

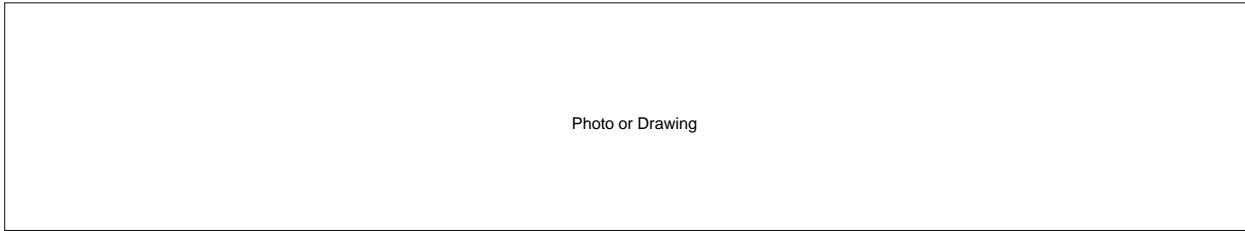
Retrofit for the Future Final Phase Report

ZA521E

Appendix 4

PHPP Verification

Passive House Verification



Building:	TSB retrofit for the future property existing property		
Location and Climate:	London	GB - Manchester	
Street:	3 Passfield Drive		
Postcode/City:	E14 6QJ London		
Country:	United Kingdom		
Building Type:	Terraced house		
Home Owner(s) / Client(s):	Southern Housing		
Street:	P0 Box 643		
Postcode/City:	West Sussex RH12 1XJ		
Architect:	bere:architects		
Street:	73 Poets Road		
Postcode/City:	N5 2SH London		
Mechanical System:	Chris Twinn - Arup		
Street:	13 Fitzroy Street		
Postcode/City:	W1T 4BQ London		
Year of Construction:	1960's		
Number of Dwelling Units:	1	Interior Temperature:	21.0 °C
Enclosed Volume V_e :	336.5 m ³	Internal Heat Gains:	2.1 W/m ²
Number of Occupants:	3.1		

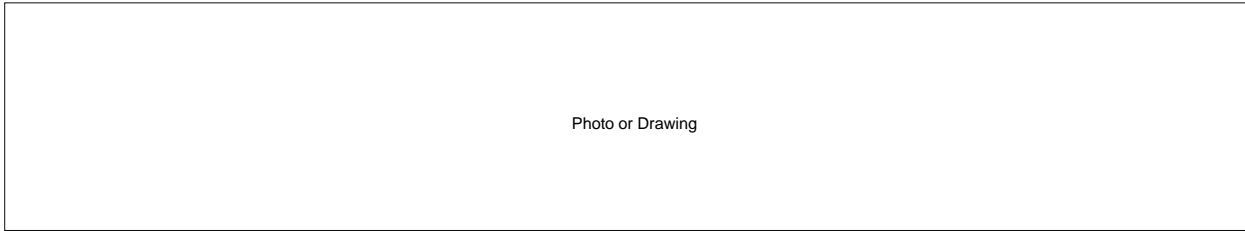
Specific Demands with Reference to the Treated Floor Area					
	Treated Floor Area:	Applied:	Monthly Method	PH Certificate:	Fulfilled?
	100.6 m ²				
Specific Space Heat Demand:		315	kWh/(m²a)	15 kWh/(m²a)	No
Pressurization Test Result:		5.6	h⁻¹	0.6 h ⁻¹	No
Specific Primary Energy Demand (DHW, Heating, Cooling, Auxiliary and Household Electricity):		575	kWh/(m²a)	120 kWh/(m ² a)	No
Specific Primary Energy Demand (DHW, Heating and Auxiliary Electricity):		509	kWh/(m²a)		
Specific Primary Energy Demand Energy Conservation by Solar Electricity:			kWh/(m²a)		
Heating Load:		91	W/m²		
Frequency of Overheating:		0	%	over 25 °C	
Specific Useful Cooling Energy Demand:			kWh/(m²a)	15 kWh/(m ² a)	
Cooling Load:		9	W/m²		

We confirm that the values given herein have been determined following the PHPP methodology and based on the characteristic values of the building. The calculations with PHPP are attached to this application.

Issued on:

signed:

Passive House Verification



Building:	TSB retrofit for the future property proposed work		
Location and Climate:	London	GB-London	
Street:	3 Passfield Drive		
Postcode/City:	E14 6QJ London		
Country:	United Kingdom		
Building Type:	Terraced house		
Home Owner(s) / Client(s):	Southern Housing		
Street:	P0 Box 643		
Postcode/City:	West Sussex RH12 1XJ		
Architect:	bere:architects		
Street:	73 Poets Road		
Postcode/City:	N5 2SH London		
Mechanical System:			
Street:			
Postcode/City:			
Year of Construction:	1960's		
Number of Dwelling Units:	1	Interior Temperature:	20.0 °C
Enclosed Volume V_e :	352.9 m ³	Internal Heat Gains:	2.1 W/m ²
Number of Occupants:	4.0		

Specific Demands with Reference to the Treated Floor Area			
	Treated Floor Area:		
	82.2 m ²		
	Applied:	Annual Method	PH Certificate:
Specific Space Heat Demand:	25 kWh/(m ² a)		15 kWh/(m ² a)
Pressurization Test Result:	1.9 h ⁻¹		0.6 h ⁻¹
Specific Primary Energy Demand (DHW, Heating, Cooling, Auxiliary and Household Electricity):	119 kWh/(m ² a)		120 kWh/(m ² a)
Specific Primary Energy Demand (DHW, Heating and Auxiliary Electricity):	58 kWh/(m ² a)		
Specific Primary Energy Demand Energy Conservation by Solar Electricity:	kWh/(m ² a)		
Heating Load:	W/m ²		
Frequency of Overheating:	0 %	over	25 °C
Specific Useful Cooling Energy Demand:	kWh/(m ² a)		15 kWh/(m ² a)
Cooling Load:	W/m ²		
			Fulfilled?
			No
			No
			Yes

We confirm that the values given herein have been determined following the PHPP methodology and based on the characteristic values of the building. The calculations with PHPP are attached to this application.

Issued on:

signed:
