to have 8000sqmm, all other rooms min 4000sqmm.
Trickle vents should be min 1.75m above finished floor level.
*Trickle vents to apartments to have 12,000sqmm, all other rooms 10,000sqmm or 1100sqmm per apartment.
*Trickle vent to bathrooms to be by vent at high level to hall which is vented direct to the external air
Low E glass used throughout with 12mm air gap.
Timber cills/ apron internally to be 19mm thick.
Windows to have opening sections as per elevations.
External doors to have 5 lever locking mechanism.
All opening windows to be fitted with an internal locking mechanism.

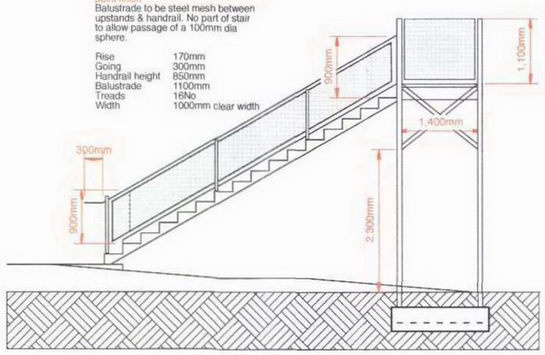
GENERAL...
1 Ceiling hatch provided in hall ..
2 All SVP's to have access points 1.0m above floor level
3 PV Trickle vents to each apartment to provide an average of 6000sq mm or 8000sq mm to living room, 4000sq mm in other apartments, kitchen, bath.
4 Kitchen storage to be minimum 1.0cubic metres
5 Ceiling mounted fans extract ducted to roof terminals.
6 All electrical work to be to the latest IEE rules and regulations with electrical work undertaken by contractor who can sign electrical completion certificate.
7 Shower traps to be accessable for cleaning.
All hot/cold water supply pipes to be insulated with foam plastic sleeved insulation to the same thickness as pipe dia.
Insulation thermal conductivity not exceeding 0.045W/mK to BS 5422:1989
8 The building owner is responsible for notifying the Local Authority when the works are due to start on site. Any change however minor should be discussed with the Local Authority prior to carrying out any works as any unspecified works may require an amendment to building warrant.
9 The correct stress graded timber to be used throughout in compliance with the Structural Engineers design.
All structural timbers must be treated with pressure impregnated preservative...Tanalith or equal approved.
10 The drawings making up the approved documents for Planning and Building Warrant will require to be augmented by additional detailed specifications on finishes etc.
11 All service position on drawings are indicative only. The building owner should contact all services to locate exact positions of all services required.
12 Insulation installed throughout houses to overlap by thickness of insulant as minimum to prevent cold bridging. Care taken at all wall/roof junctions to maintain air flow to vented roof spaces.
13 All apartments to have translusecent glazed openings with area of at least 1/15th of the floor area of the apartment located in an external wall or in a wall between the apartment and a conservatory.
14 Drying facilities located in bathroom.

CONSTRUCTION NOTES...
FOUNDATIONS...
Grade C30 Concrete strip foundations laid on load bearing strata, 450mm below finished ground level. External Walls: 700x200mm
Internal walls: 500x200mm
Ground conditions must be checked on site as the above sizes are for good ground bearing conditions. Structural Engineer to be informed if any variance in ground conditions occur over site. Top of foundations minimum 450mm below finished ground level
Steps in foundation to be 225mm high with a 500 mm horizontal overlap.
SUBSTRUCTURE:
300mm concrete block 7N strength / min density 1800kg/m3 and compressive strength 7.0N/mm2 set in 1:6 cement / sand mortar in accordance with BS 5628 walling to ground level then cavity block to dpc level 100/50/150mm. Cavity filled to ground level with weak mix concrete .
Load bearing sleeper walls to be 100mm concrete block as main wall
DPC:.
All horizontal DPC's to be 1000 gauge and placed 150mm min. above ground level horizontally and 150mm vertically. DPC to be lapped at all corners
DPC to all openings. All dpc/dpm members to overlap.
Bituthene DPM in ground floor laid over 50mm concrete and dressed up wall to dpc level as per manufacturers writen instructions to maintain tanking at front of building.
GROUND FLOOR:...
100mm concrete laid over
100mm KingspanTF70 insulation board with min. 25mm all round edge of concrete floor slab laid over 1000 gauge polythene dpm with min. 150mm rolled and taped joints taken up wall to dpc level.
Bituthene DPM dressed up front and part side retaining walls and lapped with floor & wall dpc.
All over 50mm sand on 150mm compacted hardcore.
Vloday set against external face of small retaining wall and over edge of foundations as additional waterproofing.
FIRST FLOOR:...
22mm waterproof grade chipboard flooring screwed and glued through 12mm Gypsum board with 13.5kg.m3 to acoustic FFT1 timber battens with 60mm 10-36kg/m3 mineral wool between battens laid over
175x45mm C16 timber joists laid at 400mm ctrs and notched into 152x152 steel beams as per layout plan supported with min 3x145x45mm C16 timber nailed together within timber frame built up over external blokwork wall.
*2/12.5mm gypsum board 12kg/m2 per layer screw fixed to metal resilient bars @max 400mm ctrs fixed to u/s joists all taped and plastered to maintain seal. Install 100mm Sound quilt between joists
SUPERSTRUCTURE:.
External walls constructed with 100mm dense blockwork 7N strength-density 204kg/m3 faced with 20mm light buff render as per elevations.
Buff stone used on front and rear walls as per elevations.
100x220mm prestressed lintols up to 1500mm wide opening,100x140mm prestressed lintols for less than 1500mm wide opening. All lintols to have 200mm rest either side.
Brickfor reinforcement installed two courses above all openings extending 600mm past edge of opening.
50mm cavity barriers at rs at ceiling level, round door/ window openings and at verge and within 300mm of internal/external corners, both sides of separating wall
Tyvek reflex stitch stapled through to 9.5mm sheathing OSB Board on 147x45mm structural framing at 600mm ctrs with double top and bottom rails. All joints in binder to be above studs and be staggered. Frame held in place with 1200x50mm galvanised straps built into outer leaf and nailed at least 4 times to timber frame. Straps at 1200mm ctrs and both sides of corners, door openings.
Stud walls lined internally with 12.5mm DUPLEX plasterboard, taped and filled, (*2x12.5mm plasterboard to all load bearing ground floor walls for fire resistance, structural steelwork to have 2 sheets plasterboard cover as minimum.*
150mm insulation quilt fitted between vertical timber stud frame studs.
Stainless steel wallties nailed at 600mm ctrs horizontally & 450mm vertically. Wall ties doubled up at all predominant openings and at movement joints. (ie every course vertically). Cavity slot vents at 1200mm ctrs along eaves line, rafter line, horizontally each side of cavity barriers and below DPC level up gable walls as necessary
Timber lintols over openings to be constructed with 3x197x45mm timbers spiked together at 300mm staggered centres. Support to be as follows...1No cripple stud up to opening width of 1200mm, 2No cripple studs to openings of 2100mm, 3No cripple studs to openings up to 3600mm. Engineer design for any opening larger than 3600mm
Walls round accessible wc to be lined with 12mm plywood under plasterboard to allow for fixing of future grabrails and other aids.
* Wall to west boundary to be strapped with 45x15mm timbers faced with 12mm plasterboard to allow for services along this wall without interupting fire wall at ground and first floor levels. 35mm cedar board lining nailed with s/s nails to 45x45mm treated timber battens nailed through tyvek to plywood and 145x45mm C16 timber stud frame at high level above windows. Install insect screen at bottom of linings.
PARTITIONS:
Partitions constructed with 90x45mm framing at 600mm crs with top and bottom stud. All frames infilled with 75mm insulation quilt. Headplate screw fixed to resilient bar nogging in ceiling. Install bearer battens for partitions below gypsum layer in floor.
12.5mm plasterboard screw fixed at max 200mm ctrs both sides with taped/ filled joints.
95x12mm pencil round skirting boards all round with door blocks giving break to door facings.
Seal all perimeter joints with tape or caulk with sealant.*
ROOF:..
Grey slates A1 grade fully nailed through layer of Tyvek reflex roofing membrane stitched to 20mm butt jointed sarking boards with 2mm gap between all nailed to prefabricated roof trusses at 40 degree pitch fixed using galvanised truss clips fully nailed to timber wallhead frame. 1200x50mm galvanised straps nailed over first three trusses at gables.
25x100mm longitudinal and diagonal bracing to be nailed at node points of trusses
Code 4 lead flashings to be used in all valley gutters feeding into pvc gutters nailed to fascia
Roof ventilation through roofing membrane
150mm + 150mm layer of insulation quilt laid throughout flat roof space , all fitted over new wallhead to reduce cold spots set at right angles to each other. Coomb ceilings to have 160mm rigid board insulation which should overlap with quilt insulation.
Ceiling lined with 12.5mm duplex wallboard with all joints taped/plastered ready for decoration.
Access hatch to loft area to be prefabricated unit with insulation, located in hall
S&VP's located on external wall as per elevations and rise above gutter level.
*Firehalt cavity barrier to be installed in loft space mid span and fixed all round perimeter of one roof truss.
MOVEMENT JOINTS:
Structural movement joints (MJ) fitted as indicated on plans and constructed with 6mm mastic sealed joint formed with render stop beads, stainless steel wall ties at every course.
GLAZING:
All glazing below 800mm to be toughened safety glass to BS6262: Part 4 2005
All glazing below 1500mm in doors and side lights to be toughened safety glass to BS 6262:2005
Protective barrier fitted in front of all glazing below 800mm above floor level capable of resisting loads specified in BS 6399:Part 1:1996
* Glazing and frame to 4 windows on south west or rear elevation to achieve 1/2hr fire protection
* Glazing and frame to 4 windows on north east or front elevation to achieve 1/2hr fire protection
*Ground floor door to be 1/2 hour fire rated with self cling dewisve fitted.
The above door and windows will require to have certificates on show.



Stair details: all steel construction with 4mm bent chequerplate tread and risers with 40mm upstand at back and front nosing. *Nosing to have luminous paint finish
Balustrade to be steel mesh between upstands & handrail. No part of stair to allow passage of a 100mm dia sphere.

Rise	170mm
Going	300mm
Handrail height	850mm
Balustrade	1100mm
Treads	16No
Width	1000mm clear width



STAIR DETAIL TO FIRST FLOOR ...

SEE STRUCTURAL ENGINEERS DRAWING 8441-03 rev A for FULL STRUCTURAL DETAILS

27 MAR 2012

DO NOT SCALE FROM THIS DRAWING

REV	DATE	REMARKS
A	12.01.12	Notes marked * added

CLIENT:
Mr & Mrs J & I Harris

PROJECT
Proposed 2 x 2bed flats in grounds of Norland, Stotfield Road, Lossiemouth

TITLE
Sections

SCALE	DATE	DRG No	REV
1:50,	20.04.11	A1012.10.03	A

Keith Edwards Architect
1B East Street, Fochabers, IV32 7DY
tele: 01343 823910 e mail : keith@ke-architect.com