



## PROPOSED SIDE (WEST) ELEVATION Scale 1:50



# PROPOSED REAR (EAST) ELEVATION Scale 1:50

All dimensions to be checked on site prior to commencing works or ordering materials. No dimensions to be scaled from the drawings, only written dimensions to be respected.

Any discrepancies between drawings to be notified to the CA for clarification.

The position of the existing underground services to be confirmed with relevant authorities prior to careful excavation. An agreed datum to be established prior to commencing work.

All timber to be treated in accordance with BS EN 1995-1-1:2004+A2:2014. No high alumina cement to be used.

HEALTH & SAFETY

All services to be terminated at entry to building, capped and made safe prior to commencement of works. All redundant drainage to be cut and sealed.

All fixtures and fittings to be removed and disposed of.

All existing building materials, fittings and systems to be removed from site. All works carried out in accordance with Building (Scotland) Act 2003 and Regulations 2004 as amended and in accordance with all relevant guidance as noted within the 2015 Domestic Handbook. All downtakings and demolition works to be carried out in accordance with BS 6187:2011 and the Health and Safety at

FLOOR CONSTRUCTION - PROPOSED EXTENSION To be taken as standard, refer to individual drawings for varying details.

Suspended timber floor constructed from 225mm mm thick C24 TREATED SW timber joists sheeted internally with 22mm thick proprietary P5 particle board with joints glued and screwed to Engineers design, Proprietary PIR insulation 170mm deep supported with mesh mechanically fixed to joists P/A 0.8, Ventilated solumn as described in detail sheets, solumn formed form suitable substructure bearing course, 50mm sand bedding with 500 gauge extruded low density polyethylene separating layer with 50mm thick C25 concrete over, insulated floor construction providing U Value of 0.15

## WALL CONSTRUCTION

To be taken as standard, refer to individual drawings for varying details. Cavity blockwork and timber kit rendered construction, with external leaf, outer leaf 102.5mm (1.13 conductivity) thick concrete blockwork, cavity 50mm, timber cavity closers to be fitted at head of cavity around perimeter of openings in external leaf, doors and windows, every 10m over length of wall and to corners of walls all wrapped in DPC, 150mm insulated timber kit with 12.5mm plasterboard inner. Brickwork leaf lbstock to match existing or equal and approved. Brickwork wall leaf to have mortar joints formed in accordance with the manufacturers recommendations. Timber kit filled with Kingspan or equal and approved, 2 layers (one between studs and one to outer face of timber kit over VPL) 60mm thick comprising CFC/HCFC free rigid urethane insulation core with low emissivity composite foil facings on both sides. Fixed with wall ties to BS EN 845-1:2013, double drip type, stainless steel type. Wall construction with render to give U-value of 0.15 W/m2K. Render finished above dpc on stainless steel bellcast. All movement joints formed as indicated on plan and in accordance with specification. All render accessories and fixings to be stainless steel.

U-value performance in accordance with 6.2.9 Extensions to the insulation envelope Table 6.5. Maximum U-values for building elements of the insulation envelope

Roof - 0.11 Pitched roof (insulation between ceiling ties or collars)

#### PITCHED ROOF 35°

Marley Mendip concrete tiles Smooth Terracotta to match existing property roof over battens and counter battens. Proprietary VCL (Protect underlay or equal and approved) over 150x18mm treated SW timber sarking board mechanically fixed to proprietary treated SW timber trusses. Ventilated roof void, continuous to eaves with Lead roll ventilated ridge system. Warm roof construction insulation with 450mm of Rockwool Twin roll (or equal and approved) first layer parallel with truss chord, second layer perpendicular to trusses. Visqueen VPL (or equal and approved) with vapour resistance of greater than 530 MNs/g. 12.5mm thk BGP plasterboard or equal and approved. U-value of 0.11W/m2/K.

BUILDING INSULATION ENVELOPE

Air-tightness - Design air tightness to achieve minimum of 5m3/m2/ha 50pa.

GLAZING

Installed in accordance with the manufacturers details and specification.

Specification of glazing should be not less than Class C of BS 6262: Part 4: 2005.

Triple glazed unit, Origin Window with Aerogel. 44n 2x4mm Total +. 2 x 16mm Swiss Ultimate spacer I

ELECTRICAL

All new electrical works to comply with the Bu subsequent amendments. Also to comply with cu Amd 3 :2015. Electrics to be tested / installed t schemes recognised by The Scottish Building Stan

Calo	culate the rate	of he	eat loss from th	ne 'noti	onal' extension as f	ollows	:
Tab	le 6.9. 'Data fo	r 'no	tional extensio	on'			
Exp	osed element	Exp are	oosed surface a (m2)		Design U-values (W/m2K)		Rate of heat los (W/K)
Floc	or	13.	4	x	0.18	=	2.41
Roo	of	13.4	4	x	0.18	=	2.41
Exte	ernal wall	28.	8	x	0.22	=	6.34
Openings (%of floor area)		3.8 (25%) + 3.35 (built over)		x	1.6	=	11.44
Tota	al rate of heat l	oss				=	22.6
atic	n						
Ref	ef Window Area (sqm)		1/30th ratio (sqm)	Required Trickle Vent (400mm2 per sqm) mm2		Actual Trickle Ventialtion mm2	
	3.3		0.53	5360		(2x5000) 10000	
	3.3				(2x5000) 10000		
	6.38						
					Total		20000
4.3	Table 3.5, all	wind	dows exceed	minum	num opening and	rickle	venitlation

requirements

	0 0202.1 art 4. 200								
lmm triple bars. U Va	glazed 4mm Diama Ilue of 1.0W/m2 K.	nt – 2x16mm 90% A	Smm 90% Argon – Calculate the rate of heat loss from the 'notional' extension as follows:		S:				
				Table 6.9. 'Data fo	or 'notional extensi	on'			
uilding Standards Scotland Regulations 2008 and all urrent IEE regulations, BS 7671; 17th Edition; 2008 to				Exposed element	Exposed surface area (m2)	1	Design U-values (W/m2K)		Rate of heat los (W/K)
by NIC El indards to o	Table 6.9. 'Data Table 6.9. 'Data Exposed eleme IC EIC or SELECT Electrician or similar Electrical ds to comply with Safety 4.5.0. Roof External wall Openings (%of floor area) Total rate of heat Decem Performed Party Area With days (Party Performed Party)	Floor	13.4	х	0.18	=	2.41		
				Roof	13.4	x	0.18	=	2.41
				External wall	28.8	x	0.22	=	6.34
				Openings (%of floor area)	3.8 (25%) + 3.35 (built over)	x	1.6	=	11.44
			-	Total rate of heat I	oss			=	22.6
			_						
4 Edenha	ll Grove - Room ve	ntilation calculation	n - Natural Ventil	ation		_			
Floor	Room Ref	Room Area	Window/Door F	Ref Window Are	ea 1/30th ratio	<b>Required Trickle Vent</b>		Actual Trickle	
		(sqm)		(sqm)	(sqm)	(40	0mm2 per sqm) mm2	Ve	entialtion mm2
Ground	Sunroom	13.4	WD1	3.3 0.53		5360		(	2x5000) 10000
			WD2	3.3				(	2x5000) 10000
			EDO1	6.38					
							Total		20000
In a	ccrodance with Bu	idling Standards Gu	idance clause 3.1	l4.3 Table 3.5, all	windows exceed	minu	mum opening and	trickle	e venitlation



FFL +0.600m \_\_\_\_ approx



	LIGHTING	
	-∳ <sub>s</sub>	Spot light (Where external IP66)
	- <del>4</del> -w	Wall light
	⊕ <sub>P</sub>	Pendant
	Os	Smoke detector to BS 5839: Part1: 2016
	Он	Heat detector to BS 5839: Part1: 2019
	Осо	Carbon monoxide detector to BS EN 50291-1:2018
	SMALL POWER	
	0	Switch
	古古古	13A sockets
	<u> </u>	Spur
		DB
	COMMS	
		Comms (back box only)
	HVAC	
	o <b></b> o	Radiators
_		

WALL TYPE 1 - External leaf - 102.5mm thk frost

resistant facing brick to match existing. Inner leaf 150mm

Proprietary rigid PIR insulation 60mm thickness inner face

plasterboard. Providing 30mins FR top achieve u-value of

thk C24 grade treated timber studs clad externally with

9mm OSB proprietary breather paper to outer face.

of frame with 120mm to face of frame within cavity to

receive proprietary vapour barrier inner face. Internal finish of 50x25mm straps and clad 1 layer 12.5mm thk

Roof - Pitched - Concrete tile over roofing membrane

over sarking boarded timber trusses with proprietary

rigid PIR insulation between proprietary trusses and over to o/all thickness of 300mm to achieve u-value of

between treated 225x50mm C24 structural timber

Proposed Internal suspended timber floor to

### LEGEND

Ventilated solumn

DF	RA	AINAGE
Λ1	1	SV/D'a to

ALL SVP's to be vented to outside air passing through roof via a proprietary roof terminal. Above ground gravity drainage to be designed and installed in accordance with BSEN12056-2:2000.

Long radius bend to be provided to base of all new SVPs

DRAINAGE TESTED IN ACCORDANCE WITH

National Annex NG of BS EN 12056-3: 2000, for sanitary pipework BS EN 12056-2: 2000, for a drainage system under and around a building.

Air Test Procedure

Ensure there are no snots, roughness or debris on the pipe wall where the inflatable stopper will seal against.

Seal each end of the pipeline with neoprene faced inflatable stoppers (Milltest /ATO Type only) inflating to the manufacturers recommended pressure.

Correct type of manometer ('U' gauge). When sat vertical the water is level with the 0 mark. Connect the manometer tube to the "out test" tap of the inflatable stopper

Position the manometer where it is clearly visible and in a stable position. Some have spikes to hold to the trench wall others may need to be held down with the aid of a heavy object.

Connect pump to the stopper and pump until the internal pressure shows 110 to 120mm on the manometer.

Allow a minimum of 5 minutes for stabilisation of the air pressure, longer may be needed in cold or very hot weather. Stabilisation time

is dependent on temperature, volume, weather and how much of the pipeline has been backfilled. After stabilisation time adjust the pressure to 100mm by either

introducing further air or by bleeding off any excess pressure.

Observe the fall in indicated pressure over a 5 minute test period. The residual pressure should be not less than 75mm.

Then calculate the rate of heat loss from the proposed extension as follows:								
Table 6.10. Data for proposed extension								
Exposed element	Exposed element Exposed surface Column (b) Design Rate of heat lo area (m2) U-values (W/m2K) (W/K)							
Floor	13.4	x	0.15	=	2.01			
Roof	13.4	х	0.08	=	1.07			
External wall	30.7	x	0.13	=	3.99			
Openings	3.3 + 3.3 + 6.38	x	1.0	=	12.98			
Total rate of heat loss = 20.05								
From the above comparison, the rate of heat loss from the proposed extension (20.05) is less than that from the 'notional extension' (22.6). Proposal will comply.								



0.13W/m2k

0.08W/m2K

FLOOR - Proprietary 170mm thick PIR insulation

SE drawing and specification

joists to achieve u-value of 0.15W/m2K.

METRES (scale @ 1:50)

	Revision	Date	Ву	Chk.
А	Roof ventilation revised	231120	SB	SB
В	View labels revised	120121	SB	SB
С	Elevation titles revised	130121	SB	JK



Do Not Scale Dimensions from Drawings. All d

imensions to be veniled on site, and any discrepancy to be notified to KBA.								
	14 T	6 wes : 0141	t regei 221 2	kerr k nt stree 344 F	exter as t glasgo : 0141 2 kerrbax	<b>JR</b> ssociates w g2 2rq 221 2389 ter.co.uk		
<sup>Client</sup> Mr & Mrs 4 Edenh Newton I G77 5TS	s Bax all Gi Mear	ter rove ns						
Drawn by KBA	Checke KBA	ed by	Date Aug 2	0	<sub>Scale</sub> 1:50 @A	\1		
Project 4 Edenh Newton I G77 5TS	all Gi Mear S	rove ns						
<sup>Drawing</sup> Proposed General Arrangement Plans and Elevations								
lient Job No:		ква јо KBA2	<sup>b No.</sup> 2592	Drav BL(0	ring No. -)004	Rev. C		

CAD Ref: