

## House Type Approval Certificate

Certificate No: **STAS/18/015/DM50/10/AMD03**

Date: **01 February 2019**

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| <b>A</b> | <b>Certificate Holder:</b>  |
|          | Springfield Properties, Springfield House, 3 Central Park Avenue, Larbert, FK5 4RX<br><br>E-mail: craig.veldon@springfield.co.uk <span style="float: right;">Tel: 01324 555536</span> |

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| <b>B</b> | <b>House Type Titles:</b>   |
|          | Description: <b>Dunblane – 4B 1461dt detached two storey house with detached garage</b> |

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| <b>C</b> | The domestic type approval 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>Wind:</b> (as defined in BS 6399-2)   | Standard effective wind speed, $V_e =$<br>For maximum effective height =<br>Has funnelling been considered?   | <b>44.1 m/s</b><br><b>10.0m</b><br><b>NO</b> |
|          | <b>Wind:</b> (as defined in CP3: Chapter V)  | Design wind speed, $V_s =$<br>(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, $S_o =$<br>Influenced by adjacent buildings?  | <b>0.75 Kn/m2</b><br><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:<br>Exposure to sea spray (i.e. coastal region) or de-icing salts?<br>Other air contaminants or biological factors – please specify any enhanced resistance if applicable (refer to BS7543 for guidance) | <b>Zone 4</b><br><br><b>NO</b>               |
|          | <b>Design Life:</b> (per BS 7543 – Durability of buildings and building elements, products and components)                                 | Category of building design life =<br><br>Design life of primary building envelope  | <b>60 years</b><br><br><b>60 years</b>       |


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| <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 inclusion of roof space smoke detection in lieu of roof space cavity barriers, while contrary to guidance, has been approved as an acceptable alternative approach – see Appendix A attached to and forming part of this certificate.</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>  |
|----------|------------------------|--|
|          | 1461dt(AS)000          | Cover sheet drawing list   |
|          | 1461dt (AS)001 D       | Schedules  |
|          | 1461dt (AS)101 C       | Plot Works Layout  |
|          | 1461dt (AS)205 B       | Foul Water Drainage Isometric  |
|          | 1461dt (AS)301 P       | General Floor General Arrangement  |
|          | 1461dt (AS)302 L       | First Floor General Arrangement  |
|          | 1461dt (AS)324 K       | Ground Floor Services Layout, Gas & Air Source Heat Pump Hybrid Heating      |
|          | 1461dt (AS)305 S       | First Floor Services Layout  |
|          | 1461dt (AS)421 G       | Elevations – Standard Arrangement, Gas & Air Source Heat Pump Hybrid Heating |
|          | 1461dt (AS)501 C       | Section A-A  |
|          | 1461dt (AS)502 A       | Section B-B  |
|          | 1461dt (AS)503 A       | Stair Sections   |
|          | 1461dt (AS)504 A       | Stair Plans  |
|          | 1461dt (AS)601 F       | Floor Joist Layout   |
|          | 1461dt (AS)602 A       | Roof Plan  |
|          | 1461dt (AS)701 G       | Accessible Cloakroom Layout  |
|          | J1000_Dunblane_B       | Finnjoist (FJI) Kerto LVL  |
|          | Q12593AK               | Roof Truss Layout and Truss Profiles   |
|          | 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)03-16           | Garage Floor Detail  |
|          | DET(TK)04-01 B         | Render on Lath Detail at Movement Joint to Masonry                           |
|          | DET(TK)04-02 B         | External Wall, Internal & External Corner 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)14-03 B         | Window Cill Detail - Ground Floor, Cladding                                  |
|          | DET(TK)14-05 A         | Window Jamb Detail – Render  |
|          | DET(TK)14-06 C         | Window Jamb Detail – Cladding  |
|          | 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_12            | Vent Axia Dunblane 1461DT  |
|          | 608 S(DUNB)5           | Structural overlay   |
|          | 196sg(AS)001           | Single Garage (AS) Schedules   |
|          | 196sg(AS)301           | Single Garage (AS) General Arrangement Layout                                |
|          | 196sg(AS)302           | Single Garage (AS) Services Layout   |
|          | 196sg(AS)401           | Single Garage (AS) Elevations  |
|          | 196sg(AS)501           | Single Garage (AS) Section A-A   |
|          | 196sg(AS)601           | Single Garage (AS) Roof Plan   |

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| <b>G</b> | <b>Certification:</b>   |   |
|          | <b>BRE Global Ltd Certificate of Design (Section6 – Energy)</b> | For all house types   |
|          | <b>STAS/13/053/RD06/01</b>                                      | Registered detail certificate for ventilation system              |
|          | <b>Amended Statement of structural adequacy</b>                 | From Bill Henderson Consulting Engineer Ltd dated 26 October 2018 |

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| <b>H</b> | <b>Specification:</b>   |   |
|          | <b>Springfield – 2019 Building Standards Technical Specification Mainstream Housing – Timber Frame Hybrid Air Source Heat Pump &amp; Gas Central Heating, Date 01/01/2019</b> | For all house types   |
|          | <b>Stroma SAP ratings 2012</b>  | For all house types   |
|          | <b>Section 6 Certificate of Design covering letter</b>  | Moda letter dated 17 December 2018  |
|          | <b>Sustainability Bronze Level</b>  | Dunblane  |
|          | <b>BRE report</b>   | Intermediate Floor sound test   |
|          | <b>Sound test c/03/5/0835/1</b>   | Intermediate Floor sound test report  |
|          | <b>Vent Axia Lo-carbon dMEV unit</b>  | Manufacturers information for ventilation system  |
|          | <b>Bill Henderson Consulting Engineer Ltd Calculation Sheet 608(i)W1</b>  | Introduction  |
|          | <b>Bill Henderson Consulting Engineer Ltd Calculation Sheet 608(ii)W2</b>   | Notes for Timber Kit manufacture  |
|          | <b>U-value calculation</b>  | Floor – DUNBLANE 0.17   |
|          | <b>U-value calculation</b>  | Rendered External Wall 0.21   |
|          | <b>U-value calculation</b>  | Timber Clad External Wall 0.21  |
|          | <b>U-value calculation</b>  | Roof - main roof – 300mm insulation 0.15  |
|          | <b>Robust Wall specification</b>  | Bill Henderson Consulting Engineer Ltd – letter and fixing specification dated 7 March 2017 |

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| <b>I</b> | <b>Authority:</b>   |   |
|          | This system type approval certificate consisting of 3 pages is authorised by: | Signature:                    |
|          |   | Lead Authority Building standards Manager<br>on behalf of the Local Authority Building Standards Scotland (LABSS) |

**Appendix A**

| Regulation 9<br>Provisions on which dispensation is given   | Decision   | STAS Condition   |
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| <p><b>Technical Standard 3.12 Sanitary facilities (Domestic)</b><br/>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><b>Guidance Clause 3.12.3</b> 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> | Robust walls to structural engineers specification (Bill Henderson Consulting Engineer Ltd letter and fixing specification dated 7 March 2017) | Walls adjacent to any sanitary facility shall be constructed to Bill Henderson Consulting Engineer Ltd letter and fixing specification dated 7 March 2017) |
| <p><b>Technical Standard 2.4 Cavities (Domestic)</b><br/>Every building must be designed and constructed in such a way that in the event of an outbreak of fire within the building, the unseen spread of fire and smoke within concealed spaces in its structure and fabric is inhibited.</p>  | The roofspace will be provided with automatic smoke detection hard wired and interlinked to the main AFD system                                | In accordance with decision  |

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| <p><b>Guidance Clause 2.4.2</b> of the Technical Handbook for dwellings identifies that roofspace cavities should be divided by cavity barriers so that the maximum distance between cavity barriers is not more than 10m where the cavity has surfaces which are very high risk materials.</p> |  |  |
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Approved 1 February 2019