### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PF1 Liffords Place, London, SW13		

111	Elliotus Flace, Estitudii, 50015		
Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon	dioxide emission from proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A	Authorised SAP Assessor	
	Fuel factor = 1.00 TER = 21.22		
DER for dwelling as designed (		Authorised SAP Assessor	
CO <sub>2</sub> /m <sup>2</sup> .a)		710111011550 5711 71555555	
Are emissions from dwelling a designed less than or equal to target?		Authorised SAP Assessor	Passed
s the fabric energy efficiency the dwellling as designed less or equal to the target?		Authorised SAP Assessor	Passec
Criterion 2: the performance	of the building fabric and the heating, hot water and fixed lighting systems sho	ould be no worse than the design	limits
Fabric U-values			
Are all U-values better than th		Authorised SAP Assessor	Passed
design limits in Table 2?	Wall 0.20 (max 0.30) 0.20 (max 0.70)		
	Party wall (no party wall) Floor 0.10 (max 0.25) 0.10 (max 0.70)		
	Roof (no roof)		
	Openings 1.31 (max 2.00) 1.40 (max 3.30)		
Thermal bridging			
How has the loss from therma oridges been calculated?	I Thermal bridging calculated from linear thermal transmittances for each junction	Authorised SAP Assessor	
Heating and hot water systen	ns		
set out in the Domestic Heatir	alue Mains gas, Combi boiler from database Ideal LOGIC COMBI ESP 24	Authorised SAP Assessor	Passed
Compliance Guide?	Efficiency = 89.00% - SEDBUK 2009 Minimum = 88.00%		
	Secondary heating system: None		
Does the insulation of the hot water cylinder meet the stand set out in the Domestic Heatin Compliance Guide?	ards	Authorised SAP Assessor	
Oo controls meet the minimul controls provision set out in the Domestic Heating Compliance	ne Time and temperature zone control - plumbing circuit	Authorised SAP Assessor	Passed
Source Compilation			
Guide?	Hot water control:		
Guide?	No hot water control:  No hot water cylinder  Boiler interlock (main system 1)		



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	ly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 8  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has appr	opriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (20.12°) Overheating risk (July) = Slight (21.82°) Overheating risk (August) = Slight (21.49°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery: SFP = 0.50 W/(litre/sec) Max SFP = 1.5 W/(litre/sec)	Authorised SAP Assessor	Passed
	Heat recovery efficiency = 91.00 % Min heat recovery efficiency = 70.00 %		



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PF2 Liffords Place, London, SW13		

Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon dioxi	de emission from proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A Fuel factor = 1.00 TER = 20.51	Authorised SAP Assessor	
DER for dwelling as designed (kg CO <sub>2</sub> /m <sup>2</sup> .a)	DER = 17.36	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 17.36 < TER 20.51	Authorised SAP Assessor	Passed
Is the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 51.8 < TFEE 59.6	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	building fabric and the heating, hot water and fixed lighting systems shoul	d be no worse than the desigr	limits
Fabric U-values			
Are all U-values better than the design limits in Table 2?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         0.00 (max 0.20)         N/A           Floor         0.10 (max 0.25)         0.10 (max 0.70)           Roof         (no roof)           Openings         1.31 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passed
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, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - 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?	No hot water cylinder	Authorised SAP Assessor	
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: No hot water cylinder	Authorised SAP Assessor	Passed
	Boiler interlock (main system 1)		



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	ly 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 appr	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (20.17°) Overheating risk (July) = Slight (21.85°) Overheating risk (August) = Slight (21.49°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of the	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.50 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	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/m²K:  o W2 - PW (0.00)  The following floors have a U-value less than 0.13W/m²K:  o F1 - Exposed (0.10)  Design air permeability of 3 m³/(h.m²) is less than 4 m³/(h.m²) at 50 Pa	Authorised SAP Assessor	



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PF3 Liffords Place, London, SW13		

Check	Evidence	Produced by	OK?
			OK:
·	de emission from proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A Fuel factor = 1.00	Authorised SAP Assessor	
	TER = 18.65		
DER for dwelling as designed (kg	DER = 15.93	Authorised SAP Assessor	
CO <sub>2</sub> /m <sup>2</sup> .a)			
Are emissions from dwelling as	DER 15.93 < TER 18.65	Authorised SAP Assessor	Passed
designed less than or equal to the target?			
σ, ,	DFEE 48.4 < TFEE 54.6	Authorised SAP Assessor	Passed
the dwellling as designed less than or equal to the target?			
	e building fabric and the heating, hot water and fixed lighting systems shou	uld be no werse than the design	limite
Fabric U-values	s building rabile and the heating, not water and fixed lighting systems shot	aid be no worse than the design	i illillis
	Element Weighted average Highest	Authorised SAP Assessor	Passed
Are all U-values better than the design limits in Table 2?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)	Authorised SAP Assessor	Passec
design mines in rubic 2.	Party wall 0.00 (max 0.20) N/A		
	Floor 0.10 (max 0.25) 0.10 (max 0.70)		
	Roof 0.10 (max 0.20) 0.10 (max 0.35)		
	Openings 1.31 (max 2.00) 1.40 (max 3.30)		
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		Authorised SAP Assessor	Passed
	Mains gas, Combi boiler from database		
set out in the Domestic Heating	Ideal LOGIC COMBI ESP 24		
Compliance Guide?	Efficiency = 89.00% - SEDBUK 2009 Minimum = 88.00%		
	Secondary heating system: None		
Does the insulation of the hot water cylinder meet the standards set out in the Domestic Heating Compliance Guide?	No hot water cylinder	Authorised SAP Assessor	
Do controls meet the minimum	Space heating control:	Authorised SAP Assessor	Passed
controls provision set out in the Domestic Heating Compliance	Time and temperature zone control - plumbing circuit		
Guide?	Hot water control:		
	No hot water cylinder		
	Boiler interlock (main system 1)		



Check	Evidence	Produced by	OK?
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 appro	priate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.52°)  Overheating risk (July) = Slight (21.27°)  Overheating risk (August) = Slight (21.09°)  Region = Thames  Thermal mass parameter = 250.00  Ventilation rate in hot weather = 3.00 ach  Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passec
Criterion 4: the performance of the	e dwelling, as designed, is consistent with the DER		
Design air permeability	e dwelling, as designed, is consistent with the DER  Design air permeability = 3.00  Max air permeability = 10.00	Authorised SAP Assessor	Passed
Design air permeability	Design air permeability = 3.00	Authorised SAP Assessor  Authorised SAP Assessor	Passec Passec



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PF4 Liffords Place, London, SW13		

Check	Evidence		Produced by	OK?
		ed dwelling does not exceed the target	- Trouver by	
TER (kg CO₂/m².a)	Fuel = N/A Fuel factor = 1.00 TER = 18.01	ed dwelling does not exceed the target	Authorised SAP Assessor	
DER for dwelling as designed (kg CO <sub>2</sub> /m <sup>2</sup> .a)	DER = 14.90		Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 14.90 < TER 18.01		Authorised SAP Assessor	Passed
Is the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 48.6 < TFEE 56.1		Authorised SAP Assessor	Passed
Criterion 2: the performance of the	building fabric and the	neating, hot water and fixed lighting systems sho	ould be no worse than the design	n limits
Fabric U-values				
Are all U-values better than the design limits in Table 2?	Element Weight Wall 0.20 (m Party wall (no part Floor 0.10 (m Roof (no roo Openings 1.31 (m	y wall) ax 0.25)	Authorised SAP Assessor	Passec
Thermal bridging				
How has the loss from thermal bridges been calculated?	Thermal bridging calcula junction	ted from linear thermal transmittances for each	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?		24 DBUK 2009	Authorised SAP Assessor	Passed
Does the insulation of the hot water cylinder meet the standards set out in the Domestic Heating Compliance Guide?	No hot water cylinder		Authorised SAP Assessor	
Do controls meet the minimum controls provision set out in the Domestic Heating Compliance Guide?	Space heating control: Time and temperature z	one control - plumbing circuit	Authorised SAP Assessor	Passec
MUIUE!	HOL WALER COHERON.			



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	ly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 8  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has appr	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.59°) Overheating risk (July) = Slight (21.32°) Overheating risk (August) = Slight (21.05°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.50 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PF5 Liffords Place, London, SW13		

Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon dioxi	de emission from proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A	Authorised SAP Assessor	
	Fuel factor = 1.00 TER = 20.23		
	DER = 16.94	Authorised SAP Assessor	
CO <sub>2</sub> /m <sup>2</sup> .a)	22.0	710411071000 0711 71000000	
Are emissions from dwelling as designed less than or equal to the arget?	DER 16.94 < TER 20.23	Authorised SAP Assessor	Passed
s the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 52.1 < TFEE 60.2	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	building fabric and the heating, hot water and fixed lighting systems should	d be no worse than the design	limits
Fabric U-values			
Are all U-values better than the	Element Weighted average Highest	Authorised SAP Assessor	Passed
lesign limits in Table 2?	Wall 0.20 (max 0.30) 0.20 (max 0.70)		
	Party wall (no party wall)  Floor 0.10 (max 0.25) 0.10 (max 0.70)		
	Roof (no roof)		
	Openings 1.31 (max 2.00) 1.40 (max 3.30)		
hermal bridging			
	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, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - SEDBUK 2009 Minimum = 88.00%	Authorised SAP Assessor	Passed
	Secondary heating system: None		
Does the insulation of the hot water cylinder meet the standards set out in the Domestic Heating Compliance Guide?	No hot water cylinder	Authorised SAP Assessor	
controls provision set out in the	Space heating control:	Authorised SAP Assessor	Passed
controls provision set out in the Domestic Heating Compliance	Time and temperature zone control - plumbing circuit		



Check	Evidence	Produced by	ок?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	ly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 8  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has appr	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.46°) Overheating risk (July) = Slight (21.2°) Overheating risk (August) = Slight (20.98°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
NA - al- a mined a sensitiation as set a sec	Mechanical ventilation with heat recovery:	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	SFP = 0.50 W/(litre/sec) Max SFP = 1.5 W/(litre/sec) Heat recovery efficiency = 91.00 % Min heat recovery efficiency = 70.00 %	Authorised 5/11 / hisessor	



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PS1 Liffords Place, London, SW13		

Chook	Evidence		Duodinoodhaa	OK3
Check			Produced by	OK?
·	n dioxide emission fr	om proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A	1.00	Authorised SAP Assessor	
	Fuel factor = TER = 19.35	1.00		
DER for dwelling as designed			Authorised SAP Assessor	
CO <sub>2</sub> /m <sup>2</sup> .a)	1 (Kg DEN - 10.13		Additionised SAIT Assessor	
Are emissions from dwelling designed less than or equal t target?		TER 19.35	Authorised SAP Assessor	Passe
Is the fabric energy efficiency the dwellling as designed les or equal to the target?		FEE 53.8	Authorised SAP Assessor	Passe
Criterion 2: the performance	of the building fabi	ric and the heating, hot water and fixed lighting systems sho	ould be no worse than the design	n limits
Fabric U-values				
Are all U-values better than t	the <b>Element</b>	Weighted average Highest	Authorised SAP Assessor	Passe
design limits in Table 2?	Wall	0.20 (max 0.30) 0.20 (max 0.70)		
	Party wall	(no party wall)		
	Floor	(no floor)		
	Roof	0.10 (max 0.20) 0.10 (max 0.35)		
	Openings	1.31 (max 2.00) 1.40 (max 3.30)		
Thermal bridging				
How has the loss from therm bridges been calculated?	nal Thermal brid junction	ging calculated from linear thermal transmittances for each	Authorised SAP Assessor	
Heating and hot water syste	ms			
Does the efficiency of the he			Authorised SAP Assessor	Passe
systems meet the minimum	<b>U</b> ,			
set out in the Domestic Heat Compliance Guide?	· ·	OMBI ESP 24 9.00% - SEDBUK 2009		
compliance duide:	Minimum = 8			
		eating system: None		
Does the insulation of the howater cylinder meet the stan set out in the Domestic Heat Compliance Guide?	idards	cylinder	Authorised SAP Assessor	
Do controls meet the minimucontrols provision set out in Domestic Heating Compliance	the Time and ten	g control: nperature zone control - plumbing circuit	Authorised SAP Assessor	Passe
Guide?	Hot water co			
	No hot water			
	Boiler interlo	ck (main system 1)		



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	ly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 8  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has appr	opriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.73°) Overheating risk (July) = Slight (21.45°) Overheating risk (August) = Slight (21.18°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery: SFP = 0.50 W/(litre/sec)	Authorised SAP Assessor	Passed
Specific fall power (SFP)	Max SFP = 1.5 W/(litre/sec) Heat recovery efficiency = 91.00 % Min heat recovery efficiency = 70.00 %		



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PS2 Liffords Place, London, SW13		

Check	Evidence	Produced by	OK?
	de emission from proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A Fuel factor = 1.00 TER = 18.76	Authorised SAP Assessor	
DER for dwelling as designed (kg CO <sub>2</sub> /m <sup>2</sup> .a)	DER = 15.48	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 15.48 < TER 18.76	Authorised SAP Assessor	Passeo
Is the fabric energy efficiency of the dwellling as designed less thar or equal to the target?	DFEE 43.6 < TFEE 50.8	Authorised SAP Assessor	Passed
Criterion 2: the performance of th	e 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?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         0.00 (max 0.20)         N/A           Floor         (no floor)           Roof         0.10 (max 0.20)         0.10 (max 0.35)           Openings         1.31 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passed
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, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - 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?	No hot water cylinder	Authorised SAP Assessor	
Do controls meet the minimum controls provision set out in the Domestic Heating Compliance	Space heating control: Time and temperature zone control - plumbing circuit	Authorised SAP Assessor	Passed
Guide?	Hot water control:  No hot water cylinder  Poilor interled (main purpose 1)		
	Boiler interlock (main system 1)		



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 8  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.77°) Overheating risk (July) = Slight (21.48°) Overheating risk (August) = Slight (21.19°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	the dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.50 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed
Have the key features of the design been included (or bettere in practice?	The following party walls have a U-value less than 0.2W/m²K: ed) • W2 - PW (0.00)  The following roofs have a U-value less than 0.13W/m²K: • R1 - Flat (0.10)	Authorised SAP Assessor	

Design air permeability of 3 m³/(h.m²) is less than 4 m³/(h.m²) at 50 Pa



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PS3 Liffords Place, London, SW13		

Check	Evidence	Produced by	ок?
Criterion 1: predicted carbon dioxi	de emission from proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A Fuel factor = 1.00 TER = 15.37	Authorised SAP Assessor	
DER for dwelling as designed (kg CO <sub>2</sub> /m <sup>2</sup> .a)	DER = 12.64	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 12.64 < TER 15.37	Authorised SAP Assessor	Passed
Is the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 38.7 < TFEE 42.7	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	e 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?	ElementWeighted average HighestWall0.20 (max 0.30)0.20 (max 0.70)Party wall(no party wall)Floor(no floor)Roof(no roof)Openings1.31 (max 2.00)1.40 (max 3.30)	Authorised SAP Assessor	Passed
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, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - 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?	No hot water cylinder	Authorised SAP Assessor	
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:	Authorised SAP Assessor	Passed
	No hot water cylinder Boiler interlock (main system 1)		



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly 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 app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.78°) Overheating risk (July) = Slight (21.5°) Overheating risk (August) = Slight (21.22°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.50 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed
Have the key features of the design been included (or bettere	Design air permeability of 3 m³/(h.m²) is less than 4 m³/(h.m²) at 50 Pa	Authorised SAP Assessor	



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PS4 Liffords Place, London, SW13		

Check	Evidence	Produced by	OK?
	de emission from proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A Fuel factor = 1.00 TER = 17.08	Authorised SAP Assessor	
DER for dwelling as designed (kg CO <sub>2</sub> /m².a)	DER = 14.14	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 14.14 < TER 17.08	Authorised SAP Assessor	Passed
Is the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 39.8 < TFEE 44.1	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			
S .	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         (no party wall)           Floor         (no floor)           Roof         (no roof)           Openings         1.31 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passed
Thermal bridging			
	Thermal bridging calculated from linear thermal transmittances for each junction	Authorised SAP Assessor	
Heating and hot water systems			
set out in the Domestic Heating Compliance Guide?	Main heating system: Mains gas, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - SEDBUK 2009 Minimum = 88.00% Secondary heating system: None	Authorised SAP Assessor	Passed
	No hot water cylinder	Authorised SAP Assessor	
	Space heating control: Time and temperature zone control - plumbing circuit Hot water control:	Authorised SAP Assessor	Passed



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly 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 app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.68°) Overheating risk (July) = Slight (21.41°) Overheating risk (August) = Slight (21.18°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.50 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed
Have the key features of the design been included (or bettere	Design air permeability of 3 m³/(h.m²) is less than 4 m³/(h.m²) at 50 Pa	Authorised SAP Assessor	



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PT1 Liffords Place, London, SW13		

TTI LITO	· · ·		
Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon dioxi	de emission from proposed dwelling does not exceed the target		
ER (kg CO₂/m².a)	Fuel = N/A Fuel factor = 1.00	Authorised SAP Assessor	
	TER = 25.00		
DER for dwelling as designed (kg CO <sub>2</sub> /m².a)	DER = 20.83	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the arget?	DER 20.83 < TER 25.00	Authorised SAP Assessor	Passed
s the fabric energy efficiency of he dwellling as designed less than or equal to the target?	DFEE 63.1 < TFEE 76.5	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	building fabric and the heating, hot water and fixed lighting systems should	d be no worse than the design	limits
abric U-values			
Are all U-values better than the design limits in Table 2?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         (no party wall)           Floor         (no floor)           Roof         0.15 (max 0.20)         0.15 (max 0.35)           Openings         1.31 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passed
hermal bridging			
	Thermal bridging calculated from linear thermal transmittances for each junction	Authorised SAP Assessor	
Heating and hot water systems			
Does the efficiency of the heating ystems meet the minimum value et out in the Domestic Heating Compliance Guide?	Main heating system: Mains gas, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - SEDBUK 2009 Minimum = 88.00%  Secondary heating system: None	Authorised SAP Assessor	Passed
Does the insulation of the hot water cylinder meet the standards et out in the Domestic Heating Compliance Guide?	No hot water cylinder	Authorised SAP Assessor	
Oo controls meet the minimum controls provision set out in the Domestic Heating Compliance	Space heating control: Time and temperature zone control - plumbing circuit	Authorised SAP Assessor	Passed



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 6  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.87°) Overheating risk (July) = Slight (21.59°) Overheating risk (August) = Slight (21.31°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	the dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.42 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed
Have the key features of the design been included (or bettere	Design air permeability of 3 m³/(h.m²) is less than 4 m³/(h.m²) at 50 Pa	Authorised SAP Assessor	



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PT2 Liffords Place, London, SW13		

112 11101	d3 Flace, Editabli, 50013		
Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon dioxid	le emission from proposed dwelling does not exceed the target		
, ,	Fuel = N/A Fuel factor = 1.00 TER = 23.57	Authorised SAP Assessor	
	DER = 19.69	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 19.69 < TER 23.57	Authorised SAP Assessor	Passed
Is the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 58.2 < TFEE 69.1	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	building fabric and the heating, hot water and fixed lighting systems should	d be no worse than the desigr	limits
Fabric U-values			
design limits in Table 2?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         0.00 (max 0.20)         N/A           Floor         (no floor)           Roof         0.15 (max 0.20)         0.15 (max 0.35)           Openings         1.31 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passec
Thermal bridging			
	Thermal bridging calculated from linear thermal transmittances for each junction	Authorised SAP Assessor	
Heating and hot water systems			
set out in the Domestic Heating Compliance Guide?	Main heating system: Mains gas, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - 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?	No hot water cylinder	Authorised SAP Assessor	
controls provision set out in the Domestic Heating Compliance Guide?	Space heating control: Time and temperature zone control - plumbing circuit Hot water control: No hot water cylinder	Authorised SAP Assessor	Passed



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 6  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.97°) Overheating risk (July) = Slight (21.68°) Overheating risk (August) = Slight (21.39°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.42 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %	Authorised SAP Assessor	Passed
	Min heat recovery efficiency = 70.00 %		



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PT3 Liffords Place, London, SW13		

Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon dioxi	de emission from proposed dwelling does not exceed the target		
TER (kg CO₂/m².a)	Fuel = N/A Fuel factor = 1.00 TER = 24.33	Authorised SAP Assessor	
DER for dwelling as designed (kg CO <sub>2</sub> /m <sup>2</sup> .a)	DER = 20.38	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 20.38 < TER 24.33	Authorised SAP Assessor	Passed
s the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 52.0 < TFEE 61.2	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	e building fabric and the heating, hot water and fixed lighting systems should	d be no worse than the design	limits
Fabric U-values			
Are all U-values better than the design limits in Table 2?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         0.00 (max 0.20)         N/A           Floor         (no floor)           Roof         0.15 (max 0.20)         0.15 (max 0.35)           Openings         1.33 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passe
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, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - SEDBUK 2009 Minimum = 88.00%	Authorised SAP Assessor	Passeo
	Secondary heating system: None		
Does the insulation of the hot water cylinder meet the standards set out in the Domestic Heating Compliance Guide?	No hot water cylinder	Authorised SAP Assessor	
Do controls meet the minimum controls provision set out in the	Space heating control: Time and temperature zone control - plumbing circuit	Authorised SAP Assessor	Passed
Domestic Heating Compliance Guide?	Hot water control:		



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 6  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (20.04°) Overheating risk (July) = Slight (21.78°) Overheating risk (August) = Slight (21.61°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.42 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed
	Will heat recovery efficiency – 70.00 %		



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PT4 Liffords Place, London, SW13		

114 11101	d3 Flace, London, SW15		
Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon dioxid	le emission from proposed dwelling does not exceed the target		
, ,	Fuel = N/A Fuel factor = 1.00	Authorised SAP Assessor	
	TER = 23.32 DER = 19.38	Authorised SAP Assessor	
	DER 19.38 < TER 23.32	Authorised SAP Assessor	Passed
Is the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 53.3 < TFEE 63.4	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	building fabric and the heating, hot water and fixed lighting systems should	d be no worse than the design	limits
Fabric U-values			
design limits in Table 2?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         0.00 (max 0.20)         N/A           Floor         (no floor)           Roof         0.15 (max 0.20)         0.15 (max 0.35)           Openings         1.32 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passed
Thermal bridging			
	Thermal bridging calculated from linear thermal transmittances for each junction	Authorised SAP Assessor	
Heating and hot water systems			
set out in the Domestic Heating Compliance Guide?	Main heating system: Mains gas, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - 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?	No hot water cylinder	Authorised SAP Assessor	
controls provision set out in the Domestic Heating Compliance Guide?	Space heating control: Time and temperature zone control - plumbing circuit Hot water control: No hot water cylinder	Authorised SAP Assessor	Passed



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 6  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.93°) Overheating risk (July) = Slight (21.64°) Overheating risk (August) = Slight (21.38°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.42 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PT5 Liffords Place, London, SW13		

Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon dioxid	le emission from proposed dwelling does not exceed the target		
,	Fuel = N/A Fuel factor = 1.00 TER = 23.32	Authorised SAP Assessor	
	DER = 19.38	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 19.38 < TER 23.32	Authorised SAP Assessor	Passed
Is the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 53.3 < TFEE 63.4	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	building fabric and the heating, hot water and fixed lighting systems should	d be no worse than the design	limits
Fabric U-values			
design limits in Table 2?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         0.00 (max 0.20)         N/A           Floor         (no floor)           Roof         0.15 (max 0.20)         0.15 (max 0.35)           Openings         1.32 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passed
Thermal bridging			
	Thermal bridging calculated from linear thermal transmittances for each junction	Authorised SAP Assessor	
Heating and hot water systems			
set out in the Domestic Heating Compliance Guide?	Main heating system: Mains gas, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - SEDBUK 2009 Minimum = 88.00% Secondary heating system: None	Authorised SAP Assessor	Passed
	No hot water cylinder	Authorised SAP Assessor	
controls provision set out in the Domestic Heating Compliance Guide?	Space heating control: Time and temperature zone control - plumbing circuit  Hot water control: No hot water cylinder Boiler interlock (main system 1)	Authorised SAP Assessor	Passed



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly Schedule of installed fixed internal lighting Standard lights = 0 Low energy lights = 6  Percentage of low energy lights = 100%	Authorised SAP Assessor	Passed
	Minimum = 75 %		
Criterion 3: the dwelling has app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.93°) Overheating risk (July) = Slight (21.64°) Overheating risk (August) = Slight (21.38°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	he dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.42 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed



### Design - Draft



Assessor name	Mr Stuart Searle	Assessor number	3519
Client	Avis Appleton & Associates	Last modified	14/09/2016
Address	PT6 Liffords Place, London, SW13		

	ds Flace, Editabli, 53715		
Check	Evidence	Produced by	OK?
Criterion 1: predicted carbon dioxid	de emission from proposed dwelling does not exceed the target		
,	Fuel = N/A Fuel factor = 1.00 TER = 21.72	Authorised SAP Assessor	
	DER = 17.46	Authorised SAP Assessor	
Are emissions from dwelling as designed less than or equal to the target?	DER 17.46 < TER 21.72	Authorised SAP Assessor	Passed
Is the fabric energy efficiency of the dwellling as designed less than or equal to the target?	DFEE 54.3 < TFEE 68.0	Authorised SAP Assessor	Passed
Criterion 2: the performance of the	building fabric and the heating, hot water and fixed lighting systems should	d be no worse than the desigr	limits
Fabric U-values			
design limits in Table 2?	Element         Weighted average Highest           Wall         0.20 (max 0.30)         0.20 (max 0.70)           Party wall         (no party wall)           Floor         (no floor)           Roof         0.15 (max 0.20)         0.15 (max 0.35)           Openings         1.31 (max 2.00)         1.40 (max 3.30)	Authorised SAP Assessor	Passec
Thermal bridging			
	Thermal bridging calculated from linear thermal transmittances for each junction	Authorised SAP Assessor	
Heating and hot water systems			
set out in the Domestic Heating Compliance Guide?	Main heating system: Mains gas, Combi boiler from database Ideal LOGIC COMBI ESP 24 Efficiency = 89.00% - 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?	No hot water cylinder	Authorised SAP Assessor	
controls provision set out in the Domestic Heating Compliance Guide?	Space heating control: Time and temperature zone control - plumbing circuit  Hot water control: No hot water cylinder Boiler interlock (main system 1)	Authorised SAP Assessor	Passed



Check	Evidence	Produced by	OK?
Fixed internal lighting			
Does fixed internal lighting comp with paragraphs 42 to 44?	oly 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 app	ropriate passive control measures to limit solar gains		
Does the dwelling have a strong tendency to high summertime temperatures?	Overheating risk (June) = Not significant (19.42°) Overheating risk (July) = Slight (21.17°) Overheating risk (August) = Slight (20.94°) Region = Thames Thermal mass parameter = 250.00 Ventilation rate in hot weather = 3.00 ach Blinds/curtains = Light-coloured curtain or roller blind	Authorised SAP Assessor	Passed
Criterion 4: the performance of t	the dwelling, as designed, is consistent with the DER		
Design air permeability (m³/(h.m²) at 50Pa)	Design air permeability = 3.00 Max air permeability = 10.00	Authorised SAP Assessor	Passed
Mechanical ventilation system Specific fan power (SFP)	Mechanical ventilation with heat recovery:  SFP = 0.50 W/(litre/sec)  Max SFP = 1.5 W/(litre/sec)  Heat recovery efficiency = 91.00 %  Min heat recovery efficiency = 70.00 %	Authorised SAP Assessor	Passed
Have the key features of the design been included (or bettere	Design air permeability of 3 m³/(h.m²) is less than 4 m³/(h.m²) at 50 Pa	Authorised SAP Assessor	

