

## House Type Approval Certificate

Certificate No: **STAS/10/001/DM29/04**

Date: **12 January 2011**

<b>A</b>	<b>Certificate Holder:</b> Name: <b>REDROW HOMES</b> Address: <b>REDROW HOUSE ST DAVID'S PARK FLINTSHIRE CH53RX</b> E-mail: <b>gary.markham@redrow.co.uk</b>	<b>01244 520044</b>
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<b>B</b>	<b>House Type Titles:</b> Description: <b>Redrow Standard House Type</b>	<b>Callender</b>
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<b>C</b>	The system type has been assessed on the following drawings and specifications:  <b>See attached annexe to this certificate</b>
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<b>D</b>	<b>Climatic conditions:</b> The design may be built in areas where the climatic conditions are equal to or less than those detailed below: <b>Important Exclusion Note: All structural elements are excluded from this STAS Type Approval Certificate. Such matters are dealt with through the site specific building warrant application – see Condition 7 under Section E below.</b>	
	<b>Wind:</b> (as defined in BS 6399-2)	Standard effective wind speed, $V_e$ = For maximum effective height = Has funnelling been considered?  <b>24 m/s 9.5 m Yes</b>
	<b>Wind:</b> (as defined in CP3: Chapter V)	Design wind speed, $V_s$ = (relevant to the building frame, at a height of 3m or less)  <b>m/s</b>
	<b>Snow:</b> (as defined in BS 6399-3)	Site snow load, $S_o$ = Influenced by adjacent buildings?  <b>1.0 Kn/m2 No</b>
	<b>Resistance to moisture/durability of exposed elements:</b>	Max exposure (to wind driven rain) grading, as defined in BRE Report – Thermal Insulation: Avoiding Risks, Second Edition, 1994, to be exposure zone: Exposure to sea spray (i.e. coastal region) or de-icing salts? Other air contaminants or biological factors – please specify any enhanced resistance if applicable (refer to BS7543 for guidance)  <b>Exposure Zones 2, 3 and 4  No</b>
	<b>Design Life:</b> (per BS 7543 – Durability of buildings and building elements, products and components)	Category of building design life =  Design life of primary building envelope  <b>50 years 50 years</b>

<b>E</b>	<b>Conditions of certification:</b>
	<ol style="list-style-type: none"> <li>The design shown and the specifications and materials referred to have been assessed and approved in accordance with the Building (Scotland) Regulations 2004 and in accordance with the supporting guidance in the Domestic Technical Handbooks which came into force with effect from 1 May 2009. NOTE: This assessment and approval DOES NOT take cognisance of the Domestic Technical Handbooks which came into force with effect from 1 October 2010.</li> <li>The certificate shall be valid until invalidated by formal notice by the Scottish Association of Building Standards Managers</li> <li>This approval is issued on the basis that the layout of principal living level shall permit the formation of an accessible shower room at a future date either in a separate, enclosed space of a size, either alone or by incorporation with the accessible toilet, as is specified under clause 3.12.3 to Standard 3.12. Such future accessible shower room shall not compromise "other floor area needs and manoeuvrability needs" within the apartment or the dwelling.</li> <li>The design shown and the materials specified shall not be changed without reference to the Scottish Association of Building Standards Managers responsible for certifying the system.</li> <li>Where reference is made on a plan or specification document to any Code of Practice, British or European Standard or manufacturer's instruction it shall be construed as a reference to such publication in the form in which it is in force at the date of this certificate.</li> <li>This certificate should not be regarded as a formal approval under the building warrant process prescribed by the Building (Scotland) Act 2003 enacted from 1 May 2005</li> <li>The Bett Associates Calculations dated October 2010, referenced here under Section H, confirm that a structural appraisal has been carried out and confirms that further site specific information MUST BE made available when a site specific building warrant is sought. Such additional information should take cognisance of Procedural Guidance on Certification including information to be submitted with a Building Warrant Application dated April 2010 Version 2. Confirmation of a holistic approach to structural adequacy of the entire completed building shall be provided by a registered engineer to the local authority within whose area the site specific dwelling is to be built.</li> </ol>

**Annexe of drawings, certificates and specification documents used in the assessment:**

<b>F</b>	<b>Drawing Number:</b>	<b>Description:</b>
	<b>General Design Drawings and Specification</b>	
1.	Callender-SCTH151-1-000	Register
2.	Callender-SCTH151--1-101(D)	Indicative Drainage Layout
3.	Callender-SCTH151--1-201(F)	Structural Plan – Ground Floor
4.	Callender-SCTH151--1-202(F)	Structural Plan – First Floor
5.	Callender-SCTH151--1-301(A)	Typical Section A-A Brick
6.	Callender-SCTH151--1-302	Sections B-B Brick
7.	Callender-SCTH151--1-401(C)	Elevations Brick - Elevational Code B1
8.	Callender-SCTH151--1-402(C)	Elevations Render - Elevational Code A1
9.	Callender-SCTH151--1-501(B)	Details – Staircase 1 of 3
10.	Callender-SCTH151--1-502(B)	Details – Staircase 2 of 3
11.	Callender-SCTH151--1-503(A)	Details – Staircase 3 of 3
12.	Callender-SCTH151--1-601(C)	Services Layout – Ground Floor
13.	Callender-SCTH151--1-602(B)	Services Layout – First Floor
14.	Callender-SCTH151--1-640	Central Heating – Ground Floor (Wavin)
15.	Callender-SCTH151--1-641	Central Heating – First Floor (Wavin)
16.	Callender-SCTH151--1-642	Hot and Cold Water – Ground Floor (Wavin)
17.	Callender-SCTH151--1-643	Hot and Cold Water – First Floor (Wavin)
18.	Callender-SCTH151--1-644	Internal Drainage Layout (Wavin)
19.	Callender-SCTH151--1-650	Heating, Plumbing and Schedule (Myson)
20.	Callender-SCTH151--1-651	Heating Layout – Ground and First Floor (Myson)
21.	Callender-SCTH151--1-652	Plumbing Layout (Myson)
22.	Callender-SCTH151--1-653	Plumbing Layout (Myson)
23.	Callender-SCTH151--1-701	Layout and Elevations – Cloaks and Laundry
24.	Callender-SCTH151--1-702(A)	Layout and Elevations – Bathroom
25.	Callender-SCTH151--1-703(A)	Layout and Elevations – En-suite
26.	Callender-SCTH151--1-750(A)	Layout – Kitchen and Utility
27.	Callender-SCTH151-1-751	Upgrade Lighting Layout - Kitchen
28.	Callender-SCTH151--1-801	Sections Through Porch Canopy and Junction with Bay
29.	Callender-SCTH151--1-850(A)	Ground Floor Activity Areas
30.	Callender-SCTH151--1-851(B)	First Floor Activity Areas

<b>G</b>	<b>Certification</b>	

<b>H</b>	<b>Specification</b>	
	01 – General Specification Sheet 1 of 2 dated 25/08/10 Rev C	Redrow Range Houses – C Series Scotland for Sites using 318 Timber Frame External Wall Construction
	01 – General Specification Sheet 2 of 2 dated 25/08/10 Rev C	Redrow Range Houses – C Series Scotland for Sites using 318 Timber Frame External Wall Construction
	Vent-Axia New SCTH-Series House Types dated 18/08/10	Ventilation and Lo-Carbon Centra dMEV Fan schedule
	Redrow Scotland House Type Summary	House Type Schedule
	Bett Associates Calculations dated October 2010	Specialist Calculations and signed by RM Frimston
	BRE info on the Hepvo waste system	Certificate no. 042/97 third issue 07/08
	Redrow Insulation Schedule - The New Heritage Collection	Scotland Rev B

<b>I</b>	<b>Authority:</b>	
	This system type approval certificate consisting of 2 pages is authorised by:	Signature:
		<b>Robert A Renton, Secretary to STAS</b> on behalf of the Scottish Association of Building Standards Managers.