

House Type Approval Certificate

Certificate No: **STAS/16/005/DM61/10**

Date: **28/12/2017**

A	Certificate Holder:	
	Persimmon Homes, Unit 1, Wester Inch Business Park, Old Well Court, Bathgate, West Lothian, EH48 2TQ.	
	E-mail: peter.Hacking@persimmonhomes.com	Tel: 0141 7662616

B	House Type Titles:	
	Description:	Bothwell Terraced three storey house (including mid and end terraced types and options to external fabric finishes)

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

D	Climatic conditions: The design may be built in areas where the climatic conditions are equal to or less than those detailed below:		
	Wind: (as defined in BS 6399-2)	<i>Standard</i> effective wind speed, V_e = For maximum effective height = Has funnelling been considered?	24 m/s 5m NO
	Wind: (as defined in CP3: Chapter V)	<i>Design wind speed</i> , V_s = (relevant to the building frame, at a height of 3m or less)	M/S
	Snow: (as defined in BS 6399-3)	<i>Site snow load</i> , S_o = Influenced by adjacent buildings?	0.60 Kn/m2 NO
	Resistance to moisture/durability of exposed elements:	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)	Zone 1/ Zone 2/ Zone 3 NO
	Design Life: (per BS 7543 – Durability of buildings and building elements, products and components)	Category of building design life = Design life of primary building envelope	50 years 50 years

E	Conditions of certification:	
	<ol style="list-style-type: none"> 1. 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. 2. The certificate shall be valid until invalidated by formal notice by the Local Authority Building Standards Scotland 3. 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. 4. 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. 5. 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 6. The Indev Consult Ltd statement dated 1/11/2016 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 (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. 7. This certificate confirms compliance with mandatory standard 6.1. However, this is based on a national '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. 	

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

F	Drawing Number:	Description:
	V6-TF-1022s(15)001A Rev B	Schedules & Electrical Legend Option A
	V6-TF-1022s(15)001B Rev B	Schedules & Electrical Legend Option B
	V6-TF-1022s(15)001C Rev B	Schedules & Electrical Legend Option C
	V6-TF-1022s(15)101	Foundation & Drainage Layout
	V6-TF-1022s(15)102 Rev B	Drainage Isometric
	V6-TF-1022s(15)201A Rev D	Ground Floor Plan Option A Mid Terrace Arrangement
	V6-TF-1022s(15)201B Rev D	Ground Floor Plan Option B End Terrace Left Gable
	V6-TF-1022s(15)201C Rev D	Ground Floor Plan Option C End Terrace Right Gable
	V6-TF-1022s(15)202A Rev C	First Floor Plan Option A Mid Terrace Arrangement
	V6-TF-1022s(15)202B Rev B	First Floor Plan Option B End Terrace Left Gable
	V6-TF-1022s(15)202C Rev B	First Floor Plan Option C End Terrace Right Gable
	V6-TF-1022s(15)203A Rev A	Second Floor Plan Option A Mid Terrace Arrangement
	V6-TF-1022s(15)203B Rev A	Second Floor Plan Option B End Terrace Left Gable
	V6-TF-1022s(15)203C Rev A	Second Floor Plan Option C End Terrace Right Gable
	V6-TF-1022s(15)301 Rev B	Section A-A
	V6-TF-1022s(15)302 Rev A	Section B-B
	V6-TF-1022s(15)401A Rev A	Elevations - BF1 Option A Mid Terrace Arrangement
	V6-TF-1022s(15)401B Rev A	Elevations - BF1 Option B End Terrace Left Gable
	V6-TF-1022s(15)401C Rev A	Elevations - BF1 Option C End Terrace Right Gable
	V6-TF-1022s(15)402A Rev A	Elevations – BF2 Option A Mid Terrace Arrangement
	V6-TF-1022s(15)402B Rev A	Elevations – BF2 Option B End Terrace Left Gable
	V6-TF-1022s(15)402C Rev A	Elevations – BF2 Option C End Terrace Right Gable

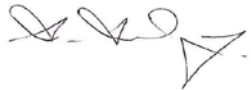
V6-TF-1022s(15)403A Rev A	Elevations – BF3 Option A Mid Terrace Arrangement
V6-TF-1022s(15)403B Rev A	Elevations – BF3 Option B End Terrace Left Gable
V6-TF-1022s(15)403C Rev A	Elevations – BF3 Option C End Terrace Right Gable
V6-TF-1022s(15)404A Rev A	Elevations – BF4 Option A Mid Terrace Arrangement
V6-TF-1022s(15)404B Rev A	Elevations – BF4 Option B End Terrace Left Gable
V6-TF-1022s(15)404C Rev A	Elevations – BF4 Option C End Terrace Right Gable
V6-TF-1022s(15)405A Rev A	Elevations – BF5 Option A Mid Terrace Arrangement
V6-TF-1022s(15)405B Rev A	Elevations – BF5 Option B End Terrace Left Gable
V6-TF-1022s(15)405C Rev A	Elevations – BF5 Option C End Terrace Right Gable
V6-TF-1022s(15)412A Rev A	Elevations – SF2 Option A Mid Terrace Arrangement
V6-TF-1022s(15)412B Rev A	Elevations – SF2 Option B End Terrace Left Gable
V6-TF-1022s(15)412C Rev A	Elevations – SF2 Option C End Terrace Right Gable
V6-TF-1022s(15)414A Rev A	Elevations – SF4 Option A Mid Terrace Arrangement
V6-TF-1022s(15)414B Rev A	Elevations – SF4 Option B End Terrace Left Gable
V6-TF-1022s(15)414C Rev A	Elevations – SF4 Option C End Terrace Right Gable
16-098-TIMBERKITBASE-403 Rev D	Bothwell Structural Layouts
16-098-TIMBERKITBASE-428	Bothwell Structural Details
TF1769A/001 Rev E	Bothwell Mid Terrace Option A Layout
TF1769A/002	Bothwell Mid Terrace Option A GF & FF Panel Elevations
TF1769A/003 Rev A	Bothwell Mid Terrace Option A SF & Apex Panels
TF1769B/001 Rev C	Bothwell End Terrace Option B Layout
TF1769B/002	Bothwell End Terrace Option B GF & FF Panel Elevations
TF1769B/003 Rev A	Bothwell End Terrace Option B SF & Apex Panels
TF1769C/001 Rev C	Bothwell End Terrace Option C Layout
TF1769C/002	Bothwell End Terrace Option C GF & FF Panel Elevations
TF1769C/003 Rev A	Bothwell End Terrace Option C SF & Apex Panels
JJI-BOTH-MID-OPT A	JJI Layout Mid Terrace

JJI-BOTH-END-OPT B	JJI Layout End Terrace
JJI-BOTH-END-OPT C	JJI Layout End Terrace
F-DETAILS-001	JJI Joist Details and Notching Parameters
TF-D(1)01	Ground Bearing Slab Detail
TF-D(1)02	Suspended Slab Detail
TF-D(1)05 Rev A	Level Access Threshold Detail
TF-D(1)06	Stepped Access Threshold Detail
TF-D(1)09 Rev B	GB & Suspended. Slab Separating Wall Detail
TF-D(1)10 Rev B	Stepped Party Wall Detail
TF-D(1)11	Dwarf Wall Detail
TF-D(2)01	External Wall Make Up
TF-D(2)02 Rev C	Stepped Brick Soldier Course Cill Detail
TF-D(2)03 Rev C	Brick Jamb Detail
TF-D(2)04 Rev C	Brick Head Detail
TF-D(2)05 Rev C	Precast Cill Detail
TF-D(2)06 Rev C	Precast Jamb Detail
TF-D(2)07 Rev C	Precast Head Detail
TF-D(2)08 Rev A	Separating Wall Detail
TF-D(2)09 Rev A	Staggered Separating Wall Detail
TF-D(2)10	Expansion Joint Detail
TF-D(2)11 Rev D	Steel Goalpost Arrangements
TF-D(2)12 Rev A	Steel Lintel/beam fire protection
TF-D(2)16 Rev A	Steel post and beam connection
TF-D(2)18	Steel lintol/beam - external and hallway
TF-D(2)21 Rev A	Separating Wall Junction - no service zone
TF-D(2)23	Steel Lintel/beam - External and WC
TF-D(3)01	Standard Internal Wall Make Ups (Section)
TF-D(3)02	Standard Internal Wall Make Ups (Plan)
TF-D(3)03	Acoustic Internal Wall Make Ups (Section)
TF-D(3)04	Accessible Sanitary Accommodation Grab Rails
TF-D(4)01 Rev A	Standard Mid Floor Make-Up
TF-D(4)02 Rev A	Perpendicular Joist Mid Floor Junction at External Wall
TF-D(4)03 Rev A	Parallel Joist Mid Floor Junction at External Wall
TF-D(4)04 Rev B	Parallel & Perpendicular Joist Mid Floor at Sep. Wall
TF-D(4)06 Rev B	Stair Trimmer Detail
TF-D(5)01 Rev B	Standard Eaves Detail
TF-D(5)02 Rev B	Standard Eaves at Window Head Detail
TF-D(5)03 Rev B	Standard Verge Detail
TF-D(5)04 Rev A	Standard Ridge Detail
TF-D(5)05 Rev A	Standard Valley Detail
TF-D(5)06 Rev A	Standard Abutment Detail
TF-D(5)07 Rev B	Separating Wall Detail
TF-D(5)08 Rev B	Stepped Separating Wall Detail
TF-D(5)09 Rev A	Condensation trap to Eaves Detail
TF-D(5)13	Door Head Canopy
TF-D(5)14 Rev A	Stepped Separating Wall Detail (FB Finish)
TF-D(5)15	Flexible Ducting Installation
TF-D(6)01	SVP Box-In Detail
TF-D(6)03	Wet Floor Formation Detail
TF-D(6)04	Drainage Pipe Backfil Detail
TF-D(6)05	Wall Mounted Combi Boiler Detail
TF-D(6)06 Rev B	Service Zone for Low Level/Below Cills
TF-D(6)08	In Building Infrastructure Detail
TF-D(7)01	Internal Door Jamb Detail
TF-D(7)02	External & Internal Pass Door Clearances
TF-D(7)03	Canopy Post Detail
TF-D(7)06	Door at Stair Detail - Full Height Door Detail
TF-D(7)07	Shower Tray at Base detail
TF-D(7)08	Downlight at shower upgrade detail
TF-D(7)09	Pigs Ear' Handrail Detail

TF-D(7)14	Bedroom Furniture Activity Spaces
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G	Certification:	
	Statement of structural adequacy	From Indev Consult LTD dated 01/11/2016
	Osma Soil and vent Systems BBA Certificate No. 86/1643	For AAV's
	Easy Trim Breather Membranes BBA Certificate No. 10/4753	For Roof Membrane
	Stormking Prefabricated Dormers BBA Certificate No. 06/4360	For Dormers
	Charlie Fleming Associates – Acoustical Consultants Report	For Fully Insulated Separating Wall Cavity

H	Specification:	
	STR-TF C SPEC V6 Rev J	V6 Technical Specification Timber Frame – All House Types
	STR-TF-DHDSPEC-V6	Heating Design Specification
	JJI-Joist Technical Bulletin 38 Acoustic Performance	For Intermediate Floors
	SRL Technical Report	Sound Testing Results for Intermediate Floor
	Acoustic Consultant Report	Sound Insulation of Separating Wall with Steel Post Detail
	SAP ratings	For all house types
U value calculations	For all elements	

I	Authority:	
	This system type approval certificate consisting of 5 pages is authorised by:	Signature: 
		Lead Authority Building standards Manager on behalf of the Local Authority Building Standards Scotland (LABSS)