Brighton & Hove City Council

Portslade Village Centre

Part O - Overheating Assessment

Consult Sustainability

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Reviewed by	
Approved by	

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1 Executive Summary

A Part O compliant overheating analysis has been conducted for the proposed development at Portslade Village Centre, located in Brighton. This has been prepared in support of a Full Planning Application for the construction of 28 dwellings over 2 buildings, to increase needed available housing at an affordable cost.

The purpose of this analysis and report is to assess the design of the proposed scheme and ensure the mitigation of any overheating risk within the occupied rooms across the development. This will ensure the comfort of the occupants as well as ensure that the proposed scheme is future-proofed by considering the predicted increased ambient air temperatures from climate change.

In order to assess the thermal performance of the development, a model of the proposed building was constructed within thermal simulation software (IES Virtual Environment 2023). The internal temperature, lighting and ventilation conditions were estimated for the habitable internal spaces within all flats. With the aim of providing a robust assessment of overheating risk, performance of the various occupied rooms was compared with the criteria of Approved Document O and CIBSE Technical Memorandum 59.

These are rigorous targets that determine the acceptability of overheating based on the temperature differential between the internal and the external environment (ΔT), considering the frequency of high temperature difference beyond which the level of overheating is considered unacceptable. Specifically, for naturally ventilated bedrooms, the methodology aims to evaluate comfort during the sleeping hours by setting a maximum number of hours for which the operative temperature can exceed 26°C. TM59 is currently the most appropriate assessment methodology for understanding overheating risk in residential properties in the UK, and is the methodology required by Approved Document O.

In order to reduce the risk of overheating, the design of the building has followed the Cooling Hierarchy. The strategy firstly focused on minimising heat generation within the building; this has been achieved by the specification of energy efficient services, white goods and low energy LED lighting.

The next step of the strategy looked at reducing the amount of heat entering the building. The design of the building incorporates balconies to shade the windows, whilst the glazing has low solar transmittance to reduce the amount of solar gain in the summer.

The thermal simulations indicate the following:

- The proposed dwellings are **predicted to satisfy** the overheating risk criteria for the probabilistic Design Summer Year (DSY1) weather data for London Gatwick through a combination of solar control strategies, efficient lighting and natural ventilation;
- Although not mandatory for compliance, the inclusion of solar control strategies and mechanical ventilation in the communal spaces is recommended to allow for compliance with the overheating risk criteria for corridors and generally improve the resilience of the dwellings to overheating risk;

Figure 1: Site Plan showing the location of Portslade Village Centre (image courtesy of Google Earth)

2 Methodology

A 3D thermal model of the proposed scheme has been developed within IES based on the planning stage architectural drawings.

All the flats from both the East and West Pavilions were modelled, as well as the ground floor of the West Pavilion, which enabled an accurate assessment of the entire development. The flats are listed below:

West Pavilion:

- WP – GF – Flat G.01
- WP – GF – Flat G.02
- WP – GF – Flat G.03
- WP – GF – Flat G.04
- WP – GF – Flat G.05
- WP – F1 – Flat 1.01
- WP – F1 – Flat 1.02
- WP – F1 – Flat 1.03
- WP – F1 – Flat 1.04
- WP – F1 – Flat 1.05
- WP – F2 – Flat 2.01
- WP – F2 – Flat 2.02
- WP – F2 – Flat 2.03

East Pavilion

- EP – GF – Flat G.01
- EP – GF – Flat G.02
- EP – GF – Flat G.03
- EP – GF – Flat G.04
- EP – GF – Flat G.05
- EP – F1 – Flat 1.01
- EP – F1 – Flat 1.02
- EP – F1 – Flat 1.03
- EP – F1 – Flat 1.04
- EP – F1 – Flat 1.05
- EP – F2 – Flat 1.01
- EP – F2 – Flat 1.02
- EP – F2 – Flat 1.03
- EP – F2 – Flat 1.04
- EP – F2 – Flat 1.05

The CIBSE TM59 criteria applies to bedrooms, kitchens and living rooms within dwellings only, therefore the ground floor of the west pavilion which contains spaces such as halls, offices and meeting rooms has been modelled as an adjacent building. This provides a heat template for the shared areas reducing heat loss from the first-floor units in the west pavilion.

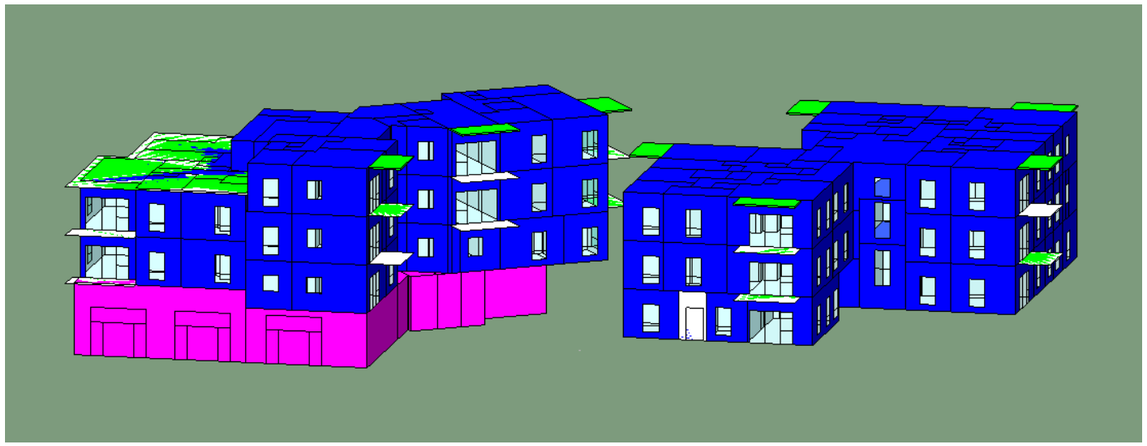

Figure 2: An axonometric view of Portslade Village Centre from a southwest perspective

The overheating risks of the spaces were assessed for current climate scenarios. Following the methodology set out in CIBSE TM59, the following three Design Summer Years (DSY) were selected to form the set of probabilistic design summer years for the future weather scenarios:

- DSY1 (1989) for the 2020s, high emissions, 50% percentile scenario;
- DSY2 (2003) for the 2020s, high emissions, 50% percentile scenario;
- DSY3 (1976) for the 2020s, high emissions, 50% percentile scenario.

These files are climate-change corrected versions of the current DSYs. The first of these years, 1989, is the current DSY and represents a moderately warm summer, as is interpreted in current CIBSE guidance. The years 1976 and 2003 were chosen as more extreme years with different types of summer: the former is a year with a long period of persistent warmth, whereas the latter has a more intense single warm spell. The 2020 period is of particular interest as this relates to the period 2011-2040, which is the period we have now entered. For the 50% percentile changes, which is considered the most accurate estimate of the level of climate change.

The building has been modelled using dynamic thermal simulation software (IES Virtual Environment 2023) which is fully compliant with CIBSE Applications Manual AM11. The software can compute operative temperatures using CIBSE weather data sets, building fabric specification, window areas and openings, all aspects of solar and internal gains as well as natural ventilation flows within the building. Compliance of the design with the CIBSE TM59 criteria has been sought and recommendations have been provided in order to future-proof the design for further interventions in the future.

Furthermore, the communal corridor spaces have been assessed with mechanical ventilation against the criteria of CIBSE TM59.

3 Assessment Criteria

The performance standards set out within CIBSE TM59 have been used to assess the overheating risk within the proposed development.

3.1 Natural Ventilation Criteria

The CIBSE TM59 guidance suggests that the following two criteria must be met in order to demonstrate compliance for habitable spaces within naturally ventilated buildings:

1) **For living rooms, kitchens and bedrooms:**
   The number of hours during which ΔT (the difference between operative and threshold comfort temperatures) is greater than or equal to one degree (K), during the period of May to September inclusive, shall not be more than 3 per cent of occupied hours. (CIBSE TM52 Criterion 1: Hours of exceedance).

2) **For bedrooms only:**
   To evaluate comfort during the sleeping hours the operative temperature in the bedroom from 10 pm to 7 am shall not exceed 26°C for more than 1% of annual hours. (Note: 1% of the annual hours between 22:00 and 07:00 for bedrooms is 32 hours, so 33 or more hours above 26°C will be recorded as a fail).

The first criterion is evaluated in terms of the ΔT, which is the difference between the operative temperature (T_{op}) and the limiting maximum temperature (T_{max}), $\Delta T = T_{op} - T_{max}$. In order to estimate T_{op}, dynamic thermal modelling is carried out to compute the predicted temperature distribution in the different thermal zones of the building.

The maximum acceptable temperature is a function of the outdoor temperature and the design limits, which are shown below. The table details the suggested acceptability in terms of the temperature range of naturally ventilated buildings. For the purpose of the assessment, we have used Category II limits, as recommended within CIBSE TM52.

Table 1: CIBSE TM52 – Suggested applicability of the category and the associated acceptable temperature range for a free running building

Category	Explanation	Acceptable Range (°C)
II	Normal expectation (for new buildings and renovations)	±3

3.2 Corridor Criteria

CIBSE TM59 also recommends assessment criteria for overheating risk in corridors based on exceeding an operative temperature of 28°C. Whilst there is no mandatory target, corridors should aim to comply with the following criteria:

3) **For corridors (non-mandatory):**
   If an operative temperature of 28°C is exceeded for more than 3% of total annual hours, this should be flagged as a significant risk within the report.

3.3 Part O Differences

The Dynamic Thermal Modelling route of approved document O requires modelling to be carried out in accordance to the CIBSE TM59 guidance, but with the following important distinctions:

3.3.1 Window Opening Patterns

The manner and times at which windows are able to be modelled open is slightly different under the Approved Document O methodology.

3.3.2 Blinds & Shading

Shading from blinds/curtains or trees CANNOT be included within the Part O model.

4 Modelling Assumptions

4.1 Fabric Performance

The specification of the building fabric is aligned with the energy and daylight modelling undertaken at planning and is summarised in Table 2 below:

Table 2: Building fabric assumptions.

Element	Specification	
	U-value [W/m².K]	
External Walls	0.13	
Ground Floor	0.10	
Roof	0.1	
	U-value [W/m².K]	**g-value**
Window	1.29 (Frame Factor 0.8)	0.5
	Air permeability (@50Pa)	
	3 m³/m².h	

4.2 Occupancy

The TM59 methodology specifies the hours during which spaces are anticipated to be occupied which have been used within the overheating assessment calculations.

Table 3 sets out the predicted occupancy patterns for the assessed rooms within the dwellings in line with the TM59 requirements; these are programmed into the dynamic software model to calculate the relative occupancy gains for the designated spaces.

Table 3: Occupancy assumptions for a 1-bedroom dwelling room type assessed.

Area	TM59 Predicted occupation pattern
Double Bedroom	2 people at 70% gains from 11pm to 8am 2 people at full gains from 8am to 9am and from 10pm to 11pm 1 person at full gain from 9am to 10pm
Living room / Kitchen	1 person from 9am to 10pm; room is unoccupied for the rest of the day

Table 4: Occupancy assumptions for a 2-bedroom dwelling room type assessed.

Area	TM59 Predicted occupation pattern
Single Bedroom	1 person at 70% gains from 11pm to 8am 1 person at full gains from 8am to 11pm
Double Bedroom	2 people at 70% gains from 11pm to 8am 2 people at full gains from 8am to 9pm and from 10pm to 11pm 1 person at full gain from 9am to 10pm
Living room / Kitchen	2 people from 9am to 10pm, then room is unoccupied for the rest of the day

4.3 Internal Gains

Similar to the predicted occupancy hours, the internal gains (lighting, equipment, people) for occupied areas are incorporated within the model in line with the guidance set out in TM59.

Table 5 sets out the various internal gains for the assessed rooms within the dwellings. Non-occupied spaces such as circulation, bathrooms and storage were modelled based on the typical internal gains specified within the TM59 methodology.

Table 5: Internal Gains modelled for each room type assessed.

Area	Predicted Internal Gains		
	Lighting [W/m²]	**People [peak W]**	**Equipment [peak W]**
Double Bedroom	2.0 W/m²	150 W sensible, 110 W latent	Peak load of 80 W from 8am to 11pm Base load of 10 W during sleep hours
Single Bedroom	2.0 W/m²	75 W sensible, 55 W latent	-Peak load of 80 W from 8am to 11pm -Base load of 10 W during sleep hours
1 Bed Living room / Kitchen	2.0 W/m²	75 W sensible, 165 W latent	-Peak load of 450 W from 6pm to 8 pm -200 W from 8pm to 10pm -110 W from 9am to 6pm and from 10pm to 12am -Base load of 85 W for the rest of the day
2 Bed Living Room / Kitchen	2.0 W/m²	150 W sensible, 330 W latent	-Peak load of 450 W from 6pm to 8pm -200 W from 8pm to 10pm -110 W from 9am to 6pm and from 10pm to 12am -Base load of 85 W for the rest of the day

Although TM59 only requires the inclusion of corridors in the overheating analysis where community heating pipework runs through them, the circulation areas have been included in the

assessment to verify the compliance with TM59 guidance, to ensure the design is robust and overheating risk is mitigated in all areas of the apartments.

Table 6: Internal Gains modelled for corridor areas.

Area	Predicted Internal Gains		
	Lighting [W/m²]	People [peak W]	Equipment [peak W]
Corridor	2.0 W/m²	-	10 W

4.4 Ventilation

An infiltration rate of 0.15 air changes per hour (ACH) has been used in the model. This infiltration rate has been derived from CIBSE Guide A 2015 for a building with an air permeability of 3 m3/hm2 at 50Pa.

Purge ventilation through openable window is shown to have significant effect in reducing internal temperatures and limit overheating to acceptable levels as well as removing high concentrations of pollutants and water vapour.

In accordance with TM59 and ADO, it has been calculated that, to maintain thermal comfort conditions, window opening is recommended when:

- Internal temperature exceeds 22°C;

4.4.1 Window & doors opening areas

Openable areas of windows and doors have been obtained from the architectural drawings. The window openable areas have modelled as per the window specification provided by Miller Bourne Architects.

The opening angle and associated equivalent area have been calculated using the maximum reach of 650mm from the inside face of the wall as defined within ADO.

Internal doors have been included and assumed to be open during daytime but closed when occupants are sleeping. Flat and external doors are assumed to be always closed.

4.5 Mechnical Ventilation

Each unit will also contain mechanical ventilation with heat recovery, extracting from the kitchens and bathrooms, and supplying to bedrooms and living rooms. Therefore, the estimated ventilation flow rates have been included in the model in line with Part F requirements for ventilation to provide a conservative baseline for assessment. These ventilation rates have been increased to the maximum values achievable by the specified Nuaire MVHR units for the ground floor apartments.

4.5.1 Boost ventilation

All units have been modelled with boost ventilation at 20 l/s, with some ground floor bedrooms utilising increased ventilation between 25-35 l/s.

4.6 Weather Data

CIBSE Design Summer Year weather data for London Gatwick has been used for the 2020s, high emissions, 50% percentile scenario as required by CIBSE TM59. London Gatwick has been used as it is the nearest weather file to the site location, and represents a worser case scenario over the nearest coastal weather file (Southampton).

5 Results

This section presents the results summary for each of the tests carried out for the proposed development. In total 111 habitable spaces were included in the assessment (this includes double bedrooms and living rooms/kitchens) as well as 9 corridor spaces. Non-habitable spaces such as bathrooms, storage rooms and circulation areas have also been included in the assessment; and their internal gains have been accounted for in the model.

5.1 Natural Ventilation Results

Table 7 shows the modelling iterations (cumulative) undertaken using London Gatwick DSY1 weather data for a natural ventilation scenario. The purpose of the improvement measures proposed is to minimise the number of rooms that fail the TM59 criteria to the extent possible, taking into consideration viability, feasibility, and other design constraints.

5.1.1 Natural Ventilation Results

Table 7: Overheating assessment results for London Gatwick DSY1 for Natural Ventilation

ID	Design change	Bedrooms TM59 night-time 26°C Criterion a	Bedrooms TM52 Criterion b	Other rooms TM52 Criterion a	Corridors TM59 hours above 28°C criterion a
		No. of rooms meeting criteria			
1	Baseline Scenario	55/55	48/55	56/56	9/9
2	Mechanical Ventilation increase	55/55	55/55	56/56	9/9

The following observations can be made from the results:

- The results presented above indicate that, under a natural ventilation scenario, the proposed dwellings are predicted to satisfy the overheating risk criteria for the probabilistic Design Summer Year (DSY1) weather data for London Gatwick through a combination of solar control strategies, efficient lighting and natural ventilation.

6 Conclusions and Recommendations

The study has shown how the Portslade Village Centre development has been designed to minimise the risk of overheating. In order to reduce overheating, the design of the building has followed the Cooling Hierarchy.

The analysis was carried out for the occupied dwelling spaces as defined by TM59 & TM52 and Approved Document O. The simulation was carried out using a number of assumptions in line with the TM59 methodology and using the CIBSE TM49 Weather Files.

The overheating analysis has been undertaken for 120 rooms for the proposed development at Portslade Village Centre to ensure that the comfortable temperatures can be met in all habitable spaces.

The purpose of this analysis and report is to assess the design of the proposed scheme and ensure the mitigation of any overheating risk within the occupied rooms across the development. This will ensure the comfort of the occupants as well as ensure that the proposed scheme is future-proofed by considering the predicted increased ambient air temperatures from climate change.

In order to assess the thermal performance of the development, models were constructed within thermal simulation software (IES VE 2022). The internal temperature, lighting and ventilation conditions were estimated for the habitable internal spaces within a sample of the flats. With the aim of giving the most robust assessment of overheating risk, performance of the various occupied rooms was compared with the criteria of Approved Document O and CIBSE Technical Memorandum 59 performance recommendations.

These are rigorous targets that determine the acceptability of overheating based on the temperature differential between the internal and the external environment (ΔT), considering the frequency of high temperature difference beyond which the level of overheating is considered unacceptable. Specifically, for bedrooms, the methodology aims to evaluate comfort during the sleeping hours by setting a maximum number of hours for which the operative temperature can exceed 26°C. TM59 is currently the most appropriate assessment methodology for understanding overheating risk in residential properties in the UK.

In order to reduce overheating, the design of the building has followed the Cooling Hierarchy. The strategy firstly focused on minimising heat generation within the building; this has been achieved by the specification of energy efficient services and low energy LED lighting.

The next step of the strategy looked at reducing the amount of heat entering the building. The design of the building incorporates balconies and decks to shade the windows, whilst the glazing has low solar transmittance to reduce the amount of solar gain in the summer.

The thermal simulations indicate the following:

- The proposed dwellings are **predicted to satisfy** the overheating risk criteria for the probabilistic Design Summer Year (DSY1) weather data for London Gatwick through a combination of solar control strategies, efficient lighting and natural ventilation;
- Although not mandatory for compliance, the inclusion of solar control strategies and mechanical ventilation in the communal spaces is recommended to allow for compliance with the overheating risk criteria for corridors and generally improve the resilience of the dwellings to overheating risk.

APPENDIX A

APPROVED DOCUMENT O MODELLING OUTPUT

Approved Document O report
Overheating risk in residential buildings
for

Building details

Project name:	Date: 14-11-2023 09:37:43
Location: London Heathrow , United Kingdom	
Address:	
Building use:	
Are there any security, noise, or pollution issues:	

Designer's details

Designer's name:
Designer's organisation:
Designer's address:

Dynamic thermal model

Software: IESVE version 2023.2.0.0	
Weather file: London_GTW_DSY1_2020High50.epw	
Results file: 2 1411 Portslade Run with 0.65 G value.aps	
Number of rooms analysed: 111	
TM59: summer elevated air speed: 0.1	
TM59: occupant category: Category II (normal)	
Overheating mitigation strategy:	
Has the building construction proposal been modelled accurately?	YES
Have the analysed rooms passed the assessment for Approved Doc O Dynamic Thermal Modelling Method (CIBSE TM 59)?	YES
Designer's signature:	

Summary

CIBSE TM59 overheating methodology for predominantly naturally ventilated rooms assesses against two criteria, (a) and (b) (for Category I occupancy, Tmax is reduced by 1K):

- Criterion (a) states that for living rooms, kitchens and bedrooms, the number of hours during which ΔT is greater than or equal to 1K from May to September (or November to March for southern hemisphere locations) shall not exceed 3% of occupied hours
- Criterion (b) states that the operative temperature of the bedrooms from 22:00-07:00 shall not exceed 26°C for more than 1% of annual hours (33 hours is therefore recorded as a fail). Approved document O applies limits to CIBSE TM59 section 3.3 (openings); these requirements are applied by appropriate assignment of MacroFlo types / scripted profiles in the model (see Modelled Openings Section).

CIBSE TM59 overheating methodology for predominantly mechanically ventilated rooms states the operative temperature of all rooms shall not exceed 26°C for more than 3% of annual occupied hours.

CIBSE TM59 also states that the inclusion of corridors in the overheating analysis is mandatory where community heating pipework runs through them. While there is no mandatory target for communal corridors, if an operative temperature of 28°C is exceeded for more than 3% of the total annual hours this should be identified as a significant risk.

Room name	Naturally ventilated Criterion a check	Naturally ventilated Criterion b check	Mechanically ventilated check	Corridor overheating risk check
WP - GF - Flat G05 - Single Bedroom	Pass	Pass	-	-
WP - GF - Flat G05 - Common Corridor	Pass	N/A	-	-
WP - GF - Flat G05 - Kitchen/Dining/Living	Pass	N/A	-	-
WP - GF - Flat G05 - Master Double Bedroom	Pass	Pass	-	-
WP - GF - Flat G04 - Master Double Bedroom	Pass	Pass	-	-
WP - GF - Flat G01 - Master Double	Pass	Pass	-	-
WP - GF - Flat G01 - Kitchen/Dining/Living	Pass	N/A	-	-
WP - GF - Flat G01 - Double Bedroom	Pass	Pass	-	-
EP - GF - Flat G01 - Single Bedroom 2	Pass	Pass	-	-
EP - GF - Flat G05 - Master Double Bedroom	Pass	Pass	-	-
EP - GF - Common Spaces 1	Pass	N/A	-	-
WP - GF - Flat G02 - Double Bedroom	Pass	Pass	-	-
EP - GF - Flat G05 - Single Bedroom	Pass	Pass	-	-
EP - GF - Flat G01 - Master Double Bedroom	Pass	Pass	-	-
WP - GF - Flat G02 - Kitchen/Dining/Living	Pass	N/A	-	-
EP - GF - Flat G04 - Single Bedroom 1	Pass	Pass	-	-

Room name	Naturally ventilated Criterion a check	Naturally ventilated Criterion b check	Mechanically ventilated check	Corridor overheating risk check
EP - GF - Flat G02 - Master Double Bedrrom	Pass	Pass	-	-
WP - GF - Flat G03 - Kitchen/Dining/Living	Pass	N/A	-	-
EP - GF - Common Corridor 2	Pass	N/A	-	-
EP - GF - Flat G04 - Kitchen/Dining/Living	Pass	N/A	-	-
WP - GF - Flat G02 - Master Double Bedroom	Pass	Pass	-	-
EP - GF - Flat G04 - Master Double Bedroom	Pass	Pass	-	-
WP - GF - Flat G03 - Master Double Bedroom	Pass	Pass	-	-
EP - GF - Flat G05 - Kitchen/Dining/Living	Pass	N/A	-	-
EP - GF - Flat G01 - Kitchen/Dining/Living	Pass	N/A	-	-
EP - GF - Flat G02 - Kitchen/Dining/Living	Pass	N/A	-	-
EP - GF - Flat G03 - Kitchen/Dining/Living	Pass	N/A	-	-
WP - 1F - Flat 1.05 - Double Bedroom	Pass	Pass	-	-
WP - 1F - Flat 1.05 - Kitchen/Dining/Living	Pass	N/A	-	-
WP - 1F - Flat 1.05 - Master Double Bedroom	Pass	Pass	-	-
WP - 1F - Flat 1.04 - Master Double Bedroom	Pass	Pass	-	-
WP - 1F - Flat 1.01 - Kitchen/Dining/Living	Pass	N/A	-	-
WP - 1F - Flat 1.01 - Double Bedroom	Pass	Pass	-	-
WP - 1F - Flat 1.03 - Master Double Bedroom	Pass	Pass	-	-
EP - 1F - Flat 1.01 - Master Double Bedroom	Pass	Pass	-	-
EP - 1F - Flat 1.03 - Single Bedroom	Pass	Pass	-	-
EP - 1F - Flat 1.03 - Master Double Bedroom	Pass	Pass	-	-
WP - 1F - Flat 1.02 - Kitchen/Dining/Living	Pass	N/A	-	-
EP - 1F - Flat 1.01 - Single Bedroom	Pass	Pass	-	-

Room name	Naturally ventilated Criterion a check	Naturally ventilated Criterion b check	Mechanically ventilated check	Corridor overheating risk check
EP - 1F - Flat 1.04 - Single Bedroom 9m	Pass	Pass	-	-
EP - 1F - Common Northern Corridor	Pass	N/A	-	-
EP - 1F - Flat 1.02 - Master Double Bedroom	Pass	Pass	-	-
EP - 1F - Flat 1.04 - Master Double Bedroom	Pass	Pass	-	-
EP - F1 - Flat 1.05 - Master Double Bedroom	Pass	Pass	-	-
EP - F1 - Flat 1.05 - Single Bedroom	Pass	-	-	-
EP - F1 - Common Southern Corridor	Pass	N/A	-	-
EP - F1 - Flat 1.04 - Kitchen/ Dining/ living	Pass	N/A	-	-
EP - F1 - Flat 1.02 - Double Bedroom	Pass	Pass	-	-
WP - 1F - Flat 1.03 - Kitchen/Dining/Living	Pass	N/A	-	-
EP - 1F - Flat 1.01 - Kitchen/ Dining/ Living	Pass	N/A	-	-
EP - F1 - Flat 1.05 - Kitchen/ Dining/ Living	Pass	N/A	-	-
EP - F1 - Flat 1.03 - Kitchen/Dining/Living	Pass	N/A	-	-
EP - F1 - Flat 1.02 - kitchen/ Dining/ Living	Pass	N/A	-	-
WP - F2 - Flat 2.02 - Kitchen/ Dining/ Living	Pass	N/A	-	-
WP - F2 - Flat 2.03 - Master Double Bedroom	Pass	Pass	-	-
WP - F2 - Flat 2.03 - Double Bedroom	Pass	Pass	-	-
WP - F2 - Flat 2.02 - Master Bedroom	Pass	Pass	-	-
WP - F2 - Flat 2.03 - Kitchen/ Dining/ Living	Pass	N/A	-	-
WP - F2 - Flat 2.01 - Master Double Bedroom	Pass	Pass	-	-
WP - F2 - Flat 2.01 - Kitchen/ Dining/ Living	Pass	N/A	-	-
WP - F2 - Flat 2.01 - Double Bedroom	Pass	Pass	-	-
EP - F2 - Flat 1.04 - Kitchen/ Dining/ Living	Pass	N/A	-	-

Room name	Naturally ventilated Criterion a check	Naturally ventilated Criterion b check	Mechanically ventilated check	Corridor overheating risk check
EP - F2 - Flat 1.05 - Single Bedroom	Pass	Pass	-	-
EP - F2 - Flat 1.01 - Single Bedroom East	Pass	Pass	-	-
EP - F2 - Flat 1.04 - Single Bedroom 9m	Pass	Pass	-	-
EP - F2 - Flat 1.01 - Single Bedroom West	Pass	Pass	-	-
EP - F2 - F1.05 - Master Double Bedroom	Pass	Pass	-	-
EP - F2 - Flat 1.01 - Master Double Bedroom	Pass	Pass	-	-
EP - F2 - Communal Northern Corridor	-	-	-	No
EP - F2 - Flat 1.03 - Master Double Bedroom	Pass	Pass	-	-
EP - F2 - Communal Southern Corridor	-	-	-	No
EP - F2 - F1.04 - Master Double Bedrom	Pass	Pass	-	-
EP - F2 - Flat 1.02 - Master Double Bedroom	Pass	Pass	-	-
EP - F2 - Flat 1.03 - Single Bedroom	Pass	Pass	-	-
EP - F2 - Flat 1.02 - Double Bedroom	Pass	Pass	-	-
EP - F2 - Flat 1.01 - Kitchen/ Dining/ living	Pass	N/A	-	-
EP - F2 - Flat 1.05 - Kitchen/ Dining/ Living	Pass	N/A	-	-
EP - F2 - Flat 1.03 - Kitchen/ Dining/ Living	Pass	N/A	-	-
EP - F2 - Flat 1.02 - Kitchen/ Dining/ Living	Pass	N/A	-	-
EP - GF - Flat G03 - Single Bedroom	Pass	Pass	-	-
EP - GF - Flat G03 - Master Double Bedroom	Pass	Pass	-	-
WP - GF - Flat G04 - Kitchen/Dining/Living	Pass	N/A	-	-
WP - GF - Common Corridor	Pass	N/A	-	-
WP - GF - Common Space 1	Pass	N/A	-	-
WP - GF - Common Corridor 2	Pass	N/A	-	-

Room name	Naturally ventilated Criterion a check	Naturally ventilated Criterion b check	Mechanically ventilated check	Corridor overheating risk check
WP - GF - Common Space 2	Pass	N/A	-	-
WP - GF - Flat G03 - Common Corridor	Pass	N/A	-	-
EP - GF - Flat G04 - Single Bedroom 2	Pass	Pass	-	-
EP - GF - Flat G01 - Single Bedroom	Pass	Pass	-	-
WP - 1F - Flat 1.04 - Kitchen/Dining/Living	Pass	N/A	-	-
WP - 1F - Common Corridor 1	Pass	N/A	-	-
WP - 1F - Common Space 1	Pass	N/A	-	-
WP - 1F - Flat 1.01 - Master Double Bedroom	Pass	Pass	-	-
WP - 1F - Common Corridor 2	Pass	N/A	-	-
WP - 1F - Common Space 2	Pass	N/A	-	-
WP - 1F - Flat 1.02 - Master Double Bedroom	Pass	Pass	-	-
WP - 1F - Flat 1.02 - Double Bedroom	Pass	Pass	-	-
EP - F1 - Flat 1.05 - Single Bedroom	Pass	Pass	-	-
WP - GF - Common Corridor 1	Pass	-	-	-
WP - GF - Common Corridor 1	Pass	N/A	-	-
EP - F1 - Common Cerntral Corridor	Pass	N/A	-	-
EP - F2 - Flat 1.01 - Single Bedroom 9m	Pass	Pass	-	-
Room No 9	-	-	-	No
Room No 9	-	-	-	No
Room No 9	-	-	-	No
Room No 6	-	-	-	No
WP - 2F - Common Eastern Corridor	-	-	-	No
Room No 6	-	-	-	No
WP - F2 - Common Western Corridor	-	-	-	No
EP - F2 - Flat 1.04 - Single Bedroom 10.5m	Pass	Pass	-	-
Room No 26	Pass	N/A	-	-

Naturally ventilated rooms – criterion (a)

Criterion (a) states that for living rooms, kitchens and bedrooms, the number of hours during which ΔT is greater than or equal to 1K from May to September (or November to March for southern hemisphere locations) shall not exceed 3% of occupied hours.

Room name	Occupied hours	No. hours ΔT ≥ 1°K	% Occupied hours ΔT ≥ 1°K	Criterion a check
WP - GF - Flat G05 - Single Bedroom	3672	30	0.8	Pass
WP - GF - Flat G05 - Common Corridor	0	0	0	Pass
WP - GF - Flat G05 - Kitchen/Dining/Living	1989	39	2.0	Pass
WP - GF - Flat G05 - Master Double Bedroom	3672	24	0.7	Pass
WP - GF - Flat G04 - Master Double Bedroom	3672	21	0.6	Pass
WP - GF - Flat G01 - Master Double	3672	23	0.6	Pass
WP - GF - Flat G01 - Kitchen/Dining/Living	1989	27	1.4	Pass
WP - GF - Flat G01 - Double Bedroom	3672	23	0.6	Pass
EP - GF - Flat G01 - Single Bedroom 2	3672	29	0.8	Pass
EP - GF - Flat G05 - Master Double Bedroom	3672	23	0.6	Pass
EP - GF - Common Spaces 1	0	0	0	Pass
WP - GF - Flat G02 - Double Bedroom	3672	16	0.4	Pass
EP - GF - Flat G05 - Single Bedroom	3672	26	0.7	Pass
EP - GF - Flat G01 - Master Double Bedroom	3672	38	1.0	Pass
WP - GF - Flat G02 - Kitchen/Dining/Living	1989	28	1.4	Pass
EP - GF - Flat G04 - Single Bedroom 1	3672	33	0.9	Pass
EP - GF - Flat G02 - Master Double Bedrrom	3672	17	0.5	Pass
WP - GF - Flat G03 - Kitchen/Dining/Living	1989	28	1.4	Pass
EP - GF - Common Corridor 2	0	0	0	Pass
EP - GF - Flat G04 - Kitchen/Dining/Living	1989	32	1.6	Pass

Room name	Occupied hours	No. hours ΔT ≥ 1°K	% Occupied hours ΔT ≥ 1°K	Criterion a check
WP - GF - Flat G02 - Master Double Bedroom	3672	16	0.4	Pass
EP - GF - Flat G04 - Master Double Bedroom	3672	26	0.7	Pass
WP - GF - Flat G03 - Master Double Bedroom	3672	28	0.8	Pass
EP - GF - Flat G05 - Kitchen/Dining/Living	1989	34	1.7	Pass
EP - GF - Flat G01 - Kitchen/Dining/Living	1989	29	1.5	Pass
EP - GF - Flat G02 - Kitchen/Dining/Living	1989	29	1.5	Pass
EP - GF - Flat G03 - Kitchen/Dining/Living	1989	41	2.1	Pass
WP - 1F - Flat 1.05 - Double Bedroom	3672	44	1.2	Pass
WP - 1F - Flat 1.05 - Kitchen/Dining/Living	1989	27	1.4	Pass
WP - 1F - Flat 1.05 - Master Double Bedroom	3672	21	0.6	Pass
WP - 1F - Flat 1.04 - Master Double Bedroom	3672	22	0.6	Pass
WP - 1F - Flat 1.01 - Kitchen/Dining/Living	1989	24	1.2	Pass
WP - 1F - Flat 1.01 - Double Bedroom	3672	21	0.6	Pass
WP - 1F - Flat 1.03 - Master Double Bedroom	3672	20	0.5	Pass
EP - 1F - Flat 1.01 - Master Double Bedroom	3672	30	0.8	Pass
EP - 1F - Flat 1.03 - Single Bedroom	3672	29	0.8	Pass
EP - 1F - Flat 1.03 - Master Double Bedroom	3672	37	1.0	Pass
WP - 1F - Flat 1.02 - Kitchen/Dining/Living	1989	24	1.2	Pass
EP - 1F - Flat 1.01 - Single Bedroom	3672	44	1.2	Pass
EP - 1F - Flat 1.04 - Single Bedroom 9m	3672	37	1.0	Pass
EP - 1F - Common Northern Corridor	0	0	0	Pass
EP - 1F - Flat 1.02 - Master Double Bedroom	3672	24	0.7	Pass
EP - 1F - Flat 1.04 - Master Double Bedroom	3672	31	0.8	Pass

Room name	Occupied hours	No. hours ΔT ≥ 1°K	% Occupied hours ΔT ≥ 1°K	Criterion a check
EP - F1 - Flat 1.05 - Master Double Bedroom	3672	24	0.7	Pass
EP - F1 - Flat 1.05 - Single Bedroom	3672	26	0.7	Pass
EP - F1 - Common Southern Corridor	0	0	0	Pass
EP - F1 - Flat 1.04 - Kitchen/ Dining/ living	1989	44	2.2	Pass
EP - F1 - Flat 1.02 - Double Bedroom	3672	16	0.4	Pass
WP - 1F - Flat 1.03 - Kitchen/Dining/Living	1989	25	1.3	Pass
EP - 1F - Flat 1.01 - Kitchen/ Dining/ Living	1989	26	1.3	Pass
EP - F1 - Flat 1.05 - Kitchen/ Dining/ Living	1989	34	1.7	Pass
EP - F1 - Flat 1.03 - Kitchen/Dining/Living	1989	46	2.3	Pass
EP - F1 - Flat 1.02 - kitchen/ Dining/ Living	1989	34	1.7	Pass
WP - F2 - Flat 2.02 - Kitchen/ Dining/ Living	1989	23	1.2	Pass
WP - F2 - Flat 2.03 - Master Double Bedroom	3672	20	0.5	Pass
WP - F2 - Flat 2.03 - Double Bedroom	3672	38	1.0	Pass
WP - F2 - Flat 2.02 - Master Bedroom	3672	17	0.5	Pass
WP - F2 - Flat 2.03 - Kitchen/ Dining/ Living	1989	23	1.2	Pass
WP - F2 - Flat 2.01 - Master Double Bedroom	3672	19	0.5	Pass
WP - F2 - Flat 2.01 - Kitchen/ Dining/ Living	1989	21	1.1	Pass
WP - F2 - Flat 2.01 - Double Bedroom	3672	20	0.5	Pass
EP - F2 - Flat 1.04 - Kitchen/ Dining/ Living	1989	34	1.7	Pass
EP - F2 - Flat 1.05 - Single Bedroom	3672	24	0.7	Pass
EP - F2 - Flat 1.01 - Single Bedroom East	3672	27	0.7	Pass
EP - F2 - Flat 1.04 - Single Bedroom 9m	3672	33	0.9	Pass
EP - F2 - Flat 1.01 - Single Bedroom West	3672	42	1.1	Pass

Room name	Occupied hours	No. hours ΔT ≥ 1°K	% Occupied hours ΔT ≥ 1°K	Criterion a check
EP - F2 - F1.05 - Master Double Bedroom	3672	20	0.5	Pass
EP - F2 - Flat 1.01 - Master Double Bedroom	3672	25	0.7	Pass
EP - F2 - Flat 1.03 - Master Double Bedroom	3672	33	0.9	Pass
EP - F2 - F1.04 - Master Double Bedrom	3672	29	0.8	Pass
EP - F2 - Flat 1.02 - Master Double Bedroom	3672	21	0.6	Pass
EP - F2 - Flat 1.03 - Single Bedroom	3672	25	0.7	Pass
EP - F2 - Flat 1.02 - Double Bedroom	3672	14	0.4	Pass
EP - F2 - Flat 1.01 - Kitchen/ Dining/ living	1989	22	1.1	Pass
EP - F2 - Flat 1.05 - Kitchen/ Dining/ Living	1989	25	1.3	Pass
EP - F2 - Flat 1.03 - Kitchen/ Dining/ Living	1989	37	1.9	Pass
EP - F2 - Flat 1.02 - Kitchen/ Dining/ Living	1989	32	1.6	Pass
EP - GF - Flat G03 - Single Bedroom	3672	29	0.8	Pass
EP - GF - Flat G03 - Master Double Bedroom	3672	35	1.0	Pass
WP - GF - Flat G04 - Kitchen/Dining/Living	1989	34	1.7	Pass
WP - GF - Common Corridor	0	0	0	Pass
WP - GF - Common Space 1	0	0	0	Pass
WP - GF - Common Corridor 2	0	0	0	Pass
WP - GF - Common Space 2	0	0	0	Pass
WP - GF - Flat G03 - Common Corridor	0	0	0	Pass
EP - GF - Flat G04 - Single Bedroom 2	3672	28	0.8	Pass
EP - GF - Flat G01 - Single Bedroom	3672	38	1.0	Pass
WP - 1F - Flat 1.04 - Kitchen/Dining/Living	1989	25	1.3	Pass
WP - 1F - Common Corridor 1	0	0	0	Pass

Room name	Occupied hours	No. hours ΔT ≥ 1°K	% Occupied hours ΔT ≥ 1°K	Criterion a check
WP - 1F - Common Space 1	0	0	0	Pass
WP - 1F - Flat 1.01 - Master Double Bedroom	3672	21	0.6	Pass
WP - 1F - Common Corridor 2	0	0	0	Pass
WP - 1F - Common Space 2	0	0	0	Pass
WP - 1F - Flat 1.02 - Master Double Bedroom	3672	15	0.4	Pass
WP - 1F - Flat 1.02 - Double Bedroom	3672	14	0.4	Pass
EP - F1 - Flat 1.05 - Single Bedroom	3672	32	0.9	Pass
WP - GF - Common Corridor 1	0	0	0	Pass
WP - GF - Common Corridor 1	0	0	0	Pass
EP - F1 - Common Cerntral Corridor	0	0	0	Pass
EP - F2 - Flat 1.01 - Single Bedroom 9m	3672	32	0.9	Pass
EP - F2 - Flat 1.04 - Single Bedroom 10.5m	3672	26	0.7	Pass
Room No 26	0	0	0	Pass

Naturally ventilated rooms – criterion (b)

Criterion (b) states that the operative temperature of the bedrooms from 22:00-07:00 shall not exceed 26°C for more than 1% of annual hours (33 hours is therefore recorded as a fail). Any rooms that are not bedrooms are therefore not assessed, hence the corresponding N/A values.

Room name	No. hours > 26°C 22:00-24:00	No. hours > 26°C 00:00-07:00	Total hours > 26°C	Criterion b check
WP - GF - Flat G05 - Single Bedroom	7	2	9	Pass
WP - GF - Flat G05 - Common Corridor	N/A	N/A	N/A	N/A
WP - GF - Flat G05 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
WP - GF - Flat G05 - Master Double Bedroom	11	12	23	Pass
WP - GF - Flat G04 - Master Double Bedroom	9	1	10	Pass
WP - GF - Flat G01 - Master Double	11	18	29	Pass
WP - GF - Flat G01 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
WP - GF - Flat G01 - Double Bedroom	11	19	30	Pass
EP - GF - Flat G01 - Single Bedroom 2	10	15	25	Pass
EP - GF - Flat G05 - Master Double Bedroom	11	19	30	Pass
EP - GF - Common Spaces 1	N/A	N/A	N/A	N/A
WP - GF - Flat G02 - Double Bedroom	12	5	17	Pass
EP - GF - Flat G05 - Single Bedroom	11	16	27	Pass
EP - GF - Flat G01 - Master Double Bedroom	10	15	25	Pass
WP - GF - Flat G02 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
EP - GF - Flat G04 - Single Bedroom 1	11	16	27	Pass
EP - GF - Flat G02 - Master Double Bedrrom	11	19	30	Pass
WP - GF - Flat G03 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
EP - GF - Common Corridor 2	N/A	N/A	N/A	N/A
EP - GF - Flat G04 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A

Room name	No. hours > 26°C 22:00-24:00	No. hours > 26°C 00:00-07:00	Total hours > 26°C	Criterion b check
WP - GF - Flat G02 - Master Double Bedroom	10	3	13	Pass
EP - GF - Flat G04 - Master Double Bedroom	11	21	32	Pass
WP - GF - Flat G03 - Master Double Bedroom	12	3	15	Pass
EP - GF - Flat G05 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
EP - GF - Flat G01 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
EP - GF - Flat G02 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
EP - GF - Flat G03 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
WP - 1F - Flat 1.05 - Double Bedroom	8	0	8	Pass
WP - 1F - Flat 1.05 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
WP - 1F - Flat 1.05 - Master Double Bedroom	11	3	14	Pass
WP - 1F - Flat 1.04 - Master Double Bedroom	10	1	11	Pass
WP - 1F - Flat 1.01 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
WP - 1F - Flat 1.01 - Double Bedroom	12	4	16	Pass
WP - 1F - Flat 1.03 - Master Double Bedroom	11	3	14	Pass
EP - 1F - Flat 1.01 - Master Double Bedroom	12	3	15	Pass
EP - 1F - Flat 1.03 - Single Bedroom	11	1	12	Pass
EP - 1F - Flat 1.03 - Master Double Bedroom	13	4	17	Pass
WP - 1F - Flat 1.02 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
EP - 1F - Flat 1.01 - Single Bedroom	6	1	7	Pass
EP - 1F - Flat 1.04 - Single Bedroom 9m	11	2	13	Pass
EP - 1F - Common Northern Corridor	N/A	N/A	N/A	N/A
EP - 1F - Flat 1.02 - Master Double Bedroom	11	3	14	Pass
EP - 1F - Flat 1.04 - Master Double Bedroom	12	3	15	Pass

Room name	No. hours > 26°C 22:00-24:00	No. hours > 26°C 00:00-07:00	Total hours > 26°C	Criterion b check
EP - F1 - Flat 1.05 - Master Double Bedroom	11	3	14	Pass
EP - F1 - Flat 1.05 - Single Bedroom	11	3	14	Pass
EP - F1 - Common Southern Corridor	N/A	N/A	N/A	N/A
EP - F1 - Flat 1.04 - Kitchen/ Dining/ living	N/A	N/A	N/A	N/A
EP - F1 - Flat 1.02 - Double Bedroom	10	3	13	Pass
WP - 1F - Flat 1.03 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
EP - 1F - Flat 1.01 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
EP - F1 - Flat 1.05 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
EP - F1 - Flat 1.03 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
EP - F1 - Flat 1.02 - kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
WP - F2 - Flat 2.02 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
WP - F2 - Flat 2.03 - Master Double Bedroom	10	1	11	Pass
WP - F2 - Flat 2.03 - Double Bedroom	5	0	5	Pass
WP - F2 - Flat 2.02 - Master Bedroom	10	1	11	Pass
WP - F2 - Flat 2.03 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
WP - F2 - Flat 2.01 - Master Double Bedroom	11	1	12	Pass
WP - F2 - Flat 2.01 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
WP - F2 - Flat 2.01 - Double Bedroom	10	1	11	Pass
EP - F2 - Flat 1.04 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
EP - F2 - Flat 1.05 - Single Bedroom	12	1	13	Pass
EP - F2 - Flat 1.01 - Single Bedroom East	10	1	11	Pass
EP - F2 - Flat 1.04 - Single Bedroom 9m	12	3	15	Pass
EP - F2 - Flat 1.01 - Single Bedroom West	6	1	7	Pass

Room name	No. hours > 26°C 22:00-24:00	No. hours > 26°C 00:00-07:00	Total hours > 26°C	Criterion b check
EP - F2 - F1.05 - Master Double Bedroom	10	1	11	Pass
EP - F2 - Flat 1.01 - Master Double Bedroom	10	1	11	Pass
EP - F2 - Flat 1.03 - Master Double Bedroom	13	3	16	Pass
EP - F2 - F1.04 - Master Double Bedrom	12	3	15	Pass
EP - F2 - Flat 1.02 - Master Double Bedroom	11	1	12	Pass
EP - F2 - Flat 1.03 - Single Bedroom	11	1	12	Pass
EP - F2 - Flat 1.02 - Double Bedroom	10	0	10	Pass
EP - F2 - Flat 1.01 - Kitchen/ Dining/ living	N/A	N/A	N/A	N/A
EP - F2 - Flat 1.05 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
EP - F2 - Flat 1.03 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
EP - F2 - Flat 1.02 - Kitchen/ Dining/ Living	N/A	N/A	N/A	N/A
EP - GF - Flat G03 - Single Bedroom	11	14	25	Pass
EP - GF - Flat G03 - Master Double Bedroom	11	16	27	Pass
WP - GF - Flat G04 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
WP - GF - Common Corridor	N/A	N/A	N/A	N/A
WP - GF - Common Space 1	N/A	N/A	N/A	N/A
WP - GF - Common Corridor 2	N/A	N/A	N/A	N/A
WP - GF - Common Space 2	N/A	N/A	N/A	N/A
WP - GF - Flat G03 - Common Corridor	N/A	N/A	N/A	N/A
EP - GF - Flat G04 - Single Bedroom 2	11	20	31	Pass
EP - GF - Flat G01 - Single Bedroom	11	21	32	Pass
WP - 1F - Flat 1.04 - Kitchen/Dining/Living	N/A	N/A	N/A	N/A
WP - 1F - Common Corridor 1	N/A	N/A	N/A	N/A

Room name	No. hours > 26°C 22:00-24:00	No. hours > 26°C 00:00-07:00	Total hours > 26°C	Criterion b check
WP - 1F - Common Space 1	N/A	N/A	N/A	N/A
WP - 1F - Flat 1.01 - Master Double Bedroom	11	3	14	Pass
WP - 1F - Common Corridor 2	N/A	N/A	N/A	N/A
WP - 1F - Common Space 2	N/A	N/A	N/A	N/A
WP - 1F - Flat 1.02 - Master Double Bedroom	10	3	13	Pass
WP - 1F - Flat 1.02 - Double Bedroom	9	3	12	Pass
WP - GF - Common Corridor 1	N/A	N/A	N/A	N/A
EP - F1 - Common Cerntral Corridor	N/A	N/A	N/A	N/A
EP - F2 - Flat 1.01 - Single Bedroom 9m	10	1	11	Pass
EP - F2 - Flat 1.04 - Single Bedroom 10.5m	12	3	15	Pass
Room No 26	N/A	N/A	N/A	N/A

Mechanically ventilated rooms

CIBSE TM59 overheating methodology for predominantly mech. vent. rooms states the operative temperature of all rooms shall not exceed 26°C for more than 3% of annual occupied hours.

Room name	No. hours > 26°C	% Annual hours > 26°C	Mechanically ventilated check
No mech vent rooms	N/A	N/A	N/A

Communal corridors

CIBSE TM59 states that whilst there is no mandatory target for communal corridors, if an operative temperature of 28°C is exceeded for more than 3% of annual hours, then this should be identified as a significant risk within the TM59 overheating report.

Room name	No. hours > 28°C	% Annual hours > 28°C	Corridor overheating risk check
EP - F2 - Communal Northern Corridor	5	0.1	No
EP - F2 - Communal Southern Corridor	26	0.3	No
Room No 9	3	0.0	No
Room No 9	37	0.4	No
Room No 9	0	0.0	No
Room No 6	0	0.0	No
WP - 2F - Common Eastern Corridor	4	0.0	No
Room No 6	0	0.0	No
WP - F2 - Common Western Corridor	6	0.1	No

Modelled details & overheating mitigation strategy

Approved document O: Providing Information & Appendix B requires information about the model and the overheating mitigation strategy. The following tables detail the modelling method and mitigation strategies applied to each analysed room. Where multiple active openings per space (windows & louvres) exist they are all listed. Occupancy, equipment and lighting profiles for occupied rooms comply with TM59 section 5.

Modelled occupancy

Room name	Floor area m²	Thermal template	Occupancy profile	Equipment profile	Lighting profile
WP - GF - Flat G05 - Single Bedroom	9.11	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - GF - Flat G05 - Common Corridor	9.59	TM59 - Circulation - Corridors			on continuously
WP - GF - Flat G05 - Kitchen/Dining/Living	30.65	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - GF - Flat G05 - Master Double Bedroom	15.82	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - GF - Flat G04 - Master Double Bedroom	13.84	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - GF - Flat G01 - Master Double	13.47	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - GF - Flat G01 - Kitchen/Dining/Living	26.7	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - GF - Flat G01 - Double Bedroom	14.03	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - GF - Flat G01 - Single Bedroom 2	12.68	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - GF - Flat G05 - Master Double Bedroom	13.28	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - GF - Common Spaces 1	21.81	TM59 - Circulation - Corridors			on continuously
WP - GF - Flat G02 - Double Bedroom	14.08	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - GF - Flat G05 - Single Bedroom	9.15	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - GF - Flat G01 - Master Double Bedroom	14.2	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - GF - Flat G02 - Kitchen/Dining/Living	29.29	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - GF - Flat G04 - Single Bedroom 1	9.72	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - GF - Flat G02 - Master Double Bedrrom	16.78	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - GF - Flat G03 - Kitchen/Dining/Living	24.61	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h

Room name	Floor area m²	Thermal template	Occupancy profile	Equipment profile	Lighting profile
EP - GF - Common Corridor 2	12.65	TM59 - Circulation - Corridors			on continuously
EP - GF - Flat G04 - Kitchen/Dining/Living	24.84	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - GF - Flat G02 - Master Double Bedroom	13.51	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - GF - Flat G04 - Master Double Bedroom	12.98	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - GF - Flat G03 - Master Double Bedroom	14.04	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - GF - Flat G05 - Kitchen/Dining/Living	22.94	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - GF - Flat G01 - Kitchen/Dining/Living	33.12	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - GF - Flat G02 - Kitchen/Dining/Living	32.94	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - GF - Flat G03 - Kitchen/Dining/Living	25.66	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - 1F - Flat 1.05 - Double Bedroom	13.4	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - 1F - Flat 1.05 - Kitchen/Dining/Living	28.99	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - 1F - Flat 1.05 - Master Double Bedroom	13.89	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - 1F - Flat 1.04 - Master Double Bedroom	13.84	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - 1F - Flat 1.01 - Kitchen/Dining/Living	26.7	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - 1F - Flat 1.01 - Double Bedroom	14.03	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - 1F - Flat 1.03 - Master Double Bedroom	14.04	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - 1F - Flat 1.01 - Master Double Bedroom	13.79	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - 1F - Flat 1.03 - Single Bedroom	10.84	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - 1F - Flat 1.03 - Master Double Bedroom	13.22	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - 1F - Flat 1.02 - Kitchen/Dining/Living	29.29	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h

Room name	Floor area m²	Thermal template	Occupancy profile	Equipment profile	Lighting profile
EP - 1F - Flat 1.01 - Single Bedroom	11.59	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - 1F - Flat 1.04 - Single Bedroom 9m	9.72	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - 1F - Common Northern Corridor	12.65	TM59 - Circulation - Corridors			on continuously
EP - 1F - Flat 1.02 - Master Double Bedroom	14.12	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - 1F - Flat 1.04 - Master Double Bedroom	12.98	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F1 - Flat 1.05 - Master Double Bedroom	13.28	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F1 - Flat 1.05 - Single Bedroom	9.15	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - F1 - Common Southern Corridor	14.5	TM59 - Circulation - Corridors			on continuously
EP - F1 - Flat 1.04 - Kitchen/ Dining/ living	24.84	TM59 - 3 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - F1 - Flat 1.02 - Double Bedroom	13.97	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - 1F - Flat 1.03 - Kitchen/Dining/Living	24.61	TM59 - 1 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - 1F - Flat 1.01 - Kitchen/ Dining/ Living	29.67	TM59 - 3 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - F1 - Flat 1.05 - Kitchen/ Dining/ Living	22.94	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - F1 - Flat 1.03 - Kitchen/Dining/Living	25.66	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - F1 - Flat 1.02 - kitchen/ Dining/ Living	25.74	TM59 - 1 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - F2 - Flat 2.02 - Kitchen/ Dining/ Living	28.12	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - F2 - Flat 2.03 - Master Double Bedroom	13.89	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - F2 - Flat 2.03 - Double Bedroom	13.4	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - F2 - Flat 2.02 - Master Bedroom	13.84	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - F2 - Flat 2.03 - Kitchen/ Dining/ Living	28.99	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h

Room name	Floor area m²	Thermal template	Occupancy profile	Equipment profile	Lighting profile
WP - F2 - Flat 2.01 - Master Double Bedroom	12.75	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - F2 - Flat 2.01 - Kitchen/ Dining/ Living	26.7	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - F2 - Flat 2.01 - Double Bedroom	14.03	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.04 - Kitchen/ Dining/ Living	24.84	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - F2 - Flat 1.05 - Single Bedroom	9.15	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.01 - Single Bedroom East	10.19	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.04 - Single Bedroom 9m	9.72	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.01 - Single Bedroom West	11.59	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - F1.05 - Master Double Bedroom	13.28	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.01 - Master Double Bedroom	13.79	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Communal Northern Corridor	12.65	TM59 - Circulation - Corridors			on continuously
EP - F2 - Flat 1.03 - Master Double Bedroom	13.22	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Communal Southern Corridor	14.5	TM59 - Circulation - Corridors			on continuously
EP - F2 - F1.04 - Master Double Bedrom	12.98	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.02 - Master Double Bedroom	14.12	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.03 - Single Bedroom	10.84	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.02 - Double Bedroom	13.97	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F2 - Flat 1.01 - Kitchen/ Dining/ living	29.67	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - F2 - Flat 1.05 - Kitchen/ Dining/ Living	22.94	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - F2 - Flat 1.03 - Kitchen/ Dining/ Living	25.66	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
EP - F2 - Flat 1.02 - Kitchen/ Dining/ Living	25.74	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h

Room name	Floor area m²	Thermal template	Occupancy profile	Equipment profile	Lighting profile
EP - GF - Flat G03 - Single Bedroom	10.84	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - GF - Flat G03 - Master Double Bedroom	13.22	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - GF - Flat G04 - Kitchen/Dining/Living	26.72	TM59 - 2 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - GF - Common Corridor	18.92	TM59 - Circulation - Corridors			on continuously
WP - GF - Common Space 1	15.07	TM59 - Circulation - Corridors			on continuously
WP - GF - Common Corridor 2	10.51	TM59 - Circulation - Corridors			on continuously
WP - GF - Common Space 2	24.69	TM59 - Circulation - Corridors			on continuously
WP - GF - Flat G03 - Common Corridor	7.99	TM59 - Circulation - Corridors			on continuously
EP - GF - Flat G04 - Single Bedroom 2	12.11	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
EP - GF - Flat G01 - Single Bedroom	9.85	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
WP - 1F - Flat 1.04 - Kitchen/Dining/Living	27.23	TM59 - 1 Bedroom - Living / Kitchen	Living / Kitchen Occupancy	Living / Kitchen Equipment	18-23h
WP - 1F - Common Corridor 1	18.92	TM59 - Circulation - Corridors			on continuously
WP - 1F - Common Space 1	15.07	TM59 - Circulation - Corridors			on continuously
WP - 1F - Flat 1.01 - Master Double Bedroom	13.47	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - 1F - Common Corridor 2	10.43	TM59 - Circulation - Corridors			on continuously
WP - 1F - Common Space 2	24.77	TM59 - Circulation - Corridors			on continuously
WP - 1F - Flat 1.02 - Master Double Bedroom	13.51	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
WP - 1F - Flat 1.02 - Double Bedroom	14.08	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
EP - F1 - Flat 1.05 - Single Bedroom	12.11	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h
WP - GF - Common Corridor 1	8.89	TM59 - Circulation - Corridors			on continuously
WP - GF - Common Corridor 1	26.63	TM59 - Circulation - Corridors			on continuously
EP - F1 - Common Cerntral Corridor	23.2	TM59 - Circulation - Corridors			on continuously
EP - F2 - Flat 1.01 - Single Bedroom 9m	10.19	TM59 - Single Bedroom	Single Bedroom Occupancy	Single Bedroom Equipment	18-23h

Room name	Floor area m²	Thermal template	Occupancy profile	Equipment profile	Lighting profile
Room No 9	9.42	TM59 - Circulation - Corridors			on continuously
Room No 9	3.31	TM59 - Circulation - Corridors			on continuously
Room No 9	45.01	TM59 - Circulation - Corridors			on continuously
Room No 6	19.91	TM59 - Circulation - Corridors			on continuously
WP - 2F - Common Eastern Corridor	18.64	TM59 - Circulation - Corridors			on continuously
Room No 6	13.71	TM59 - Circulation - Corridors			on continuously
WP - F2 - Common Western Corridor	14.88	TM59 - Circulation - Corridors			on continuously
EP - F2 - Flat 1.04 - Single Bedroom 10.5m	12.1	TM59 - Double Bedroom	Double Bedroom Occupancy	Double Bedroom Equipment	18-23h
Room No 26	5.55	TM59 - Bathroom		18-23h	

Modelled openings

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
WP - GF - Flat G05 - Single Bedroom	18.15	0.3906, 0.3906	1.25, 0.59, 1.25, 0.59, 2.0	90.0, 90.0, 90.0, 90.0, 90.0	56.11	ADO.Section_26c, ADO.Section_26ab, Bedroom Doors
WP - GF - Flat G05 - Common Corridor	44.79	0.3906	2.0, 2.35, 2.0, 2.0	90.0, 90.0, 90.0, 90.0	78.36	Bedroom Doors, on continuously, off continuously
WP - GF - Flat G05 - Kitchen/Dining/Living	28.45	0.3906, 0.3906, 0.3906, 0.3906, 0.3906, 0.3906	2.15, 1.25, 1.25, 0.59, 0.59, 0.72, 2.08, 2.14, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	40.4	ADO.Section_26c, on continuously, off continuously
WP - GF - Flat G05 - Master Double Bedroom	13.16	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	21.85	ADO.Section_26c, ADO.Section_26ab, Bedroom Doors
WP - GF - Flat G04 - Master Double Bedroom	12.26	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	24.97	ADO.Section_26ab, Bedroom Doors
WP - GF - Flat G01 - Master Double	10.91	0.3906	1.04, 2.0	90.0, 90.0	20.31	ADO.Section_26c, Bedroom Doors
WP - GF - Flat G01 - Kitchen/Dining/Living	21.12	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.04, 0.99, 0.71, 2.14, 2.08, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0	30.2	ADO.Section_26c, on continuously, off continuously
WP - GF - Flat G01 - Double Bedroom	11.8	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	24.63	ADO.Section_26c, Bedroom Doors, off continuously
EP - GF - Flat G01 - Single Bedroom 2	14.58	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	27.26	ADO.Section_26c, Bedroom Doors, off continuously
EP - GF - Flat G05 - Master Double Bedroom	19.64	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	26.02	ADO.Section_26c, Bedroom Doors, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
EP - GF - Common Spaces 1	18.36	0.3906	1.23, 1.12	90.0, 90.0	9.7	off continuously
WP - GF - Flat G02 - Double Bedroom	13.81	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	24.55	off continuously, ADO.Section_26ab, Bedroom Doors
EP - GF - Flat G05 - Single Bedroom	16.83	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	37.77	ADO.Section_26c, Bedroom Doors, off continuously
EP - GF - Flat G01 - Master Double Bedroom	15.72	0.3906, 0.3906	1.25, 0.59, 1.25, 0.59, 2.0	90.0, 90.0, 90.0, 90.0, 90.0	36.0	ADO.Section_26c, Bedroom Doors, off continuously
WP - GF - Flat G02 - Kitchen/Dining/Living	21.49	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	2.0, 1.25, 1.25, 0.59, 2.14, 2.08, 0.99, 0.71	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	33.83	ADO.Section_26ab, on continuously, off continuously
EP - GF - Flat G04 - Single Bedroom 1	22.91	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	35.56	ADO.Section_26c, Bedroom Doors, off continuously
EP - GF - Flat G02 - Master Double Bedrrom	18.12	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	20.6	ADO.Section_26c, Bedroom Doors, off continuously
WP - GF - Flat G03 - Kitchen/Dining/Living	25.36	0.3906, 0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 0.59, 0.71, 2.08, 2.14, 1.25, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	40.26	on continuously, ADO.Section_26ab, off continuously
EP - GF - Common Corridor 2	N/A				0.0	
EP - GF - Flat G04 - Kitchen/Dining/Living	23.63	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	0.6, 1.2, 2.14, 2.08, 0.99, 0.72, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	35.25	ADO.Section_26c, on continuously, off continuously
WP - GF - Flat G02 - Master Double Bedroom	12.7	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	25.58	Bedroom Doors, ADO.Section_26ab, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
EP - GF - Flat G04 - Master Double Bedroom	19.64	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	26.63	ADO.Section_26c, Bedroom Doors, off continuously
WP - GF - Flat G03 - Master Double Bedroom	19.64	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	24.62	off continuously, ADO.Section_26ab, Bedroom Doors
EP - GF - Flat G05 - Kitchen/Dining/Living	25.51	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	0.72, 2.08, 2.14, 1.25, 0.59, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	38.33	ADO.Section_26c, on continuously, off continuously
EP - GF - Flat G01 - Kitchen/Dining/Living	26.17	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 1.25, 1.25, 0.59, 0.59, 0.59, 2.0, 2.14, 2.08, 0.99, 0.71	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	36.52	ADO.Section_26c, on continuously, off continuously
EP - GF - Flat G02 - Kitchen/Dining/Living	21.85	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	0.71, 2.08, 2.14, 1.37, 1.25, 0.47, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	30.08	ADO.Section_26c, on continuously, off continuously
EP - GF - Flat G03 - Kitchen/Dining/Living	26.84	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 1.25, 0.59, 2.14, 2.08, 0.99, 0.71, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	38.62	ADO.Section_26c, on continuously, off continuously
WP - 1F - Flat 1.05 - Double Bedroom	22.65	0.3906, 0.3906	1.25, 0.59, 1.25, 1.25, 0.59, 0.59, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	50.51	ADO.Section_26ab, off continuously
WP - 1F - Flat 1.05 - Kitchen/Dining/Living	26.82	0.3906, 0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 0.59, 1.25, 0.59, 2.14, 2.08, 0.72, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	36.04	on continuously, ADO.Section_26ab, off continuously
WP - 1F - Flat 1.05 - Master Double Bedroom	16.14	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	24.88	Bedroom Doors, ADO.Section_26ab, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
WP - 1F - Flat 1.04 - Master Double Bedroom	12.26	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	24.97	Bedroom Doors, ADO.Section_26ab, off continuously
WP - 1F - Flat 1.01 - Kitchen/Dining/Living	21.33	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.11, 2.14, 2.08, 0.99, 0.71, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0	30.44	on continuously, ADO.Section_26ab, off continuously
WP - 1F - Flat 1.01 - Double Bedroom	11.8	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	24.63	Bedroom Doors, ADO.Section_26ab, off continuously
WP - 1F - Flat 1.03 - Master Double Bedroom	19.64	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	24.62	off continuously, ADO.Section_26ab, Bedroom Doors
EP - 1F - Flat 1.01 - Master Double Bedroom	14.58	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	25.06	Bedroom Doors, ADO.Section_26ab, off continuously
EP - 1F - Flat 1.03 - Single Bedroom	13.63	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	31.88	Bedroom Doors, ADO.Section_26ab, off continuously
EP - 1F - Flat 1.03 - Master Double Bedroom	17.47	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	26.14	Bedroom Doors, ADO.Section_26ab, off continuously
WP - 1F - Flat 1.02 - Kitchen/Dining/Living	21.49	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	2.0, 1.25, 1.25, 0.59, 2.14, 2.08, 0.99, 0.71	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	33.83	ADO.Section_26ab, on continuously, off continuously
EP - 1F - Flat 1.01 - Single Bedroom	18.24	0.3906, 0.3906	2.0, 1.25, 0.59, 1.25, 0.59	90.0, 90.0, 90.0, 90.0, 90.0	44.11	off continuously, ADO.Section_26ab, Bedroom Doors

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
EP - 1F - Flat 1.04 - Single Bedroom 9m	22.91	0.6497, 0.6497	0.59, 1.25, 2.0	90.0, 90.0, 90.0	35.56	Bedroom Doors, ADO.Section_26ab, off continuously
EP - 1F - Common Northern Corridor	N/A		2.0, 2.0, 2.0, 2.0	90.0, 90.0, 90.0, 90.0	56.92	off continuously
EP - 1F - Flat 1.02 - Master Double Bedroom	19.64	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	24.48	off continuously, ADO.Section_26ab, Bedroom Doors
EP - 1F - Flat 1.04 - Master Double Bedroom	19.64	0.6497	1.25, 0.59, 2.0	90.0, 90.0, 90.0	26.63	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F1 - Flat 1.05 - Master Double Bedroom	19.64	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	26.02	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F1 - Flat 1.05 - Single Bedroom	16.83	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	37.77	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F1 - Common Southern Corridor	19.48	0.3906	1.25, 1.25, 0.59, 0.59, 2.0, 2.0, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	60.08	ADO.Section_26ab, off continuously
EP - F1 - Flat 1.04 - Kitchen/ Dining/ living	21.94	0.6497, 0.6497, 0.6497, 0.6497, 0.6497	1.25, 2.14, 2.08, 0.99, 0.72, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0	33.26	on continuously, ADO.Section_26ab, off continuously
EP - F1 - Flat 1.02 - Double Bedroom	12.9	0.3906	2.0, 1.25	90.0, 90.0	20.94	ADO.Section_26ab, Bedroom Doors
WP - 1F - Flat 1.03 - Kitchen/Dining/Living	25.36	0.3906, 0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 0.59, 0.71, 2.08, 2.14, 1.25, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	40.26	on continuously, ADO.Section_26ab, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
EP - 1F - Flat 1.01 - Kitchen/ Dining/ Living	26.32	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 1.25, 0.59, 0.59, 0.72, 2.14, 2.08, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	35.22	on continuously, ADO.Section_26ab, off continuously
EP - F1 - Flat 1.05 - Kitchen/ Dining/ Living	25.51	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	0.72, 2.08, 2.14, 1.25, 0.59, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	38.33	on continuously, ADO.Section_26ab, off continuously
EP - F1 - Flat 1.03 - Kitchen/Dining/Living	26.84	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 1.25, 0.59, 0.99, 0.72, 2.14, 2.08, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	38.65	on continuously, ADO.Section_26ab, off continuously
EP - F1 - Flat 1.02 - kitchen/ Dining/ Living	24.2	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.37, 0.47, 2.14, 2.08, 0.71, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	34.13	on continuously, ADO.Section_26ab, off continuously
WP - F2 - Flat 2.02 - Kitchen/ Dining/ Living	34.77	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	2.14, 2.08, 0.72, 1.25, 0.59, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	31.27	on continuously, ADO.Section_26ab, off continuously
WP - F2 - Flat 2.03 - Master Double Bedroom	16.14	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	24.88	Bedroom Doors, ADO.Section_26ab, off continuously
WP - F2 - Flat 2.03 - Double Bedroom	22.65	0.3906, 0.3906	2.0, 1.25, 0.59, 1.25, 1.25, 0.59, 0.59	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	50.51	off continuously, ADO.Section_26ab, Bedroom Doors
WP - F2 - Flat 2.02 - Master Bedroom	12.26	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	24.97	off continuously, ADO.Section_26ab, Bedroom Doors
WP - F2 - Flat 2.03 - Kitchen/ Dining/ Living	26.82	0.3906, 0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 0.59, 1.25, 0.59, 2.14, 2.08, 0.72, 0.99, 2.0, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	42.25	on continuously, ADO.Section_26ab, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
WP - F2 - Flat 2.01 - Master Double Bedroom	7.99	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	27.11	Bedroom Doors, ADO.Section_26ab, off continuously
WP - F2 - Flat 2.01 - Kitchen/ Dining/ Living	21.33	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.11, 0.99, 0.72, 2.14, 2.08, 2.0	90.0, 90.0, 90.0, 90.0, 90.0	30.47	on continuously, ADO.Section_26ab, off continuously
WP - F2 - Flat 2.01 - Double Bedroom	11.8	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	24.63	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F2 - Flat 1.04 - Kitchen/ Dining/ Living	21.94	0.6497, 0.6497, 0.6497, 0.6497, 0.6497	1.25, 2.14, 2.08, 0.99, 0.72, 2.0	90.0, 90.0, 90.0, 90.0, 90.0	33.26	on continuously, ADO.Section_26ab, off continuously
EP - F2 - Flat 1.05 - Single Bedroom	16.83	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	37.77	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F2 - Flat 1.01 - Single Bedroom East	13.98	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	33.92	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F2 - Flat 1.04 - Single Bedroom 9m	22.91	0.6497	1.25, 0.59, 2.0	90.0, 90.0, 90.0	35.56	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F2 - Flat 1.01 - Single Bedroom West	18.24	0.3906, 0.3906	2.0, 1.25, 0.59, 1.25, 0.59	90.0, 90.0, 90.0, 90.0, 90.0	44.11	off continuously, ADO.Section_26ab, Bedroom Doors
EP - F2 - F1.05 - Master Double Bedroom	14.22	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	26.02	Bedroom Doors, ADO.Section_26ab, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
EP - F2 - Flat 1.01 - Master Double Bedroom	14.58	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	25.06	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F2 - Communal Northern Corridor	-0.0		2.0, 2.0, 2.0, 2.0	90.0, 90.0, 90.0, 90.0	56.92	off continuously
EP - F2 - Flat 1.03 - Master Double Bedroom	17.47	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	26.14	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F2 - Communal Southern Corridor	19.48	0.3906	1.25, 1.25, 0.59, 0.59, 2.0, 2.0, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	60.08	ADO.Section_26ab, off continuously
EP - F2 - F1.04 - Master Double Bedrom	19.64	0.6497	1.25, 0.59, 2.0	90.0, 90.0, 90.0	26.63	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F2 - Flat 1.02 - Master Double Bedroom	19.64	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	24.48	off continuously, ADO.Section_26ab, Bedroom Doors
EP - F2 - Flat 1.03 - Single Bedroom	13.63	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	31.88	Bedroom Doors, ADO.Section_26ab, off continuously
EP - F2 - Flat 1.02 - Double Bedroom	12.9	0.3906	1.25, 2.0	90.0, 90.0	20.94	ADO.Section_26ab, Bedroom Doors
EP - F2 - Flat 1.01 - Kitchen/ Dining/ living	26.32	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 1.25, 0.59, 0.59, 2.14, 2.08, 0.99, 0.71, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	35.19	on continuously, ADO.Section_26ab, off continuously
EP - F2 - Flat 1.05 - Kitchen/ Dining/ Living	25.51	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	0.72, 2.08, 2.14, 1.25, 0.59, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	38.33	on continuously, ADO.Section_26ab, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
EP - F2 - Flat 1.03 - Kitchen/ Dining/ Living	26.84	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.25, 1.25, 0.59, 0.99, 0.72, 2.14, 2.08, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	38.65	on continuously, ADO.Section_ 26ab, off continuously
EP - F2 - Flat 1.02 - Kitchen/ Dining/ Living	24.2	0.3906, 0.3906, 0.3906, 0.3906, 0.3906	1.37, 0.47, 0.71, 2.08, 2.14, 0.99, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	34.13	on continuously, ADO.Section_ 26ab, off continuously
EP - GF - Flat G03 - Single Bedroom	13.63	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	31.88	ADO.Section_ 26c, Bedroom Doors, off continuously
EP - GF - Flat G03 - Master Double Bedroom	17.47	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	26.14	ADO.Section_ 26c, off continuously, Bedroom Doors
WP - GF - Flat G04 - Kitchen/Dining/Living	36.35	0.3906, 0.3906	1.23, 2.0, 2.14, 2.08, 0.72, 0.99	90.0, 90.0, 90.0, 90.0, 90.0, 90.0	30.85	ADO.Section_ 26c, on continuously, off continuously
WP - GF - Common Corridor	21.09	0.3906	2.0, 2.31, 2.52, 0.69, 2.0	90.0, 90.0, 90.0, 90.0, 90.0	45.29	off continuously
WP - GF - Common Space 1	0.0		2.0	90.0	11.94	off continuously
WP - GF - Common Corridor 2	N/A		2.0, 2.0, 2.0	90.0, 90.0, 90.0	51.38	off continuously
WP - GF - Common Space 2	15.43	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	14.0	ADO.Section_ 26ab, off continuously
WP - GF - Flat G03 - Common Corridor	N/A		2.0, 2.0, 2.0	90.0, 90.0, 90.0	67.58	Bedroom Doors, on continuously, off continuously
EP - GF - Flat G04 - Single Bedroom 2	23.69	0.3906	1.25, 0.59, 1.47	90.0, 90.0, 90.0	24.6	ADO.Section_ 26c, Bedroom Doors, off continuously
EP - GF - Flat G01 - Single Bedroom	22.05	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	35.09	ADO.Section_ 26c, Bedroom Doors, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
WP - 1F - Flat 1.04 - Kitchen/Dining/Living	40.03	0.3906, 0.3906, 0.5007	1.25, 0.59, 2.0, 0.72, 2.15, 2.08, 0.99	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	32.32	on continuously, ADO.Section_26ab, off continuously
WP - 1F - Common Corridor 1	15.24	0.3906	1.25, 0.59, 2.0, 2.0	90.0, 90.0, 90.0, 90.0	27.78	ADO.Section_26ab, off continuously
WP - 1F - Common Space 1	0.0		2.0	90.0	11.94	off continuously
WP - 1F - Flat 1.01 - Master Double Bedroom	19.25	0.3906	1.25, 0.59, 1.37	90.0, 90.0, 90.0	21.45	Bedroom Doors, ADO.Section_26ab, off continuously
WP - 1F - Common Corridor 2	N/A		2.0, 2.0	90.0, 90.0	34.52	off continuously
WP - 1F - Common Space 2	15.19	0.3906	1.25, 0.59	90.0, 90.0	6.69	ADO.Section_26ab, off continuously
WP - 1F - Flat 1.02 - Master Double Bedroom	12.7	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	25.58	off continuously, ADO.Section_26ab, Bedroom Doors
WP - 1F - Flat 1.02 - Double Bedroom	11.06	0.3906	2.0, 1.25, 0.59	90.0, 90.0, 90.0	24.55	off continuously, ADO.Section_26ab, Bedroom Doors
EP - F1 - Flat 1.05 - Single Bedroom	23.69	0.6497	1.25, 0.59, 2.0	90.0, 90.0, 90.0	28.54	Bedroom Doors, ADO.Section_26ab, off continuously
WP - GF - Common Corridor 1	0.0				0.0	
WP - GF - Common Corridor 1	27.14	0.3906	0.69, 2.52, 2.31	90.0, 90.0, 90.0	18.66	off continuously
EP - F1 - Common Cerntral Corridor	18.33	0.3906	1.25, 0.59, 2.0, 2.0	90.0, 90.0, 90.0, 90.0	22.66	ADO.Section_26ab, off continuously
EP - F2 - Flat 1.01 - Single Bedroom 9m	13.98	0.3906	1.25, 0.59, 2.0	90.0, 90.0, 90.0	33.92	Bedroom Doors, ADO.Section_26ab, off continuously

Room name	Window to wall ratio %	Window g-value (EN 410)	Opening gross area m²	Opening free area (avg) %	Opening free area / floor area ratio %	Opening profile(s)
Room No 9	0.0		2.0	90.0	19.11	off continuously
Room No 9	21.98	0.3906	1.25, 2.0	90.0, 90.0	88.37	ADO.Section_26ab, off continuously
Room No 9	17.81	0.3906, 0.3906	1.25, 0.59, 2.0, 2.0, 1.23, 2.0, 0.79, 2.0	90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0, 90.0	23.71	ADO.Section_26ab, off continuously
Room No 6	0.0				0.0	
WP - 2F - Common Eastern Corridor	15.24	0.3906	1.25, 0.59, 2.0, 2.0, 2.0	90.0, 90.0, 90.0, 90.0, 90.0	37.85	ADO.Section_26ab, off continuously
Room No 6	0.0		2.0, 2.0	90.0, 90.0	26.26	off continuously
WP - F2 - Common Western Corridor	9.5	0.3906	1.8	90.0	10.89	off continuously
EP - F2 - Flat 1.04 - Single Bedroom 10.5m	23.69	0.6497	1.25, 0.59, 2.0	90.0, 90.0, 90.0	28.56	Bedroom Doors, ADO.Section_26ab, off continuously
Room No 26	N/A		2.0	90.0	32.43	off continuously

Modelled ventilation

Room name	Infiltration rate ACH	Mech vent flow rate ACH
WP - GF - Flat G05 - Single Bedroom	0.25	2.51
WP - GF - Flat G05 - Common Corridor	0.25	2.38
WP - GF - Flat G05 - Kitchen/Dining/Living	0.25	0.75
WP - GF - Flat G05 - Master Double Bedroom	0.25	1.45
WP - GF - Flat G04 - Master Double Bedroom	0.25	1.65
WP - GF - Flat G01 - Master Double	0.25	2.55
WP - GF - Flat G01 - Kitchen/Dining/Living	0.25	0.86
WP - GF - Flat G01 - Double Bedroom	0.25	2.44
EP - GF - Flat G01 - Single Bedroom 2	0.25	1.8
EP - GF - Flat G05 - Master Double Bedroom	0.25	1.72
EP - GF - Common Spaces 1	0.25	0.79
WP - GF - Flat G02 - Double Bedroom	0.15	0
EP - GF - Flat G05 - Single Bedroom	0.25	2.5
EP - GF - Flat G01 - Master Double Bedroom	0.25	2.42
WP - GF - Flat G02 - Kitchen/Dining/Living	0.25	0.78
EP - GF - Flat G04 - Single Bedroom 1	0.25	2.94
EP - GF - Flat G02 - Master Double Bedrrom	0.25	1.7
WP - GF - Flat G03 - Kitchen/Dining/Living	0.25	0.93
EP - GF - Common Corridor 2	0.15	0
EP - GF - Flat G04 - Kitchen/Dining/Living	0.25	0.92
WP - GF - Flat G02 - Master Double Bedroom	0.25	2.11
EP - GF - Flat G04 - Master Double Bedroom	0.25	2.2
WP - GF - Flat G03 - Master Double Bedroom	0.25	1.63
EP - GF - Flat G05 - Kitchen/Dining/Living	0.25	1.0
EP - GF - Flat G01 - Kitchen/Dining/Living	0.25	0.69
EP - GF - Flat G02 - Kitchen/Dining/Living	0.25	0.69
EP - GF - Flat G03 - Kitchen/Dining/Living	0.15	0
WP - 1F - Flat 1.05 - Double Bedroom	0.15	0
WP - 1F - Flat 1.05 - Kitchen/Dining/Living	0.15	0
WP - 1F - Flat 1.05 - Master Double Bedroom	0.15	0
WP - 1F - Flat 1.04 - Master Double Bedroom	0.25	1.65
WP - 1F - Flat 1.01 - Kitchen/Dining/Living	0.15	0
WP - 1F - Flat 1.01 - Double Bedroom	0.15	0
WP - 1F - Flat 1.03 - Master Double Bedroom	0.15	0
EP - 1F - Flat 1.01 - Master Double Bedroom	0.25	1.66
EP - 1F - Flat 1.03 - Single Bedroom	0.25	2.11
EP - 1F - Flat 1.03 - Master Double Bedroom	0.25	1.73
WP - 1F - Flat 1.02 - Kitchen/Dining/Living	0.15	0
EP - 1F - Flat 1.01 - Single Bedroom	0.25	1.97
EP - 1F - Flat 1.04 - Single Bedroom 9m	0.25	2.35

Room name	Infiltration rate ACH	Mech vent flow rate ACH
EP - 1F - Common Northern Corridor	0.25	1.81
EP - 1F - Flat 1.02 - Master Double Bedroom	0.25	1.62
EP - 1F - Flat 1.04 - Master Double Bedroom	0.25	1.76
EP - F1 - Flat 1.05 - Master Double Bedroom	0.25	1.72
EP - F1 - Flat 1.05 - Single Bedroom	0.25	2.5
EP - F1 - Common Southern Corridor	0.25	1.58
EP - F1 - Flat 1.04 - Kitchen/ Dining/ living	0.25	0.92
EP - F1 - Flat 1.02 - Double Bedroom	0.25	1.64
WP - 1F - Flat 1.03 - Kitchen/Dining/Living	0.15	0
EP - 1F - Flat 1.01 - Kitchen/ Dining/ Living	0.25	0.77
EP - F1 - Flat 1.05 - Kitchen/ Dining/ Living	0.25	1.0
EP - F1 - Flat 1.03 - Kitchen/Dining/Living	0.25	0.89
EP - F1 - Flat 1.02 - kitchen/ Dining/ Living	0.25	0.89
WP - F2 - Flat 2.02 - Kitchen/ Dining/ Living	0.25	0.81
WP - F2 - Flat 2.03 - Master Double Bedroom	0.25	1.65
WP - F2 - Flat 2.03 - Double Bedroom	0.25	1.71
WP - F2 - Flat 2.02 - Master Bedroom	0.25	1.65
WP - F2 - Flat 2.03 - Kitchen/ Dining/ Living	0.25	0.79
WP - F2 - Flat 2.01 - Master Double Bedroom	0.25	1.79
WP - F2 - Flat 2.01 - Kitchen/ Dining/ Living	0.25	0.86
WP - F2 - Flat 2.01 - Double Bedroom	0.25	1.63
EP - F2 - Flat 1.04 - Kitchen/ Dining/ Living	0.25	0.92
EP - F2 - Flat 1.05 - Single Bedroom	0.25	2.5
EP - F2 - Flat 1.01 - Single Bedroom East	0.25	2.24
EP - F2 - Flat 1.04 - Single Bedroom 9m	0.25	2.35
EP - F2 - Flat 1.01 - Single Bedroom West	0.25	1.97
EP - F2 - F1.05 - Master Double Bedroom	0.25	1.72
EP - F2 - Flat 1.01 - Master Double Bedroom	0.25	1.66
EP - F2 - Communal Northern Corridor	0.25	1.81
EP - F2 - Flat 1.03 - Master Double Bedroom	0.25	1.73
EP - F2 - Communal Southern Corridor	0.25	1.58
EP - F2 - F1.04 - Master Double Bedrom	0.25	1.76
EP - F2 - Flat 1.02 - Master Double Bedroom	0.25	1.62
EP - F2 - Flat 1.03 - Single Bedroom	0.25	2.11
EP - F2 - Flat 1.02 - Double Bedroom	0.25	1.64
EP - F2 - Flat 1.01 - Kitchen/ Dining/ living	0.25	0.77
EP - F2 - Flat 1.05 - Kitchen/ Dining/ Living	0.25	1.0
EP - F2 - Flat 1.03 - Kitchen/ Dining/ Living	0.25	0.89
EP - F2 - Flat 1.02 - Kitchen/ Dining/ Living	0.25	0.89
EP - GF - Flat G03 - Single Bedroom	0.25	2.11
EP - GF - Flat G03 - Master Double Bedroom	0.25	3.03
WP - GF - Flat G04 - Kitchen/Dining/Living	0.25	0.86

Room name	Infiltration rate ACH	Mech vent flow rate ACH
WP - GF - Common Corridor	0.25	1.21
WP - GF - Common Space 1	0.25	1.52
WP - GF - Common Corridor 2	0.15	0
WP - GF - Common Space 2	0.25	0.93
WP - GF - Flat G03 - Common Corridor	0.25	2.86
EP - GF - Flat G04 - Single Bedroom 2	0.25	1.89
EP - GF - Flat G01 - Single Bedroom	0.25	2.32
WP - 1F - Flat 1.04 - Kitchen/Dining/Living	0.15	0
WP - 1F - Common Corridor 1	0.15	0
WP - 1F - Common Space 1	0.25	1.52
WP - 1F - Flat 1.01 - Master Double Bedroom	0.25	1.79
WP - 1F - Common Corridor 2	0.25	2.19
WP - 1F - Common Space 2	0.25	0.92
WP - 1F - Flat 1.02 - Master Double Bedroom	0.15	0
WP - 1F - Flat 1.02 - Double Bedroom	0.25	1.62
EP - F1 - Flat 1.05 - Single Bedroom	0.25	1.89
WP - GF - Common Corridor 1	0.15	0
WP - GF - Common Corridor 1	0.15	0
EP - F1 - Common Cerntral Corridor	0.25	0.99
EP - F2 - Flat 1.01 - Single Bedroom 9m	0.25	2.24
Room No 9	0.25	2.43
Room No 9	0.25	6.9
Room No 9	0.25	0.58
Room No 6	0.25	1.45
WP - 2F - Common Eastern Corridor	0.25	1.23
Room No 6	0.25	2.07
WP - F2 - Common Western Corridor	0.25	2.44
EP - F2 - Flat 1.04 - Single Bedroom 10.5m	0.25	1.89
Room No 26	0.25	0