

## House Type Approval Certificate

Certificate No: **STAS/18/056/DM82/02**

Date: **05 November 2018**

<b>A</b>	<b>Certificate Holder:</b>
	<p>Barratt West Scotland, 7 Buchanan gate, Cumbernauld Road, Stepps, Glasgow, G33 6FB</p> <p>E-mail: <a href="mailto:david.mcbride@barratthomes.co.uk">david.mcbride@barratthomes.co.uk</a> <span style="float: right;">Tel: 0141 779 8300</span></p>

<b>B</b>	<b>House Type Titles:</b>
	<p>Description: <b>Arklet SH31 – Semi detached two storey house (including handed option)</b></p>

<b>C</b>	<b>The domestic type approval has been assessed on the following drawings and specifications:</b>
	<p>See attached annexe to this certificate</p>

<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>Wind:</b> (as defined in BS 6399-2)	<p>Standard effective wind speed, <math>V_e =</math> For maximum effective height = Has funnelling been considered?</p>	<p>29.6 m/s 8.15m NO</p>
	<b>Wind:</b> (as defined in CP3: Chapter V)	<p>Design wind speed, <math>V_s =</math> (relevant to the building frame, at a height of 3m or less)</p>	<p>44.4M/S</p>
	<b>Snow:</b> (as defined in BS 6399-3)	<p>Site snow load, <math>S_o =</math> Influenced by adjacent buildings?</p>	<p>0.6 Kn/m2 NO</p>
	<b>Resistance to moisture/durability of exposed elements:</b>	<p>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)</p>	<p>Zone 4  YES</p>
	<b>Design Life:</b> (per BS 7543 – Durability of buildings and building elements, products and components)	<p>Category of building design life = Design life of primary building envelope</p>	<p>60 years 60 years</p>

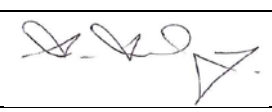
<b>E</b>	<b>Conditions of certification:</b>
	<ol style="list-style-type: none"> <li>The design shown and the specifications and materials referred to have been assessed and approved in accordance with the Building (Scotland) Regulations 2004 and in accordance with the supporting guidance in the Domestic Technical Handbooks which came into force with effect from 1 July 2017.</li> <li>The certificate shall be valid until invalidated by formal notice by the Local Authority Building Standards Scotland.</li> <li>The design shown and the materials specified shall not be changed without reference to the Local Authority Building Standards Scotland 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 Charles Scott &amp; Partners Consulting Engineers Limited statement dated March 2018 referenced here under Section G, confirms that a structural appraisal has been carried out. 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 (2017). 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> <li>This certificate confirms compliance with mandatory standard 6.1. However, this is based on a notional 'worst case' criteria with regards to orientation, shading, sheltering and resultant PV array efficiency. Site specific information will be required to confirm the actual DER for the STAS approved house type on each plot on a particular site.</li> </ol>

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

<b>F</b>	<b>Drawing Number:</b>	<b>Description:</b>
	5589(4)EL101 rev F	Elevations
	5589(4)PL103 rev C	Substructure plan
	5589(4)PL104 rev J	Ground floor plan
	5589(4)PL105 rev G	First floor plan
	5589(4)PL106 rev C	Joist plan
	5589(4)PL107 rev B	Roof plan
	5589(4)PL108 rev C	Substructure plan (OPP)
	5589(4)PL109 rev H	Ground floor plan (OPP)
	5589(4)PL110 rev G	First floor plan (OPP)
	5589(4)PL111 rev C	Joist plan (OPP)
	5589(4)PL112 rev B	Roof plan (OPP)
	5589(4)PL113	Electrical layout
	5589(4)PL114	Services layout
	5589(4)SC101 rev E	Kitchen schedule
	5589(4)SC102 rev B	Bathroom schedule
	5589(4)SC103 rev C	Schedules
	5589(4)SE101 rev D	Section
	7777-S073 rev A	Foundation, ground floor slab and sub-structure
	7777-S074 rev A	Lintel and movement joints
	7777-S075 rev A	Timber Kit
	14/246-87	Heating installation – ground floor
	14/246-88	Heating installation – first floor
	14/246-89	Hot and cold water – ground floor
	14/246-90	Hot and cold water – first floor
	BDW-STAS-DETAIL-PACK	Standards details pack

<b>G</b>	<b>Certification:</b>	
	Statement of structural adequacy	Charles Scott and Partners March 2018

<b>H</b>	<b>Specification:</b>	
	Timber frame specification	Rev A 26.06.17 including addendum
	U-value calcs	Pitched roof, wall, floor
	Fire resistance test for ceiling	Chiltern International Fire – ref Chilt/IF06021
	Fireus	Manufactures data on fire rated ceiling fan closures
	IFC assessment report	Fire resistance of timber floors
	Structural calculations	For reference
	Regulation compliance report	NHER
	SAP worksheet	NHER

<b>I</b>	<b>Authority:</b>		
	This system type approval certificate consisting of 2 pages is authorised by:	Signature:	
			Lead Authority Building standards Manager on behalf of the Local Authority Building Standards Scotland (LABSS)