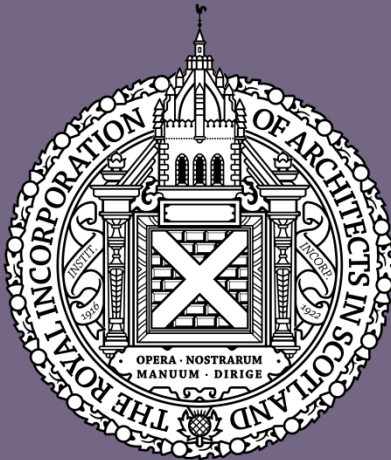
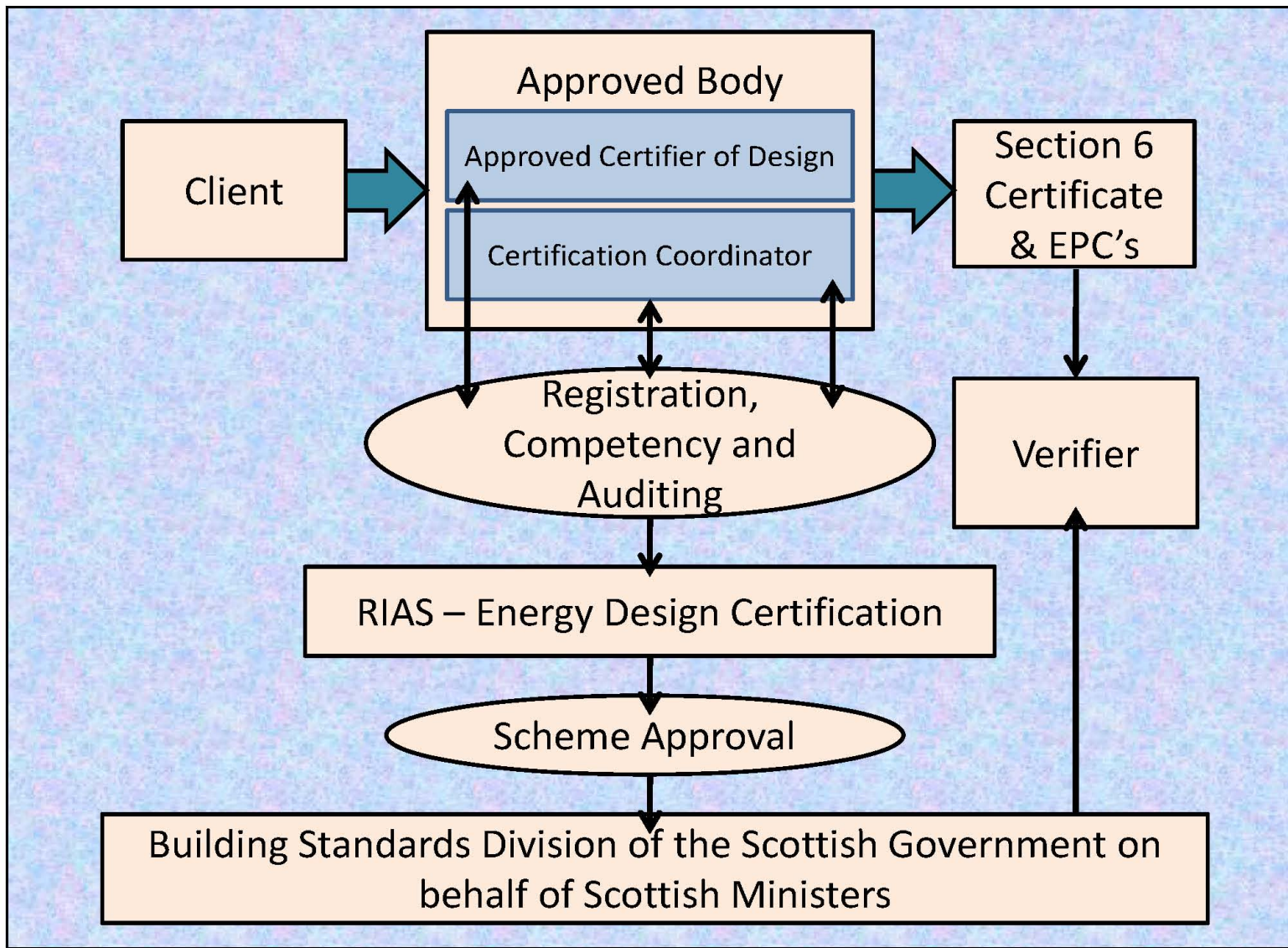


RIAS – Energy Design Certification

Competency, Certification Practice,
Liability, Insurances and Added Value



Richard Atkins FRIAS RIBA



An individual with the appropriate understanding of their role, the qualifications and the experience required to certify that specified aspects of design comply with the *Building (Scotland) Regulations 2004* and subsequent amendments. Approved Certifiers of Design may be approved by a Scheme Provider under Section 7(2) of the Act or by the Scottish Ministers under Section 7(1)

All Approved Certifiers of Design Section 6 – Energy must meet the minimum membership criteria to pre-qualify to join:

- Listed on the Architects Registration Board
- Chartered Member of CIAT
- Chartered Member of CIBSE
- Or
 - have a minimum of an NVQ or SVQ Level IV or equivalent qualification in a construction related discipline
 - plus a minimum of 5 years experience in completing building warrant applications
 - plus have had specific training related to the energy design & performance of buildings or can demonstrate that 2 recent warrants have been granted by a Scottish local authority based on a DER / TER compliance calculation that they have prepared

On-line Competency Tests



Test

Online Test

Please answer the following questions by selecting your answer for each question. When you have answered all 5 questions, please click the button marked 'Submit'.

Module 1: Roles, Duties and Procedures

In the event that an Approved Body has not acted within the rules, limitations or conditions of the Scheme, which of the following sanctions cannot be imposed upon them as recommended by the Disciplinary Panel?

- Termination.
- Reprimand with fines.
- Reprimand with an extraordinary audit within 6 months.
- Reprimand without fines.

Certification Coordinators of Approved Bodies will be issued with a certificate of membership of the Scheme. Under what circumstances would a Certification Coordinator have to return their certificate of membership of the scheme and to whom?

- Should the Approved Body cease to be a member of the scheme for whatever reason their certificate should be returned to the RIAS.
- Should the Approved Body for whatever reason have unpaid membership fees for a month their certificate should be returned to the RIAS.
- Should the Certification Coordinator change employer their certificate should be returned to the Approved Body who were employing them.
- Should the Approved Body cease to be a member of the scheme for whatever reason their certificate should be returned to the SBSA.

Approved Bodies that have several offices or branch offices can be considered eligible for membership under which circumstances?

- Only offices or branch offices that make individual applications for each branch office that wishes to offer certification services
- Only offices or branch offices that make individual applications for each branch office that wishes to offer certification services and employ at least one Certifier are eligible for membership
- Only offices or branch offices that make individual applications for each branch office that wishes to offer certification services and employ at least one Certifier at each of these offices/branch offices are eligible for membership
- Only offices or branch offices that make individual applications for each branch office that wishes to offer certification services and employ at least one Certifier and one Certification Coordinator are eligible for membership.

Which of the following is NOT a required function of an Approved Certifier of Design?

- Must adhere to the ARB or CIAT Code of Conduct and the Codes of Conduct of RIAS and RIBA if applicable
- Do not certify work designed by others without carrying out necessary checks to satisfy themselves of the adequacy of the design and compatibility
- Acknowledge that for some projects they may lack appropriate experience to enable them to act as the Certifier
- Must ensure that the conditions under which the Approved Body was approved for the Scheme are fulfilled and maintained

Which of the following is NOT true? The RIAS Scheme Review Panel shall..

- Report regularly to the RIAS Practice Board
- Have the authority to make recommendations for amendments and revisions to the Scheme
- Not have the Authority to appoint Approved Certifiers as it sees fit
- Have the authority to Appoint Auditors to monitor the performance of Approved Certifiers of Design



BUILDING FABRIC - DETAILS ARE NOT ACCREDITED

WALLS BELOW DPC
 140mm 7N/mm² concrete block inner leaf
 40mm cavity filled with aerogel/insulation allowing for 60mm Vent installation at min 1800mm centres
 Perforated Vent installation at min 1800mm centres
 100mm 7N/mm² concrete block Outer Leaf
 Weep holes as Ground Level and above DPC

GROUND FLOOR TYPE 1 - SUSPENDED
 22mm V313 T & G chipboard flooring with glued joints
 22mm V313 T & G chipboard flooring with glued joints
 Underfloor heating diffusion plates and pipes
 50000mm C16 SW floor joists at 400mm centres
 200mm glass wool insulation between joists
 100mm oversite concrete min 150 vertical space above supported on Nelson above suspended floor void
 100mm gauge polypropylene DPM on 50mm sand binding
 100mm compacted MOT Type 1
 Maximum U Value 0.21

GROUND FLOOR TYPE 2 - CONCRETE SLAB
 100mm reinforced concrete floor slab
 100mm reinforced concrete floor slab
 1000 gauge polypropylene DPM on 50mm sand binding
 150mm compacted MOT Type 1

EXTERNAL WALLS TYPE 1 - RENDERED BLOCK
 12.5mm plasterboard with 3mm plaster skim coat
 1000 gauge polyethylene vapour barrier
 140mm C16 treated SW studs at 600mm centres
 140mm glass wool insulation between studs
 140mm plasterboard sheathing with Breather Membrane
 100mm Cavity
 100mm 1400kg/m³ 7N/mm² concrete block
 24mm three coat wet dash finishing
 Maximum U Value 0.29

EXTERNAL WALLS TYPE 2 - TIMBER CLADDING
 140x45mm C16 treated SW studs at 600mm centres
 9mm Plywood sheathing with Breather Membrane
 20x38mm treated SW horizontal counter battens
 28x38mm treated SW horizontal counter cladding
 22x125mm T & G weather board vertical cladding in horizontal and vertical format.

WALLS ADJACENT TO UNHEATED AREAS
 As external walls Type 1 except omit render and line with 12.5mm plasterboard on dabs, taped and skimmed. Porth is unskimmed.
 Maximum U Value 0.29

INTERNAL PARTITION GENERALLY
 90x38mm treated SW studs at min. 600mm centres
 12.5mm plasterboard taped and skimmed to both sides
 Acoustic insulation to bathroom room partitions.

FIRST FLOOR
 22mm V313 T & G chipboard flooring with glued joints
 Underfloor heating diffusion plates and pipes
 50000mm SW joists at 400mm centres
 100mm mineral wool insulation between joists
 100mm plasterboard soffit taped and skimmed
 12.5mm plasterboard soffit taped and skimmed

PITCHED ROOF - INSULATION BETWEEN
 Total 18mm Slate on Breather Membrane
 150x22mm SW plane rafters at max 600mm centres
 45x25mm C22 timber battens at max 600mm centres
 235mm glass wool roll insulation between rafters to ridge, except within Gargales
 100 gauge recycled polyethylene vapour barrier
 12.5mm plasterboard with 3mm plaster on
 Maximum U Value 0.18

Home Energy &
Data Services Limited

Standard Assessment Procedure
(SAP)
A USER FRIENDLY GUIDE
(WE HOPE...)

June 2012 Version 3.2

Updated to incorporate SAP 2009 in the body of the text

www.Home-Data.co.uk
 Home Energy and Data Services Limited
 Reg: SC315973
 VAT Reg No: 915 9231 21
 1 Carlawrock Farm Cottages
 Tranent
 EH33 2NF
 Tel 01875 614105
sap.tests@Home-Data.co.uk

Practical SAP Test



**RIAS Energy Design Certification
Certification Checklist**

Version 1.0 June 2010

This Checklist is available as a word document on request from the Scheme Administrator



Certification Checklist

Checklist	Designer ie: Certifier, Other Designer (name) or Performance Specification	Supporting Information ie: On drawings, calculations, specialist reports, manufacturers literature / certificates or Schedule 1 item	Design Provision ie: Within limits set, or British Standard, Eurocode etc cited, or calculations attached, or Form Q required, etc
Use of abbreviations is acceptable, where referred otherwise insert full text.	ACD, (name), PS	D, Calc, SR, ML, Cert, S1	(reference), Calc, Q
Introduction			
6.0.1 Background			
6.0.2 Aims			
6.0.3 General guidance			
6.0.4 U-Values			
6.0.5 Thermal conductivity			
6.0.6 Insulation envelope where U-Values should be ignored			
6.0.7 Buffering effects on the insulation envelop			
6.0.8 Roof that performs the function of a floor			
6.0.9 Conservatories and atria			
6.0.10 Annexes to guidance			
6.0.11 Calculation of areas			
6.0.12 Latest changes			
6.1 Carbon dioxide emissions			
6.1 Functional standard			
6.1.0 Introductions			
6.1.1 Dwellings			
6.1.2 Setting the TER			
6.1.3 Calculating DER			
6.1.4 Buildings with multiple dwellings			
6.1.5 Common areas			
6.1.6 A simplified approach			
6.1.7 Conservatories and stand alone buildings			

Step 1 Check that sufficient general arrangement, construction details and services installation plans of the proposed building have been prepared to provide the general level of information required by the procedure regulations as summarised in Section 2 above.

Step 2 Check that the information listed in the checklist (6.0) has been shown on plans and supporting information, reports and schedules and that this is reflected in any energy calculation(s) for the project and assessment of compliance with minimum provisions within published guidance.

Step 3 Prior to issue of a Certificate of Design, confirm that the information used in any energy calculation(s) for the project and in assessment of compliance is included in the building warrant submission. This will only usually be necessary where the Approved Certifier is not also the party submitting the building warrant application..

[Home](#) [View Basket](#) | [My Account](#)[Log off](#)Project: **Melrose Copse**

Edit Section 6

[Project Status](#)[Add description](#) | [Add dwellings](#) | [Section 1 - 5 Checks](#) | [View Section 6](#)[Dwellings](#)[Section 6 Certificates](#)[EPCs](#)

Edit Section 6

Section 6 Certificate **C0000109**Dwelling **Dwelling 3**Dwelling type Works type

Compliance method

- No change
- Elemental
- Compensatory
- SAP 2005 - manual
- SAP 2005 - software
- SAP 2005 - RIAS-regs calculator
- SAP 2005 - assessor
- Backstop Package 1-6

You are not qualified to do manual SAP calculations. Please contact RIAS to find out how to become qualified.

You are not qualified to do use the RIAS-regs.co.uk SAP calculator. Please contact RIAS to find out how to become qualified.

You are not qualified to use external SAP software. Please contact RIAS to find out how to become qualified.

[Click here to delete](#)

[Home](#)[View Basket](#) | [My Account](#)[Log off](#)Project: [Melrose Copse](#)

Section 6 Checks

[Project Status](#)[Add description](#) | [Add dwellings](#) | [Section 1 - 5 Checks](#) | [View Section 6](#)[Dwellings](#)[Section 6 Certificates](#)[EPCs](#)

Section 6 Checks

Section 6 Certificate **C0000109**Dwelling(s) **3 Dwellings**

Checklist for affects on Sections 1 – 5 of the Building Regulations

Please read through the following options and select one that is appropriate to your circumstances in this project:

Having assured yourself it is a correct statement please select one of the following options:

- I am the lead designer of the project and in meeting the requirements of Section 6 (Domestic) I have taken care not to compromise the requirements of meet sections 1-5.
- The nature of the works is such that Section 6 (Domestic) does not apply.
- I am not the lead designer and I confirm that in meeting the requirements of Section 6 (Domestic), both the lead Designer and the Designer of Structures has passed to me full details of their design and I have made them aware of the measures needed to demonstrate compliance with Section 6.

[Click here to delete](#)

A Certificate of Design certifies that the design described in the application complies with the *Building (Scotland) Regulations 2004* and subsequent amendments. The Certificate is only valid under the Act when issued by an Approved Certifier of Design



RIAS | The Royal Incorporation of Architects in Scotland

Certificate Number:	C0000424 Stage 2
Project Name:	Haldane A, Miller Road
Parent Certificate Number:	C0000424
Building Warrant Number:	12/038
Schedule 1 Form Attached:	Yes

PART A: To be completed by the Approved Certifier of Design

Project Location: Miller Road Alexandria G83 8HD	Type of Works: New build Project Reference: 12/06
Description of Works: Erection of 9 houses and 6 flats.	
Staged Warrant: Stage 2 - Stage 2 - Superstructure	
I certify that I have used reasonable skill, care and diligence in the consideration of this design for the project described in the application.	
<ul style="list-style-type: none">i. The energy design complies with the Building (Scotland) Regulations 2004 (as amended) with respect to Standards 6.1 to 6.10 (Domestic) (see note 2).ii. Where this certificate relates to an application for a stage, the design of this stage is consistent with the design of any previously certified stages.iii. I am registered by the Scottish Government Building Standards Division as competent to certify the design of such work.iv. The building, when converted in accordance with the warrant application, will comply with the requirements applicable to energy contained within Regulation 12 of the Building (Scotland) Regulations 2004 (as amended).	
Note 1: This certificate has been issued in support of an application for building warrant under the Building (Scotland) Act 2003 only and must not be used or relied upon for any other purpose including under any contract to which the Certifier is not a party.	
Note 2: This certificate must relate to the building regulations in force at the date the building warrant application is made.	
Note 3: This certificate relates solely to the design of the building (or the design up to the stage of construction to which the certificate relates) and does not certify any aspects of construction.	
Note 4: Any energy details which have yet to be designed in detail and for which a performance specification has been supplied with the building warrant application are listed in Schedule 1 accompanying this certificate.	
Signature	Date
Name: Richard Atkins	Certifier Registration No: RIAI-D-00002

PART B: To be completed by the Certification Coordinator of the Approved Body

I confirm that the person signing Part A is an Approved Certifier of Design and is a principal in or is employed by this Approved Body. This body is registered by the Scottish Government Building Standards Division to provide certification services for Design (Section 6 - Energy) Domestic and employs at least one Approved Certifier under that scheme. I am registered as the certification coordinator for this body.	
Signature	Date
Name: Richard Atkins	Approved Body Registration No: RIAI-DB-00001
Approved Body: Richard Atkins, Chartered Architect	

Quality Assurance



RIAS Energy Design Certification

Quality Assurance Guidance for Approved Bodies

Version 1.0 June 2010

Information on Warrant Applications

Procedural Guidance on Certification
including information to be submitted
with a Building Warrant Application

April 2010
Version 2



Insurance and Liabilities

RIAS
INSURANCE SERVICES
PROFESSIONAL INDEMNITY SMALL PRACTICE POLICY
SCHEDULE



25 YEARS OF
SERVICE
1984-2009

MASTER POLICY NUMBER: 24339654 LAL

- 1 THE INSURED: Richard Atkins Chartered Architect
- 2 PRINCIPAL ADDRESS OF THE INSURED: 1 Carlaverlock Farm Cottages
Tranent
East Lothian
EH33 2NF
- 3 THE POLICY PERIOD:
From: 01 July 2009
To: 30 June 2010 both days inclusive
- 4 THE LIMIT OF INDEMNITY: £1,000,000.00 each and every claim
- 5 THE EXCESS: £750.00 each and every claim
- 6 THE TOTAL PREMIUM: £1,250.00 (includes 5% IPT)
- 7 DATE OF PROPOSAL/RENEWAL DECLARATION FORM: 01 June 2009

Insurers:

Aviva Insurance Limited	48%
QBE Insurance (Europe) Ltd	32%
Hiscox Insurance Co Ltd	20%

Signed on behalf of the Insurer

A handwritten signature in cursive script, appearing to read 'Veronica Cole', is written over a horizontal dotted line.

Director/Authorised Signatory

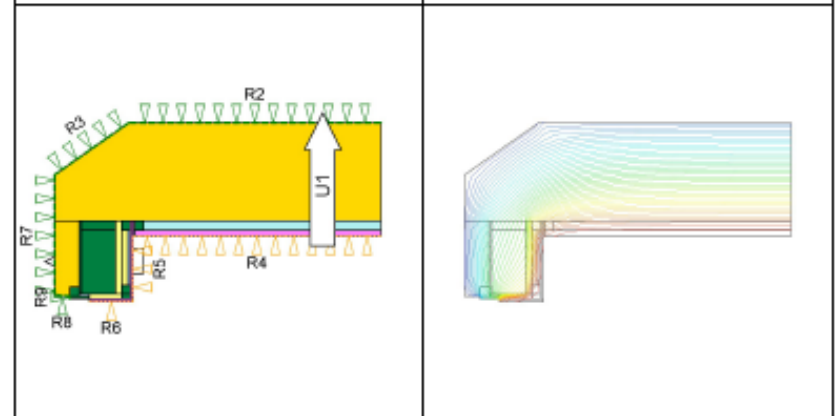
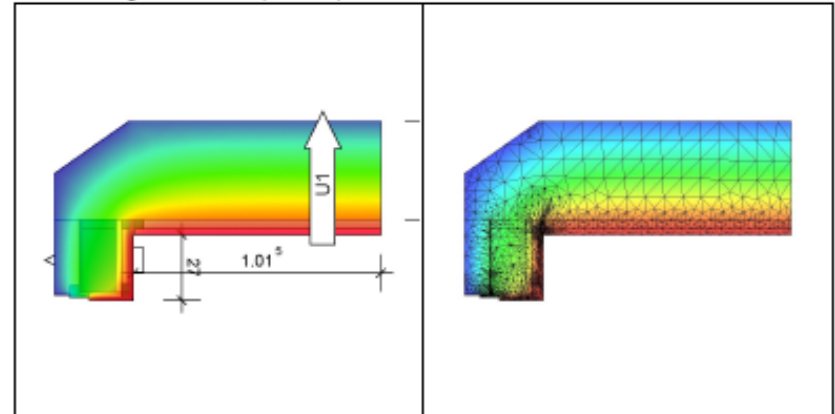
Optimising the Design

Building project:

Psi-Therm 2011

Date: 7.7.2012

Thermal bridges calculation (Ψ -Value)



Nr.	Description	Length	U-value	Correction factor
U1	U1	1.015 m	0.09 W/(m ² K)	F _e (1.00)
U2	U2	0.255 m	0.15 W/(m ² K)	F _e (1.00)

Thermal bridges calculation

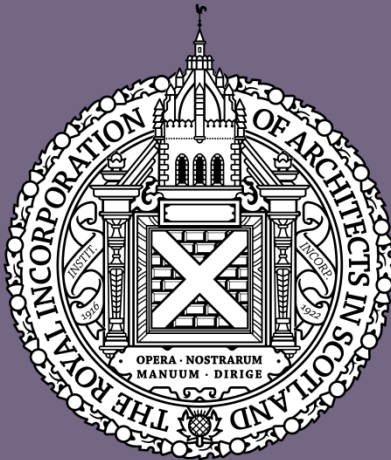
$\Psi = +0.061 \text{ W/(mK)}$

Training version - this software may be used for commercial projects.

Training version - this software may be used for commercial projects.

RIAS – Energy Design Certification

Certification Practice, Competency,
Liability, Insurances and Added Value



Richard Atkins FRIAS RIBA