

This design final submission provides evidence towards compliance with Part L of the Building Regulations, in accordance with Appendix C of AD L1A. It has been carried out by an On-Construction Domestic Energy Assessor and can be accepted for Building Control purposes without further checking. It has been prepared from plans and specifications and may not reflect the 'as built' property. This report covers only items included within the SAP and is not a complete report of regulations compliance.

Assessor name	8897 Tom Ferrett	Assessor number	8897
Client	Chase Homes	Last modified	05/11/2019
Address	Plot 580, Welwyn Garden City, AL7		

Check	Evidence	Produced by	OK?																		
Criterion 1: predicted carbon dioxide emission from proposed dwelling does not exceed the target																					
TER (kg CO ₂ /m ² .a)	Fuel = N/A Fuel factor = 1.00 TER = 19.11	Authorised SAP Assessor																			
DER for dwelling as designed (kg CO ₂ /m ² .a)	DER = 20.23	Authorised SAP Assessor																			
Are emissions from dwelling as designed less than or equal to the target?	DER 20.23 > TER 19.11 Excess emissions = 1.12 kg/m ² (5.86%)	Authorised SAP Assessor	Failed																		
Is the fabric energy efficiency of the dwelling as designed less than or equal to the target?	DFEE 52.8 < TFEF 54.3	Authorised SAP Assessor	Passed																		
Criterion 2: the performance of the building fabric and the heating, hot water and fixed lighting systems should be no worse than the design limits																					
Fabric U-values																					
Are all U-values better than the design limits in Table 2?	<table border="1"> <thead> <tr> <th>Element</th> <th colspan="2">Weighted average Highest</th> </tr> </thead> <tbody> <tr> <td>Wall</td> <td>0.19 (max 0.30)</td> <td>0.19 (max 0.70)</td> </tr> <tr> <td>Party wall</td> <td>0.00 (max 0.20)</td> <td>N/A</td> </tr> <tr> <td>Floor</td> <td>0.20 (max 0.25)</td> <td>0.20 (max 0.70)</td> </tr> <tr> <td>Roof (no roof)</td> <td></td> <td></td> </tr> <tr> <td>Openings</td> <td>1.40 (max 2.00)</td> <td>1.40 (max 3.30)</td> </tr> </tbody> </table>	Element	Weighted average Highest		Wall	0.19 (max 0.30)	0.19 (max 0.70)	Party wall	0.00 (max 0.20)	N/A	Floor	0.20 (max 0.25)	0.20 (max 0.70)	Roof (no roof)			Openings	1.40 (max 2.00)	1.40 (max 3.30)	Authorised SAP Assessor	Passed
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Thermal bridging																					
How has the loss from thermal bridges been calculated?	Thermal bridging calculated from linear thermal transmittances for each junction	Authorised SAP Assessor																			
Heating and hot water systems																					
Does the efficiency of the heating systems meet the minimum value set out in the Domestic Heating Compliance Guide?	Main heating system: Mains gas, Regular boiler from database Vaillant ecoFIT sustain 615 VU 156/6-3 (H-GB) Efficiency = 89.80% - SEDBUK 2009 Minimum = 88.00% Secondary heating system: None	Authorised SAP Assessor	Passed																		
Does the insulation of the hot water cylinder meet the standards set out in the Domestic Heating Compliance Guide?	Cylinder volume = 150.00 litres Declared cylinder loss = 1.80kWh/day Maximum permitted cylinder loss = 1.89kWh/day Primary hot water pipes are insulated	Authorised SAP Assessor	Passed																		
Do controls meet the minimum controls provision set out in the Domestic Heating Compliance Guide?	Space heating control: Time and temperature zone control - plumbing circuit Hot water control: Boiler interlock (main system 1) Cylinder thermostat Separate water control	Authorised SAP Assessor	Passed																		

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Fixed internal lighting			
Does fixed internal lighting comply with paragraphs 42 to 44?	Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 8 Percentage of low energy lights = 100% Minimum = 75 %	Authorised SAP Assessor	Passed
Criterion 3: the dwelling has appropriate passive control measures to limit solar gains			
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Slight (21.69°) Overheating risk (July) = Medium (23.32°) Overheating risk (August) = Medium (22.97°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 1.60 ach Blinds/curtains = Dark-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of the dwelling, as designed, is consistent with the DER			
Design air permeability (m ³ /(h.m ²) at 50Pa)	Design air permeability = 4.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical extract ventilation: SFP = 0.16 W/(litre/sec) Max SFP = 0.7 W/(litre/sec)	Authorised SAP Assessor	Passed
Have the key features of the design been included (or bettered) in practice?	The following party walls have a U-value less than 0.2W/m ² K: • Common area wall (0.00) • Party wall (0.00)	Authorised SAP Assessor	