

## House Type Approval Certificate

Certificate No: **STAS/18/015/DM57/06/AMND03**

Date: **01 February 2019**

<b>A</b>	<b>Certificate Holder:</b>
	Springfield Properties, Springfield House, 3 Central Park Avenue, Larbert, FK5 4RX
	E-mail: <a href="mailto:craig.veldon@springfield.co.uk">craig.veldon@springfield.co.uk</a> Tel: <b>01324 555536</b>

<b>B</b>	<b>House Type Titles:</b>
	Description: <b>Arden – 4B 1224DT detached two storey house with integrated garage</b>


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

<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)	Standard effective wind speed, $V_e$ = For maximum effective height = Has funnelling been considered?	<b>44.1 m/s</b> <b>10.0m</b> <b>NO</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>25.5 m/s</b>
	<b>Snow:</b> (as defined in BS 6399-3)	Site snow load, $S_o$ = Influenced by adjacent buildings?	<b>0.75 Kn/m2</b> <b>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>Zone 4</b>  <b>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>60 years</b>  <b>60 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 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 Bill Henderson Consulting Engineer Ltd amended statement dated 26 October 2018 referenced here under Section G, confirm 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. Confirmation of a holistic approach to structural adequacy of the <u>entire completed building</u> 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>
	1224dt(AS)001 A	Schedules
	1224dt(AS)103 A	Plot Works Layout, Gas & Air Source Heat Pump Hybrid Heating
	1224dt(AS)205 A	Drainage Isometric
	1224dt(AS)301 L	Ground Floor Layout
	1224dt(AS)302 F	First Floor Layout
	1224dt(AS)305 L	First Floor Services Layout
	1224dt(AS)324 T	Ground Floor Service Layout Gas & Air Source Heat Pump Hybrid Heating
	1224dt(AS)421 J	Elevations - Standard Arrangement Gas & Air Source Heat Pump Hybrid Heating
	1224dt(AS)501 A	Section A-A
	1224dt(AS)502 E	Section B-B
	1224dt(AS)504 A	Stair Section
	1224dt(AS)505 A	Stair Layouts
	1224dt(AS)515 A	Bay Window/Canopy Post Details Ground Bearing & Suspended Slab
	1224dt(AS)516 B	Bay Window/Canopy Post Setting Out Ground Bearing & Suspended Slab
	1224dt(AS)520	Section Through Bay Window and Beam Arrangement
	1224dt(AS)601 D	Floor Joist Layout
	1224dt(AS)602 B	Roof Layout
	1224dt(AS)701 A	Cloak Room Layout
	1224dt(AS)702 C	Ground Floor Shower Room Layout
	J10206_Arden	Finnjoist (FJI) Kerto LVL
	Q17388AE	Roof Truss Layout
	608 S1 W1	Structural Notes Timber Frame Construction
	608 S2 W3	Timber Frame Typical Details Ground Bearing Floor Slab
	608 S5 W1	Timber Frame Typical Details Suspended Slab
	DET(TK)03-01 B	Ground Floor Detail with Suspended Slab, Polished Finish
	DET(TK)03-02 A	Ground Floor Detail with Ground Bearing Slab, Polished Finish
	DET(TK)03-07 B	Dwarf Wall Detail with Suspended Slab, Polished Finish
	DET(TK)04-02 B	External Wall, Internal & External Corner Detail
	DET(TK)04-06 -	External Wall to Party Wall Detail
	DET(TK)05-01 C	Typical Cavity Barrier Positions
	DET(TK)08-01 B	Mid Floor Detail at External Wall, Parallel Joists
	DET(TK)08-02 B	Mid Floor Detail at External Wall, Perpendicular Joists
	DET(TK)08-03 B	Mid Floor Detail at External Wall, Parallel Joists
	DET(TK)11-07 B	40 degrees Eaves Detail at First Floor Wall Head
	DET(TK)11-08 B	40 degrees Eaves Detail at First Floor Window Head
	DET(TK)11-12 B	Verge Detail
	DET(TK)14-01 B	Window Cill Detail – Ground Floor, Render
	DET(TK)14-02 B	Window Cill Detail – First Floor, Render
	DET(TK)14-05 A	Window Jamb Detail – Render
	DET(TK)14-07 B	Window Head Detail – Ground Floor, Render
	DET(TK)14-08 B	Window Head Detail – First Floor, Render
	DET(TK)15-01 A	External Door Detail Level Access Threshold Polished Slab Finish
	DET(TK)15-02 A	External Door Detail Stepped Access Threshold Polished Slab Finish
	DET(TK)29-01	Timber Kit Hold Down strap Detail
	DET(TK)29-02	Typical Roof Fixing Details Page 1
	DET(TK)29-03	Typical Roof Fixing Details Page 2
	DET(TK)29-04	Typical Roof Fixing Details Page 3
	DET(TK)29-05	Typical Roof Fixing Details Page 4
	CAS 8499_20	Vent Axia Arden 1224DT
	608 S(ARDE)25	Structural overlay
	Arden – 2017 – REV 2	Front Cover

<b>G</b>	<b>Certification:</b>	
	BRE Global Ltd Certificate of Design (Section6 – Energy)	For all house types
	STAS/13/053/RD06/01	Registered detail certificate for ventilation system
	Amended Statement of structural adequacy	From Bill Henderson Consulting Engineer Ltd dated 26 October 2018
<b>H</b>	<b>Specification:</b>	
	Springfield – 2019 Building Standards Technical Specification Mainstream Housing – Timber Frame Hybrid Air Source Heat Pump & Gas Central Heating, Date 01/01/2019	For all house types
	Stroma SAP ratings 2012	For all house types
	Section 6 Certificate of Design covering letter	Moda letter dated 17 December 2018
	Sustainability Bronze Level	Arden
	BRE report	Intermediate Floor sound test
	Sound test c/03/5L/0835/1	Intermediate Floor sound test report
	Vent Axia Lo-carbon dMEV unit	Manufacturers information for ventilation system
	Bill Henderson Consulting Engineer Ltd Calculation Sheet 608(i)W1	Introduction
	Bill Henderson Consulting Engineer Ltd Calculation Sheet 608(ii)W2	Notes for Timber Kit manufacture
	U-value calculation	Floor – ARDEN 0.17
	U-value calculation	Floor – exposed floor over garage 0.14
	U-value calculation	Rendered External Wall 0.21
	U-value calculation	Timber Clad External Wall 0.21
	U-value calculation	Wall – garage wall – 145mm insulation 0.2
	U-value calculation	Roof - main roof – 300mm insulation 0.15
	U-value calculation	Roof – slope roof – 150 + 30mm insulation 0.14
U-value calculation	Wall – dwarf walls 150mm insulation 0.24	
Robust Wall specification	Bill Henderson Consulting Engineer Ltd – letter and fixing specification dated 7 March 2017	
<b>I</b>	<b>Authority:</b>	
	This system type approval certificate consisting of 3 pages is authorised by:	Signature: 
		Lead Authority Building standards Manager on behalf of the Local Authority Building Standards Scotland (LABSS)

**Appendix A**

Regulation 9 Provisions on which dispensation is given	Decision	STAS Condition
<p>Technical Standard 3.12 Sanitary facilities (Domestic) Every building must be designed and constructed in such a way that sanitary facilities are provided for all occupants of, and visitors to, the building in a form that allows convenience of use and that there is no threat to the health and safety of occupants or visitors.</p> <p>Guidance Clause 3.12.3 of the Technical Handbook for dwellings identifies that walls adjacent to any sanitary facility are of robust construction that will permit secure fixing of grab rails or other aids in the zones noted in figure 3.32</p>	<p>Robust walls to structural engineers specification (Bill Henderson Consulting Engineer Ltd letter and fixing specification dated 7 March 2017)</p>	<p>Walls adjacent to any sanitary facility shall be constructed to Bill Henderson Consulting Engineer Ltd letter and fixing specification dated 7 March 2017)</p>