

# 1 VINYL SQUARE

THE OLD VINYL FACTORY

Joseph  
Homes.

THE OLD  
VINYL FACTORY

 PATRICK PARSONS

ENERGY & SUSTAINABILITY

STATEMENT

NOVEMBER 2019



# Energy, Sustainability Statement & Overheating Analysis

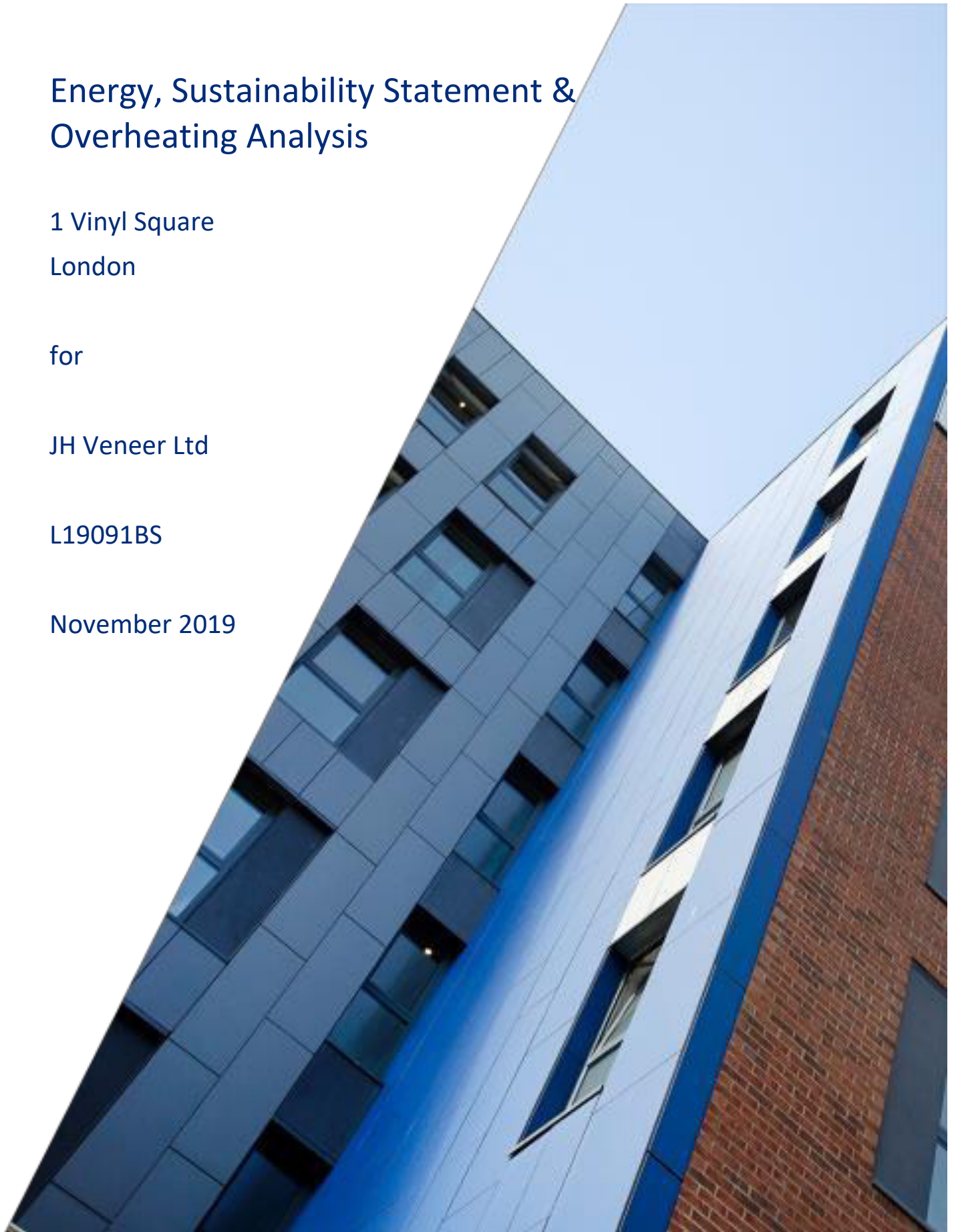
1 Vinyl Square  
London

for

JH Veneer Ltd

L19091BS

November 2019



## **Energy, Sustainability Statement & Overheating Analysis**

### **1 Vinyl Square**

**for**

**JH Veneer Ltd**

| <b>Revision</b> | <b>Date of issue</b> | <b>Comments</b>            | <b>Prepared By</b> | <b>Checked By</b> |
|-----------------|----------------------|----------------------------|--------------------|-------------------|
| Rev 0           | 28/10/2019           | Planning Issue             | MB                 | SW                |
| Rev 1           | 31/10/2019           | Overheating Analysis Added | MB                 | SW                |
| Rev 2           | 05/11/2019           | Planning Issue             | MB                 | SW                |
| Rev 3           | 22/11/2019           | Revised Planning Issue     | DK                 | DK                |
| Rev 4           | 26/11/2019           | Clients Comments           | DK                 | DK                |

**Should you have any queries relating to this document please contact:**

Des Killingworth  
JSA Consulting Engineers Ltd T/A Patrick Parsons  
34 Candler Mews  
Amyand Park Road  
Twickenham  
TW1 3JF

T: +44 (0) 208 538 9555

E: [Des.Killingworth@patrickparsons.co.uk](mailto:Des.Killingworth@patrickparsons.co.uk)

## Contents

|      |                                                 |    |
|------|-------------------------------------------------|----|
| 1.0  | Executive Summary .....                         | 2  |
| 2.0  | Introduction.....                               | 3  |
| 3.0  | Regional Policy – Greater London Authority..... | 4  |
| 4.0  | Energy Hierarchy .....                          | 9  |
| 5.0  | Assessment Methodology .....                    | 10 |
| 6.0  | Baseline .....                                  | 11 |
| 7.0  | Model 1: Be Lean.....                           | 14 |
| 8.0  | Model 2: Be Clean.....                          | 17 |
| 9.0  | Model 3: Be Green.....                          | 21 |
| 10.0 | Overheating Analysis .....                      | 34 |
| 11.0 | Conclusion and Summary .....                    | 39 |

## 1.0 Executive Summary

This Energy & Sustainability Statement & Overheating Analysis report has been prepared on behalf of JH Veneer Ltd. as part of a planning application for the site known as 1 Vinyl Square, located towards the western end of The Old Vinyl Factory (TOVF) masterplan, in Hayes, West London.

This report demonstrates how sustainability principles shall be embedded into the development, to ensure the development specification achieves and exceeds the requirements of the Building Regulations and all relevant energy policies as defined by the GLA. Such sustainable features include energy efficient building services plant and equipment and the use of passive design principles.

Furthermore, the report demonstrates how sustainability principles are adopted into the development to achieve compliance with the Draft New London Plan, in particular the new London Plan Policy for achieving zero-carbon target for major developments and additionally, the GLA Energy Assessment Guidance (2018), which requires a minimum 35% on-site carbon reduction target, of which residential delivers 10% through energy efficiency means 'Be Lean'.

The results of the "Be Clean" modelling results identified that the minimum 35% carbon reduction targets have been met through the adoption of the measures detailed within the 'Be Lean' & 'Be Clean' sections of this report. 'Be Green' measures (inclusion of renewable energy) were considered for the development. However, the most feasible options, PV & STHW, were discounted given that their inclusion would be detrimental to the required allocated amenity spaces on the roof space(s). Considering this and the 35% carbon reduction target being achieved and exceeded by the adoption of the 'Be Lean' & 'Be Clean' measures, 'Be Green' measures have not been included within the Development.

The report shows how the proposed development has been designed using the principles of the Energy Hierarchy, and other energy efficiency principles, in order to deliver significant carbon dioxide reductions and comply with the various relevant policies and regulations.

In particular, the design team have sought to minimise emissions at source by the incorporation of the "Fabric First" approach, sustainable design features and the connection to the TOVF Local District Heating Network for the provision of space heating and domestic hot water requirements. This approach is advantageous in ensuring a reduction in energy consumption without the need for tenant interaction. In addition, this fabric first approach requires no maintenance by the tenants.

There is a legal agreement in place relating to the 'TOVF' site masterplan which requires that the 1 Vinyl Square Building is connected to the S106 TOVF energy centre as part of the site wide requirement to save a minimum of 394 tCO<sub>2</sub> per annum.

The MTT report which can be found in Appendix I, confirms that the carbon saving from using the TOVF energy centre for the heating and hot water demand for the 1 Vinyl Square development exceeds the threshold of 394 tCO<sub>2</sub> per annum outlined in Criterion 5, Section 13 of the S106 Agreement, requiring any shortfall is to be offset with a financial contribution. Consequently, no Carbon offset payment is required. This is subject to the acceptance of the MTT 'TOVF' energy centre S106 agreement report by the Local Planning Authority.

## 2.0 Introduction

Patrick Parsons have been instructed by the applicant, JH Veneer Limited, to produce an Energy and Sustainability Statement (including Overheating Assessment) to support the planning application for a development at 1 Vinyl Square, Hayes, London which was previously known as 'The Old Veneer Building'.

### 2.1 Description of Site and Planning

The site address is 1 Vinyl Square, The Old Vinyl Factory, Blyth Road, Hayes, London, UB3 1SY, within the London Borough of Hillingdon. The site is a vacant brownfield site formerly occupied by the Veneer Building. The wider site, 'The Old Vinyl Factory' (TOVF) has outline planning permission, however the ability to submit a reserved matters application for 1 Vinyl Square has lapsed.

The maximum height of the building will be 11 storeys (ground plus 10 floors) plus lift overruns. The description of the proposed development is:

*"Full planning permission for the redevelopment of the site to provide a mixed-use development comprising residential dwellings (C3 Use Class) and commercial floorspace (flexible A1/A2/A3/A5/B1 Use Class), car parking, cycle parking and associated landscaping."*

Furthermore, there is a legal agreement in place relating to the masterplan which requires that the 1 Vinyl Square Building is connected to the S106 TOVF energy centre as part of the site wide requirement to save a minimum of 394 tCO<sub>2</sub> per annum. Section 13 of the S106 legal agreement has the following criterion that are required to be met:

**Criterion 1** - Carbon savings are required to meet or exceed the threshold of 394 tonnes per annum.

**Criterion 2** - The energy strategy to support each Phase of the development in achieving the necessary BREEAM and Code for Sustainable Homes Rating.

**Criterion 3** – The Energy Strategy to utilise Combined Heat and Power. The CHP unit has been installed in the energy centre and is operational.

**Criterion 4** - All measures necessary to meet the threshold of a 394 tonne carbon emissions saving per annum to be completed and operational. The CHP unit has been installed in the energy centre; is currently estimated to be able to provide a carbon saving of 438 tonnes per annum once all Phases of the development are operational.

**Criterion 5** - Any shortfall in the saving of 394 tonnes carbon per annum to be offset with a financial contribution.

The report provided by MTT, which can be found in **Appendix I** confirms that the carbon saving is currently on course to exceed this threshold therefore, no Carbon offset payment is required, subject to the acceptance of the MTT 'TOVF' energy centre S106 report by the Local Planning Authority.

## 3.0 Regional Policy – Greater London Authority.

**3.1** Greater London, producing 9% of UK carbon emissions has the lowest CO<sub>2</sub> per capita emissions in the UK (4.2tCO<sub>2</sub> per person). This is due to the urban nature of the transport system, a high population density and a greater proportion of residential areas and lesser proportion of large industrial facilities<sup>1</sup>. Despite its relatively low share of UK emissions however, it is worth noting that with a population of 8.623 million in 2015<sup>2</sup> 4.2tCO<sub>2</sub> per person equates to 36.217 million tCO<sub>2</sub> which is more than all the energy consumed by Morocco (35.66 million metric tonnes), Slovakia (34.54) and Cuba (34.46)<sup>3</sup>. In order for London to reduce its emissions, it must not only save energy, but also make it from renewable sources. Taking the lead from the national targets, London has set its own targets in the London Plan.

**3.2** Chapter 5 of the London Plan 2016 sets out a comprehensive range of policies underpinning London's 'Response to Climate Change'. These policies cover climate change mitigation and adaptation, waste, aggregates, contaminated land and hazardous substances.

*"The Mayor seeks to achieve an overall reduction in London's carbon dioxide emissions of 60 per cent (below 1990 levels) by 2025." <sup>4</sup> It is thought that whilst challenging, the target set by the mayor should be achievable with the full commitment and collaboration of all stakeholders.*

**3.3** London Plan Policies state that energy must be integral in the design of any new development (p.9). Indeed, energy assessments must:

- Be submitted at the planning application stage, not submitted post planning in response to a condition
- Commit to reducing regulated CO<sub>2</sub> emissions below those of a Part L 2013 of the Building Regulations compliant development through energy efficiency measures alone
- Include information demonstrating that the risk of overheating has been mitigated through the incorporation of passive design measures
- Demonstrate that connection to existing or planned district heating networks has been prioritised and provide correspondence to support this
- commit to a site wide heat network to allow connection to existing or planned district heating networks identified in the area
- commit to a single energy centre to supply the site wide heat network
- where CHP is applicable, select renewable technologies that are complementary with the optimal operation of the CHP.

---

1 Department for Energy and Climate Change 2014 Local Authority Carbon Dioxide Emissions

2 UK Population 2016

3 International Energy Statistics, EIA

4 Chapter 5, London's Response to Climate Change, The London Plan 2016.

### 3.4 GLA's Energy Assessment Guidance (2018)

This report will aim to achieve the following requirements of the GLA's Energy Assessment Guidance (2018).

Energy assessments must:

- be submitted at the planning application stage, not submitted post planning in response to a condition
- commit to reducing regulated CO2 emissions below those of a development compliant with Part L 2013 of the Building Regulations through energy efficiency measures alone
- demonstrate how the zero-carbon target for residential developments will be met, with at least a 35% on-site reduction beyond Part L 2013 and proposals for making up the shortfall to achieve zero carbon, where required
- demonstrate at least a 35% on-site reduction beyond Part L 2013 for non-residential development. Developments comprised of both domestic and nondomestic uses must demonstrate this target has been achieved for domestic and non-domestic uses separately
- include information demonstrating that the risk of overheating has been mitigated through the incorporation of passive design measures
- demonstrate that connection to existing or planned district heating networks has been prioritised and provide correspondence to support this
- commit to a site-wide heat network to allow connection to existing or planned district heating networks identified in the area
- commit to a single energy centre to supply the site-wide heat network
- investigate suitable low carbon and/or renewable heating plant for installation within the energy centre if connection can't be made to an area wide network
- investigate and commit to maximising the installation of renewable technologies (including the potential for storage) on site
- include information on how the building's actual energy performance will be monitored post-construction
- align with related documents and assessments that are submitted as part of the planning application, e.g. Air Quality Assessments, Sustainability Statements

### 3.5 This document sets out to address the following London Plan Policies;

**Policy 5.2 - Minimising Carbon Dioxide Emissions** - the development proposals will make the fullest contribution to minimising carbon dioxide emissions in accordance with the following energy hierarchy:

- Be Lean: use less energy
- Be Clean: supply energy efficiently
- Be Green: use renewable energy.

As outlined in the Mayor's Sustainable Design and Construction Supplementary Guidance (SPG) published in April 2014, from 6 April 2014 the Mayor will apply a 35% carbon reduction target beyond Part L 2013 of the Building Regulations - this is deemed to be broadly equivalent to the 40 per cent target beyond Part L 2010 of the Building Regulations, as specified in Policy 5.2 of the London Plan for 2013-2016.

**Policy 5.3 - Sustainable Design and Construction** - requires that the highest standards of sustainable design and construction should be achieved to improve the environmental performance of new developments.

**Policy 5.5 - Decentralised Energy Networks** - requires that 25% of the heat and power used in London to be generated through the use of localised decentralised energy systems by 2025.

**Policy 5.6 - Decentralised Energy in Development Proposals** – Development proposals should evaluate the feasibility of CHP systems

**Policy 5.7 - Renewable Energy** - requires that all major developments seek to reduce their CO2 emissions through the use of onsite renewable energy generation wherever feasible. As this is a Minor Development, the inclusion of renewable technologies is not mandatory.

**Policy 5.9 – Overheating and Cooling** – encourages the design of spaces to avoid overheating and excessive heat generation and to reduce overheating due to the impacts of climate change and the urban heat island effect.

**Housing Standards Policy 5.15 Water use and Supplies** – Developments should minimise the use of mains water by incorporating water saving measures and designing to achieve a target of 105 litres or less per person per day.

### **3.6 Updated Draft London Plan (July 2019, for implementation in 2020)**

#### **Policy GG6 Increasing efficiency and resilience**

Developments should seek to improve energy efficiency and support the move towards a low carbon circular economy, by ensuring buildings and infrastructure are designed to adapt to a changing climate, making efficient use of water, reducing impacts from natural hazards like flooding/heatwaves, while mitigating against and avoiding contributing to the urban heat island effect, contributing towards London becoming a zero-carbon city by 2050.

#### **Policy S12 Minimising Greenhouse Gas Emissions**

Developments should be net zero-carbon. This means reducing greenhouse gas emissions in operation and minimising both annual and peak energy demand and should include a detailed energy strategy to demonstrate how the zero-carbon target will be met.

A minimum on-site reduction of at least 35 per cent beyond Building Regulations is required for major development. Residential development should achieve 10 per cent, and non-residential development should achieve 15 per cent through energy efficiency measures. Where it is clearly demonstrated that the zero-carbon target cannot be fully achieved on-site, any shortfall should be provided, in agreement with the borough, either: through a cash in lieu contribution to the borough's carbon offset fund, or off-site provided that an alternative proposal is identified, and delivery is certain.

#### **Policy SI3 Energy infrastructure**

Developments should establish the future energy and infrastructure requirements arising from large-scale development proposals such as Opportunity Areas, Town Centres, other growth areas or clusters of significant new development. Developments energy masterplans should be developed for large-scale development which establish the most effective energy supply options.

#### **Local Development Framework - Core Strategy – London Borough of Hillingdon Local Plan: Part 1 Strategic Planning Policies (Adopted November 2012)**

##### **Policy EM1: Climate Change Adaptation and Mitigation**

Hillingdon Council will ensure that climate change mitigation is addressed at every stage of the development process by:

1. Prioritising higher density development in urban and town centres that are well served by sustainable forms of transport
2. Promoting a modal shift away from private car use and requiring new development to include innovative initiatives to reduce car dependency.
3. Ensuring development meets the highest possible design standards whilst still retaining competitiveness within the market.
4. Working with developers of major schemes to identify the opportunities to help provide efficiency initiatives that can benefit the existing building stock.

5. Promoting the use of decentralised energy within large scale development whilst improving local air quality levels.
6. Targeting areas with high carbon emissions for additional reductions through low carbon strategies. These strategies will also have an objective to minimise other pollutants that impact on local air quality. Targeting areas of poor air quality for additional emissions reductions.
7. Encouraging sustainable techniques to land remediation to reduce the need to transport waste to landfill. In particular developers should consider bioremediation <sup>(39)</sup> as part of their proposals.
8. Encouraging the installation of renewable energy for all new development in meeting the carbon reduction targets savings set out in the London Plan. Identify opportunities for new sources of electricity generation including anaerobic digestion hydroelectricity and a greater use of waste as a resource.
9. Promoting new development to contribute to the upgrading of existing housing stock, where appropriate.

The Borough will ensure that climate change adaptation is addressed at every stage of the development process by:

10. Locating and designing development to minimise the probability and impacts of flooding.
11. Requiring major development proposals to consider the whole water cycle impact which includes flood risk management, foul and surface water drainage and water consumption.
12. Giving preference to development of previously developed land to avoid the loss of further green areas.
13. Promoting the use of living walls and roofs, alongside sustainable forms of drainage to manage surface water run-off and increase the amount of carbon sinks.
14. Promoting the inclusion of passive design measures to reduce the impacts of urban heat effects.

## 4.0 Energy Hierarchy

- 4.1** The Energy Hierarchy adopts a set of principles to guide design development and decisions regarding energy, balanced with the need to optimise environmental economic benefits. The hierarchy, which is a widely accepted approach amongst many local county councils, seeks to ensure that any development incorporates energy efficiency through the approach:

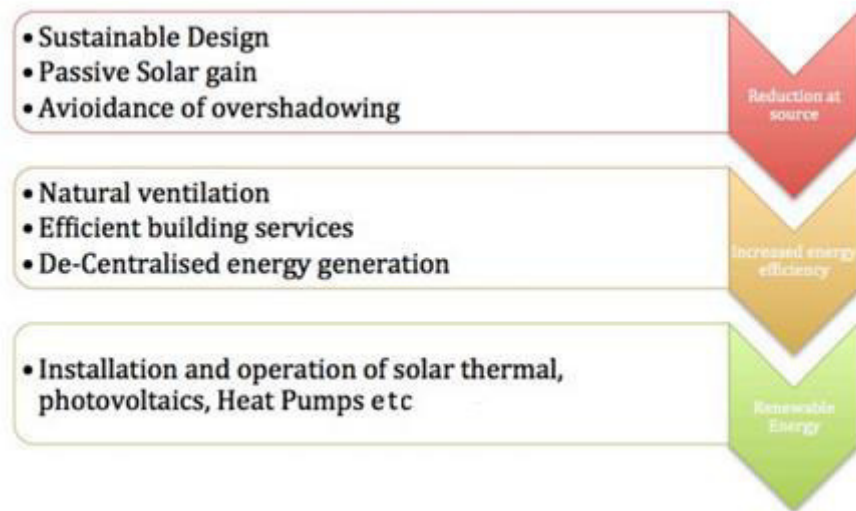


*Figure 1: Energy Reduction Design Process*

- 4.2** It is considered that within the above principles, carbon reduction forms the most appropriate approach from both the practical and financial perspective. The industry is broadly in agreement that energy efficient and low carbon technologies have the greatest impact in offsetting CO2 emissions. Therefore, it is logical to encourage enhanced mitigation through energy efficiency and low carbon technologies in the first instance, as opposed to applying renewables as the first option at a significantly greater cost.

## 5.0 Assessment Methodology

Energy calculations for the proposed 1 Vinyl Square Building development have been undertaken and simulation results have been produced using the accredited IES (VE) SBEM software package.

High efficiency equipment shall be specified throughout the heating, cooling and ventilation systems, where possible. Several measures shall be taken to ensure efficiency from a building services point of view such as:

- Use of Natural Light where possible
- Low energy light fittings with intelligent control
- Photocell and time clock controlled external lighting control
- High levels of thermal insulation
- High efficiency condensing gas boiler(s)
- High Efficiency Ventilation equipment
- Inverter driven variable speed pumps and fans

**5.1** Major development proposals should include a detailed energy assessment to demonstrate how the minimum targets for carbon dioxide emissions reduction outlined above are to be met within the framework of the energy hierarchy. In order to achieve this the following energy modelling was undertaken.

### **Baseline: Notional Target Model**

Using minimum standards of U-Values and system efficiencies.

### **Model 1: Be Lean model**

Meet the emerging GLA Requirements of achieving a minimum 10% improvement on Building Regulations using the systems outlined in the table under the 'Be Lean' section of the report, including high efficiency systems, improved U-Values, improved building fabric permeability, high efficiency lighting with BMS and extensive control options.

### **Model 2: Be Clean model**

Using the Be Lean model with connection to Local/Site wide District Heat Network.

### **Model 3: Be Green Model**

The results of the "Be Clean" modelling results identified that the 35% minimum carbon reduction has been achieved against Building Regulations through the adoption of the measures detailed within both the 'Be Lean' & 'Be Clean' sections of the report. Therefore, no 'Be Green' measures are required and have not been included within the 1 Vinyl Square Development. However, analysis of LZC technologies applicability to the 1 Vinyl Square Building was still undertaken, to demonstrate that the maximum reduction in carbon has been achieved on-site, in the context of the Mayor's drive towards a zero-carbon target for major developments.

## 6.0 Baseline

- 6.1** Following the latest guidance from GLA on producing energy statements (October 2018), Part L2A calculations have been completed to provide the baseline i.e. 'notional' emissions for the proposed building. This notional calculation is based upon the building before any upgrades have taken place.

This assessment was completed using IES Virtual Environment Software in accordance with the published National Calculation Methodology (NCM) Modelling Guide 2013 Edition. In order to perform the calculation a virtual model of the building was constructed within the IES software. The model was constructed using the architectural plans and elevations and current fabric information. Once this model was complete, details such as occupancy and equipment gains were added by applying default activity templates from the National Calculation Method (NCM) data base to each room. These NCM templates effectively define the energy use patterns within each space. Additional templates describing primary fuel sources and building services system efficiencies are then added. Since the proposed building is a mixed Residential/Commercial site, the proposed NCM building type assigned is 'C2 University or College'.

For the purpose of this analysis several different NCM templates have been used in order to fit the type and usage of the building, according to the types of spaces which are summarised below:

- (NCM) C2Uni: Office
- (NCM) C2Uni: Circulation Area
- (NCM) C2Uni: Light Plant Room
- (NCM) C2Uni: Toilet
- (NCM) C2Uni: Cupboard
- (NCM) C2Uni: Bedroom
- (NCM) C2Uni: Bathroom
- (NCM) C2Uni: Food Preparation Area
- (NCM) RestaurantPub: Food Preparation Area

The software then uses the model to construct an equivalent notional model which in turn is used to calculate the initial emission target for comparison with the actual. It should be noted that the geometry of the proposed building is based on current architectural layouts provided by JTP. If the BER calculated is less than the TER, then the building is deemed to have passed Criterion 1.

For the most part, data used for the calculation is taken from the NCM templates however a few minor adjustments had to be made to reflect the proposed design of the building.

The baseline modelling inputs can be seen in Table 1 while baseline model carbon and energy results can be seen in Table 2.

| Baseline Design Data Input Table |                                                                                              |                                                                                                                                                                                                                                   |                                                                              |
|----------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Element                          |                                                                                              | Details                                                                                                                                                                                                                           | Comments                                                                     |
| Fabric U-Values (W/m²K)          | Ground Floor                                                                                 | 0.25 W/m²K                                                                                                                                                                                                                        | Minimum Target U-Value (Part L2A, Building Regs 2010)                        |
|                                  | External Walls                                                                               | 0.35 W/m²K                                                                                                                                                                                                                        | Minimum Target U-Value (Part L2A, Building Regs 2010)                        |
|                                  | Roof                                                                                         | 0.25 W/m²K                                                                                                                                                                                                                        | Minimum Target U-Value (Part L2A, Building Regs 2010)                        |
| Opening U-Values (W/m²K)         | Glazing                                                                                      | 2.2 W/m²K                                                                                                                                                                                                                         | Minimum Target U-Value (Part L2A, Building Regs 2010)<br><b>G Value: 0.4</b> |
| Ventilation                      | Air Tightness                                                                                | 10 m³/h.m² at 50 Pa                                                                                                                                                                                                               | Limiting Fabric Parameter Target of 10                                       |
|                                  | Mechanical Ventilation                                                                       | Mech Extract Only – Restaurant/Bar Space, Studios, Apartment Bathrooms & Kitchen/Living Spaces<br><br>Natural Ventilation Only – Bedrooms, Amenity Area, Common & Apartment Circulation Spaces, Bin & Cycle Store & Plant Room(s) |                                                                              |
| Heating                          | Primary Heating System                                                                       | Central Boilers with HIU & Radiators                                                                                                                                                                                              | Default Efficiency - 81%                                                     |
|                                  | Domestic Hot Water                                                                           | Central Boilers with HIU                                                                                                                                                                                                          | Default Efficiency - 81%,<br><br>Storage Volume - 4000 litres                |
|                                  | Controls                                                                                     | None                                                                                                                                                                                                                              |                                                                              |
| Cooling                          | (Restaurant/Bar Area Only) Split System – Via ASHP - Default Efficiencies – SEER – 3.2 kW/kW |                                                                                                                                                                                                                                   |                                                                              |
| Lighting                         | Whole Building                                                                               | Halogen Light Fittings<br><br>Minimum efficacy of 60 Lumens per circuit Watt                                                                                                                                                      |                                                                              |
|                                  | Controls                                                                                     | Manual Switching Only                                                                                                                                                                                                             |                                                                              |
| Metering                         | Heating                                                                                      | Local Metering - No BMS                                                                                                                                                                                                           |                                                                              |
|                                  | Lighting                                                                                     | Local Metering - No BMS                                                                                                                                                                                                           |                                                                              |
| Electric Power Factor            |                                                                                              | Less than 0.9                                                                                                                                                                                                                     |                                                                              |

Table 1: Baseline Model Inputs

| 1 Vinyl Square Building Development Baseline Results |        |
|------------------------------------------------------|--------|
| Target Emission Rate (TER)                           | 33.6   |
| Building Emission Rate (BER)                         | 63.7   |
| Total Floor Area (m <sup>2</sup> )                   | 12000  |
| Heating (kwh/m <sup>2</sup> )                        | 40.08  |
| Cooling (kwh/m <sup>2</sup> )                        | 7.46   |
| Auxiliary (kwh/m <sup>2</sup> )                      | 4.24   |
| Lighting (kwh/m <sup>2</sup> )                       | 49.99  |
| Hot Water (kwh/m <sup>2</sup> )                      | 106.58 |
| Equipment (kwh/m <sup>2</sup> )                      | 67.11  |
| Total Energy (kwh/m <sup>2</sup> /year)              | 208.35 |

*Table 2: Baseline Model Results*

As previously mentioned, in the Mayor's Sustainable Design and Construction Supplementary Guidance (SPG) published in April 2014, The Mayor has applied a 35% carbon reduction target beyond Part L 2013 of the Building Regulations, this is deemed to be broadly equivalent to the 40% target beyond Part L 2010 of the Building Regulations, as specified in Policy 5.2 of the London Plan for 2013-2016. Furthermore, the updated Draft New London Plan must also be considered, in particular the new London Plan Policy for achieving zero-carbon targets for major developments and additionally, the GLA Energy Assessment Guidance 2018, which requires a minimum 35% on-site carbon reduction target, with the overall target of achieving zero-carbon.

Considering the results of the Baseline Model for the 1 Vinyl Square Building, based on the Input data provided above, in order to comply with the above carbon reduction target, we must aim to achieve a minimum, 35% improvement on the Baseline Model Building (**BER = 63.7**), with any remaining shortfall off-set through a carbon offset contribution/payment.

The BRUKL of the Baseline model outlined in this section can be found in Appendix A.

## **7.0 Model 1: Be Lean**

- 7.1** At the 'Be Lean' stage of the Energy Hierarchy, for the proposed 1 Vinyl Square Building a fabric first approach has been applied in order to minimise energy consumption and resulting CO<sub>2</sub> emissions. Furthermore, best practice and appropriate measures have been included into the design, to minimise the environmental impact on the development as set out in Policies 5.2 and 5.3 of The London Plan 2016. Furthermore, meeting the emerging GLA Requirements (2018) of achieving a minimum 10% improvement on Building Regulations for residential developments.
- 7.2** The GLA guidance states that the 'Be Lean' stage of the assessment should be run with the assumption of baseline gas boilers providing space heating. This allows for the building fabric improvements and other passive design principles which have been implemented at this stage to be separately quantified and highlighted. Table 3 below provides a summary of the energy efficient and carbon reducing design characteristics incorporated across the development at this 'Be Lean' stage of the energy hierarchy. The parameters below have been applied, modelled and simulated within the IES VE 'Be Lean' model.

| Be Lean Design Data Input Table |                                   |                                                                                                                                                                                                                                                                                                                                                                                      |                                                                 |
|---------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Element                         |                                   | Details                                                                                                                                                                                                                                                                                                                                                                              | Comments                                                        |
| <b>Fabric U-Values (W/m²K)</b>  | Ground Floor                      | 0.13 W/m²K                                                                                                                                                                                                                                                                                                                                                                           | Improved U-Value – Increased Insulation                         |
|                                 | External Walls                    | 0.12 W/m²K                                                                                                                                                                                                                                                                                                                                                                           | Improved U-Value – Increased Insulation                         |
|                                 | Roof                              | 0.11 W/m²K                                                                                                                                                                                                                                                                                                                                                                           | Improved U-Value – Increased Insulation                         |
| <b>Opening U-Values (W/m²K)</b> | Glazing                           | 1.2 W/m²K                                                                                                                                                                                                                                                                                                                                                                            | Improved U-Value - Double Glazed, Low-E Coated<br>G Value: 0.45 |
| <b>Ventilation</b>              | Air Tightness                     | 4m³/h.m² at 50 Pa                                                                                                                                                                                                                                                                                                                                                                    | Air Tightness Improvement over Target of 10                     |
|                                 | Mechanical Ventilation            | Extract Only – Bathrooms<br><br>MVHR - Restaurant/Bar Space, Apartment Kitchen/Living Spaces, Studios<br><br>Natural Ventilation Only – Bedrooms, Amenity Area, Common & Apartment Circulation Spaces, Bin & Cycle Store & Plant Room(s)                                                                                                                                             |                                                                 |
| <b>Heating</b>                  | Primary Heating System            | Central Boilers with HIU & Radiators                                                                                                                                                                                                                                                                                                                                                 | Efficiency 91%                                                  |
|                                 | Domestic Hot Water                | Central Boilers with HIU                                                                                                                                                                                                                                                                                                                                                             | Efficiency 91%,<br>Storage Volume - 4000 litres                 |
| <b>Cooling</b>                  | <b>(Restaurant/Bar Area Only)</b> | Split System (ASHP) - Improved Efficiencies – SEER – 3.5 kW/kW                                                                                                                                                                                                                                                                                                                       |                                                                 |
| <b>Lighting</b>                 | Whole Building                    | LED Light Fittings<br><br>Improved efficacy - 90 Lumens per circuit Watt                                                                                                                                                                                                                                                                                                             |                                                                 |
|                                 | Controls                          | Bathrooms - Manual Switching Only<br><br>Restaurant/Bar Space - Manual Switching c/w Photoelectric Addressable Options, Occupancy Sensing, Time-Switches, Automatic Daylight Zoning Control & Constant Illuminance Control.<br><br>Amenity Space, Bin & Cycle Store, Plant Room(s) & Circulation Spaces – Presence Detection c/w Occupancy Sensing & Occupancy Sensing Time-switches |                                                                 |
| <b>Metering</b>                 | Heating                           | Local Metering - No BMS                                                                                                                                                                                                                                                                                                                                                              |                                                                 |
|                                 | Lighting                          | Local Metering - No BMS                                                                                                                                                                                                                                                                                                                                                              |                                                                 |
| <b>Electric Power Factor</b>    |                                   | Greater than 0.95                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |

Table 3: 'Be Lean' Model Inputs

| <b>'Be Lean' Modelling Results</b>                            |        |
|---------------------------------------------------------------|--------|
| Target Emission Rate (TER)                                    | 34.2   |
| Building Emission Rate (BER)                                  | 39.6   |
| % Improvement offered by 'Be Lean' Design over Baseline Model | 37.8%  |
| Total Floor Area (m <sup>2</sup> )                            | 12000  |
| Heating (kwh/m <sup>2</sup> )                                 | 30.4   |
| Cooling (kwh/m <sup>2</sup> )                                 | 1.34   |
| Auxiliary (kwh/m <sup>2</sup> )                               | 5.83   |
| Lighting (kwh/m <sup>2</sup> )                                | 14.41  |
| Hot Water (kwh/m <sup>2</sup> )                               | 102.39 |
| Equipment (kwh/m <sup>2</sup> )                               | 64.07  |
| Total Energy (kwh/m <sup>2</sup> /year)                       | 154.47 |

*Table 4: 'Be Lean' Model Results*

It can be seen from Table 4 above, that the 'Be Lean' measures implemented into the development achieve and comply with the minimum 35% carbon reduction target beyond Part L 2013 of the Building Regulations, outlined in Policy SI-2 of the London Plan, having resulted in a 37.8% improvement.

Furthermore, it can be seen that the 'Be Lean' measures implemented above meet the emerging GLA Requirements (2018) of achieving a minimum 10% improvement on Building Regulations for residential developments.

The BRUKL of the 'Be Lean' model outlined in this section can be found in Appendix B.

## 8.0 Model 2: Be Clean

The next stage of the Energy Hierarchy, 'Be Clean' aims to supply energy efficiently into the proposed development. This works in conjunction with the GLA guidance, which states that once energy demand has been minimised, all planning applications must demonstrate how their energy systems will efficiently supply energy and reduce CO<sub>2</sub> emissions. This includes the systems inside the building and any site associated heat supply infrastructure.

Figure 2 below details the new SAP10 fuel carbon factors now recommended by the GLA alongside the fuel carbon factors previously used in energy assessments. These updated SAP 10 fuel carbon factors highlight the change in national power generation over the last few years as it can be seen that the new GLA recommended SAP 10 fuel carbon factors have resultantly halved the carbon intensity of grid electricity.

| Fuel type        | Fuel Carbon Factor (kgCO <sub>2</sub> /kWh) |        |
|------------------|---------------------------------------------|--------|
|                  | SAP 2012                                    | SAP 10 |
| Natural Gas      | 0.216                                       | 0.210  |
| Grid Electricity | 0.519                                       | 0.233  |

Figure 2: Comparison between New SAP 10 Fuel Carbon Factors against previous factors

Therefore, considering the GLA guidance (October 2018) and the Draft New London Plan these new SAP 10 Fuel Carbon Factors will be utilised in the 'Be Clean' modelling input.

A S106 legal agreement attached to 'The Old Vinyl Factory (TOVF)' Planning permission for the masterplan includes the agreement for 1 Vinyl Square Building connected to the local/site wide District Heat Network (DHN) in order to comply with both the 'Be Clean' stage of the energy hierarchy and additionally, the site wide requirement to save a minimum of 394 tCO<sub>2</sub> per annum.

### 8.1 Connection to TOVF Site Wide Energy Centre

As noted above, as part of the TOVF masterplan, there is a site wide energy centre that the 1 Vinyl Square Building is required to connect to under the S106 legal agreement. The map shown in Figure 3 illustrates the Local District Heat Network that the 1 Vinyl Square Development will be connected to as designed by VITAL Energi.

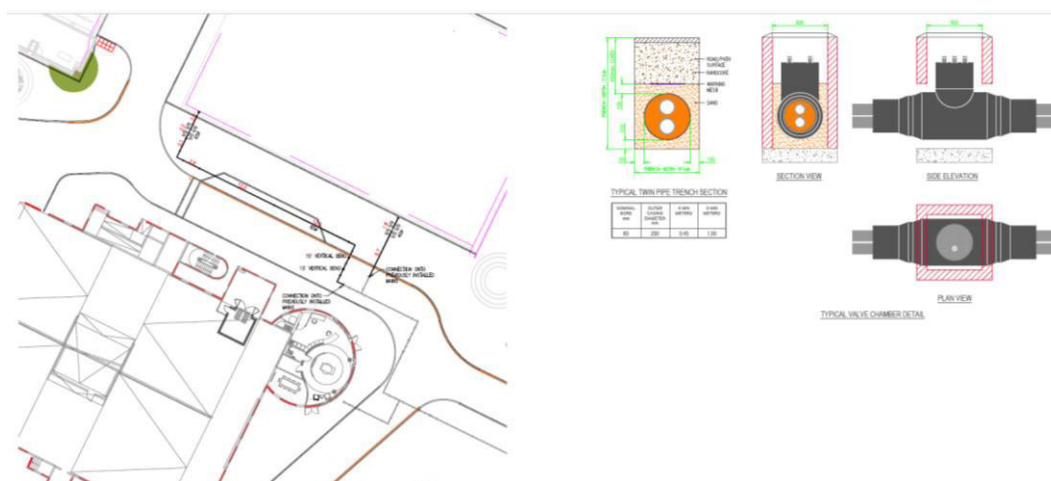


Figure 3: Local Heat Distribution Networks, VITAL Energi

The district heating consists of two stubs and valve chambers located at the southern end of the 1 Vinyl Square site. These were located within the anticipated public realm associated with the 1 Vinyl Square Building. The district heating was designed by Vital Energi for the wider TOVF masterplan and was constructed by them. The network originates at the Energy Centre in the Powerhouse (located approximately 150m east of the 1 Vinyl Square site) and branches off to each building at TOVF accordingly. At the 1 Vinyl Square Building, the two stubs are capped connections which are 40mm and 65mm nominal bore twin pipes, as highlighted on the summary drawing 1615/460/100 in Appendix C, which is based on Vital Energi's Construction Drawing and Charles Edwards Ltd.'s 'As-Built' drawing (shown in Appendix D).

The district heating demand assumed for the 1 Vinyl Square Building as part of the site wide district heating network (designed by Vital Energi) is summarised in Appendix E. These demands were produced by the utilities consultant MTT, and subsequently amended by the District Heating designer to confirm a total availability to the development of 717kW thermal power and 615kVA electrical power. Notwithstanding the up lift in homes proposed for the site, the provisions are sufficient to support the development of 134 homes.

## **8.2 Site Wide Summary of 'Be Clean' Measures**

As previously mentioned, due to the S106 legal agreement that is in place, relating to TOVF masterplan requiring that the 1 Vinyl Square Building is connected to the energy centre as part of the site wide requirement to save a minimum of 394 tCO<sub>2</sub> per annum, the 1 Vinyl Square Building will connect into the Local/Site wide District Heating Network (Designed by Vital Energi).

Considering this, the "Be Clean" measures modelling analysis will be discharged by connection into the Local District Heating Network detailed above, for the provision of space heating and domestic hot water requirements.

The 'Be Clean' model inputs can be seen in Table 5 while the model carbon and energy results can be seen in Table 6.

| <b>'Be Clean' Design Data Input Table</b> |                                   |                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |
|-------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <b>Element</b>                            |                                   | <b>Details</b>                                                                                                                                                                                                                                                                                                                                                                                      | <b>Comments</b>                             |
| <b>Fabric U-Values (W/m²K)</b>            | Ground Floor                      | 0.13 W/m²K                                                                                                                                                                                                                                                                                                                                                                                          |                                             |
|                                           | External Walls                    | 0.12 W/m²K                                                                                                                                                                                                                                                                                                                                                                                          |                                             |
|                                           | Roof                              | 0.11 W/m²K                                                                                                                                                                                                                                                                                                                                                                                          |                                             |
| <b>Opening U-Values (W/m²K)</b>           | Glazing                           | 1.2 W/m²K                                                                                                                                                                                                                                                                                                                                                                                           |                                             |
|                                           |                                   | G Value: 0.45                                                                                                                                                                                                                                                                                                                                                                                       |                                             |
| <b>Ventilation</b>                        | Air Tightness                     | 3 m³/h.m² at 50 Pa                                                                                                                                                                                                                                                                                                                                                                                  | Air Tightness Improvement over Target of 10 |
|                                           | Mechanical Ventilation            | Extract Only – Apartment Bathrooms<br><br>MVHR - Restaurant/Bar Space, Apartment Kitchen/Living Spaces, Studios<br><br>Natural Ventilation Only – Bedrooms, Amenity Area, Common & Apartment Circulation Spaces, Bin & Cycle Store & Plant Room(s)                                                                                                                                                  |                                             |
| <b>Heating</b>                            | Primary Heating System            | District Heating - HIU & Radiators                                                                                                                                                                                                                                                                                                                                                                  |                                             |
|                                           | Domestic Hot Water                | District Heating - HIU                                                                                                                                                                                                                                                                                                                                                                              |                                             |
| <b>Cooling</b>                            | <b>(Restaurant/Bar Area Only)</b> | Split System (ASHP) - Improved Efficiencies – SEER – 3.5 kW/kW                                                                                                                                                                                                                                                                                                                                      |                                             |
| <b>Lighting</b>                           | Whole Building                    | LED Light Fittings<br><br>Minimum efficacy of 95 Lumens per circuit Watt                                                                                                                                                                                                                                                                                                                            |                                             |
|                                           | Controls                          | Apartments & Common WC's - Manual Switching Only<br><br>Restaurant/Bar Space - Manual Switching c/w Photoelectric Addressable Options, Occupancy Sensing, Time-Switches, Automatic Daylight Zoning Control & Constant Illuminance Control.<br><br>Amenity Space, Bin & Cycle Store, Plant Room(s) & Circulation Spaces – Presence Detection c/w Occupancy Sensing & Occupancy Sensing Time-switches |                                             |
| <b>Metering</b>                           | Heating                           | Local Metering & Central Metering – Connects to BMS                                                                                                                                                                                                                                                                                                                                                 |                                             |
|                                           | Lighting                          | Provision for Lighting Metering – Lighting system warns of 'out of range' values.                                                                                                                                                                                                                                                                                                                   |                                             |
| <b>Electric Power Factor</b>              |                                   | Greater than 0.95                                                                                                                                                                                                                                                                                                                                                                                   |                                             |
| <b>Carbon Factors</b>                     |                                   | SAP10 = 0.21 kgCO <sub>2</sub> /kWh                                                                                                                                                                                                                                                                                                                                                                 |                                             |

*Table 5: 'Be Clean' Model Inputs*

| <b>'Be Clean' Modelling Results</b>                                                          |        |
|----------------------------------------------------------------------------------------------|--------|
| Target Emission Rate (TER)                                                                   | 33.8   |
| Building Emission Rate (BER)                                                                 | 33.7   |
| % Improvement offered by 'Be Lean' & 'Be Clean' combined measures design over Baseline Model | 47%    |
| Total Floor Area (m <sup>2</sup> )                                                           | 12000  |
| Heating (kwh/m <sup>2</sup> )                                                                | 24.97  |
| Cooling (kwh/m <sup>2</sup> )                                                                | 1.34   |
| Auxiliary (kwh/m <sup>2</sup> )                                                              | 5.7    |
| Lighting (kwh/m <sup>2</sup> )                                                               | 13.65  |
| Hot Water (kwh/m <sup>2</sup> )                                                              | 82.52  |
| Equipment (kwh/m <sup>2</sup> )                                                              | 64.07  |
| Total Energy (kwh/m <sup>2</sup> /year)                                                      | 128.19 |

*Table 6: 'Be Clean' Model Results*

It can be seen from Table 6 above that the BER calculated from the modelling incorporating the 'Be Clean' measures outlined in Table 5 is less than the TER therefore, the building is deemed to comply with Part L2A of the Building Regulations 2013 and also is deemed to have passed Criterion 1.

Furthermore, it can be seen that the 'Be Clean' measures implemented above meets the minimum 35% on-site carbon reduction target. This is in line with Mayor's drive towards a zero-carbon target for major developments as outlined in the updated Draft London Plan, due to be implemented in 2020. The BRUKL of the 'Be Clean' model outlined in this section can be found in Appendix F.

#### **8.4 Carbon Offset Payment**

As noted previously, the MTT 'TOVF' energy centre S106 agreement report found in Appendix I, confirms that the carbon saving from utilising the TOVF energy centre for the demands of the 1 Vinyl Square development exceeds the threshold of 394 tCO<sub>2</sub> per annum outlined in Criterion 5, Section 13 of the S106 Agreement, requiring any shortfall being offset with a financial contribution. Consequently, no Carbon offset payment is required. This is subject to the acceptance of the MTT 'TOVF' energy centre S106 agreement report by the Local Planning Authority.

## 9.0 Model 3: Be Green

The GLA's guidance on preparing energy assessments states that there needs to be consideration of the impact of development phasing (where relevant) to ensure the scheme can meet future, more stringent planning or regulatory targets (p.9). Furthermore, the latest GLA Guidance (October 2018) states that on-site renewable resources should be maximised regardless of whether the policy carbon targets have been otherwise satisfied.

Furthermore, Policy 5.7 of the London plan, states "The Mayor seeks to increase the proportion of energy generated from renewable sources, and expects that the projections for installed renewable energy capacity outlined in the Climate Change Mitigation and Energy Strategy and in supplementary planning guidance will be achieved in London"

Individual projects are expected to consider renewable technologies and seek to reduce carbon dioxide emissions following the installation wherever possible. The following renewable technologies have been evaluated for use:

- CHP (Gas Fired Combined Heat and Power)
- Solar Thermal
- Photovoltaic Cells
- Wind Turbines
- Ground Source Heat Pump
- Air Source Heat Pump
- Biomass

### 9.1 Gas Fired Combined Heat and Power (CHP)

#### Technology Overview

Combined heat and power (CHP) systems are now available for individual houses, group residential units and small non-domestic premises. CHP at the large commercial size is now fairly common in premises which have a simultaneous demand for heating and electricity for long periods, such as hospitals, recreational centres, hotels and multi-residential buildings. Compared with using centrally generated electricity supplied via the grid, CHP offers a more efficient and economic method of supplying energy demand, due to the utilisation of the heat which is normally rejected to the atmosphere from central generating stations, and by reducing network distribution losses due to local generation and use, see Figure 4. It is not a renewable energy technology but installed in the appropriate manner there is potential for overall energy savings.

Most systems replace (or run in parallel to) the domestic sized boiler and will be linked directly into the building electricity distribution system. Heat generated will be used for space and water heating, and additional heat storage may be used to lengthen use periods, to assist in warm-up and to improve overall energy efficiency.

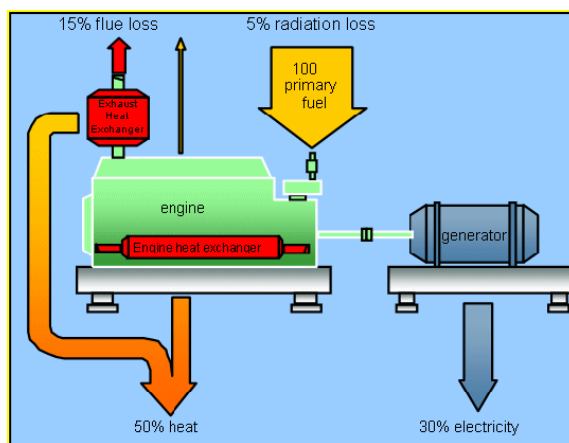


*Figure 4: Schematic diagram of CHP system*

For overall energy efficiency, as with all CHP, usage must be heat demand lead, thus a sophisticated control system is required, and users should be made aware of efficient operating practices.

There are currently two type of mechanical engines available:

- Internal combustion engines
- Stirling engines

Internal combustion engine systems normally supply an electrical output of upwards of 5kW, with a heat output of upwards of 10kW. They are normally suitable for groups of flats, grouped residential buildings such as nursing homes, and some small commercial premises, depending on the heat demand. The units will normally be located in a dedicated boiler house and will need to run for more than 10 hours a day to be economic.

Stirling engine systems use a 'heat engine' as the motive force for the generator and these units are available with an electricity output of around 1kW upwards. With a power to heat ratio of between 6:1 and 3:1, these systems are most suitable for larger new houses, older houses with high heat demand and some small commercial premises. Stirling engine systems cannot be modulated rapidly and take several minutes to start up and close down. Thus, they cannot be used in quite the same way as traditional domestic boilers, which are normally sized for maximum start-up loads and cycle on/off to maintain required temperatures. Stirling engine systems are used differently, and their control strategy is designed to deliver the same heating performance, whilst maximising the length of time for which the generator produces electricity and thus maximising the carbon emission savings.

Since the electricity supplier is likely to buy out electricity for less than the supply price, coupled import-export meters need to be installed in order to indicate the electricity flow in both directions.

Furthermore, CHP can be attributed to issues such as poor air quality & noise and carbon impacts, which the market is trying to move away from, particularly in London.

## Applicability to the 1 Vinyl Square Building Development

Due to the fact that the proposed building in question is a mixed residential & commercial building, a CHP unit will be suitable due to the high domestic hot water load associated with a building of this type, resulting in a constant thermal base load. CHP technology is also easily integrated into the building providing that its spatial requirements can be accommodated.

As indicated in the technical overview, a CHP unit will need to run for more than 10 hours a day to be economically viable. There needs to be a constant heat and hot water demand for most of the year. Furthermore, a constant thermal base load will lead to the optimal operation of the CHP unit, if sized correctly as is the case for this building. The CHP unit will aid the energy contribution from renewables required from the site and carbon emissions will also be considerably reduced by incorporating this technology into the development.

The CHP installation may also be eligible for Climate Change Levy (CCL) exemption if certified by CHPQA as Good Quality CHP, CCL Exemption may be applied on fuel input and electricity output used on site (direct supply).

However, given the negative impact CHP can attribute to in regard to poor air quality & noise and carbon impacts, CHP will not be considered as a potential LZC option for the proposed development.

## Solar Thermal (Hot Water)

### Technical Overview

Solar thermal or active solar water heating is a well-established renewable energy system in many countries outside the UK. It can be one of the most cost-effective renewable energy systems available.

| Technology                 | Characteristics                                                          | Functionality                                                                               | Cost effectiveness | Reliability                                                        | Maintenance requirement | CO <sub>2</sub> saving                      | Overall rating |
|----------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------|-------------------------|---------------------------------------------|----------------|
| <b>Solar water heating</b> | Solar energy used to heat water, usually for domestic hot water purposes | Medium: Proven technology with a range of collectors for different operational requirements | Medium             | Medium – high: Circulation pump and valves are relatively reliable | Low                     | Medium: Circulating pumps can be PV powered | ****           |

Source: BSRIA; The Illustrated Guide to Renewable Technologies, 2008

Solar hot water can be applied in a number of non-domestic building types, such as hospitals, nursing homes and leisure facilities, which all have high demands for hot water. Solar hot water systems are rarely installed in commercial buildings, where the demand for hot water is lower.

Considerable technical and market research has been undertaken in UK, the main conclusions of which are that most systems are technically proven and will provide a significant contribution to hot water demand, if correctly installed. Fears of poor-quality installations have been largely overcome by installer training and accreditation supported by the DTI.

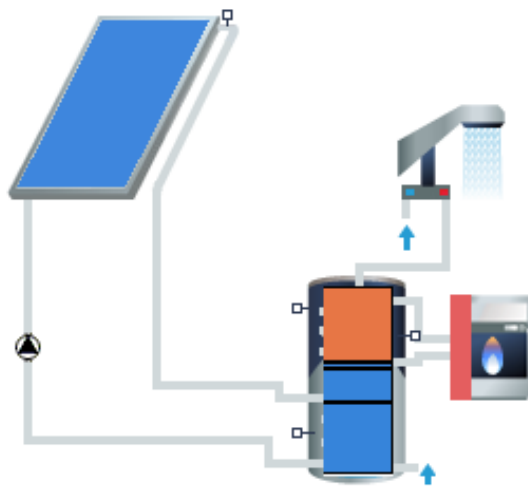


*Figure 5: Typical Solar Thermal System*

Solar thermal systems in the UK normally operate with a back-up source of heat, such as gas or electricity as illustrated in Figure 5 above. The solar system preheats the water through a heat exchanger up to the maximum hot water supply temperature. If there is not enough solar power available to fully heat the water, it is heated up to the desired temperature by the back-up heat source.

There are four main types of solar collector, which can be used in solar water systems. These are:

- Evacuated tubes
- Selective surfaced flat plate
- Non-selective surfaced flat plate
- Unglazed plastic collectors (mostly use for swimming pool heating)

Solar water heating systems are usually fitted with standard boilers that operate using hot water cylinders. It should be noted there are a number of manufacturers in the market that make combination boilers designed to take pre-heated water from solar water systems.

### **Applicability to the 1 Vinyl Square Development**

The suitability of this technology for the site depends on space availability for panel mounting, the only potential area available for mounting STHW panels is on the roof. However, the roof of the 1 Vinyl Square Building does not have the potential for Solar Thermal Panel mounting as the roof space(s) compromise of amenity spaces, as illustrated in Figure 6. These roof terraces are required to provide the necessary amenity space for residents of the building, in accordance with LBH's standards and the presence of any panels would be detrimental to this requirement. Considering the lack of available roof space for panel mounting, STHW technology will consequently not be considered as a potential LZC option for the proposed development.

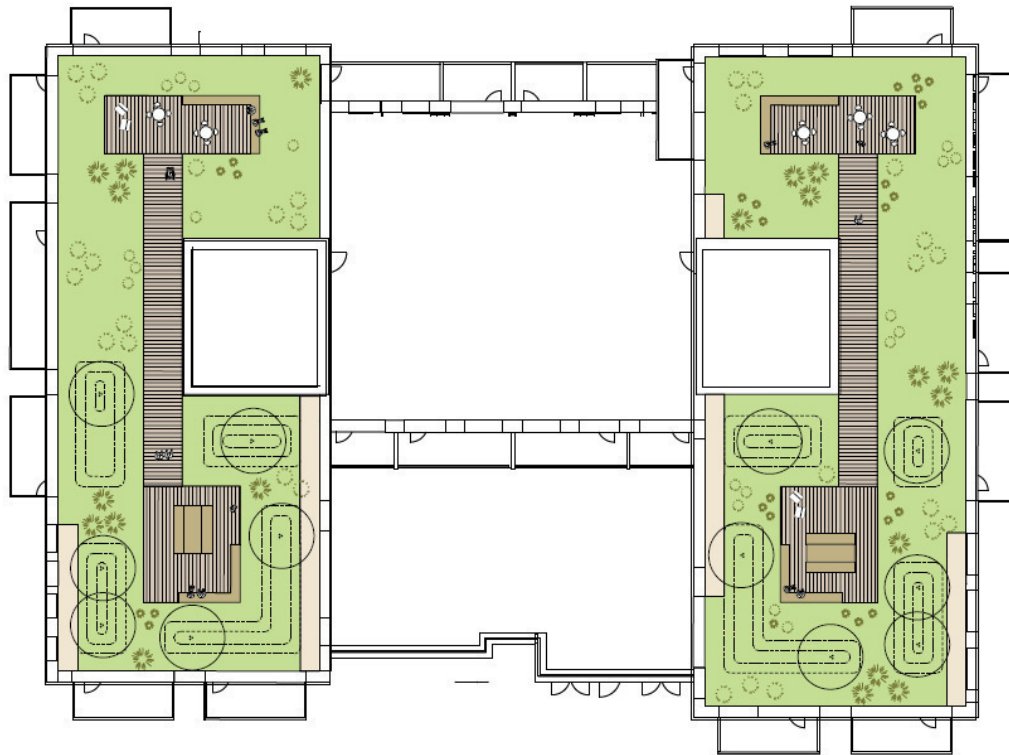


*Figure 6: Proposed 1 Vinyl Square Building Roof Plan*

## 9.2 Photovoltaics

### Technical Overview

Photovoltaic modules convert sunlight into DC electricity which can be utilised by the building. PV is distinct from other renewable energy technologies since it has no moving parts to be maintained and it is silent. PV systems can be incorporated into buildings in various ways, on sloped roofs and flat roofs, in facades, atria and as shading devices.

Deployment in the UK has started with several building integrated field trial schemes and a major demonstration programme. While single crystal silicon remains the most efficient flat plate technology (15-20% conversion efficiency); it also has the least potential for cost reduction. PV cells made from multicrystalline silicon have become popular, as they are less expensive to produce, although they have a slightly lower efficiency (13-16%).

Thin film modules are constructed by depositing extremely thin layers of photosensitive materials on a low cost backing such as glass, stainless steel, or plastic. Much less semiconductor material is required than for crystalline silicon cells, material costs are potentially much lower. Efficiencies are much lower, around 4-5%, although this can be boosted to 8-40% by depositing 2 or 3 layers of thin film material.

Since PV's generate DC output, an inverter and other equipment is needed to deliver the power to a building or the grid in an acceptable AC form. The cost of the inverter and these 'balance of system' (BOS) components can approach 50% of the total cost of a PV system.

Several issues will need to be considered further if one or more photovoltaic arrays are to be included. Consideration must be given to any over-shading provided by surrounding buildings as well as orientation and elevation of the panels.

In areas with a predominance of large bird species such as seagulls, the birds may need to be discouraged from perching near the systems to prevent the need for regular cleaning. In addition, the photovoltaic arrays will need some plant room space to house the inverters, meters, and switchgear.

### **Applicability to the 1 Vinyl Square Building Development**

Similar to STHW, the suitability of the inclusion of PV technology into the 1 Vinyl Square Building is dependent on space availability for panel mounting. As previously stated, the roof of the 1 Vinyl Square Building is needed to satisfy the requirements for amenity spaces and whilst PV could be included in the development to assist in achieving the minimum 35% on-site carbon reduction target of the development, the presence of PV panels would be detrimental to the allocated amenity space required as part of LBH's standards. Therefore, considering these factors, PV technology will consequently not be considered as a potential LZC option for the proposed development.

### **Wind Turbines**

#### **Technical Overview**

The UK has 40% of Europe's total wind resource, which remains largely untapped. At present, there is a wide range of available off-the-shelf wind products for attaching to ground mounted masts/towers, many manufactured in the UK and EU with proven good performance and durability. Capacity ranges from 500W to more than 2.0MW.

Wind technology is currently one of the most cost-effective renewable energy technologies, which is attributable to the large scale of installations reducing the unit output cost. Individual building or community wind projects, although smaller, have the advantage of feeding electricity directly into the building's electricity circuit, thus sparing costly distribution network development and avoiding distribution losses. The downside is the still high capital cost per kW installed for smaller turbines, plus location constraints, such as visual intrusion and noise.

In most cases, wind turbines are connected to the electrical grid and all generated energy is used regardless fluctuations of the buildings demand. The output largely depends on the wind speed and the correlation between the two is a cube function. This means that in short periods of above-average wind speeds the generation increases exponentially. As a result, it is difficult to make precise calculations of the annual output of a turbine; nevertheless, average figures can provide useful guidance. Installing a wind turbine requires planning permission. The main considerations that are considered by the planning authorities are the visual impact and health and safety issues, such as noise and vibration. Noise and vibration are related to the operation of the turbines and their proximity to buildings, requires an assessment of the impact on residents' comfort.

Wind turbines are highly engineered products that require specialist installation, commissioning, and maintenance. The supplier carries out these tasks in order to ensure proper functioning and connection of the machines and to issue a warranty. This applies to all sizes of turbines.

Installing a wind turbine also includes connection to the electricity grid. Permission from the local electricity supplier is necessary as well as an up-front agreement for power purchase, except where the wind power produced is always below the base load. Full installation can take as little as a single day for smaller devices. Bigger-capacity installations may require considerably more time.

Once installed and connected to the grid, there is very little the user needs to worry about regarding a wind turbine. The manufacturers user manuals should describe actions in extreme conditions, such as severe weather or accidental structural damage to the machine.

Maintenance of horizontal axis wind turbines is usually on an annual basis and requires lowering of the generator to the ground.

Most turbines operate continuously throughout the year and generation and supply of electricity is fully automatic. Users have access to the metering devices showing output and export levels for which guidance is available from the turbine installers. It is advised that early consultation with planners as well as local residents is carried out to optimise the planning application process.

### **Applicability to the 1 Vinyl Square Building Development**

The urban location of the proposed development does not lend itself to the use of wind turbine technology as a potential renewable energy source. The presence of a number of buildings in close proximity to the building will affect overall wind patterns on the site. The urban setting would also be problematic in terms of planning considerations.

The only potential option would be the use of a building mounted wind turbine. Building mounted turbines have limited outputs when compared to that of ground mounted units. Building mounted turbines also have structural implications and, in many cases, result in vibration issues. Consideration must be given to potential noise; shadow flicker and planning constraints in the area.

Considering the potential visual impact, potential heights and the proximity of the site to Heathrow Airport accompanied with the reasons detailed above, wind turbine technology is not considered as a viable LZC option for the proposed development.

## **9.3 Ground Source Heat Pumps**

### **Technical Overview**

Ground source heat pump (GSHP) technology is already widely used in North America and several European countries with over 500,000 units installed worldwide. Diverse applications include space heating, water heating, heat recovery, space cooling, and dehumidification in both the residential and commercial building sectors.

The technology makes use of the energy stored in the Earth's crust, coming mainly from solar radiation. Essentially, heat pumps take up heat at a certain temperature and release it at a higher temperature. This is achieved by means of ground collectors (coils), in which a heat exchange fluid circulates and transfers heat via a heat exchanger to the heat pump. The cycle is driven by the temperature difference between the ground and the circulating fluid. The advantage of using the ground as a heat source, rather than air, is the relatively constant temperature of the ground throughout the year allows the refrigerant fluid to operate optimally.

Ground source heat pumps can be categorised as having closed or open loops, and those closed can be installed in three ways: horizontally, vertically, or in an underground aquifer. The type chosen depends on the building load, available land area, and the soil and rock type at the installation site. These factors will help determine the most economical choice for installation of the ground loop.

Open loop systems are often referred to as groundwater heat pumps. Ground water is pumped in the secondary loop through the heat exchanger in the heat pump and released at a lower temperature back into the ground. It may be suitable where there is a source of relatively clean water, and all local codes and regulations regarding groundwater discharge are met.

For closed loop systems, water or antifreeze solution is circulated through plastic pipes buried beneath the earth's surface. During the winter, the fluid collects heat from the earth and carries it through the system and into the building. During the summer, the system reverses itself to cool the building by pulling heat from the building, carrying it through the system and placing it in the ground. This process creates free cooling in the summer and delivers substantial savings on heating in the winter.

For example, a system that would supply 50% of the space and water heating demand of a typical house would need 80-100m of ground coils, and for commercial buildings, this can reach thousands of metres. Different space configurations of piping are possible depending on the available land, soil conditions, and excavation costs:

- Horizontal collectors require relatively large areas of land free from hard rock. They are most appropriate for small installations, particularly new build(s). The pipes are buried in trenches 1-2m deep. Spatial optimisation is possible by laying pipes in groups.
- Loop configurations, however, require that minimum distances should be maintained in order to allow for good thermal exchange.
- Vertical collectors are used where land is limited and are suitable for most soil and rock types. Vertical borehole heat exchangers could also be of various configurations (single, double, U-shaped, etc.) with typical diameters of 0.1-0.2m and between 15m and 180m deep. Minimum spacing between adjacent boreholes of 5-15m should be maintained to prevent thermal interference. Vertical boreholes are used in open loop systems to access the local water table. It should be noted that the open loop system is sensitive to Environmental Agency (EA) protocol.
- Parallel and series connections can be used where more than one horizontal loop or boreholes are in place.

Almost all heat pumps in operation are based on the vapour compression cycle, which combines efficiency, safety, and reasonable cost.

A detailed ground survey, considering ground conditions and potentially other features such as sewers, tunnels, and archaeology will be needed. Ground conditions will also affect ease of construction and performance of the system.

#### **Applicability to the 1 Vinyl Square Building Development**

Typically, in order for GSHP technology to be viable as an LZC technology, a considerable amount of area is required in order to locate vertical boreholes or horizontal collectors. In the case of the proposed development, the majority of the site is taken up by the physical footprint of the building resulting in little or no space availability for positioning of boreholes or horizontal collectors. Consideration must also be given to the suitability of ground conditions in the area, particularly for vertical borehole configurations.

For the reasons detailed above, ground source heat pump technology is not considered as a viable LZC option for the proposed development.

### **9.4 Air Source Heat Pumps (ASHP)**

#### **Technical Overview**

Air Source Heat Pumps (ASHP) absorb heat from the outside air. This heat can then be used to heat radiators, underfloor heating systems, or warm air convectors.

An air source heat pump extracts heat from the outside air in the same way that a fridge extracts heat from its inside. It can get heat from the air even when the temperature is as low as -15° C. Heat pumps have some impact on the environment as they need electricity to run, but the heat they extract from the ground, air, or water is constantly being renewed naturally.

Unlike gas and oil boilers, heat pumps deliver heat at lower temperatures over much longer periods. During the winter months, they may need to be on constantly to heat your home efficiently. You will also notice that radiators will not feel as hot to the touch as they might do when you are using a gas or oil boiler.

Air source heat pumps can also provide cooling via a reversible type heat pump to provide space heating and cooling using external air properties to generate heat and/or cooling via piped systems.

Advantages of ASHP include:

- Little maintenance required
- Can only be considered for BREEAM in heating mode
- Can be easily incorporated into the building, providing space is available for external heat pumps
- Air is the primary heat source/heat dump
- Can also provide domestic hot water
- Easier to install than Ground Source
- RHI Benefits

- More suitable for heating systems with lower operating water temperatures i.e. underfloor heating systems

Disadvantages of ASHP include:

- Electricity required to run heat pump
- Space for external heat pump(s) required. External heat pumps and space required will be considerably large for commercial buildings
- Efficiencies may be lower than ground source
- More suitable for heating systems with lower operating temperatures i.e. underfloor heating systems
- May result in high electrical use if not designed/specified correctly or in non-favourable external environmental conditions

#### **Applicability to the 1 Vinyl Square Building Development**

In order for ASHP technology to be viable as an LZC technology, consideration needs to be given to the operation of the site along with the type of heating system and or cooling system proposed. Due to the fact that the proposed residential & commercial area(s) have no cooling requirements, an ASHP will not be suitable for the proposed scheme.

## **9.5 Biomass**

### **Technology Overview**

Biomass is an alternative solid fuel to the conventional fossil fuels and has close to neutral carbon emissions impact providing it is sourced locally. Various types of biomass fuel are in use, the most common being the woody biomass which includes forest residues, such as tree thinning, and energy crops, such as willow short rotation coppice.

Biomass is converted into a manageable form that can be directly fed to the heat or power generation plant thus replacing fossil fuel. As a result, applications can range from large-scale heating boilers to individual domestic property room heaters, to combined heat and power generation (CHP). For building applications, the fuel usually takes the form of wood chips, logs and pellets. Wood pellets are essentially compacted high-density wood with low moisture content, thus having a higher calorific value per unit (volume or weight). Supply and storage of the biomass fuel should be carefully considered especially for larger plant.

The typical applications are:

- Biomass boilers replacing standard gas-fired boilers for space heating and hot water (for individual buildings or district heating systems)
- Standalone room heaters for space heating
- Stoves with back boilers, supplying domestic hot water
- Biomass CHP for heat and electricity generation

Biomass appliances can achieve efficiencies of more than 80%. Sizes start at 3-5kW capacity for room heaters up to hundreds of kW or MW industrial scale plants and community energy schemes. Many of the applications are sized to meet a specific base load with additional top-up and back up provided by gas boilers.

Although biomass is a widespread technology in many European and North American countries, in the UK the market is not yet well developed. However, applications of small-scale boilers and individual room heaters are increasing. These devices can run on logs, wood chip or pellets with the latter designed for either manual or automatic feed. An integrated hot water storage tank or an accumulator can enable the supply of heat to be decoupled from the actual combustion of the fuel.

### **Applicability to the 1 Vinyl Square Building Development**

The location of the proposed development in an urban environment poses restrictions on biomass as a suitable technology for the development. These limitations are due to planning limitations associated with the particle emissions and associated resultant poor air quality from the biomass boiler in a city centre environment and the logistical challenges of providing biomass fuel deliveries due to the building. The space availability for biomass fuel storage in the building is also limited. This would result in a low storage volume and therefore a higher delivery frequency, which is not practical.

Considering the reasons detailed above, biomass technology is not considered as a viable LZC option for the proposed development.

## **9.6 Site Wide Summary of Be Green Measures**

In order to reflect the latest GLA Guidance (October 2018) that on-site renewable resources should be maximised regardless of whether the policy carbon targets have been otherwise satisfied, the inclusion of 'Be Green' measures were considered for the 1 Vinyl Square Development however, the most feasible options, PV & STHW were discounted given their inclusion would be detrimental to the required allocated amenity spaces on the roof space(s). Considering this and the 35% carbon reduction target being achieved and exceeded by the adoption of the 'Be Lean' & 'Be Clean' measures, 'Be Green' measures have not been included within the Development

A Summary the LZC technologies analysed for potential inclusion with the 1 Vinyl Square Building Development can be seen in Table 7.

| Technology                                       | Details                                                                                     | Advantages                                                                                                                                                                                                                                                                                                            | Disadvantages                                                                                                                                                                                                                                                                                                                | Comments                                                                                                                                                                                                                                                                                                                                              | Suitability |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Combined Heat and Power (Co-Gen)</b>          | Gas fired CHP engines to generate electricity and heat                                      | <ol style="list-style-type: none"> <li>1. Good efficiency when run continuously.</li> <li>2. Potential to 'sell' energy back to the grid</li> <li>3. Carbon tax levy applicable</li> </ol>                                                                                                                            | <ol style="list-style-type: none"> <li>1. Utilisation profile of building must provide constant base load throughout the year to achieve efficiency at all times</li> <li>2. Noise break-out can be problematic if not addressed correctly</li> </ol>                                                                        | <p>CHP could be located in plant room</p> <p>Flues would need to be routed through the building, or externally, to roof level, via the riser, or a flue dilution system would be required.</p> <p>Periodic maintenance would need to be undertaken, building's owner / operators FM team.</p> <p>Not considered viable to take forward to design.</p> | <b>Low</b>  |
| <b>Combined Cooling Heat and Power (Tri-Gen)</b> | Gas fired CHP engines to generate electricity and heat and cooling using adsorption cooling | <ol style="list-style-type: none"> <li>1. Good efficiency on medium to large sites</li> <li>2. Potential to 'sell' energy back to the grid</li> <li>3. Carbon tax levy applicable</li> <li>4. Need sufficient cooling load to be viable</li> </ol>                                                                    | <ol style="list-style-type: none"> <li>1. Utilisation profile of building must provide constant base load throughout the year to achieve efficiency at all times</li> <li>2. Noise break-out can be problematic if not addressed correctly</li> <li>3. Adsorption cooling plant needs to be incorporated.</li> </ol>         | <p>The development shall have a constant heating base load throughout the year associated with the 24-hour domestic hot water requirement; however, the building will have a cooling load however the cooling load is deemed to be minimal.</p> <p>Not considered viable to take forward to design.</p>                                               | <b>Low</b>  |
| <b>Photovoltaics</b>                             | Roof mounted solar cells used to generate electricity                                       | <ol style="list-style-type: none"> <li>1. Grants Available</li> <li>2. Free Non-fossil fuel source</li> <li>3. Savings on roof cladding</li> <li>4. Can be Retrofit</li> <li>5. Generally simple installation procedures</li> <li>6. Large variety of types and concepts</li> <li>7. Can prolong roof life</li> </ol> | <ol style="list-style-type: none"> <li>1. Fairly high capital costs and long payback periods</li> <li>2. Complex manufacturing procedure and technology</li> <li>3. Generally increased roof maintenance &amp; access concerns</li> <li>4. Reliant on Available space for panel mounting</li> </ol>                          | <p>No available space for Solar Thermal Panel mounting as the roof space(s) are going to compromise of Communal Growing Spaces and roof terraces and presence of PV Panels would be detrimental to these allocated amenity spaces</p> <p>Not considered viable to take forward to design.</p>                                                         | <b>Low</b>  |
| <b>Solar Collectors</b>                          | Roof mounted fluid-based panels generating heat to fuel domestic hot water                  | <ol style="list-style-type: none"> <li>1. Grants Available</li> <li>2. Free Non-fossil fuel source</li> <li>3. Savings on roof cladding</li> </ol>                                                                                                                                                                    | <ol style="list-style-type: none"> <li>1. Full duty boiler and associated equipment required for periods of year when little sun</li> <li>2. Increased maintenance costs</li> <li>3. Current government grant initiatives nearing end of availability period. Continuing availability of grants to be considered.</li> </ol> | <p>No available space for Solar Thermal Panel mounting as the roof space(s) are going to compromise of Communal Growing Spaces and roof terraces and presence of STHW Panels would be detrimental to these allocated amenity spaces</p> <p>Not considered viable to take forward to design.</p>                                                       | <b>Low</b>  |

|                                             |                                                                                                                   |                                                                                                                                                                                                                                                                      |                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                    |            |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Ground Source Heating and/or Cooling</b> | Utilisation of the earth's thermal properties to generate heat and/or cooling via piped systems                   | 1. 'Free' non-fossil primary energy source<br>2. Reduced maintenance costs                                                                                                                                                                                           | 1. Early site and project analysis required<br>2. Unpredictability of source until drilling is carried out.<br>3. Additional drilling costs | Not considered suitable for development. Site ground conditions need to be considered along with local planning and environmental conditions. The limited external site area the site would prove problematic for the location of vertical borehole or horizontal slinky systems.                                                                  | <b>Low</b> |
| <b>Wind Energy (Small Scale)</b>            | Packaged 'plug in' units used to generate electricity                                                             | 1. Grants/finance available<br>2. Embedded renewable electrical energy source<br>3. Can be Retrofit<br>4. Modular concept can be applied                                                                                                                             | 1. Planning Restriction<br>2. More applicable to domestic/small scale situations                                                            | Wind turbines have relatively low outputs unless large-scale turbine(s) are considered. Excess power may be exported all year and out of season. Site wind patterns need to be considered.<br><br>Not considered viable to take forward to design. Potential planning restrictions, and site location in urban environment would prove problematic | <b>Low</b> |
| <b>Wind Energy (Large Scale)</b>            | High level wind driven blades used to generate electricity                                                        | 1. Grants/finance available<br>2. Embedded renewable electrical energy source                                                                                                                                                                                        | 1. Planning restrictions<br>2. Noise<br>3. 'Up Front' payments required                                                                     | Not considered viable to take forward to design due to site location.                                                                                                                                                                                                                                                                              | <b>Low</b> |
| <b>Biomass</b>                              | The utilisation of alternative non-fossil fuels e.g. forestry waste, husks, olive stones/pulp etc to fuel boilers | 1. Security of supply                                                                                                                                                                                                                                                | 1. Regular source of fuel required i.e. coppice rotation etc<br>2. Fuel storage                                                             | Not considered suitable for the development due to the building's urban location. This shall prove problematic for pellet delivery and storage on site.                                                                                                                                                                                            | <b>Low</b> |
| <b>Air Source Heat Pumps</b>                | Provide Space heating and cooling using external air properties to generate heat and/or cooling via piped systems | 1. Little maintenance required<br>2. Can be easily incorporated into the building providing space is available for external heat pumps<br>3. Air Primary heat source/heat dump<br>4. Can also provide domestic hot water<br>5. Easier to install than Ground Source. | 1. Electricity required to run heat pump<br>2. Space Required for External Heat Pump.<br>3. Efficiencies may be lower than ground source    | Not considered suitable for the development due to High electrical loads experienced when external conditions are not favourable for operation. Space required for external condenser units, one per apartment.<br><br>Not considered viable for the development.                                                                                  | <b>Low</b> |

**Table 7: LZC Summary**

## 10.0 Overheating Analysis

The aim of this analysis is to investigate whether the proposed 1 Vinyl Square residential building can comply with the CIBSE TM59 Design methodology - *the assessment of overheating risk in homes*. The calculations used within the analysis have been performed based on the assumptions and input parameters contained within the 'Section 6.0 – Be Clean' section of the report and the CIBSE TM59 design methodology with regards to lighting, occupancy, building operation, construction thermal properties and windows openings.

### 10.1 Analysis Information

#### 10.1.1 Building Type & Data

Building Type: Residential

Weather File Location: London, United Kingdom (DSY1)

Building Geometry: The building has been modelled using layout drawings and elevations issued by JTP Studio.



Figure 7: 1 Vinyl Square Building Model

#### 10.1.1.1 Construction Element Data

The following U-Values & G-Values were used in the Overheating Analysis, based on the 'Be Clean' Design Data:

| Construction Element | U-Value W/m <sup>2</sup> K |
|----------------------|----------------------------|
| Ground Floor         | 0.13                       |
| External Walls       | 0.12                       |
| Roof                 | 0.11                       |

Table 7: Construction Element

| Glazing Reference                                                                                                                                                                                         | Thermal Transmittance (U-Value), W/m <sup>2</sup> K | Solar Transmittance (G-Value) [BS EN 4100] | Light Transmittance |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------|---------------------|
| External Glazing                                                                                                                                                                                          | 1.2                                                 | 0.40                                       | 0.71                |
| Application:<br><br>1. All Glazing has an available window opening of 100mm.<br>2. Openable windows are restricted to 10% outward opening.<br>3. Window exposure type(s): - Semi-Exposed Wall / High Rise |                                                     |                                            |                     |

Table 8: Glazing Element Table

All windows are to be fitted with internal blinds with the following parameters:

- Shading Coefficient – 0.25
- Short-wave radiant fraction – 0.3
- Blind Type – Dark Coloured / Black-out blind
- Fraction of Daylight Hours Closed – 0.5

#### 10.1.2 Window Opening, Occupancy, Lighting & Equipment Profiles

##### 10.1.2.1 Window Opening Profiles

All openable windows have a 100mm outward opening – This allows enough fresh air into the space to prevent overheating, with some restriction for safety.

The Noise Impact Assessment requires ventilation to be provided as noise levels are too high to allow for ventilation via openable windows only. Windows are openable for purging.

The window operating profile is set based on assessment guidance from CIBSE TM59 and include the following conditions over a 24-hour period:

- Windows are open if the room air temperature reaches 22°C or greater.
- Windows are open if the Room Carbon Dioxide levels reach 500 ppm (parts per million) or greater.

TM59 states that occupants are likely to use openable windows upon internal temperatures reaching 22°C or greater, this has been replicated in the IES model using the Macroflo application.

#### 10.1.2.2 Internal Gains - Occupancy, Lighting, Equipment Profiles

Internal gains and profiles (occupancy, equipment and lighting) have been created in accordance with CIBSE TM59 guidance and subsequently applied to the IES thermal model. They represent a robust test that ensures the key aspects of overheating are captured, namely the hours when risk is highest (i.e. the middle of the day/early afternoon) and night-time hours when, if rooms do not cool down, sleep can be disrupted.

The following table describes the heat loads for each occupied room type required for assessment with CIBSE TM59 criteria.

| Room                                     | People               | Equipment             | Lighting (W/m²) |
|------------------------------------------|----------------------|-----------------------|-----------------|
| Studio/Cluster Bedroom – Day Occupancy   | 1 (75W per person)   | 100W max consumption  | 2               |
| Studio/Cluster Bedroom – Night occupancy | 2 (52.5W per person) | 100W max consumption  | -               |
| Kitchen/Living Areas                     | 1 x 75W per person   | 1000W max consumption | 2               |

### 10.1.3 Mechanical Services

#### 10.1.3.1 Ventilation

The ventilation strategy for the building shall be mixed mode Mechanical Ventilation with purge vent via openable windows. Each apartment will have its own system, these are either an extract only system for the apartment bathrooms and an MVHR system with summertime bypass for the rest of the apartment. NOX and particulate filtration maybe required on the MVHR intake dependent on the outcome of the Air Quality report.

Natural ventilation is accessible via openable windows for purge vent during higher external temperatures or to remove fumes or odours.

Mechanical Ventilation is provided in the Studios, Apartment Kitchen/Living Areas and Bathrooms. Kitchen extract is provided via a ducted extractor hood located above the hob with local control.

Summaries for ventilation strategies can be seen below.

#### 10.1.3.2 Natural Ventilation

Natural ventilation supply for all occupied rooms is via openable windows. Internal doors are to be undercut.

### 10.1.3.3 Mechanical Supply and Extract Ventilation MVHR

Each apartment will have its own system, these are either an extract only system for the apartment bathrooms and an MVHR system with summertime bypass for the rest of the apartment. Mechanical Ventilation Heat Recovery will be implemented in appropriate areas throughout the building (i.e. Apartment Kitchen/Living Spaces). This aims to decrease the rate of heat loss from the building by reducing the reliance on openable windows for fresh air, thus reducing energy usage. The windows will still be openable for purge ventilation.

As stated previously each apartment will have its own system, these can be either an extract only or an MVHR system with summertime bypass. Systems will operate continuously, and each apartment will operate individually; domestic ducted extractor hoods shall be provided above cooker hobs.

The ventilation flow rates are as follows.

#### Mechanical Ventilation Rates (Background)

- Bathroom - 8 l/s
- Kitchen/Living Area - 13 l/s

## 10.2 Overheating Analysis Assessment

### 10.2.1 Assessment Software

The dynamic thermal model was created using IES Apache simulation software version 2019.0.0.0.

### 10.2.2 TM59 Simulation

The simulation results were analysed using the Vista Pro software TM59 analysis tool, used to assess the likelihood of overheating for occupied rooms. The simulation results were assessed using the comfort parameters set the following:

- Activity Level – Very Light Work
- Clothing Level – Summer / Outdoor/ Active
- Building Category - Category 2 (new building and refurbishment)

### 10.2.3 Dynamic Thermal Analysis Simulation Results

The simulation results confirm that all rooms comply with CIBSE TM59, which can be found in Appendix G.

As a requirement of TM59, stating that '*if blinds were part of the strategy used to gain a pass, then results without blinds must also be included for information*'. Considering this, an additional simulation has been undertaken without the blinds being included in the design, the results of this simulation showed that 10 Rooms would fail the Overheating Analysis, the complete results from this simulation can be found in Appendix H.

### 10.3 Conclusion

The overheating analysis conducted, based on the information and parameters made within this section of the report to construct and simulate the dynamic thermal model, has calculated that the occupied rooms for the development are shown to pass with the CIBSE TM59 criteria. Therefore, this determines compliance with the CIBSE TM59 Design methodology - *assessment of overheating risk in homes* outlined previously for the proposed 1 Vinyl Square development, London.

## 11.0 Conclusion and Summary

This report shows how the proposed development has been designed using the principles of the Energy Hierarchy and other energy efficiency principles, to deliver carbon dioxide emission reductions. In particular, the design has sought to minimise emissions at source by the incorporation of the “Fabric First” approach and sustainable design features. Utilising these design principles in conjunction with the connection to the TOVF Local District Heat Network for the provision of space heating and domestic hot water requirements, ensures the proposed 1 Vinyl Square development achieves a reduction in CO<sub>2</sub> against the developments baseline case and complies with all energy policy standards defined by the GLA & London Plan.

Based on the findings within this report, the minimum improvement of 35% on the Target Emission Rate has been achieved and exceeded across the 1 Vinyl Square Development with the ‘Be Lean’ & ‘Be Clean’ modelling Input(s). This satisfies the requirements of the emerging GLA Requirements (2018), the updated Draft London Plan, Building Regulations and Policy 5.2 of the London Plan by exceeding the 35% carbon reduction target beyond Part L 2013 of the Building Regulations.

The proposed development meets the emerging GLA Requirements (2018) of achieving a minimum 10% improvement on Building Regulations for residential developments through the energy efficiency measures and meets the minimum 35% on-site carbon reduction target. This is in line with Mayor’s drive towards a zero-carbon target for major developments as outlined in the updated Draft London Plan, due to be implemented in 2020.

The “Be Clean” modelling results identified that the minimum 35% carbon reduction targets have been met through the adoption of the measures detailed within the ‘Be Lean’ & ‘Be Clean’ sections of this report. ‘Be Green’ measures (inclusion of renewable energy) were also considered in detail for the development. However, the most feasible options, PV & STHW, were discounted given that their inclusion would be detrimental to the required allocated amenity spaces on the roof space(s). Considering this and the 35% carbon reduction target being achieved and exceeded by the adoption of the ‘Be Lean’ & ‘Be Clean’ measures, ‘Be Green’ measures have not been included within the Development.

It has been evaluated that this is the most technically viable and financially feasible approach and the most appropriate way to proceed to satisfy National Planning Policy Framework, GLA and London Borough of Hillingdon Planning Policies and Building Regulation requirements.

The carbon saving from using the TOVF energy centre and district heating network for the heating and hot water demand for the 1 Vinyl Square development exceeds the S106 required threshold of 394 tCO<sub>2</sub> per annum, and therefore no carbon offset payment is required.

An overheating analysis has been conducted in accordance with CIBSE TM59 methodology *assessment of overheating risk in homes* and the occupied rooms for the 1 Vinyl Square development have been shown to be compliant.

## Appendix A

### BRUKL – Baseline Model

## Project name

**L19091 Veneer Building - London****As designed****Date:** Mon Oct 28 10:00:13 2019

## Administrative information

## Building Details

**Address:** Address 1, London, Postcode

## Certification tool

**Calculation engine:** Apache**Calculation engine version:** 7.0.12**Interface to calculation engine:** IES Virtual Environment**Interface to calculation engine version:** 7.0.12**BRUKL compliance check version:** v5.6.a.1

## Owner Details

**Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode

## Certifier details

**Name:** Name**Telephone number:** Phone**Address:** Street Address, City, PostcodeCriterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target

The building does not comply with England Building Regulations Part L 2013

|                                                                                                    |                     |
|----------------------------------------------------------------------------------------------------|---------------------|
| CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum | 33.6                |
| Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum               | 33.6                |
| Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum             | 63.7                |
| Are emissions from the building less than or equal to the target?                                  | <b>BER &gt; TER</b> |
| Are as built details the same as used in the BER calculations?                                     | Separate submission |

## Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

## Building fabric

| Element                                                                                                                                                                                                                                                                           | U <sub>a</sub> -Limit | U <sub>a</sub> -Calc | U <sub>i</sub> -Calc | Surface where the maximum value occurs*  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------|----------------------|------------------------------------------|
| Wall**                                                                                                                                                                                                                                                                            | 0.35                  | 0.35                 | 0.35                 | RM000002:Surf[1]                         |
| Floor                                                                                                                                                                                                                                                                             | 0.25                  | 0.25                 | 0.25                 | RM000002:Surf[0]                         |
| Roof                                                                                                                                                                                                                                                                              | 0.25                  | 0.25                 | 0.25                 | RM000006:Surf[1]                         |
| Windows***, roof windows, and rooflights                                                                                                                                                                                                                                          | 2.2                   | 2.2                  | 2.2                  | RM000002:Surf[2]                         |
| Personnel doors                                                                                                                                                                                                                                                                   | 2.2                   | 2.2                  | 2.2                  | RM000006:Surf[3]                         |
| Vehicle access & similar large doors                                                                                                                                                                                                                                              | 1.5                   | -                    | -                    | No Vehicle access doors in building      |
| High usage entrance doors                                                                                                                                                                                                                                                         | 3.5                   | -                    | -                    | No High usage entrance doors in building |
| U <sub>a</sub> -Limit = Limiting area-weighted average U-values [W/(m <sup>2</sup> K)]<br>U <sub>a</sub> -Calc = Calculated area-weighted average U-values [W/(m <sup>2</sup> K)]<br>U <sub>i</sub> -Calc = Calculated maximum individual element U-values [W/(m <sup>2</sup> K)] |                       |                      |                      |                                          |
| * There might be more than one surface where the maximum U-value occurs.                                                                                                                                                                                                          |                       |                      |                      |                                          |
| ** Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.                                                                                                                                                    |                       |                      |                      |                                          |
| *** Display windows and similar glazing are excluded from the U-value check.                                                                                                                                                                                                      |                       |                      |                      |                                          |
| N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.                                                                                                                                    |                       |                      |                      |                                          |

| Air Permeability                             | Worst acceptable standard | This building |
|----------------------------------------------|---------------------------|---------------|
| m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa | 10                        | 10            |

## Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

|                                                                                              |      |
|----------------------------------------------------------------------------------------------|------|
| Whole building lighting automatic monitoring & targeting with alarms for out-of-range values | NO   |
| Whole building electric power factor achieved by power factor correction                     | <0.9 |

### 1- Boiler Heating & Natural Vent

|                                                                                                                                                                                                                                                   | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| This system                                                                                                                                                                                                                                       | 0.81               | -                  | 0                  | 0             | -             |
| Standard value                                                                                                                                                                                                                                    | 0.91*              | N/A                | N/A                | N/A           | N/A           |
| Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system                                                                                                                                                         |                    |                    |                    |               | NO            |
| * Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82. |                    |                    |                    |               |               |

### 2- SPLIT SYSTEM - RESTAURANT

|                                                                                           | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|-------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| This system                                                                               | 0.8                | 1.25               | 0                  | 0             | -             |
| Standard value                                                                            | 1                  | 0.7                | N/A                | N/A           | N/A           |
| Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system |                    |                    |                    |               | NO            |

### 3- Boiler Heating & Extract Only

|                                                                                                                                                                                                                                                   | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| This system                                                                                                                                                                                                                                       | 0.81               | -                  | 0                  | 0             | -             |
| Standard value                                                                                                                                                                                                                                    | 0.91*              | N/A                | N/A                | N/A           | N/A           |
| Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system                                                                                                                                                         |                    |                    |                    |               | NO            |
| * Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82. |                    |                    |                    |               |               |

"No HWS in project, or hot water is provided by HVAC system"

### Local mechanical ventilation, exhaust, and terminal units

| ID | System type in Non-domestic Building Services Compliance Guide                                          |
|----|---------------------------------------------------------------------------------------------------------|
| A  | Local supply or extract ventilation units serving a single area                                         |
| B  | Zonal supply system where the fan is remote from the zone                                               |
| C  | Zonal extract system where the fan is remote from the zone                                              |
| D  | Zonal supply and extract ventilation units serving a single room or zone with heating and heat recovery |
| E  | Local supply and extract ventilation system serving a single area with heating and heat recovery        |
| F  | Other local ventilation units                                                                           |
| G  | Fan-assisted terminal VAV unit                                                                          |
| H  | Fan coil units                                                                                          |
| I  | Zonal extract system where the fan is remote from the zone with grease filter                           |

| Zone name                     | SFP [W/(l/s)]     |     |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
|                               | ID of system type | A   | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
|                               | Standard value    | 0.3 | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 1F - C.00-06 - Bathroom       |                   | 0.5 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 1F - C.00-05 - Bathroom       |                   | 0.5 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 1F - C.00-07 - Kitchen/Living |                   | 1   | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 1F - C.00-07 - Bathroom       |                   | 0.5 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 1F - C.00-08 - Bathroom       |                   | 0.5 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 1F - C.00-09 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-09 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 2F - B.02-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 3F - B.03-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 4F - B.04-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - B.05-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 5F - A.05-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 5F - A.05-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - B.06-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 6F - A.06-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 7F - A.07-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - B.07-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 7F - A.07-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 8F - B.08-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-07 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-08 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-07 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-03 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-03 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-04 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-04 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 1F - C.00-08 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 1F - C.00-09 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 9F - A.09-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Studio         | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-05 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-05 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-01 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-01 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-02 - Kitchen/Living | 1             | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-02 - Bathroom       | 0.5           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| GF - Substation                       |                | 30                       | -    | -            | 265                  |
| GF - Commercial                       |                | -                        | 60   | -            | 10103                |
| GF - Stairs                           |                | -                        | 60   | -            | 137                  |
| GF - Circulation                      |                | -                        | 60   | -            | 198                  |
| GF - Plant                            |                | 30                       | -    | -            | 320                  |
| GF - Stairs                           |                | -                        | 60   | -            | 143                  |
| GF - Entrance                         |                | -                        | 60   | -            | 270                  |
| 1F - Plant                            |                | 30                       | -    | -            | 274                  |
| 1F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 1F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 1F - Maintenance Store                |                | 30                       | -    | -            | 42                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 1F - Circulation                      |                | -                        | 60   | -            | 270                  |
| 1F - Circulation                      |                | -                        | 60   | -            | 337                  |
| 1F - Maintenance Store                |                | 30                       | -    | -            | 43                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 60   | -            | 69                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 60   | -            | 52                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 60   | -            | 92                   |
| 1F - C.00-06 - Circulation            |                | -                        | 60   | -            | 82                   |
| 1F - C.00-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 1F - C.00-06 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 1F - C.00-05 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 1F - C.00-05 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 1F - C.00-05 - Bedroom                |                | -                        | 60   | -            | 61                   |
| 1F - C.00-05 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 1F - C.00-05 - Circulation            |                | -                        | 60   | -            | 85                   |
| 1F - C.00-05 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 1F - C.00-07 - Kitchen/Living         |                | -                        | 60   | -            | 1317                 |
| 1F - C.00-07 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 1F - C.00-07 - Cupboard               |                | 30                       | -    | -            | 8                    |
| 1F - C.00-07 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 1F - C.00-07 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 1F - C.00-08 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 1F - C.00-08 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 1F - C.00-08 - Bedroom                |                | -                        | 60   | -            | 83                   |
| 1F - C.00-08 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 1F - C.00-08 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 1F - C.00-09 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 1F - C.00-09 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 1F - C.00-09 - Bedroom                |                | -                        | 60   | -            | 83                   |
| 1F - C.00-09 - Bedroom                |                | -                        | 60   | -            | 73                   |
| 1F - C.00-09 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 1F - A.01-03 - Cupboard               |                | 30                       | -    | -            | 26                   |
| 1F - A.01-03 - Bathroom               |                | -                        | 60   | -            | 90                   |
| 1F - A.01-03 - Kitchen/Living         |                | -                        | 60   | -            | 1196                 |
| 1F - A.01-02 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 1F - A.01-02 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 1F - A.01-02 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 1F - A.01-02 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 1F - A.01-02 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 1F - A.01-02 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 1F - A.01-02 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 1F - A.01-01 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 1F - A.01-01 - Kitchen/Living         |                | -                        | 60   | -            | 1250                 |
| 1F - A.01-01 - Cupboard               |                | 30                       | -    | -            | 15                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 1F - A.01-01 - Bedroom                |                | -                        | 60   | -            | 70                   |
| 1F - A.01-01 - Bedroom                |                | -                        | 60   | -            | 57                   |
| 1F - A.01-01 - Bedroom                |                | -                        | 60   | -            | 84                   |
| 1F - A.01-01 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 1F - A.01-01 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 1F - C.00-01 - Kitchen/Living         |                | -                        | 60   | -            | 1015                 |
| 1F - C.00-01 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 1F - C.00-01 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 1F - C.00-01 - Circulation            |                | -                        | 60   | -            | 68                   |
| 1F - C.00-01 - Cupboard               |                | 30                       | -    | -            | 10                   |
| 1F - C.00-01 - Bedroom                |                | -                        | 60   | -            | 63                   |
| 1F - C.00-02 - Bedroom                |                | -                        | 60   | -            | 63                   |
| 1F - C.00-02 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 1F - C.00-02 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 1F - C.00-02 - Cupboard               |                | 30                       | -    | -            | 10                   |
| 1F - C.00-02 - Bedroom                |                | -                        | 60   | -            | 80                   |
| 1F - C.00-03 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 1F - C.00-03 - Bedroom                |                | -                        | 60   | -            | 82                   |
| 1F - C.00-03 - Bedroom                |                | -                        | 60   | -            | 65                   |
| 1F - C.00-03 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 1F - C.00-03 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 1F - C.00-04 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 1F - C.00-04 - Cupboard               |                | 30                       | -    | -            | 8                    |
| 1F - C.00-04 - Circulation            |                | -                        | 60   | -            | 67                   |
| 1F - C.00-04 - Kitchen/Living         |                | -                        | 60   | -            | 968                  |
| 1F - C.00-04 - Bedroom                |                | -                        | 60   | -            | 60                   |
| 1F - C.00-04 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 1F - C.00-03 - Kitchen/Living         |                | -                        | 60   | -            | 1009                 |
| 1F - C.00-03 - Circulation            |                | -                        | 60   | -            | 58                   |
| 1F - C.00-02 - Circulation            |                | -                        | 60   | -            | 57                   |
| 1F - C.00-02 - Kitchen/Living         |                | -                        | 60   | -            | 995                  |
| GF - C.00-06 - Kitchen/Living         |                | -                        | 60   | -            | 1578                 |
| GF - C.00-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| GF - C.00-06 - Bathroom               |                | -                        | 60   | -            | 77                   |
| GF - C.00-05 - Kitchen/Living         |                | -                        | 60   | -            | 1142                 |
| GF - C.00-05 - Bathroom               |                | -                        | 60   | -            | 72                   |
| GF - C.00-05 - Circulation            |                | -                        | 60   | -            | 140                  |
| GF - C.00-04 - Bathroom               |                | -                        | 60   | -            | 98                   |
| GF - C.00-04 - Cupboard               |                | 30                       | -    | -            | 25                   |
| GF - C.00-04 - Circulation            |                | -                        | 60   | -            | 93                   |
| GF - C.00-03 - Bathroom               |                | -                        | 60   | -            | 97                   |
| GF - C.00-03 - Circulation            |                | -                        | 60   | -            | 92                   |
| GF - C.00-03 - Cupboard               |                | 30                       | -    | -            | 28                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| GF - C.00-01 - Bathroom               |                | -                        | 60   | -            | 98                   |
| GF - C.00-01 - Circulation            |                | -                        | 60   | -            | 92                   |
| GF - C.00-01 - Cupboard               |                | 30                       | -    | -            | 28                   |
| GF - C.00-02 - Bathroom               |                | -                        | 60   | -            | 100                  |
| GF - C.00-02 - Cupboard               |                | 30                       | -    | -            | 27                   |
| GF - C.00-02 - Circulation            |                | -                        | 60   | -            | 92                   |
| GF - C.00-07 - Bathroom               |                | -                        | 60   | -            | 100                  |
| GF - C.00-07 - Circulation            |                | -                        | 60   | -            | 98                   |
| GF - C.00-08 - Circulation            |                | -                        | 60   | -            | 106                  |
| GF - C.00-08 - Bathroom               |                | -                        | 60   | -            | 100                  |
| GF - C.00-08 - Cupboard               |                | 30                       | -    | -            | 31                   |
| GF - C.00-09 - Circulation            |                | -                        | 60   | -            | 106                  |
| GF - C.00-07 - Cupboard               |                | 30                       | -    | -            | 14                   |
| GF - C.00-07 - Bedroom                |                | -                        | 60   | -            | 107                  |
| GF - C.00-09 - Cupboard               |                | 30                       | -    | -            | 33                   |
| GF - C.00-09 - Bathroom               |                | -                        | 60   | -            | 100                  |
| GF - C.00-09 - Bedroom                |                | -                        | 60   | -            | 121                  |
| GF - C.00-08 - Bedroom                |                | -                        | 60   | -            | 121                  |
| GF - C.00-04 - Bedroom                |                | -                        | 60   | -            | 114                  |
| GF - C.00-03 - Bedroom                |                | -                        | 60   | -            | 113                  |
| GF - C.00-02 - Bedroom                |                | -                        | 60   | -            | 114                  |
| GF - C.00-01 - Bedroom                |                | -                        | 60   | -            | 113                  |
| 2F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 2F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 2F - A.02-07 - Cupboard               |                | 30                       | -    | -            | 26                   |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 60   | -            | 300                  |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 60   | -            | 1196                 |
| 2F - A.02-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 2F - A.02-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 2F - A.02-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 2F - A.02-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 2F - A.02-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 2F - A.02-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 2F - A.02-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 2F - A.02-05 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 2F - A.02-05 - Kitchen/Living         |                | -                        | 60   | -            | 1250                 |
| 2F - A.02-05 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 2F - A.02-05 - Bedroom                |                | -                        | 60   | -            | 70                   |
| 2F - A.02-05 - Bedroom                |                | -                        | 60   | -            | 57                   |
| 2F - A.02-05 - Bedroom                |                | -                        | 60   | -            | 84                   |
| 2F - A.02-05 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 2F - A.02-05 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 2F - A.02-02 - Kitchen/Living         |                | -                        | 60   | -            | 1371                 |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 2F - A.02-02 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 2F - A.02-02 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 2F - A.02-02 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 2F - A.02-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 2F - A.02-02 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 2F - Circulation                      |                | -                        | 60   | -            | 274                  |
| 2F - B.02-02 - Cupboard               |                | 30                       | -    | -            | 16                   |
| 2F - B.02-02 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 2F - B.02-02 - Bathroom               |                | -                        | 60   | -            | 61                   |
| 2F - B.02-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 2F - B.02-02 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 2F - B.02-01 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 2F - B.02-02 - Kitchen/Living         |                | -                        | 60   | -            | 1387                 |
| 2F - Circulation                      |                | -                        | 60   | -            | 262                  |
| 2F - B.02-02 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 2F - B.02-02 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 2F - B.02-03 - Kitchen/Living         |                | -                        | 60   | -            | 1035                 |
| 2F - B.02-03 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 2F - B.02-03 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 2F - B.02-03 - Bedroom                |                | -                        | 60   | -            | 90                   |
| 2F - B.02-03 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 2F - B.02-04 - Kitchen/Living         |                | -                        | 60   | -            | 1350                 |
| 2F - B.02-04 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 2F - B.02-04 - Bedroom                |                | -                        | 60   | -            | 54                   |
| 2F - B.02-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 2F - B.02-04 - Bathroom               |                | -                        | 60   | -            | 80                   |
| 2F - B.02-04 - Bedroom                |                | -                        | 60   | -            | 74                   |
| 2F - B.02-04 - Bathroom               |                | -                        | 60   | -            | 63                   |
| 2F - B.02-04 - Cupboard               |                | 30                       | -    | -            | 24                   |
| 2F - B.02-05 - Bedroom                |                | -                        | 60   | -            | 58                   |
| 2F - B.02-05 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 2F - B.02-05 - Cupboard               |                | 30                       | -    | -            | 31                   |
| 2F - B.02-05 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 2F - B.02-07 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 2F - B.02-05 - Kitchen/Living         |                | -                        | 60   | -            | 1259                 |
| 2F - B.02-05 - Bathroom               |                | -                        | 60   | -            | 65                   |
| 2F - B.02-05 - Bedroom                |                | -                        | 60   | -            | 87                   |
| 2F - B.02-01 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 2F - B.02-01 - Kitchen/Living         |                | -                        | 60   | -            | 1005                 |
| 2F - B.02-06 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 2F - B.02-06 - Kitchen/Living         |                | -                        | 60   | -            | 1121                 |
| 2F - B.02-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 2F - B.02-06 - Cupboard               |                | 30                       | -    | -            | 18                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 2F - B.02-07 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 2F - B.02-07 - Bathroom               |                | -                        | 60   | -            | 70                   |
| 2F - A.02-02 - Cupboard               |                | 30                       | -    | -            | 20                   |
| 2F - A.02-02 - Bedroom                |                | -                        | 60   | -            | 73                   |
| 2F - A.02-03 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 2F - A.02-03 - Bedroom                |                | -                        | 60   | -            | 88                   |
| 2F - A.02-03 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 2F - A.02-03 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 2F - A.02-04 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 2F - A.02-04 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 2F - A.02-04 - Bathroom               |                | -                        | 60   | -            | 62                   |
| 2F - A.02-04 - Bathroom               |                | -                        | 60   | -            | 82                   |
| 2F - A.02-04 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 2F - A.02-04 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 2F - A.02-04 - Kitchen/Living         |                | -                        | 60   | -            | 1339                 |
| 2F - A.02-04 - Bedroom                |                | -                        | 60   | -            | 50                   |
| 2F - A.02-04 - Bedroom                |                | -                        | 60   | -            | 73                   |
| 2F - A.02-03 - Kitchen/Living         |                | -                        | 60   | -            | 1013                 |
| 2F - B.02-01 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 2F - B.02-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 2F - A.02-01 - Kitchen/Living         |                | -                        | 60   | -            | 1032                 |
| 2F - A.02-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 2F - A.02-01 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 2F - A.02-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 2F - A.02-01 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 3F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 3F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 3F - A.03-07 - Cupboard               |                | 30                       | -    | -            | 26                   |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 60   | -            | 300                  |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 60   | -            | 1196                 |
| 3F - A.03-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 3F - A.03-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 3F - A.03-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 3F - A.03-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 3F - A.03-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 3F - A.03-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 3F - A.03-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 3F - A.03-05 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 3F - A.03-05 - Kitchen/Living         |                | -                        | 60   | -            | 1250                 |
| 3F - A.03-05 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 3F - A.03-05 - Bedroom                |                | -                        | 60   | -            | 70                   |
| 3F - A.03-05 - Bedroom                |                | -                        | 60   | -            | 57                   |
| 3F - A.03-05 - Bedroom                |                | -                        | 60   | -            | 84                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 3F - A.03-05 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 3F - A.03-05 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 3F - A.03-02 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 3F - A.03-02 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 3F - A.03-02 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 3F - A.03-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 3F - A.03-02 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 3F - Circulation                      |                | -                        | 60   | -            | 274                  |
| 3F - B.03-02 - Cupboard               |                | 30                       | -    | -            | 16                   |
| 3F - B.03-02 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 3F - B.03-02 - Bathroom               |                | -                        | 60   | -            | 61                   |
| 3F - B.03-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 3F - B.03-02 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 3F - B.03-01 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 3F - B.03-02 - Kitchen/Living         |                | -                        | 60   | -            | 1387                 |
| 3F - Circulation                      |                | -                        | 60   | -            | 262                  |
| 3F - B.03-03 - Kitchen/Living         |                | -                        | 60   | -            | 1035                 |
| 3F - B.03-03 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 3F - B.03-03 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 3F - B.03-04 - Kitchen/Living         |                | -                        | 60   | -            | 1350                 |
| 3F - B.03-04 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 3F - B.03-04 - Bedroom                |                | -                        | 60   | -            | 54                   |
| 3F - B.03-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 3F - B.03-04 - Bathroom               |                | -                        | 60   | -            | 80                   |
| 3F - B.03-04 - Bedroom                |                | -                        | 60   | -            | 74                   |
| 3F - B.03-04 - Bathroom               |                | -                        | 60   | -            | 63                   |
| 2F - B.02-04 - Cupboard               |                | 30                       | -    | -            | 24                   |
| 3F - B.03-05 - Bedroom                |                | -                        | 60   | -            | 58                   |
| 3F - B.03-05 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 3F - B.03-05 - Cupboard               |                | 30                       | -    | -            | 31                   |
| 3F - B.03-05 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 3F - B.03-07 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 3F - B.03-05 - Kitchen/Living         |                | -                        | 60   | -            | 1259                 |
| 3F - B.03-05 - Bathroom               |                | -                        | 60   | -            | 65                   |
| 3F - B.03-05 - Bedroom                |                | -                        | 60   | -            | 87                   |
| 3F - B.03-01 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 2F - B.02-01 - Kitchen/Living         |                | -                        | 60   | -            | 1005                 |
| 3F - B.03-06 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 3F - B.03-06 - Kitchen/Living         |                | -                        | 60   | -            | 1121                 |
| 3F - B.03-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 3F - B.03-06 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 3F - B.03-07 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 3F - B.03-07 - Bathroom               |                | -                        | 60   | -            | 70                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 3F - A.03-03 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 3F - A.03-03 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 3F - A.03-04 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 3F - A.03-04 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 3F - A.03-04 - Bathroom               |                | -                        | 60   | -            | 62                   |
| 3F - A.03-04 - Bathroom               |                | -                        | 60   | -            | 82                   |
| 3F - A.03-04 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 3F - A.03-04 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 3F - A.03-04 - Kitchen/Living         |                | -                        | 60   | -            | 1339                 |
| 3F - A.03-04 - Bedroom                |                | -                        | 60   | -            | 50                   |
| 3F - A.03-04 - Bedroom                |                | -                        | 60   | -            | 73                   |
| 3F - B.03-01 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 3F - B.03-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 3F - A.03-01 - Kitchen/Living         |                | -                        | 60   | -            | 1032                 |
| 3F - A.03-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 3F - A.03-01 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 3F - A.03-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 3F - A.03-01 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 2F - B.02-07 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 2F - B.02-07 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 60   | -            | 502                  |
| 3F - B.03-07 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 3F - B.03-07 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 60   | -            | 502                  |
| 3F - B.03-03 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 3F - B.03-03 - Bedroom                |                | -                        | 60   | -            | 89                   |
| 3F - B.03-03 - Bedroom                |                | -                        | 60   | -            | 32                   |
| 3F - B.03-03 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 3F - A.03-02 - Kitchen/Living         |                | -                        | 60   | -            | 1334                 |
| 3F - A.03-03 - Kitchen/Living         |                | -                        | 60   | -            | 1081                 |
| 3F - A.03-03 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 3F - A.03-03 - Bathroom               |                | -                        | 60   | -            | 35                   |
| 3F - A.03-03 - Bedroom                |                | -                        | 60   | -            | 34                   |
| 3F - A.03-03 - Bedroom                |                | -                        | 60   | -            | 83                   |
| 4F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 4F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 4F - A.04-07 - Cupboard               |                | 30                       | -    | -            | 26                   |
| 4F - A.04-07 - Bathroom               |                | -                        | 60   | -            | 300                  |
| 4F - A.04-07 - Kitchen/Living         |                | -                        | 60   | -            | 1196                 |
| 4F - A.04-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 4F - A.04-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 4F - A.04-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 4F - A.04-06 - Bathroom               |                | -                        | 60   | -            | 71                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 4F - A.04-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 4F - A.04-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 4F - A.04-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 4F - A.04-06 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 4F - A.04-02 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 4F - A.04-02 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 4F - A.04-02 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 4F - A.04-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 4F - A.04-02 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 4F - Circulation                      |                | -                        | 60   | -            | 274                  |
| 4F - B.04-02 - Cupboard               |                | 30                       | -    | -            | 16                   |
| 4F - B.04-02 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 4F - B.04-02 - Bathroom               |                | -                        | 60   | -            | 61                   |
| 4F - B.04-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 4F - B.04-02 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 4F - B.04-01 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 4F - Circulation                      |                | -                        | 60   | -            | 262                  |
| 4F - B.04-03 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 4F - B.04-03 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 4F - B.04-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 4F - B.04-01 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 4F - B.04-01 - Kitchen/Living         |                | -                        | 60   | -            | 1005                 |
| 4F - B.04-07 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 4F - B.04-07 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 4F - B.04-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 4F - B.04-08 - Bathroom               |                | -                        | 60   | -            | 70                   |
| 4F - A.04-03 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 4F - A.04-03 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 4F - B.04-01 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 4F - B.04-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 4F - A.04-01 - Kitchen/Living         |                | -                        | 60   | -            | 1032                 |
| 4F - A.04-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 4F - A.04-01 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 4F - A.04-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 4F - A.04-01 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 4F - B.04-08 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 4F - B.04-08 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 4F - A.04-07 - Bedroom                |                | -                        | 60   | -            | 80                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 4F - B.04-03 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 4F - A.04-02 - Kitchen/Living         |                | -                        | 60   | -            | 1334                 |
| 4F - A.04-03 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 4F - A.04-03 - Bathroom               |                | -                        | 60   | -            | 35                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 4F - A.04-03 - Bedroom                |                | -                        | 60   | -            | 34                   |
| 4F - B.04-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 4F - B.04-07 - Kitchen/Living         |                | -                        | 60   | -            | 1121                 |
| 4F - B.04-07 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 4F - B.04-06 - Bathroom               |                | -                        | 60   | -            | 255                  |
| 4F - B.04-06 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 4F - B.04-03 - Kitchen/Living         |                | -                        | 60   | -            | 1163                 |
| 4F - B.04-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 4F - B.04-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 4F - B.04-04 - Kitchen/Living         |                | -                        | 60   | -            | 1256                 |
| 4F - B.04-04 - Bedroom                |                | -                        | 60   | -            | 89                   |
| 4F - B.04-04 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 4F - B.04-02 - Kitchen/Living         |                | -                        | 60   | -            | 1360                 |
| 4F - B.04-03 - Bathroom               |                | -                        | 60   | -            | 34                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 4F - B.04-05 - Kitchen/Living         |                | -                        | 60   | -            | 1042                 |
| 4F - B.04-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 4F - B.04-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 4F - B.04-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 4F - B.04-05 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 4F - B.04-06 - Cupboard               |                | 30                       | -    | -            | 22                   |
| 4F - B.04-06 - Studio                 |                | -                        | 60   | -            | 162                  |
| 4F - A.04-03 - Bedroom                |                | -                        | 60   | -            | 74                   |
| 4F - A.04-03 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 4F - A.04-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 4F - A.04-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 4F - A.04-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 4F - A.04-04 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 4F - A.04-04 - Bedroom                |                | -                        | 60   | -            | 83                   |
| 4F - A.04-04 - Kitchen/Living         |                | -                        | 60   | -            | 1260                 |
| 4F - A.04-06 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 4F - A.04-06 - Studio                 |                | -                        | 60   | -            | 157                  |
| 4F - A.04-06 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 4F - A.04-06 - Bathroom               |                | -                        | 60   | -            | 249                  |
| 4F - A.04-05 - Kitchen/Living         |                | -                        | 60   | -            | 1055                 |
| 4F - A.04-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 4F - A.04-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 4F - A.04-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 4F - A.04-05 - Bedroom                |                | -                        | 60   | -            | 69                   |
| 5F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 5F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 5F - A.05-08 - Cupboard               |                | 30                       | -    | -            | 26                   |
| 5F - A.05-08 - Bathroom               |                | -                        | 60   | -            | 300                  |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 5F - A.05-08 - Kitchen/Living         |                | -                        | 60   | -            | 1196                 |
| 5F - A.05-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 5F - A.05-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 5F - A.05-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 5F - A.05-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 5F - A.05-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 5F - A.05-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 5F - A.05-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 5F - A.05-06 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 5F - A.05-02 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 5F - A.05-02 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 5F - A.05-02 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 5F - A.05-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 5F - A.05-02 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 5F - Circulation                      |                | -                        | 60   | -            | 274                  |
| 5F - B.05-02 - Cupboard               |                | 30                       | -    | -            | 16                   |
| 5F - B.05-02 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 5F - B.05-02 - Bathroom               |                | -                        | 60   | -            | 61                   |
| 5F - B.05-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 5F - B.05-02 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 5F - B.05-01 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 5F - Circulation                      |                | -                        | 60   | -            | 262                  |
| 5F - B.05-03 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 5F - B.05-03 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 5F - B.05-08 - Bathroom               |                | 30                       | -    | -            | 17                   |
| 5F - B.05-01 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 5F - B.05-01 - Kitchen/Living         |                | -                        | 60   | -            | 1005                 |
| 5F - B.05-07 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 5F - B.05-07 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 5F - B.05-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 5F - B.05-08 - Bathroom               |                | -                        | 60   | -            | 70                   |
| 5F - A.05-03 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 5F - A.05-03 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 5F - B.05-01 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 5F - B.05-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 5F - A.05-01 - Kitchen/Living         |                | -                        | 60   | -            | 1032                 |
| 5F - A.05-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 5F - A.05-01 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 5F - A.05-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 5F - A.05-01 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 5F - B.05-08 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 5F - B.05-08 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 5F - A.05-08 - Bedroom                |                | -                        | 60   | -            | 80                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 5F - B.05-03 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 5F - B.05-03 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 5F - A.05-02 - Kitchen/Living         |                | -                        | 60   | -            | 1334                 |
| 5F - A.05-03 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 5F - A.05-03 - Bathroom               |                | -                        | 60   | -            | 35                   |
| 5F - A.05-03 - Bedroom                |                | -                        | 60   | -            | 34                   |
| 5F - B.05-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 5F - B.05-07 - Kitchen/Living         |                | -                        | 60   | -            | 1121                 |
| 5F - B.05-07 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 5F - B.05-06 - Kitchen/Living         |                | -                        | 60   | -            | 255                  |
| 5F - B.05-06 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 5F - B.05-03 - Kitchen/Living         |                | -                        | 60   | -            | 1163                 |
| 5F - B.05-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 5F - B.05-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 5F - B.05-04 - Kitchen/Living         |                | -                        | 60   | -            | 1256                 |
| 5F - B.05-04 - Bedroom                |                | -                        | 60   | -            | 89                   |
| 5F - B.05-04 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 5F - B.05-02 - Kitchen/Living         |                | -                        | 60   | -            | 1360                 |
| 5F - B.05-03 - Bathroom               |                | -                        | 60   | -            | 34                   |
| 5F - B.05-03 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 5F - B.05-05 - Kitchen/Living         |                | -                        | 60   | -            | 1042                 |
| 5F - B.05-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 5F - B.05-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 5F - B.05-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 5F - B.05-05 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 5F - B.05-06 - Cupboard               |                | 30                       | -    | -            | 22                   |
| 5F - B.05-06 - Studio                 |                | -                        | 60   | -            | 162                  |
| 5F - A.05-03 - Bedroom                |                | -                        | 60   | -            | 74                   |
| 5F - A.05-03 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 5F - A.05-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 5F - A.05-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 5F - A.05-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 5F - A.05-04 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 5F - A.05-04 - Bedroom                |                | -                        | 60   | -            | 83                   |
| 5F - A.05-04 - Kitchen/Living         |                | -                        | 60   | -            | 1260                 |
| 5F - A.05-06 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 5F - A.05-06 - Studio                 |                | -                        | 60   | -            | 157                  |
| 5F - A.05-06 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 5F - A.05-06 - Bathroom               |                | -                        | 60   | -            | 249                  |
| 5F - A.05-05 - Kitchen/Living         |                | -                        | 60   | -            | 1055                 |
| 5F - A.05-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 5F - A.05-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 5F - A.05-05 - Bedroom                |                | -                        | 60   | -            | 55                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 5F - A.05-05 - Bedroom                |                | -                        | 60   | -            | 69                   |
| 6F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 6F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 6F - A.06-08 - Cupboard               |                | 30                       | -    | -            | 26                   |
| 6F - A.06-08 - Bathroom               |                | -                        | 60   | -            | 300                  |
| 6F - A.06-08 - Kitchen/Living         |                | -                        | 60   | -            | 1196                 |
| 6F - A.06-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 6F - A.06-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 6F - A.06-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 6F - A.06-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 6F - A.06-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 6F - A.06-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 6F - A.06-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 6F - A.06-06 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 6F - A.06-02 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 6F - A.06-02 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 6F - A.06-02 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 6F - A.06-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 6F - A.06-02 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 6F - Circulation                      |                | -                        | 60   | -            | 274                  |
| 6F - B.06-02 - Cupboard               |                | 30                       | -    | -            | 16                   |
| 6F - B.06-02 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 6F - B.06-02 - Bathroom               |                | -                        | 60   | -            | 61                   |
| 6F - B.06-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 6F - B.06-02 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 6F - B.06-01 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 6F - Circulation                      |                | -                        | 60   | -            | 262                  |
| 4F - B.04-03 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 4F - B.04-03 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 6F - B.06-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 6F - B.06-01 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 6F - B.06-01 - Kitchen/Living         |                | -                        | 60   | -            | 1005                 |
| 6F - B.06-07 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 6F - B.06-07 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 6F - B.06-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 6F - B.06-08 - Bathroom               |                | -                        | 60   | -            | 70                   |
| 6F - A.06-03 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 6F - A.06-03 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 6F - B.06-01 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 6F - B.06-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 6F - A.06-01 - Bathroom               |                | -                        | 60   | -            | 1032                 |
| 6F - A.06-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 6F - A.06-01 - Bathroom               |                | -                        | 60   | -            | 73                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 6F - A.06-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 6F - A.06-01 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 6F - B.06-08 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 6F - B.06-08 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 6F - A.06-08 - Bedroom                |                | -                        | 60   | -            | 80                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 4F - B.04-03 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 6F - A.06-02 - Kitchen/Living         |                | -                        | 60   | -            | 1334                 |
| 6F - A.06-03 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 6F - A.06-03 - Bathroom               |                | -                        | 60   | -            | 35                   |
| 6F - A.06-03 - Bedroom                |                | -                        | 60   | -            | 34                   |
| 6F - B.06-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 6F - B.06-07 - Kitchen/Living         |                | -                        | 60   | -            | 1121                 |
| 6F - B.06-07 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 6F - B.06-06 - Bathroom               |                | -                        | 60   | -            | 255                  |
| 6F - B.06-06 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 4F - B.04-03 - Kitchen/Living         |                | -                        | 60   | -            | 1163                 |
| 6F - B.06-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 6F - B.06-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 6F - B.06-04 - Kitchen/Living         |                | -                        | 60   | -            | 1256                 |
| 6F - B.06-04 - Bedroom                |                | -                        | 60   | -            | 89                   |
| 6F - B.06-04 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 6F - B.06-02 - Kitchen/Living         |                | -                        | 60   | -            | 1360                 |
| 4F - B.04-03 - Bathroom               |                | -                        | 60   | -            | 34                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 6F - B.06-05 - Kitchen/Living         |                | -                        | 60   | -            | 1042                 |
| 6F - B.06-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 6F - B.06-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 6F - B.06-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 6F - B.06-05 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 6F - B.06-06 - Cupboard               |                | 30                       | -    | -            | 22                   |
| 6F - B.06-06 - Studio                 |                | -                        | 60   | -            | 162                  |
| 6F - A.06-03 - Bedroom                |                | -                        | 60   | -            | 74                   |
| 6F - A.06-03 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 6F - A.06-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 6F - A.06-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 6F - A.06-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 6F - A.06-04 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 6F - A.06-04 - Bedroom                |                | -                        | 60   | -            | 83                   |
| 6F - A.06-04 - Kitchen/Living         |                | -                        | 60   | -            | 1260                 |
| 6F - A.06-06 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 6F - A.06-06 - Studio                 |                | -                        | 60   | -            | 157                  |
| 6F - A.06-06 - Cupboard               |                | 30                       | -    | -            | 14                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 6F - A.06-06 - Bathroom               |                | -                        | 60   | -            | 249                  |
| 6F - A.06-05 - Kitchen/Living         |                | -                        | 60   | -            | 1055                 |
| 6F - A.06-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 6F - A.06-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 6F - A.06-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 6F - A.06-05 - Bedroom                |                | -                        | 60   | -            | 69                   |
| 7F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 7F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 7F - A.07-08 - Cupboard               |                | 30                       | -    | -            | 26                   |
| 7F - A.07-08 - Bathroom               |                | -                        | 60   | -            | 300                  |
| 7F - A.07-08 - Kitchen/Living         |                | -                        | 60   | -            | 1196                 |
| 7F - A.07-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 7F - A.07-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 7F - A.07-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 7F - A.07-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 7F - A.07-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 7F - A.07-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 7F - A.07-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 7F - A.07-06 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 7F - A.07-02 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 7F - A.07-02 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 7F - A.07-02 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 7F - A.07-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 7F - A.07-02 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 7F - Circulation                      |                | -                        | 60   | -            | 274                  |
| 7F - B.07-02 - Cupboard               |                | 30                       | -    | -            | 16                   |
| 7F - B.07-02 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 7F - B.07-02 - Bathroom               |                | -                        | 60   | -            | 61                   |
| 7F - B.07-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 7F - B.07-02 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 7F - B.07-01 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 7F - Circulation                      |                | -                        | 60   | -            | 262                  |
| 7F - B.07-03 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 7F - B.07-03 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 7F - B.07-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 7F - B.07-01 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 7F - B.07-01 - Kitchen/Living         |                | -                        | 60   | -            | 1005                 |
| 7F - B.07-07 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 7F - B.07-07 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 7F - B.07-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 7F - B.07-08 - Bathroom               |                | -                        | 60   | -            | 70                   |
| 7F - A.07-03 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 7F - A.07-03 - Cupboard               |                | 30                       | -    | -            | 12                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 7F - B.07-01 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 7F - B.07-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 7F - A.07-01 - Kitchen/Living         |                | -                        | 60   | -            | 1032                 |
| 7F - A.07-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 7F - A.07-01 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 7F - A.07-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 7F - A.07-01 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 7F - B.07-08 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 7F - B.07-08 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 7F - A.07-08 - Bedroom                |                | -                        | 60   | -            | 80                   |
| 7F - B.07-03 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 7F - B.07-03 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 7F - A.07-02 - Kitchen/Living         |                | -                        | 60   | -            | 1334                 |
| 7F - A.07-03 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 7F - A.07-03 - Bathroom               |                | -                        | 60   | -            | 35                   |
| 7F - A.07-03 - Bedroom                |                | -                        | 60   | -            | 34                   |
| 7F - B.07-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 7F - B.07-07 - Kitchen/Living         |                | -                        | 60   | -            | 1121                 |
| 7F - B.07-07 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 7F - B.07-06 - Bathroom               |                | -                        | 60   | -            | 255                  |
| 7F - B.07-06 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 7F - B.07-03 - Kitchen/Living         |                | -                        | 60   | -            | 1163                 |
| 7F - B.07-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 7F - B.07-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 7F - B.07-04 - Kitchen/Living         |                | -                        | 60   | -            | 1256                 |
| 7F - B.07-04 - Bedroom                |                | -                        | 60   | -            | 89                   |
| 7F - B.07-04 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 7F - B.07-02 - Kitchen/Living         |                | -                        | 60   | -            | 1360                 |
| 7F - B.07-03 - Bathroom               |                | -                        | 60   | -            | 34                   |
| 7F - B.07-03 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 7F - B.07-05 - Kitchen/Living         |                | -                        | 60   | -            | 1042                 |
| 7F - B.07-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 7F - B.07-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 7F - B.07-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 7F - B.07-05 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 7F - B.07-06 - Cupboard               |                | 30                       | -    | -            | 22                   |
| 7F - B.07-06 - Studio                 |                | -                        | 60   | -            | 162                  |
| 7F - A.07-03 - Bedroom                |                | -                        | 60   | -            | 74                   |
| 7F - A.07-03 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 7F - A.07-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 7F - A.07-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 7F - A.07-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 7F - A.07-04 - Cupboard               |                | 30                       | -    | -            | 11                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 7F - A.07-04 - Bedroom                |                | -                        | 60   | -            | 83                   |
| 7F - A.07-04 - Kitchen/Living         |                | -                        | 60   | -            | 1260                 |
| 7F - A.07-06 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 7F - A.07-06 - Studio                 |                | -                        | 60   | -            | 157                  |
| 7F - A.07-06 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 7F - A.07-06 - Bathroom               |                | -                        | 60   | -            | 249                  |
| 7F - A.07-05 - Kitchen/Living         |                | -                        | 60   | -            | 1055                 |
| 7F - A.07-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 7F - A.07-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 7F - A.07-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 7F - A.07-05 - Bedroom                |                | -                        | 60   | -            | 69                   |
| 8F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 8F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 8F - A.08-08 - Cupboard               |                | 30                       | -    | -            | 26                   |
| 8F - A.08-08 - Bathroom               |                | -                        | 60   | -            | 300                  |
| 8F - A.08-08 - Kitchen/Living         |                | -                        | 60   | -            | 1196                 |
| 8F - A.08-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 8F - A.08-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 8F - A.08-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 8F - A.08-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 8F - A.08-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 8F - A.08-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 8F - A.08-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 8F - A.08-06 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 8F - A.08-02 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 8F - A.08-02 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 8F - A.08-02 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 8F - A.08-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 8F - A.08-02 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 8F - Circulation                      |                | -                        | 60   | -            | 274                  |
| 8F - B.08-02 - Cupboard               |                | 30                       | -    | -            | 16                   |
| 8F - B.08-02 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 8F - B.08-02 - Bathroom               |                | -                        | 60   | -            | 61                   |
| 8F - B.08-02 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 8F - B.08-02 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 8F - B.08-01 - Bathroom               |                | -                        | 60   | -            | 77                   |
| 8F - Circulation                      |                | -                        | 60   | -            | 262                  |
| 8F - B.08-03 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 8F - B.08-03 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 8F - B.08-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 8F - B.08-01 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 8F - B.08-01 - Kitchen/Living         |                | -                        | 60   | -            | 1005                 |
| 8F - B.08-07 - Bathroom               |                | -                        | 60   | -            | 71                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 8F - B.08-07 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 8F - B.08-08 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 8F - B.08-08 - Bathroom               |                | -                        | 60   | -            | 70                   |
| 8F - A.08-03 - Bathroom               |                | -                        | 60   | -            | 75                   |
| 8F - A.08-03 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 8F - B.08-01 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 8F - B.08-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 8F - A.08-01 - Kitchen/Living         |                | -                        | 60   | -            | 1032                 |
| 8F - A.08-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 8F - A.08-01 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 8F - A.08-01 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 8F - A.08-01 - Bedroom                |                | -                        | 60   | -            | 78                   |
| 8F - B.08-08 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 8F - B.08-08 - Bedroom                |                | -                        | 60   | -            | 76                   |
| 8F - A.08-08 - Bedroom                |                | -                        | 60   | -            | 80                   |
| 8F - B.08-03 - Bedroom                |                | -                        | 60   | -            | 77                   |
| 8F - B.08-03 - Cupboard               |                | 30                       | -    | -            | 21                   |
| 8F - A.08-02 - Kitchen/Living         |                | -                        | 60   | -            | 1334                 |
| 8F - A.08-03 - Bedroom                |                | -                        | 60   | -            | 75                   |
| 8F - A.08-03 - Bathroom               |                | -                        | 60   | -            | 35                   |
| 8F - A.08-03 - Bedroom                |                | -                        | 60   | -            | 34                   |
| 8F - B.08-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 8F - B.08-07 - Kitchen/Living         |                | -                        | 60   | -            | 1121                 |
| 8F - B.08-07 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 8F - B.08-06 - Bathroom               |                | -                        | 60   | -            | 255                  |
| 8F - B.08-06 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 8F - B.08-03 - Kitchen/Living         |                | -                        | 60   | -            | 1163                 |
| 8F - B.08-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 8F - B.08-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 8F - B.08-04 - Kitchen/Living         |                | -                        | 60   | -            | 1256                 |
| 8F - B.08-04 - Bedroom                |                | -                        | 60   | -            | 89                   |
| 8F - B.08-04 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 8F - B.08-02 - Kitchen/Living         |                | -                        | 60   | -            | 1360                 |
| 8F - B.08-03 - Bathroom               |                | -                        | 60   | -            | 34                   |
| 8F - B.08-03 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 8F - B.08-05 - Kitchen/Living         |                | -                        | 60   | -            | 1042                 |
| 8F - B.08-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 8F - B.08-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 8F - B.08-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 8F - B.08-05 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 8F - B.08-06 - Cupboard               |                | 30                       | -    | -            | 22                   |
| 8F - B.08-06 - Studio                 |                | -                        | 60   | -            | 162                  |
| 8F - A.08-03 - Bedroom                |                | -                        | 60   | -            | 74                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 8F - A.08-03 - Kitchen/Living         |                | -                        | 60   | -            | 1141                 |
| 8F - A.08-04 - Bathroom               |                | -                        | 60   | -            | 286                  |
| 8F - A.08-04 - Cupboard               |                | 30                       | -    | -            | 19                   |
| 8F - A.08-04 - Bedroom                |                | -                        | 60   | -            | 56                   |
| 8F - A.08-04 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 8F - A.08-04 - Bedroom                |                | -                        | 60   | -            | 83                   |
| 8F - A.08-04 - Kitchen/Living         |                | -                        | 60   | -            | 1260                 |
| 8F - A.08-06 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 8F - A.08-06 - Studio                 |                | -                        | 60   | -            | 157                  |
| 8F - A.08-06 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 8F - A.08-06 - Bathroom               |                | -                        | 60   | -            | 249                  |
| 8F - A.08-05 - Kitchen/Living         |                | -                        | 60   | -            | 1055                 |
| 8F - A.08-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 8F - A.08-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 8F - A.08-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 8F - A.08-05 - Bedroom                |                | -                        | 60   | -            | 69                   |
| 1F - C.00-08 - Kitchen/Living         |                | -                        | 60   | -            | 1116                 |
| 1F - C.00-09 - Kitchen/Living         |                | -                        | 60   | -            | 1128                 |
| 1F - A.01-03 - Bedroom                |                | -                        | 60   | -            | 80                   |
| GF - Amenity                          |                | -                        | 60   | -            | 1082                 |
| GF - Plant                            |                | 30                       | -    | -            | 426                  |
| GF - Plant                            |                | 30                       | -    | -            | 386                  |
| 9F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 9F - Stairs                           |                | -                        | 60   | -            | 101                  |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 9F - B.09-05 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 9F - B.09-05 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 9F - B.09-05 - Kitchen/Living         |                | -                        | 60   | -            | 1121                 |
| 7F - B.07-07 - Bedroom                |                | -                        | 60   | -            | 72                   |
| 9F - B.09-06 - Bathroom               |                | -                        | 60   | -            | 255                  |
| 9F - B.09-06 - Cupboard               |                | 30                       | -    | -            | 13                   |
| 9F - B.09-05 - Kitchen/Living         |                | -                        | 60   | -            | 1042                 |
| 9F - B.09-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 9F - B.09-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 9F - B.09-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 9F - B.09-05 - Bedroom                |                | -                        | 60   | -            | 72                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 9F - B.09-06 - Cupboard               |                | 30                       | -    | -            | 22                   |
| 9F - B.09-06 - Studio                 |                | -                        | 60   | -            | 162                  |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 9F - A.09-06 - Studio                 |                | -                        | 60   | -            | 157                  |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 249                  |
| 9F - A.09-05 - Kitchen/Living         |                | -                        | 60   | -            | 1055                 |
| 9F - A.09-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 9F - A.09-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 60   | -            | 69                   |
| 9F - A.09-02 - Bedroom                |                | -                        | 60   | -            | 68                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 74                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 51                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 60   | -            | 1300                 |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 20                   |
| 9F - A.09-01 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - A.09-01 - Bedroom                |                | -                        | 60   | -            | 68                   |
| 9F - A.09-01 - Kitchen/Living         |                | -                        | 60   | -            | 1101                 |
| 9F - A.09-01 - Bathroom               |                | -                        | 60   | -            | 238                  |
| 9F - A.09-01 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - A.09-02 - Cupboard               |                | 30                       | -    | -            | 10                   |
| 9F - A.09-02 - Kitchen/Living         |                | -                        | 60   | -            | 1033                 |
| 9F - A.09-02 - Bathroom               |                | -                        | 60   | -            | 227                  |
| 9F - A.09-02 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 9F - Circulation                      |                | -                        | 60   | -            | 283                  |
| 9F - B.09-02 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 9F - Circulation                      |                | -                        | 60   | -            | 273                  |
| 9F - B.09-01 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 9F - B.09-01 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - B.09-01 - Bathroom               |                | -                        | 60   | -            | 38                   |
| 9F - B.09-01 - Kitchen/Living         |                | -                        | 60   | -            | 1128                 |
| 9F - B.09-01 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - B.09-02 - Cupboard               |                | 30                       | -    | -            | 10                   |
| 9F - B.09-02 - Kitchen/Living         |                | -                        | 60   | -            | 1041                 |
| 9F - B.09-02 - Cupboard               |                | 30                       | -    | -            | 16                   |
| 9F - B.09-02 - Bathroom               |                | -                        | 60   | -            | 37                   |
| 9F - B.09-06 - Bathroom               |                | -                        | 60   | -            | 358                  |
| 9F - B.09-06 - Bedroom                |                | -                        | 60   | -            | 58                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 9F - B.09-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 9F - B.09-06 - Kitchen/Living         |                | -                        | 60   | -            | 1299                 |
| 9F - B.09-06 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - B.09-06 - Bedroom                |                | -                        | 60   | -            | 57                   |
| 9F - B.09-06 - Bedroom                |                | -                        | 60   | -            | 80                   |
| 9F - Stairs (1)                       |                | -                        | 60   | -            | 101                  |
| 10F - Circulation                     |                | -                        | 60   | -            | 156                  |
| 9F - Stairs                           |                | -                        | 60   | -            | 95                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 60   | -            | 1125                 |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 17                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 71                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 81                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 71                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 12                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 15                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 11                   |
| 9F - A.09-06 - Studio                 |                | -                        | 60   | -            | 157                  |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 249                  |
| 9F - A.09-05 - Kitchen/Living         |                | -                        | 60   | -            | 1055                 |
| 9F - A.09-05 - Bathroom               |                | -                        | 60   | -            | 243                  |
| 9F - A.09-05 - Cupboard               |                | 30                       | -    | -            | 29                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 60   | -            | 55                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 60   | -            | 69                   |
| 9F - A.09-02 - Bedroom                |                | -                        | 60   | -            | 68                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 74                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 18                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 51                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 60   | -            | 79                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 60   | -            | 1300                 |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 64                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 60   | -            | 73                   |
| 9F - A.09-06 - Cupboard               |                | 30                       | -    | -            | 20                   |
| 9F - A.09-01 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - A.09-01 - Bedroom                |                | -                        | 60   | -            | 68                   |
| 9F - A.09-01 - Kitchen/Living         |                | -                        | 60   | -            | 1101                 |
| 9F - A.09-01 - Bathroom               |                | -                        | 60   | -            | 238                  |
| 9F - A.09-01 - Cupboard               |                | 30                       | -    | -            | 14                   |
| 9F - A.09-02 - Cupboard               |                | 30                       | -    | -            | 10                   |
| 9F - A.09-02 - Kitchen/Living         |                | -                        | 60   | -            | 1033                 |
| 9F - A.09-02 - Bathroom               |                | -                        | 60   | -            | 227                  |
| 9F - A.09-02 - Cupboard               |                | 30                       | -    | -            | 15                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              |
|---------------------------------------|----------------|--------------------------|------|--------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |
|                                       | Standard value | 60                       | 60   | 22           |
| 9F - Circulation                      |                | -                        | 60   | -            |
|                                       |                |                          |      | 283          |

### Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| GF - Commercial        | NO (-47.5%)                    | NO                    |
| 1F - C.00-06 - Bedroom | NO (-62.5%)                    | NO                    |
| 1F - C.00-06 - Bedroom | NO (-53.4%)                    | NO                    |
| 1F - C.00-06 - Bedroom | NO (-70.7%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-75.9%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-69.8%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-77.1%)                    | NO                    |
| 1F - C.00-07 - Bedroom | NO (-66.3%)                    | NO                    |
| 1F - C.00-07 - Bedroom | NO (-61.1%)                    | NO                    |
| 1F - C.00-08 - Bedroom | NO (-54.5%)                    | NO                    |
| 1F - C.00-08 - Bedroom | NO (-56.4%)                    | NO                    |
| 1F - C.00-09 - Bedroom | NO (-59.4%)                    | NO                    |
| 1F - C.00-09 - Bedroom | NO (-43.5%)                    | NO                    |
| 1F - A.01-02 - Bedroom | NO (-45.7%)                    | NO                    |
| 1F - A.01-02 - Bedroom | NO (-43.3%)                    | NO                    |
| 1F - A.01-01 - Bedroom | NO (-58.7%)                    | NO                    |
| 1F - A.01-01 - Bedroom | NO (-47.6%)                    | NO                    |
| 1F - A.01-01 - Bedroom | NO (-56.9%)                    | NO                    |
| 1F - C.00-01 - Bedroom | NO (-63%)                      | NO                    |
| 1F - C.00-01 - Bedroom | NO (-74.2%)                    | NO                    |
| 1F - C.00-02 - Bedroom | NO (-79.4%)                    | NO                    |
| 1F - C.00-02 - Bedroom | NO (-63.5%)                    | NO                    |
| 1F - C.00-03 - Bedroom | NO (-64.5%)                    | NO                    |
| 1F - C.00-03 - Bedroom | NO (-79.7%)                    | NO                    |
| 1F - C.00-04 - Bedroom | NO (-70.3%)                    | NO                    |
| 1F - C.00-04 - Bedroom | NO (-75.9%)                    | NO                    |
| GF - C.00-07 - Bedroom | NO (-68.6%)                    | NO                    |
| GF - C.00-09 - Bedroom | NO (-65.1%)                    | NO                    |
| GF - C.00-08 - Bedroom | NO (-49.1%)                    | NO                    |
| GF - C.00-04 - Bedroom | NO (-71.6%)                    | NO                    |
| GF - C.00-03 - Bedroom | NO (-74.1%)                    | NO                    |
| GF - C.00-02 - Bedroom | NO (-75%)                      | NO                    |
| GF - C.00-01 - Bedroom | NO (-71.9%)                    | NO                    |
| 2F - A.02-06 - Bedroom | NO (-45.7%)                    | NO                    |
| 2F - A.02-06 - Bedroom | NO (-43.3%)                    | NO                    |
| 2F - A.02-05 - Bedroom | NO (-58.7%)                    | NO                    |
| 2F - A.02-05 - Bedroom | NO (-47.6%)                    | NO                    |
| 2F - A.02-05 - Bedroom | NO (-56.5%)                    | NO                    |
| 2F - A.02-02 - Bedroom | NO (-64.2%)                    | NO                    |

| Zone                    | Solar gain limit exceeded? (%) | Internal blinds used? |
|-------------------------|--------------------------------|-----------------------|
| 2F - A.02-02 - Bedroom  | NO (-66.3%)                    | NO                    |
| 2F - B.02-02 - Bedroom  | NO (-67.7%)                    | NO                    |
| 2F - B.02-02 - Bedroom  | NO (-66.4%)                    | NO                    |
| 2F - B.02-02 - Bedroom  | NO (-58%)                      | NO                    |
| 2F - B.02-03 - Bedroom  | NO (-73.4%)                    | NO                    |
| 2F - B.02-04 - Bedroom  | NO (-49.3%)                    | NO                    |
| 2F - B.02-04 - Bedroom  | NO (-48.7%)                    | NO                    |
| 2F - B.02-04 - Bedroom  | NO (-55.4%)                    | NO                    |
| 2F - B.02-05 - Bedroom  | NO (-52.2%)                    | NO                    |
| 2F - B.02-05 - Bedroom  | NO (-61.1%)                    | NO                    |
| 2F - B.02-05 - Bedroom  | NO (-59%)                      | NO                    |
| 2F - B.02-06 - Bedroom  | NO (-66.2%)                    | NO                    |
| 2F - A.02-02 - Bedroom  | NO (-60.1%)                    | NO                    |
| 2F - A.02-03 - Bedroom  | NO (-75.7%)                    | NO                    |
| 2F - A.02-04 - Bedroom  | NO (-57.3%)                    | NO                    |
| 2F - A.02-04 - Bedroom  | NO (-70.2%)                    | NO                    |
| 2F - A.02-04 - Bedroom  | NO (-39.6%)                    | NO                    |
| 2F - B.02-01 - Bedroom  | NO (-83.5%)                    | NO                    |
| 2F - A.02-01 - Bedroom  | NO (-80.4%)                    | NO                    |
| 3F - A.03-06 - Bedroom  | NO (-45.7%)                    | NO                    |
| 3F - A.03-06 - Bedroom  | NO (-43.3%)                    | NO                    |
| 3F - A.03-05 - Bedroom  | NO (-58.7%)                    | NO                    |
| 3F - A.03-05 - Bedroom  | NO (-47.6%)                    | NO                    |
| 3F - A.03-05 - Bedroom  | NO (-56.5%)                    | NO                    |
| 3F - A.03-02 - Bedroom  | NO (-64.2%)                    | NO                    |
| 3F - A.03-02 - Bedroom  | NO (-66.3%)                    | NO                    |
| 3F - B.03-02 - Bedroom  | NO (-67.7%)                    | NO                    |
| 3F - B.03-02 - Bedroom  | NO (-66.4%)                    | NO                    |
| 3F - B.03-04 - Bedroom  | NO (-53.2%)                    | NO                    |
| 3F - B.03-04 - Bedroom  | NO (-48.8%)                    | NO                    |
| 3F - B.03-04 - Bedroom  | NO (-55.4%)                    | NO                    |
| 3F - B.03-05 - Bedroom  | NO (-52.2%)                    | NO                    |
| 3F - B.03-05 - Bedroom  | NO (-61.1%)                    | NO                    |
| 3F - B.03-05 - Bedroom  | NO (-59%)                      | NO                    |
| 3F - B.03-06 - Bedroom  | NO (-66.2%)                    | NO                    |
| 3F - A.03-04 - Bedroom  | NO (-57.3%)                    | NO                    |
| 3F - A.03-04 - Bedroom  | NO (-70.3%)                    | NO                    |
| 3F - A.03-04 - Bedroom  | NO (-41.8%)                    | NO                    |
| 3F - B.03-01 - Bedroom  | NO (-82.8%)                    | NO                    |
| 3F - A.03-01 - Bedroom  | NO (-79.8%)                    | NO                    |
| 2F - B.02-07 - Bedroom  | NO (-79.4%)                    | NO                    |
| 3F - B.03-07 - Bedroom  | NO (-78.5%)                    | NO                    |
| 3F - B.03-03 - Bedroom  | NO (-69.9%)                    | NO                    |
| 3F - B.03-03 - Bedroom  | NO (-63.9%)                    | NO                    |
| 3F - B.03-03 - Bedroom  | N/A                            | N/A                   |
| 3F - A.03-03 - Bedroom  | NO (-72.6%)                    | NO                    |
| 3F - A.03-03 - Bathroom | N/A                            | N/A                   |
| 3F - A.03-03 - Bedroom  | N/A                            | N/A                   |
| 3F - A.03-03 - Bedroom  | NO (-69.1%)                    | NO                    |

| Zone                    | Solar gain limit exceeded? (%) | Internal blinds used? |
|-------------------------|--------------------------------|-----------------------|
| 4F - A.04-06 - Bedroom  | NO (-45.7%)                    | NO                    |
| 4F - A.04-06 - Bedroom  | NO (-43.3%)                    | NO                    |
| 4F - A.04-02 - Bedroom  | NO (-64.2%)                    | NO                    |
| 4F - A.04-02 - Bedroom  | NO (-66.3%)                    | NO                    |
| 4F - B.04-02 - Bedroom  | NO (-67.7%)                    | NO                    |
| 4F - B.04-02 - Bedroom  | NO (-66.4%)                    | NO                    |
| 4F - B.04-01 - Bedroom  | NO (-82.3%)                    | NO                    |
| 4F - A.04-01 - Bedroom  | NO (-79.2%)                    | NO                    |
| 4F - B.04-08 - Bedroom  | NO (-77.4%)                    | NO                    |
| 4F - A.04-07 - Bedroom  | NO (-69.3%)                    | NO                    |
| 4F - B.04-03 - Bedroom  | NO (-69.9%)                    | NO                    |
| 4F - A.04-03 - Bedroom  | NO (-72.6%)                    | NO                    |
| 4F - A.04-03 - Bathroom | N/A                            | N/A                   |
| 4F - A.04-03 - Bedroom  | N/A                            | N/A                   |
| 4F - B.04-04 - Bedroom  | NO (-54%)                      | NO                    |
| 4F - B.04-07 - Bedroom  | NO (-66.2%)                    | NO                    |
| 4F - B.04-04 - Bedroom  | NO (-56.5%)                    | NO                    |
| 4F - B.04-03 - Bathroom | N/A                            | N/A                   |
| 4F - B.04-03 - Bedroom  | NO (-66.7%)                    | NO                    |
| 4F - B.04-05 - Bedroom  | NO (-56.5%)                    | NO                    |
| 4F - B.04-05 - Bedroom  | NO (-64.4%)                    | NO                    |
| 4F - B.04-06 - Studio   | NO (-58.8%)                    | NO                    |
| 4F - A.04-03 - Bedroom  | NO (-69.1%)                    | NO                    |
| 4F - A.04-04 - Bedroom  | NO (-56%)                      | NO                    |
| 4F - A.04-04 - Bedroom  | NO (-78.2%)                    | NO                    |
| 4F - A.04-06 - Studio   | NO (-55.6%)                    | NO                    |
| 4F - A.04-05 - Bedroom  | NO (-73.2%)                    | NO                    |
| 4F - A.04-05 - Bedroom  | NO (-61.1%)                    | NO                    |
| 5F - A.05-06 - Bedroom  | NO (-45.7%)                    | NO                    |
| 5F - A.05-06 - Bedroom  | NO (-43.3%)                    | NO                    |
| 5F - A.05-02 - Bedroom  | NO (-64.2%)                    | NO                    |
| 5F - A.05-02 - Bedroom  | NO (-66.3%)                    | NO                    |
| 5F - B.05-02 - Bedroom  | NO (-67.7%)                    | NO                    |
| 5F - B.05-02 - Bedroom  | NO (-66.3%)                    | NO                    |
| 5F - B.05-01 - Bedroom  | NO (-82%)                      | NO                    |
| 5F - A.05-01 - Bedroom  | NO (-79.2%)                    | NO                    |
| 5F - B.05-08 - Bedroom  | NO (-76.2%)                    | NO                    |
| 5F - A.05-08 - Bedroom  | NO (-68.6%)                    | NO                    |
| 5F - B.05-03 - Bedroom  | NO (-69.9%)                    | NO                    |
| 5F - A.05-03 - Bedroom  | NO (-72.6%)                    | NO                    |
| 5F - A.05-03 - Bathroom | N/A                            | N/A                   |
| 5F - A.05-03 - Bedroom  | N/A                            | N/A                   |
| 5F - B.05-04 - Bedroom  | NO (-54%)                      | NO                    |
| 5F - B.05-07 - Bedroom  | NO (-66.2%)                    | NO                    |
| 5F - B.05-04 - Bedroom  | NO (-56.5%)                    | NO                    |
| 5F - B.05-03 - Bathroom | N/A                            | N/A                   |
| 5F - B.05-03 - Bedroom  | NO (-66.7%)                    | NO                    |
| 5F - B.05-05 - Bedroom  | NO (-56.5%)                    | NO                    |
| 5F - B.05-05 - Bedroom  | NO (-64.4%)                    | NO                    |

| Zone                    | Solar gain limit exceeded? (%) | Internal blinds used? |
|-------------------------|--------------------------------|-----------------------|
| 5F - B.05-06 - Studio   | NO (-58.8%)                    | NO                    |
| 5F - A.05-03 - Bedroom  | NO (-69.1%)                    | NO                    |
| 5F - A.05-04 - Bedroom  | NO (-56%)                      | NO                    |
| 5F - A.05-04 - Bedroom  | NO (-78.2%)                    | NO                    |
| 5F - A.05-06 - Studio   | NO (-55.6%)                    | NO                    |
| 5F - A.05-05 - Bedroom  | NO (-73.2%)                    | NO                    |
| 5F - A.05-05 - Bedroom  | NO (-61.1%)                    | NO                    |
| 6F - A.06-06 - Bedroom  | NO (-45.7%)                    | NO                    |
| 6F - A.06-06 - Bedroom  | NO (-43.2%)                    | NO                    |
| 6F - A.06-02 - Bedroom  | NO (-64.1%)                    | NO                    |
| 6F - A.06-02 - Bedroom  | NO (-66.2%)                    | NO                    |
| 6F - B.06-02 - Bedroom  | NO (-67.7%)                    | NO                    |
| 6F - B.06-02 - Bedroom  | NO (-66.2%)                    | NO                    |
| 6F - B.06-01 - Bedroom  | NO (-81.4%)                    | NO                    |
| 6F - A.06-01 - Bedroom  | NO (-78.2%)                    | NO                    |
| 6F - B.06-08 - Bedroom  | NO (-73.9%)                    | NO                    |
| 6F - A.06-08 - Bedroom  | NO (-68%)                      | NO                    |
| 4F - B.04-03 - Bedroom  | NO (-69.9%)                    | NO                    |
| 6F - A.06-03 - Bedroom  | NO (-72.6%)                    | NO                    |
| 6F - A.06-03 - Bathroom | N/A                            | N/A                   |
| 6F - A.06-03 - Bedroom  | N/A                            | N/A                   |
| 6F - B.06-04 - Bedroom  | NO (-54%)                      | NO                    |
| 6F - B.06-07 - Bedroom  | NO (-66.2%)                    | NO                    |
| 6F - B.06-04 - Bedroom  | NO (-56.5%)                    | NO                    |
| 4F - B.04-03 - Bathroom | N/A                            | N/A                   |
| 4F - B.04-03 - Bedroom  | NO (-66.7%)                    | NO                    |
| 6F - B.06-05 - Bedroom  | NO (-56.5%)                    | NO                    |
| 6F - B.06-05 - Bedroom  | NO (-64.4%)                    | NO                    |
| 6F - B.06-06 - Studio   | NO (-58.8%)                    | NO                    |
| 6F - A.06-03 - Bedroom  | NO (-69.1%)                    | NO                    |
| 6F - A.06-04 - Bedroom  | NO (-56%)                      | NO                    |
| 6F - A.06-04 - Bedroom  | NO (-78.2%)                    | NO                    |
| 6F - A.06-06 - Studio   | NO (-55.6%)                    | NO                    |
| 6F - A.06-05 - Bedroom  | NO (-73.2%)                    | NO                    |
| 6F - A.06-05 - Bedroom  | NO (-61.1%)                    | NO                    |
| 7F - A.07-06 - Bedroom  | NO (-45.7%)                    | NO                    |
| 7F - A.07-06 - Bedroom  | NO (-43.2%)                    | NO                    |
| 7F - A.07-02 - Bedroom  | NO (-63.7%)                    | NO                    |
| 7F - A.07-02 - Bedroom  | NO (-65.5%)                    | NO                    |
| 7F - B.07-02 - Bedroom  | NO (-67.4%)                    | NO                    |
| 7F - B.07-02 - Bedroom  | NO (-65.5%)                    | NO                    |
| 7F - B.07-01 - Bedroom  | NO (-80.6%)                    | NO                    |
| 7F - A.07-01 - Bedroom  | NO (-76.4%)                    | NO                    |
| 7F - B.07-08 - Bedroom  | NO (-71%)                      | NO                    |
| 7F - A.07-08 - Bedroom  | NO (-66.9%)                    | NO                    |
| 7F - B.07-03 - Bedroom  | NO (-70%)                      | NO                    |
| 7F - A.07-03 - Bedroom  | NO (-73%)                      | NO                    |
| 7F - A.07-03 - Bathroom | N/A                            | N/A                   |
| 7F - A.07-03 - Bedroom  | N/A                            | N/A                   |

| Zone                    | Solar gain limit exceeded? (%) | Internal blinds used? |
|-------------------------|--------------------------------|-----------------------|
| 7F - B.07-04 - Bedroom  | NO (-53.8%)                    | NO                    |
| 7F - B.07-07 - Bedroom  | NO (-66.2%)                    | NO                    |
| 7F - B.07-04 - Bedroom  | NO (-56.4%)                    | NO                    |
| 7F - B.07-03 - Bathroom | N/A                            | N/A                   |
| 7F - B.07-03 - Bedroom  | NO (-66.8%)                    | NO                    |
| 7F - B.07-05 - Bedroom  | NO (-56.5%)                    | NO                    |
| 7F - B.07-05 - Bedroom  | NO (-64.4%)                    | NO                    |
| 7F - B.07-06 - Studio   | NO (-58.8%)                    | NO                    |
| 7F - A.07-03 - Bedroom  | NO (-69.5%)                    | NO                    |
| 7F - A.07-04 - Bedroom  | NO (-56%)                      | NO                    |
| 7F - A.07-04 - Bedroom  | NO (-78.1%)                    | NO                    |
| 7F - A.07-06 - Studio   | NO (-55.6%)                    | NO                    |
| 7F - A.07-05 - Bedroom  | NO (-73.2%)                    | NO                    |
| 7F - A.07-05 - Bedroom  | NO (-61.1%)                    | NO                    |
| 8F - A.08-06 - Bedroom  | NO (-45.6%)                    | NO                    |
| 8F - A.08-06 - Bedroom  | NO (-43.1%)                    | NO                    |
| 8F - A.08-02 - Bedroom  | NO (-23.4%)                    | NO                    |
| 8F - A.08-02 - Bedroom  | NO (-29.9%)                    | NO                    |
| 8F - B.08-02 - Bedroom  | NO (-30.7%)                    | NO                    |
| 8F - B.08-02 - Bedroom  | NO (-25.8%)                    | NO                    |
| 8F - B.08-01 - Bedroom  | N/A                            | N/A                   |
| 8F - A.08-01 - Bedroom  | NO (-60.8%)                    | NO                    |
| 8F - B.08-08 - Bedroom  | NO (-67.4%)                    | NO                    |
| 8F - A.08-08 - Bedroom  | NO (-64.5%)                    | NO                    |
| 8F - B.08-03 - Bedroom  | NO (-56.6%)                    | NO                    |
| 8F - A.08-03 - Bedroom  | NO (-62.5%)                    | NO                    |
| 8F - A.08-03 - Bathroom | N/A                            | N/A                   |
| 8F - A.08-03 - Bedroom  | N/A                            | N/A                   |
| 8F - B.08-04 - Bedroom  | NO (-53.3%)                    | NO                    |
| 8F - B.08-07 - Bedroom  | NO (-65.9%)                    | NO                    |
| 8F - B.08-04 - Bedroom  | NO (-55.8%)                    | NO                    |
| 8F - B.08-03 - Bathroom | N/A                            | N/A                   |
| 8F - B.08-03 - Bedroom  | NO (-50.6%)                    | NO                    |
| 8F - B.08-05 - Bedroom  | NO (-56.4%)                    | NO                    |
| 8F - B.08-05 - Bedroom  | NO (-63.9%)                    | NO                    |
| 8F - B.08-06 - Studio   | NO (-58.6%)                    | NO                    |
| 8F - A.08-03 - Bedroom  | NO (-56.6%)                    | NO                    |
| 8F - A.08-04 - Bedroom  | NO (-55.9%)                    | NO                    |
| 8F - A.08-04 - Bedroom  | NO (-78%)                      | NO                    |
| 8F - A.08-06 - Studio   | NO (-55.6%)                    | NO                    |
| 8F - A.08-05 - Bedroom  | NO (-73.2%)                    | NO                    |
| 8F - A.08-05 - Bedroom  | NO (-61.1%)                    | NO                    |
| 1F - A.01-03 - Bedroom  | NO (-70%)                      | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-45.2%)                    | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-43%)                      | NO                    |
| 7F - B.07-07 - Bedroom  | NO (-64.9%)                    | NO                    |
| 9F - B.09-05 - Bedroom  | NO (-33.1%)                    | NO                    |
| 9F - B.09-05 - Bedroom  | NO (-48.2%)                    | NO                    |
| 9F - B.09-06 - Studio   | NO (-41.3%)                    | NO                    |

| Zone                    | Solar gain limit exceeded? (%) | Internal blinds used? |
|-------------------------|--------------------------------|-----------------------|
| 9F - A.09-06 - Studio   | NO (-55.5%)                    | NO                    |
| 9F - A.09-05 - Bedroom  | NO (-73.1%)                    | NO                    |
| 9F - A.09-05 - Bedroom  | NO (-60.7%)                    | NO                    |
| 9F - A.09-02 - Bedroom  | NO (-80.4%)                    | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-55.2%)                    | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-35%)                      | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-73.3%)                    | NO                    |
| 9F - A.09-01 - Bedroom  | NO (-50.3%)                    | NO                    |
| 9F - B.09-02 - Bedroom  | NO (-46.7%)                    | NO                    |
| 9F - B.09-01 - Bedroom  | NO (-42%)                      | NO                    |
| 9F - B.09-01 - Bathroom | N/A                            | N/A                   |
| 9F - B.09-02 - Bathroom | N/A                            | N/A                   |
| 9F - B.09-06 - Bedroom  | NO (-33.2%)                    | NO                    |
| 9F - B.09-06 - Bedroom  | NO (-55.4%)                    | NO                    |
| 9F - B.09-06 - Bedroom  | NO (-70.4%)                    | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-44.4%)                    | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-42.8%)                    | NO                    |
| 9F - A.09-06 - Studio   | NO (-29.3%)                    | NO                    |
| 9F - A.09-05 - Bedroom  | NO (-54.7%)                    | NO                    |
| 9F - A.09-05 - Bedroom  | NO (-36.7%)                    | NO                    |
| 9F - A.09-02 - Bedroom  | NO (-77.1%)                    | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-53.7%)                    | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-32.1%)                    | NO                    |
| 9F - A.09-06 - Bedroom  | NO (-72.1%)                    | NO                    |
| 9F - A.09-01 - Bedroom  | NO (-47.7%)                    | NO                    |

#### Criterion 4: The performance of the building, as built, should be consistent with the calculated BER

Separate submission

#### Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

#### EPBD (Recast): Consideration of alternative energy systems

|                                                                                        |     |
|----------------------------------------------------------------------------------------|-----|
| Were alternative energy systems considered and analysed as part of the design process? | YES |
| Is evidence of such assessment available as a separate submission?                     | YES |
| Are any such measures included in the proposed design?                                 | YES |

# Technical Data Sheet (Actual vs. Notional Building)

## Building Global Parameters

|                                                       | Actual  | Notional |
|-------------------------------------------------------|---------|----------|
| Area [m <sup>2</sup> ]                                | 11998.3 | 11998.3  |
| External area [m <sup>2</sup> ]                       | 9293.5  | 9293.5   |
| Weather                                               | LON     | LON      |
| Infiltration [m <sup>3</sup> /hm <sup>2</sup> @ 50Pa] | 10      | 3        |
| Average conductance [W/K]                             | 7208.7  | 5509.61  |
| Average U-value [W/m <sup>2</sup> K]                  | 0.78    | 0.59     |
| Alpha value* [%]                                      | 10.52   | 10       |

\* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

## Building Use

| % Area    | Building Type                                                      |
|-----------|--------------------------------------------------------------------|
|           | A1/A2 Retail/Financial and Professional services                   |
| <b>3</b>  | <b>A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways</b>      |
|           | B1 Offices and Workshop businesses                                 |
|           | B2 to B7 General Industrial and Special Industrial Groups          |
|           | B8 Storage or Distribution                                         |
|           | C1 Hotels                                                          |
|           | C2 Residential Institutions: Hospitals and Care Homes              |
|           | C2 Residential Institutions: Residential schools                   |
| <b>97</b> | <b>C2 Residential Institutions: Universities and colleges</b>      |
|           | C2A Secure Residential Institutions                                |
|           | Residential spaces                                                 |
|           | D1 Non-residential Institutions: Community/Day Centre              |
|           | D1 Non-residential Institutions: Libraries, Museums, and Galleries |
|           | D1 Non-residential Institutions: Education                         |
|           | D1 Non-residential Institutions: Primary Health Care Building      |
|           | D1 Non-residential Institutions: Crown and County Courts           |
|           | D2 General Assembly and Leisure, Night Clubs, and Theatres         |
|           | Others: Passenger terminals                                        |
|           | Others: Emergency services                                         |
|           | Others: Miscellaneous 24hr activities                              |
|           | Others: Car Parks 24 hrs                                           |
|           | Others: Stand alone utility block                                  |

## Energy Consumption by End Use [kWh/m<sup>2</sup>]

|                | Actual        | Notional      |
|----------------|---------------|---------------|
| Heating        | 40.08         | 33.54         |
| Cooling        | 7.46          | 0.84          |
| Auxiliary      | 4.24          | 1.89          |
| Lighting       | 49.99         | 19.45         |
| Hot water      | 106.58        | 69.91         |
| Equipment*     | 67.11         | 67.11         |
| <b>TOTAL**</b> | <b>208.35</b> | <b>125.62</b> |

\* Energy used by equipment does not count towards the total for consumption or calculating emissions.

\*\* Total is net of any electrical energy displaced by CHP generators, if applicable.

## Energy Production by Technology [kWh/m<sup>2</sup>]

|                       | Actual | Notional |
|-----------------------|--------|----------|
| Photovoltaic systems  | 0      | 0        |
| Wind turbines         | 0      | 0        |
| CHP generators        | 0      | 0        |
| Solar thermal systems | 0      | 0        |

## Energy & CO<sub>2</sub> Emissions Summary

|                                               | Actual | Notional |
|-----------------------------------------------|--------|----------|
| Heating + cooling demand [MJ/m <sup>2</sup> ] | 124.26 | 115.88   |
| Primary energy* [kWh/m <sup>2</sup> ]         | 368.54 | 192.86   |
| Total emissions [kg/m <sup>2</sup> ]          | 63.7   | 33.6     |

\* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

| HVAC Systems Performance                                                                                     |                   |                   |                    |                    |                   |               |               |                  |                  |  |
|--------------------------------------------------------------------------------------------------------------|-------------------|-------------------|--------------------|--------------------|-------------------|---------------|---------------|------------------|------------------|--|
| System Type                                                                                                  | Heat dem<br>MJ/m2 | Cool dem<br>MJ/m2 | Heat con<br>kWh/m2 | Cool con<br>kWh/m2 | Aux con<br>kWh/m2 | Heat<br>SSEFF | Cool<br>SSEER | Heat gen<br>SEFF | Cool gen<br>SEER |  |
| [ST] Split or multi-split system, [HS] Heat pump (gas/oil): air source, [HFT] Natural Gas, [CFT] Electricity |                   |                   |                    |                    |                   |               |               |                  |                  |  |
| Actual                                                                                                       | 14.6              | 564.1             | 5.4                | 220.7              | 0                 | 0.75          | 0.71          | 0.8              | 1                |  |
| Notional                                                                                                     | 31.3              | 337.7             | 6.6                | 24.8               | 0                 | 1.33          | 3.79          | ----             | ----             |  |
| [ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity          |                   |                   |                    |                    |                   |               |               |                  |                  |  |
| Actual                                                                                                       | 84.1              | 0                 | 32                 | 0                  | 5.3               | 0.73          | 0             | 0.81             | 0                |  |
| Notional                                                                                                     | 95.3              | 0                 | 30.7               | 0                  | 2.5               | 0.86          | 0             | ----             | ----             |  |
| [ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity          |                   |                   |                    |                    |                   |               |               |                  |                  |  |
| Actual                                                                                                       | 154.9             | 0                 | 59                 | 0                  | 3.1               | 0.73          | 0             | 0.81             | 0                |  |
| Notional                                                                                                     | 136.2             | 0                 | 43.9               | 0                  | 1.5               | 0.86          | 0             | ----             | ----             |  |
| [ST] No Heating or Cooling                                                                                   |                   |                   |                    |                    |                   |               |               |                  |                  |  |
| Actual                                                                                                       | 0                 | 0                 | 0                  | 0                  | 0                 | 0             | 0             | 0                | 0                |  |
| Notional                                                                                                     | 0                 | 0                 | 0                  | 0                  | 0                 | 0             | 0             | ----             | ----             |  |

## Key to terms

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| Heat dem [MJ/m2]  | = Heating energy demand                                                                               |
| Cool dem [MJ/m2]  | = Cooling energy demand                                                                               |
| Heat con [kWh/m2] | = Heating energy consumption                                                                          |
| Cool con [kWh/m2] | = Cooling energy consumption                                                                          |
| Aux con [kWh/m2]  | = Auxiliary energy consumption                                                                        |
| Heat SSEFF        | = Heating system seasonal efficiency (for notional building, value depends on activity glazing class) |
| Cool SSEER        | = Cooling system seasonal energy efficiency ratio                                                     |
| Heat gen SSEFF    | = Heating generator seasonal efficiency                                                               |
| Cool gen SSEER    | = Cooling generator seasonal energy efficiency ratio                                                  |
| ST                | = System type                                                                                         |
| HS                | = Heat source                                                                                         |
| HFT               | = Heating fuel type                                                                                   |
| CFT               | = Cooling fuel type                                                                                   |

# Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

## Building fabric

| Element                                                                  | U <sub>i-Typ</sub> | U <sub>i-Min</sub>                                                 | Surface where the minimum value occurs*  |
|--------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------|------------------------------------------|
| Wall                                                                     | 0.23               | 0.35                                                               | RM000002:Surf[1]                         |
| Floor                                                                    | 0.2                | 0.25                                                               | RM000002:Surf[0]                         |
| Roof                                                                     | 0.15               | 0.25                                                               | RM000006:Surf[1]                         |
| Windows, roof windows, and rooflights                                    | 1.5                | 2.2                                                                | RM000002:Surf[2]                         |
| Personnel doors                                                          | 1.5                | 2.2                                                                | RM000006:Surf[3]                         |
| Vehicle access & similar large doors                                     | 1.5                | -                                                                  | No Vehicle access doors in building      |
| High usage entrance doors                                                | 1.5                | -                                                                  | No High usage entrance doors in building |
| U <sub>i-Typ</sub> = Typical individual element U-values [W/(m²K)]       |                    | U <sub>i-Min</sub> = Minimum individual element U-values [W/(m²K)] |                                          |
| * There might be more than one surface where the minimum U-value occurs. |                    |                                                                    |                                          |

| Air Permeability   | Typical value | This building |
|--------------------|---------------|---------------|
| m³/(h.m²) at 50 Pa | 5             | 10            |

## Appendix B

### BRUKL – Be Lean Model

## Project name

**L19091 Veneer Building - London****As designed****Date:** Mon Oct 28 15:24:44 2019**Administrative information****Building Details****Address:** Address 1, London, Postcode**Certification tool****Calculation engine:** Apache**Calculation engine version:** 7.0.12**Interface to calculation engine:** IES Virtual Environment**Interface to calculation engine version:** 7.0.12**BRUKL compliance check version:** v5.6.a.1**Owner Details****Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode**Certifier details****Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode**Criterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target****The building does not comply with England Building Regulations Part L 2013**

|                                                                                                    |                     |
|----------------------------------------------------------------------------------------------------|---------------------|
| CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum | 34.2                |
| Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum               | 34.2                |
| Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum             | 39.6                |
| Are emissions from the building less than or equal to the target?                                  | <b>BER &gt; TER</b> |
| Are as built details the same as used in the BER calculations?                                     | Separate submission |

**Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency****Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.****Building fabric**

| Element                                                                                                                                                                                                                                                                                                                                                                                                                                      | U <sub>a</sub> -Limit | U <sub>a</sub> -Calc | U <sub>i</sub> -Calc | Surface where the maximum value occurs*  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------|----------------------|------------------------------------------|
| Wall**                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.35                  | 0.12                 | 0.12                 | RM000002:Surf[1]                         |
| Floor                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.25                  | 0.13                 | 0.13                 | RM000002:Surf[0]                         |
| Roof                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.25                  | 0.11                 | 0.11                 | RM000006:Surf[1]                         |
| Windows***, roof windows, and rooflights                                                                                                                                                                                                                                                                                                                                                                                                     | 2.2                   | 1.2                  | 1.2                  | RM000002:Surf[2]                         |
| Personnel doors                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.2                   | 2.2                  | 2.2                  | RM000006:Surf[3]                         |
| Vehicle access & similar large doors                                                                                                                                                                                                                                                                                                                                                                                                         | 1.5                   | -                    | -                    | No Vehicle access doors in building      |
| High usage entrance doors                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.5                   | -                    | -                    | No High usage entrance doors in building |
| U <sub>a</sub> -Limit = Limiting area-weighted average U-values [W/(m <sup>2</sup> K)]<br>U <sub>a</sub> -Calc = Calculated area-weighted average U-values [W/(m <sup>2</sup> K)]<br>U <sub>i</sub> -Calc = Calculated maximum individual element U-values [W/(m <sup>2</sup> K)]                                                                                                                                                            |                       |                      |                      |                                          |
| * There might be more than one surface where the maximum U-value occurs.<br>** Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.<br>*** Display windows and similar glazing are excluded from the U-value check.<br>N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool. |                       |                      |                      |                                          |

| Air Permeability                             | Worst acceptable standard | This building |
|----------------------------------------------|---------------------------|---------------|
| m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa | 10                        | 3             |

## Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

|                                                                                              |       |
|----------------------------------------------------------------------------------------------|-------|
| Whole building lighting automatic monitoring & targeting with alarms for out-of-range values | YES   |
| Whole building electric power factor achieved by power factor correction                     | >0.95 |

### 1- Boiler Heating & Natural Vent - Efficient

|                                                                                                                                                                                                                                                   | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| This system                                                                                                                                                                                                                                       | 0.91               | -                  | 0                  | 0             | -             |
| Standard value                                                                                                                                                                                                                                    | 0.91*              | N/A                | N/A                | N/A           | N/A           |
| Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system                                                                                                                                                         |                    |                    |                    |               | YES           |
| * Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82. |                    |                    |                    |               |               |

### 2- Boiler Heating & Extract Only - Efficient

|                                                                                                                                                                                                                                                   | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| This system                                                                                                                                                                                                                                       | 0.91               | -                  | 0                  | 0             | -             |
| Standard value                                                                                                                                                                                                                                    | 0.91*              | N/A                | N/A                | N/A           | N/A           |
| Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system                                                                                                                                                         |                    |                    |                    |               | YES           |
| * Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82. |                    |                    |                    |               |               |

### 3- Boiler Heating & MVHR - Efficient

|                                                                                                                                                                                                                                                   | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| This system                                                                                                                                                                                                                                       | 0.91               | -                  | 0                  | 0             | 0.95          |
| Standard value                                                                                                                                                                                                                                    | 0.91*              | N/A                | N/A                | N/A           | 0.5           |
| Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system                                                                                                                                                         |                    |                    |                    |               | YES           |
| * Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82. |                    |                    |                    |               |               |

### 4- SPLIT HEATING & MVHR - Restaurant

|                                                                                                                                                                   | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| This system                                                                                                                                                       | 3                  | 3.5                | 0                  | 0             | 0.95          |
| Standard value                                                                                                                                                    | 2.5*               | 3.2                | N/A                | N/A           | 0.5           |
| Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system                                                                         |                    |                    |                    |               | YES           |
| * Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards. |                    |                    |                    |               |               |

"No HWS in project, or hot water is provided by HVAC system"

### Local mechanical ventilation, exhaust, and terminal units

| ID | System type in Non-domestic Building Services Compliance Guide                                          |
|----|---------------------------------------------------------------------------------------------------------|
| A  | Local supply or extract ventilation units serving a single area                                         |
| B  | Zonal supply system where the fan is remote from the zone                                               |
| C  | Zonal extract system where the fan is remote from the zone                                              |
| D  | Zonal supply and extract ventilation units serving a single room or zone with heating and heat recovery |
| E  | Local supply and extract ventilation system serving a single area with heating and heat recovery        |
| F  | Other local ventilation units                                                                           |
| G  | Fan-assisted terminal VAV unit                                                                          |
| H  | Fan coil units                                                                                          |
| I  | Zonal extract system where the fan is remote from the zone with grease filter                           |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 1F - C.00-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-09 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-09 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 2F - A.02-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 3F - B.03-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 3F - B.03-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - B.03-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 2F - B.02-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - B.03-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - B.03-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 3F - B.03-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 2F - B.02-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 2F - A.02-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - B.03-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 3F - A.03-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |               |          |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone          | Standard |
| 4F - B.04-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 5F - B.05-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 6F - A.06-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 8F - A.08-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - B.08-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 1F - C.00-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 1F - C.00-09 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)]     |     |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
|                               | ID of system type | A   | B   | C   | D   | E   | F   | G   | H   | I |               |          |
|                               | Standard value    | 0.3 | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone          | Standard |
| 9F - B.09-05 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Studio         |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Studio         |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-01 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-01 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-02 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-02 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-01 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-01 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-02 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-02 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Studio         |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-01 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-01 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-02 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-02 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| GF - Commercial               |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| GF - Substation                       |                | 90                       | -    | -            | 89                   |
| GF - Stairs                           |                | -                        | 90   | -            | 46                   |
| GF - Circulation                      |                | -                        | 90   | -            | 66                   |
| GF - Plant                            |                | 90                       | -    | -            | 107                  |
| GF - Stairs                           |                | -                        | 90   | -            | 48                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| GF - Entrance                         |                | -                        | 90   | -            | 90                   |
| 1F - Plant                            |                | 90                       | -    | -            | 91                   |
| 1F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 1F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 1F - Maintenance Store                |                | 90                       | -    | -            | 14                   |
| 1F - Circulation                      |                | -                        | 90   | -            | 90                   |
| 1F - Circulation                      |                | -                        | 90   | -            | 112                  |
| 1F - Maintenance Store                |                | 90                       | -    | -            | 14                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 90   | -            | 17                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 90   | -            | 31                   |
| 1F - C.00-06 - Circulation            |                | -                        | 90   | -            | 27                   |
| 1F - C.00-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 1F - C.00-06 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 1F - C.00-05 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 1F - C.00-05 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 1F - C.00-05 - Bedroom                |                | -                        | 90   | -            | 21                   |
| 1F - C.00-05 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 1F - C.00-05 - Circulation            |                | -                        | 90   | -            | 28                   |
| 1F - C.00-05 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 1F - C.00-07 - Kitchen/Living         |                | -                        | 90   | -            | 439                  |
| 1F - C.00-07 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 1F - C.00-07 - Cupboard               |                | 90                       | -    | -            | 3                    |
| 1F - C.00-07 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 1F - C.00-07 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 1F - C.00-08 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 1F - C.00-08 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 1F - C.00-08 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 1F - C.00-08 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 1F - C.00-08 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 1F - C.00-09 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 1F - C.00-09 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 1F - C.00-09 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 1F - C.00-09 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 1F - C.00-09 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 1F - A.01-03 - Cupboard               |                | 90                       | -    | -            | 9                    |
| 1F - A.01-03 - Bathroom               |                | -                        | 90   | -            | 30                   |
| 1F - A.01-03 - Kitchen/Living         |                | -                        | 90   | -            | 399                  |
| 1F - A.01-02 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 1F - A.01-02 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 1F - A.01-02 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 1F - A.01-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 1F - A.01-02 - Bedroom                |                | -                        | 90   | -            | 27                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 1F - A.01-02 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 1F - A.01-02 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 1F - A.01-01 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 1F - A.01-01 - Kitchen/Living         |                | -                        | 90   | -            | 417                  |
| 1F - A.01-01 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 1F - A.01-01 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 1F - A.01-01 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 1F - A.01-01 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 1F - A.01-01 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 1F - A.01-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 1F - C.00-01 - Kitchen/Living         |                | -                        | 90   | -            | 338                  |
| 1F - C.00-01 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 1F - C.00-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 1F - C.00-01 - Circulation            |                | -                        | 90   | -            | 23                   |
| 1F - C.00-01 - Cupboard               |                | 90                       | -    | -            | 3                    |
| 1F - C.00-01 - Bedroom                |                | -                        | 90   | -            | 21                   |
| 1F - C.00-02 - Bedroom                |                | -                        | 90   | -            | 21                   |
| 1F - C.00-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 1F - C.00-02 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 1F - C.00-02 - Cupboard               |                | 90                       | -    | -            | 3                    |
| 1F - C.00-02 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 1F - C.00-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 1F - C.00-03 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 1F - C.00-03 - Bedroom                |                | -                        | 90   | -            | 22                   |
| 1F - C.00-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 1F - C.00-03 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 1F - C.00-04 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 1F - C.00-04 - Cupboard               |                | 90                       | -    | -            | 3                    |
| 1F - C.00-04 - Circulation            |                | -                        | 90   | -            | 22                   |
| 1F - C.00-04 - Kitchen/Living         |                | -                        | 90   | -            | 323                  |
| 1F - C.00-04 - Bedroom                |                | -                        | 90   | -            | 20                   |
| 1F - C.00-04 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 1F - C.00-03 - Kitchen/Living         |                | -                        | 90   | -            | 336                  |
| 1F - C.00-03 - Circulation            |                | -                        | 90   | -            | 19                   |
| 1F - C.00-02 - Circulation            |                | -                        | 90   | -            | 19                   |
| 1F - C.00-02 - Kitchen/Living         |                | -                        | 90   | -            | 332                  |
| GF - C.00-06 - Kitchen/Living         |                | -                        | 90   | -            | 526                  |
| GF - C.00-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| GF - C.00-06 - Bathroom               |                | -                        | 90   | -            | 26                   |
| GF - C.00-05 - Kitchen/Living         |                | -                        | 90   | -            | 381                  |
| GF - C.00-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| GF - C.00-05 - Circulation            |                | -                        | 90   | -            | 47                   |
| GF - C.00-04 - Bathroom               |                | -                        | 90   | -            | 33                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| GF - C.00-04 - Cupboard               |                | 90                       | -    | -            | 8                    |
| GF - C.00-04 - Circulation            |                | -                        | 90   | -            | 31                   |
| GF - C.00-03 - Bathroom               |                | -                        | 90   | -            | 32                   |
| GF - C.00-03 - Circulation            |                | -                        | 90   | -            | 31                   |
| GF - C.00-03 - Cupboard               |                | 90                       | -    | -            | 9                    |
| GF - C.00-01 - Bathroom               |                | -                        | 90   | -            | 33                   |
| GF - C.00-01 - Circulation            |                | -                        | 90   | -            | 31                   |
| GF - C.00-01 - Cupboard               |                | 90                       | -    | -            | 9                    |
| GF - C.00-02 - Bathroom               |                | -                        | 90   | -            | 33                   |
| GF - C.00-02 - Cupboard               |                | 90                       | -    | -            | 9                    |
| GF - C.00-02 - Circulation            |                | -                        | 90   | -            | 31                   |
| GF - C.00-07 - Bathroom               |                | -                        | 90   | -            | 33                   |
| GF - C.00-07 - Circulation            |                | -                        | 90   | -            | 33                   |
| GF - C.00-08 - Circulation            |                | -                        | 90   | -            | 35                   |
| GF - C.00-08 - Bathroom               |                | -                        | 90   | -            | 33                   |
| GF - C.00-08 - Cupboard               |                | 90                       | -    | -            | 10                   |
| GF - C.00-09 - Circulation            |                | -                        | 90   | -            | 35                   |
| GF - C.00-07 - Cupboard               |                | 90                       | -    | -            | 5                    |
| GF - C.00-07 - Bedroom                |                | -                        | 90   | -            | 36                   |
| GF - C.00-09 - Cupboard               |                | 90                       | -    | -            | 11                   |
| GF - C.00-09 - Bathroom               |                | -                        | 90   | -            | 33                   |
| GF - C.00-09 - Bedroom                |                | -                        | 90   | -            | 41                   |
| GF - C.00-08 - Bedroom                |                | -                        | 90   | -            | 40                   |
| GF - C.00-04 - Bedroom                |                | -                        | 90   | -            | 38                   |
| GF - C.00-03 - Bedroom                |                | -                        | 90   | -            | 38                   |
| GF - C.00-02 - Bedroom                |                | -                        | 90   | -            | 38                   |
| GF - C.00-01 - Bedroom                |                | -                        | 90   | -            | 38                   |
| 2F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 2F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 2F - A.02-07 - Cupboard               |                | 90                       | -    | -            | 9                    |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 90   | -            | 100                  |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 90   | -            | 399                  |
| 2F - A.02-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 2F - A.02-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 2F - A.02-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 2F - A.02-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 2F - A.02-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 2F - A.02-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 2F - A.02-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 2F - A.02-05 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 2F - A.02-05 - Kitchen/Living         |                | -                        | 90   | -            | 417                  |
| 2F - A.02-05 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 2F - A.02-05 - Bedroom                |                | -                        | 90   | -            | 23                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 2F - A.02-05 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 2F - A.02-05 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 2F - A.02-05 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 2F - A.02-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 2F - A.02-02 - Kitchen/Living         |                | -                        | 90   | -            | 457                  |
| 2F - A.02-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 2F - A.02-02 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 2F - A.02-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 2F - A.02-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 2F - A.02-02 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 2F - Circulation                      |                | -                        | 90   | -            | 91                   |
| 2F - B.02-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 2F - B.02-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 2F - B.02-02 - Bathroom               |                | -                        | 90   | -            | 20                   |
| 2F - B.02-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 2F - B.02-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 2F - B.02-01 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 2F - B.02-02 - Kitchen/Living         |                | -                        | 90   | -            | 462                  |
| 2F - Circulation                      |                | -                        | 90   | -            | 87                   |
| 2F - B.02-02 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 2F - B.02-02 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 2F - B.02-03 - Kitchen/Living         |                | -                        | 90   | -            | 345                  |
| 2F - B.02-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 2F - B.02-03 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 2F - B.02-03 - Bedroom                |                | -                        | 90   | -            | 30                   |
| 2F - B.02-03 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 2F - B.02-04 - Kitchen/Living         |                | -                        | 90   | -            | 450                  |
| 2F - B.02-04 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 2F - B.02-04 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 2F - B.02-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 2F - B.02-04 - Bathroom               |                | -                        | 90   | -            | 27                   |
| 2F - B.02-04 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 2F - B.02-04 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 2F - B.02-04 - Cupboard               |                | 90                       | -    | -            | 8                    |
| 2F - B.02-05 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 2F - B.02-05 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 2F - B.02-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 2F - B.02-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 2F - B.02-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 2F - B.02-05 - Kitchen/Living         |                | -                        | 90   | -            | 420                  |
| 2F - B.02-05 - Bathroom               |                | -                        | 90   | -            | 22                   |
| 2F - B.02-05 - Bedroom                |                | -                        | 90   | -            | 29                   |
| 2F - B.02-01 - Cupboard               |                | 90                       | -    | -            | 4                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 2F - B.02-01 - Kitchen/Living         |                | -                        | 90   | -            | 335                  |
| 2F - B.02-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 2F - B.02-06 - Kitchen/Living         |                | -                        | 90   | -            | 374                  |
| 2F - B.02-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 2F - B.02-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 2F - B.02-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 2F - B.02-07 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 2F - A.02-02 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 2F - A.02-02 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 2F - A.02-03 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 2F - A.02-03 - Bedroom                |                | -                        | 90   | -            | 29                   |
| 2F - A.02-03 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 2F - A.02-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 2F - A.02-04 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 2F - A.02-04 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 2F - A.02-04 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 2F - A.02-04 - Bathroom               |                | -                        | 90   | -            | 27                   |
| 2F - A.02-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 2F - A.02-04 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 2F - A.02-04 - Kitchen/Living         |                | -                        | 90   | -            | 446                  |
| 2F - A.02-04 - Bedroom                |                | -                        | 90   | -            | 17                   |
| 2F - A.02-04 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 2F - A.02-03 - Kitchen/Living         |                | -                        | 90   | -            | 338                  |
| 2F - B.02-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 2F - B.02-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 2F - A.02-01 - Kitchen/Living         |                | -                        | 90   | -            | 344                  |
| 2F - A.02-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 2F - A.02-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 2F - A.02-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 2F - A.02-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 3F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 3F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 3F - A.03-07 - Cupboard               |                | 90                       | -    | -            | 9                    |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 90   | -            | 100                  |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 90   | -            | 399                  |
| 3F - A.03-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 3F - A.03-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 3F - A.03-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 3F - A.03-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 3F - A.03-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 3F - A.03-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 3F - A.03-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 3F - A.03-05 - Cupboard               |                | 90                       | -    | -            | 7                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 3F - A.03-05 - Kitchen/Living         |                | -                        | 90   | -            | 417                  |
| 3F - A.03-05 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 3F - A.03-05 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 3F - A.03-05 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 3F - A.03-05 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 3F - A.03-05 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 3F - A.03-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 3F - A.03-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 3F - A.03-02 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 3F - A.03-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 3F - A.03-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 3F - A.03-02 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 3F - Circulation                      |                | -                        | 90   | -            | 91                   |
| 3F - B.03-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 3F - B.03-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 3F - B.03-02 - Bathroom               |                | -                        | 90   | -            | 20                   |
| 3F - B.03-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 3F - B.03-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 3F - B.03-01 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 3F - B.03-02 - Kitchen/Living         |                | -                        | 90   | -            | 462                  |
| 3F - Circulation                      |                | -                        | 90   | -            | 87                   |
| 3F - B.03-03 - Kitchen/Living         |                | -                        | 90   | -            | 345                  |
| 3F - B.03-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 3F - B.03-03 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 3F - B.03-04 - Kitchen/Living         |                | -                        | 90   | -            | 450                  |
| 3F - B.03-04 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 3F - B.03-04 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 3F - B.03-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 3F - B.03-04 - Bathroom               |                | -                        | 90   | -            | 27                   |
| 3F - B.03-04 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 3F - B.03-04 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 2F - B.02-04 - Cupboard               |                | 90                       | -    | -            | 8                    |
| 3F - B.03-05 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 3F - B.03-05 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 3F - B.03-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 3F - B.03-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 3F - B.03-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 3F - B.03-05 - Kitchen/Living         |                | -                        | 90   | -            | 420                  |
| 3F - B.03-05 - Bathroom               |                | -                        | 90   | -            | 22                   |
| 3F - B.03-05 - Bedroom                |                | -                        | 90   | -            | 29                   |
| 3F - B.03-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 2F - B.02-01 - Kitchen/Living         |                | -                        | 90   | -            | 335                  |
| 3F - B.03-06 - Bedroom                |                | -                        | 90   | -            | 24                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 3F - B.03-06 - Kitchen/Living         |                | -                        | 90   | -            | 374                  |
| 3F - B.03-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 3F - B.03-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 3F - B.03-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 3F - B.03-07 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 3F - A.03-03 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 3F - A.03-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 3F - A.03-04 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 3F - A.03-04 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 3F - A.03-04 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 3F - A.03-04 - Bathroom               |                | -                        | 90   | -            | 27                   |
| 3F - A.03-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 3F - A.03-04 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 3F - A.03-04 - Kitchen/Living         |                | -                        | 90   | -            | 446                  |
| 3F - A.03-04 - Bedroom                |                | -                        | 90   | -            | 17                   |
| 3F - A.03-04 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 3F - B.03-01 - Bedroom                |                | -                        | 76   | -            | 62                   |
| 3F - B.03-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 3F - A.03-01 - Kitchen/Living         |                | -                        | 90   | -            | 344                  |
| 3F - A.03-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 3F - A.03-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 3F - A.03-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 3F - A.03-01 - Bedroom                |                | -                        | 77   | -            | 61                   |
| 2F - B.02-07 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 2F - B.02-07 - Kitchen/Living         |                | -                        | 90   | -            | 381                  |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 90   | -            | 167                  |
| 3F - B.03-07 - Kitchen/Living         |                | -                        | 90   | -            | 381                  |
| 3F - B.03-07 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 90   | -            | 167                  |
| 3F - B.03-03 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 3F - B.03-03 - Bedroom                |                | -                        | 90   | -            | 30                   |
| 3F - B.03-03 - Bedroom                |                | -                        | 90   | -            | 11                   |
| 3F - B.03-03 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 3F - A.03-02 - Kitchen/Living         |                | -                        | 90   | -            | 445                  |
| 3F - A.03-03 - Kitchen/Living         |                | -                        | 90   | -            | 360                  |
| 3F - A.03-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 3F - A.03-03 - Bathroom               |                | -                        | 90   | -            | 22                   |
| 3F - A.03-03 - Bedroom                |                | -                        | 90   | -            | 11                   |
| 3F - A.03-03 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 4F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 4F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 4F - A.04-07 - Cupboard               |                | 90                       | -    | -            | 9                    |
| 4F - A.04-07 - Bathroom               |                | -                        | 90   | -            | 30                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 4F - A.04-07 - Kitchen/Living         |                | -                        | 90   | -            | 399                  |
| 4F - A.04-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 4F - A.04-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 4F - A.04-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 4F - A.04-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 4F - A.04-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 4F - A.04-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 4F - A.04-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - A.04-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 4F - A.04-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 4F - A.04-02 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 4F - A.04-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 4F - A.04-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 4F - A.04-02 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 4F - Circulation                      |                | -                        | 90   | -            | 91                   |
| 4F - B.04-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 4F - B.04-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 4F - B.04-02 - Bathroom               |                | -                        | 90   | -            | 20                   |
| 4F - B.04-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 4F - B.04-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 4F - B.04-01 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 4F - Circulation                      |                | -                        | 90   | -            | 87                   |
| 4F - B.04-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - B.04-03 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 4F - B.04-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 4F - B.04-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - B.04-01 - Kitchen/Living         |                | -                        | 90   | -            | 335                  |
| 4F - B.04-07 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 4F - B.04-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 4F - B.04-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 4F - B.04-08 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 4F - A.04-03 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 4F - A.04-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - B.04-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 4F - B.04-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - A.04-01 - Kitchen/Living         |                | -                        | 90   | -            | 344                  |
| 4F - A.04-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - A.04-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 4F - A.04-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - A.04-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 4F - B.04-08 - Kitchen/Living         |                | -                        | 90   | -            | 381                  |
| 4F - B.04-08 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 4F - A.04-07 - Bedroom                |                | -                        | 90   | -            | 27                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 4F - B.04-03 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 4F - B.04-03 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 4F - A.04-02 - Kitchen/Living         |                | -                        | 90   | -            | 445                  |
| 4F - A.04-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 4F - A.04-03 - Bathroom               |                | -                        | 90   | -            | 22                   |
| 4F - A.04-03 - Bedroom                |                | -                        | 90   | -            | 11                   |
| 4F - B.04-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 4F - B.04-07 - Kitchen/Living         |                | -                        | 90   | -            | 374                  |
| 4F - B.04-07 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 4F - B.04-06 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 4F - B.04-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - B.04-03 - Kitchen/Living         |                | -                        | 90   | -            | 388                  |
| 4F - B.04-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 4F - B.04-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 4F - B.04-04 - Kitchen/Living         |                | -                        | 90   | -            | 419                  |
| 4F - B.04-04 - Bedroom                |                | -                        | 90   | -            | 30                   |
| 4F - B.04-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - B.04-02 - Kitchen/Living         |                | -                        | 90   | -            | 453                  |
| 4F - B.04-03 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 4F - B.04-05 - Kitchen/Living         |                | -                        | 90   | -            | 347                  |
| 4F - B.04-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 4F - B.04-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 4F - B.04-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 4F - B.04-05 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 4F - B.04-06 - Cupboard               |                | 90                       | -    | -            | 8                    |
| 4F - B.04-06 - Studio                 |                | -                        | 90   | -            | 54                   |
| 4F - A.04-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 4F - A.04-03 - Kitchen/Living         |                | -                        | 90   | -            | 380                  |
| 4F - A.04-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 4F - A.04-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 4F - A.04-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 4F - A.04-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - A.04-04 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 4F - A.04-04 - Kitchen/Living         |                | -                        | 90   | -            | 420                  |
| 4F - A.04-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - A.04-06 - Studio                 |                | -                        | 90   | -            | 52                   |
| 4F - A.04-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 4F - A.04-06 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 4F - A.04-05 - Kitchen/Living         |                | -                        | 90   | -            | 352                  |
| 4F - A.04-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 4F - A.04-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 4F - A.04-05 - Bedroom                |                | -                        | 90   | -            | 18                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 4F - A.04-05 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 5F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 5F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 5F - A.05-08 - Cupboard               |                | 90                       | -    | -            | 9                    |
| 5F - A.05-08 - Bathroom               |                | -                        | 90   | -            | 30                   |
| 5F - A.05-08 - Kitchen/Living         |                | -                        | 90   | -            | 399                  |
| 5F - A.05-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 5F - A.05-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 5F - A.05-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 5F - A.05-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 5F - A.05-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 5F - A.05-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 5F - A.05-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - A.05-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 5F - A.05-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 5F - A.05-02 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 5F - A.05-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 5F - A.05-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 5F - A.05-02 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 5F - Circulation                      |                | -                        | 90   | -            | 91                   |
| 5F - B.05-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 5F - B.05-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 5F - B.05-02 - Bathroom               |                | -                        | 90   | -            | 20                   |
| 5F - B.05-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 5F - B.05-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 5F - B.05-01 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 5F - Circulation                      |                | -                        | 90   | -            | 87                   |
| 5F - B.05-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - B.05-03 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 5F - B.05-08 - Bathroom               |                | -                        | 90   | -            | 17                   |
| 5F - B.05-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - B.05-01 - Kitchen/Living         |                | -                        | 90   | -            | 335                  |
| 5F - B.05-07 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 5F - B.05-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 5F - B.05-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 5F - B.05-08 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 5F - A.05-03 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 5F - A.05-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - B.05-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 5F - B.05-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - A.05-01 - Kitchen/Living         |                | -                        | 90   | -            | 344                  |
| 5F - A.05-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - A.05-01 - Bathroom               |                | -                        | 90   | -            | 24                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 5F - A.05-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - A.05-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 5F - B.05-08 - Kitchen/Living         |                | -                        | 90   | -            | 381                  |
| 5F - B.05-08 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 5F - A.05-08 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 5F - B.05-03 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 5F - B.05-03 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 5F - A.05-02 - Kitchen/Living         |                | -                        | 90   | -            | 445                  |
| 5F - A.05-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 5F - A.05-03 - Bathroom               |                | -                        | 90   | -            | 22                   |
| 5F - A.05-03 - Bedroom                |                | -                        | 90   | -            | 11                   |
| 5F - B.05-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 5F - B.05-07 - Kitchen/Living         |                | -                        | 90   | -            | 374                  |
| 5F - B.05-07 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 5F - B.05-06 - Kitchen/Living         |                | -                        | 90   | -            | 85                   |
| 5F - B.05-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - B.05-03 - Kitchen/Living         |                | -                        | 90   | -            | 388                  |
| 5F - B.05-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 5F - B.05-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 5F - B.05-04 - Kitchen/Living         |                | -                        | 90   | -            | 419                  |
| 5F - B.05-04 - Bedroom                |                | -                        | 90   | -            | 30                   |
| 5F - B.05-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - B.05-02 - Kitchen/Living         |                | -                        | 90   | -            | 453                  |
| 5F - B.05-03 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 5F - B.05-03 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 5F - B.05-05 - Kitchen/Living         |                | -                        | 90   | -            | 347                  |
| 5F - B.05-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 5F - B.05-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 5F - B.05-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 5F - B.05-05 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 5F - B.05-06 - Cupboard               |                | 90                       | -    | -            | 8                    |
| 5F - B.05-06 - Studio                 |                | -                        | 90   | -            | 54                   |
| 5F - A.05-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 5F - A.05-03 - Kitchen/Living         |                | -                        | 90   | -            | 380                  |
| 5F - A.05-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 5F - A.05-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 5F - A.05-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 5F - A.05-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - A.05-04 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 5F - A.05-04 - Kitchen/Living         |                | -                        | 90   | -            | 420                  |
| 5F - A.05-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 5F - A.05-06 - Studio                 |                | -                        | 90   | -            | 52                   |
| 5F - A.05-06 - Cupboard               |                | 90                       | -    | -            | 5                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 5F - A.05-06 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 5F - A.05-05 - Kitchen/Living         |                | -                        | 90   | -            | 352                  |
| 5F - A.05-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 5F - A.05-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 5F - A.05-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 5F - A.05-05 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 6F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 6F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 6F - A.06-08 - Cupboard               |                | 90                       | -    | -            | 9                    |
| 6F - A.06-08 - Bathroom               |                | -                        | 90   | -            | 30                   |
| 6F - A.06-08 - Kitchen/Living         |                | -                        | 90   | -            | 399                  |
| 6F - A.06-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 6F - A.06-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 6F - A.06-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 6F - A.06-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 6F - A.06-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 6F - A.06-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 6F - A.06-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 6F - A.06-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 6F - A.06-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 6F - A.06-02 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 6F - A.06-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 6F - A.06-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 6F - A.06-02 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 6F - Circulation                      |                | -                        | 90   | -            | 91                   |
| 6F - B.06-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 6F - B.06-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 6F - B.06-02 - Bathroom               |                | -                        | 90   | -            | 20                   |
| 6F - B.06-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 6F - B.06-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 6F - B.06-01 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 6F - Circulation                      |                | -                        | 90   | -            | 87                   |
| 4F - B.04-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - B.04-03 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 6F - B.06-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 6F - B.06-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 6F - B.06-01 - Kitchen/Living         |                | -                        | 90   | -            | 335                  |
| 6F - B.06-07 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 6F - B.06-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 6F - B.06-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 6F - B.06-08 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 6F - A.06-03 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 6F - A.06-03 - Cupboard               |                | 90                       | -    | -            | 4                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 6F - B.06-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 6F - B.06-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 6F - A.06-01 - Bathroom               |                | -                        | 90   | -            | 103                  |
| 6F - A.06-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 6F - A.06-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 6F - A.06-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 6F - A.06-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 6F - B.06-08 - Kitchen/Living         |                | -                        | 90   | -            | 381                  |
| 6F - B.06-08 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 6F - A.06-08 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 4F - B.04-03 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 6F - A.06-02 - Kitchen/Living         |                | -                        | 90   | -            | 445                  |
| 6F - A.06-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 6F - A.06-03 - Bathroom               |                | -                        | 90   | -            | 22                   |
| 6F - A.06-03 - Bedroom                |                | -                        | 90   | -            | 11                   |
| 6F - B.06-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 6F - B.06-07 - Kitchen/Living         |                | -                        | 90   | -            | 374                  |
| 6F - B.06-07 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 6F - B.06-06 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 6F - B.06-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 4F - B.04-03 - Kitchen/Living         |                | -                        | 90   | -            | 388                  |
| 6F - B.06-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 6F - B.06-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 6F - B.06-04 - Kitchen/Living         |                | -                        | 90   | -            | 419                  |
| 6F - B.06-04 - Bedroom                |                | -                        | 90   | -            | 30                   |
| 6F - B.06-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 6F - B.06-02 - Kitchen/Living         |                | -                        | 90   | -            | 453                  |
| 4F - B.04-03 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 6F - B.06-05 - Kitchen/Living         |                | -                        | 90   | -            | 347                  |
| 6F - B.06-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 6F - B.06-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 6F - B.06-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 6F - B.06-05 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 6F - B.06-06 - Cupboard               |                | 90                       | -    | -            | 8                    |
| 6F - B.06-06 - Studio                 |                | -                        | 90   | -            | 54                   |
| 6F - A.06-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 6F - A.06-03 - Kitchen/Living         |                | -                        | 90   | -            | 380                  |
| 6F - A.06-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 6F - A.06-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 6F - A.06-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 6F - A.06-04 - Cupboard               |                | 90                       | -    | -            | 4                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 6F - A.06-04 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 6F - A.06-04 - Kitchen/Living         |                | -                        | 90   | -            | 420                  |
| 6F - A.06-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 6F - A.06-06 - Studio                 |                | -                        | 90   | -            | 52                   |
| 6F - A.06-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 6F - A.06-06 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 6F - A.06-05 - Kitchen/Living         |                | -                        | 90   | -            | 352                  |
| 6F - A.06-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 6F - A.06-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 6F - A.06-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 6F - A.06-05 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 7F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 7F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 7F - A.07-08 - Cupboard               |                | 90                       | -    | -            | 9                    |
| 7F - A.07-08 - Bathroom               |                | -                        | 90   | -            | 30                   |
| 7F - A.07-08 - Kitchen/Living         |                | -                        | 90   | -            | 399                  |
| 7F - A.07-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 7F - A.07-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 7F - A.07-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 7F - A.07-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 7F - A.07-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 7F - A.07-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 7F - A.07-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - A.07-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 7F - A.07-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 7F - A.07-02 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 7F - A.07-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 7F - A.07-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 7F - A.07-02 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 7F - Circulation                      |                | -                        | 90   | -            | 91                   |
| 7F - B.07-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 7F - B.07-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 7F - B.07-02 - Bathroom               |                | -                        | 90   | -            | 20                   |
| 7F - B.07-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 7F - B.07-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 7F - B.07-01 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 7F - Circulation                      |                | -                        | 90   | -            | 87                   |
| 7F - B.07-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - B.07-03 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 7F - B.07-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 7F - B.07-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - B.07-01 - Kitchen/Living         |                | -                        | 90   | -            | 335                  |
| 7F - B.07-07 - Bathroom               |                | -                        | 90   | -            | 24                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 7F - B.07-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 7F - B.07-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 7F - B.07-08 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 7F - A.07-03 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 7F - A.07-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - B.07-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 7F - B.07-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - A.07-01 - Kitchen/Living         |                | -                        | 90   | -            | 344                  |
| 7F - A.07-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - A.07-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 7F - A.07-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - A.07-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 7F - B.07-08 - Kitchen/Living         |                | -                        | 90   | -            | 381                  |
| 7F - B.07-08 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 7F - A.07-08 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 7F - B.07-03 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 7F - B.07-03 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 7F - A.07-02 - Kitchen/Living         |                | -                        | 90   | -            | 445                  |
| 7F - A.07-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 7F - A.07-03 - Bathroom               |                | -                        | 90   | -            | 22                   |
| 7F - A.07-03 - Bedroom                |                | -                        | 90   | -            | 11                   |
| 7F - B.07-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 7F - B.07-07 - Kitchen/Living         |                | -                        | 90   | -            | 374                  |
| 7F - B.07-07 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 7F - B.07-06 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 7F - B.07-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - B.07-03 - Kitchen/Living         |                | -                        | 90   | -            | 388                  |
| 7F - B.07-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 7F - B.07-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 7F - B.07-04 - Kitchen/Living         |                | -                        | 90   | -            | 419                  |
| 7F - B.07-04 - Bedroom                |                | -                        | 90   | -            | 30                   |
| 7F - B.07-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - B.07-02 - Kitchen/Living         |                | -                        | 90   | -            | 453                  |
| 7F - B.07-03 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 7F - B.07-03 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 7F - B.07-05 - Kitchen/Living         |                | -                        | 90   | -            | 347                  |
| 7F - B.07-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 7F - B.07-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 7F - B.07-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 7F - B.07-05 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 7F - B.07-06 - Cupboard               |                | 90                       | -    | -            | 8                    |
| 7F - B.07-06 - Studio                 |                | -                        | 90   | -            | 54                   |
| 7F - A.07-03 - Bedroom                |                | -                        | 90   | -            | 25                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 7F - A.07-03 - Kitchen/Living         |                | -                        | 90   | -            | 380                  |
| 7F - A.07-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 7F - A.07-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 7F - A.07-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 7F - A.07-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - A.07-04 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 7F - A.07-04 - Kitchen/Living         |                | -                        | 90   | -            | 420                  |
| 7F - A.07-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 7F - A.07-06 - Studio                 |                | -                        | 90   | -            | 52                   |
| 7F - A.07-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 7F - A.07-06 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 7F - A.07-05 - Kitchen/Living         |                | -                        | 90   | -            | 352                  |
| 7F - A.07-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 7F - A.07-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 7F - A.07-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 7F - A.07-05 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 8F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 8F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 8F - A.08-08 - Cupboard               |                | 90                       | -    | -            | 9                    |
| 8F - A.08-08 - Bathroom               |                | -                        | 90   | -            | 30                   |
| 8F - A.08-08 - Kitchen/Living         |                | -                        | 90   | -            | 399                  |
| 8F - A.08-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 8F - A.08-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 8F - A.08-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 8F - A.08-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 8F - A.08-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 8F - A.08-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 8F - A.08-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - A.08-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 8F - A.08-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 8F - A.08-02 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 8F - A.08-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 8F - A.08-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 8F - A.08-02 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 8F - Circulation                      |                | -                        | 90   | -            | 91                   |
| 8F - B.08-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 8F - B.08-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 8F - B.08-02 - Bathroom               |                | -                        | 90   | -            | 20                   |
| 8F - B.08-02 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 8F - B.08-02 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 8F - B.08-01 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 8F - Circulation                      |                | -                        | 90   | -            | 87                   |
| 8F - B.08-03 - Cupboard               |                | 90                       | -    | -            | 4                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 8F - B.08-03 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 8F - B.08-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 8F - B.08-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - B.08-01 - Kitchen/Living         |                | -                        | 90   | -            | 335                  |
| 8F - B.08-07 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 8F - B.08-07 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 8F - B.08-08 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 8F - B.08-08 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 8F - A.08-03 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 8F - A.08-03 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - B.08-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 8F - B.08-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - A.08-01 - Kitchen/Living         |                | -                        | 90   | -            | 344                  |
| 8F - A.08-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - A.08-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 8F - A.08-01 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - A.08-01 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 8F - B.08-08 - Kitchen/Living         |                | -                        | 90   | -            | 381                  |
| 8F - B.08-08 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 8F - A.08-08 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 8F - B.08-03 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 8F - B.08-03 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 8F - A.08-02 - Kitchen/Living         |                | -                        | 90   | -            | 445                  |
| 8F - A.08-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 8F - A.08-03 - Bathroom               |                | -                        | 90   | -            | 22                   |
| 8F - A.08-03 - Bedroom                |                | -                        | 90   | -            | 11                   |
| 8F - B.08-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 8F - B.08-07 - Kitchen/Living         |                | -                        | 90   | -            | 374                  |
| 8F - B.08-07 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 8F - B.08-06 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 8F - B.08-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - B.08-03 - Kitchen/Living         |                | -                        | 90   | -            | 388                  |
| 8F - B.08-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 8F - B.08-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 8F - B.08-04 - Kitchen/Living         |                | -                        | 90   | -            | 419                  |
| 8F - B.08-04 - Bedroom                |                | -                        | 90   | -            | 30                   |
| 8F - B.08-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - B.08-02 - Kitchen/Living         |                | -                        | 90   | -            | 453                  |
| 8F - B.08-03 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 8F - B.08-03 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 8F - B.08-05 - Kitchen/Living         |                | -                        | 90   | -            | 347                  |
| 8F - B.08-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 8F - B.08-05 - Bathroom               |                | -                        | 90   | -            | 24                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 8F - B.08-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 8F - B.08-05 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 8F - B.08-06 - Cupboard               |                | 90                       | -    | -            | 8                    |
| 8F - B.08-06 - Studio                 |                | -                        | 90   | -            | 54                   |
| 8F - A.08-03 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 8F - A.08-03 - Kitchen/Living         |                | -                        | 90   | -            | 380                  |
| 8F - A.08-04 - Bathroom               |                | -                        | 90   | -            | 29                   |
| 8F - A.08-04 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 8F - A.08-04 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 8F - A.08-04 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - A.08-04 - Bedroom                |                | -                        | 90   | -            | 28                   |
| 8F - A.08-04 - Kitchen/Living         |                | -                        | 90   | -            | 420                  |
| 8F - A.08-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 8F - A.08-06 - Studio                 |                | -                        | 90   | -            | 52                   |
| 8F - A.08-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 8F - A.08-06 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 8F - A.08-05 - Kitchen/Living         |                | -                        | 90   | -            | 352                  |
| 8F - A.08-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 8F - A.08-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 8F - A.08-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 8F - A.08-05 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 1F - C.00-08 - Kitchen/Living         |                | -                        | 90   | -            | 372                  |
| 1F - C.00-09 - Kitchen/Living         |                | -                        | 90   | -            | 376                  |
| 1F - A.01-03 - Bedroom                |                | -                        | 90   | -            | 27                   |
| GF - Amenity                          |                | -                        | 90   | -            | 361                  |
| GF - Plant                            |                | 90                       | -    | -            | 142                  |
| GF - Plant                            |                | 90                       | -    | -            | 129                  |
| 9F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 9F - Stairs                           |                | -                        | 90   | -            | 34                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - B.09-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - B.09-05 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 9F - B.09-05 - Kitchen/Living         |                | -                        | 90   | -            | 374                  |
| 7F - B.07-07 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 9F - B.09-06 - Bathroom               |                | -                        | 90   | -            | 26                   |
| 9F - B.09-06 - Cupboard               |                | 90                       | -    | -            | 4                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 9F - B.09-05 - Kitchen/Living         |                | -                        | 90   | -            | 347                  |
| 9F - B.09-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 9F - B.09-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - B.09-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 9F - B.09-05 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 9F - B.09-06 - Cupboard               |                | 90                       | -    | -            | 8                    |
| 9F - B.09-06 - Studio                 |                | -                        | 90   | -            | 54                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 9F - A.09-06 - Studio                 |                | -                        | 90   | -            | 52                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 9F - A.09-05 - Kitchen/Living         |                | -                        | 90   | -            | 352                  |
| 9F - A.09-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - A.09-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 9F - A.09-02 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 17                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 90   | -            | 433                  |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 9F - A.09-01 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - A.09-01 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 9F - A.09-01 - Kitchen/Living         |                | -                        | 90   | -            | 367                  |
| 9F - A.09-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - A.09-01 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - A.09-02 - Cupboard               |                | 90                       | -    | -            | 3                    |
| 9F - A.09-02 - Kitchen/Living         |                | -                        | 90   | -            | 344                  |
| 9F - A.09-02 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 9F - A.09-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - Circulation                      |                | -                        | 90   | -            | 94                   |
| 9F - B.09-02 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 9F - Circulation                      |                | -                        | 90   | -            | 91                   |
| 9F - B.09-01 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 9F - B.09-01 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - B.09-01 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - B.09-01 - Kitchen/Living         |                | -                        | 90   | -            | 376                  |
| 9F - B.09-01 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - B.09-02 - Cupboard               |                | 90                       | -    | -            | 3                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 9F - B.09-02 - Kitchen/Living         |                | -                        | 90   | -            | 347                  |
| 9F - B.09-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - B.09-02 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 9F - B.09-06 - Bathroom               |                | -                        | 90   | -            | 36                   |
| 9F - B.09-06 - Bedroom                |                | -                        | 90   | -            | 20                   |
| 9F - B.09-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 9F - B.09-06 - Kitchen/Living         |                | -                        | 90   | -            | 433                  |
| 9F - B.09-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - B.09-06 - Bedroom                |                | -                        | 90   | -            | 19                   |
| 9F - B.09-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 9F - Stairs (1)                       |                | -                        | 90   | -            | 34                   |
| 10F - Circulation                     |                | -                        | 90   | -            | 52                   |
| 9F - Stairs                           |                | -                        | 90   | -            | 32                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 90   | -            | 375                  |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 27                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 24                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 4                    |
| 9F - A.09-06 - Studio                 |                | -                        | 90   | -            | 52                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 25                   |
| 9F - A.09-05 - Kitchen/Living         |                | -                        | 90   | -            | 352                  |
| 9F - A.09-05 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - A.09-05 - Cupboard               |                | 90                       | -    | -            | 10                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 90   | -            | 18                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 9F - A.09-02 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 25                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 6                    |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 17                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 90   | -            | 26                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 90   | -            | 433                  |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 21                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 90   | -            | 24                   |
| 9F - A.09-06 - Cupboard               |                | 90                       | -    | -            | 7                    |
| 9F - A.09-01 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - A.09-01 - Bedroom                |                | -                        | 90   | -            | 23                   |
| 9F - A.09-01 - Kitchen/Living         |                | -                        | 90   | -            | 365                  |
| 9F - A.09-01 - Bathroom               |                | -                        | 90   | -            | 24                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              |                      |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp | General lighting [W] |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 9F - A.09-01 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - A.09-02 - Cupboard               |                | 90                       | -    | -            | 3                    |
| 9F - A.09-02 - Kitchen/Living         |                | -                        | 90   | -            | 343                  |
| 9F - A.09-02 - Bathroom               |                | -                        | 90   | -            | 23                   |
| 9F - A.09-02 - Cupboard               |                | 90                       | -    | -            | 5                    |
| 9F - Circulation                      |                | -                        | 90   | -            | 94                   |
| GF - Commercial                       |                | -                        | 90   | -            | 3368                 |

### Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 1F - C.00-06 - Bedroom | NO (-64.6%)                    | NO                    |
| 1F - C.00-06 - Bedroom | NO (-52.9%)                    | NO                    |
| 1F - C.00-06 - Bedroom | NO (-69.7%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-78.2%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-73.5%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-80.4%)                    | NO                    |
| 1F - C.00-07 - Bedroom | NO (-65%)                      | NO                    |
| 1F - C.00-07 - Bedroom | NO (-59.6%)                    | NO                    |
| 1F - C.00-08 - Bedroom | NO (-57%)                      | NO                    |
| 1F - C.00-08 - Bedroom | NO (-54.9%)                    | NO                    |
| 1F - C.00-09 - Bedroom | NO (-59.8%)                    | NO                    |
| 1F - C.00-09 - Bedroom | NO (-48.1%)                    | NO                    |
| 1F - A.01-02 - Bedroom | NO (-51.7%)                    | NO                    |
| 1F - A.01-02 - Bedroom | NO (-50.4%)                    | NO                    |
| 1F - A.01-01 - Bedroom | NO (-57%)                      | NO                    |
| 1F - A.01-01 - Bedroom | NO (-45.6%)                    | NO                    |
| 1F - A.01-01 - Bedroom | NO (-54.4%)                    | NO                    |
| 1F - C.00-01 - Bedroom | NO (-53.7%)                    | NO                    |
| 1F - C.00-01 - Bedroom | NO (-67.8%)                    | NO                    |
| 1F - C.00-02 - Bedroom | NO (-74.2%)                    | NO                    |
| 1F - C.00-02 - Bedroom | NO (-54.2%)                    | NO                    |
| 1F - C.00-03 - Bedroom | NO (-55.4%)                    | NO                    |
| 1F - C.00-03 - Bedroom | NO (-74.6%)                    | NO                    |
| 1F - C.00-04 - Bedroom | NO (-62.7%)                    | NO                    |
| 1F - C.00-04 - Bedroom | NO (-69.8%)                    | NO                    |
| GF - C.00-07 - Bedroom | NO (-67.7%)                    | NO                    |
| GF - C.00-09 - Bedroom | NO (-65.5%)                    | NO                    |
| GF - C.00-08 - Bedroom | NO (-49%)                      | NO                    |
| GF - C.00-04 - Bedroom | NO (-70.6%)                    | NO                    |
| GF - C.00-03 - Bedroom | NO (-73.4%)                    | NO                    |
| GF - C.00-02 - Bedroom | NO (-74.2%)                    | NO                    |
| GF - C.00-01 - Bedroom | NO (-70.2%)                    | NO                    |
| 2F - A.02-06 - Bedroom | NO (-51.7%)                    | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 2F - A.02-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 2F - A.02-05 - Bedroom | NO (-57%)                      | NO                    |
| 2F - A.02-05 - Bedroom | NO (-45.6%)                    | NO                    |
| 2F - A.02-05 - Bedroom | NO (-54%)                      | NO                    |
| 2F - A.02-02 - Bedroom | NO (-55.1%)                    | NO                    |
| 2F - A.02-02 - Bedroom | NO (-57.8%)                    | NO                    |
| 2F - B.02-02 - Bedroom | NO (-59.6%)                    | NO                    |
| 2F - B.02-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 2F - B.02-02 - Bedroom | NO (-47.3%)                    | NO                    |
| 2F - B.02-03 - Bedroom | NO (-66.7%)                    | NO                    |
| 2F - B.02-04 - Bedroom | NO (-51.9%)                    | NO                    |
| 2F - B.02-04 - Bedroom | NO (-48.8%)                    | NO                    |
| 2F - B.02-04 - Bedroom | NO (-60.9%)                    | NO                    |
| 2F - B.02-05 - Bedroom | NO (-50.4%)                    | NO                    |
| 2F - B.02-05 - Bedroom | NO (-59.6%)                    | NO                    |
| 2F - B.02-05 - Bedroom | NO (-57.1%)                    | NO                    |
| 2F - B.02-06 - Bedroom | NO (-68%)                      | NO                    |
| 2F - A.02-02 - Bedroom | NO (-50.1%)                    | NO                    |
| 2F - A.02-03 - Bedroom | NO (-69.6%)                    | NO                    |
| 2F - A.02-04 - Bedroom | NO (-61.1%)                    | NO                    |
| 2F - A.02-04 - Bedroom | NO (-42.1%)                    | NO                    |
| 2F - A.02-04 - Bedroom | NO (-42.5%)                    | NO                    |
| 2F - B.02-01 - Bedroom | NO (-82.5%)                    | NO                    |
| 2F - A.02-01 - Bedroom | NO (-79.9%)                    | NO                    |
| 3F - A.03-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 3F - A.03-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 3F - A.03-05 - Bedroom | NO (-57%)                      | NO                    |
| 3F - A.03-05 - Bedroom | NO (-45.6%)                    | NO                    |
| 3F - A.03-05 - Bedroom | NO (-54%)                      | NO                    |
| 3F - A.03-02 - Bedroom | NO (-55.2%)                    | NO                    |
| 3F - A.03-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 3F - B.03-02 - Bedroom | NO (-59.6%)                    | NO                    |
| 3F - B.03-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 3F - B.03-04 - Bedroom | NO (-53.8%)                    | NO                    |
| 3F - B.03-04 - Bedroom | NO (-48.8%)                    | NO                    |
| 3F - B.03-04 - Bedroom | NO (-60.9%)                    | NO                    |
| 3F - B.03-05 - Bedroom | NO (-50.4%)                    | NO                    |
| 3F - B.03-05 - Bedroom | NO (-59.6%)                    | NO                    |
| 3F - B.03-05 - Bedroom | NO (-57.1%)                    | NO                    |
| 3F - B.03-06 - Bedroom | NO (-68%)                      | NO                    |
| 3F - A.03-04 - Bedroom | NO (-61.1%)                    | NO                    |
| 3F - A.03-04 - Bedroom | NO (-42.1%)                    | NO                    |
| 3F - A.03-04 - Bedroom | NO (-43.3%)                    | NO                    |
| 3F - B.03-01 - Bedroom | NO (-82.2%)                    | NO                    |
| 3F - A.03-01 - Bedroom | NO (-79.6%)                    | NO                    |
| 2F - B.02-07 - Bedroom | NO (-78.8%)                    | NO                    |
| 3F - B.03-07 - Bedroom | NO (-78%)                      | NO                    |
| 3F - B.03-03 - Bedroom | NO (-62.2%)                    | NO                    |
| 3F - B.03-03 - Bedroom | NO (-54.8%)                    | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 3F - B.03-03 - Bedroom | N/A                            | N/A                   |
| 3F - A.03-03 - Bedroom | NO (-65.7%)                    | NO                    |
| 3F - A.03-03 - Bedroom | N/A                            | N/A                   |
| 3F - A.03-03 - Bedroom | NO (-61.3%)                    | NO                    |
| 4F - A.04-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 4F - A.04-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 4F - A.04-02 - Bedroom | NO (-55.2%)                    | NO                    |
| 4F - A.04-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 4F - B.04-02 - Bedroom | NO (-59.6%)                    | NO                    |
| 4F - B.04-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 4F - B.04-01 - Bedroom | NO (-81.7%)                    | NO                    |
| 4F - A.04-01 - Bedroom | NO (-79%)                      | NO                    |
| 4F - B.04-08 - Bedroom | NO (-76.9%)                    | NO                    |
| 4F - A.04-07 - Bedroom | NO (-69.3%)                    | NO                    |
| 4F - B.04-03 - Bedroom | NO (-62.3%)                    | NO                    |
| 4F - A.04-03 - Bedroom | NO (-65.7%)                    | NO                    |
| 4F - A.04-03 - Bedroom | N/A                            | N/A                   |
| 4F - B.04-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 4F - B.04-07 - Bedroom | NO (-68%)                      | NO                    |
| 4F - B.04-04 - Bedroom | NO (-56.2%)                    | NO                    |
| 4F - B.04-03 - Bedroom | NO (-58.2%)                    | NO                    |
| 4F - B.04-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 4F - B.04-05 - Bedroom | NO (-63%)                      | NO                    |
| 4F - B.04-06 - Studio  | NO (-57%)                      | NO                    |
| 4F - A.04-03 - Bedroom | NO (-61.3%)                    | NO                    |
| 4F - A.04-04 - Bedroom | NO (-60%)                      | NO                    |
| 4F - A.04-04 - Bedroom | NO (-57.3%)                    | NO                    |
| 4F - A.04-06 - Studio  | NO (-53.4%)                    | NO                    |
| 4F - A.04-05 - Bedroom | NO (-72.2%)                    | NO                    |
| 4F - A.04-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 5F - A.05-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 5F - A.05-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 5F - A.05-02 - Bedroom | NO (-55.1%)                    | NO                    |
| 5F - A.05-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 5F - B.05-02 - Bedroom | NO (-59.6%)                    | NO                    |
| 5F - B.05-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 5F - B.05-01 - Bedroom | NO (-81.3%)                    | NO                    |
| 5F - A.05-01 - Bedroom | NO (-78.9%)                    | NO                    |
| 5F - B.05-08 - Bedroom | NO (-75.8%)                    | NO                    |
| 5F - A.05-08 - Bedroom | NO (-68.6%)                    | NO                    |
| 5F - B.05-03 - Bedroom | NO (-62.3%)                    | NO                    |
| 5F - A.05-03 - Bedroom | NO (-65.7%)                    | NO                    |
| 5F - A.05-03 - Bedroom | N/A                            | N/A                   |
| 5F - B.05-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 5F - B.05-07 - Bedroom | NO (-68%)                      | NO                    |
| 5F - B.05-04 - Bedroom | NO (-56.2%)                    | NO                    |
| 5F - B.05-03 - Bedroom | NO (-58.2%)                    | NO                    |
| 5F - B.05-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 5F - B.05-05 - Bedroom | NO (-63%)                      | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 5F - B.05-06 - Studio  | NO (-57%)                      | NO                    |
| 5F - A.05-03 - Bedroom | NO (-61.3%)                    | NO                    |
| 5F - A.05-04 - Bedroom | NO (-60%)                      | NO                    |
| 5F - A.05-04 - Bedroom | NO (-57.3%)                    | NO                    |
| 5F - A.05-06 - Studio  | NO (-53.4%)                    | NO                    |
| 5F - A.05-05 - Bedroom | NO (-72.2%)                    | NO                    |
| 5F - A.05-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 6F - A.06-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 6F - A.06-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 6F - A.06-02 - Bedroom | NO (-55.1%)                    | NO                    |
| 6F - A.06-02 - Bedroom | NO (-57.7%)                    | NO                    |
| 6F - B.06-02 - Bedroom | NO (-59.5%)                    | NO                    |
| 6F - B.06-02 - Bedroom | NO (-57.7%)                    | NO                    |
| 6F - B.06-01 - Bedroom | NO (-80.8%)                    | NO                    |
| 6F - A.06-01 - Bedroom | NO (-78%)                      | NO                    |
| 6F - B.06-08 - Bedroom | NO (-73.7%)                    | NO                    |
| 6F - A.06-08 - Bedroom | NO (-68.3%)                    | NO                    |
| 4F - B.04-03 - Bedroom | NO (-62.3%)                    | NO                    |
| 6F - A.06-03 - Bedroom | NO (-65.7%)                    | NO                    |
| 6F - A.06-03 - Bedroom | N/A                            | N/A                   |
| 6F - B.06-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 6F - B.06-07 - Bedroom | NO (-68%)                      | NO                    |
| 6F - B.06-04 - Bedroom | NO (-56.2%)                    | NO                    |
| 4F - B.04-03 - Bedroom | NO (-58.2%)                    | NO                    |
| 6F - B.06-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 6F - B.06-05 - Bedroom | NO (-63%)                      | NO                    |
| 6F - B.06-06 - Studio  | NO (-57%)                      | NO                    |
| 6F - A.06-03 - Bedroom | NO (-61.3%)                    | NO                    |
| 6F - A.06-04 - Bedroom | NO (-60%)                      | NO                    |
| 6F - A.06-04 - Bedroom | NO (-57.3%)                    | NO                    |
| 6F - A.06-06 - Studio  | NO (-53.4%)                    | NO                    |
| 6F - A.06-05 - Bedroom | NO (-72.2%)                    | NO                    |
| 6F - A.06-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 7F - A.07-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 7F - A.07-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 7F - A.07-02 - Bedroom | NO (-54.6%)                    | NO                    |
| 7F - A.07-02 - Bedroom | NO (-56.8%)                    | NO                    |
| 7F - B.07-02 - Bedroom | NO (-59.2%)                    | NO                    |
| 7F - B.07-02 - Bedroom | NO (-56.9%)                    | NO                    |
| 7F - B.07-01 - Bedroom | NO (-79.9%)                    | NO                    |
| 7F - A.07-01 - Bedroom | NO (-76.1%)                    | NO                    |
| 7F - B.07-08 - Bedroom | NO (-71.2%)                    | NO                    |
| 7F - A.07-08 - Bedroom | NO (-68.2%)                    | NO                    |
| 7F - B.07-03 - Bedroom | NO (-62.4%)                    | NO                    |
| 7F - A.07-03 - Bedroom | NO (-66.2%)                    | NO                    |
| 7F - A.07-03 - Bedroom | N/A                            | N/A                   |
| 7F - B.07-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 7F - B.07-07 - Bedroom | NO (-68%)                      | NO                    |
| 7F - B.07-04 - Bedroom | NO (-56.1%)                    | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 7F - B.07-03 - Bedroom | NO (-58.4%)                    | NO                    |
| 7F - B.07-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 7F - B.07-05 - Bedroom | NO (-63%)                      | NO                    |
| 7F - B.07-06 - Studio  | NO (-57%)                      | NO                    |
| 7F - A.07-03 - Bedroom | NO (-61.8%)                    | NO                    |
| 7F - A.07-04 - Bedroom | NO (-60%)                      | NO                    |
| 7F - A.07-04 - Bedroom | NO (-57.3%)                    | NO                    |
| 7F - A.07-06 - Studio  | NO (-53.4%)                    | NO                    |
| 7F - A.07-05 - Bedroom | NO (-72.2%)                    | NO                    |
| 7F - A.07-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 8F - A.08-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 8F - A.08-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 8F - A.08-02 - Bedroom | NO (-3.3%)                     | NO                    |
| 8F - A.08-02 - Bedroom | NO (-11.5%)                    | NO                    |
| 8F - B.08-02 - Bedroom | NO (-12.6%)                    | NO                    |
| 8F - B.08-02 - Bedroom | NO (-6.3%)                     | NO                    |
| 8F - B.08-01 - Bedroom | NO (-57.6%)                    | NO                    |
| 8F - A.08-01 - Bedroom | NO (-61.6%)                    | NO                    |
| 8F - B.08-08 - Bedroom | NO (-68.6%)                    | NO                    |
| 8F - A.08-08 - Bedroom | NO (-66.6%)                    | NO                    |
| 8F - B.08-03 - Bedroom | NO (-45.4%)                    | NO                    |
| 8F - A.08-03 - Bedroom | NO (-53%)                      | NO                    |
| 8F - A.08-03 - Bedroom | N/A                            | N/A                   |
| 8F - B.08-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 8F - B.08-07 - Bedroom | NO (-68%)                      | NO                    |
| 8F - B.08-04 - Bedroom | NO (-55.9%)                    | NO                    |
| 8F - B.08-03 - Bedroom | NO (-38%)                      | NO                    |
| 8F - B.08-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 8F - B.08-05 - Bedroom | NO (-62.6%)                    | NO                    |
| 8F - B.08-06 - Studio  | NO (-56.9%)                    | NO                    |
| 8F - A.08-03 - Bedroom | NO (-45.6%)                    | NO                    |
| 8F - A.08-04 - Bedroom | NO (-60%)                      | NO                    |
| 8F - A.08-04 - Bedroom | NO (-57.2%)                    | NO                    |
| 8F - A.08-06 - Studio  | NO (-53.4%)                    | NO                    |
| 8F - A.08-05 - Bedroom | NO (-71.9%)                    | NO                    |
| 8F - A.08-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 1F - A.01-03 - Bedroom | NO (-69.9%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 7F - B.07-07 - Bedroom | NO (-68%)                      | NO                    |
| 9F - B.09-05 - Bedroom | NO (-43%)                      | NO                    |
| 9F - B.09-05 - Bedroom | NO (-54.9%)                    | NO                    |
| 9F - B.09-06 - Studio  | NO (-48.8%)                    | NO                    |
| 9F - A.09-06 - Studio  | NO (-53.3%)                    | NO                    |
| 9F - A.09-05 - Bedroom | NO (-71.9%)                    | NO                    |
| 9F - A.09-05 - Bedroom | NO (-59.2%)                    | NO                    |
| 9F - A.09-02 - Bedroom | NO (-62.1%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-59.4%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-40.4%)                    | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 9F - A.09-06 - Bedroom | NO (-76.3%)                    | NO                    |
| 9F - A.09-01 - Bedroom | NO (-55.1%)                    | NO                    |
| 9F - B.09-02 - Bedroom | NO (-54.7%)                    | NO                    |
| 9F - B.09-01 - Bedroom | NO (-44.9%)                    | NO                    |
| 9F - B.09-06 - Bedroom | NO (-36%)                      | NO                    |
| 9F - B.09-06 - Bedroom | NO (-59.7%)                    | NO                    |
| 9F - B.09-06 - Bedroom | NO (-72%)                      | NO                    |
| 9F - A.09-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 9F - A.09-06 - Studio  | NO (-37.2%)                    | NO                    |
| 9F - A.09-05 - Bedroom | NO (-60.7%)                    | NO                    |
| 9F - A.09-05 - Bedroom | NO (-44%)                      | NO                    |
| 9F - A.09-02 - Bedroom | NO (-51%)                      | NO                    |
| 9F - A.09-06 - Bedroom | NO (-59.2%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-41.6%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-76.1%)                    | NO                    |
| 9F - A.09-01 - Bedroom | NO (-55.3%)                    | NO                    |
| GF - Commercial        | NO (-34.2%)                    | NO                    |

#### Criterion 4: The performance of the building, as built, should be consistent with the calculated BER

Separate submission

#### Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

#### EPBD (Recast): Consideration of alternative energy systems

|                                                                                        |     |
|----------------------------------------------------------------------------------------|-----|
| Were alternative energy systems considered and analysed as part of the design process? | YES |
| Is evidence of such assessment available as a separate submission?                     | YES |
| Are any such measures included in the proposed design?                                 | NO  |

# Technical Data Sheet (Actual vs. Notional Building)

## Building Global Parameters

|                                                       | Actual  | Notional |
|-------------------------------------------------------|---------|----------|
| Area [m <sup>2</sup> ]                                | 11998.3 | 11998.3  |
| External area [m <sup>2</sup> ]                       | 9293.5  | 9293.5   |
| Weather                                               | LON     | LON      |
| Infiltration [m <sup>3</sup> /hm <sup>2</sup> @ 50Pa] | 3       | 3        |
| Average conductance [W/K]                             | 3684.04 | 5509.61  |
| Average U-value [W/m <sup>2</sup> K]                  | 0.4     | 0.59     |
| Alpha value* [%]                                      | 10.56   | 10       |

\* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

## Building Use

| % Area    | Building Type                                                      |
|-----------|--------------------------------------------------------------------|
|           | A1/A2 Retail/Financial and Professional services                   |
| <b>3</b>  | <b>A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways</b>      |
|           | B1 Offices and Workshop businesses                                 |
|           | B2 to B7 General Industrial and Special Industrial Groups          |
|           | B8 Storage or Distribution                                         |
|           | C1 Hotels                                                          |
|           | C2 Residential Institutions: Hospitals and Care Homes              |
|           | C2 Residential Institutions: Residential schools                   |
| <b>97</b> | <b>C2 Residential Institutions: Universities and colleges</b>      |
|           | C2A Secure Residential Institutions                                |
|           | Residential spaces                                                 |
|           | D1 Non-residential Institutions: Community/Day Centre              |
|           | D1 Non-residential Institutions: Libraries, Museums, and Galleries |
|           | D1 Non-residential Institutions: Education                         |
|           | D1 Non-residential Institutions: Primary Health Care Building      |
|           | D1 Non-residential Institutions: Crown and County Courts           |
|           | D2 General Assembly and Leisure, Night Clubs, and Theatres         |
|           | Others: Passenger terminals                                        |
|           | Others: Emergency services                                         |
|           | Others: Miscellaneous 24hr activities                              |
|           | Others: Car Parks 24 hrs                                           |
|           | Others: Stand alone utility block                                  |

## Energy Consumption by End Use [kWh/m<sup>2</sup>]

|                 | Actual        | Notional      |
|-----------------|---------------|---------------|
| Heating         | 30.49         | 32.15         |
| Cooling         | 1.34          | 1.22          |
| Auxiliary       | 5.83          | 4.37          |
| Lighting        | 14.41         | 18.93         |
| Hot water       | 102.39        | 68.7          |
| Equipment*      | 64.07         | 64.07         |
| <b>TOTAL **</b> | <b>154.47</b> | <b>125.37</b> |

\* Energy used by equipment does not count towards the total for consumption or calculating emissions.

\*\* Total is net of any electrical energy displaced by CHP generators, if applicable.

## Energy Production by Technology [kWh/m<sup>2</sup>]

|                       | Actual | Notional |
|-----------------------|--------|----------|
| Photovoltaic systems  | 0      | 0        |
| Wind turbines         | 0      | 0        |
| CHP generators        | 0      | 0        |
| Solar thermal systems | 0      | 0        |

## Energy & CO<sub>2</sub> Emissions Summary

|                                               | Actual | Notional |
|-----------------------------------------------|--------|----------|
| Heating + cooling demand [MJ/m <sup>2</sup> ] | 102.53 | 116.4    |
| Primary energy* [kWh/m <sup>2</sup> ]         | 226.73 | 196.43   |
| Total emissions [kg/m <sup>2</sup> ]          | 39.6   | 34.2     |

\* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

| HVAC Systems Performance                                                                                      |                   |                   |                    |                    |                   |               |               |                  |                  |
|---------------------------------------------------------------------------------------------------------------|-------------------|-------------------|--------------------|--------------------|-------------------|---------------|---------------|------------------|------------------|
| System Type                                                                                                   | Heat dem<br>MJ/m2 | Cool dem<br>MJ/m2 | Heat con<br>kWh/m2 | Cool con<br>kWh/m2 | Aux con<br>kWh/m2 | Heat<br>SSEFF | Cool<br>SSEER | Heat gen<br>SEFF | Cool gen<br>SEER |
| [ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity           |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 618.7             | 0                 | 209.9              | 0                  | 5.3               | 0.82          | 0             | 0.91             | 0                |
| Notional                                                                                                      | 663.7             | 0                 | 213.8              | 0                  | 5.2               | 0.86          | 0             | ----             | ----             |
| [ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity           |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 91.7              | 0                 | 31.1               | 0                  | 2                 | 0.82          | 0             | 0.91             | 0                |
| Notional                                                                                                      | 106.1             | 0                 | 34.2               | 0                  | 1.5               | 0.86          | 0             | ----             | ----             |
| [ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity           |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 0.1               | 0                 | 0                  | 0                  | 8.6               | 0.82          | 0             | 0.91             | 0                |
| Notional                                                                                                      | 0.9               | 0                 | 0.3                | 0                  | 6.6               | 0.86          | 0             | ----             | ----             |
| [ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 0                 | 373.3             | 0                  | 39.6               | 16.9              | 2.7           | 2.62          | 3                | 3.5              |
| Notional                                                                                                      | 0                 | 491.7             | 0                  | 36                 | 12.9              | 2.56          | 3.79          | ----             | ----             |
| [ST] No Heating or Cooling                                                                                    |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 0                 | 0                 | 0                  | 0                  | 0                 | 0             | 0             | 0                | 0                |
| Notional                                                                                                      | 0                 | 0                 | 0                  | 0                  | 0                 | 0             | 0             | ----             | ----             |

## Key to terms

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| Heat dem [MJ/m2]  | = Heating energy demand                                                                               |
| Cool dem [MJ/m2]  | = Cooling energy demand                                                                               |
| Heat con [kWh/m2] | = Heating energy consumption                                                                          |
| Cool con [kWh/m2] | = Cooling energy consumption                                                                          |
| Aux con [kWh/m2]  | = Auxiliary energy consumption                                                                        |
| Heat SSEFF        | = Heating system seasonal efficiency (for notional building, value depends on activity glazing class) |
| Cool SSEER        | = Cooling system seasonal energy efficiency ratio                                                     |
| Heat gen SSEFF    | = Heating generator seasonal efficiency                                                               |
| Cool gen SSEER    | = Cooling generator seasonal energy efficiency ratio                                                  |
| ST                | = System type                                                                                         |
| HS                | = Heat source                                                                                         |
| HFT               | = Heating fuel type                                                                                   |
| CFT               | = Cooling fuel type                                                                                   |

# Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

## Building fabric

| Element                                                                  | U <sub>i-Typ</sub> | U <sub>i-Min</sub>                                                 | Surface where the minimum value occurs*  |
|--------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------|------------------------------------------|
| Wall                                                                     | 0.23               | 0.12                                                               | RM000002:Surf[1]                         |
| Floor                                                                    | 0.2                | 0.13                                                               | RM000002:Surf[0]                         |
| Roof                                                                     | 0.15               | 0.11                                                               | RM000006:Surf[1]                         |
| Windows, roof windows, and rooflights                                    | 1.5                | 1.2                                                                | 1F00003D:Surf[0]                         |
| Personnel doors                                                          | 1.5                | 2.2                                                                | RM000006:Surf[3]                         |
| Vehicle access & similar large doors                                     | 1.5                | -                                                                  | No Vehicle access doors in building      |
| High usage entrance doors                                                | 1.5                | -                                                                  | No High usage entrance doors in building |
| U <sub>i-Typ</sub> = Typical individual element U-values [W/(m²K)]       |                    | U <sub>i-Min</sub> = Minimum individual element U-values [W/(m²K)] |                                          |
| * There might be more than one surface where the minimum U-value occurs. |                    |                                                                    |                                          |

| Air Permeability   | Typical value | This building |
|--------------------|---------------|---------------|
| m³/(h.m²) at 50 Pa | 5             | 3             |

Appendix C

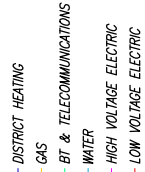
Alan Baxter – Below Ground Infrastructure & Summary  
Drawings

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATION.
2. DO NOT SCALE FROM THIS DRAWING.

THIS DRAWING PROVIDES A SUMMARY ONLY OF THE  
BELLOW GROUND INFRASTRUCTURE TO SERVE THE  
ASSEMBLY BUILDING. FOR FULL AS BUILT INFORMATION  
ON SITE, SEE CHARLES EDWARDS LTD'S DRAWINGS  
16/028/09 REV M (DATED 29/11/18). FOR EXISTING  
UTILITY SURVEY INFORMATION IN BLTH ROAD, SEE  
PREMIER ENGINEERING DRAWING PES-312195-001 REV E  
(DATED 07/10/15).

3. THE PURCHASER IS RESPONSIBLE FOR ANY FURTHER SURVEYS OF EXISTING BELOW GROUND INFRASTRUCTURE NEEDED TO COMPLETE THE DESIGN OF THE VENEER BUILDING.

- 4. SERVICES KEY FOR REFERENCE:**



FOR INFORMATION  
ONLY

|  |          |                         |     |
|--|----------|-------------------------|-----|
|  | 05.03.19 | ISSUED FOR INFORMATION. | MBR |
|--|----------|-------------------------|-----|

**THE OLD VINYL FACTORY,  
THE VENEER BUILDING**

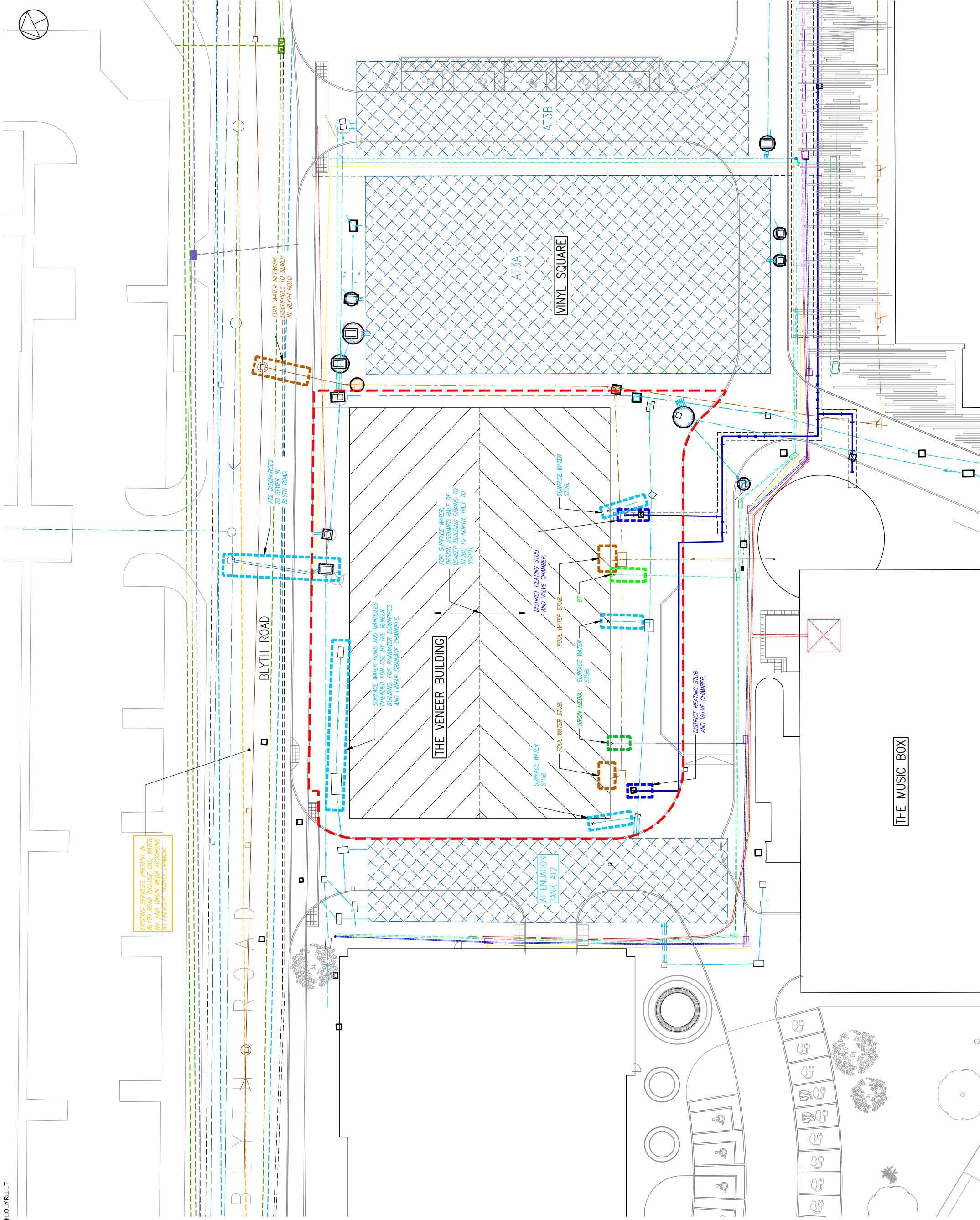
# SUMMARY OF BELOW GROUND INFRASTRUCTURE IN VICINITY OF VENEER BUILDING

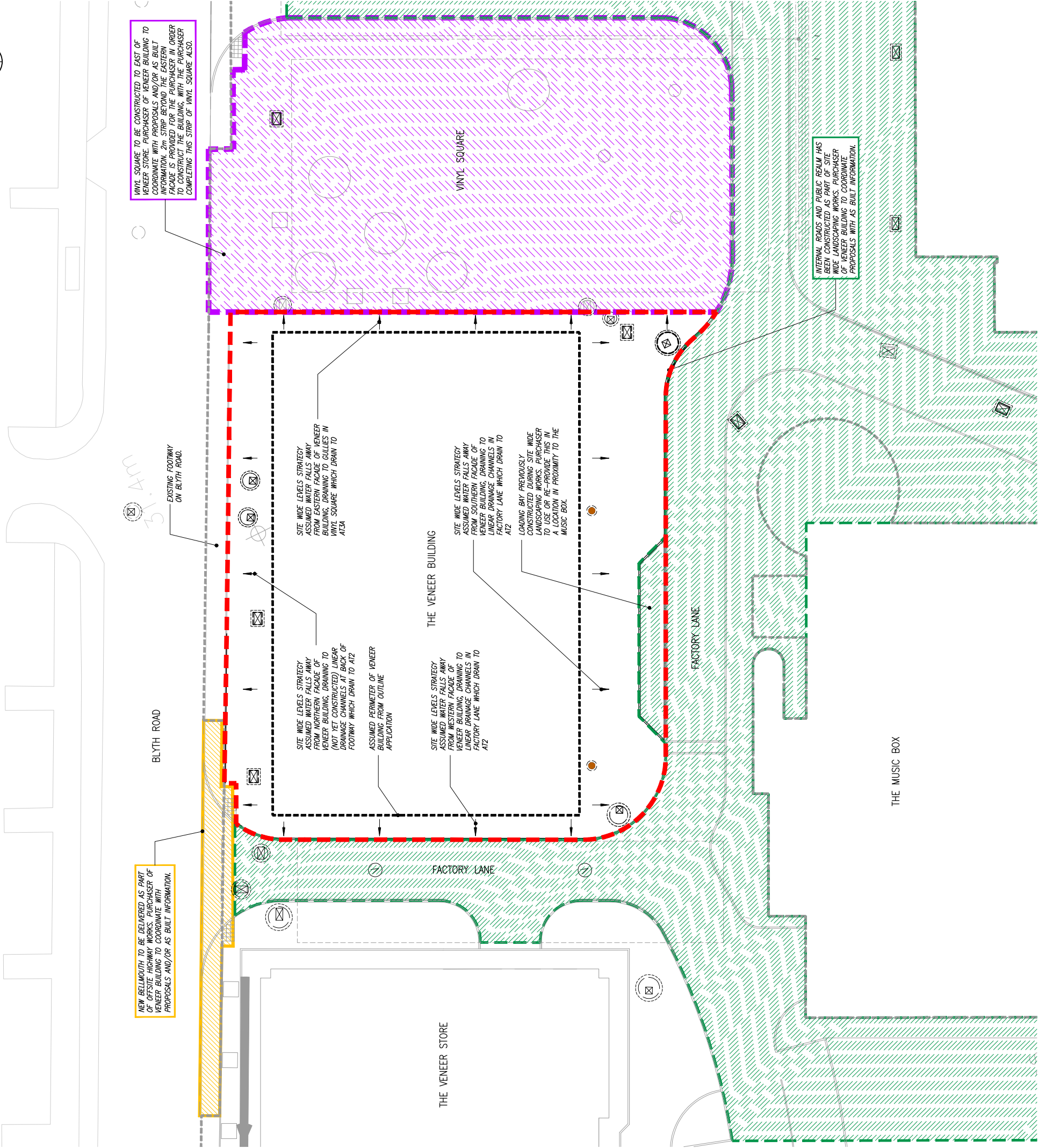
drawn **SP** checked **MBr**  
 date FEB' 19 scale (original - A1) 1:100

# Alan Baxter

75 Cowcross Street London EC1M 6EL  
tel 020 7250 1555  
email [aba@alanbaxter.co.uk](mailto:aba@alanbaxter.co.uk)  
[www.alanbaxter.co.uk](http://www.alanbaxter.co.uk)

|                                            |             |
|--------------------------------------------|-------------|
| <p>drq. no.</p> <p><b>1615/460/100</b></p> | <p>REV.</p> |
|--------------------------------------------|-------------|



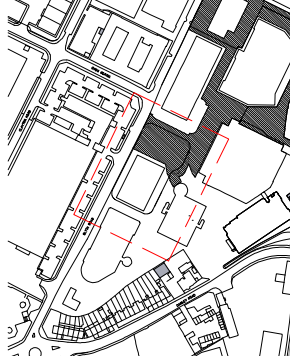


- NOTES
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATION.
  2. DO NOT SCALE FROM THIS DRAWING.
  3. KEY:
  4. KEY PLAN:



BOUNDARY OF LANDSCAPE DELIVERY AREA, AS PER NEW LANDSCAPE DRAWINGS

MANHOLES PREVIOUSLY CONSTRUCTED. SEE CHARLES EDWARDS LTD AS BUILT DRAWINGS



05.03.19 | ISSUED FOR INFORMATION

MBT

THE OLD VINYL FACTORY,  
VENEER BUILDING

SUMMARY OF LANDSCAPING  
INTERFACES

drawn  
SP

checked  
MBT

date  
FEB '19

scale (original - A1)  
1:200

**Alan Baxter**

75 Cowcross Street London EC1M 6EL  
tel 020 7250 1555  
email alba@alanbaxter.co.uk  
www.alanbaxter.co.uk

1615/460/101

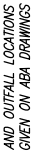
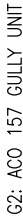
Alan Baxter Limited is a limited company registered in England and Wales, number 3000556. Registered Office in above.

2. DO NOT SCALE FROM THIS DRAWING.



DRIFT

G3: BIRCO 100 – INLINE SIDE OUTFALL



DRIFT



GULLIES AND LINEAR DRAINAGE CHANNEL PROPOSED TO BE CONSTRUCTED AT VINYL SQUARE. PURCHASER TO CO-ORDINATE PROPOSED SURFACE DRAINAGE AT VENEER BUILDING WITH VINYL SQUARE SURFACE DRAINAGE.

- 1) CHANNELS ARE BIRCQ 100 BY MARSHALLS
- 2) STRAIGHT CHANNELS ARE INBUILT FALL OR CONSTANT DEPTH AS INBUILT FALL OR MANUFACTURER'S SPECIFICATIONS. CHANNELS ARE AVAILABLE IN 1' LENGTHS, WITH 1/4" FALL FOR INBUILT AND 20 UNITS MAX IN ONE STRETCH. OUTFALLS UNITS ARE 500mm LONG. THE NUMBER OF UNITS SHOULD BE SELECTED ACCORDING TO THE LENGTH PROVIDED ON PLAN. USE 16042 GRID TYPE, CAST IRON SLOTTED 16042.
- 3) WHEN A CURVED CHANNEL IS SPECIFIED, IT IS TO BE CUSTOM MANUFACTURED BY MARSHALLS. CHANNELS ARE AVAILABLE IN 1' LENGTHS AND ARE CUT INTO 500mm SECTIONS AND CUT TO ANGLE. SECTIONS ARE STEPPED, RATHER THAN WITH AN INBUILT FALL, AND ARE AVAILABLE AT CHANNEL DEPTHS OF 5/8" (180mm), 10/8" (230mm), 15/8" (280mm), AND 20/8" (330mm). CONTRACTOR TO COORDINATE AND CONFIRM WITH MANUFACTURER.
- 4) FOR FURTHER DESIGN INFO REFER TO SUBSURFACE DRAINAGE DRAWINGS.

# Alan Baxter

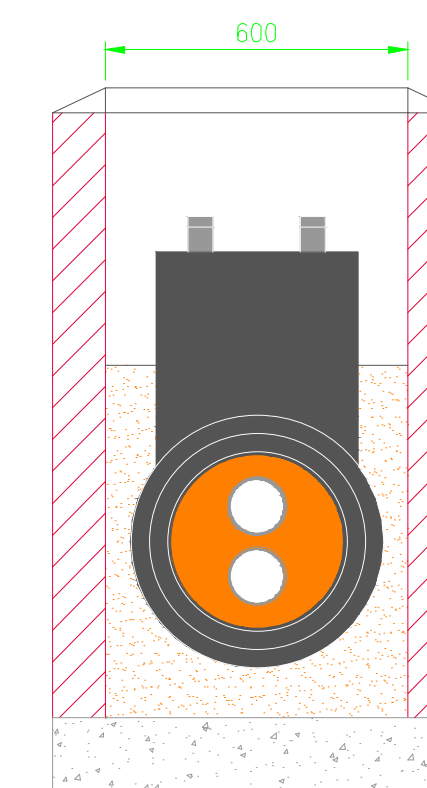
75 Cowcross Street London EC1M 6EL  
tel 020 7250 1555  
email aba @ alanbaxter.co.uk  
www.alanbaxter.co.uk

drg. no.  
**1615/460/102**

Alpen Biotech Limited is a limited company registered in England and Wales, number 06801593. Registered office as above.

## Appendix D

### As-Built Drawings



A technical drawing of a cable joint. The joint is shown in a cross-sectional view. It consists of a central circular area with four small semi-circular indentations. This central area is surrounded by a larger, shaded rectangular area. The entire assembly is enclosed within a red dashed rectangular box, which is further surrounded by a hatched rectangular area. The drawing is oriented horizontally, with two thick grey lines representing the cable conductors extending from the left and right sides.

TYPICAL VALVE CHAMBER DETAIL

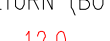
| NOMINAL<br>BORE<br>mm | OUTER<br>CASING<br>DIAMETER<br>mm | K MIN<br>METERS | D MIN<br>METERS |
|-----------------------|-----------------------------------|-----------------|-----------------|
| 65                    | 250                               | 0.45            | 1.50            |

### PIPEWORK INFORMATION


 FLOW (TOP) →  
 ← RETURN (BOTTOM)


 12.0'


 50ø


 10'


 1.35'

TK 28-29

Diagram illustrating four types of joint symbols used in piping drawings:

- REDUCING RING WITH INDICATION OF JOINTS:** A horizontal line with a circle labeled 'R' in the center, and a vertical line segment passing through the circle.
- PRE-FABRICATED REDUCTION WITH INDICATION OF JOINTS (TYPICAL 1.5m LONG):** A horizontal line with a circle labeled 'R' in the center, and two vertical line segments on either side of the circle.
- IMAGINARY ANCHOR:** A horizontal line with a large 'X' symbol in the center.
- AV = AIR VENT, DP = DRAIN POINT:** A horizontal line with two vertical line segments on either side of the center. The left vertical line segment is labeled 'AV' and the right vertical line segment is labeled 'DP'.

 PRE-FABRICATED BENDS  
WITH INDICATION OF JOINTS  
(1.0m x 1.0m)

 BEND FITTING  
WITH INDICATION OF JOINTS

 CURVED PIPE  
WITH INDICATION OF JOINTS  
(ON-SITE CURVED PIPES 26.9°-88.9°)  
(MACHINE CURVED PIPES 114.3°-610°)

BRANCH

MAINS

PRE-FABRICATED BRANCH TEE UNLESS OTHERWISE STATED

VALVES

V/D V/D  
V/D V/D

PREINSULATED ISOLATION VALVE WITH 2\"/>

V/D V/D  
V/D

PREINSULATED ISOLATION VALVE WITH 1\"/>

———— NEW DISTRICT HEATING PIPEWORK  
 ===== EXISTING PREVIOUSLY INSTALLED PIPEWORK

| TWIN PIPE SCHEDULE<br>(SERIES 2) |         |                         |
|----------------------------------|---------|-------------------------|
| NOMINAL<br>I.D. mm               | O.D. mm | OUTER CASING<br>O.D. mm |
| 65                               | 76.1    | 250                     |

Title: DISTRICT HEATING LAYOUT

|      |            |       |       |       |    |
|------|------------|-------|-------|-------|----|
| DATE | 06.02.2017 | SCALE | 1:200 | SHEET | A1 |
|------|------------|-------|-------|-------|----|

CONSTRUCTION APPROVAL Status: S4

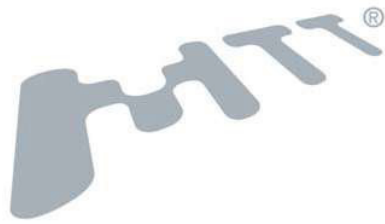
|    |                                      |            |
|----|--------------------------------------|------------|
| LD | Drg-No:<br>50400-VEN-SW-BG-P-DN-5606 | Rev:<br>C1 |
|----|--------------------------------------|------------|



NG Vital Energi. Century House, Roman Road, Blackburn, Lancashire, BB1 2LD  
APP Tel: +44 (0)1254 296 000 Fax: +44 (0)1254 296 040

## Appendix E

### District Heating Summary – Designed by Vital Energi



|                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                                |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------|-----|
| <b>BUILDING</b>                                                                                                                                                                                                                                                                                                                                                                                                      | VENEER BUILDING              | <b>BDS N°</b>                  | 008 |
|                                                                                                                                                                                                                                                                                                                                                                                                                      |                              | <b>REVISION</b>                | 05  |
| <b>BUILDING USE</b>                                                                                                                                                                                                                                                                                                                                                                                                  |                              |                                |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                      |                              | <b>AREA (GIA M²) / (UNITS)</b> |     |
| B1 or A1-A5 - Office/Commercial Use (1 unit) or<br>Retail and Restaurants (2 units)                                                                                                                                                                                                                                                                                                                                  |                              | 875                            |     |
| C3 - Residential                                                                                                                                                                                                                                                                                                                                                                                                     |                              | 8224 / (80)                    |     |
| <b>ELECTRICAL PRELIMINARY BUILDING LOAD</b>                                                                                                                                                                                                                                                                                                                                                                          |                              |                                |     |
| <b>Building Combined Total</b>                                                                                                                                                                                                                                                                                                                                                                                       | <b>B1 or A1 – A5 (Total)</b> | <b>C3 (Total)</b>              |     |
| 584 kW                                                                                                                                                                                                                                                                                                                                                                                                               | 316 kW                       | 268 kW                         |     |
| 615 kVA                                                                                                                                                                                                                                                                                                                                                                                                              | 332 kVA                      | 283 kVA                        |     |
| 8088 A                                                                                                                                                                                                                                                                                                                                                                                                               | 480 A                        | 408 A                          |     |
| <b>MECHANICAL PRELIMINARY BUILDING LOAD</b>                                                                                                                                                                                                                                                                                                                                                                          |                              |                                |     |
| <b>Services</b>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>A1 – A5 (Total)</b>       | <b>C3 (Total)</b>              |     |
| Heating                                                                                                                                                                                                                                                                                                                                                                                                              | 13kW                         | 320kW                          |     |
| Cooling                                                                                                                                                                                                                                                                                                                                                                                                              | 22kW                         | N/A                            |     |
| Gas                                                                                                                                                                                                                                                                                                                                                                                                                  | 26m³/h                       | N/A                            |     |
| Hot water                                                                                                                                                                                                                                                                                                                                                                                                            | 4kW                          | 229kW                          |     |
| Cold Water Storage                                                                                                                                                                                                                                                                                                                                                                                                   | N/A                          | 8200L                          |     |
| Incoming MCWS                                                                                                                                                                                                                                                                                                                                                                                                        | 0.8L/sec                     | 2.3 L/sec                      |     |
| <b>PRELIMINARY AREAS</b>                                                                                                                                                                                                                                                                                                                                                                                             |                              |                                |     |
| <ul style="list-style-type: none"> <li>• Heating Plant = Plate heat exchanger, pumps, pressurisation, system dosing etc. 20m² x 3.5m</li> <li>• Cooling Plant = 20m²</li> <li>• Ventilation Plant = MHRV units.</li> <li>• HWS Plant = Storage calorifiers, circulation pumps etc. 30m² x 3.5m</li> <li>• CWS Plant = 5800L Storage tank, booster pump set etc. 30m² x 3.5m</li> <li>• Renewables = None</li> </ul>  |                              |                                |     |
| <b>NOTES</b>                                                                                                                                                                                                                                                                                                                                                                                                         |                              |                                |     |
| <ol style="list-style-type: none"> <li>1. The floor area and residential numbers stated are as the Area Schedule received from Jackson Coles 22<sup>nd</sup> June 2016.</li> <li>2. Individual plant areas indicated include a nominal provision for required tenant plant</li> <li>3. The above heating and hot water loads are calculated using the diversity factors for the site wide infrastructure.</li> </ol> |                              |                                |     |

## Appendix F

### BRUKL – Be Clean Model

## Project name

**L19091 Veneer Building - London****As designed****Date:** Mon Oct 28 16:19:49 2019**Administrative information****Building Details****Address:** Address 1, London, Postcode**Certification tool****Calculation engine:** Apache**Calculation engine version:** 7.0.12**Interface to calculation engine:** IES Virtual Environment**Interface to calculation engine version:** 7.0.12**BRUKL compliance check version:** v5.6.a.1**Owner Details****Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode**Certifier details****Name:** Name**Telephone number:** Phone**Address:** Street Address, City, Postcode**Criterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target**

|                                                                                                    |                     |
|----------------------------------------------------------------------------------------------------|---------------------|
| CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum | 33.8                |
| Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum               | 33.8                |
| Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum             | 33.7                |
| Are emissions from the building less than or equal to the target?                                  | BER ≤ TER           |
| Are as built details the same as used in the BER calculations?                                     | Separate submission |

**Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency**

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

**Building fabric**

| Element                                                                                                                                                                                                                                                                                                                                                                                                                                      | U <sub>a</sub> -Limit | U <sub>a</sub> -Calc | U <sub>i</sub> -Calc | Surface where the maximum value occurs*  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------|----------------------|------------------------------------------|
| Wall**                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.35                  | 0.12                 | 0.12                 | RM000002:Surf[1]                         |
| Floor                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.25                  | 0.13                 | 0.13                 | RM000002:Surf[0]                         |
| Roof                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.25                  | 0.11                 | 0.11                 | RM000006:Surf[1]                         |
| Windows***, roof windows, and rooflights                                                                                                                                                                                                                                                                                                                                                                                                     | 2.2                   | 1.2                  | 1.2                  | RM000002:Surf[2]                         |
| Personnel doors                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.2                   | 1.29                 | 2.2                  | RM000006:Surf[3]                         |
| Vehicle access & similar large doors                                                                                                                                                                                                                                                                                                                                                                                                         | 1.5                   | -                    | -                    | No Vehicle access doors in building      |
| High usage entrance doors                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.5                   | -                    | -                    | No High usage entrance doors in building |
| U <sub>a</sub> -Limit = Limiting area-weighted average U-values [W/(m <sup>2</sup> K)]<br>U <sub>a</sub> -Calc = Calculated area-weighted average U-values [W/(m <sup>2</sup> K)]<br>U <sub>i</sub> -Calc = Calculated maximum individual element U-values [W/(m <sup>2</sup> K)]                                                                                                                                                            |                       |                      |                      |                                          |
| * There might be more than one surface where the maximum U-value occurs.<br>** Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.<br>*** Display windows and similar glazing are excluded from the U-value check.<br>N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool. |                       |                      |                      |                                          |

| Air Permeability                             | Worst acceptable standard | This building |
|----------------------------------------------|---------------------------|---------------|
| m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa | 10                        | 3             |

## Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

|                                                                                              |       |
|----------------------------------------------------------------------------------------------|-------|
| Whole building lighting automatic monitoring & targeting with alarms for out-of-range values | YES   |
| Whole building electric power factor achieved by power factor correction                     | >0.95 |

### 1- SPLIT HEATING & MVHR - Restaurant

|                                                                                                                                                                   | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| <b>This system</b>                                                                                                                                                | 3                  | 3.5                | 0                  | 0             | 0.95          |
| <b>Standard value</b>                                                                                                                                             | 2.5*               | 3.2                | N/A                | N/A           | 0.5           |
| <b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b>                                                              |                    |                    |                    |               | YES           |
| * Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards. |                    |                    |                    |               |               |

### 2- DISTRICT Heating & Natural Vent

|                                                                                                      | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| <b>This system</b>                                                                                   | 1                  | -                  | 0                  | 0             | -             |
| <b>Standard value</b>                                                                                | N/A                | N/A                | N/A                | N/A           | N/A           |
| <b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b> |                    |                    |                    |               | YES           |

### 3- DISTRICT Heating & Extract Only

|                                                                                                      | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| <b>This system</b>                                                                                   | 1                  | -                  | 0                  | 0             | -             |
| <b>Standard value</b>                                                                                | N/A                | N/A                | N/A                | N/A           | N/A           |
| <b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b> |                    |                    |                    |               | YES           |

### 4- DISTRICT HEATING & MVHR

|                                                                                                      | Heating efficiency | Cooling efficiency | Radiant efficiency | SFP [W/(l/s)] | HR efficiency |
|------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|---------------|---------------|
| <b>This system</b>                                                                                   | 1                  | -                  | 0                  | 0             | 0.95          |
| <b>Standard value</b>                                                                                | N/A                | N/A                | N/A                | N/A           | 0.5           |
| <b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b> |                    |                    |                    |               | YES           |

"No HWS in project, or hot water is provided by HVAC system"

### Local mechanical ventilation, exhaust, and terminal units

| ID | System type in Non-domestic Building Services Compliance Guide                                          |
|----|---------------------------------------------------------------------------------------------------------|
| A  | Local supply or extract ventilation units serving a single area                                         |
| B  | Zonal supply system where the fan is remote from the zone                                               |
| C  | Zonal extract system where the fan is remote from the zone                                              |
| D  | Zonal supply and extract ventilation units serving a single room or zone with heating and heat recovery |
| E  | Local supply and extract ventilation system serving a single area with heating and heat recovery        |
| F  | Other local ventilation units                                                                           |
| G  | Fan-assisted terminal VAV unit                                                                          |
| H  | Fan coil units                                                                                          |
| I  | Zonal extract system where the fan is remote from the zone with grease filter                           |

| Zone name         | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |   | HR efficiency |          |
|-------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---|---------------|----------|
| ID of system type | A             | B   | C   | D   | E   | F   | G   | H   | I |   | Zone          | Standard |
| Standard value    | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |   |               |          |
| GF - Commercial   | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 1F - C.00-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-09 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - A.01-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| GF - C.00-09 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 2F - A.02-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 3F - B.03-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - B.02-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 2F - A.02-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - B.03-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 3F - A.03-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - A.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 4F - B.04-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 4F - B.04-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - A.04-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 5F - B.05-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - B.05-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 5F - A.05-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 4F - B.04-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - B.06-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I | Zone          | Standard |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 |               |          |
| 6F - A.06-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 6F - A.06-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - B.07-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 7F - A.07-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 8F - A.08-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |

| Zone name                     | SFP [W/(l/s)] |     |     |     |     |     |     |     |   |      | HR efficiency |  |
|-------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|---|------|---------------|--|
| ID of system type             | A             | B   | C   | D   | E   | F   | G   | H   | I |      |               |  |
| Standard value                | 0.3           | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone | Standard      |  |
| 8F - A.08-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-02 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-07 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-08 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-01 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-01 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-07 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-02 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-03 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - B.08-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-03 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-04 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-04 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-06 - Studio         | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 8F - A.08-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-08 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 1F - C.00-09 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - A.09-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-05 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-06 - Bathroom       | 0.3           | -   | -   | -   | -   | -   | -   | -   | - | -    | N/A           |  |
| 9F - B.09-05 - Kitchen/Living | -             | -   | -   | 0.8 | -   | -   | -   | -   | - | -    | N/A           |  |

| Zone name                     | SFP [W/(l/s)]     |     |     |     |     |     |     |     |     |   | HR efficiency |          |
|-------------------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|---|---------------|----------|
|                               | ID of system type | A   | B   | C   | D   | E   | F   | G   | H   | I |               |          |
|                               | Standard value    | 0.3 | 1.1 | 0.5 | 1.9 | 1.6 | 0.5 | 1.1 | 0.5 | 1 | Zone          | Standard |
| 9F - B.09-05 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Studio         |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Studio         |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-01 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-01 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-02 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-02 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-01 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-01 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-02 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-02 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - B.09-06 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Studio         |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-05 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-06 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-01 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-01 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-02 - Kitchen/Living |                   | -   | -   | -   | 0.8 | -   | -   | -   | -   | - | -             | N/A      |
| 9F - A.09-02 - Bathroom       |                   | 0.3 | -   | -   | -   | -   | -   | -   | -   | - | -             | N/A      |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| GF - Substation                       |                | 95                       | -    | -            | 84                   |
| GF - Commercial                       |                | -                        | 95   | -            | 3190                 |
| GF - Stairs                           |                | -                        | 95   | -            | 43                   |
| GF - Circulation                      |                | -                        | 95   | -            | 62                   |
| GF - Plant                            |                | 95                       | -    | -            | 101                  |
| GF - Stairs                           |                | -                        | 95   | -            | 45                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| GF - Entrance                         |                | -                        | 95   | -            | 85                   |
| 1F - Plant                            |                | 95                       | -    | -            | 86                   |
| 1F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 1F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 1F - Maintenance Store                |                | 95                       | -    | -            | 13                   |
| 1F - Circulation                      |                | -                        | 95   | -            | 85                   |
| 1F - Circulation                      |                | -                        | 95   | -            | 106                  |
| 1F - Maintenance Store                |                | 95                       | -    | -            | 14                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 95   | -            | 16                   |
| 1F - C.00-06 - Bedroom                |                | -                        | 95   | -            | 29                   |
| 1F - C.00-06 - Circulation            |                | -                        | 95   | -            | 26                   |
| 1F - C.00-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 1F - C.00-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 1F - C.00-05 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 1F - C.00-05 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 1F - C.00-05 - Bedroom                |                | -                        | 95   | -            | 19                   |
| 1F - C.00-05 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 1F - C.00-05 - Circulation            |                | -                        | 95   | -            | 27                   |
| 1F - C.00-05 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 1F - C.00-07 - Kitchen/Living         |                | -                        | 95   | -            | 416                  |
| 1F - C.00-07 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 1F - C.00-07 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - C.00-07 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 1F - C.00-07 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 1F - C.00-08 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 1F - C.00-08 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 1F - C.00-08 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 1F - C.00-08 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - C.00-08 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 1F - C.00-09 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 1F - C.00-09 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 1F - C.00-09 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 1F - C.00-09 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 1F - C.00-09 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - A.01-03 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 1F - A.01-03 - Bathroom               |                | -                        | 95   | -            | 28                   |
| 1F - A.01-03 - Kitchen/Living         |                | -                        | 95   | -            | 378                  |
| 1F - A.01-02 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 1F - A.01-02 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 1F - A.01-02 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 1F - A.01-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 1F - A.01-02 - Bedroom                |                | -                        | 95   | -            | 25                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 1F - A.01-02 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 1F - A.01-02 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 1F - A.01-01 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 1F - A.01-01 - Kitchen/Living         |                | -                        | 95   | -            | 395                  |
| 1F - A.01-01 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 1F - A.01-01 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 1F - A.01-01 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 1F - A.01-01 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 1F - A.01-01 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 1F - A.01-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 1F - C.00-01 - Kitchen/Living         |                | -                        | 95   | -            | 321                  |
| 1F - C.00-01 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 1F - C.00-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 1F - C.00-01 - Circulation            |                | -                        | 95   | -            | 22                   |
| 1F - C.00-01 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - C.00-01 - Bedroom                |                | -                        | 95   | -            | 20                   |
| 1F - C.00-02 - Bedroom                |                | -                        | 95   | -            | 20                   |
| 1F - C.00-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 1F - C.00-02 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - C.00-02 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - C.00-02 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 1F - C.00-03 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - C.00-03 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 1F - C.00-03 - Bedroom                |                | -                        | 95   | -            | 20                   |
| 1F - C.00-03 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - C.00-03 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 1F - C.00-04 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 1F - C.00-04 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 1F - C.00-04 - Circulation            |                | -                        | 95   | -            | 21                   |
| 1F - C.00-04 - Kitchen/Living         |                | -                        | 95   | -            | 306                  |
| 1F - C.00-04 - Bedroom                |                | -                        | 95   | -            | 19                   |
| 1F - C.00-04 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 1F - C.00-03 - Kitchen/Living         |                | -                        | 95   | -            | 319                  |
| 1F - C.00-03 - Circulation            |                | -                        | 95   | -            | 18                   |
| 1F - C.00-02 - Circulation            |                | -                        | 95   | -            | 18                   |
| 1F - C.00-02 - Kitchen/Living         |                | -                        | 95   | -            | 314                  |
| GF - C.00-06 - Kitchen/Living         |                | -                        | 95   | -            | 498                  |
| GF - C.00-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| GF - C.00-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| GF - C.00-05 - Kitchen/Living         |                | -                        | 95   | -            | 361                  |
| GF - C.00-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| GF - C.00-05 - Circulation            |                | -                        | 95   | -            | 44                   |
| GF - C.00-04 - Bathroom               |                | -                        | 95   | -            | 31                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| GF - C.00-04 - Cupboard               |                | 95                       | -    | -            | 8                    |
| GF - C.00-04 - Circulation            |                | -                        | 95   | -            | 29                   |
| GF - C.00-03 - Bathroom               |                | -                        | 95   | -            | 31                   |
| GF - C.00-03 - Circulation            |                | -                        | 95   | -            | 29                   |
| GF - C.00-03 - Cupboard               |                | 95                       | -    | -            | 9                    |
| GF - C.00-01 - Bathroom               |                | -                        | 95   | -            | 31                   |
| GF - C.00-01 - Circulation            |                | -                        | 95   | -            | 29                   |
| GF - C.00-01 - Cupboard               |                | 95                       | -    | -            | 9                    |
| GF - C.00-02 - Bathroom               |                | -                        | 95   | -            | 32                   |
| GF - C.00-02 - Cupboard               |                | 95                       | -    | -            | 9                    |
| GF - C.00-02 - Circulation            |                | -                        | 95   | -            | 29                   |
| GF - C.00-07 - Bathroom               |                | -                        | 95   | -            | 32                   |
| GF - C.00-07 - Circulation            |                | -                        | 95   | -            | 31                   |
| GF - C.00-08 - Circulation            |                | -                        | 95   | -            | 33                   |
| GF - C.00-08 - Bathroom               |                | -                        | 95   | -            | 32                   |
| GF - C.00-08 - Cupboard               |                | 95                       | -    | -            | 10                   |
| GF - C.00-09 - Circulation            |                | -                        | 95   | -            | 33                   |
| GF - C.00-07 - Cupboard               |                | 95                       | -    | -            | 5                    |
| GF - C.00-07 - Bedroom                |                | -                        | 95   | -            | 34                   |
| GF - C.00-09 - Cupboard               |                | 95                       | -    | -            | 10                   |
| GF - C.00-09 - Bathroom               |                | -                        | 95   | -            | 32                   |
| GF - C.00-09 - Bedroom                |                | -                        | 95   | -            | 38                   |
| GF - C.00-08 - Bedroom                |                | -                        | 95   | -            | 38                   |
| GF - C.00-04 - Bedroom                |                | -                        | 95   | -            | 36                   |
| GF - C.00-03 - Bedroom                |                | -                        | 95   | -            | 36                   |
| GF - C.00-02 - Bedroom                |                | -                        | 95   | -            | 36                   |
| GF - C.00-01 - Bedroom                |                | -                        | 95   | -            | 36                   |
| 2F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 2F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 2F - A.02-07 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 95   | -            | 95                   |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 95   | -            | 378                  |
| 2F - A.02-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 2F - A.02-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 2F - A.02-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - A.02-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 2F - A.02-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 2F - A.02-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 2F - A.02-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 2F - A.02-05 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 2F - A.02-05 - Kitchen/Living         |                | -                        | 95   | -            | 395                  |
| 2F - A.02-05 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 2F - A.02-05 - Bedroom                |                | -                        | 95   | -            | 22                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 2F - A.02-05 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 2F - A.02-05 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 2F - A.02-05 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 2F - A.02-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 2F - A.02-02 - Kitchen/Living         |                | -                        | 95   | -            | 433                  |
| 2F - A.02-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 2F - A.02-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 2F - A.02-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 2F - A.02-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 2F - A.02-02 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 2F - Circulation                      |                | -                        | 95   | -            | 87                   |
| 2F - B.02-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 2F - B.02-02 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 2F - B.02-02 - Bathroom               |                | -                        | 95   | -            | 19                   |
| 2F - B.02-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 2F - B.02-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 2F - B.02-01 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 2F - B.02-02 - Kitchen/Living         |                | -                        | 95   | -            | 438                  |
| 2F - Circulation                      |                | -                        | 95   | -            | 83                   |
| 2F - B.02-02 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 2F - B.02-02 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - B.02-03 - Kitchen/Living         |                | -                        | 95   | -            | 327                  |
| 2F - B.02-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 2F - B.02-03 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 2F - B.02-03 - Bedroom                |                | -                        | 95   | -            | 28                   |
| 2F - B.02-03 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - B.02-04 - Kitchen/Living         |                | -                        | 95   | -            | 426                  |
| 2F - B.02-04 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 2F - B.02-04 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 2F - B.02-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - B.02-04 - Bathroom               |                | -                        | 95   | -            | 25                   |
| 2F - B.02-04 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 2F - B.02-04 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 2F - B.02-04 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 2F - B.02-05 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 2F - B.02-05 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 2F - B.02-05 - Cupboard               |                | 95                       | -    | -            | 10                   |
| 2F - B.02-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 2F - B.02-07 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - B.02-05 - Kitchen/Living         |                | -                        | 95   | -            | 398                  |
| 2F - B.02-05 - Bathroom               |                | -                        | 95   | -            | 21                   |
| 2F - B.02-05 - Bedroom                |                | -                        | 95   | -            | 27                   |
| 2F - B.02-01 - Cupboard               |                | 95                       | -    | -            | 3                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 2F - B.02-01 - Kitchen/Living         |                | -                        | 95   | -            | 317                  |
| 2F - B.02-06 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 2F - B.02-06 - Kitchen/Living         |                | -                        | 95   | -            | 354                  |
| 2F - B.02-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 2F - B.02-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - B.02-07 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 2F - B.02-07 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 2F - A.02-02 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - A.02-02 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 2F - A.02-03 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - A.02-03 - Bedroom                |                | -                        | 95   | -            | 28                   |
| 2F - A.02-03 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 2F - A.02-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 2F - A.02-04 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 2F - A.02-04 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 2F - A.02-04 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 2F - A.02-04 - Bathroom               |                | -                        | 95   | -            | 26                   |
| 2F - A.02-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 2F - A.02-04 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 2F - A.02-04 - Kitchen/Living         |                | -                        | 95   | -            | 423                  |
| 2F - A.02-04 - Bedroom                |                | -                        | 95   | -            | 16                   |
| 2F - A.02-04 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 2F - A.02-03 - Kitchen/Living         |                | -                        | 95   | -            | 320                  |
| 2F - B.02-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 2F - B.02-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 2F - A.02-01 - Kitchen/Living         |                | -                        | 95   | -            | 326                  |
| 2F - A.02-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 2F - A.02-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 2F - A.02-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 2F - A.02-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 3F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 3F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 3F - A.03-07 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 95   | -            | 95                   |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 95   | -            | 378                  |
| 3F - A.03-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 3F - A.03-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 3F - A.03-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 3F - A.03-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 3F - A.03-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 3F - A.03-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 3F - A.03-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 3F - A.03-05 - Cupboard               |                | 95                       | -    | -            | 7                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 3F - A.03-05 - Kitchen/Living         |                | -                        | 95   | -            | 395                  |
| 3F - A.03-05 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 3F - A.03-05 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 3F - A.03-05 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 3F - A.03-05 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 3F - A.03-05 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 3F - A.03-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 3F - A.03-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 3F - A.03-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 3F - A.03-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 3F - A.03-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 3F - A.03-02 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 3F - Circulation                      |                | -                        | 95   | -            | 87                   |
| 3F - B.03-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 3F - B.03-02 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 3F - B.03-02 - Bathroom               |                | -                        | 95   | -            | 19                   |
| 3F - B.03-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 3F - B.03-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 3F - B.03-01 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 3F - B.03-02 - Kitchen/Living         |                | -                        | 95   | -            | 438                  |
| 3F - Circulation                      |                | -                        | 95   | -            | 83                   |
| 3F - B.03-03 - Kitchen/Living         |                | -                        | 95   | -            | 327                  |
| 3F - B.03-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 3F - B.03-03 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 3F - B.03-04 - Kitchen/Living         |                | -                        | 95   | -            | 426                  |
| 3F - B.03-04 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 3F - B.03-04 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 3F - B.03-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 3F - B.03-04 - Bathroom               |                | -                        | 95   | -            | 25                   |
| 3F - B.03-04 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 3F - B.03-04 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 2F - B.02-04 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 3F - B.03-05 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 3F - B.03-05 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 3F - B.03-05 - Cupboard               |                | 95                       | -    | -            | 10                   |
| 3F - B.03-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 3F - B.03-07 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 3F - B.03-05 - Kitchen/Living         |                | -                        | 95   | -            | 398                  |
| 3F - B.03-05 - Bathroom               |                | -                        | 95   | -            | 21                   |
| 3F - B.03-05 - Bedroom                |                | -                        | 95   | -            | 27                   |
| 3F - B.03-01 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 2F - B.02-01 - Kitchen/Living         |                | -                        | 95   | -            | 317                  |
| 3F - B.03-06 - Bedroom                |                | -                        | 95   | -            | 23                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 3F - B.03-06 - Kitchen/Living         |                | -                        | 95   | -            | 354                  |
| 3F - B.03-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 3F - B.03-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 3F - B.03-07 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 3F - B.03-07 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 3F - A.03-03 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 3F - A.03-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 3F - A.03-04 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 3F - A.03-04 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 3F - A.03-04 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 3F - A.03-04 - Bathroom               |                | -                        | 95   | -            | 26                   |
| 3F - A.03-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 3F - A.03-04 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 3F - A.03-04 - Kitchen/Living         |                | -                        | 95   | -            | 423                  |
| 3F - A.03-04 - Bedroom                |                | -                        | 95   | -            | 16                   |
| 3F - A.03-04 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 3F - B.03-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 3F - B.03-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 3F - A.03-01 - Kitchen/Living         |                | -                        | 95   | -            | 326                  |
| 3F - A.03-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 3F - A.03-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 3F - A.03-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 3F - A.03-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 2F - B.02-07 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 2F - B.02-07 - Kitchen/Living         |                | -                        | 95   | -            | 361                  |
| 2F - A.02-07 - Kitchen/Living         |                | -                        | 95   | -            | 159                  |
| 3F - B.03-07 - Kitchen/Living         |                | -                        | 95   | -            | 361                  |
| 3F - B.03-07 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 3F - A.03-07 - Kitchen/Living         |                | -                        | 95   | -            | 159                  |
| 3F - B.03-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 3F - B.03-03 - Bedroom                |                | -                        | 95   | -            | 28                   |
| 3F - B.03-03 - Bedroom                |                | -                        | 95   | -            | 10                   |
| 3F - B.03-03 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 3F - A.03-02 - Kitchen/Living         |                | -                        | 95   | -            | 421                  |
| 3F - A.03-03 - Kitchen/Living         |                | -                        | 95   | -            | 341                  |
| 3F - A.03-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 3F - A.03-03 - Bathroom               |                | -                        | 95   | -            | 21                   |
| 3F - A.03-03 - Bedroom                |                | -                        | 95   | -            | 11                   |
| 3F - A.03-03 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 4F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 4F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 4F - A.04-07 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 4F - A.04-07 - Bathroom               |                | -                        | 95   | -            | 28                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 4F - A.04-07 - Kitchen/Living         |                | -                        | 95   | -            | 378                  |
| 4F - A.04-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 4F - A.04-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 4F - A.04-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 4F - A.04-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 4F - A.04-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 4F - A.04-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 4F - A.04-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - A.04-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 4F - A.04-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 4F - A.04-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 4F - A.04-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 4F - A.04-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 4F - A.04-02 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 4F - Circulation                      |                | -                        | 95   | -            | 87                   |
| 4F - B.04-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 4F - B.04-02 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 4F - B.04-02 - Bathroom               |                | -                        | 95   | -            | 19                   |
| 4F - B.04-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 4F - B.04-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 4F - B.04-01 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 4F - Circulation                      |                | -                        | 95   | -            | 83                   |
| 4F - B.04-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - B.04-03 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 4F - B.04-08 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 4F - B.04-01 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 4F - B.04-01 - Kitchen/Living         |                | -                        | 95   | -            | 317                  |
| 4F - B.04-07 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 4F - B.04-07 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 4F - B.04-08 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 4F - B.04-08 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 4F - A.04-03 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 4F - A.04-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - B.04-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 4F - B.04-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - A.04-01 - Kitchen/Living         |                | -                        | 95   | -            | 326                  |
| 4F - A.04-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - A.04-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 4F - A.04-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - A.04-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 4F - B.04-08 - Kitchen/Living         |                | -                        | 95   | -            | 361                  |
| 4F - B.04-08 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 4F - A.04-07 - Bedroom                |                | -                        | 95   | -            | 25                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 4F - B.04-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 4F - B.04-03 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 4F - A.04-02 - Kitchen/Living         |                | -                        | 95   | -            | 421                  |
| 4F - A.04-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 4F - A.04-03 - Bathroom               |                | -                        | 95   | -            | 21                   |
| 4F - A.04-03 - Bedroom                |                | -                        | 95   | -            | 11                   |
| 4F - B.04-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 4F - B.04-07 - Kitchen/Living         |                | -                        | 95   | -            | 354                  |
| 4F - B.04-07 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 4F - B.04-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 4F - B.04-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - B.04-03 - Kitchen/Living         |                | -                        | 95   | -            | 367                  |
| 4F - B.04-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 4F - B.04-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 4F - B.04-04 - Kitchen/Living         |                | -                        | 95   | -            | 397                  |
| 4F - B.04-04 - Bedroom                |                | -                        | 95   | -            | 28                   |
| 4F - B.04-04 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - B.04-02 - Kitchen/Living         |                | -                        | 95   | -            | 430                  |
| 4F - B.04-03 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 4F - B.04-05 - Kitchen/Living         |                | -                        | 95   | -            | 329                  |
| 4F - B.04-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 4F - B.04-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 4F - B.04-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 4F - B.04-05 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 4F - B.04-06 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 4F - B.04-06 - Studio                 |                | -                        | 95   | -            | 51                   |
| 4F - A.04-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 4F - A.04-03 - Kitchen/Living         |                | -                        | 95   | -            | 360                  |
| 4F - A.04-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 4F - A.04-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 4F - A.04-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 4F - A.04-04 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 4F - A.04-04 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 4F - A.04-04 - Kitchen/Living         |                | -                        | 95   | -            | 398                  |
| 4F - A.04-06 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 4F - A.04-06 - Studio                 |                | -                        | 95   | -            | 50                   |
| 4F - A.04-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 4F - A.04-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 4F - A.04-05 - Kitchen/Living         |                | -                        | 95   | -            | 333                  |
| 4F - A.04-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 4F - A.04-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 4F - A.04-05 - Bedroom                |                | -                        | 95   | -            | 17                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 4F - A.04-05 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 5F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 5F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 5F - A.05-08 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 5F - A.05-08 - Bathroom               |                | -                        | 95   | -            | 28                   |
| 5F - A.05-08 - Kitchen/Living         |                | -                        | 95   | -            | 378                  |
| 5F - A.05-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 5F - A.05-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 5F - A.05-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 5F - A.05-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 5F - A.05-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 5F - A.05-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 5F - A.05-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 5F - A.05-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 5F - A.05-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 5F - A.05-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 5F - A.05-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 5F - A.05-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 5F - A.05-02 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 5F - Circulation                      |                | -                        | 95   | -            | 87                   |
| 5F - B.05-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 5F - B.05-02 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 5F - B.05-02 - Bathroom               |                | -                        | 95   | -            | 19                   |
| 5F - B.05-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 5F - B.05-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 5F - B.05-01 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 5F - Circulation                      |                | -                        | 95   | -            | 83                   |
| 5F - B.05-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 5F - B.05-03 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 5F - B.05-08 - Bathroom               |                | -                        | 95   | -            | 17                   |
| 5F - B.05-01 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 5F - B.05-01 - Kitchen/Living         |                | -                        | 95   | -            | 317                  |
| 5F - B.05-07 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 5F - B.05-07 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 5F - B.05-08 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 5F - B.05-08 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 5F - A.05-03 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 5F - A.05-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 5F - B.05-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 5F - B.05-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 5F - A.05-01 - Kitchen/Living         |                | -                        | 95   | -            | 326                  |
| 5F - A.05-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 5F - A.05-01 - Bathroom               |                | -                        | 95   | -            | 23                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 5F - A.05-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 5F - A.05-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 5F - B.05-08 - Kitchen/Living         |                | -                        | 95   | -            | 361                  |
| 5F - B.05-08 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 5F - A.05-08 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 5F - B.05-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 5F - B.05-03 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 5F - A.05-02 - Kitchen/Living         |                | -                        | 95   | -            | 421                  |
| 5F - A.05-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 5F - A.05-03 - Bathroom               |                | -                        | 95   | -            | 21                   |
| 5F - A.05-03 - Bedroom                |                | -                        | 95   | -            | 11                   |
| 5F - B.05-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 5F - B.05-07 - Kitchen/Living         |                | -                        | 95   | -            | 354                  |
| 5F - B.05-07 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 5F - B.05-06 - Kitchen/Living         |                | -                        | 95   | -            | 81                   |
| 5F - B.05-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 5F - B.05-03 - Kitchen/Living         |                | -                        | 95   | -            | 367                  |
| 5F - B.05-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 5F - B.05-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 5F - B.05-04 - Kitchen/Living         |                | -                        | 95   | -            | 397                  |
| 5F - B.05-04 - Bedroom                |                | -                        | 95   | -            | 28                   |
| 5F - B.05-04 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 5F - B.05-02 - Kitchen/Living         |                | -                        | 95   | -            | 430                  |
| 5F - B.05-03 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 5F - B.05-03 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 5F - B.05-05 - Kitchen/Living         |                | -                        | 95   | -            | 329                  |
| 5F - B.05-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 5F - B.05-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 5F - B.05-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 5F - B.05-05 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 5F - B.05-06 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 5F - B.05-06 - Studio                 |                | -                        | 95   | -            | 51                   |
| 5F - A.05-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 5F - A.05-03 - Kitchen/Living         |                | -                        | 95   | -            | 360                  |
| 5F - A.05-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 5F - A.05-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 5F - A.05-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 5F - A.05-04 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 5F - A.05-04 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 5F - A.05-04 - Kitchen/Living         |                | -                        | 95   | -            | 398                  |
| 5F - A.05-06 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 5F - A.05-06 - Studio                 |                | -                        | 95   | -            | 50                   |
| 5F - A.05-06 - Cupboard               |                | 95                       | -    | -            | 5                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 5F - A.05-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 5F - A.05-05 - Kitchen/Living         |                | -                        | 95   | -            | 333                  |
| 5F - A.05-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 5F - A.05-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 5F - A.05-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 5F - A.05-05 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 6F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 6F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 6F - A.06-08 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 6F - A.06-08 - Bathroom               |                | -                        | 95   | -            | 28                   |
| 6F - A.06-08 - Kitchen/Living         |                | -                        | 95   | -            | 378                  |
| 6F - A.06-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 6F - A.06-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 6F - A.06-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 6F - A.06-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 6F - A.06-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 6F - A.06-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 6F - A.06-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 6F - A.06-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 6F - A.06-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 6F - A.06-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 6F - A.06-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 6F - A.06-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 6F - A.06-02 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 6F - Circulation                      |                | -                        | 95   | -            | 87                   |
| 6F - B.06-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 6F - B.06-02 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 6F - B.06-02 - Bathroom               |                | -                        | 95   | -            | 19                   |
| 6F - B.06-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 6F - B.06-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 6F - B.06-01 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 6F - Circulation                      |                | -                        | 95   | -            | 83                   |
| 4F - B.04-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - B.04-03 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 6F - B.06-08 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 6F - B.06-01 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 6F - B.06-01 - Kitchen/Living         |                | -                        | 95   | -            | 317                  |
| 6F - B.06-07 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 6F - B.06-07 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 6F - B.06-08 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 6F - B.06-08 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 6F - A.06-03 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 6F - A.06-03 - Cupboard               |                | 95                       | -    | -            | 4                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 6F - B.06-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 6F - B.06-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 6F - A.06-01 - Bathroom               |                | -                        | 95   | -            | 98                   |
| 6F - A.06-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 6F - A.06-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 6F - A.06-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 6F - A.06-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 6F - B.06-08 - Kitchen/Living         |                | -                        | 95   | -            | 361                  |
| 6F - B.06-08 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 6F - A.06-08 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 4F - B.04-03 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 6F - A.06-02 - Kitchen/Living         |                | -                        | 95   | -            | 421                  |
| 6F - A.06-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 6F - A.06-03 - Bathroom               |                | -                        | 95   | -            | 21                   |
| 6F - A.06-03 - Bedroom                |                | -                        | 95   | -            | 11                   |
| 6F - B.06-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 6F - B.06-07 - Kitchen/Living         |                | -                        | 95   | -            | 354                  |
| 6F - B.06-07 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 6F - B.06-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 6F - B.06-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 4F - B.04-03 - Kitchen/Living         |                | -                        | 95   | -            | 367                  |
| 6F - B.06-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 6F - B.06-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 6F - B.06-04 - Kitchen/Living         |                | -                        | 95   | -            | 397                  |
| 6F - B.06-04 - Bedroom                |                | -                        | 95   | -            | 28                   |
| 6F - B.06-04 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 6F - B.06-02 - Kitchen/Living         |                | -                        | 95   | -            | 430                  |
| 4F - B.04-03 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 4F - B.04-03 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 6F - B.06-05 - Kitchen/Living         |                | -                        | 95   | -            | 329                  |
| 6F - B.06-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 6F - B.06-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 6F - B.06-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 6F - B.06-05 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 6F - B.06-06 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 6F - B.06-06 - Studio                 |                | -                        | 95   | -            | 51                   |
| 6F - A.06-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 6F - A.06-03 - Kitchen/Living         |                | -                        | 95   | -            | 360                  |
| 6F - A.06-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 6F - A.06-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 6F - A.06-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 6F - A.06-04 - Cupboard               |                | 95                       | -    | -            | 3                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 6F - A.06-04 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 6F - A.06-04 - Kitchen/Living         |                | -                        | 95   | -            | 398                  |
| 6F - A.06-06 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 6F - A.06-06 - Studio                 |                | -                        | 95   | -            | 50                   |
| 6F - A.06-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 6F - A.06-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 6F - A.06-05 - Kitchen/Living         |                | -                        | 95   | -            | 333                  |
| 6F - A.06-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 6F - A.06-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 6F - A.06-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 6F - A.06-05 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 7F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 7F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 7F - A.07-08 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 7F - A.07-08 - Bathroom               |                | -                        | 95   | -            | 28                   |
| 7F - A.07-08 - Kitchen/Living         |                | -                        | 95   | -            | 378                  |
| 7F - A.07-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 7F - A.07-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 7F - A.07-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 7F - A.07-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 7F - A.07-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 7F - A.07-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 7F - A.07-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 7F - A.07-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 7F - A.07-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 7F - A.07-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 7F - A.07-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 7F - A.07-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 7F - A.07-02 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 7F - Circulation                      |                | -                        | 95   | -            | 87                   |
| 7F - B.07-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 7F - B.07-02 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 7F - B.07-02 - Bathroom               |                | -                        | 95   | -            | 19                   |
| 7F - B.07-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 7F - B.07-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 7F - B.07-01 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 7F - Circulation                      |                | -                        | 95   | -            | 83                   |
| 7F - B.07-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 7F - B.07-03 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 7F - B.07-08 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 7F - B.07-01 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 7F - B.07-01 - Kitchen/Living         |                | -                        | 95   | -            | 317                  |
| 7F - B.07-07 - Bathroom               |                | -                        | 95   | -            | 23                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 7F - B.07-07 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 7F - B.07-08 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 7F - B.07-08 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 7F - A.07-03 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 7F - A.07-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 7F - B.07-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 7F - B.07-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 7F - A.07-01 - Kitchen/Living         |                | -                        | 95   | -            | 326                  |
| 7F - A.07-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 7F - A.07-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 7F - A.07-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 7F - A.07-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 7F - B.07-08 - Kitchen/Living         |                | -                        | 95   | -            | 361                  |
| 7F - B.07-08 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 7F - A.07-08 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 7F - B.07-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 7F - B.07-03 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 7F - A.07-02 - Kitchen/Living         |                | -                        | 95   | -            | 421                  |
| 7F - A.07-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 7F - A.07-03 - Bathroom               |                | -                        | 95   | -            | 21                   |
| 7F - A.07-03 - Bedroom                |                | -                        | 95   | -            | 11                   |
| 7F - B.07-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 7F - B.07-07 - Kitchen/Living         |                | -                        | 95   | -            | 354                  |
| 7F - B.07-07 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 7F - B.07-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 7F - B.07-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 7F - B.07-03 - Kitchen/Living         |                | -                        | 95   | -            | 367                  |
| 7F - B.07-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 7F - B.07-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 7F - B.07-04 - Kitchen/Living         |                | -                        | 95   | -            | 397                  |
| 7F - B.07-04 - Bedroom                |                | -                        | 95   | -            | 28                   |
| 7F - B.07-04 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 7F - B.07-02 - Kitchen/Living         |                | -                        | 95   | -            | 430                  |
| 7F - B.07-03 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 7F - B.07-03 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 7F - B.07-05 - Kitchen/Living         |                | -                        | 95   | -            | 329                  |
| 7F - B.07-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 7F - B.07-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 7F - B.07-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 7F - B.07-05 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 7F - B.07-06 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 7F - B.07-06 - Studio                 |                | -                        | 95   | -            | 51                   |
| 7F - A.07-03 - Bedroom                |                | -                        | 95   | -            | 24                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 7F - A.07-03 - Kitchen/Living         |                | -                        | 95   | -            | 360                  |
| 7F - A.07-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 7F - A.07-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 7F - A.07-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 7F - A.07-04 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 7F - A.07-04 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 7F - A.07-04 - Kitchen/Living         |                | -                        | 95   | -            | 398                  |
| 7F - A.07-06 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 7F - A.07-06 - Studio                 |                | -                        | 95   | -            | 50                   |
| 7F - A.07-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 7F - A.07-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 7F - A.07-05 - Kitchen/Living         |                | -                        | 95   | -            | 333                  |
| 7F - A.07-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 7F - A.07-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 7F - A.07-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 7F - A.07-05 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 8F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 8F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 8F - A.08-08 - Cupboard               |                | 95                       | -    | -            | 8                    |
| 8F - A.08-08 - Bathroom               |                | -                        | 95   | -            | 28                   |
| 8F - A.08-08 - Kitchen/Living         |                | -                        | 95   | -            | 378                  |
| 8F - A.08-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 8F - A.08-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 8F - A.08-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 8F - A.08-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 8F - A.08-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 8F - A.08-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 8F - A.08-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 8F - A.08-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 8F - A.08-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 8F - A.08-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 8F - A.08-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 8F - A.08-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 8F - A.08-02 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 8F - Circulation                      |                | -                        | 95   | -            | 87                   |
| 8F - B.08-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 8F - B.08-02 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 8F - B.08-02 - Bathroom               |                | -                        | 95   | -            | 19                   |
| 8F - B.08-02 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 8F - B.08-02 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 8F - B.08-01 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 8F - Circulation                      |                | -                        | 95   | -            | 83                   |
| 8F - B.08-03 - Cupboard               |                | 95                       | -    | -            | 4                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 8F - B.08-03 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 8F - B.08-08 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 8F - B.08-01 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 8F - B.08-01 - Kitchen/Living         |                | -                        | 95   | -            | 317                  |
| 8F - B.08-07 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 8F - B.08-07 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 8F - B.08-08 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 8F - B.08-08 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 8F - A.08-03 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 8F - A.08-03 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 8F - B.08-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 8F - B.08-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 8F - A.08-01 - Kitchen/Living         |                | -                        | 95   | -            | 326                  |
| 8F - A.08-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 8F - A.08-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 8F - A.08-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 8F - A.08-01 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 8F - B.08-08 - Kitchen/Living         |                | -                        | 95   | -            | 361                  |
| 8F - B.08-08 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 8F - A.08-08 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 8F - B.08-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 8F - B.08-03 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 8F - A.08-02 - Kitchen/Living         |                | -                        | 95   | -            | 421                  |
| 8F - A.08-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 8F - A.08-03 - Bathroom               |                | -                        | 95   | -            | 21                   |
| 8F - A.08-03 - Bedroom                |                | -                        | 95   | -            | 11                   |
| 8F - B.08-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 8F - B.08-07 - Kitchen/Living         |                | -                        | 95   | -            | 354                  |
| 8F - B.08-07 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 8F - B.08-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 8F - B.08-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 8F - B.08-03 - Kitchen/Living         |                | -                        | 95   | -            | 367                  |
| 8F - B.08-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 8F - B.08-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 8F - B.08-04 - Kitchen/Living         |                | -                        | 95   | -            | 397                  |
| 8F - B.08-04 - Bedroom                |                | -                        | 95   | -            | 28                   |
| 8F - B.08-04 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 8F - B.08-02 - Kitchen/Living         |                | -                        | 95   | -            | 430                  |
| 8F - B.08-03 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 8F - B.08-03 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 8F - B.08-05 - Kitchen/Living         |                | -                        | 95   | -            | 329                  |
| 8F - B.08-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 8F - B.08-05 - Bathroom               |                | -                        | 95   | -            | 23                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 8F - B.08-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 8F - B.08-05 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 8F - B.08-06 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 8F - B.08-06 - Studio                 |                | -                        | 95   | -            | 51                   |
| 8F - A.08-03 - Bedroom                |                | -                        | 95   | -            | 24                   |
| 8F - A.08-03 - Kitchen/Living         |                | -                        | 95   | -            | 360                  |
| 8F - A.08-04 - Bathroom               |                | -                        | 95   | -            | 27                   |
| 8F - A.08-04 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 8F - A.08-04 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 8F - A.08-04 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 8F - A.08-04 - Bedroom                |                | -                        | 95   | -            | 26                   |
| 8F - A.08-04 - Kitchen/Living         |                | -                        | 95   | -            | 398                  |
| 8F - A.08-06 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 8F - A.08-06 - Studio                 |                | -                        | 95   | -            | 50                   |
| 8F - A.08-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 8F - A.08-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 8F - A.08-05 - Kitchen/Living         |                | -                        | 95   | -            | 333                  |
| 8F - A.08-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 8F - A.08-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 8F - A.08-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 8F - A.08-05 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 1F - C.00-08 - Kitchen/Living         |                | -                        | 95   | -            | 353                  |
| 1F - C.00-09 - Kitchen/Living         |                | -                        | 95   | -            | 356                  |
| 1F - A.01-03 - Bedroom                |                | -                        | 95   | -            | 25                   |
| GF - Amenity                          |                | -                        | 95   | -            | 342                  |
| GF - Plant                            |                | 95                       | -    | -            | 135                  |
| GF - Plant                            |                | 95                       | -    | -            | 122                  |
| 9F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 9F - Stairs                           |                | -                        | 95   | -            | 32                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - B.09-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - B.09-05 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 9F - B.09-05 - Kitchen/Living         |                | -                        | 95   | -            | 354                  |
| 7F - B.07-07 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 9F - B.09-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 9F - B.09-06 - Cupboard               |                | 95                       | -    | -            | 4                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 9F - B.09-05 - Kitchen/Living         |                | -                        | 95   | -            | 329                  |
| 9F - B.09-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 9F - B.09-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - B.09-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 9F - B.09-05 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 9F - B.09-06 - Cupboard               |                | 95                       | -    | -            | 7                    |
| 9F - B.09-06 - Studio                 |                | -                        | 95   | -            | 51                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 9F - A.09-06 - Studio                 |                | -                        | 95   | -            | 50                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 9F - A.09-05 - Kitchen/Living         |                | -                        | 95   | -            | 333                  |
| 9F - A.09-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - A.09-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 9F - A.09-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 9F - A.09-02 - Bedroom                |                | -                        | 95   | -            | 21                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 16                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 95   | -            | 410                  |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 9F - A.09-01 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - A.09-01 - Bedroom                |                | -                        | 95   | -            | 21                   |
| 9F - A.09-01 - Kitchen/Living         |                | -                        | 95   | -            | 348                  |
| 9F - A.09-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - A.09-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 9F - A.09-02 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 9F - A.09-02 - Kitchen/Living         |                | -                        | 95   | -            | 326                  |
| 9F - A.09-02 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 9F - A.09-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - Circulation                      |                | -                        | 95   | -            | 89                   |
| 9F - B.09-02 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 9F - Circulation                      |                | -                        | 95   | -            | 86                   |
| 9F - B.09-01 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 9F - B.09-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 9F - B.09-01 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - B.09-01 - Kitchen/Living         |                | -                        | 95   | -            | 356                  |
| 9F - B.09-01 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - B.09-02 - Cupboard               |                | 95                       | -    | -            | 3                    |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              | General lighting [W] |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp |                      |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 9F - B.09-02 - Kitchen/Living         |                | -                        | 95   | -            | 329                  |
| 9F - B.09-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - B.09-02 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 9F - B.09-06 - Bathroom               |                | -                        | 95   | -            | 34                   |
| 9F - B.09-06 - Bedroom                |                | -                        | 95   | -            | 19                   |
| 9F - B.09-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 9F - B.09-06 - Kitchen/Living         |                | -                        | 95   | -            | 410                  |
| 9F - B.09-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - B.09-06 - Bedroom                |                | -                        | 95   | -            | 18                   |
| 9F - B.09-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 9F - Stairs (1)                       |                | -                        | 95   | -            | 32                   |
| 10F - Circulation                     |                | -                        | 95   | -            | 49                   |
| 9F - Stairs                           |                | -                        | 95   | -            | 30                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 95   | -            | 355                  |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 9F - A.09-06 - Studio                 |                | -                        | 95   | -            | 50                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 24                   |
| 9F - A.09-05 - Kitchen/Living         |                | -                        | 95   | -            | 333                  |
| 9F - A.09-05 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - A.09-05 - Cupboard               |                | 95                       | -    | -            | 9                    |
| 9F - A.09-05 - Bedroom                |                | -                        | 95   | -            | 17                   |
| 9F - A.09-05 - Bedroom                |                | -                        | 95   | -            | 22                   |
| 9F - A.09-02 - Bedroom                |                | -                        | 95   | -            | 21                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 23                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 16                   |
| 9F - A.09-06 - Bedroom                |                | -                        | 95   | -            | 25                   |
| 9F - A.09-06 - Kitchen/Living         |                | -                        | 95   | -            | 410                  |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 20                   |
| 9F - A.09-06 - Bathroom               |                | -                        | 95   | -            | 23                   |
| 9F - A.09-06 - Cupboard               |                | 95                       | -    | -            | 6                    |
| 9F - A.09-01 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - A.09-01 - Bedroom                |                | -                        | 95   | -            | 21                   |
| 9F - A.09-01 - Kitchen/Living         |                | -                        | 95   | -            | 346                  |
| 9F - A.09-01 - Bathroom               |                | -                        | 95   | -            | 23                   |

| General lighting and display lighting |                | Luminous efficacy [lm/W] |      |              |                      |
|---------------------------------------|----------------|--------------------------|------|--------------|----------------------|
| Zone name                             |                | Luminaire                | Lamp | Display lamp | General lighting [W] |
|                                       | Standard value | 60                       | 60   | 22           |                      |
| 9F - A.09-01 - Cupboard               |                | 95                       | -    | -            | 4                    |
| 9F - A.09-02 - Cupboard               |                | 95                       | -    | -            | 3                    |
| 9F - A.09-02 - Kitchen/Living         |                | -                        | 95   | -            | 325                  |
| 9F - A.09-02 - Bathroom               |                | -                        | 95   | -            | 22                   |
| 9F - A.09-02 - Cupboard               |                | 95                       | -    | -            | 5                    |
| 9F - Circulation                      |                | -                        | 95   | -            | 89                   |

### Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| GF - Commercial        | NO (-34.6%)                    | NO                    |
| 1F - C.00-06 - Bedroom | NO (-64.6%)                    | NO                    |
| 1F - C.00-06 - Bedroom | NO (-52.9%)                    | NO                    |
| 1F - C.00-06 - Bedroom | NO (-69.7%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-78.2%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-73.5%)                    | NO                    |
| 1F - C.00-05 - Bedroom | NO (-80.4%)                    | NO                    |
| 1F - C.00-07 - Bedroom | NO (-65%)                      | NO                    |
| 1F - C.00-07 - Bedroom | NO (-59.6%)                    | NO                    |
| 1F - C.00-08 - Bedroom | NO (-57%)                      | NO                    |
| 1F - C.00-08 - Bedroom | NO (-54.9%)                    | NO                    |
| 1F - C.00-09 - Bedroom | NO (-59.8%)                    | NO                    |
| 1F - C.00-09 - Bedroom | NO (-48.1%)                    | NO                    |
| 1F - A.01-02 - Bedroom | NO (-51.7%)                    | NO                    |
| 1F - A.01-02 - Bedroom | NO (-50.4%)                    | NO                    |
| 1F - A.01-01 - Bedroom | NO (-57%)                      | NO                    |
| 1F - A.01-01 - Bedroom | NO (-45.6%)                    | NO                    |
| 1F - A.01-01 - Bedroom | NO (-54.4%)                    | NO                    |
| 1F - C.00-01 - Bedroom | NO (-53.9%)                    | NO                    |
| 1F - C.00-01 - Bedroom | NO (-67.9%)                    | NO                    |
| 1F - C.00-02 - Bedroom | NO (-74.4%)                    | NO                    |
| 1F - C.00-02 - Bedroom | NO (-54.4%)                    | NO                    |
| 1F - C.00-03 - Bedroom | NO (-55.6%)                    | NO                    |
| 1F - C.00-03 - Bedroom | NO (-74.7%)                    | NO                    |
| 1F - C.00-04 - Bedroom | NO (-62.9%)                    | NO                    |
| 1F - C.00-04 - Bedroom | NO (-69.9%)                    | NO                    |
| GF - C.00-07 - Bedroom | NO (-67.7%)                    | NO                    |
| GF - C.00-09 - Bedroom | NO (-65.5%)                    | NO                    |
| GF - C.00-08 - Bedroom | NO (-49%)                      | NO                    |
| GF - C.00-04 - Bedroom | NO (-70.6%)                    | NO                    |
| GF - C.00-03 - Bedroom | NO (-73.4%)                    | NO                    |
| GF - C.00-02 - Bedroom | NO (-74.2%)                    | NO                    |
| GF - C.00-01 - Bedroom | NO (-70.2%)                    | NO                    |
| 2F - A.02-06 - Bedroom | NO (-51.7%)                    | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 2F - A.02-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 2F - A.02-05 - Bedroom | NO (-57%)                      | NO                    |
| 2F - A.02-05 - Bedroom | NO (-45.6%)                    | NO                    |
| 2F - A.02-05 - Bedroom | NO (-54%)                      | NO                    |
| 2F - A.02-02 - Bedroom | NO (-55.4%)                    | NO                    |
| 2F - A.02-02 - Bedroom | NO (-58.1%)                    | NO                    |
| 2F - B.02-02 - Bedroom | NO (-59.8%)                    | NO                    |
| 2F - B.02-02 - Bedroom | NO (-58.1%)                    | NO                    |
| 2F - B.02-02 - Bedroom | NO (-47.6%)                    | NO                    |
| 2F - B.02-03 - Bedroom | NO (-66.9%)                    | NO                    |
| 2F - B.02-04 - Bedroom | NO (-51.9%)                    | NO                    |
| 2F - B.02-04 - Bedroom | NO (-48.8%)                    | NO                    |
| 2F - B.02-04 - Bedroom | NO (-60.9%)                    | NO                    |
| 2F - B.02-05 - Bedroom | NO (-50.4%)                    | NO                    |
| 2F - B.02-05 - Bedroom | NO (-59.6%)                    | NO                    |
| 2F - B.02-05 - Bedroom | NO (-57.1%)                    | NO                    |
| 2F - B.02-06 - Bedroom | NO (-68%)                      | NO                    |
| 2F - A.02-02 - Bedroom | NO (-50.3%)                    | NO                    |
| 2F - A.02-03 - Bedroom | NO (-69.7%)                    | NO                    |
| 2F - A.02-04 - Bedroom | NO (-61.1%)                    | NO                    |
| 2F - A.02-04 - Bedroom | NO (-42.1%)                    | NO                    |
| 2F - A.02-04 - Bedroom | NO (-42.5%)                    | NO                    |
| 2F - B.02-01 - Bedroom | NO (-82.5%)                    | NO                    |
| 2F - A.02-01 - Bedroom | NO (-79.8%)                    | NO                    |
| 3F - A.03-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 3F - A.03-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 3F - A.03-05 - Bedroom | NO (-57%)                      | NO                    |
| 3F - A.03-05 - Bedroom | NO (-45.6%)                    | NO                    |
| 3F - A.03-05 - Bedroom | NO (-54%)                      | NO                    |
| 3F - A.03-02 - Bedroom | NO (-55.4%)                    | NO                    |
| 3F - A.03-02 - Bedroom | NO (-58.1%)                    | NO                    |
| 3F - B.03-02 - Bedroom | NO (-59.8%)                    | NO                    |
| 3F - B.03-02 - Bedroom | NO (-58.1%)                    | NO                    |
| 3F - B.03-04 - Bedroom | NO (-53.8%)                    | NO                    |
| 3F - B.03-04 - Bedroom | NO (-48.8%)                    | NO                    |
| 3F - B.03-04 - Bedroom | NO (-60.9%)                    | NO                    |
| 3F - B.03-05 - Bedroom | NO (-50.4%)                    | NO                    |
| 3F - B.03-05 - Bedroom | NO (-59.6%)                    | NO                    |
| 3F - B.03-05 - Bedroom | NO (-57.1%)                    | NO                    |
| 3F - B.03-06 - Bedroom | NO (-68%)                      | NO                    |
| 3F - A.03-04 - Bedroom | NO (-61.1%)                    | NO                    |
| 3F - A.03-04 - Bedroom | NO (-42.1%)                    | NO                    |
| 3F - A.03-04 - Bedroom | NO (-43.3%)                    | NO                    |
| 3F - B.03-01 - Bedroom | NO (-82.6%)                    | NO                    |
| 3F - A.03-01 - Bedroom | NO (-79.6%)                    | NO                    |
| 2F - B.02-07 - Bedroom | NO (-78.8%)                    | NO                    |
| 3F - B.03-07 - Bedroom | NO (-78%)                      | NO                    |
| 3F - B.03-03 - Bedroom | NO (-62.4%)                    | NO                    |
| 3F - B.03-03 - Bedroom | NO (-55%)                      | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 3F - B.03-03 - Bedroom | N/A                            | N/A                   |
| 3F - A.03-03 - Bedroom | NO (-65.9%)                    | NO                    |
| 3F - A.03-03 - Bedroom | N/A                            | N/A                   |
| 3F - A.03-03 - Bedroom | NO (-61.5%)                    | NO                    |
| 4F - A.04-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 4F - A.04-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 4F - A.04-02 - Bedroom | NO (-55.4%)                    | NO                    |
| 4F - A.04-02 - Bedroom | NO (-58.1%)                    | NO                    |
| 4F - B.04-02 - Bedroom | NO (-59.8%)                    | NO                    |
| 4F - B.04-02 - Bedroom | NO (-58.1%)                    | NO                    |
| 4F - B.04-01 - Bedroom | NO (-81.7%)                    | NO                    |
| 4F - A.04-01 - Bedroom | NO (-79%)                      | NO                    |
| 4F - B.04-08 - Bedroom | NO (-76.9%)                    | NO                    |
| 4F - A.04-07 - Bedroom | NO (-69.3%)                    | NO                    |
| 4F - B.04-03 - Bedroom | NO (-62.5%)                    | NO                    |
| 4F - A.04-03 - Bedroom | NO (-65.9%)                    | NO                    |
| 4F - A.04-03 - Bedroom | N/A                            | N/A                   |
| 4F - B.04-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 4F - B.04-07 - Bedroom | NO (-68%)                      | NO                    |
| 4F - B.04-04 - Bedroom | NO (-56.2%)                    | NO                    |
| 4F - B.04-03 - Bedroom | NO (-58.4%)                    | NO                    |
| 4F - B.04-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 4F - B.04-05 - Bedroom | NO (-63%)                      | NO                    |
| 4F - B.04-06 - Studio  | NO (-57%)                      | NO                    |
| 4F - A.04-03 - Bedroom | NO (-61.5%)                    | NO                    |
| 4F - A.04-04 - Bedroom | NO (-60%)                      | NO                    |
| 4F - A.04-04 - Bedroom | NO (-57.3%)                    | NO                    |
| 4F - A.04-06 - Studio  | NO (-53.4%)                    | NO                    |
| 4F - A.04-05 - Bedroom | NO (-72.2%)                    | NO                    |
| 4F - A.04-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 5F - A.05-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 5F - A.05-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 5F - A.05-02 - Bedroom | NO (-55.4%)                    | NO                    |
| 5F - A.05-02 - Bedroom | NO (-58.1%)                    | NO                    |
| 5F - B.05-02 - Bedroom | NO (-59.8%)                    | NO                    |
| 5F - B.05-02 - Bedroom | NO (-58.1%)                    | NO                    |
| 5F - B.05-01 - Bedroom | NO (-81.3%)                    | NO                    |
| 5F - A.05-01 - Bedroom | NO (-78.9%)                    | NO                    |
| 5F - B.05-08 - Bedroom | NO (-75.8%)                    | NO                    |
| 5F - A.05-08 - Bedroom | NO (-68.6%)                    | NO                    |
| 5F - B.05-03 - Bedroom | NO (-62.5%)                    | NO                    |
| 5F - A.05-03 - Bedroom | NO (-65.9%)                    | NO                    |
| 5F - A.05-03 - Bedroom | N/A                            | N/A                   |
| 5F - B.05-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 5F - B.05-07 - Bedroom | NO (-68%)                      | NO                    |
| 5F - B.05-04 - Bedroom | NO (-56.2%)                    | NO                    |
| 5F - B.05-03 - Bedroom | NO (-58.4%)                    | NO                    |
| 5F - B.05-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 5F - B.05-05 - Bedroom | NO (-63%)                      | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 5F - B.05-06 - Studio  | NO (-57%)                      | NO                    |
| 5F - A.05-03 - Bedroom | NO (-61.5%)                    | NO                    |
| 5F - A.05-04 - Bedroom | NO (-60%)                      | NO                    |
| 5F - A.05-04 - Bedroom | NO (-57.3%)                    | NO                    |
| 5F - A.05-06 - Studio  | NO (-53.4%)                    | NO                    |
| 5F - A.05-05 - Bedroom | NO (-72.2%)                    | NO                    |
| 5F - A.05-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 6F - A.06-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 6F - A.06-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 6F - A.06-02 - Bedroom | NO (-55.3%)                    | NO                    |
| 6F - A.06-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 6F - B.06-02 - Bedroom | NO (-59.7%)                    | NO                    |
| 6F - B.06-02 - Bedroom | NO (-57.9%)                    | NO                    |
| 6F - B.06-01 - Bedroom | NO (-80.8%)                    | NO                    |
| 6F - A.06-01 - Bedroom | NO (-78%)                      | NO                    |
| 6F - B.06-08 - Bedroom | NO (-73.7%)                    | NO                    |
| 6F - A.06-08 - Bedroom | NO (-68.3%)                    | NO                    |
| 4F - B.04-03 - Bedroom | NO (-62.5%)                    | NO                    |
| 6F - A.06-03 - Bedroom | NO (-65.9%)                    | NO                    |
| 6F - A.06-03 - Bedroom | N/A                            | N/A                   |
| 6F - B.06-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 6F - B.06-07 - Bedroom | NO (-68%)                      | NO                    |
| 6F - B.06-04 - Bedroom | NO (-56.2%)                    | NO                    |
| 4F - B.04-03 - Bedroom | NO (-58.4%)                    | NO                    |
| 6F - B.06-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 6F - B.06-05 - Bedroom | NO (-63%)                      | NO                    |
| 6F - B.06-06 - Studio  | NO (-57%)                      | NO                    |
| 6F - A.06-03 - Bedroom | NO (-61.5%)                    | NO                    |
| 6F - A.06-04 - Bedroom | NO (-60%)                      | NO                    |
| 6F - A.06-04 - Bedroom | NO (-57.3%)                    | NO                    |
| 6F - A.06-06 - Studio  | NO (-53.4%)                    | NO                    |
| 6F - A.06-05 - Bedroom | NO (-72.2%)                    | NO                    |
| 6F - A.06-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 7F - A.07-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 7F - A.07-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 7F - A.07-02 - Bedroom | NO (-54.8%)                    | NO                    |
| 7F - A.07-02 - Bedroom | NO (-57%)                      | NO                    |
| 7F - B.07-02 - Bedroom | NO (-59.4%)                    | NO                    |
| 7F - B.07-02 - Bedroom | NO (-57.1%)                    | NO                    |
| 7F - B.07-01 - Bedroom | NO (-79.9%)                    | NO                    |
| 7F - A.07-01 - Bedroom | NO (-76.1%)                    | NO                    |
| 7F - B.07-08 - Bedroom | NO (-71.2%)                    | NO                    |
| 7F - A.07-08 - Bedroom | NO (-68.2%)                    | NO                    |
| 7F - B.07-03 - Bedroom | NO (-62.6%)                    | NO                    |
| 7F - A.07-03 - Bedroom | NO (-66.3%)                    | NO                    |
| 7F - A.07-03 - Bedroom | N/A                            | N/A                   |
| 7F - B.07-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 7F - B.07-07 - Bedroom | NO (-68%)                      | NO                    |
| 7F - B.07-04 - Bedroom | NO (-56.1%)                    | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 7F - B.07-03 - Bedroom | NO (-58.6%)                    | NO                    |
| 7F - B.07-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 7F - B.07-05 - Bedroom | NO (-63%)                      | NO                    |
| 7F - B.07-06 - Studio  | NO (-57%)                      | NO                    |
| 7F - A.07-03 - Bedroom | NO (-62%)                      | NO                    |
| 7F - A.07-04 - Bedroom | NO (-60%)                      | NO                    |
| 7F - A.07-04 - Bedroom | NO (-57.3%)                    | NO                    |
| 7F - A.07-06 - Studio  | NO (-53.4%)                    | NO                    |
| 7F - A.07-05 - Bedroom | NO (-72.2%)                    | NO                    |
| 7F - A.07-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 8F - A.08-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 8F - A.08-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 8F - A.08-02 - Bedroom | NO (-3.8%)                     | NO                    |
| 8F - A.08-02 - Bedroom | NO (-12%)                      | NO                    |
| 8F - B.08-02 - Bedroom | NO (-13%)                      | NO                    |
| 8F - B.08-02 - Bedroom | NO (-6.8%)                     | NO                    |
| 8F - B.08-01 - Bedroom | NO (-57.6%)                    | NO                    |
| 8F - A.08-01 - Bedroom | NO (-61.6%)                    | NO                    |
| 8F - B.08-08 - Bedroom | NO (-68.6%)                    | NO                    |
| 8F - A.08-08 - Bedroom | NO (-66.6%)                    | NO                    |
| 8F - B.08-03 - Bedroom | NO (-45.7%)                    | NO                    |
| 8F - A.08-03 - Bedroom | NO (-53.3%)                    | NO                    |
| 8F - A.08-03 - Bedroom | N/A                            | N/A                   |
| 8F - B.08-04 - Bedroom | NO (-59.3%)                    | NO                    |
| 8F - B.08-07 - Bedroom | NO (-68%)                      | NO                    |
| 8F - B.08-04 - Bedroom | NO (-55.9%)                    | NO                    |
| 8F - B.08-03 - Bedroom | NO (-38.3%)                    | NO                    |
| 8F - B.08-05 - Bedroom | NO (-54.8%)                    | NO                    |
| 8F - B.08-05 - Bedroom | NO (-62.6%)                    | NO                    |
| 8F - B.08-06 - Studio  | NO (-56.9%)                    | NO                    |
| 8F - A.08-03 - Bedroom | NO (-45.9%)                    | NO                    |
| 8F - A.08-04 - Bedroom | NO (-60%)                      | NO                    |
| 8F - A.08-04 - Bedroom | NO (-57.2%)                    | NO                    |
| 8F - A.08-06 - Studio  | NO (-53.4%)                    | NO                    |
| 8F - A.08-05 - Bedroom | NO (-71.9%)                    | NO                    |
| 8F - A.08-05 - Bedroom | NO (-59.5%)                    | NO                    |
| 1F - A.01-03 - Bedroom | NO (-69.9%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 7F - B.07-07 - Bedroom | NO (-68%)                      | NO                    |
| 9F - B.09-05 - Bedroom | NO (-43%)                      | NO                    |
| 9F - B.09-05 - Bedroom | NO (-54.9%)                    | NO                    |
| 9F - B.09-06 - Studio  | NO (-48.8%)                    | NO                    |
| 9F - A.09-06 - Studio  | NO (-53.3%)                    | NO                    |
| 9F - A.09-05 - Bedroom | NO (-71.9%)                    | NO                    |
| 9F - A.09-05 - Bedroom | NO (-59.2%)                    | NO                    |
| 9F - A.09-02 - Bedroom | NO (-62.1%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-59.4%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-40.4%)                    | NO                    |

| Zone                   | Solar gain limit exceeded? (%) | Internal blinds used? |
|------------------------|--------------------------------|-----------------------|
| 9F - A.09-06 - Bedroom | NO (-76.3%)                    | NO                    |
| 9F - A.09-01 - Bedroom | NO (-55.1%)                    | NO                    |
| 9F - B.09-02 - Bedroom | NO (-54.7%)                    | NO                    |
| 9F - B.09-01 - Bedroom | NO (-44.9%)                    | NO                    |
| 9F - B.09-06 - Bedroom | NO (-36%)                      | NO                    |
| 9F - B.09-06 - Bedroom | NO (-59.7%)                    | NO                    |
| 9F - B.09-06 - Bedroom | NO (-72%)                      | NO                    |
| 9F - A.09-06 - Bedroom | NO (-51.7%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-50.4%)                    | NO                    |
| 9F - A.09-06 - Studio  | NO (-37.2%)                    | NO                    |
| 9F - A.09-05 - Bedroom | NO (-60.7%)                    | NO                    |
| 9F - A.09-05 - Bedroom | NO (-44%)                      | NO                    |
| 9F - A.09-02 - Bedroom | NO (-51%)                      | NO                    |
| 9F - A.09-06 - Bedroom | NO (-59.2%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-41.6%)                    | NO                    |
| 9F - A.09-06 - Bedroom | NO (-76.1%)                    | NO                    |
| 9F - A.09-01 - Bedroom | NO (-55.3%)                    | NO                    |

#### Criterion 4: The performance of the building, as built, should be consistent with the calculated BER

Separate submission

#### Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

#### EPBD (Recast): Consideration of alternative energy systems

|                                                                                        |     |
|----------------------------------------------------------------------------------------|-----|
| Were alternative energy systems considered and analysed as part of the design process? | YES |
| Is evidence of such assessment available as a separate submission?                     | YES |
| Are any such measures included in the proposed design?                                 | YES |

# Technical Data Sheet (Actual vs. Notional Building)

## Building Global Parameters

|                                                       | Actual  | Notional |
|-------------------------------------------------------|---------|----------|
| Area [m <sup>2</sup> ]                                | 11998.3 | 11998.3  |
| External area [m <sup>2</sup> ]                       | 9293.5  | 9293.5   |
| Weather                                               | LON     | LON      |
| Infiltration [m <sup>3</sup> /hm <sup>2</sup> @ 50Pa] | 3       | 3        |
| Average conductance [W/K]                             | 3675.46 | 5824.78  |
| Average U-value [W/m <sup>2</sup> K]                  | 0.4     | 0.63     |
| Alpha value* [%]                                      | 10.56   | 10       |

\* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

## Building Use

| % Area | Building Type                                                      |
|--------|--------------------------------------------------------------------|
|        | A1/A2 Retail/Financial and Professional services                   |
| 3      | <b>A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways</b>      |
|        | B1 Offices and Workshop businesses                                 |
|        | B2 to B7 General Industrial and Special Industrial Groups          |
|        | B8 Storage or Distribution                                         |
|        | C1 Hotels                                                          |
|        | C2 Residential Institutions: Hospitals and Care Homes              |
|        | C2 Residential Institutions: Residential schools                   |
| 97     | <b>C2 Residential Institutions: Universities and colleges</b>      |
|        | C2A Secure Residential Institutions                                |
|        | Residential spaces                                                 |
|        | D1 Non-residential Institutions: Community/Day Centre              |
|        | D1 Non-residential Institutions: Libraries, Museums, and Galleries |
|        | D1 Non-residential Institutions: Education                         |
|        | D1 Non-residential Institutions: Primary Health Care Building      |
|        | D1 Non-residential Institutions: Crown and County Courts           |
|        | D2 General Assembly and Leisure, Night Clubs, and Theatres         |
|        | Others: Passenger terminals                                        |
|        | Others: Emergency services                                         |
|        | Others: Miscellaneous 24hr activities                              |
|        | Others: Car Parks 24 hrs                                           |
|        | Others: Stand alone utility block                                  |

## Energy Consumption by End Use [kWh/m<sup>2</sup>]

|                 | Actual        | Notional      |
|-----------------|---------------|---------------|
| Heating         | 24.97         | 29.78         |
| Cooling         | 1.34          | 1.22          |
| Auxiliary       | 5.7           | 4.37          |
| Lighting        | 13.65         | 20.43         |
| Hot water       | 82.52         | 65.81         |
| Equipment*      | 64.07         | 64.07         |
| <b>TOTAL **</b> | <b>128.19</b> | <b>121.61</b> |

\* Energy used by equipment does not count towards the total for consumption or calculating emissions.

\*\* Total is net of any electrical energy displaced by CHP generators, if applicable.

## Energy Production by Technology [kWh/m<sup>2</sup>]

|                       | Actual | Notional |
|-----------------------|--------|----------|
| Photovoltaic systems  | 0      | 0        |
| Wind turbines         | 0      | 0        |
| CHP generators        | 0      | 0        |
| Solar thermal systems | 0      | 0        |

## Energy & CO<sub>2</sub> Emissions Summary

|                                               | Actual | Notional |
|-----------------------------------------------|--------|----------|
| Heating + cooling demand [MJ/m <sup>2</sup> ] | 102.49 | 123.82   |
| Primary energy* [kWh/m <sup>2</sup> ]         | 193.07 | 194.5    |
| Total emissions [kg/m <sup>2</sup> ]          | 33.7   | 33.8     |

\* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

| HVAC Systems Performance                                                                                      |                   |                   |                    |                    |                   |               |               |                  |                  |
|---------------------------------------------------------------------------------------------------------------|-------------------|-------------------|--------------------|--------------------|-------------------|---------------|---------------|------------------|------------------|
| System Type                                                                                                   | Heat dem<br>MJ/m2 | Cool dem<br>MJ/m2 | Heat con<br>kWh/m2 | Cool con<br>kWh/m2 | Aux con<br>kWh/m2 | Heat<br>SSEFF | Cool<br>SSEER | Heat gen<br>SEFF | Cool gen<br>SEER |
| [ST] Central heating using water: radiators, [HS] District heating, [HFT] District Heating, [CFT] Electricity |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 619.4             | 0                 | 172.1              | 0                  | 5.3               | 1             | 0             | 1                | 0                |
| Notional                                                                                                      | 708.8             | 0                 | 196.9              | 0                  | 5.2               | 1             | 0             | ----             | ----             |
| [ST] Central heating using water: radiators, [HS] District heating, [HFT] District Heating, [CFT] Electricity |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 94.1              | 0                 | 26.1               | 0                  | 2                 | 1             | 0             | 1                | 0                |
| Notional                                                                                                      | 117.2             | 0                 | 32.6               | 0                  | 1.5               | 1             | 0             | ----             | ----             |
| [ST] Central heating using water: radiators, [HS] District heating, [HFT] District Heating, [CFT] Electricity |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 0.1               | 0                 | 0                  | 0                  | 8.6               | 1             | 0             | 1                | 0                |
| Notional                                                                                                      | 1.9               | 0                 | 0.5                | 0                  | 6.6               | 1             | 0             | ----             | ----             |
| [ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 0                 | 372.1             | 0                  | 39.5               | 16.9              | 2.7           | 2.62          | 3                | 3.5              |
| Notional                                                                                                      | 0                 | 490.9             | 0                  | 36                 | 12.9              | 2.56          | 3.79          | ----             | ----             |
| [ST] No Heating or Cooling                                                                                    |                   |                   |                    |                    |                   |               |               |                  |                  |
| Actual                                                                                                        | 0                 | 0                 | 0                  | 0                  | 0                 | 0             | 0             | 0                | 0                |
| Notional                                                                                                      | 0                 | 0                 | 0                  | 0                  | 0                 | 0             | 0             | ----             | ----             |

## Key to terms

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| Heat dem [MJ/m2]  | = Heating energy demand                                                                               |
| Cool dem [MJ/m2]  | = Cooling energy demand                                                                               |
| Heat con [kWh/m2] | = Heating energy consumption                                                                          |
| Cool con [kWh/m2] | = Cooling energy consumption                                                                          |
| Aux con [kWh/m2]  | = Auxiliary energy consumption                                                                        |
| Heat SSEFF        | = Heating system seasonal efficiency (for notional building, value depends on activity glazing class) |
| Cool SSEER        | = Cooling system seasonal energy efficiency ratio                                                     |
| Heat gen SSEFF    | = Heating generator seasonal efficiency                                                               |
| Cool gen SSEER    | = Cooling generator seasonal energy efficiency ratio                                                  |
| ST                | = System type                                                                                         |
| HS                | = Heat source                                                                                         |
| HFT               | = Heating fuel type                                                                                   |
| CFT               | = Cooling fuel type                                                                                   |

# Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

## Building fabric

| Element                                                                  | U <sub>i-Typ</sub> | U <sub>i-Min</sub>                                                 | Surface where the minimum value occurs*  |
|--------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------|------------------------------------------|
| Wall                                                                     | 0.23               | 0.12                                                               | RM000002:Surf[1]                         |
| Floor                                                                    | 0.2                | 0.13                                                               | RM000002:Surf[0]                         |
| Roof                                                                     | 0.15               | 0.11                                                               | RM000006:Surf[1]                         |
| Windows, roof windows, and rooflights                                    | 1.5                | 1.19                                                               | RM000007:Surf[3]                         |
| Personnel doors                                                          | 1.5                | 1.2                                                                | 1F000017:Surf[0]                         |
| Vehicle access & similar large doors                                     | 1.5                | -                                                                  | No Vehicle access doors in building      |
| High usage entrance doors                                                | 1.5                | -                                                                  | No High usage entrance doors in building |
| U <sub>i-Typ</sub> = Typical individual element U-values [W/(m²K)]       |                    | U <sub>i-Min</sub> = Minimum individual element U-values [W/(m²K)] |                                          |
| * There might be more than one surface where the minimum U-value occurs. |                    |                                                                    |                                          |

| Air Permeability   | Typical value | This building |
|--------------------|---------------|---------------|
| m³/(h.m²) at 50 Pa | 5             | 3             |

## Appendix G

### 1 Vinyl Square - TM52 Analysis Results

Overall  
Passed: 363 rooms:  
Failed: 10 rooms:  
Unoccupied: 511 rooms:

Data:  
Building category: Category II (new builds.)  
Weather file: LondonDSY05.fwt  
Days data= 153 01-May 30-Sep  
Days (summer)= 153 01-May 30-Sep  
Data OK? OK Full summer

Occupancy:  
Note: This report assesses occupied periods only. Please be aware that TM52 should be conducted for occupied and/or “available hours”. Use of educational NCM profiles may be seen as inappropriate due to prolonged unoccupied periods during summer months. See Section 6.1.2 (a) of TM52 for further information.

| Passed:                       | 363 rooms: | Occupied days | Criteria 1 (%Hrs Top- | Criteria 2 (Max. Daily | Criteria 3 (Max. |                  |
|-------------------------------|------------|---------------|-----------------------|------------------------|------------------|------------------|
| Room Name                     | Room ID    | (%)           | Tmax>=1K)             | Deg.Hrs)               | DeltaT)          | Criteria failing |
| GF - Commercial               | RM000007   | 100           | 0                     | 0                      | 0                | -                |
| 1F - C.00-06 - Bedroom        | 1F000016   | 100           | 1.2                   | 23                     | 4                | 2                |
| 1F - C.00-06 - Bedroom        | 1F00000E   | 100           | 1.5                   | 26                     | 4                | 2                |
| 1F - C.00-06 - Bedroom        | 1F000017   | 100           | 1.1                   | 25                     | 4                | 2                |
| 1F - C.00-05 - Bedroom        | 1F00001B   | 100           | 0.4                   | 8                      | 1                | 2                |
| 1F - C.00-05 - Bedroom        | 1F00001C   | 100           | 0.5                   | 12                     | 2                | 2                |
| 1F - C.00-05 - Bedroom        | 1F00001E   | 100           | 0.4                   | 9                      | 2                | 2                |
| 1F - C.00-07 - Kitchen/Living | RM00002C   | 100           | 1.1                   | 17                     | 3                | 2                |
| 1F - C.00-07 - Bedroom        | 1F000021   | 100           | 1                     | 22                     | 4                | 2                |
| 1F - C.00-07 - Bedroom        | 1F000022   | 100           | 1                     | 21                     | 4                | 2                |
| 1F - C.00-08 - Bedroom        | RM000019   | 100           | 0.9                   | 17                     | 3                | 2                |
| 1F - C.00-08 - Bedroom        | 1F000027   | 100           | 0.8                   | 17                     | 3                | 2                |
| 1F - C.00-09 - Bedroom        | 1F00002A   | 100           | 1.1                   | 23                     | 4                | 2                |
| 1F - A.01-03 - Kitchen/Living | 1F00002F   | 100           | 0.6                   | 9                      | 2                | 2                |
| 1F - A.01-02 - Kitchen/Living | 1F000031   | 100           | 1.5                   | 21                     | 3                | 2                |
| 1F - A.01-02 - Bedroom        | 1F000034   | 100           | 0.7                   | 23                     | 4                | 2                |
| 1F - A.01-02 - Bedroom        | RM00002E   | 100           | 0.9                   | 24                     | 4                | 2                |
| 1F - A.01-01 - Kitchen/Living | 1F000037   | 100           | 1                     | 17                     | 3                | 2                |
| 1F - A.01-01 - Bedroom        | RM00001F   | 100           | 0.7                   | 17                     | 3                | 2                |
| 1F - A.01-01 - Bedroom        | 1F000039   | 100           | 1                     | 22                     | 3                | 2                |
| 1F - A.01-01 - Bedroom        | 1F00003A   | 100           | 0.7                   | 21                     | 3                | 2                |
| 1F - C.00-01 - Kitchen/Living | 1F00003D   | 100           | 1.3                   | 19                     | 3                | 2                |
| 1F - C.00-01 - Bedroom        | 1F00003F   | 100           | 0.8                   | 27                     | 4                | 2                |
| 1F - C.00-01 - Bedroom        | 1F000042   | 100           | 1.3                   | 26                     | 4                | 2                |
| 1F - C.00-02 - Bedroom        | 1F000041   | 100           | 0.9                   | 19                     | 3                | 2                |
| 1F - C.00-02 - Bedroom        | 1F000046   | 100           | 0.8                   | 27                     | 4                | 2                |
| 1F - C.00-03 - Bedroom        | 1F000048   | 100           | 0.8                   | 26                     | 4                | 2                |
| 1F - C.00-03 - Bedroom        | 1F000049   | 100           | 0.8                   | 18                     | 3                | 2                |
| 1F - C.00-04 - Kitchen/Living | 1F00004F   | 100           | 1                     | 17                     | 3                | 2                |
| 1F - C.00-04 - Bedroom        | 1F00004D   | 100           | 0.7                   | 25                     | 4                | 2                |
| 1F - C.00-04 - Bedroom        | 1F000050   | 100           | 0.8                   | 20                     | 3                | 2                |

|                               |          |     |     |    |     |   |
|-------------------------------|----------|-----|-----|----|-----|---|
| 1F - C.00-03 - Kitchen/Living | RM00001B | 100 | 1.2 | 19 | 3   | 2 |
| 1F - C.00-02 - Kitchen/Living | 1F000052 | 100 | 1.3 | 21 | 3   | 2 |
| GF - C.00-06 - Kitchen/Living | RM000012 | 100 | 0.9 | 10 | 2   | 2 |
| GF - C.00-05 - Kitchen/Living | RM000000 | 100 | 0   | 0  | 0 - |   |
| GF - C.00-07 - Bedroom        | GF000020 | 100 | 0   | 0  | 0 - |   |
| GF - C.00-09 - Bedroom        | GF000022 | 100 | 0.3 | 8  | 2   | 2 |
| GF - C.00-08 - Bedroom        | GF00001D | 100 | 0.1 | 2  | 1 - |   |
| GF - C.00-04 - Bedroom        | GF000019 | 100 | 0.1 | 4  | 1 - |   |
| GF - C.00-03 - Bedroom        | GF000016 | 100 | 0.1 | 3  | 1 - |   |
| GF - C.00-02 - Bedroom        | GF00000B | 100 | 0.1 | 3  | 1 - |   |
| GF - C.00-01 - Bedroom        | GF000013 | 100 | 0.1 | 4  | 1 - |   |
| 2F - A.02-07 - Kitchen/Living | 1F00006E | 100 | 0.8 | 10 | 2   | 2 |
| 2F - A.02-06 - Kitchen/Living | 1F000070 | 100 | 1.4 | 23 | 4   | 2 |
| 2F - A.02-06 - Bedroom        | 1F000073 | 100 | 0.9 | 23 | 4   | 2 |
| 2F - A.02-06 - Bedroom        | 1F000074 | 100 | 1.1 | 28 | 4   | 2 |
| 2F - A.02-05 - Kitchen/Living | 1F000077 | 100 | 1.2 | 17 | 3   | 2 |
| 2F - A.02-05 - Bedroom        | 1F000079 | 100 | 1   | 24 | 3   | 2 |
| 2F - A.02-05 - Bedroom        | 1F00007A | 100 | 1.3 | 26 | 4   | 2 |
| 2F - A.02-05 - Bedroom        | 1F00007B | 100 | 0.8 | 23 | 4   | 2 |
| 2F - A.02-02 - Kitchen/Living | 1F000053 | 100 | 1.4 | 22 | 4   | 2 |
| 2F - A.02-02 - Bedroom        | 1F000055 | 100 | 1   | 23 | 4   | 2 |
| 2F - A.02-02 - Bedroom        | 1F000012 | 100 | 1   | 22 | 4   | 2 |
| 2F - B.02-02 - Bedroom        | 1F000014 | 100 | 1   | 22 | 4   | 2 |
| 2F - B.02-02 - Bedroom        | 1F00005B | 100 | 1   | 23 | 4   | 2 |
| 2F - B.02-02 - Kitchen/Living | 1F000006 | 100 | 1.3 | 22 | 4   | 2 |
| 2F - B.02-02 - Bedroom        | 1F000002 | 100 | 0.9 | 27 | 4   | 2 |
| 2F - B.02-03 - Kitchen/Living | 1F000061 | 100 | 1.3 | 22 | 4   | 2 |
| 2F - B.02-03 - Bedroom        | 1F000065 | 100 | 0.8 | 23 | 4   | 2 |
| 2F - B.02-04 - Kitchen/Living | 1F000066 | 100 | 1.5 | 24 | 4   | 2 |
| 2F - B.02-04 - Bedroom        | 1F000068 | 100 | 1.3 | 28 | 4   | 2 |
| 2F - B.02-04 - Bedroom        | 1F000060 | 100 | 0.8 | 23 | 3   | 2 |
| 2F - B.02-05 - Bedroom        | 1F000080 | 100 | 1.6 | 30 | 4   | 2 |
| 2F - B.02-05 - Bedroom        | 1F000081 | 100 | 1.3 | 25 | 4   | 2 |
| 2F - B.02-05 - Kitchen/Living | 1F000086 | 100 | 1.4 | 19 | 3   | 2 |
| 2F - B.02-05 - Bedroom        | 1F000087 | 100 | 1   | 25 | 4   | 2 |
| 2F - B.02-01 - Kitchen/Living | 1F000088 | 100 | 0.7 | 13 | 2   | 2 |
| 2F - B.02-06 - Bedroom        | 1F000089 | 100 | 1.3 | 24 | 4   | 2 |
| 2F - B.02-06 - Kitchen/Living | 1F00008A | 100 | 1.8 | 25 | 4   | 2 |
| 2F - A.02-02 - Bedroom        | 1F000091 | 100 | 0.9 | 26 | 4   | 2 |
| 2F - A.02-03 - Bedroom        | 1F000093 | 100 | 0.6 | 17 | 3   | 2 |
| 2F - A.02-04 - Bedroom        | 1F000099 | 100 | 0.9 | 26 | 4   | 2 |
| 2F - A.02-04 - Kitchen/Living | 1F00009A | 100 | 1.7 | 23 | 4   | 2 |
| 2F - A.02-04 - Bedroom        | 1F000090 | 100 | 1.6 | 33 | 4   | 2 |
| 2F - A.02-04 - Bedroom        | 1F00009B | 100 | 1.3 | 28 | 4   | 2 |
| 2F - A.02-03 - Kitchen/Living | RM000024 | 100 | 0.9 | 13 | 2   | 2 |
| 2F - B.02-01 - Bedroom        | 1F00005C | 100 | 0.6 | 22 | 4   | 2 |
| 2F - A.02-01 - Kitchen/Living | 2F000000 | 100 | 0.7 | 11 | 2   | 2 |
| 2F - A.02-01 - Bedroom        | 2F000003 | 100 | 0.6 | 16 | 3   | 2 |
| 3F - A.03-07 - Kitchen/Living | 2F00000F | 100 | 1   | 11 | 2   | 2 |
| 3F - A.03-06 - Kitchen/Living | 2F000011 | 100 | 1.5 | 23 | 4   | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 3F - A.03-06 - Bedroom        | 2F000014 | 100 | 0.9 | 23 | 4 | 2 |
| 3F - A.03-06 - Bedroom        | 2F000015 | 100 | 1.1 | 28 | 4 | 2 |
| 3F - A.03-05 - Kitchen/Living | 2F000018 | 100 | 1.2 | 18 | 3 | 2 |
| 3F - A.03-05 - Bedroom        | 2F00001A | 100 | 1   | 24 | 3 | 2 |
| 3F - A.03-05 - Bedroom        | 2F00001B | 100 | 1.2 | 26 | 4 | 2 |
| 3F - A.03-05 - Bedroom        | 2F00001C | 100 | 0.8 | 23 | 4 | 2 |
| 3F - A.03-02 - Bedroom        | 2F000021 | 100 | 1   | 23 | 4 | 2 |
| 3F - A.03-02 - Bedroom        | 2F000023 | 100 | 1   | 22 | 4 | 2 |
| 3F - B.03-02 - Bedroom        | 2F000027 | 100 | 1   | 22 | 4 | 2 |
| 3F - B.03-02 - Bedroom        | 2F000029 | 100 | 1   | 23 | 4 | 2 |
| 3F - B.03-02 - Kitchen/Living | 2F00002C | 100 | 1.3 | 22 | 4 | 2 |
| 3F - B.03-03 - Kitchen/Living | 2F000030 | 100 | 1.5 | 22 | 4 | 2 |
| 3F - B.03-04 - Kitchen/Living | 2F000035 | 100 | 1.5 | 24 | 4 | 2 |
| 3F - B.03-04 - Bedroom        | 2F000036 | 100 | 1.2 | 27 | 4 | 2 |
| 3F - B.03-04 - Bedroom        | 2F00003A | 100 | 0.8 | 23 | 3 | 2 |
| 3F - B.03-05 - Bedroom        | 2F00003D | 100 | 1.6 | 29 | 4 | 2 |
| 3F - B.03-05 - Bedroom        | 2F00003E | 100 | 1.3 | 25 | 4 | 2 |
| 3F - B.03-05 - Kitchen/Living | 2F000042 | 100 | 1.4 | 19 | 3 | 2 |
| 3F - B.03-05 - Bedroom        | 2F000044 | 100 | 0.9 | 25 | 4 | 2 |
| 2F - B.02-01 - Kitchen/Living | 2F000046 | 100 | 0.7 | 15 | 3 | 2 |
| 3F - B.03-06 - Bedroom        | 2F000047 | 100 | 1.3 | 24 | 4 | 2 |
| 3F - B.03-06 - Kitchen/Living | 2F000048 | 100 | 1.8 | 25 | 4 | 2 |
| 3F - A.03-04 - Bedroom        | 2F00005A | 100 | 0.8 | 23 | 4 | 2 |
| 3F - A.03-04 - Kitchen/Living | 2F00005B | 100 | 1.6 | 23 | 4 | 2 |
| 3F - A.03-04 - Bedroom        | 2F00005C | 100 | 1.4 | 29 | 4 | 2 |
| 3F - A.03-04 - Bedroom        | 2F00005D | 100 | 1.1 | 27 | 4 | 2 |
| 3F - B.03-01 - Bedroom        | 2F00005F | 100 | 0.6 | 23 | 4 | 2 |
| 3F - A.03-01 - Kitchen/Living | 2F000061 | 100 | 0.7 | 11 | 2 | 2 |
| 3F - A.03-01 - Bedroom        | 2F000065 | 100 | 0.6 | 16 | 3 | 2 |
| 2F - B.02-07 - Bedroom        | 2F000066 | 100 | 0.9 | 21 | 3 | 2 |
| 2F - B.02-07 - Kitchen/Living | 2F000067 | 100 | 1.2 | 19 | 3 | 2 |
| 2F - A.02-07 - Bedroom        | 2F000068 | 100 | 1   | 19 | 3 | 2 |
| 3F - B.03-07 - Kitchen/Living | 2F000069 | 100 | 1.3 | 22 | 4 | 2 |
| 3F - B.03-07 - Bedroom        | 2F00004C | 100 | 0.9 | 24 | 4 | 2 |
| 3F - A.03-07 - Bedroom        | 2F00004B | 100 | 1   | 22 | 4 | 2 |
| 3F - B.03-03 - Bedroom        | 2F000033 | 100 | 0.9 | 23 | 4 | 2 |
| 3F - B.03-03 - Bedroom        | 2F00002E | 100 | 0.8 | 23 | 4 | 2 |
| 3F - B.03-03 - Bedroom        | 2F00000C | 100 | 1.4 | 31 | 4 | 2 |
| 3F - A.03-02 - Kitchen/Living | 2F00006B | 100 | 1.3 | 22 | 4 | 2 |
| 3F - A.03-03 - Kitchen/Living | 2F000034 | 100 | 1.4 | 22 | 4 | 2 |
| 3F - A.03-03 - Bedroom        | 2F00001F | 100 | 1   | 26 | 4 | 2 |
| 3F - A.03-03 - Bedroom        | 2F00002F | 100 | 1.6 | 32 | 4 | 2 |
| 3F - A.03-03 - Bedroom        | 2F000050 | 100 | 0.8 | 22 | 4 | 2 |
| 4F - A.04-07 - Kitchen/Living | 3F00000A | 100 | 1   | 11 | 2 | 2 |
| 4F - A.04-06 - Kitchen/Living | 3F00000C | 100 | 1.5 | 23 | 4 | 2 |
| 4F - A.04-06 - Bedroom        | 3F00000F | 100 | 0.9 | 23 | 4 | 2 |
| 4F - A.04-06 - Bedroom        | 3F000010 | 100 | 1.1 | 28 | 4 | 2 |
| 4F - A.04-02 - Bedroom        | 3F00001B | 100 | 1   | 23 | 4 | 2 |
| 4F - A.04-02 - Bedroom        | 3F00001D | 100 | 1   | 22 | 4 | 2 |
| 4F - B.04-02 - Bedroom        | 3F000021 | 100 | 1   | 22 | 4 | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 4F - B.04-02 - Bedroom        | 3F000023 | 100 | 1   | 23 | 4 | 2 |
| 4F - B.04-01 - Kitchen/Living | 2F000052 | 100 | 0.7 | 15 | 3 | 2 |
| 4F - B.04-01 - Bedroom        | 3F00004C | 100 | 0.6 | 23 | 4 | 2 |
| 4F - A.04-01 - Kitchen/Living | 3F00004E | 100 | 0.8 | 11 | 2 | 2 |
| 4F - A.04-01 - Bedroom        | 3F000052 | 100 | 0.6 | 16 | 3 | 2 |
| 4F - B.04-08 - Kitchen/Living | 3F000053 | 100 | 1.2 | 22 | 4 | 2 |
| 4F - B.04-08 - Bedroom        | 3F000054 | 100 | 0.9 | 24 | 4 | 2 |
| 4F - A.04-07 - Bedroom        | 3F000055 | 100 | 1   | 22 | 4 | 2 |
| 4F - B.04-03 - Bedroom        | 3F000056 | 100 | 0.9 | 23 | 4 | 2 |
| 4F - A.04-02 - Kitchen/Living | 3F00005A | 100 | 1.3 | 22 | 4 | 2 |
| 4F - A.04-03 - Bedroom        | 3F00005C | 100 | 0.9 | 26 | 4 | 2 |
| 4F - A.04-03 - Bedroom        | 3F00005E | 100 | 1.4 | 31 | 4 | 2 |
| 4F - B.04-04 - Bedroom        | 3F000030 | 100 | 1.1 | 29 | 4 | 2 |
| 4F - B.04-07 - Kitchen/Living | 3F00002E | 100 | 1.8 | 25 | 4 | 2 |
| 4F - B.04-07 - Bedroom        | 3F000031 | 100 | 1.3 | 23 | 4 | 2 |
| 4F - B.04-03 - Kitchen/Living | 3F000028 | 100 | 1.5 | 22 | 4 | 2 |
| 4F - B.04-04 - Kitchen/Living | 4F000000 | 100 | 1.6 | 25 | 4 | 2 |
| 4F - B.04-04 - Bedroom        | 4F000003 | 100 | 1   | 24 | 4 | 2 |
| 4F - B.04-02 - Kitchen/Living | 3F00002C | 100 | 1.3 | 22 | 4 | 2 |
| 4F - B.04-03 - Bedroom        | 3F00002F | 100 | 0.9 | 23 | 4 | 2 |
| 4F - B.04-05 - Kitchen/Living | 3F000026 | 100 | 1.5 | 23 | 4 | 2 |
| 4F - B.04-05 - Bedroom        | 3F000037 | 100 | 1.6 | 28 | 4 | 2 |
| 4F - B.04-05 - Bedroom        | 3F000038 | 100 | 1.2 | 25 | 4 | 2 |
| 4F - B.04-06 - Studio         | 3F000039 | 100 | 0.8 | 21 | 4 | 2 |
| 4F - A.04-03 - Bedroom        | 3F00003B | 100 | 1   | 26 | 4 | 2 |
| 4F - A.04-03 - Kitchen/Living | 3F00003C | 100 | 1.3 | 22 | 4 | 2 |
| 4F - A.04-04 - Bedroom        | 3F000048 | 100 | 1   | 25 | 4 | 2 |
| 4F - A.04-04 - Bedroom        | 3F00004A | 100 | 0.8 | 23 | 4 | 2 |
| 4F - A.04-04 - Kitchen/Living | 3F000057 | 100 | 1.6 | 23 | 4 | 2 |
| 4F - A.04-06 - Studio         | 3F000016 | 100 | 0.6 | 18 | 3 | 2 |
| 4F - A.04-05 - Kitchen/Living | 4F000005 | 100 | 1.2 | 18 | 3 | 2 |
| 4F - A.04-05 - Bedroom        | 3F000013 | 100 | 0.9 | 22 | 3 | 2 |
| 4F - A.04-05 - Bedroom        | 4F000008 | 100 | 0.9 | 24 | 3 | 2 |
| 5F - A.05-08 - Kitchen/Living | 4F000013 | 100 | 0.9 | 12 | 3 | 2 |
| 5F - A.05-06 - Kitchen/Living | 4F000015 | 100 | 1.6 | 23 | 4 | 2 |
| 5F - A.05-06 - Bedroom        | 4F000018 | 100 | 0.9 | 23 | 4 | 2 |
| 5F - A.05-06 - Bedroom        | 4F000019 | 100 | 1.2 | 28 | 4 | 2 |
| 5F - A.05-02 - Bedroom        | 4F00001D | 100 | 1   | 24 | 4 | 2 |
| 5F - A.05-02 - Bedroom        | 4F00001F | 100 | 1   | 23 | 4 | 2 |
| 5F - B.05-02 - Bedroom        | 4F000023 | 100 | 1   | 23 | 4 | 2 |
| 5F - B.05-02 - Bedroom        | 4F000025 | 100 | 1   | 23 | 4 | 2 |
| 5F - B.05-01 - Kitchen/Living | 4F00002D | 100 | 0.9 | 17 | 3 | 2 |
| 5F - B.05-01 - Bedroom        | 4F000034 | 100 | 0.7 | 23 | 4 | 2 |
| 5F - A.05-01 - Kitchen/Living | 4F000036 | 100 | 0.8 | 12 | 2 | 2 |
| 5F - A.05-01 - Bedroom        | 4F00003A | 100 | 0.6 | 16 | 3 | 2 |
| 5F - B.05-08 - Kitchen/Living | 4F00003B | 100 | 1.4 | 22 | 4 | 2 |
| 5F - B.05-08 - Bedroom        | 4F00003C | 100 | 0.9 | 24 | 4 | 2 |
| 5F - A.05-08 - Bedroom        | 4F00003D | 100 | 1   | 24 | 4 | 2 |
| 5F - B.05-03 - Bedroom        | 4F00003E | 100 | 1   | 23 | 4 | 2 |
| 5F - A.05-02 - Kitchen/Living | 4F000040 | 100 | 1.5 | 22 | 4 | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 5F - A.05-03 - Bedroom        | 4F000041 | 100 | 1   | 26 | 4 | 2 |
| 5F - A.05-03 - Bedroom        | 4F000043 | 100 | 1.5 | 31 | 4 | 2 |
| 5F - B.05-04 - Bedroom        | 4F000044 | 100 | 1.2 | 28 | 4 | 2 |
| 5F - B.05-07 - Kitchen/Living | 4F000045 | 100 | 1.8 | 25 | 4 | 2 |
| 5F - B.05-07 - Bedroom        | 4F000046 | 100 | 1.1 | 25 | 4 | 2 |
| 5F - B.05-03 - Kitchen/Living | 4F000049 | 100 | 1.6 | 22 | 4 | 2 |
| 5F - B.05-04 - Kitchen/Living | 4F00004C | 100 | 1.7 | 25 | 4 | 2 |
| 5F - B.05-04 - Bedroom        | 4F00004D | 100 | 1   | 24 | 4 | 2 |
| 5F - B.05-02 - Kitchen/Living | 4F00004F | 100 | 1.3 | 22 | 4 | 2 |
| 5F - B.05-03 - Bedroom        | 4F000051 | 100 | 1   | 23 | 4 | 2 |
| 5F - B.05-05 - Kitchen/Living | 4F000052 | 100 | 1.6 | 24 | 4 | 2 |
| 5F - B.05-05 - Bedroom        | 4F000055 | 100 | 1.6 | 29 | 4 | 2 |
| 5F - B.05-05 - Bedroom        | 4F000056 | 100 | 1.2 | 25 | 4 | 2 |
| 5F - B.05-06 - Studio         | 4F000058 | 100 | 0.8 | 22 | 4 | 2 |
| 5F - A.05-03 - Bedroom        | 4F000059 | 100 | 1   | 26 | 4 | 2 |
| 5F - A.05-03 - Kitchen/Living | 4F00005A | 100 | 1.5 | 22 | 4 | 2 |
| 5F - A.05-04 - Bedroom        | 4F00005D | 100 | 1.1 | 24 | 4 | 2 |
| 5F - A.05-04 - Bedroom        | 4F00005F | 100 | 0.8 | 23 | 4 | 2 |
| 5F - A.05-04 - Kitchen/Living | 4F000060 | 100 | 1.6 | 23 | 4 | 2 |
| 5F - A.05-06 - Studio         | 4F000062 | 100 | 0.6 | 19 | 3 | 2 |
| 5F - A.05-05 - Kitchen/Living | 4F000065 | 100 | 1.2 | 19 | 3 | 2 |
| 5F - A.05-05 - Bedroom        | 4F000068 | 100 | 1   | 24 | 3 | 2 |
| 5F - A.05-05 - Bedroom        | 4F000069 | 100 | 0.9 | 23 | 3 | 2 |
| 6F - A.06-08 - Kitchen/Living | 4F000082 | 100 | 0.9 | 12 | 3 | 2 |
| 6F - A.06-06 - Kitchen/Living | 4F000084 | 100 | 1.6 | 23 | 4 | 2 |
| 6F - A.06-06 - Bedroom        | 4F000087 | 100 | 0.9 | 23 | 4 | 2 |
| 6F - A.06-06 - Bedroom        | 4F000088 | 100 | 1.2 | 28 | 4 | 2 |
| 6F - A.06-02 - Bedroom        | 4F00008C | 100 | 1   | 24 | 4 | 2 |
| 6F - A.06-02 - Bedroom        | 4F00008E | 100 | 1   | 22 | 4 | 2 |
| 6F - B.06-02 - Bedroom        | 4F000092 | 100 | 1   | 23 | 4 | 2 |
| 6F - B.06-02 - Bedroom        | 4F000094 | 100 | 1   | 23 | 4 | 2 |
| 6F - B.06-01 - Kitchen/Living | 4F00009C | 100 | 0.9 | 17 | 3 | 2 |
| 6F - B.06-01 - Bedroom        | 4F0000A3 | 100 | 0.7 | 23 | 4 | 2 |
| 6F - A.06-01 - Bedroom        | 4F0000A9 | 100 | 0.6 | 16 | 3 | 2 |
| 6F - B.06-08 - Kitchen/Living | 4F0000AA | 100 | 1.4 | 22 | 4 | 2 |
| 6F - B.06-08 - Bedroom        | 4F0000AB | 100 | 0.9 | 24 | 4 | 2 |
| 6F - A.06-08 - Bedroom        | 4F0000AC | 100 | 1   | 24 | 4 | 2 |
| 4F - B.04-03 - Bedroom        | 4F0000AD | 100 | 1   | 23 | 4 | 2 |
| 6F - A.06-02 - Kitchen/Living | 4F0000AF | 100 | 1.5 | 22 | 4 | 2 |
| 6F - A.06-03 - Bedroom        | 4F0000B0 | 100 | 1   | 26 | 4 | 2 |
| 6F - A.06-03 - Bedroom        | 4F0000B2 | 100 | 1.4 | 31 | 4 | 2 |
| 6F - B.06-04 - Bedroom        | 4F0000B3 | 100 | 1.2 | 28 | 4 | 2 |
| 6F - B.06-07 - Kitchen/Living | 4F0000B4 | 100 | 1.8 | 25 | 4 | 2 |
| 6F - B.06-07 - Bedroom        | 4F0000B5 | 100 | 1.1 | 25 | 4 | 2 |
| 4F - B.04-03 - Kitchen/Living | 4F0000B8 | 100 | 1.6 | 22 | 4 | 2 |
| 6F - B.06-04 - Kitchen/Living | 4F0000BB | 100 | 1.7 | 25 | 4 | 2 |
| 6F - B.06-04 - Bedroom        | 4F0000BC | 100 | 1   | 24 | 4 | 2 |
| 6F - B.06-02 - Kitchen/Living | 4F0000BE | 100 | 1.3 | 22 | 4 | 2 |
| 4F - B.04-03 - Bedroom        | 4F0000C0 | 100 | 1   | 23 | 4 | 2 |
| 6F - B.06-05 - Kitchen/Living | 4F0000C1 | 100 | 1.6 | 23 | 4 | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 6F - B.06-05 - Bedroom        | 4F0000C5 | 100 | 1.2 | 25 | 4 | 2 |
| 6F - B.06-06 - Studio         | 4F0000C7 | 100 | 0.8 | 22 | 4 | 2 |
| 6F - A.06-03 - Bedroom        | 4F0000C8 | 100 | 1   | 26 | 4 | 2 |
| 6F - A.06-03 - Kitchen/Living | 4F0000C9 | 100 | 1.5 | 22 | 4 | 2 |
| 6F - A.06-04 - Bedroom        | 4F0000CC | 100 | 1.1 | 24 | 4 | 2 |
| 6F - A.06-04 - Bedroom        | 4F0000CE | 100 | 0.8 | 23 | 4 | 2 |
| 6F - A.06-04 - Kitchen/Living | 4F0000CF | 100 | 1.6 | 23 | 4 | 2 |
| 6F - A.06-06 - Studio         | 4F0000D1 | 100 | 0.6 | 19 | 3 | 2 |
| 6F - A.06-05 - Kitchen/Living | 4F0000D4 | 100 | 1.2 | 19 | 3 | 2 |
| 6F - A.06-05 - Bedroom        | 4F0000D7 | 100 | 1   | 24 | 3 | 2 |
| 6F - A.06-05 - Bedroom        | 4F0000D8 | 100 | 0.9 | 23 | 3 | 2 |
| 7F - A.07-08 - Kitchen/Living | 4F0000E3 | 100 | 0.9 | 12 | 3 | 2 |
| 7F - A.07-06 - Kitchen/Living | 4F0000E5 | 100 | 1.6 | 23 | 4 | 2 |
| 7F - A.07-06 - Bedroom        | 4F0000E8 | 100 | 0.9 | 23 | 4 | 2 |
| 7F - A.07-06 - Bedroom        | 4F0000E9 | 100 | 1.2 | 28 | 4 | 2 |
| 7F - A.07-02 - Bedroom        | 4F0000ED | 100 | 1.1 | 24 | 4 | 2 |
| 7F - A.07-02 - Bedroom        | 4F0000EF | 100 | 1   | 23 | 4 | 2 |
| 7F - B.07-02 - Bedroom        | 4F0000F3 | 100 | 1   | 23 | 4 | 2 |
| 7F - B.07-02 - Bedroom        | 4F0000F5 | 100 | 1   | 24 | 4 | 2 |
| 7F - B.07-01 - Kitchen/Living | 4F0000FD | 100 | 1   | 17 | 3 | 2 |
| 7F - B.07-01 - Bedroom        | 4F000104 | 100 | 0.7 | 23 | 4 | 2 |
| 7F - A.07-01 - Kitchen/Living | 4F000106 | 100 | 0.9 | 12 | 2 | 2 |
| 7F - A.07-01 - Bedroom        | 4F00010A | 100 | 0.7 | 18 | 4 | 2 |
| 7F - B.07-08 - Kitchen/Living | 4F00010B | 100 | 1.4 | 23 | 4 | 2 |
| 7F - B.07-08 - Bedroom        | 4F00010C | 100 | 1   | 24 | 4 | 2 |
| 7F - A.07-08 - Bedroom        | 4F00010D | 100 | 1   | 24 | 4 | 2 |
| 7F - B.07-03 - Bedroom        | 4F00010E | 100 | 1   | 23 | 4 | 2 |
| 7F - A.07-02 - Kitchen/Living | 4F000110 | 100 | 1.5 | 22 | 4 | 2 |
| 7F - A.07-03 - Bedroom        | 4F000111 | 100 | 1   | 26 | 4 | 2 |
| 7F - A.07-03 - Bedroom        | 4F000113 | 100 | 1.5 | 31 | 4 | 2 |
| 7F - B.07-04 - Bedroom        | 4F000114 | 100 | 1.2 | 28 | 4 | 2 |
| 7F - B.07-07 - Kitchen/Living | 4F000115 | 100 | 1.8 | 25 | 4 | 2 |
| 7F - B.07-07 - Bedroom        | 4F000116 | 100 | 1.1 | 25 | 4 | 2 |
| 7F - B.07-03 - Kitchen/Living | 4F000119 | 100 | 1.6 | 22 | 4 | 2 |
| 7F - B.07-04 - Kitchen/Living | 4F00011C | 100 | 1.7 | 25 | 4 | 2 |
| 7F - B.07-04 - Bedroom        | 4F00011D | 100 | 1   | 24 | 4 | 2 |
| 7F - B.07-02 - Kitchen/Living | 4F00011F | 100 | 1.4 | 22 | 4 | 2 |
| 7F - B.07-03 - Bedroom        | 4F000121 | 100 | 1   | 23 | 4 | 2 |
| 7F - B.07-05 - Kitchen/Living | 4F000122 | 100 | 1.6 | 24 | 4 | 2 |
| 7F - B.07-05 - Bedroom        | 4F000125 | 100 | 1.6 | 29 | 4 | 2 |
| 7F - B.07-05 - Bedroom        | 4F000126 | 100 | 1.2 | 25 | 4 | 2 |
| 7F - B.07-06 - Studio         | 4F000128 | 100 | 0.8 | 22 | 4 | 2 |
| 7F - A.07-03 - Bedroom        | 4F000129 | 100 | 1   | 26 | 4 | 2 |
| 7F - A.07-03 - Kitchen/Living | 4F00012A | 100 | 1.6 | 22 | 4 | 2 |
| 7F - A.07-04 - Bedroom        | 4F00012D | 100 | 1.1 | 24 | 4 | 2 |
| 7F - A.07-04 - Bedroom        | 4F00012F | 100 | 0.8 | 23 | 4 | 2 |
| 7F - A.07-04 - Kitchen/Living | 4F000130 | 100 | 1.6 | 23 | 4 | 2 |
| 7F - A.07-06 - Studio         | 4F000132 | 100 | 0.6 | 19 | 3 | 2 |
| 7F - A.07-05 - Kitchen/Living | 4F000135 | 100 | 1.2 | 19 | 3 | 2 |
| 7F - A.07-05 - Bedroom        | 4F000138 | 100 | 1   | 24 | 3 | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 7F - A.07-05 - Bedroom        | 4F000139 | 100 | 0.9 | 23 | 3 | 2 |
| 8F - A.08-08 - Kitchen/Living | 4F000160 | 100 | 1.1 | 13 | 3 | 2 |
| 8F - A.08-06 - Kitchen/Living | 4F000162 | 100 | 1.6 | 23 | 4 | 2 |
| 8F - A.08-06 - Bedroom        | 4F000165 | 100 | 0.9 | 23 | 4 | 2 |
| 8F - A.08-06 - Bedroom        | 4F000166 | 100 | 1.2 | 28 | 4 | 2 |
| 8F - A.08-02 - Bedroom        | 4F00016A | 100 | 1.4 | 28 | 4 | 2 |
| 8F - A.08-02 - Bedroom        | 4F00016C | 100 | 1.3 | 26 | 4 | 2 |
| 8F - B.08-02 - Bedroom        | 4F000170 | 100 | 1.3 | 26 | 4 | 2 |
| 8F - B.08-02 - Bedroom        | 4F000172 | 100 | 1.4 | 27 | 4 | 2 |
| 8F - B.08-01 - Kitchen/Living | 4F00017A | 100 | 1.1 | 18 | 3 | 2 |
| 8F - B.08-01 - Bedroom        | 4F000181 | 100 | 0.8 | 23 | 4 | 2 |
| 8F - A.08-01 - Kitchen/Living | 4F000183 | 100 | 1.2 | 17 | 3 | 2 |
| 8F - A.08-01 - Bedroom        | 4F000187 | 100 | 0.8 | 19 | 4 | 2 |
| 8F - B.08-08 - Kitchen/Living | 4F000188 | 100 | 1.4 | 23 | 4 | 2 |
| 8F - B.08-08 - Bedroom        | 4F000189 | 100 | 1   | 24 | 4 | 2 |
| 8F - A.08-08 - Bedroom        | 4F00018A | 100 | 1   | 25 | 4 | 2 |
| 8F - B.08-03 - Bedroom        | 4F00018B | 100 | 1   | 23 | 4 | 2 |
| 8F - A.08-02 - Kitchen/Living | 4F00018D | 100 | 1.6 | 22 | 4 | 2 |
| 8F - A.08-03 - Bedroom        | 4F00018E | 100 | 1.1 | 26 | 4 | 2 |
| 8F - A.08-03 - Bedroom        | 4F000190 | 100 | 1.4 | 31 | 4 | 2 |
| 8F - B.08-04 - Bedroom        | 4F000191 | 100 | 1.2 | 28 | 4 | 2 |
| 8F - B.08-07 - Kitchen/Living | 4F000192 | 100 | 1.8 | 25 | 4 | 2 |
| 8F - B.08-07 - Bedroom        | 4F000193 | 100 | 1.1 | 25 | 4 | 2 |
| 8F - B.08-03 - Kitchen/Living | 4F000196 | 100 | 1.6 | 23 | 4 | 2 |
| 8F - B.08-04 - Kitchen/Living | 4F000199 | 100 | 1.7 | 25 | 4 | 2 |
| 8F - B.08-04 - Bedroom        | 4F00019A | 100 | 1   | 24 | 4 | 2 |
| 8F - B.08-02 - Kitchen/Living | 4F00019C | 100 | 1.6 | 22 | 4 | 2 |
| 8F - B.08-03 - Bedroom        | 4F00019E | 100 | 1   | 23 | 4 | 2 |
| 8F - B.08-05 - Kitchen/Living | 4F00019F | 100 | 1.6 | 24 | 4 | 2 |
| 8F - B.08-05 - Bedroom        | 4F0001A2 | 100 | 1.6 | 29 | 4 | 2 |
| 8F - B.08-05 - Bedroom        | 4F0001A3 | 100 | 1.2 | 25 | 4 | 2 |
| 8F - B.08-06 - Studio         | 4F0001A5 | 100 | 0.8 | 22 | 4 | 2 |
| 8F - A.08-03 - Bedroom        | 4F0001A6 | 100 | 1.1 | 26 | 4 | 2 |
| 8F - A.08-03 - Kitchen/Living | 4F0001A7 | 100 | 1.8 | 24 | 4 | 2 |
| 8F - A.08-04 - Bedroom        | 4F0001AA | 100 | 1.1 | 24 | 4 | 2 |
| 8F - A.08-04 - Bedroom        | 4F0001AC | 100 | 0.8 | 24 | 4 | 2 |
| 8F - A.08-04 - Kitchen/Living | 4F0001AD | 100 | 1.6 | 23 | 4 | 2 |
| 8F - A.08-06 - Studio         | 4F0001AF | 100 | 0.6 | 19 | 3 | 2 |
| 8F - A.08-05 - Kitchen/Living | 4F0001B2 | 100 | 1.2 | 19 | 3 | 2 |
| 8F - A.08-05 - Bedroom        | 4F0001B5 | 100 | 1   | 24 | 3 | 2 |
| 8F - A.08-05 - Bedroom        | 4F0001B6 | 100 | 0.9 | 23 | 3 | 2 |
| 1F - C.00-08 - Kitchen/Living | 1F00006B | 100 | 1.1 | 13 | 3 | 2 |
| 1F - C.00-09 - Kitchen/Living | 1F000025 | 100 | 1.5 | 22 | 4 | 2 |
| 1F - A.01-03 - Bedroom        | 1F00002B | 100 | 0.7 | 17 | 3 | 2 |
| 9F - A.09-06 - Kitchen/Living | 7F00000C | 100 | 1.7 | 23 | 4 | 2 |
| 9F - A.09-06 - Bedroom        | 7F00000F | 100 | 1   | 24 | 4 | 2 |
| 9F - A.09-06 - Bedroom        | 7F000010 | 100 | 1.2 | 28 | 4 | 2 |
| 9F - B.09-05 - Kitchen/Living | 7F00003C | 100 | 2.1 | 26 | 4 | 2 |
| 7F - B.07-07 - Bedroom        | 7F00003D | 100 | 1.2 | 24 | 4 | 2 |
| 9F - B.09-05 - Kitchen/Living | 7F000049 | 100 | 1.7 | 22 | 4 | 2 |

|                                |          |     |     |    |   |   |
|--------------------------------|----------|-----|-----|----|---|---|
| 9F - B.09-05 - Bedroom         | 7F00004D | 100 | 1.6 | 26 | 4 | 2 |
| 9F - B.09-06 - Studio          | 7F00004F | 100 | 0.9 | 23 | 4 | 2 |
| 9F - A.09-06 - Studio          | 7F000059 | 100 | 0.6 | 19 | 3 | 2 |
| 9F - A.09-05 - Kitchen/Living  | 7F00005C | 100 | 1.2 | 19 | 3 | 2 |
| 9F - A.09-05 - Bedroom         | 7F00005F | 100 | 1.1 | 24 | 3 | 2 |
| 9F - A.09-05 - Bedroom         | 7F000060 | 100 | 1   | 23 | 3 | 2 |
| 9F - A.09-02 - Bedroom         | 7F000016 | 100 | 1   | 25 | 4 | 2 |
| 9F - A.09-06 - Bedroom         | 7F000014 | 100 | 0.8 | 20 | 4 | 2 |
| 9F - A.09-06 - Kitchen/Living  | 7F000019 | 100 | 1.4 | 18 | 3 | 2 |
| 9F - A.09-01 - Kitchen/Living  | 7F000024 | 100 | 2   | 26 | 4 | 2 |
| 9F - A.09-02 - Kitchen/Living  | 7F00002F | 100 | 1.7 | 24 | 4 | 2 |
| 9F - B.09-01 - Bedroom         | 7F00001F | 100 | 1   | 25 | 4 | 2 |
| 9F - B.09-01 - Kitchen/Living  | 7F000021 | 100 | 1.7 | 23 | 4 | 2 |
| 9F - B.09-02 - Kitchen/Living  | 7F000036 | 100 | 1.9 | 26 | 4 | 2 |
| 9F - B.09-06 - Bedroom         | 7F000022 | 100 | 1.2 | 29 | 4 | 2 |
| 9F - B.09-06 - Kitchen/Living  | 7F000027 | 100 | 1.9 | 23 | 4 | 2 |
| 9F - B.09-06 - Bedroom         | 7F00001E | 100 | 1.3 | 28 | 4 | 2 |
| 9F - B.09-06 - Bedroom         | 7F00002C | 100 | 0.9 | 23 | 4 | 2 |
| 10F - A.10-06 - Kitchen/Living | 9F000008 | 100 | 1.9 | 24 | 4 | 2 |
| 10F - A.10-06 - Bedroom        | 9F00000B | 100 | 1   | 23 | 4 | 2 |
| 10F - A.10-06 - Bedroom        | 9F00000C | 100 | 1.1 | 28 | 4 | 2 |
| 10F - A.10-06 - Studio         | 9F000010 | 100 | 0.7 | 20 | 3 | 2 |
| 10F - A.10-05 - Kitchen/Living | 9F000013 | 100 | 1.2 | 20 | 3 | 2 |
| 10F - A.10-05 - Bedroom        | 9F000016 | 100 | 1.1 | 24 | 3 | 2 |
| 10F - A.10-05 - Bedroom        | 9F000017 | 100 | 1.1 | 24 | 3 | 2 |
| 10F - A.10-02 - Bedroom        | 9F000018 | 100 | 1   | 26 | 4 | 2 |
| 10F - A.10-06 - Bedroom        | 9F000019 | 100 | 1.5 | 28 | 4 | 2 |
| 10F - A.10-06 - Bedroom        | 9F00001C | 100 | 0.8 | 18 | 3 | 2 |
| 10F - A.10-06 - Kitchen/Living | 9F00001D | 100 | 1.7 | 18 | 3 | 2 |
| 10F - A.10-01 -Bedroom         | 9F000022 | 100 | 1.6 | 27 | 4 | 2 |
| 10F - A.10-01 -Kitchen/Living  | 9F000023 | 100 | 1.9 | 25 | 4 | 2 |
| 10F - A.10-02 - Kitchen/Living | 9F000027 | 100 | 1.7 | 23 | 4 | 2 |

|                         |           |               |                       |                        |                  |                  |
|-------------------------|-----------|---------------|-----------------------|------------------------|------------------|------------------|
| Failed:                 | 10 rooms: | Occupied days | Criteria 1 (%Hrs Top- | Criteria 2 (Max. Daily | Criteria 3 (Max. |                  |
| Room Name               | Room ID   | (%)           | Tmax>=1K)             | Deg.Hrs)               | DeltaT)          | Criteria failing |
| 1F - C.00-09 - Bedroom  | RM000018  | 100           | 1.3                   | 28                     | 5                | 2 & 3            |
| 2F - B.02-04 - Bedroom  | 1F000069  | 100           | 1.6                   | 32                     | 5                | 2 & 3            |
| 3F - B.03-04 - Bedroom  | 2F000037  | 100           | 1.6                   | 32                     | 5                | 2 & 3            |
| 6F - B.06-05 - Bedroom  | 4F0000C4  | 100           | 2.1                   | 31                     | 5                | 2 & 3            |
| 9F - B.09-05 - Bedroom  | 7F00004C  | 100           | 2.1                   | 31                     | 5                | 2 & 3            |
| 9F - A.09-06 - Bedroom  | 7F000009  | 100           | 1.5                   | 29                     | 5                | 2 & 3            |
| 9F - A.09-06 - Bedroom  | 7F00000A  | 100           | 1.7                   | 30                     | 5                | 2 & 3            |
| 9F - A.09-01 - Bedroom  | 7F00001D  | 100           | 1.6                   | 29                     | 5                | 2 & 3            |
| 9F - B.09-02 - Bedroom  | 7F00002E  | 100           | 1.3                   | 27                     | 5                | 2 & 3            |
| 10F - A.10-06 - Bedroom | 9F00001B  | 100           | 1.8                   | 31                     | 5                | 2 & 3            |

| Unoccupied:                | 510 rooms: | Occupied days | Criteria 1 (%Hrs Top- | Criteria 2 (Max. Daily | Criteria 3 (Max. |                  |
|----------------------------|------------|---------------|-----------------------|------------------------|------------------|------------------|
| Room Name                  | Room ID    | (%)           | Tmax>=1K)             | Deg.Hrs)               | DeltaT)          | Criteria failing |
| GF - Amenity               | GF000014   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Bin Store             | RM000002   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Substation            | RM000006   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Stairs                | RM000009   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Risers                | RM00000A   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Lift                  | RM00000B   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Circulation           | RM000008   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Bin Store             | RM00000E   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Plant                 | RM000013   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Stairs                | RM000014   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Lift                  | RM000015   | 0             | 0                     | 0                      | 0 -              |                  |
| GF - Entrance              | RM000017   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Plant                 | RM000028   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Stairs                | RM00001A   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Stairs                | RM000029   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Riser                 | RM000025   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Riser                 | RM00002D   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Maintenance Store     | RM00002F   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Circulation           | RM000032   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Circulation           | RM000023   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - Maintenance Store     | RM000021   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-06 - Circulation | 1F000018   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-06 - Cupboard    | RM000026   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-06 - Bathroom    | 1F000019   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-05 - Cupboard    | 1F00001A   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-05 - Bathroom    | RM000027   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-05 - Circulation | 1F00001D   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-07 - Bathroom    | 1F00001F   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-07 - Cupboard    | 1F000020   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-08 - Cupboard    | 1F000023   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-08 - Bathroom    | 1F000024   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-08 - Cupboard    | 1F000026   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-09 - Bathroom    | 1F000028   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-09 - Cupboard    | 1F000029   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-09 - Cupboard    | 1F00002C   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-03 - Cupboard    | RM000030   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-03 - Bathroom    | 1F00002E   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-02 - Bathroom    | 1F000030   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-02 - Cupboard    | 1F000032   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-02 - Bathroom    | 1F000033   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-02 - Cupboard    | 1F000035   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-01 - Cupboard    | 1F000036   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-01 - Cupboard    | 1F000038   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-01 - Bathroom    | 1F00003B   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - A.01-01 - Bathroom    | 1F00003C   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-01 - Bathroom    | 1F00003E   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-01 - Circulation | 1F000040   | 0             | 0                     | 0                      | 0 -              |                  |
| 1F - C.00-01 - Cupboard    | RM000022   | 0             | 0                     | 0                      | 0 -              |                  |

|                            |          |   |   |   |     |
|----------------------------|----------|---|---|---|-----|
| 1F - C.00-02 - Bathroom    | 1F000043 | 0 | 0 | 0 | 0 - |
| 1F - C.00-02 - Cupboard    | 1F000045 | 0 | 0 | 0 | 0 - |
| 1F - C.00-02 - Cupboard    | 1F00000A | 0 | 0 | 0 | 0 - |
| 1F - C.00-03 - Cupboard    | 1F000047 | 0 | 0 | 0 | 0 - |
| 1F - C.00-03 - Cupboard    | 1F00004A | 0 | 0 | 0 | 0 - |
| 1F - C.00-03 - Bathroom    | 1F00004B | 0 | 0 | 0 | 0 - |
| 1F - C.00-04 - Bathroom    | 1F000008 | 0 | 0 | 0 | 0 - |
| 1F - C.00-04 - Cupboard    | 1F00004E | 0 | 0 | 0 | 0 - |
| 1F - C.00-04 - Circulation | 1F00004C | 0 | 0 | 0 | 0 - |
| 1F - C.00-03 - Circulation | 1F000051 | 0 | 0 | 0 | 0 - |
| 1F - C.00-02 - Circulation | 1F000044 | 0 | 0 | 0 | 0 - |
| GF - C.00-06 - Cupboard    | GF000003 | 0 | 0 | 0 | 0 - |
| GF - C.00-06 - Bathroom    | GF000004 | 0 | 0 | 0 | 0 - |
| GF - C.00-05 - Bathroom    | GF000005 | 0 | 0 | 0 | 0 - |
| GF - C.00-05 - Circulation | GF000006 | 0 | 0 | 0 | 0 - |
| GF - C.00-04 - Bathroom    | GF000007 | 0 | 0 | 0 | 0 - |
| GF - C.00-04 - Cupboard    | GF000008 | 0 | 0 | 0 | 0 - |
| GF - C.00-04 - Circulation | GF000009 | 0 | 0 | 0 | 0 - |
| GF - C.00-03 - Bathroom    | GF00000A | 0 | 0 | 0 | 0 - |
| GF - C.00-03 - Circulation | RM00000F | 0 | 0 | 0 | 0 - |
| GF - C.00-03 - Cupboard    | GF00000C | 0 | 0 | 0 | 0 - |
| GF - C.00-01 - Bathroom    | GF00000E | 0 | 0 | 0 | 0 - |
| GF - C.00-01 - Circulation | GF00000D | 0 | 0 | 0 | 0 - |
| GF - C.00-01 - Cupboard    | GF00000F | 0 | 0 | 0 | 0 - |
| GF - C.00-02 - Bathroom    | GF000010 | 0 | 0 | 0 | 0 - |
| GF - C.00-02 - Cupboard    | GF000011 | 0 | 0 | 0 | 0 - |
| GF - C.00-02 - Circulation | GF000012 | 0 | 0 | 0 | 0 - |
| GF - C.00-07 - Bathroom    | GF000017 | 0 | 0 | 0 | 0 - |
| GF - C.00-07 - Circulation | RM00000D | 0 | 0 | 0 | 0 - |
| GF - C.00-08 - Circulation | RM000004 | 0 | 0 | 0 | 0 - |
| GF - C.00-08 - Bathroom    | GF00001A | 0 | 0 | 0 | 0 - |
| GF - C.00-08 - Cupboard    | GF00001B | 0 | 0 | 0 | 0 - |
| GF - C.00-09 - Circulation | GF00001E | 0 | 0 | 0 | 0 - |
| GF - C.00-07 - Cupboard    | GF000018 | 0 | 0 | 0 | 0 - |
| GF - C.00-09 - Cupboard    | RM000003 | 0 | 0 | 0 | 0 - |
| GF - C.00-09 - Bathroom    | GF000021 | 0 | 0 | 0 | 0 - |
| 2F - Stairs                | 1F000005 | 0 | 0 | 0 | 0 - |
| 2F - Stairs                | 1F000007 | 0 | 0 | 0 | 0 - |
| 2F - A.02-07 - Cupboard    | 1F00006C | 0 | 0 | 0 | 0 - |
| 2F - A.02-07 - Bathroom    | 1F00006D | 0 | 0 | 0 | 0 - |
| 2F - A.02-06 - Bathroom    | 1F00006F | 0 | 0 | 0 | 0 - |
| 2F - A.02-06 - Cupboard    | 1F000071 | 0 | 0 | 0 | 0 - |
| 2F - A.02-06 - Bathroom    | 1F000072 | 0 | 0 | 0 | 0 - |
| 2F - A.02-06 - Cupboard    | 1F000075 | 0 | 0 | 0 | 0 - |
| 2F - A.02-05 - Cupboard    | 1F000076 | 0 | 0 | 0 | 0 - |
| 2F - A.02-05 - Cupboard    | 1F000078 | 0 | 0 | 0 | 0 - |
| 2F - A.02-05 - Bathroom    | 1F00007C | 0 | 0 | 0 | 0 - |
| 2F - A.02-05 - Bathroom    | 1F00007D | 0 | 0 | 0 | 0 - |
| 2F - A.02-02 - Bathroom    | 1F000054 | 0 | 0 | 0 | 0 - |
| 2F - A.02-02 - Cupboard    | 1F000056 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 2F - A.02-02 - Bathroom | 1F000057 | 0 | 0 | 0 | 0 - |
| 2F - Circulation        | 1F000058 | 0 | 0 | 0 | 0 - |
| 2F - B.02-02 - Cupboard | 1F000059 | 0 | 0 | 0 | 0 - |
| 2F - B.02-02 - Bathroom | 1F00005A | 0 | 0 | 0 | 0 - |
| 2F - B.02-02 - Bathroom | 1F00005E | 0 | 0 | 0 | 0 - |
| 2F - B.02-01 - Bathroom | 1F00005D | 0 | 0 | 0 | 0 - |
| 2F - Circulation        | 1F000062 | 0 | 0 | 0 | 0 - |
| 2F - B.02-02 - Cupboard | 1F000064 | 0 | 0 | 0 | 0 - |
| 2F - B.02-03 - Cupboard | 1F00000F | 0 | 0 | 0 | 0 - |
| 2F - B.02-03 - Bathroom | 1F00005F | 0 | 0 | 0 | 0 - |
| 2F - B.02-03 - Cupboard | 1F000063 | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Cupboard | 1F000067 | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Bathroom | 1F00006A | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Bathroom | 1F00007E | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Cupboard | 1F00007F | 0 | 0 | 0 | 0 - |
| 2F - B.02-05 - Cupboard | 1F00000C | 0 | 0 | 0 | 0 - |
| 2F - B.02-05 - Bathroom | 1F000083 | 0 | 0 | 0 | 0 - |
| 2F - B.02-07 - Cupboard | 1F000085 | 0 | 0 | 0 | 0 - |
| 2F - B.02-05 - Bathroom | 1F000082 | 0 | 0 | 0 | 0 - |
| 2F - B.02-01 - Cupboard | 1F00000D | 0 | 0 | 0 | 0 - |
| 2F - B.02-06 - Bathroom | 1F00008B | 0 | 0 | 0 | 0 - |
| 2F - B.02-06 - Cupboard | 1F00008C | 0 | 0 | 0 | 0 - |
| 2F - B.02-07 - Cupboard | 1F00008D | 0 | 0 | 0 | 0 - |
| 2F - B.02-07 - Bathroom | 1F00008F | 0 | 0 | 0 | 0 - |
| 2F - A.02-02 - Cupboard | 1F000015 | 0 | 0 | 0 | 0 - |
| 2F - A.02-03 - Cupboard | 1F000092 | 0 | 0 | 0 | 0 - |
| 2F - A.02-03 - Bathroom | 1F000013 | 0 | 0 | 0 | 0 - |
| 2F - A.02-03 - Cupboard | 1F000010 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Cupboard | 1F000094 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Cupboard | 1F000095 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Bathroom | 1F000096 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Bathroom | 1F000097 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Cupboard | 1F000098 | 0 | 0 | 0 | 0 - |
| 2F - B.02-01 - Cupboard | 1F00009C | 0 | 0 | 0 | 0 - |
| 2F - A.02-01 - Cupboard | 1F000011 | 0 | 0 | 0 | 0 - |
| 2F - A.02-01 - Bathroom | 2F000001 | 0 | 0 | 0 | 0 - |
| 2F - A.02-01 - Cupboard | 2F000002 | 0 | 0 | 0 | 0 - |
| 3F - Stairs             | 2F000008 | 0 | 0 | 0 | 0 - |
| 3F - Stairs             | 2F000009 | 0 | 0 | 0 | 0 - |
| 3F - A.03-07 - Cupboard | 2F00000D | 0 | 0 | 0 | 0 - |
| 3F - A.03-07 - Bathroom | 2F00000E | 0 | 0 | 0 | 0 - |
| 3F - A.03-06 - Bathroom | 2F000010 | 0 | 0 | 0 | 0 - |
| 3F - A.03-06 - Cupboard | 2F000012 | 0 | 0 | 0 | 0 - |
| 3F - A.03-06 - Bathroom | 2F000013 | 0 | 0 | 0 | 0 - |
| 3F - A.03-06 - Cupboard | 2F000016 | 0 | 0 | 0 | 0 - |
| 3F - A.03-05 - Cupboard | 2F000017 | 0 | 0 | 0 | 0 - |
| 3F - A.03-05 - Cupboard | 2F000019 | 0 | 0 | 0 | 0 - |
| 3F - A.03-05 - Bathroom | 2F00001D | 0 | 0 | 0 | 0 - |
| 3F - A.03-05 - Bathroom | 2F00001E | 0 | 0 | 0 | 0 - |
| 3F - A.03-02 - Bathroom | 2F000020 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 3F - A.03-02 - Cupboard | 2F000022 | 0 | 0 | 0 | 0 - |
| 3F - A.03-02 - Bathroom | 2F000024 | 0 | 0 | 0 | 0 - |
| 3F - Circulation        | 2F000025 | 0 | 0 | 0 | 0 - |
| 3F - B.03-02 - Cupboard | 2F000026 | 0 | 0 | 0 | 0 - |
| 3F - B.03-02 - Bathroom | 2F000028 | 0 | 0 | 0 | 0 - |
| 3F - B.03-02 - Bathroom | 2F00002A | 0 | 0 | 0 | 0 - |
| 3F - B.03-01 - Bathroom | 2F00002B | 0 | 0 | 0 | 0 - |
| 3F - Circulation        | 2F00002D | 0 | 0 | 0 | 0 - |
| 3F - B.03-03 - Cupboard | 2F000031 | 0 | 0 | 0 | 0 - |
| 3F - B.03-03 - Bathroom | 2F000032 | 0 | 0 | 0 | 0 - |
| 3F - B.03-04 - Cupboard | 2F000038 | 0 | 0 | 0 | 0 - |
| 3F - B.03-04 - Bathroom | 2F000039 | 0 | 0 | 0 | 0 - |
| 3F - B.03-04 - Bathroom | 2F00003B | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Cupboard | 2F00003C | 0 | 0 | 0 | 0 - |
| 3F - B.03-05 - Cupboard | 2F00003F | 0 | 0 | 0 | 0 - |
| 3F - B.03-05 - Bathroom | 2F000040 | 0 | 0 | 0 | 0 - |
| 3F - B.03-07 - Cupboard | 2F000041 | 0 | 0 | 0 | 0 - |
| 3F - B.03-05 - Bathroom | 2F000043 | 0 | 0 | 0 | 0 - |
| 3F - B.03-01 - Cupboard | 2F000045 | 0 | 0 | 0 | 0 - |
| 3F - B.03-06 - Bathroom | 2F000049 | 0 | 0 | 0 | 0 - |
| 3F - B.03-06 - Cupboard | 2F00004A | 0 | 0 | 0 | 0 - |
| 3F - B.03-07 - Cupboard | 2F00004D | 0 | 0 | 0 | 0 - |
| 3F - B.03-07 - Bathroom | 2F00004E | 0 | 0 | 0 | 0 - |
| 3F - A.03-03 - Bathroom | 2F000053 | 0 | 0 | 0 | 0 - |
| 3F - A.03-03 - Cupboard | 2F000054 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Cupboard | 2F000055 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Cupboard | 2F000056 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Bathroom | 2F000057 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Bathroom | 2F000058 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Cupboard | 2F000059 | 0 | 0 | 0 | 0 - |
| 3F - B.03-01 - Cupboard | 2F000060 | 0 | 0 | 0 | 0 - |
| 3F - A.03-01 - Cupboard | 2F000062 | 0 | 0 | 0 | 0 - |
| 3F - A.03-01 - Bathroom | 2F000063 | 0 | 0 | 0 | 0 - |
| 3F - A.03-01 - Cupboard | 2F000064 | 0 | 0 | 0 | 0 - |
| 3F - B.03-03 - Cupboard | 2F00006A | 0 | 0 | 0 | 0 - |
| 3F - A.03-03 - Bathroom | 2F00004F | 0 | 0 | 0 | 0 - |
| 4F - Stairs             | 3F000004 | 0 | 0 | 0 | 0 - |
| 4F - Stairs             | 3F000005 | 0 | 0 | 0 | 0 - |
| 4F - A.04-07 - Cupboard | 3F000008 | 0 | 0 | 0 | 0 - |
| 4F - A.04-07 - Bathroom | 3F000009 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Bathroom | 3F00000B | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F00000D | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Bathroom | 3F00000E | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F000011 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F000014 | 0 | 0 | 0 | 0 - |
| 4F - A.04-02 - Bathroom | 3F00001A | 0 | 0 | 0 | 0 - |
| 4F - A.04-02 - Cupboard | 3F00001C | 0 | 0 | 0 | 0 - |
| 4F - A.04-02 - Bathroom | 3F00001E | 0 | 0 | 0 | 0 - |
| 4F - Circulation        | 3F00001F | 0 | 0 | 0 | 0 - |
| 4F - B.04-02 - Cupboard | 3F000020 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 4F - B.04-02 - Bathroom | 3F000022 | 0 | 0 | 0 | 0 - |
| 4F - B.04-02 - Bathroom | 3F000024 | 0 | 0 | 0 | 0 - |
| 4F - B.04-01 - Bathroom | 3F000025 | 0 | 0 | 0 | 0 - |
| 4F - Circulation        | 3F000027 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Cupboard | 3F000029 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Bathroom | 3F00002A | 0 | 0 | 0 | 0 - |
| 4F - B.04-08 - Cupboard | 3F000036 | 0 | 0 | 0 | 0 - |
| 4F - B.04-01 - Cupboard | 3F00003A | 0 | 0 | 0 | 0 - |
| 4F - B.04-07 - Bathroom | 3F00003D | 0 | 0 | 0 | 0 - |
| 4F - B.04-07 - Cupboard | 3F00003E | 0 | 0 | 0 | 0 - |
| 4F - B.04-08 - Cupboard | 3F00003F | 0 | 0 | 0 | 0 - |
| 4F - B.04-08 - Bathroom | 3F000040 | 0 | 0 | 0 | 0 - |
| 4F - A.04-03 - Bathroom | 3F000041 | 0 | 0 | 0 | 0 - |
| 4F - A.04-03 - Cupboard | 3F000042 | 0 | 0 | 0 | 0 - |
| 4F - B.04-01 - Cupboard | 3F00004D | 0 | 0 | 0 | 0 - |
| 4F - A.04-01 - Cupboard | 3F00004F | 0 | 0 | 0 | 0 - |
| 4F - A.04-01 - Bathroom | 3F000050 | 0 | 0 | 0 | 0 - |
| 4F - A.04-01 - Cupboard | 3F000051 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Cupboard | 3F000059 | 0 | 0 | 0 | 0 - |
| 4F - A.04-03 - Bathroom | 3F00005D | 0 | 0 | 0 | 0 - |
| 4F - B.04-06 - Bathroom | 3F000032 | 0 | 0 | 0 | 0 - |
| 4F - B.04-06 - Cupboard | 3F000033 | 0 | 0 | 0 | 0 - |
| 4F - B.04-04 - Bathroom | 4F000001 | 0 | 0 | 0 | 0 - |
| 4F - B.04-04 - Cupboard | 4F000002 | 0 | 0 | 0 | 0 - |
| 4F - B.04-04 - Cupboard | 4F000004 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Bathroom | 3F000035 | 0 | 0 | 0 | 0 - |
| 4F - B.04-05 - Cupboard | 3F00002B | 0 | 0 | 0 | 0 - |
| 4F - B.04-05 - Bathroom | 3F000034 | 0 | 0 | 0 | 0 - |
| 4F - B.04-06 - Cupboard | 3F00002D | 0 | 0 | 0 | 0 - |
| 4F - A.04-04 - Bathroom | 3F000044 | 0 | 0 | 0 | 0 - |
| 4F - A.04-04 - Cupboard | 3F000043 | 0 | 0 | 0 | 0 - |
| 4F - A.04-04 - Cupboard | 3F000045 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F000012 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F000015 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Bathroom | 3F000017 | 0 | 0 | 0 | 0 - |
| 4F - A.04-05 - Bathroom | 4F000006 | 0 | 0 | 0 | 0 - |
| 4F - A.04-05 - Cupboard | 4F000007 | 0 | 0 | 0 | 0 - |
| 5F - Stairs             | 4F00000D | 0 | 0 | 0 | 0 - |
| 5F - Stairs             | 4F00000E | 0 | 0 | 0 | 0 - |
| 5F - A.05-08 - Cupboard | 4F000011 | 0 | 0 | 0 | 0 - |
| 5F - A.05-08 - Bathroom | 4F000012 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Bathroom | 4F000014 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F000016 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Bathroom | 4F000017 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F00001A | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F00001B | 0 | 0 | 0 | 0 - |
| 5F - A.05-02 - Bathroom | 4F00001C | 0 | 0 | 0 | 0 - |
| 5F - A.05-02 - Cupboard | 4F00001E | 0 | 0 | 0 | 0 - |
| 5F - A.05-02 - Bathroom | 4F000020 | 0 | 0 | 0 | 0 - |
| 5F - Circulation        | 4F000021 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 5F - B.05-02 - Cupboard | 4F000022 | 0 | 0 | 0 | 0 - |
| 5F - B.05-02 - Bathroom | 4F000024 | 0 | 0 | 0 | 0 - |
| 5F - B.05-02 - Bathroom | 4F000026 | 0 | 0 | 0 | 0 - |
| 5F - B.05-01 - Bathroom | 4F000027 | 0 | 0 | 0 | 0 - |
| 5F - Circulation        | 4F000028 | 0 | 0 | 0 | 0 - |
| 5F - B.05-03 - Cupboard | 4F000029 | 0 | 0 | 0 | 0 - |
| 5F - B.05-03 - Bathroom | 4F00002A | 0 | 0 | 0 | 0 - |
| 5F - B.05-08 - Bathroom | 4F00002B | 0 | 0 | 0 | 0 - |
| 5F - B.05-01 - Cupboard | 4F00002C | 0 | 0 | 0 | 0 - |
| 5F - B.05-07 - Bathroom | 4F00002E | 0 | 0 | 0 | 0 - |
| 5F - B.05-07 - Cupboard | 4F00002F | 0 | 0 | 0 | 0 - |
| 5F - B.05-08 - Cupboard | 4F000030 | 0 | 0 | 0 | 0 - |
| 5F - B.05-08 - Bathroom | 4F000031 | 0 | 0 | 0 | 0 - |
| 5F - A.05-03 - Bathroom | 4F000032 | 0 | 0 | 0 | 0 - |
| 5F - A.05-03 - Cupboard | 4F000033 | 0 | 0 | 0 | 0 - |
| 5F - B.05-01 - Cupboard | 4F000035 | 0 | 0 | 0 | 0 - |
| 5F - A.05-01 - Cupboard | 4F000037 | 0 | 0 | 0 | 0 - |
| 5F - A.05-01 - Bathroom | 4F000038 | 0 | 0 | 0 | 0 - |
| 5F - A.05-01 - Cupboard | 4F000039 | 0 | 0 | 0 | 0 - |
| 5F - B.05-03 - Cupboard | 4F00003F | 0 | 0 | 0 | 0 - |
| 5F - A.05-03 - Bathroom | 4F000042 | 0 | 0 | 0 | 0 - |
| 5F - B.05-06 - Bathroom | 4F000047 | 0 | 0 | 0 | 0 - |
| 5F - B.05-06 - Cupboard | 4F000048 | 0 | 0 | 0 | 0 - |
| 5F - B.05-04 - Bathroom | 4F00004A | 0 | 0 | 0 | 0 - |
| 5F - B.05-04 - Cupboard | 4F00004B | 0 | 0 | 0 | 0 - |
| 5F - B.05-04 - Cupboard | 4F00004E | 0 | 0 | 0 | 0 - |
| 5F - B.05-03 - Bathroom | 4F000050 | 0 | 0 | 0 | 0 - |
| 5F - B.05-05 - Cupboard | 4F000053 | 0 | 0 | 0 | 0 - |
| 5F - B.05-05 - Bathroom | 4F000054 | 0 | 0 | 0 | 0 - |
| 5F - B.05-06 - Cupboard | 4F000057 | 0 | 0 | 0 | 0 - |
| 5F - A.05-04 - Bathroom | 4F00005B | 0 | 0 | 0 | 0 - |
| 5F - A.05-04 - Cupboard | 4F00005C | 0 | 0 | 0 | 0 - |
| 5F - A.05-04 - Cupboard | 4F00005E | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F000061 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F000063 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Bathroom | 4F000064 | 0 | 0 | 0 | 0 - |
| 5F - A.05-05 - Bathroom | 4F000066 | 0 | 0 | 0 | 0 - |
| 5F - A.05-05 - Cupboard | 4F000067 | 0 | 0 | 0 | 0 - |
| 6F - Stairs             | 4F00007C | 0 | 0 | 0 | 0 - |
| 6F - Stairs             | 4F00007D | 0 | 0 | 0 | 0 - |
| 6F - A.06-08 - Cupboard | 4F000080 | 0 | 0 | 0 | 0 - |
| 6F - A.06-08 - Bathroom | 4F000081 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Bathroom | 4F000083 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F000085 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Bathroom | 4F000086 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F000089 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F00008A | 0 | 0 | 0 | 0 - |
| 6F - A.06-02 - Bathroom | 4F00008B | 0 | 0 | 0 | 0 - |
| 6F - A.06-02 - Cupboard | 4F00008D | 0 | 0 | 0 | 0 - |
| 6F - A.06-02 - Bathroom | 4F00008F | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 6F - Circulation        | 4F000090 | 0 | 0 | 0 | 0 - |
| 6F - B.06-02 - Cupboard | 4F000091 | 0 | 0 | 0 | 0 - |
| 6F - B.06-02 - Bathroom | 4F000093 | 0 | 0 | 0 | 0 - |
| 6F - B.06-02 - Bathroom | 4F000095 | 0 | 0 | 0 | 0 - |
| 6F - B.06-01 - Bathroom | 4F000096 | 0 | 0 | 0 | 0 - |
| 6F - Circulation        | 4F000097 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Cupboard | 4F000098 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Bathroom | 4F000099 | 0 | 0 | 0 | 0 - |
| 6F - B.06-08 - Cupboard | 4F00009A | 0 | 0 | 0 | 0 - |
| 6F - B.06-01 - Cupboard | 4F00009B | 0 | 0 | 0 | 0 - |
| 6F - B.06-07 - Bathroom | 4F00009D | 0 | 0 | 0 | 0 - |
| 6F - B.06-07 - Cupboard | 4F00009E | 0 | 0 | 0 | 0 - |
| 6F - B.06-08 - Cupboard | 4F00009F | 0 | 0 | 0 | 0 - |
| 6F - B.06-08 - Bathroom | 4F0000A0 | 0 | 0 | 0 | 0 - |
| 6F - A.06-03 - Bathroom | 4F0000A1 | 0 | 0 | 0 | 0 - |
| 6F - A.06-03 - Cupboard | 4F0000A2 | 0 | 0 | 0 | 0 - |
| 6F - B.06-01 - Cupboard | 4F0000A4 | 0 | 0 | 0 | 0 - |
| 6F - A.06-01 - Bathroom | 4F0000A5 | 0 | 0 | 0 | 0 - |
| 6F - A.06-01 - Cupboard | 4F0000A6 | 0 | 0 | 0 | 0 - |
| 6F - A.06-01 - Bathroom | 4F0000A7 | 0 | 0 | 0 | 0 - |
| 6F - A.06-01 - Cupboard | 4F0000A8 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Cupboard | 4F0000AE | 0 | 0 | 0 | 0 - |
| 6F - A.06-03 - Bathroom | 4F0000B1 | 0 | 0 | 0 | 0 - |
| 6F - B.06-06 - Bathroom | 4F0000B6 | 0 | 0 | 0 | 0 - |
| 6F - B.06-06 - Cupboard | 4F0000B7 | 0 | 0 | 0 | 0 - |
| 6F - B.06-04 - Bathroom | 4F0000B9 | 0 | 0 | 0 | 0 - |
| 6F - B.06-04 - Cupboard | 4F0000BA | 0 | 0 | 0 | 0 - |
| 6F - B.06-04 - Cupboard | 4F0000BD | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Bathroom | 4F0000BF | 0 | 0 | 0 | 0 - |
| 6F - B.06-05 - Cupboard | 4F0000C2 | 0 | 0 | 0 | 0 - |
| 6F - B.06-05 - Bathroom | 4F0000C3 | 0 | 0 | 0 | 0 - |
| 6F - B.06-06 - Cupboard | 4F0000C6 | 0 | 0 | 0 | 0 - |
| 6F - A.06-04 - Bathroom | 4F0000CA | 0 | 0 | 0 | 0 - |
| 6F - A.06-04 - Cupboard | 4F0000CB | 0 | 0 | 0 | 0 - |
| 6F - A.06-04 - Cupboard | 4F0000CD | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F0000D0 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F0000D2 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Bathroom | 4F0000D3 | 0 | 0 | 0 | 0 - |
| 6F - A.06-05 - Bathroom | 4F0000D5 | 0 | 0 | 0 | 0 - |
| 6F - A.06-05 - Cupboard | 4F0000D6 | 0 | 0 | 0 | 0 - |
| 7F - Stairs             | 4F0000DD | 0 | 0 | 0 | 0 - |
| 7F - Stairs             | 4F0000DE | 0 | 0 | 0 | 0 - |
| 7F - A.07-08 - Cupboard | 4F0000E1 | 0 | 0 | 0 | 0 - |
| 7F - A.07-08 - Bathroom | 4F0000E2 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Bathroom | 4F0000E4 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F0000E6 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Bathroom | 4F0000E7 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F0000EA | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F0000EB | 0 | 0 | 0 | 0 - |
| 7F - A.07-02 - Bathroom | 4F0000EC | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 7F - A.07-02 - Cupboard | 4F0000EE | 0 | 0 | 0 | 0 - |
| 7F - A.07-02 - Bathroom | 4F0000F0 | 0 | 0 | 0 | 0 - |
| 7F - Circulation        | 4F0000F1 | 0 | 0 | 0 | 0 - |
| 7F - B.07-02 - Cupboard | 4F0000F2 | 0 | 0 | 0 | 0 - |
| 7F - B.07-02 - Bathroom | 4F0000F4 | 0 | 0 | 0 | 0 - |
| 7F - B.07-02 - Bathroom | 4F0000F6 | 0 | 0 | 0 | 0 - |
| 7F - B.07-01 - Bathroom | 4F0000F7 | 0 | 0 | 0 | 0 - |
| 7F - Circulation        | 4F0000F8 | 0 | 0 | 0 | 0 - |
| 7F - B.07-03 - Cupboard | 4F0000F9 | 0 | 0 | 0 | 0 - |
| 7F - B.07-03 - Bathroom | 4F0000FA | 0 | 0 | 0 | 0 - |
| 7F - B.07-08 - Cupboard | 4F0000FB | 0 | 0 | 0 | 0 - |
| 7F - B.07-01 - Cupboard | 4F0000FC | 0 | 0 | 0 | 0 - |
| 7F - B.07-07 - Bathroom | 4F0000FE | 0 | 0 | 0 | 0 - |
| 7F - B.07-07 - Cupboard | 4F0000FF | 0 | 0 | 0 | 0 - |
| 7F - B.07-08 - Cupboard | 4F000100 | 0 | 0 | 0 | 0 - |
| 7F - B.07-08 - Bathroom | 4F000101 | 0 | 0 | 0 | 0 - |
| 7F - A.07-03 - Bathroom | 4F000102 | 0 | 0 | 0 | 0 - |
| 7F - A.07-03 - Cupboard | 4F000103 | 0 | 0 | 0 | 0 - |
| 7F - B.07-01 - Cupboard | 4F000105 | 0 | 0 | 0 | 0 - |
| 7F - A.07-01 - Cupboard | 4F000107 | 0 | 0 | 0 | 0 - |
| 7F - A.07-01 - Bathroom | 4F000108 | 0 | 0 | 0 | 0 - |
| 7F - A.07-01 - Cupboard | 4F000109 | 0 | 0 | 0 | 0 - |
| 7F - B.07-03 - Cupboard | 4F00010F | 0 | 0 | 0 | 0 - |
| 7F - A.07-03 - Bathroom | 4F000112 | 0 | 0 | 0 | 0 - |
| 7F - B.07-06 - Bathroom | 4F000117 | 0 | 0 | 0 | 0 - |
| 7F - B.07-06 - Cupboard | 4F000118 | 0 | 0 | 0 | 0 - |
| 7F - B.07-04 - Bathroom | 4F00011A | 0 | 0 | 0 | 0 - |
| 7F - B.07-04 - Cupboard | 4F00011B | 0 | 0 | 0 | 0 - |
| 7F - B.07-04 - Cupboard | 4F00011E | 0 | 0 | 0 | 0 - |
| 7F - B.07-03 - Bathroom | 4F000120 | 0 | 0 | 0 | 0 - |
| 7F - B.07-05 - Cupboard | 4F000123 | 0 | 0 | 0 | 0 - |
| 7F - B.07-05 - Bathroom | 4F000124 | 0 | 0 | 0 | 0 - |
| 7F - B.07-06 - Cupboard | 4F000127 | 0 | 0 | 0 | 0 - |
| 7F - A.07-04 - Bathroom | 4F00012B | 0 | 0 | 0 | 0 - |
| 7F - A.07-04 - Cupboard | 4F00012C | 0 | 0 | 0 | 0 - |
| 7F - A.07-04 - Cupboard | 4F00012E | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F000131 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F000133 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Bathroom | 4F000134 | 0 | 0 | 0 | 0 - |
| 7F - A.07-05 - Bathroom | 4F000136 | 0 | 0 | 0 | 0 - |
| 7F - A.07-05 - Cupboard | 4F000137 | 0 | 0 | 0 | 0 - |
| 8F - Stairs             | 4F00015A | 0 | 0 | 0 | 0 - |
| 8F - Stairs             | 4F00015B | 0 | 0 | 0 | 0 - |
| 8F - A.08-08 - Cupboard | 4F00015E | 0 | 0 | 0 | 0 - |
| 8F - A.08-08 - Bathroom | 4F00015F | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Bathroom | 4F000161 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F000163 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Bathroom | 4F000164 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F000167 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F000168 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 8F - A.08-02 - Bathroom | 4F000169 | 0 | 0 | 0 | 0 - |
| 8F - A.08-02 - Cupboard | 4F00016B | 0 | 0 | 0 | 0 - |
| 8F - A.08-02 - Bathroom | 4F00016D | 0 | 0 | 0 | 0 - |
| 8F - Circulation        | 4F00016E | 0 | 0 | 0 | 0 - |
| 8F - B.08-02 - Cupboard | 4F00016F | 0 | 0 | 0 | 0 - |
| 8F - B.08-02 - Bathroom | 4F000171 | 0 | 0 | 0 | 0 - |
| 8F - B.08-02 - Bathroom | 4F000173 | 0 | 0 | 0 | 0 - |
| 8F - B.08-01 - Bathroom | 4F000174 | 0 | 0 | 0 | 0 - |
| 8F - Circulation        | 4F000175 | 0 | 0 | 0 | 0 - |
| 8F - B.08-03 - Cupboard | 4F000176 | 0 | 0 | 0 | 0 - |
| 8F - B.08-03 - Bathroom | 4F000177 | 0 | 0 | 0 | 0 - |
| 8F - B.08-08 - Cupboard | 4F000178 | 0 | 0 | 0 | 0 - |
| 8F - B.08-01 - Cupboard | 4F000179 | 0 | 0 | 0 | 0 - |
| 8F - B.08-07 - Bathroom | 4F00017B | 0 | 0 | 0 | 0 - |
| 8F - B.08-07 - Cupboard | 4F00017C | 0 | 0 | 0 | 0 - |
| 8F - B.08-08 - Cupboard | 4F00017D | 0 | 0 | 0 | 0 - |
| 8F - B.08-08 - Bathroom | 4F00017E | 0 | 0 | 0 | 0 - |
| 8F - A.08-03 - Bathroom | 4F00017F | 0 | 0 | 0 | 0 - |
| 8F - A.08-03 - Cupboard | 4F000180 | 0 | 0 | 0 | 0 - |
| 8F - B.08-01 - Cupboard | 4F000182 | 0 | 0 | 0 | 0 - |
| 8F - A.08-01 - Cupboard | 4F000184 | 0 | 0 | 0 | 0 - |
| 8F - A.08-01 - Bathroom | 4F000185 | 0 | 0 | 0 | 0 - |
| 8F - A.08-01 - Cupboard | 4F000186 | 0 | 0 | 0 | 0 - |
| 8F - B.08-03 - Cupboard | 4F00018C | 0 | 0 | 0 | 0 - |
| 8F - A.08-03 - Bathroom | 4F00018F | 0 | 0 | 0 | 0 - |
| 8F - B.08-06 - Bathroom | 4F000194 | 0 | 0 | 0 | 0 - |
| 8F - B.08-06 - Cupboard | 4F000195 | 0 | 0 | 0 | 0 - |
| 8F - B.08-04 - Bathroom | 4F000197 | 0 | 0 | 0 | 0 - |
| 8F - B.08-04 - Cupboard | 4F000198 | 0 | 0 | 0 | 0 - |
| 8F - B.08-04 - Cupboard | 4F00019B | 0 | 0 | 0 | 0 - |
| 8F - B.08-03 - Bathroom | 4F00019D | 0 | 0 | 0 | 0 - |
| 8F - B.08-05 - Cupboard | 4F0001A0 | 0 | 0 | 0 | 0 - |
| 8F - B.08-05 - Bathroom | 4F0001A1 | 0 | 0 | 0 | 0 - |
| 8F - B.08-06 - Cupboard | 4F0001A4 | 0 | 0 | 0 | 0 - |
| 8F - A.08-04 - Bathroom | 4F0001A8 | 0 | 0 | 0 | 0 - |
| 8F - A.08-04 - Cupboard | 4F0001A9 | 0 | 0 | 0 | 0 - |
| 8F - A.08-04 - Cupboard | 4F0001AB | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F0001AE | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F0001B0 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Bathroom | 4F0001B1 | 0 | 0 | 0 | 0 - |
| 8F - A.08-05 - Bathroom | 4F0001B3 | 0 | 0 | 0 | 0 - |
| 8F - A.08-05 - Cupboard | 4F0001B4 | 0 | 0 | 0 | 0 - |
| GF - Plant              | GF000015 | 0 | 0 | 0 | 0 - |
| GF - Plant              | GF000000 | 0 | 0 | 0 | 0 - |
| GF - Entrance           | RM000001 | 0 | 0 | 0 | 0 - |
| GF - Entrance           | RM000005 | 0 | 0 | 0 | 0 - |
| GF - Entrance           | RM00000C | 0 | 0 | 0 | 0 - |
| GF - Cycle Repair Bay   | RM000011 | 0 | 0 | 0 | 0 - |
| GF - Cycle Parking      | RM000010 | 0 | 0 | 0 | 0 - |
| 9F - Stairs             | 7F000004 | 0 | 0 | 0 | 0 - |

|                          |          |   |   |   |     |
|--------------------------|----------|---|---|---|-----|
| 9F - Stairs              | 7F000005 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F00000B | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F00000D | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F00000E | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F000011 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F000012 | 0 | 0 | 0 | 0 - |
| 9F - B.09-05 - Bathroom  | 7F000025 | 0 | 0 | 0 | 0 - |
| 9F - B.09-05 - Cupboard  | 7F000026 | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Bathroom  | 7F00003E | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Cupboard  | 7F00003F | 0 | 0 | 0 | 0 - |
| 9F - B.09-05 - Cupboard  | 7F00004A | 0 | 0 | 0 | 0 - |
| 9F - B.09-05 - Bathroom  | 7F00004B | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Cupboard  | 7F00004E | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F000058 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F00005A | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F00005B | 0 | 0 | 0 | 0 - |
| 9F - A.09-05 - Bathroom  | 7F00005D | 0 | 0 | 0 | 0 - |
| 9F - A.09-05 - Cupboard  | 7F00005E | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F000008 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F00001A | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F000017 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F00001B | 0 | 0 | 0 | 0 - |
| 9F - A.09-01 - Cupboard  | 7F00001C | 0 | 0 | 0 | 0 - |
| 9F - A.09-01 - Bathroom  | 7F000029 | 0 | 0 | 0 | 0 - |
| 9F - A.09-01 - Cupboard  | 7F00002A | 0 | 0 | 0 | 0 - |
| 9F - A.09-02 - Cupboard  | 7F000015 | 0 | 0 | 0 | 0 - |
| 9F - A.09-02 - Bathroom  | 7F00002D | 0 | 0 | 0 | 0 - |
| 9F - A.09-02 - Cupboard  | 7F000030 | 0 | 0 | 0 | 0 - |
| 9F - Circulation         | 7F000031 | 0 | 0 | 0 | 0 - |
| 9F - Circulation         | 7F000020 | 0 | 0 | 0 | 0 - |
| 9F - B.09-01 - Cupboard  | 7F000013 | 0 | 0 | 0 | 0 - |
| 9F - B.09-01 - Bathroom  | 7F000018 | 0 | 0 | 0 | 0 - |
| 9F - B.09-01 - Cupboard  | 7F000035 | 0 | 0 | 0 | 0 - |
| 9F - B.09-02 - Cupboard  | 7F000034 | 0 | 0 | 0 | 0 - |
| 9F - B.09-02 - Cupboard  | 7F000037 | 0 | 0 | 0 | 0 - |
| 9F - B.09-02 - Bathroom  | 7F000038 | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Bathroom  | 7F000023 | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Cupboard  | 7F000028 | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Cupboard  | 7F00002B | 0 | 0 | 0 | 0 - |
| 10F - Stairs             | 9F000002 | 0 | 0 | 0 | 0 - |
| 10F - Circulation        | 9F000033 | 0 | 0 | 0 | 0 - |
| 10F - Stairs             | 9F000005 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F000007 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F000009 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F00000A | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F00000D | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F00000E | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F00000F | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F000011 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F000012 | 0 | 0 | 0 | 0 - |

|                          |          |   |   |   |     |
|--------------------------|----------|---|---|---|-----|
| 10F - A.10-05 - Bathroom | 9F000014 | 0 | 0 | 0 | 0 - |
| 10F - A.10-05 - Cupboard | 9F000015 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F00001A | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F00001E | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F00001F | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F000020 | 0 | 0 | 0 | 0 - |
| 10F - A.10-01 - Cupboard | 9F000021 | 0 | 0 | 0 | 0 - |
| 10F - A.10-01 -Bathroom  | 9F000024 | 0 | 0 | 0 | 0 - |
| 10F - A.10-01 -Cupboard  | 9F000025 | 0 | 0 | 0 | 0 - |
| 10F - A.10-02 - Cupboard | 9F000026 | 0 | 0 | 0 | 0 - |
| 10F - A.10-02 - Bathroom | 9F000028 | 0 | 0 | 0 | 0 - |
| 10F - A.10-02 - Cupboard | 9F000029 | 0 | 0 | 0 | 0 - |
| 10F - Circulation        | 9F00002A | 0 | 0 | 0 | 0 - |

## Appendix H

### 1 Vinyl Square - TM52 Analysis Results

Overall  
Passed: 374 rooms:  
Failed: 0 rooms:  
Unoccupied: 510 rooms:

Data:  
Building category: Category II (new builds.)  
Weather file: LondonDSY05.fwt  
Days data= 153 01-May 30-Sep  
Days (summer)= 153 01-May 30-Sep  
Data OK? OK Full summer

Occupancy:  
Note: This report assesses occupied periods only. Please be aware that TM52 should be conducted for occupied and/or “available hours”. Use of educational NCM profiles may be seen as inappropriate due to prolonged unoccupied periods during summer months. See Section 6.1.2 (a) of TM52 for further information.

| Passed:                       | 374 rooms: | Occupied days | Criteria 1 (%Hrs Top- | Criteria 2 (Max. | Criteria 3 (Max. |                  |
|-------------------------------|------------|---------------|-----------------------|------------------|------------------|------------------|
| Room Name                     | Room ID    | (%)           | Tmax>=1K)             | Daily Deg.Hrs)   | DeltaT)          | Criteria failing |
| GF - Commercial               | RM000007   | 100           | 0                     | 0                | 0                | -                |
| 1F - C.00-06 - Bedroom        | 1F000016   | 100           | 0.6                   | 14               | 3                | 2                |
| 1F - C.00-06 - Bedroom        | 1F00000E   | 100           | 0.7                   | 18               | 3                | 2                |
| 1F - C.00-06 - Bedroom        | 1F000017   | 100           | 0.7                   | 22               | 4                | 2                |
| 1F - C.00-05 - Bedroom        | 1F00001B   | 100           | 0.1                   | 4                | 1                | -                |
| 1F - C.00-05 - Bedroom        | 1F00001C   | 100           | 0.1                   | 5                | 1                | -                |
| 1F - C.00-05 - Bedroom        | 1F00001E   | 100           | 0.1                   | 5                | 1                | -                |
| 1F - C.00-07 - Kitchen/Living | RM00002C   | 100           | 0.8                   | 15               | 3                | 2                |
| 1F - C.00-07 - Bedroom        | 1F000021   | 100           | 0.5                   | 13               | 3                | 2                |
| 1F - C.00-07 - Bedroom        | 1F000022   | 100           | 0.5                   | 15               | 3                | 2                |
| 1F - C.00-08 - Bedroom        | RM000019   | 100           | 0.5                   | 10               | 2                | 2                |
| 1F - C.00-08 - Bedroom        | 1F000027   | 100           | 0.5                   | 10               | 2                | 2                |
| 1F - C.00-09 - Bedroom        | RM000018   | 100           | 0.9                   | 23               | 4                | 2                |
| 1F - C.00-09 - Bedroom        | 1F00002A   | 100           | 0.7                   | 17               | 3                | 2                |
| 1F - A.01-03 - Kitchen/Living | 1F00002F   | 100           | 0.3                   | 3                | 1                | -                |
| 1F - A.01-02 - Kitchen/Living | 1F000031   | 100           | 1                     | 18               | 3                | 2                |
| 1F - A.01-02 - Bedroom        | 1F000034   | 100           | 0.5                   | 21               | 3                | 2                |
| 1F - A.01-02 - Bedroom        | RM00002E   | 100           | 0.7                   | 23               | 4                | 2                |
| 1F - A.01-01 - Kitchen/Living | 1F000037   | 100           | 0.8                   | 15               | 3                | 2                |
| 1F - A.01-01 - Bedroom        | RM00001F   | 100           | 0.4                   | 13               | 2                | 2                |
| 1F - A.01-01 - Bedroom        | 1F000039   | 100           | 0.6                   | 17               | 3                | 2                |
| 1F - A.01-01 - Bedroom        | 1F00003A   | 100           | 0.6                   | 19               | 3                | 2                |
| 1F - C.00-01 - Kitchen/Living | 1F00003D   | 100           | 1                     | 18               | 3                | 2                |
| 1F - C.00-01 - Bedroom        | 1F00003F   | 100           | 0.7                   | 25               | 4                | 2                |
| 1F - C.00-01 - Bedroom        | 1F000042   | 100           | 0.8                   | 22               | 4                | 2                |
| 1F - C.00-02 - Bedroom        | 1F000041   | 100           | 0.8                   | 18               | 3                | 2                |
| 1F - C.00-02 - Bedroom        | 1F000046   | 100           | 0.7                   | 24               | 4                | 2                |
| 1F - C.00-03 - Bedroom        | 1F000048   | 100           | 0.7                   | 24               | 4                | 2                |
| 1F - C.00-03 - Bedroom        | 1F000049   | 100           | 0.8                   | 17               | 3                | 2                |
| 1F - C.00-04 - Kitchen/Living | 1F00004F   | 100           | 0.9                   | 15               | 3                | 2                |
| 1F - C.00-04 - Bedroom        | 1F00004D   | 100           | 0.6                   | 24               | 4                | 2                |

|                               |          |     |     |    |     |   |
|-------------------------------|----------|-----|-----|----|-----|---|
| 1F - C.00-04 - Bedroom        | 1F000050 | 100 | 0.5 | 15 | 3   | 2 |
| 1F - C.00-03 - Kitchen/Living | RM00001B | 100 | 1.1 | 19 | 3   | 2 |
| 1F - C.00-02 - Kitchen/Living | 1F000052 | 100 | 1.2 | 19 | 3   | 2 |
| GF - C.00-06 - Kitchen/Living | RM000012 | 100 | 0.4 | 5  | 1 - |   |
| GF - C.00-05 - Kitchen/Living | RM000000 | 100 | 0   | 0  | 0 - |   |
| GF - C.00-07 - Bedroom        | GF000020 | 100 | 0   | 0  | 0 - |   |
| GF - C.00-09 - Bedroom        | GF000022 | 100 | 0.1 | 3  | 1 - |   |
| GF - C.00-08 - Bedroom        | GF00001D | 100 | 0   | 0  | 0 - |   |
| GF - C.00-04 - Bedroom        | GF000019 | 100 | 0.1 | 2  | 1 - |   |
| GF - C.00-03 - Bedroom        | GF000016 | 100 | 0   | 0  | 0 - |   |
| GF - C.00-02 - Bedroom        | GF00000B | 100 | 0   | 0  | 0 - |   |
| GF - C.00-01 - Bedroom        | GF000013 | 100 | 0.1 | 2  | 1 - |   |
| 2F - A.02-07 - Kitchen/Living | 1F00006E | 100 | 0.3 | 5  | 1 - |   |
| 2F - A.02-06 - Kitchen/Living | 1F000070 | 100 | 1.1 | 19 | 3   | 2 |
| 2F - A.02-06 - Bedroom        | 1F000073 | 100 | 0.6 | 23 | 4   | 2 |
| 2F - A.02-06 - Bedroom        | 1F000074 | 100 | 0.8 | 23 | 4   | 2 |
| 2F - A.02-05 - Kitchen/Living | 1F000077 | 100 | 1   | 17 | 3   | 2 |
| 2F - A.02-05 - Bedroom        | 1F000079 | 100 | 0.6 | 18 | 3   | 2 |
| 2F - A.02-05 - Bedroom        | 1F00007A | 100 | 0.7 | 21 | 3   | 2 |
| 2F - A.02-05 - Bedroom        | 1F00007B | 100 | 0.6 | 20 | 3   | 2 |
| 2F - A.02-02 - Kitchen/Living | 1F000053 | 100 | 1.3 | 21 | 3   | 2 |
| 2F - A.02-02 - Bedroom        | 1F000055 | 100 | 1   | 22 | 4   | 2 |
| 2F - A.02-02 - Bedroom        | 1F000012 | 100 | 0.9 | 21 | 3   | 2 |
| 2F - B.02-02 - Bedroom        | 1F000014 | 100 | 0.9 | 21 | 3   | 2 |
| 2F - B.02-02 - Bedroom        | 1F00005B | 100 | 1   | 22 | 4   | 2 |
| 2F - B.02-02 - Kitchen/Living | 1F000006 | 100 | 1.2 | 21 | 3   | 2 |
| 2F - B.02-02 - Bedroom        | 1F000002 | 100 | 0.8 | 25 | 4   | 2 |
| 2F - B.02-03 - Kitchen/Living | 1F000061 | 100 | 1.2 | 22 | 4   | 2 |
| 2F - B.02-03 - Bedroom        | 1F000065 | 100 | 0.6 | 21 | 4   | 2 |
| 2F - B.02-04 - Kitchen/Living | 1F000066 | 100 | 1.3 | 21 | 3   | 2 |
| 2F - B.02-04 - Bedroom        | 1F000068 | 100 | 0.7 | 20 | 3   | 2 |
| 2F - B.02-04 - Bedroom        | 1F000069 | 100 | 1   | 24 | 4   | 2 |
| 2F - B.02-04 - Bedroom        | 1F000060 | 100 | 0.5 | 20 | 3   | 2 |
| 2F - B.02-05 - Bedroom        | 1F000080 | 100 | 0.9 | 21 | 3   | 2 |
| 2F - B.02-05 - Bedroom        | 1F000081 | 100 | 0.7 | 20 | 3   | 2 |
| 2F - B.02-05 - Kitchen/Living | 1F000086 | 100 | 1   | 17 | 3   | 2 |
| 2F - B.02-05 - Bedroom        | 1F000087 | 100 | 0.7 | 20 | 4   | 2 |
| 2F - B.02-01 - Kitchen/Living | 1F000088 | 100 | 0.7 | 12 | 2   | 2 |
| 2F - B.02-06 - Bedroom        | 1F000089 | 100 | 0.7 | 19 | 4   | 2 |
| 2F - B.02-06 - Kitchen/Living | 1F00008A | 100 | 1.2 | 18 | 3   | 2 |
| 2F - A.02-02 - Bedroom        | 1F000091 | 100 | 0.7 | 24 | 4   | 2 |
| 2F - A.02-03 - Bedroom        | 1F000093 | 100 | 0.5 | 15 | 3   | 2 |
| 2F - A.02-04 - Bedroom        | 1F000099 | 100 | 0.6 | 17 | 3   | 2 |
| 2F - A.02-04 - Kitchen/Living | 1F00009A | 100 | 1.5 | 22 | 4   | 2 |
| 2F - A.02-04 - Bedroom        | 1F000090 | 100 | 1.1 | 27 | 4   | 2 |
| 2F - A.02-04 - Bedroom        | 1F00009B | 100 | 0.7 | 22 | 4   | 2 |
| 2F - A.02-03 - Kitchen/Living | RM000024 | 100 | 0.5 | 8  | 2   | 2 |
| 2F - B.02-01 - Bedroom        | 1F00005C | 100 | 0.5 | 20 | 3   | 2 |
| 2F - A.02-01 - Kitchen/Living | 2F000000 | 100 | 0.7 | 10 | 2   | 2 |
| 2F - A.02-01 - Bedroom        | 2F000003 | 100 | 0.5 | 10 | 2   | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 3F - A.03-07 - Kitchen/Living | 2F00000F | 100 | 0.6 | 8  | 2 | 2 |
| 3F - A.03-06 - Kitchen/Living | 2F000011 | 100 | 1.2 | 19 | 3 | 2 |
| 3F - A.03-06 - Bedroom        | 2F000014 | 100 | 0.6 | 23 | 4 | 2 |
| 3F - A.03-06 - Bedroom        | 2F000015 | 100 | 0.8 | 23 | 4 | 2 |
| 3F - A.03-05 - Kitchen/Living | 2F000018 | 100 | 1   | 17 | 3 | 2 |
| 3F - A.03-05 - Bedroom        | 2F00001A | 100 | 0.6 | 19 | 3 | 2 |
| 3F - A.03-05 - Bedroom        | 2F00001B | 100 | 0.7 | 20 | 3 | 2 |
| 3F - A.03-05 - Bedroom        | 2F00001C | 100 | 0.6 | 20 | 3 | 2 |
| 3F - A.03-02 - Bedroom        | 2F000021 | 100 | 1   | 22 | 4 | 2 |
| 3F - A.03-02 - Bedroom        | 2F000023 | 100 | 0.9 | 21 | 3 | 2 |
| 3F - B.03-02 - Bedroom        | 2F000027 | 100 | 0.9 | 21 | 3 | 2 |
| 3F - B.03-02 - Bedroom        | 2F000029 | 100 | 1   | 22 | 4 | 2 |
| 3F - B.03-02 - Kitchen/Living | 2F00002C | 100 | 1.2 | 21 | 3 | 2 |
| 3F - B.03-03 - Kitchen/Living | 2F000030 | 100 | 1.3 | 22 | 4 | 2 |
| 3F - B.03-04 - Kitchen/Living | 2F000035 | 100 | 1.3 | 21 | 3 | 2 |
| 3F - B.03-04 - Bedroom        | 2F000036 | 100 | 0.7 | 20 | 3 | 2 |
| 3F - B.03-04 - Bedroom        | 2F000037 | 100 | 1   | 24 | 4 | 2 |
| 3F - B.03-04 - Bedroom        | 2F00003A | 100 | 0.5 | 20 | 3 | 2 |
| 3F - B.03-05 - Bedroom        | 2F00003D | 100 | 0.9 | 21 | 3 | 2 |
| 3F - B.03-05 - Bedroom        | 2F00003E | 100 | 0.7 | 20 | 3 | 2 |
| 3F - B.03-05 - Kitchen/Living | 2F000042 | 100 | 1.1 | 17 | 3 | 2 |
| 3F - B.03-05 - Bedroom        | 2F000044 | 100 | 0.6 | 20 | 4 | 2 |
| 2F - B.02-01 - Kitchen/Living | 2F000046 | 100 | 0.7 | 12 | 2 | 2 |
| 3F - B.03-06 - Bedroom        | 2F000047 | 100 | 0.7 | 19 | 4 | 2 |
| 3F - B.03-06 - Kitchen/Living | 2F000048 | 100 | 1.2 | 18 | 3 | 2 |
| 3F - A.03-04 - Bedroom        | 2F00005A | 100 | 0.6 | 17 | 3 | 2 |
| 3F - A.03-04 - Kitchen/Living | 2F00005B | 100 | 1.2 | 22 | 4 | 2 |
| 3F - A.03-04 - Bedroom        | 2F00005C | 100 | 1   | 27 | 4 | 2 |
| 3F - A.03-04 - Bedroom        | 2F00005D | 100 | 0.6 | 20 | 4 | 2 |
| 3F - B.03-01 - Bedroom        | 2F00005F | 100 | 0.5 | 21 | 4 | 2 |
| 3F - A.03-01 - Kitchen/Living | 2F000061 | 100 | 0.7 | 11 | 2 | 2 |
| 3F - A.03-01 - Bedroom        | 2F000065 | 100 | 0.5 | 11 | 2 | 2 |
| 2F - B.02-07 - Bedroom        | 2F000066 | 100 | 0.5 | 13 | 2 | 2 |
| 2F - B.02-07 - Kitchen/Living | 2F000067 | 100 | 0.9 | 17 | 3 | 2 |
| 2F - A.02-07 - Bedroom        | 2F000068 | 100 | 0.4 | 7  | 1 | 2 |
| 3F - B.03-07 - Kitchen/Living | 2F000069 | 100 | 1.1 | 18 | 3 | 2 |
| 3F - B.03-07 - Bedroom        | 2F00004C | 100 | 0.7 | 23 | 4 | 2 |
| 3F - A.03-07 - Bedroom        | 2F00004B | 100 | 0.6 | 15 | 3 | 2 |
| 3F - B.03-03 - Bedroom        | 2F000033 | 100 | 0.7 | 22 | 4 | 2 |
| 3F - B.03-03 - Bedroom        | 2F00002E | 100 | 0.7 | 21 | 4 | 2 |
| 3F - B.03-03 - Bedroom        | 2F00000C | 100 | 1.1 | 29 | 4 | 2 |
| 3F - A.03-02 - Kitchen/Living | 2F00006B | 100 | 1.2 | 21 | 3 | 2 |
| 3F - A.03-03 - Kitchen/Living | 2F000034 | 100 | 1.3 | 21 | 3 | 2 |
| 3F - A.03-03 - Bedroom        | 2F00001F | 100 | 0.8 | 24 | 4 | 2 |
| 3F - A.03-03 - Bedroom        | 2F00002F | 100 | 1.4 | 31 | 4 | 2 |
| 3F - A.03-03 - Bedroom        | 2F000050 | 100 | 0.6 | 19 | 3 | 2 |
| 4F - A.04-07 - Kitchen/Living | 3F00000A | 100 | 0.6 | 8  | 2 | 2 |
| 4F - A.04-06 - Kitchen/Living | 3F00000C | 100 | 1.2 | 19 | 3 | 2 |
| 4F - A.04-06 - Bedroom        | 3F00000F | 100 | 0.6 | 23 | 4 | 2 |
| 4F - A.04-06 - Bedroom        | 3F000010 | 100 | 0.8 | 23 | 4 | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 4F - A.04-02 - Bedroom        | 3F00001B | 100 | 1   | 22 | 4 | 2 |
| 4F - A.04-02 - Bedroom        | 3F00001D | 100 | 0.9 | 21 | 3 | 2 |
| 4F - B.04-02 - Bedroom        | 3F000021 | 100 | 0.9 | 21 | 3 | 2 |
| 4F - B.04-02 - Bedroom        | 3F000023 | 100 | 1   | 22 | 4 | 2 |
| 4F - B.04-01 - Kitchen/Living | 2F000052 | 100 | 0.7 | 12 | 2 | 2 |
| 4F - B.04-01 - Bedroom        | 3F00004C | 100 | 0.6 | 22 | 4 | 2 |
| 4F - A.04-01 - Kitchen/Living | 3F00004E | 100 | 0.7 | 11 | 2 | 2 |
| 4F - A.04-01 - Bedroom        | 3F000052 | 100 | 0.5 | 11 | 2 | 2 |
| 4F - B.04-08 - Kitchen/Living | 3F000053 | 100 | 1.1 | 17 | 3 | 2 |
| 4F - B.04-08 - Bedroom        | 3F000054 | 100 | 0.6 | 23 | 4 | 2 |
| 4F - A.04-07 - Bedroom        | 3F000055 | 100 | 0.6 | 15 | 3 | 2 |
| 4F - B.04-03 - Bedroom        | 3F000056 | 100 | 0.7 | 22 | 4 | 2 |
| 4F - A.04-02 - Kitchen/Living | 3F00005A | 100 | 1.2 | 21 | 3 | 2 |
| 4F - A.04-03 - Bedroom        | 3F00005C | 100 | 0.8 | 24 | 4 | 2 |
| 4F - A.04-03 - Bedroom        | 3F00005E | 100 | 1.2 | 29 | 4 | 2 |
| 4F - B.04-04 - Bedroom        | 3F000030 | 100 | 0.7 | 24 | 4 | 2 |
| 4F - B.04-07 - Kitchen/Living | 3F00002E | 100 | 1.2 | 18 | 3 | 2 |
| 4F - B.04-07 - Bedroom        | 3F000031 | 100 | 0.7 | 18 | 3 | 2 |
| 4F - B.04-03 - Kitchen/Living | 3F000028 | 100 | 1.3 | 22 | 4 | 2 |
| 4F - B.04-04 - Kitchen/Living | 4F000000 | 100 | 1.3 | 21 | 3 | 2 |
| 4F - B.04-04 - Bedroom        | 4F000003 | 100 | 0.6 | 18 | 3 | 2 |
| 4F - B.04-02 - Kitchen/Living | 3F00002C | 100 | 1.2 | 21 | 3 | 2 |
| 4F - B.04-03 - Bedroom        | 3F00002F | 100 | 0.8 | 23 | 4 | 2 |
| 4F - B.04-05 - Kitchen/Living | 3F000026 | 100 | 1.2 | 18 | 3 | 2 |
| 4F - B.04-05 - Bedroom        | 3F000037 | 100 | 0.9 | 21 | 3 | 2 |
| 4F - B.04-05 - Bedroom        | 3F000038 | 100 | 0.7 | 20 | 3 | 2 |
| 4F - B.04-06 - Studio         | 3F000039 | 100 | 0.6 | 17 | 3 | 2 |
| 4F - A.04-03 - Bedroom        | 3F00003B | 100 | 0.8 | 24 | 4 | 2 |
| 4F - A.04-03 - Kitchen/Living | 3F00003C | 100 | 1.3 | 21 | 3 | 2 |
| 4F - A.04-04 - Bedroom        | 3F000048 | 100 | 0.7 | 22 | 4 | 2 |
| 4F - A.04-04 - Bedroom        | 3F00004A | 100 | 0.6 | 17 | 3 | 2 |
| 4F - A.04-04 - Kitchen/Living | 3F000057 | 100 | 1.3 | 22 | 4 | 2 |
| 4F - A.04-06 - Studio         | 3F000016 | 100 | 0.5 | 17 | 3 | 2 |
| 4F - A.04-05 - Kitchen/Living | 4F000005 | 100 | 1   | 17 | 3 | 2 |
| 4F - A.04-05 - Bedroom        | 3F000013 | 100 | 0.7 | 20 | 3 | 2 |
| 4F - A.04-05 - Bedroom        | 4F000008 | 100 | 0.5 | 18 | 3 | 2 |
| 5F - A.05-08 - Kitchen/Living | 4F000013 | 100 | 0.6 | 9  | 2 | 2 |
| 5F - A.05-06 - Kitchen/Living | 4F000015 | 100 | 1.2 | 21 | 4 | 2 |
| 5F - A.05-06 - Bedroom        | 4F000018 | 100 | 0.6 | 23 | 4 | 2 |
| 5F - A.05-06 - Bedroom        | 4F000019 | 100 | 0.8 | 24 | 4 | 2 |
| 5F - A.05-02 - Bedroom        | 4F00001D | 100 | 1   | 23 | 4 | 2 |
| 5F - A.05-02 - Bedroom        | 4F00001F | 100 | 0.9 | 22 | 4 | 2 |
| 5F - B.05-02 - Bedroom        | 4F000023 | 100 | 0.9 | 22 | 4 | 2 |
| 5F - B.05-02 - Bedroom        | 4F000025 | 100 | 1   | 22 | 4 | 2 |
| 5F - B.05-01 - Kitchen/Living | 4F00002D | 100 | 0.7 | 15 | 3 | 2 |
| 5F - B.05-01 - Bedroom        | 4F000034 | 100 | 0.6 | 23 | 4 | 2 |
| 5F - A.05-01 - Kitchen/Living | 4F000036 | 100 | 0.7 | 11 | 2 | 2 |
| 5F - A.05-01 - Bedroom        | 4F00003A | 100 | 0.6 | 16 | 3 | 2 |
| 5F - B.05-08 - Kitchen/Living | 4F00003B | 100 | 1.1 | 18 | 3 | 2 |
| 5F - B.05-08 - Bedroom        | 4F00003C | 100 | 0.7 | 22 | 4 | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 5F - A.05-08 - Bedroom        | 4F00003D | 100 | 0.6 | 16 | 3 | 2 |
| 5F - B.05-03 - Bedroom        | 4F00003E | 100 | 0.8 | 23 | 4 | 2 |
| 5F - A.05-02 - Kitchen/Living | 4F000040 | 100 | 1.3 | 22 | 4 | 2 |
| 5F - A.05-03 - Bedroom        | 4F000041 | 100 | 0.8 | 26 | 4 | 2 |
| 5F - A.05-03 - Bedroom        | 4F000043 | 100 | 1.3 | 30 | 4 | 2 |
| 5F - B.05-04 - Bedroom        | 4F000044 | 100 | 0.7 | 22 | 4 | 2 |
| 5F - B.05-07 - Kitchen/Living | 4F000045 | 100 | 1.4 | 19 | 4 | 2 |
| 5F - B.05-07 - Bedroom        | 4F000046 | 100 | 0.8 | 20 | 4 | 2 |
| 5F - B.05-03 - Kitchen/Living | 4F000049 | 100 | 1.4 | 22 | 4 | 2 |
| 5F - B.05-04 - Kitchen/Living | 4F00004C | 100 | 1.3 | 22 | 4 | 2 |
| 5F - B.05-04 - Bedroom        | 4F00004D | 100 | 0.7 | 19 | 3 | 2 |
| 5F - B.05-02 - Kitchen/Living | 4F00004F | 100 | 1.3 | 22 | 4 | 2 |
| 5F - B.05-03 - Bedroom        | 4F000051 | 100 | 0.8 | 23 | 4 | 2 |
| 5F - B.05-05 - Kitchen/Living | 4F000052 | 100 | 1.2 | 18 | 3 | 2 |
| 5F - B.05-05 - Bedroom        | 4F000055 | 100 | 0.9 | 23 | 4 | 2 |
| 5F - B.05-05 - Bedroom        | 4F000056 | 100 | 0.8 | 19 | 3 | 2 |
| 5F - B.05-06 - Studio         | 4F000058 | 100 | 0.6 | 17 | 3 | 2 |
| 5F - A.05-03 - Bedroom        | 4F000059 | 100 | 0.9 | 26 | 4 | 2 |
| 5F - A.05-03 - Kitchen/Living | 4F00005A | 100 | 1.4 | 22 | 4 | 2 |
| 5F - A.05-04 - Bedroom        | 4F00005D | 100 | 0.8 | 22 | 4 | 2 |
| 5F - A.05-04 - Bedroom        | 4F00005F | 100 | 0.6 | 19 | 4 | 2 |
| 5F - A.05-04 - Kitchen/Living | 4F000060 | 100 | 1.4 | 22 | 4 | 2 |
| 5F - A.05-06 - Studio         | 4F000062 | 100 | 0.6 | 18 | 3 | 2 |
| 5F - A.05-05 - Kitchen/Living | 4F000065 | 100 | 1.1 | 17 | 3 | 2 |
| 5F - A.05-05 - Bedroom        | 4F000068 | 100 | 0.7 | 21 | 3 | 2 |
| 5F - A.05-05 - Bedroom        | 4F000069 | 100 | 0.6 | 17 | 3 | 2 |
| 6F - A.06-08 - Kitchen/Living | 4F000082 | 100 | 0.6 | 9  | 2 | 2 |
| 6F - A.06-06 - Kitchen/Living | 4F000084 | 100 | 1.2 | 21 | 4 | 2 |
| 6F - A.06-06 - Bedroom        | 4F000087 | 100 | 0.6 | 23 | 4 | 2 |
| 6F - A.06-06 - Bedroom        | 4F000088 | 100 | 0.8 | 24 | 4 | 2 |
| 6F - A.06-02 - Bedroom        | 4F00008C | 100 | 1   | 23 | 4 | 2 |
| 6F - A.06-02 - Bedroom        | 4F00008E | 100 | 0.9 | 22 | 4 | 2 |
| 6F - B.06-02 - Bedroom        | 4F000092 | 100 | 0.9 | 22 | 4 | 2 |
| 6F - B.06-02 - Bedroom        | 4F000094 | 100 | 1   | 22 | 4 | 2 |
| 6F - B.06-01 - Kitchen/Living | 4F00009C | 100 | 0.7 | 15 | 3 | 2 |
| 6F - B.06-01 - Bedroom        | 4F0000A3 | 100 | 0.6 | 23 | 4 | 2 |
| 6F - A.06-01 - Bedroom        | 4F0000A9 | 100 | 0.6 | 15 | 3 | 2 |
| 6F - B.06-08 - Kitchen/Living | 4F0000AA | 100 | 1.1 | 18 | 3 | 2 |
| 6F - B.06-08 - Bedroom        | 4F0000AB | 100 | 0.7 | 22 | 4 | 2 |
| 6F - A.06-08 - Bedroom        | 4F0000AC | 100 | 0.6 | 16 | 3 | 2 |
| 4F - B.04-03 - Bedroom        | 4F0000AD | 100 | 0.8 | 23 | 4 | 2 |
| 6F - A.06-02 - Kitchen/Living | 4F0000AF | 100 | 1.3 | 22 | 4 | 2 |
| 6F - A.06-03 - Bedroom        | 4F0000B0 | 100 | 0.8 | 26 | 4 | 2 |
| 6F - A.06-03 - Bedroom        | 4F0000B2 | 100 | 1.3 | 30 | 4 | 2 |
| 6F - B.06-04 - Bedroom        | 4F0000B3 | 100 | 0.7 | 22 | 4 | 2 |
| 6F - B.06-07 - Kitchen/Living | 4F0000B4 | 100 | 1.4 | 19 | 4 | 2 |
| 6F - B.06-07 - Bedroom        | 4F0000B5 | 100 | 0.8 | 20 | 4 | 2 |
| 4F - B.04-03 - Kitchen/Living | 4F0000B8 | 100 | 1.4 | 22 | 4 | 2 |
| 6F - B.06-04 - Kitchen/Living | 4F0000BB | 100 | 1.3 | 22 | 4 | 2 |
| 6F - B.06-04 - Bedroom        | 4F0000BC | 100 | 0.7 | 19 | 3 | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 6F - B.06-02 - Kitchen/Living | 4F0000BE | 100 | 1.3 | 22 | 4 | 2 |
| 4F - B.04-03 - Bedroom        | 4F0000C0 | 100 | 0.8 | 23 | 4 | 2 |
| 6F - B.06-05 - Kitchen/Living | 4F0000C1 | 100 | 1.2 | 18 | 3 | 2 |
| 6F - B.06-05 - Bedroom        | 4F0000C4 | 100 | 1.1 | 23 | 4 | 2 |
| 6F - B.06-05 - Bedroom        | 4F0000C5 | 100 | 0.8 | 20 | 3 | 2 |
| 6F - B.06-06 - Studio         | 4F0000C7 | 100 | 0.6 | 17 | 3 | 2 |
| 6F - A.06-03 - Bedroom        | 4F0000C8 | 100 | 0.9 | 26 | 4 | 2 |
| 6F - A.06-03 - Kitchen/Living | 4F0000C9 | 100 | 1.4 | 22 | 4 | 2 |
| 6F - A.06-04 - Bedroom        | 4F0000CC | 100 | 0.8 | 22 | 4 | 2 |
| 6F - A.06-04 - Bedroom        | 4F0000CE | 100 | 0.6 | 19 | 4 | 2 |
| 6F - A.06-04 - Kitchen/Living | 4F0000CF | 100 | 1.4 | 22 | 4 | 2 |
| 6F - A.06-06 - Studio         | 4F0000D1 | 100 | 0.6 | 18 | 3 | 2 |
| 6F - A.06-05 - Kitchen/Living | 4F0000D4 | 100 | 1.1 | 17 | 3 | 2 |
| 6F - A.06-05 - Bedroom        | 4F0000D7 | 100 | 0.7 | 21 | 3 | 2 |
| 6F - A.06-05 - Bedroom        | 4F0000D8 | 100 | 0.6 | 17 | 3 | 2 |
| 7F - A.07-08 - Kitchen/Living | 4F0000E3 | 100 | 0.6 | 9  | 2 | 2 |
| 7F - A.07-06 - Kitchen/Living | 4F0000E5 | 100 | 1.2 | 21 | 4 | 2 |
| 7F - A.07-06 - Bedroom        | 4F0000E8 | 100 | 0.6 | 23 | 4 | 2 |
| 7F - A.07-06 - Bedroom        | 4F0000E9 | 100 | 0.8 | 24 | 4 | 2 |
| 7F - A.07-02 - Bedroom        | 4F0000ED | 100 | 1   | 23 | 4 | 2 |
| 7F - A.07-02 - Bedroom        | 4F0000EF | 100 | 0.9 | 22 | 4 | 2 |
| 7F - B.07-02 - Bedroom        | 4F0000F3 | 100 | 0.9 | 22 | 4 | 2 |
| 7F - B.07-02 - Bedroom        | 4F0000F5 | 100 | 1   | 22 | 4 | 2 |
| 7F - B.07-01 - Kitchen/Living | 4F0000FD | 100 | 0.8 | 15 | 3 | 2 |
| 7F - B.07-01 - Bedroom        | 4F000104 | 100 | 0.6 | 23 | 4 | 2 |
| 7F - A.07-01 - Kitchen/Living | 4F000106 | 100 | 0.7 | 11 | 2 | 2 |
| 7F - A.07-01 - Bedroom        | 4F00010A | 100 | 0.6 | 16 | 3 | 2 |
| 7F - B.07-08 - Kitchen/Living | 4F00010B | 100 | 1.1 | 18 | 3 | 2 |
| 7F - B.07-08 - Bedroom        | 4F00010C | 100 | 0.7 | 22 | 4 | 2 |
| 7F - A.07-08 - Bedroom        | 4F00010D | 100 | 0.6 | 16 | 3 | 2 |
| 7F - B.07-03 - Bedroom        | 4F00010E | 100 | 0.8 | 23 | 4 | 2 |
| 7F - A.07-02 - Kitchen/Living | 4F000110 | 100 | 1.3 | 22 | 4 | 2 |
| 7F - A.07-03 - Bedroom        | 4F000111 | 100 | 0.8 | 26 | 4 | 2 |
| 7F - A.07-03 - Bedroom        | 4F000113 | 100 | 1.3 | 30 | 4 | 2 |
| 7F - B.07-04 - Bedroom        | 4F000114 | 100 | 0.7 | 22 | 4 | 2 |
| 7F - B.07-07 - Kitchen/Living | 4F000115 | 100 | 1.4 | 19 | 4 | 2 |
| 7F - B.07-07 - Bedroom        | 4F000116 | 100 | 0.8 | 20 | 4 | 2 |
| 7F - B.07-03 - Kitchen/Living | 4F000119 | 100 | 1.4 | 22 | 4 | 2 |
| 7F - B.07-04 - Kitchen/Living | 4F00011C | 100 | 1.3 | 22 | 4 | 2 |
| 7F - B.07-04 - Bedroom        | 4F00011D | 100 | 0.7 | 19 | 3 | 2 |
| 7F - B.07-02 - Kitchen/Living | 4F00011F | 100 | 1.3 | 22 | 4 | 2 |
| 7F - B.07-03 - Bedroom        | 4F000121 | 100 | 0.8 | 23 | 4 | 2 |
| 7F - B.07-05 - Kitchen/Living | 4F000122 | 100 | 1.2 | 18 | 3 | 2 |
| 7F - B.07-05 - Bedroom        | 4F000125 | 100 | 0.9 | 23 | 4 | 2 |
| 7F - B.07-05 - Bedroom        | 4F000126 | 100 | 0.7 | 19 | 3 | 2 |
| 7F - B.07-06 - Studio         | 4F000128 | 100 | 0.6 | 17 | 3 | 2 |
| 7F - A.07-03 - Bedroom        | 4F000129 | 100 | 0.9 | 26 | 4 | 2 |
| 7F - A.07-03 - Kitchen/Living | 4F00012A | 100 | 1.4 | 22 | 4 | 2 |
| 7F - A.07-04 - Bedroom        | 4F00012D | 100 | 0.8 | 22 | 4 | 2 |
| 7F - A.07-04 - Bedroom        | 4F00012F | 100 | 0.6 | 19 | 4 | 2 |

|                               |          |     |     |    |   |   |
|-------------------------------|----------|-----|-----|----|---|---|
| 7F - A.07-04 - Kitchen/Living | 4F000130 | 100 | 1.4 | 22 | 4 | 2 |
| 7F - A.07-06 - Studio         | 4F000132 | 100 | 0.6 | 18 | 3 | 2 |
| 7F - A.07-05 - Kitchen/Living | 4F000135 | 100 | 1.1 | 17 | 3 | 2 |
| 7F - A.07-05 - Bedroom        | 4F000138 | 100 | 0.7 | 21 | 3 | 2 |
| 7F - A.07-05 - Bedroom        | 4F000139 | 100 | 0.6 | 17 | 3 | 2 |
| 8F - A.08-08 - Kitchen/Living | 4F000160 | 100 | 0.7 | 9  | 2 | 2 |
| 8F - A.08-06 - Kitchen/Living | 4F000162 | 100 | 1.2 | 21 | 4 | 2 |
| 8F - A.08-06 - Bedroom        | 4F000165 | 100 | 0.6 | 23 | 4 | 2 |
| 8F - A.08-06 - Bedroom        | 4F000166 | 100 | 0.8 | 24 | 4 | 2 |
| 8F - A.08-02 - Bedroom        | 4F00016A | 100 | 1.1 | 25 | 4 | 2 |
| 8F - A.08-02 - Bedroom        | 4F00016C | 100 | 1   | 24 | 4 | 2 |
| 8F - B.08-02 - Bedroom        | 4F000170 | 100 | 1   | 24 | 4 | 2 |
| 8F - B.08-02 - Bedroom        | 4F000172 | 100 | 1.1 | 24 | 4 | 2 |
| 8F - B.08-01 - Kitchen/Living | 4F00017A | 100 | 0.8 | 15 | 3 | 2 |
| 8F - B.08-01 - Bedroom        | 4F000181 | 100 | 0.6 | 23 | 4 | 2 |
| 8F - A.08-01 - Kitchen/Living | 4F000183 | 100 | 0.9 | 12 | 2 | 2 |
| 8F - A.08-01 - Bedroom        | 4F000187 | 100 | 0.6 | 17 | 3 | 2 |
| 8F - B.08-08 - Kitchen/Living | 4F000188 | 100 | 1.1 | 18 | 3 | 2 |
| 8F - B.08-08 - Bedroom        | 4F000189 | 100 | 0.7 | 22 | 4 | 2 |
| 8F - A.08-08 - Bedroom        | 4F00018A | 100 | 0.7 | 16 | 3 | 2 |
| 8F - B.08-03 - Bedroom        | 4F00018B | 100 | 0.8 | 23 | 4 | 2 |
| 8F - A.08-02 - Kitchen/Living | 4F00018D | 100 | 1.4 | 22 | 4 | 2 |
| 8F - A.08-03 - Bedroom        | 4F00018E | 100 | 0.8 | 25 | 4 | 2 |
| 8F - A.08-03 - Bedroom        | 4F000190 | 100 | 1.3 | 30 | 4 | 2 |
| 8F - B.08-04 - Bedroom        | 4F000191 | 100 | 0.7 | 22 | 4 | 2 |
| 8F - B.08-07 - Kitchen/Living | 4F000192 | 100 | 1.4 | 19 | 4 | 2 |
| 8F - B.08-07 - Bedroom        | 4F000193 | 100 | 0.8 | 20 | 4 | 2 |
| 8F - B.08-03 - Kitchen/Living | 4F000196 | 100 | 1.4 | 22 | 4 | 2 |
| 8F - B.08-04 - Kitchen/Living | 4F000199 | 100 | 1.3 | 22 | 4 | 2 |
| 8F - B.08-04 - Bedroom        | 4F00019A | 100 | 0.7 | 19 | 3 | 2 |
| 8F - B.08-02 - Kitchen/Living | 4F00019C | 100 | 1.3 | 21 | 3 | 2 |
| 8F - B.08-03 - Bedroom        | 4F00019E | 100 | 0.8 | 23 | 4 | 2 |
| 8F - B.08-05 - Kitchen/Living | 4F00019F | 100 | 1.2 | 18 | 3 | 2 |
| 8F - B.08-05 - Bedroom        | 4F0001A2 | 100 | 0.9 | 23 | 4 | 2 |
| 8F - B.08-05 - Bedroom        | 4F0001A3 | 100 | 0.7 | 19 | 3 | 2 |
| 8F - B.08-06 - Studio         | 4F0001A5 | 100 | 0.6 | 17 | 3 | 2 |
| 8F - A.08-03 - Bedroom        | 4F0001A6 | 100 | 0.8 | 25 | 4 | 2 |
| 8F - A.08-03 - Kitchen/Living | 4F0001A7 | 100 | 1.4 | 22 | 4 | 2 |
| 8F - A.08-04 - Bedroom        | 4F0001AA | 100 | 0.7 | 22 | 4 | 2 |
| 8F - A.08-04 - Bedroom        | 4F0001AC | 100 | 0.6 | 19 | 4 | 2 |
| 8F - A.08-04 - Kitchen/Living | 4F0001AD | 100 | 1.4 | 22 | 4 | 2 |
| 8F - A.08-06 - Studio         | 4F0001AF | 100 | 0.6 | 18 | 3 | 2 |
| 8F - A.08-05 - Kitchen/Living | 4F0001B2 | 100 | 1.1 | 17 | 3 | 2 |
| 8F - A.08-05 - Bedroom        | 4F0001B5 | 100 | 0.7 | 21 | 3 | 2 |
| 8F - A.08-05 - Bedroom        | 4F0001B6 | 100 | 0.6 | 17 | 3 | 2 |
| 1F - C.00-08 - Kitchen/Living | 1F00006B | 100 | 0.8 | 11 | 2 | 2 |
| 1F - C.00-09 - Kitchen/Living | 1F000025 | 100 | 1.2 | 18 | 3 | 2 |
| 1F - A.01-03 - Bedroom        | 1F00002B | 100 | 0.5 | 9  | 2 | 2 |
| GF - Amenity                  | GF000014 | 100 | 2.4 | 19 | 2 | 2 |
| 9F - A.09-06 - Kitchen/Living | 7F00000C | 100 | 1.2 | 21 | 4 | 2 |

|                                |          |     |     |    |   |   |
|--------------------------------|----------|-----|-----|----|---|---|
| 9F - A.09-06 - Bedroom         | 7F00000F | 100 | 0.7 | 23 | 4 | 2 |
| 9F - A.09-06 - Bedroom         | 7F000010 | 100 | 0.8 | 24 | 4 | 2 |
| 9F - B.09-05 - Kitchen/Living  | 7F00003C | 100 | 1.3 | 21 | 4 | 2 |
| 7F - B.07-07 - Bedroom         | 7F00003D | 100 | 0.7 | 19 | 4 | 2 |
| 9F - B.09-05 - Kitchen/Living  | 7F000049 | 100 | 1.2 | 17 | 3 | 2 |
| 9F - B.09-05 - Bedroom         | 7F00004C | 100 | 1   | 22 | 4 | 2 |
| 9F - B.09-05 - Bedroom         | 7F00004D | 100 | 0.7 | 19 | 3 | 2 |
| 9F - B.09-06 - Studio          | 7F00004F | 100 | 0.6 | 18 | 3 | 2 |
| 9F - A.09-06 - Studio          | 7F000059 | 100 | 0.6 | 18 | 3 | 2 |
| 9F - A.09-05 - Kitchen/Living  | 7F00005C | 100 | 1.1 | 17 | 3 | 2 |
| 9F - A.09-05 - Bedroom         | 7F00005F | 100 | 0.7 | 21 | 3 | 2 |
| 9F - A.09-05 - Bedroom         | 7F000060 | 100 | 0.6 | 18 | 3 | 2 |
| 9F - A.09-02 - Bedroom         | 7F000016 | 100 | 0.7 | 21 | 4 | 2 |
| 9F - A.09-06 - Bedroom         | 7F000009 | 100 | 0.8 | 19 | 3 | 2 |
| 9F - A.09-06 - Bedroom         | 7F00000A | 100 | 0.9 | 21 | 4 | 2 |
| 9F - A.09-06 - Bedroom         | 7F000014 | 100 | 0.5 | 12 | 3 | 2 |
| 9F - A.09-06 - Kitchen/Living  | 7F000019 | 100 | 0.9 | 12 | 3 | 2 |
| 9F - A.09-01 - Bedroom         | 7F00001D | 100 | 0.8 | 21 | 4 | 2 |
| 9F - A.09-01 - Kitchen/Living  | 7F000024 | 100 | 1.4 | 22 | 4 | 2 |
| 9F - A.09-02 - Kitchen/Living  | 7F00002F | 100 | 1.6 | 23 | 4 | 2 |
| 9F - B.09-02 - Bedroom         | 7F00002E | 100 | 0.7 | 20 | 4 | 2 |
| 9F - B.09-01 - Bedroom         | 7F00001F | 100 | 0.6 | 17 | 3 | 2 |
| 9F - B.09-01 - Kitchen/Living  | 7F000021 | 100 | 1.2 | 21 | 4 | 2 |
| 9F - B.09-02 - Kitchen/Living  | 7F000036 | 100 | 1.4 | 23 | 4 | 2 |
| 9F - B.09-06 - Bedroom         | 7F000022 | 100 | 0.8 | 24 | 4 | 2 |
| 9F - B.09-06 - Kitchen/Living  | 7F000027 | 100 | 1.1 | 21 | 4 | 2 |
| 9F - B.09-06 - Bedroom         | 7F00001E | 100 | 0.9 | 23 | 4 | 2 |
| 9F - B.09-06 - Bedroom         | 7F00002C | 100 | 0.6 | 23 | 4 | 2 |
| 10F - A.10-06 - Kitchen/Living | 9F000008 | 100 | 1.3 | 22 | 4 | 2 |
| 10F - A.10-06 - Bedroom        | 9F00000B | 100 | 0.6 | 23 | 4 | 2 |
| 10F - A.10-06 - Bedroom        | 9F00000C | 100 | 0.7 | 24 | 4 | 2 |
| 10F - A.10-06 - Studio         | 9F000010 | 100 | 0.6 | 17 | 3 | 2 |
| 10F - A.10-05 - Kitchen/Living | 9F000013 | 100 | 1.1 | 17 | 3 | 2 |
| 10F - A.10-05 - Bedroom        | 9F000016 | 100 | 0.7 | 19 | 3 | 2 |
| 10F - A.10-05 - Bedroom        | 9F000017 | 100 | 0.6 | 17 | 3 | 2 |
| 10F - A.10-02 - Bedroom        | 9F000018 | 100 | 0.6 | 21 | 4 | 2 |
| 10F - A.10-06 - Bedroom        | 9F000019 | 100 | 0.8 | 18 | 3 | 2 |
| 10F - A.10-06 - Bedroom        | 9F00001B | 100 | 0.9 | 20 | 4 | 2 |
| 10F - A.10-06 - Bedroom        | 9F00001C | 100 | 0.5 | 12 | 3 | 2 |
| 10F - A.10-06 - Kitchen/Living | 9F00001D | 100 | 0.9 | 11 | 2 | 2 |
| 10F - A.10-01 -Bedroom         | 9F000022 | 100 | 0.7 | 18 | 3 | 2 |
| 10F - A.10-01 -Kitchen/Living  | 9F000023 | 100 | 1.3 | 22 | 4 | 2 |
| 10F - A.10-02 - Kitchen/Living | 9F000027 | 100 | 1.4 | 23 | 4 | 2 |

|           |          |               |                       |                  |                  |                  |
|-----------|----------|---------------|-----------------------|------------------|------------------|------------------|
| Failed:   | 0 rooms: | Occupied days | Criteria 1 (%Hrs Top- | Criteria 2 (Max. | Criteria 3 (Max. |                  |
| Room Name | Room ID  | (%)           | Tmax>=1K)             | Daily Deg.Hrs)   | DeltaT)          | Criteria failing |

| Unoccupied:<br>Room Name   | 510 rooms:<br>Room ID | Occupied days<br>(%) | Criteria 1 (%Hrs Top-<br>Tmax>=1K) | Criteria 2 (Max.<br>Daily Deg.Hrs) | Criteria 3 (Max.<br>DeltaT) | Criteria failing |
|----------------------------|-----------------------|----------------------|------------------------------------|------------------------------------|-----------------------------|------------------|
| GF - Bin Store             | RM000002              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Substation            | RM000006              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Stairs                | RM000009              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Risers                | RM00000A              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Lift                  | RM00000B              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Circulation           | RM000008              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Bin Store             | RM00000E              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Plant                 | RM000013              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Stairs                | RM000014              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Lift                  | RM000015              | 0                    | 0                                  | 0                                  | 0                           | -                |
| GF - Entrance              | RM000017              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Plant                 | RM000028              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Stairs                | RM00001A              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Stairs                | RM000029              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Riser                 | RM000025              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Riser                 | RM00002D              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Maintenance Store     | RM00002F              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Circulation           | RM000032              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Circulation           | RM000023              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - Maintenance Store     | RM000021              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-06 - Circulation | 1F000018              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-06 - Cupboard    | RM000026              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-06 - Bathroom    | 1F000019              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-05 - Cupboard    | 1F00001A              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-05 - Bathroom    | RM000027              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-05 - Circulation | 1F00001D              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-07 - Bathroom    | 1F00001F              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-07 - Cupboard    | 1F000020              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-08 - Cupboard    | 1F000023              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-08 - Bathroom    | 1F000024              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-08 - Cupboard    | 1F000026              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-09 - Bathroom    | 1F000028              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-09 - Cupboard    | 1F000029              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-09 - Cupboard    | 1F00002C              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-03 - Cupboard    | RM000030              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-03 - Bathroom    | 1F00002E              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-02 - Bathroom    | 1F000030              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-02 - Cupboard    | 1F000032              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-02 - Bathroom    | 1F000033              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-02 - Cupboard    | 1F000035              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-01 - Cupboard    | 1F000036              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-01 - Cupboard    | 1F000038              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-01 - Bathroom    | 1F00003B              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - A.01-01 - Bathroom    | 1F00003C              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-01 - Bathroom    | 1F00003E              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-01 - Circulation | 1F000040              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-01 - Cupboard    | RM000022              | 0                    | 0                                  | 0                                  | 0                           | -                |
| 1F - C.00-02 - Bathroom    | 1F000043              | 0                    | 0                                  | 0                                  | 0                           | -                |

|                            |          |   |   |   |     |
|----------------------------|----------|---|---|---|-----|
| 1F - C.00-02 - Cupboard    | 1F000045 | 0 | 0 | 0 | 0 - |
| 1F - C.00-02 - Cupboard    | 1F00000A | 0 | 0 | 0 | 0 - |
| 1F - C.00-03 - Cupboard    | 1F000047 | 0 | 0 | 0 | 0 - |
| 1F - C.00-03 - Cupboard    | 1F00004A | 0 | 0 | 0 | 0 - |
| 1F - C.00-03 - Bathroom    | 1F00004B | 0 | 0 | 0 | 0 - |
| 1F - C.00-04 - Bathroom    | 1F000008 | 0 | 0 | 0 | 0 - |
| 1F - C.00-04 - Cupboard    | 1F00004E | 0 | 0 | 0 | 0 - |
| 1F - C.00-04 - Circulation | 1F00004C | 0 | 0 | 0 | 0 - |
| 1F - C.00-03 - Circulation | 1F000051 | 0 | 0 | 0 | 0 - |
| 1F - C.00-02 - Circulation | 1F000044 | 0 | 0 | 0 | 0 - |
| GF - C.00-06 - Cupboard    | GF000003 | 0 | 0 | 0 | 0 - |
| GF - C.00-06 - Bathroom    | GF000004 | 0 | 0 | 0 | 0 - |
| GF - C.00-05 - Bathroom    | GF000005 | 0 | 0 | 0 | 0 - |
| GF - C.00-05 - Circulation | GF000006 | 0 | 0 | 0 | 0 - |
| GF - C.00-04 - Bathroom    | GF000007 | 0 | 0 | 0 | 0 - |
| GF - C.00-04 - Cupboard    | GF000008 | 0 | 0 | 0 | 0 - |
| GF - C.00-04 - Circulation | GF000009 | 0 | 0 | 0 | 0 - |
| GF - C.00-03 - Bathroom    | GF00000A | 0 | 0 | 0 | 0 - |
| GF - C.00-03 - Circulation | RM00000F | 0 | 0 | 0 | 0 - |
| GF - C.00-03 - Cupboard    | GF00000C | 0 | 0 | 0 | 0 - |
| GF - C.00-01 - Bathroom    | GF00000E | 0 | 0 | 0 | 0 - |
| GF - C.00-01 - Circulation | GF00000D | 0 | 0 | 0 | 0 - |
| GF - C.00-01 - Cupboard    | GF00000F | 0 | 0 | 0 | 0 - |
| GF - C.00-02 - Bathroom    | GF000010 | 0 | 0 | 0 | 0 - |
| GF - C.00-02 - Cupboard    | GF000011 | 0 | 0 | 0 | 0 - |
| GF - C.00-02 - Circulation | GF000012 | 0 | 0 | 0 | 0 - |
| GF - C.00-07 - Bathroom    | GF000017 | 0 | 0 | 0 | 0 - |
| GF - C.00-07 - Circulation | RM00000D | 0 | 0 | 0 | 0 - |
| GF - C.00-08 - Circulation | RM000004 | 0 | 0 | 0 | 0 - |
| GF - C.00-08 - Bathroom    | GF00001A | 0 | 0 | 0 | 0 - |
| GF - C.00-08 - Cupboard    | GF00001B | 0 | 0 | 0 | 0 - |
| GF - C.00-09 - Circulation | GF00001E | 0 | 0 | 0 | 0 - |
| GF - C.00-07 - Cupboard    | GF000018 | 0 | 0 | 0 | 0 - |
| GF - C.00-09 - Cupboard    | RM000003 | 0 | 0 | 0 | 0 - |
| GF - C.00-09 - Bathroom    | GF000021 | 0 | 0 | 0 | 0 - |
| 2F - Stairs                | 1F000005 | 0 | 0 | 0 | 0 - |
| 2F - Stairs                | 1F000007 | 0 | 0 | 0 | 0 - |
| 2F - A.02-07 - Cupboard    | 1F00006C | 0 | 0 | 0 | 0 - |
| 2F - A.02-07 - Bathroom    | 1F00006D | 0 | 0 | 0 | 0 - |
| 2F - A.02-06 - Bathroom    | 1F00006F | 0 | 0 | 0 | 0 - |
| 2F - A.02-06 - Cupboard    | 1F000071 | 0 | 0 | 0 | 0 - |
| 2F - A.02-06 - Bathroom    | 1F000072 | 0 | 0 | 0 | 0 - |
| 2F - A.02-06 - Cupboard    | 1F000075 | 0 | 0 | 0 | 0 - |
| 2F - A.02-05 - Cupboard    | 1F000076 | 0 | 0 | 0 | 0 - |
| 2F - A.02-05 - Cupboard    | 1F000078 | 0 | 0 | 0 | 0 - |
| 2F - A.02-05 - Bathroom    | 1F00007C | 0 | 0 | 0 | 0 - |
| 2F - A.02-05 - Bathroom    | 1F00007D | 0 | 0 | 0 | 0 - |
| 2F - A.02-02 - Bathroom    | 1F000054 | 0 | 0 | 0 | 0 - |
| 2F - A.02-02 - Cupboard    | 1F000056 | 0 | 0 | 0 | 0 - |
| 2F - A.02-02 - Bathroom    | 1F000057 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 2F - Circulation        | 1F000058 | 0 | 0 | 0 | 0 - |
| 2F - B.02-02 - Cupboard | 1F000059 | 0 | 0 | 0 | 0 - |
| 2F - B.02-02 - Bathroom | 1F00005A | 0 | 0 | 0 | 0 - |
| 2F - B.02-02 - Bathroom | 1F00005E | 0 | 0 | 0 | 0 - |
| 2F - B.02-01 - Bathroom | 1F00005D | 0 | 0 | 0 | 0 - |
| 2F - Circulation        | 1F000062 | 0 | 0 | 0 | 0 - |
| 2F - B.02-02 - Cupboard | 1F000064 | 0 | 0 | 0 | 0 - |
| 2F - B.02-03 - Cupboard | 1F00000F | 0 | 0 | 0 | 0 - |
| 2F - B.02-03 - Bathroom | 1F00005F | 0 | 0 | 0 | 0 - |
| 2F - B.02-03 - Cupboard | 1F000063 | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Cupboard | 1F000067 | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Bathroom | 1F00006A | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Bathroom | 1F00007E | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Cupboard | 1F00007F | 0 | 0 | 0 | 0 - |
| 2F - B.02-05 - Cupboard | 1F00000C | 0 | 0 | 0 | 0 - |
| 2F - B.02-05 - Bathroom | 1F000083 | 0 | 0 | 0 | 0 - |
| 2F - B.02-07 - Cupboard | 1F000085 | 0 | 0 | 0 | 0 - |
| 2F - B.02-05 - Bathroom | 1F000082 | 0 | 0 | 0 | 0 - |
| 2F - B.02-01 - Cupboard | 1F00000D | 0 | 0 | 0 | 0 - |
| 2F - B.02-06 - Bathroom | 1F00008B | 0 | 0 | 0 | 0 - |
| 2F - B.02-06 - Cupboard | 1F00008C | 0 | 0 | 0 | 0 - |
| 2F - B.02-07 - Cupboard | 1F00008D | 0 | 0 | 0 | 0 - |
| 2F - B.02-07 - Bathroom | 1F00008F | 0 | 0 | 0 | 0 - |
| 2F - A.02-02 - Cupboard | 1F000015 | 0 | 0 | 0 | 0 - |
| 2F - A.02-03 - Cupboard | 1F000092 | 0 | 0 | 0 | 0 - |
| 2F - A.02-03 - Bathroom | 1F000013 | 0 | 0 | 0 | 0 - |
| 2F - A.02-03 - Cupboard | 1F000010 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Cupboard | 1F000094 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Cupboard | 1F000095 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Bathroom | 1F000096 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Bathroom | 1F000097 | 0 | 0 | 0 | 0 - |
| 2F - A.02-04 - Cupboard | 1F000098 | 0 | 0 | 0 | 0 - |
| 2F - B.02-01 - Cupboard | 1F00009C | 0 | 0 | 0 | 0 - |
| 2F - A.02-01 - Cupboard | 1F000011 | 0 | 0 | 0 | 0 - |
| 2F - A.02-01 - Bathroom | 2F000001 | 0 | 0 | 0 | 0 - |
| 2F - A.02-01 - Cupboard | 2F000002 | 0 | 0 | 0 | 0 - |
| 3F - Stairs             | 2F000008 | 0 | 0 | 0 | 0 - |
| 3F - Stairs             | 2F000009 | 0 | 0 | 0 | 0 - |
| 3F - A.03-07 - Cupboard | 2F00000D | 0 | 0 | 0 | 0 - |
| 3F - A.03-07 - Bathroom | 2F00000E | 0 | 0 | 0 | 0 - |
| 3F - A.03-06 - Bathroom | 2F000010 | 0 | 0 | 0 | 0 - |
| 3F - A.03-06 - Cupboard | 2F000012 | 0 | 0 | 0 | 0 - |
| 3F - A.03-06 - Bathroom | 2F000013 | 0 | 0 | 0 | 0 - |
| 3F - A.03-06 - Cupboard | 2F000016 | 0 | 0 | 0 | 0 - |
| 3F - A.03-05 - Cupboard | 2F000017 | 0 | 0 | 0 | 0 - |
| 3F - A.03-05 - Cupboard | 2F000019 | 0 | 0 | 0 | 0 - |
| 3F - A.03-05 - Bathroom | 2F00001D | 0 | 0 | 0 | 0 - |
| 3F - A.03-05 - Bathroom | 2F00001E | 0 | 0 | 0 | 0 - |
| 3F - A.03-02 - Bathroom | 2F000020 | 0 | 0 | 0 | 0 - |
| 3F - A.03-02 - Cupboard | 2F000022 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 3F - A.03-02 - Bathroom | 2F000024 | 0 | 0 | 0 | 0 - |
| 3F - Circulation        | 2F000025 | 0 | 0 | 0 | 0 - |
| 3F - B.03-02 - Cupboard | 2F000026 | 0 | 0 | 0 | 0 - |
| 3F - B.03-02 - Bathroom | 2F000028 | 0 | 0 | 0 | 0 - |
| 3F - B.03-02 - Bathroom | 2F00002A | 0 | 0 | 0 | 0 - |
| 3F - B.03-01 - Bathroom | 2F00002B | 0 | 0 | 0 | 0 - |
| 3F - Circulation        | 2F00002D | 0 | 0 | 0 | 0 - |
| 3F - B.03-03 - Cupboard | 2F000031 | 0 | 0 | 0 | 0 - |
| 3F - B.03-03 - Bathroom | 2F000032 | 0 | 0 | 0 | 0 - |
| 3F - B.03-04 - Cupboard | 2F000038 | 0 | 0 | 0 | 0 - |
| 3F - B.03-04 - Bathroom | 2F000039 | 0 | 0 | 0 | 0 - |
| 3F - B.03-04 - Bathroom | 2F00003B | 0 | 0 | 0 | 0 - |
| 2F - B.02-04 - Cupboard | 2F00003C | 0 | 0 | 0 | 0 - |
| 3F - B.03-05 - Cupboard | 2F00003F | 0 | 0 | 0 | 0 - |
| 3F - B.03-05 - Bathroom | 2F000040 | 0 | 0 | 0 | 0 - |
| 3F - B.03-07 - Cupboard | 2F000041 | 0 | 0 | 0 | 0 - |
| 3F - B.03-05 - Bathroom | 2F000043 | 0 | 0 | 0 | 0 - |
| 3F - B.03-01 - Cupboard | 2F000045 | 0 | 0 | 0 | 0 - |
| 3F - B.03-06 - Bathroom | 2F000049 | 0 | 0 | 0 | 0 - |
| 3F - B.03-06 - Cupboard | 2F00004A | 0 | 0 | 0 | 0 - |
| 3F - B.03-07 - Cupboard | 2F00004D | 0 | 0 | 0 | 0 - |
| 3F - B.03-07 - Bathroom | 2F00004E | 0 | 0 | 0 | 0 - |
| 3F - A.03-03 - Bathroom | 2F000053 | 0 | 0 | 0 | 0 - |
| 3F - A.03-03 - Cupboard | 2F000054 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Cupboard | 2F000055 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Cupboard | 2F000056 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Bathroom | 2F000057 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Bathroom | 2F000058 | 0 | 0 | 0 | 0 - |
| 3F - A.03-04 - Cupboard | 2F000059 | 0 | 0 | 0 | 0 - |
| 3F - B.03-01 - Cupboard | 2F000060 | 0 | 0 | 0 | 0 - |
| 3F - A.03-01 - Cupboard | 2F000062 | 0 | 0 | 0 | 0 - |
| 3F - A.03-01 - Bathroom | 2F000063 | 0 | 0 | 0 | 0 - |
| 3F - A.03-01 - Cupboard | 2F000064 | 0 | 0 | 0 | 0 - |
| 3F - B.03-03 - Cupboard | 2F00006A | 0 | 0 | 0 | 0 - |
| 3F - A.03-03 - Bathroom | 2F00004F | 0 | 0 | 0 | 0 - |
| 4F - Stairs             | 3F000004 | 0 | 0 | 0 | 0 - |
| 4F - Stairs             | 3F000005 | 0 | 0 | 0 | 0 - |
| 4F - A.04-07 - Cupboard | 3F000008 | 0 | 0 | 0 | 0 - |
| 4F - A.04-07 - Bathroom | 3F000009 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Bathroom | 3F00000B | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F00000D | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Bathroom | 3F00000E | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F000011 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F000014 | 0 | 0 | 0 | 0 - |
| 4F - A.04-02 - Bathroom | 3F00001A | 0 | 0 | 0 | 0 - |
| 4F - A.04-02 - Cupboard | 3F00001C | 0 | 0 | 0 | 0 - |
| 4F - A.04-02 - Bathroom | 3F00001E | 0 | 0 | 0 | 0 - |
| 4F - Circulation        | 3F00001F | 0 | 0 | 0 | 0 - |
| 4F - B.04-02 - Cupboard | 3F000020 | 0 | 0 | 0 | 0 - |
| 4F - B.04-02 - Bathroom | 3F000022 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 4F - B.04-02 - Bathroom | 3F000024 | 0 | 0 | 0 | 0 - |
| 4F - B.04-01 - Bathroom | 3F000025 | 0 | 0 | 0 | 0 - |
| 4F - Circulation        | 3F000027 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Cupboard | 3F000029 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Bathroom | 3F00002A | 0 | 0 | 0 | 0 - |
| 4F - B.04-08 - Cupboard | 3F000036 | 0 | 0 | 0 | 0 - |
| 4F - B.04-01 - Cupboard | 3F00003A | 0 | 0 | 0 | 0 - |
| 4F - B.04-07 - Bathroom | 3F00003D | 0 | 0 | 0 | 0 - |
| 4F - B.04-07 - Cupboard | 3F00003E | 0 | 0 | 0 | 0 - |
| 4F - B.04-08 - Cupboard | 3F00003F | 0 | 0 | 0 | 0 - |
| 4F - B.04-08 - Bathroom | 3F000040 | 0 | 0 | 0 | 0 - |
| 4F - A.04-03 - Bathroom | 3F000041 | 0 | 0 | 0 | 0 - |
| 4F - A.04-03 - Cupboard | 3F000042 | 0 | 0 | 0 | 0 - |
| 4F - B.04-01 - Cupboard | 3F00004D | 0 | 0 | 0 | 0 - |
| 4F - A.04-01 - Cupboard | 3F00004F | 0 | 0 | 0 | 0 - |
| 4F - A.04-01 - Bathroom | 3F000050 | 0 | 0 | 0 | 0 - |
| 4F - A.04-01 - Cupboard | 3F000051 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Cupboard | 3F000059 | 0 | 0 | 0 | 0 - |
| 4F - A.04-03 - Bathroom | 3F00005D | 0 | 0 | 0 | 0 - |
| 4F - B.04-06 - Bathroom | 3F000032 | 0 | 0 | 0 | 0 - |
| 4F - B.04-06 - Cupboard | 3F000033 | 0 | 0 | 0 | 0 - |
| 4F - B.04-04 - Bathroom | 4F000001 | 0 | 0 | 0 | 0 - |
| 4F - B.04-04 - Cupboard | 4F000002 | 0 | 0 | 0 | 0 - |
| 4F - B.04-04 - Cupboard | 4F000004 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Bathroom | 3F000035 | 0 | 0 | 0 | 0 - |
| 4F - B.04-05 - Cupboard | 3F00002B | 0 | 0 | 0 | 0 - |
| 4F - B.04-05 - Bathroom | 3F000034 | 0 | 0 | 0 | 0 - |
| 4F - B.04-06 - Cupboard | 3F00002D | 0 | 0 | 0 | 0 - |
| 4F - A.04-04 - Bathroom | 3F000044 | 0 | 0 | 0 | 0 - |
| 4F - A.04-04 - Cupboard | 3F000043 | 0 | 0 | 0 | 0 - |
| 4F - A.04-04 - Cupboard | 3F000045 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F000012 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Cupboard | 3F000015 | 0 | 0 | 0 | 0 - |
| 4F - A.04-06 - Bathroom | 3F000017 | 0 | 0 | 0 | 0 - |
| 4F - A.04-05 - Bathroom | 4F000006 | 0 | 0 | 0 | 0 - |
| 4F - A.04-05 - Cupboard | 4F000007 | 0 | 0 | 0 | 0 - |
| 5F - Stairs             | 4F00000D | 0 | 0 | 0 | 0 - |
| 5F - Stairs             | 4F00000E | 0 | 0 | 0 | 0 - |
| 5F - A.05-08 - Cupboard | 4F000011 | 0 | 0 | 0 | 0 - |
| 5F - A.05-08 - Bathroom | 4F000012 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Bathroom | 4F000014 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F000016 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Bathroom | 4F000017 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F00001A | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F00001B | 0 | 0 | 0 | 0 - |
| 5F - A.05-02 - Bathroom | 4F00001C | 0 | 0 | 0 | 0 - |
| 5F - A.05-02 - Cupboard | 4F00001E | 0 | 0 | 0 | 0 - |
| 5F - A.05-02 - Bathroom | 4F000020 | 0 | 0 | 0 | 0 - |
| 5F - Circulation        | 4F000021 | 0 | 0 | 0 | 0 - |
| 5F - B.05-02 - Cupboard | 4F000022 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 5F - B.05-02 - Bathroom | 4F000024 | 0 | 0 | 0 | 0 - |
| 5F - B.05-02 - Bathroom | 4F000026 | 0 | 0 | 0 | 0 - |
| 5F - B.05-01 - Bathroom | 4F000027 | 0 | 0 | 0 | 0 - |
| 5F - Circulation        | 4F000028 | 0 | 0 | 0 | 0 - |
| 5F - B.05-03 - Cupboard | 4F000029 | 0 | 0 | 0 | 0 - |
| 5F - B.05-03 - Bathroom | 4F00002A | 0 | 0 | 0 | 0 - |
| 5F - B.05-08 - Bathroom | 4F00002B | 0 | 0 | 0 | 0 - |
| 5F - B.05-01 - Cupboard | 4F00002C | 0 | 0 | 0 | 0 - |
| 5F - B.05-07 - Bathroom | 4F00002E | 0 | 0 | 0 | 0 - |
| 5F - B.05-07 - Cupboard | 4F00002F | 0 | 0 | 0 | 0 - |
| 5F - B.05-08 - Cupboard | 4F000030 | 0 | 0 | 0 | 0 - |
| 5F - B.05-08 - Bathroom | 4F000031 | 0 | 0 | 0 | 0 - |
| 5F - A.05-03 - Bathroom | 4F000032 | 0 | 0 | 0 | 0 - |
| 5F - A.05-03 - Cupboard | 4F000033 | 0 | 0 | 0 | 0 - |
| 5F - B.05-01 - Cupboard | 4F000035 | 0 | 0 | 0 | 0 - |
| 5F - A.05-01 - Cupboard | 4F000037 | 0 | 0 | 0 | 0 - |
| 5F - A.05-01 - Bathroom | 4F000038 | 0 | 0 | 0 | 0 - |
| 5F - A.05-01 - Cupboard | 4F000039 | 0 | 0 | 0 | 0 - |
| 5F - B.05-03 - Cupboard | 4F00003F | 0 | 0 | 0 | 0 - |
| 5F - A.05-03 - Bathroom | 4F000042 | 0 | 0 | 0 | 0 - |
| 5F - B.05-06 - Bathroom | 4F000047 | 0 | 0 | 0 | 0 - |
| 5F - B.05-06 - Cupboard | 4F000048 | 0 | 0 | 0 | 0 - |
| 5F - B.05-04 - Bathroom | 4F00004A | 0 | 0 | 0 | 0 - |
| 5F - B.05-04 - Cupboard | 4F00004B | 0 | 0 | 0 | 0 - |
| 5F - B.05-04 - Cupboard | 4F00004E | 0 | 0 | 0 | 0 - |
| 5F - B.05-03 - Bathroom | 4F000050 | 0 | 0 | 0 | 0 - |
| 5F - B.05-05 - Cupboard | 4F000053 | 0 | 0 | 0 | 0 - |
| 5F - B.05-05 - Bathroom | 4F000054 | 0 | 0 | 0 | 0 - |
| 5F - B.05-06 - Cupboard | 4F000057 | 0 | 0 | 0 | 0 - |
| 5F - A.05-04 - Bathroom | 4F00005B | 0 | 0 | 0 | 0 - |
| 5F - A.05-04 - Cupboard | 4F00005C | 0 | 0 | 0 | 0 - |
| 5F - A.05-04 - Cupboard | 4F00005E | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F000061 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Cupboard | 4F000063 | 0 | 0 | 0 | 0 - |
| 5F - A.05-06 - Bathroom | 4F000064 | 0 | 0 | 0 | 0 - |
| 5F - A.05-05 - Bathroom | 4F000066 | 0 | 0 | 0 | 0 - |
| 5F - A.05-05 - Cupboard | 4F000067 | 0 | 0 | 0 | 0 - |
| 6F - Stairs             | 4F00007C | 0 | 0 | 0 | 0 - |
| 6F - Stairs             | 4F00007D | 0 | 0 | 0 | 0 - |
| 6F - A.06-08 - Cupboard | 4F000080 | 0 | 0 | 0 | 0 - |
| 6F - A.06-08 - Bathroom | 4F000081 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Bathroom | 4F000083 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F000085 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Bathroom | 4F000086 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F000089 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F00008A | 0 | 0 | 0 | 0 - |
| 6F - A.06-02 - Bathroom | 4F00008B | 0 | 0 | 0 | 0 - |
| 6F - A.06-02 - Cupboard | 4F00008D | 0 | 0 | 0 | 0 - |
| 6F - A.06-02 - Bathroom | 4F00008F | 0 | 0 | 0 | 0 - |
| 6F - Circulation        | 4F000090 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 6F - B.06-02 - Cupboard | 4F000091 | 0 | 0 | 0 | 0 - |
| 6F - B.06-02 - Bathroom | 4F000093 | 0 | 0 | 0 | 0 - |
| 6F - B.06-02 - Bathroom | 4F000095 | 0 | 0 | 0 | 0 - |
| 6F - B.06-01 - Bathroom | 4F000096 | 0 | 0 | 0 | 0 - |
| 6F - Circulation        | 4F000097 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Cupboard | 4F000098 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Bathroom | 4F000099 | 0 | 0 | 0 | 0 - |
| 6F - B.06-08 - Cupboard | 4F00009A | 0 | 0 | 0 | 0 - |
| 6F - B.06-01 - Cupboard | 4F00009B | 0 | 0 | 0 | 0 - |
| 6F - B.06-07 - Bathroom | 4F00009D | 0 | 0 | 0 | 0 - |
| 6F - B.06-07 - Cupboard | 4F00009E | 0 | 0 | 0 | 0 - |
| 6F - B.06-08 - Cupboard | 4F00009F | 0 | 0 | 0 | 0 - |
| 6F - B.06-08 - Bathroom | 4F0000A0 | 0 | 0 | 0 | 0 - |
| 6F - A.06-03 - Bathroom | 4F0000A1 | 0 | 0 | 0 | 0 - |
| 6F - A.06-03 - Cupboard | 4F0000A2 | 0 | 0 | 0 | 0 - |
| 6F - B.06-01 - Cupboard | 4F0000A4 | 0 | 0 | 0 | 0 - |
| 6F - A.06-01 - Bathroom | 4F0000A5 | 0 | 0 | 0 | 0 - |
| 6F - A.06-01 - Cupboard | 4F0000A6 | 0 | 0 | 0 | 0 - |
| 6F - A.06-01 - Bathroom | 4F0000A7 | 0 | 0 | 0 | 0 - |
| 6F - A.06-01 - Cupboard | 4F0000A8 | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Cupboard | 4F0000AE | 0 | 0 | 0 | 0 - |
| 6F - A.06-03 - Bathroom | 4F0000B1 | 0 | 0 | 0 | 0 - |
| 6F - B.06-06 - Bathroom | 4F0000B6 | 0 | 0 | 0 | 0 - |
| 6F - B.06-06 - Cupboard | 4F0000B7 | 0 | 0 | 0 | 0 - |
| 6F - B.06-04 - Bathroom | 4F0000B9 | 0 | 0 | 0 | 0 - |
| 6F - B.06-04 - Cupboard | 4F0000BA | 0 | 0 | 0 | 0 - |
| 6F - B.06-04 - Cupboard | 4F0000BD | 0 | 0 | 0 | 0 - |
| 4F - B.04-03 - Bathroom | 4F0000BF | 0 | 0 | 0 | 0 - |
| 6F - B.06-05 - Cupboard | 4F0000C2 | 0 | 0 | 0 | 0 - |
| 6F - B.06-05 - Bathroom | 4F0000C3 | 0 | 0 | 0 | 0 - |
| 6F - B.06-06 - Cupboard | 4F0000C6 | 0 | 0 | 0 | 0 - |
| 6F - A.06-04 - Bathroom | 4F0000CA | 0 | 0 | 0 | 0 - |
| 6F - A.06-04 - Cupboard | 4F0000CB | 0 | 0 | 0 | 0 - |
| 6F - A.06-04 - Cupboard | 4F0000CD | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F0000D0 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Cupboard | 4F0000D2 | 0 | 0 | 0 | 0 - |
| 6F - A.06-06 - Bathroom | 4F0000D3 | 0 | 0 | 0 | 0 - |
| 6F - A.06-05 - Bathroom | 4F0000D5 | 0 | 0 | 0 | 0 - |
| 6F - A.06-05 - Cupboard | 4F0000D6 | 0 | 0 | 0 | 0 - |
| 7F - Stairs             | 4F0000DD | 0 | 0 | 0 | 0 - |
| 7F - Stairs             | 4F0000DE | 0 | 0 | 0 | 0 - |
| 7F - A.07-08 - Cupboard | 4F0000E1 | 0 | 0 | 0 | 0 - |
| 7F - A.07-08 - Bathroom | 4F0000E2 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Bathroom | 4F0000E4 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F0000E6 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Bathroom | 4F0000E7 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F0000EA | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F0000EB | 0 | 0 | 0 | 0 - |
| 7F - A.07-02 - Bathroom | 4F0000EC | 0 | 0 | 0 | 0 - |
| 7F - A.07-02 - Cupboard | 4F0000EE | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 7F - A.07-02 - Bathroom | 4F0000F0 | 0 | 0 | 0 | 0 - |
| 7F - Circulation        | 4F0000F1 | 0 | 0 | 0 | 0 - |
| 7F - B.07-02 - Cupboard | 4F0000F2 | 0 | 0 | 0 | 0 - |
| 7F - B.07-02 - Bathroom | 4F0000F4 | 0 | 0 | 0 | 0 - |
| 7F - B.07-02 - Bathroom | 4F0000F6 | 0 | 0 | 0 | 0 - |
| 7F - B.07-01 - Bathroom | 4F0000F7 | 0 | 0 | 0 | 0 - |
| 7F - Circulation        | 4F0000F8 | 0 | 0 | 0 | 0 - |
| 7F - B.07-03 - Cupboard | 4F0000F9 | 0 | 0 | 0 | 0 - |
| 7F - B.07-03 - Bathroom | 4F0000FA | 0 | 0 | 0 | 0 - |
| 7F - B.07-08 - Cupboard | 4F0000FB | 0 | 0 | 0 | 0 - |
| 7F - B.07-01 - Cupboard | 4F0000FC | 0 | 0 | 0 | 0 - |
| 7F - B.07-07 - Bathroom | 4F0000FE | 0 | 0 | 0 | 0 - |
| 7F - B.07-07 - Cupboard | 4F0000FF | 0 | 0 | 0 | 0 - |
| 7F - B.07-08 - Cupboard | 4F000100 | 0 | 0 | 0 | 0 - |
| 7F - B.07-08 - Bathroom | 4F000101 | 0 | 0 | 0 | 0 - |
| 7F - A.07-03 - Bathroom | 4F000102 | 0 | 0 | 0 | 0 - |
| 7F - A.07-03 - Cupboard | 4F000103 | 0 | 0 | 0 | 0 - |
| 7F - B.07-01 - Cupboard | 4F000105 | 0 | 0 | 0 | 0 - |
| 7F - A.07-01 - Cupboard | 4F000107 | 0 | 0 | 0 | 0 - |
| 7F - A.07-01 - Bathroom | 4F000108 | 0 | 0 | 0 | 0 - |
| 7F - A.07-01 - Cupboard | 4F000109 | 0 | 0 | 0 | 0 - |
| 7F - B.07-03 - Cupboard | 4F00010F | 0 | 0 | 0 | 0 - |
| 7F - A.07-03 - Bathroom | 4F000112 | 0 | 0 | 0 | 0 - |
| 7F - B.07-06 - Bathroom | 4F000117 | 0 | 0 | 0 | 0 - |
| 7F - B.07-06 - Cupboard | 4F000118 | 0 | 0 | 0 | 0 - |
| 7F - B.07-04 - Bathroom | 4F00011A | 0 | 0 | 0 | 0 - |
| 7F - B.07-04 - Cupboard | 4F00011B | 0 | 0 | 0 | 0 - |
| 7F - B.07-04 - Cupboard | 4F00011E | 0 | 0 | 0 | 0 - |
| 7F - B.07-03 - Bathroom | 4F000120 | 0 | 0 | 0 | 0 - |
| 7F - B.07-05 - Cupboard | 4F000123 | 0 | 0 | 0 | 0 - |
| 7F - B.07-05 - Bathroom | 4F000124 | 0 | 0 | 0 | 0 - |
| 7F - B.07-06 - Cupboard | 4F000127 | 0 | 0 | 0 | 0 - |
| 7F - A.07-04 - Bathroom | 4F00012B | 0 | 0 | 0 | 0 - |
| 7F - A.07-04 - Cupboard | 4F00012C | 0 | 0 | 0 | 0 - |
| 7F - A.07-04 - Cupboard | 4F00012E | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F000131 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Cupboard | 4F000133 | 0 | 0 | 0 | 0 - |
| 7F - A.07-06 - Bathroom | 4F000134 | 0 | 0 | 0 | 0 - |
| 7F - A.07-05 - Bathroom | 4F000136 | 0 | 0 | 0 | 0 - |
| 7F - A.07-05 - Cupboard | 4F000137 | 0 | 0 | 0 | 0 - |
| 8F - Stairs             | 4F00015A | 0 | 0 | 0 | 0 - |
| 8F - Stairs             | 4F00015B | 0 | 0 | 0 | 0 - |
| 8F - A.08-08 - Cupboard | 4F00015E | 0 | 0 | 0 | 0 - |
| 8F - A.08-08 - Bathroom | 4F00015F | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Bathroom | 4F000161 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F000163 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Bathroom | 4F000164 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F000167 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F000168 | 0 | 0 | 0 | 0 - |
| 8F - A.08-02 - Bathroom | 4F000169 | 0 | 0 | 0 | 0 - |

|                         |          |   |   |   |     |
|-------------------------|----------|---|---|---|-----|
| 8F - A.08-02 - Cupboard | 4F00016B | 0 | 0 | 0 | 0 - |
| 8F - A.08-02 - Bathroom | 4F00016D | 0 | 0 | 0 | 0 - |
| 8F - Circulation        | 4F00016E | 0 | 0 | 0 | 0 - |
| 8F - B.08-02 - Cupboard | 4F00016F | 0 | 0 | 0 | 0 - |
| 8F - B.08-02 - Bathroom | 4F000171 | 0 | 0 | 0 | 0 - |
| 8F - B.08-02 - Bathroom | 4F000173 | 0 | 0 | 0 | 0 - |
| 8F - B.08-01 - Bathroom | 4F000174 | 0 | 0 | 0 | 0 - |
| 8F - Circulation        | 4F000175 | 0 | 0 | 0 | 0 - |
| 8F - B.08-03 - Cupboard | 4F000176 | 0 | 0 | 0 | 0 - |
| 8F - B.08-03 - Bathroom | 4F000177 | 0 | 0 | 0 | 0 - |
| 8F - B.08-08 - Cupboard | 4F000178 | 0 | 0 | 0 | 0 - |
| 8F - B.08-01 - Cupboard | 4F000179 | 0 | 0 | 0 | 0 - |
| 8F - B.08-07 - Bathroom | 4F00017B | 0 | 0 | 0 | 0 - |
| 8F - B.08-07 - Cupboard | 4F00017C | 0 | 0 | 0 | 0 - |
| 8F - B.08-08 - Cupboard | 4F00017D | 0 | 0 | 0 | 0 - |
| 8F - B.08-08 - Bathroom | 4F00017E | 0 | 0 | 0 | 0 - |
| 8F - A.08-03 - Bathroom | 4F00017F | 0 | 0 | 0 | 0 - |
| 8F - A.08-03 - Cupboard | 4F000180 | 0 | 0 | 0 | 0 - |
| 8F - B.08-01 - Cupboard | 4F000182 | 0 | 0 | 0 | 0 - |
| 8F - A.08-01 - Cupboard | 4F000184 | 0 | 0 | 0 | 0 - |
| 8F - A.08-01 - Bathroom | 4F000185 | 0 | 0 | 0 | 0 - |
| 8F - A.08-01 - Cupboard | 4F000186 | 0 | 0 | 0 | 0 - |
| 8F - B.08-03 - Cupboard | 4F00018C | 0 | 0 | 0 | 0 - |
| 8F - A.08-03 - Bathroom | 4F00018F | 0 | 0 | 0 | 0 - |
| 8F - B.08-06 - Bathroom | 4F000194 | 0 | 0 | 0 | 0 - |
| 8F - B.08-06 - Cupboard | 4F000195 | 0 | 0 | 0 | 0 - |
| 8F - B.08-04 - Bathroom | 4F000197 | 0 | 0 | 0 | 0 - |
| 8F - B.08-04 - Cupboard | 4F000198 | 0 | 0 | 0 | 0 - |
| 8F - B.08-04 - Cupboard | 4F00019B | 0 | 0 | 0 | 0 - |
| 8F - B.08-03 - Bathroom | 4F00019D | 0 | 0 | 0 | 0 - |
| 8F - B.08-05 - Cupboard | 4F0001A0 | 0 | 0 | 0 | 0 - |
| 8F - B.08-05 - Bathroom | 4F0001A1 | 0 | 0 | 0 | 0 - |
| 8F - B.08-06 - Cupboard | 4F0001A4 | 0 | 0 | 0 | 0 - |
| 8F - A.08-04 - Bathroom | 4F0001A8 | 0 | 0 | 0 | 0 - |
| 8F - A.08-04 - Cupboard | 4F0001A9 | 0 | 0 | 0 | 0 - |
| 8F - A.08-04 - Cupboard | 4F0001AB | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F0001AE | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Cupboard | 4F0001B0 | 0 | 0 | 0 | 0 - |
| 8F - A.08-06 - Bathroom | 4F0001B1 | 0 | 0 | 0 | 0 - |
| 8F - A.08-05 - Bathroom | 4F0001B3 | 0 | 0 | 0 | 0 - |
| 8F - A.08-05 - Cupboard | 4F0001B4 | 0 | 0 | 0 | 0 - |
| GF - Plant              | GF000015 | 0 | 0 | 0 | 0 - |
| GF - Plant              | GF000000 | 0 | 0 | 0 | 0 - |
| GF - Entrance           | RM000001 | 0 | 0 | 0 | 0 - |
| GF - Entrance           | RM000005 | 0 | 0 | 0 | 0 - |
| GF - Entrance           | RM00000C | 0 | 0 | 0 | 0 - |
| GF - Cycle Repair Bay   | RM000011 | 0 | 0 | 0 | 0 - |
| GF - Cycle Parking      | RM000010 | 0 | 0 | 0 | 0 - |
| 9F - Stairs             | 7F000004 | 0 | 0 | 0 | 0 - |
| 9F - Stairs             | 7F000005 | 0 | 0 | 0 | 0 - |

|                          |          |   |   |   |     |
|--------------------------|----------|---|---|---|-----|
| 9F - A.09-06 - Bathroom  | 7F00000B | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F00000D | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F00000E | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F000011 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F000012 | 0 | 0 | 0 | 0 - |
| 9F - B.09-05 - Bathroom  | 7F000025 | 0 | 0 | 0 | 0 - |
| 9F - B.09-05 - Cupboard  | 7F000026 | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Bathroom  | 7F00003E | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Cupboard  | 7F00003F | 0 | 0 | 0 | 0 - |
| 9F - B.09-05 - Cupboard  | 7F00004A | 0 | 0 | 0 | 0 - |
| 9F - B.09-05 - Bathroom  | 7F00004B | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Cupboard  | 7F00004E | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F000058 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F00005A | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F00005B | 0 | 0 | 0 | 0 - |
| 9F - A.09-05 - Bathroom  | 7F00005D | 0 | 0 | 0 | 0 - |
| 9F - A.09-05 - Cupboard  | 7F00005E | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F000008 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F00001A | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Bathroom  | 7F000017 | 0 | 0 | 0 | 0 - |
| 9F - A.09-06 - Cupboard  | 7F00001B | 0 | 0 | 0 | 0 - |
| 9F - A.09-01 - Cupboard  | 7F00001C | 0 | 0 | 0 | 0 - |
| 9F - A.09-01 - Bathroom  | 7F000029 | 0 | 0 | 0 | 0 - |
| 9F - A.09-01 - Cupboard  | 7F00002A | 0 | 0 | 0 | 0 - |
| 9F - A.09-02 - Cupboard  | 7F000015 | 0 | 0 | 0 | 0 - |
| 9F - A.09-02 - Bathroom  | 7F00002D | 0 | 0 | 0 | 0 - |
| 9F - A.09-02 - Cupboard  | 7F000030 | 0 | 0 | 0 | 0 - |
| 9F - Circulation         | 7F000031 | 0 | 0 | 0 | 0 - |
| 9F - Circulation         | 7F000020 | 0 | 0 | 0 | 0 - |
| 9F - B.09-01 - Cupboard  | 7F000013 | 0 | 0 | 0 | 0 - |
| 9F - B.09-01 - Bathroom  | 7F000018 | 0 | 0 | 0 | 0 - |
| 9F - B.09-01 - Cupboard  | 7F000035 | 0 | 0 | 0 | 0 - |
| 9F - B.09-02 - Cupboard  | 7F000034 | 0 | 0 | 0 | 0 - |
| 9F - B.09-02 - Cupboard  | 7F000037 | 0 | 0 | 0 | 0 - |
| 9F - B.09-02 - Bathroom  | 7F000038 | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Bathroom  | 7F000023 | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Cupboard  | 7F000028 | 0 | 0 | 0 | 0 - |
| 9F - B.09-06 - Cupboard  | 7F00002B | 0 | 0 | 0 | 0 - |
| 10F - Stairs             | 9F000002 | 0 | 0 | 0 | 0 - |
| 10F - Circulation        | 9F000033 | 0 | 0 | 0 | 0 - |
| 10F - Stairs             | 9F000005 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F000007 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F000009 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F00000A | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F00000D | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F00000E | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F00000F | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F000011 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F000012 | 0 | 0 | 0 | 0 - |
| 10F - A.10-05 - Bathroom | 9F000014 | 0 | 0 | 0 | 0 - |

|                          |          |   |   |   |     |
|--------------------------|----------|---|---|---|-----|
| 10F - A.10-05 - Cupboard | 9F000015 | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F00001A | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F00001E | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Bathroom | 9F00001F | 0 | 0 | 0 | 0 - |
| 10F - A.10-06 - Cupboard | 9F000020 | 0 | 0 | 0 | 0 - |
| 10F - A.10-01 - Cupboard | 9F000021 | 0 | 0 | 0 | 0 - |
| 10F - A.10-01 -Bathroom  | 9F000024 | 0 | 0 | 0 | 0 - |
| 10F - A.10-01 -Cupboard  | 9F000025 | 0 | 0 | 0 | 0 - |
| 10F - A.10-02 - Cupboard | 9F000026 | 0 | 0 | 0 | 0 - |
| 10F - A.10-02 - Bathroom | 9F000028 | 0 | 0 | 0 | 0 - |
| 10F - A.10-02 - Cupboard | 9F000029 | 0 | 0 | 0 | 0 - |
| 10F - Circulation        | 9F00002A | 0 | 0 | 0 | 0 - |

## Appendix I

### MTT S106 Agreement Energy Report



...sustainable building services solutions

# old vinyl factory

## section 106 schedule 13, energy centre delivery



**EXECUTIVE SUMMARY**

This report has been compiled to address the requirements set out within the Section 106 agreement (dated 31<sup>st</sup> July 2014) in Section 13 'Energy Centre Delivery'. This requires a review of the Old Vinyl Factory's energy performance, prior to the occupation of 300 dwellings or 31<sup>st</sup> December 2018, whichever is earlier. According to Section 13, this review should include an update to the energy strategy confirming that the overall scheme will deliver a carbon saving of a minimum of 394 tonnes per annum.

This report has therefore been provided to meet the 31<sup>st</sup> December deadline. Accordingly, it is demonstrated herein that the energy strategy has remained as confirmed in the outline planning report 'Old Vinyl Factory Site: Outline Sustainable Energy Assessment' Ref: 5293.003.006, Issue 3, 14 November 2012.

It is also confirmed, in line with Criterion 1, that the carbon savings are currently on course to exceed the required threshold of 394 tonnes per annum.

Criterion 2 of S106 Section 13 requires the energy strategy to support each Phase of the development in achieving the necessary BREEAM and Code for Sustainable Homes Rating. Each Phase is currently on course to achieve these ratings.

Criterion 3 of S106 Section 13 requires the Energy Strategy to utilise Combined Heat and Power. The CHP unit has been installed in the energy centre and is operational.

Criterion 4 of S106 Section 13 requires all measures necessary to meet the threshold of a 394 tonne carbon emissions saving per annum to be completed and operational prior to the commencement of Phase 6. The CHP unit has been installed in the energy centre, it is currently estimated to be able to provide a carbon saving of 438 tonnes per annum once all Phases of the development are operational.

Criterion 5 of S106 Section 13 requires any shortfall in the saving of 394 tonnes carbon per annum to be offset with a financial contribution. This report confirms that the carbon saving is currently on course to exceed this threshold.

In addition to the utilisation of CHP within a single energy centre supplying a significant proportion of the site's heat demand, in line with the Be Clean Stage of the London Plan Energy Hierarchy, the requirement to achieve Part L compliant buildings through energy efficiency ('Be Lean') measures alone has been met. The energy efficiency measures include: improved fabric insulation; improved air tightness; improved glazing performance; high efficiency mechanical ventilation with heat recovery; energy efficient lighting and controls. The site wide system incorporates gas fired CHP plant designed to meet the domestic hot water demand and a portion of the space heating demand in the dwellings and commercial areas, with high efficiency gas fired boilers meeting the peaks in demand.



The tables below show the Carbon emissions figures in the format required by the GLA in their 'Guidance on Preparing Energy Assessments, April 2014' document.

| Old Vinyl Factory Site                   | Carbon Dioxide Emissions (Tonnes CO <sub>2</sub> per annum) |             |
|------------------------------------------|-------------------------------------------------------------|-------------|
|                                          | Regulated                                                   | Unregulated |
| Baseline: Building Regulations Compliant | 1,509                                                       | 2,436       |
| After energy demand reduction 'Lean'     | 1,452                                                       | 2,436       |
| After CHP 'Clean'                        | 1,104                                                       | 2,073       |
| After Renewable Energy 'Green'           | 982                                                         | 2,073       |

**GLA Table 1: Carbon Dioxide Emissions after each stage of the Energy Hierarchy**

| Old Vinyl Factory Site               | Regulated Carbon Dioxide Savings   |       |
|--------------------------------------|------------------------------------|-------|
|                                      | (Tonnes CO <sub>2</sub> per annum) | (%)   |
| Savings from energy demand reduction | 57                                 | 3.8%  |
| Savings from CHP                     | 438                                | 30.1% |
| Savings from renewable energy        | 33                                 | 3.2%  |
| Total cumulative savings             | 527                                | 34.9% |

**GLA Table 2: Carbon Dioxide Emissions savings from each stage of the Energy Hierarchy**



## S106 SCHEDULE 13 – ENERGY CENTRE DELIVERY

REPORT<sup>®</sup> Copyright mTT  
6167.003.002



## CONTENTS

### EXECUTIVE SUMMARY

- 1.0 INTRODUCTION**
- 2.0 BASELINE ENERGY CONSUMPTION AND CARBON EMISSIONS**
- 3.0 BE LEAN – REDUCE ENERGY DEMAND**
- 4.0 BE CLEAN – SUPPLY ENERGY EFFICIENTLY**
- 5.0 BE GREEN – RENEWABLE ENERGY**
- 6.0 CONCLUSIONS**



## 1.0 INTRODUCTION

The Old Vinyl Factory in Hayes is a mixed-use development close to Hayes and Harlington Station, situated in between the railway line and Blyth Road.

The Old Vinyl Factory Masterplan includes the provision of a site wide heating scheme, as described in the Outline Energy Strategy, conveyed in the Outline Sustainable Energy Assessment, dated 23<sup>rd</sup> July 2012. This approved Strategy details the phased implementation of a site wide scheme and sets individual targets for the energy performance of each building.

The planning consent includes energy-and-sustainability-related conditions, as well as Section 106 requirements. Each phase of the masterplan is required to submit a reserved matters planning application addressing energy and sustainability; the latest of these to be submitted has been for the Assembly Buildings in phase 3B. The Section 106 Agreement requires the Energy Strategy to be reviewed either prior to occupation of more than 300 dwellings or prior to 31<sup>st</sup> December 2018, whichever is earlier.

This report is therefore an update to the masterplan Outline Sustainable Energy Assessment. It includes more detailed calculations for the London Plan Energy Hierarchy 'Be Lean', 'Be Clean' and 'Be Green' stages for the submitted reserved matters applications, up to the Assembly Buildings. This report summarises the results from the latest detailed calculations and/or operational consumption figures for each building except the Veneer Building, which is yet to be designed. Carbon emissions estimates equivalent to those used in the original Outline Sustainable Energy Assessment are therefore used for the Veneer Building.

The Boiler House, Power House, Material Store, UTC, Music Box, Machine Store & Pressing Plant and Assembly Buildings will be represented by the latest known figures. The Shipping Building, Cabinet Building and Record Store do not form part of this assessment, in line with the 2012 Energy Strategy.

The communal heating system demand profile, capacity and phasing arrangement is assessed using the latest known values for each phase of the development and the site wide strategy is reviewed, taking into account the new modelling values.

**SECTION 106 SCHEDULE 13**

Outline planning permission has been granted for a Masterplan for the re-development of The Old Vinyl Factory Site at Hayes, which was amended through the approval of a Minor Material Amendment, application reference 59872/APP/2013/3375. Permission was granted with a number of conditions and other requirements set out in the Section 106 agreement. This report is intended to Address Schedule 13 'Energy Centre Delivery'.

Schedule 13 states:

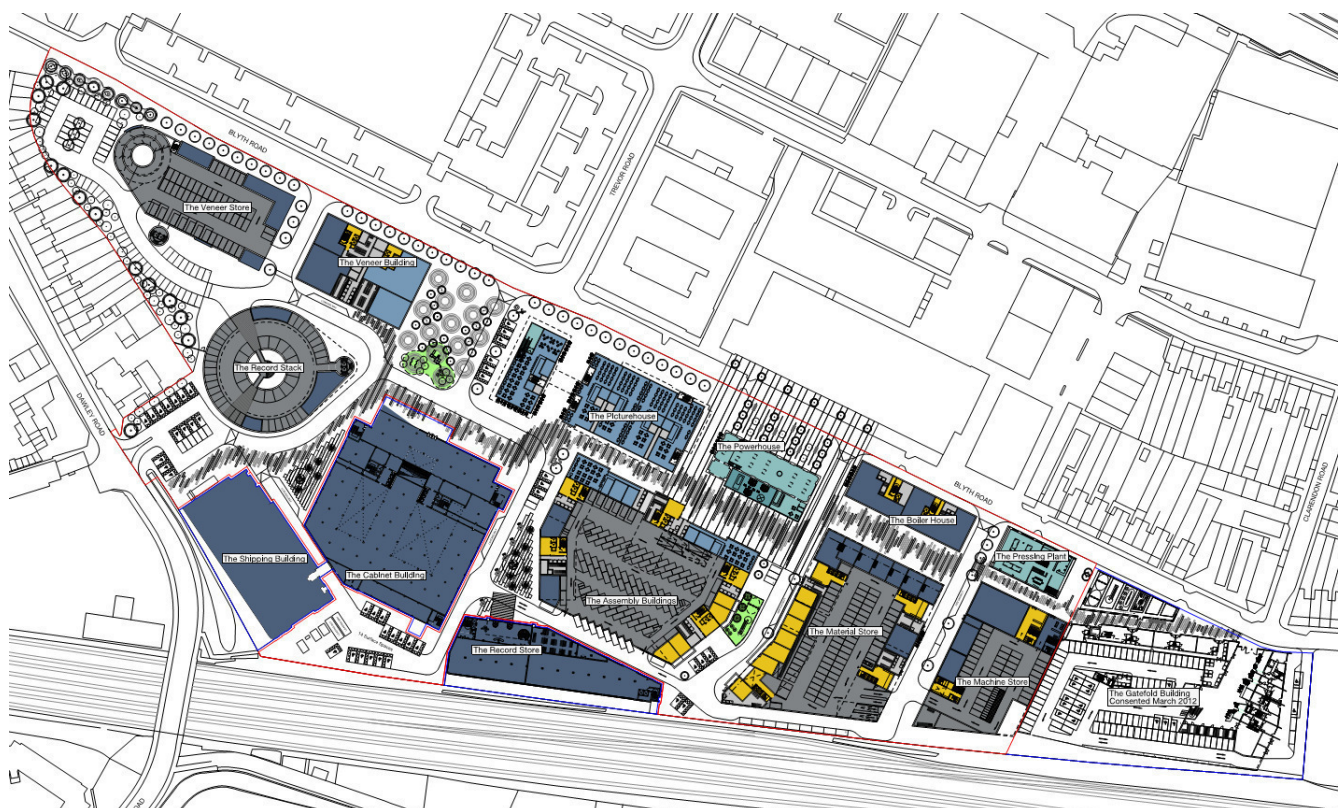
- "1. Prior to occupation of more than 300 dwellings or prior to 31st December 2018, (whichever is earliest) the Owner shall carry out a review of the 'Old Vinyl Factory Outline Sustainable Energy Assessment' reference 5319.003.006, Issue 3, 14<sup>th</sup> November 2012 and shall produce an energy strategy for the Development ('The Energy Strategy'). The Energy Strategy shall demonstrate how savings of a minimum of 394 tonnes per annum (unless some other figure is agreed in writing having regard to the savings which need actually to be made compared with the assumptions made as part of the Planning Application) can be achieved for the lifetime of the Development. The Energy Strategy shall be submitted to the Council for approval. The Owner shall make such amendments to the Energy Strategy as is reasonably required by the council.*
- 2. The Energy Strategy shall help ensure that all phases of the Development (completed or future) can achieve the relevant BREEAM and Code for Sustainable Homes credits for energy sections of said code.*
- 3. The Energy Strategy shall prioritise the use of Combine Heat & Power Systems ("CHP") to achieve 394 tonnes per year in CO2 reduction in accordance with the 'Old Vinyl Factory Outline Sustainable Energy Assessment' reference 5319.003.006, Issue 3, 14<sup>th</sup> November 2012. The energy strategy shall ensure that any complete phases retrospectively reach the 2011 London Plan energy requirements. The Energy Strategy shall also ensure that any future phases will achieve the 2011 London Plan requirements as a minimum.*
- 4. The Energy Strategy shall propose all necessary measures required to be installed to comply with the energy savings of a minimum of 394 tonnes per year. All measures necessary to achieve the energy savings of 394 tonnes per year shall be carried out and completed and made operational prior to the commencement of Phase 6.*
- 5. In the event that the Owner fails to deliver the energy saving of 394 tonnes per year by the year ending 31 December 2018 then the Owner shall pay the Council a carbon offset payment at a cost of £46/carbon tonne per year until such a time as the energy saving is delivered or of the lifetime of the development (10 years residential, 60 years non-residential)".*

## OLD VINYL FACTORY MASTERPLAN SITE DESCRIPTION

The Outline Sustainable Energy Assessment is based on the approved Masterplan phasing and usage mix.

The Masterplan consists of:

- Refurbished office buildings, some locally listed
- New employment spaces at a variety of scales
- Up to 510 residential units
- Cafés, bars, leisure and arts spaces along the pedestrian route and Blyth Road to encourage integration with the wider Hayes community
- Re-provided car parking (including surface, multi storey and integral to new buildings)
- An active new pedestrian route (The Groove) connecting through the site and towards the town centre
- A sequence of planned landscaped spaces (squares, groves and playgrounds) linked by the new pedestrian route (The Groove).



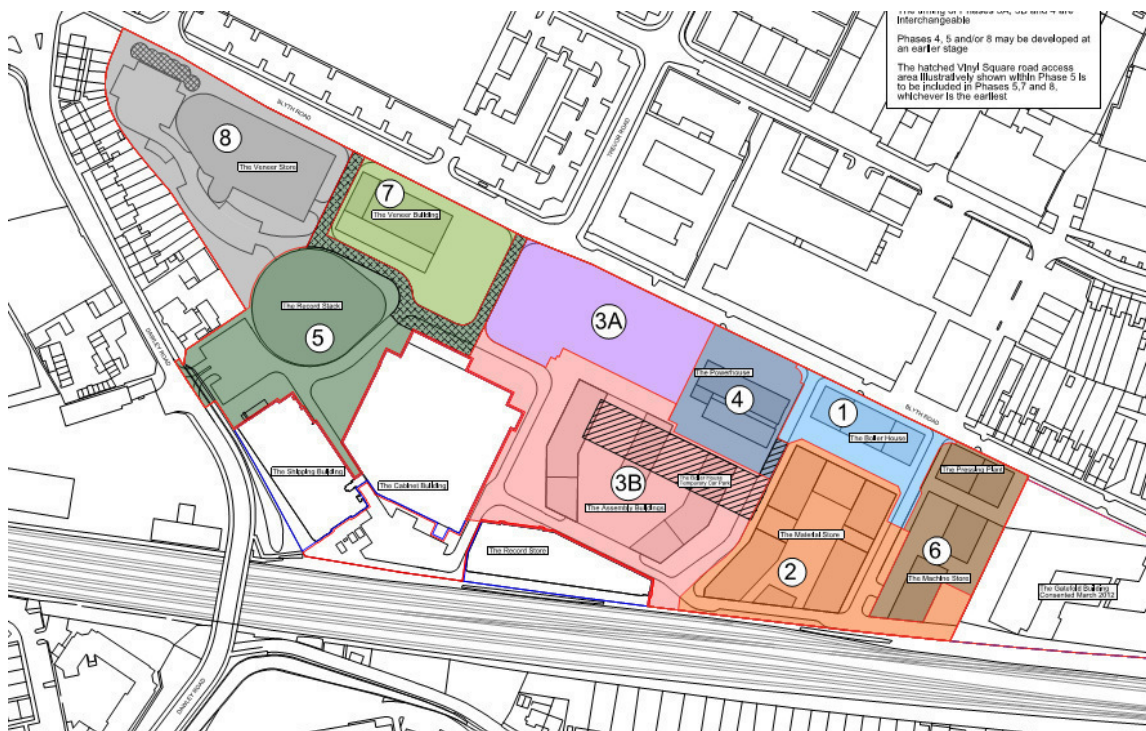
Outline Masterplan (2012)



| Schedule of Buildings                                                                                                                                                                                                             |                                                |                                               |            |                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|------------|--------------------------------------|
| BUILDING NAME                                                                                                                                                                                                                     | BUILDING TYPE<br>(PREDOMINANTLY)               | APPROX. TREATED FLOOR<br>AREA, M <sup>2</sup> |            | ANTICIPATED<br>YEAR OF<br>OCCUPATION |
|                                                                                                                                                                                                                                   |                                                | DWELLINGS                                     | COMMERCIAL |                                      |
| Shipping Building                                                                                                                                                                                                                 | Existing commercial (to remain as is)          |                                               | 8,250      | Occupied                             |
| Gatefold (not part of this application)                                                                                                                                                                                           | Predominantly Dwellings                        | 9,250                                         |            | Occupied                             |
| Pressing Plant                                                                                                                                                                                                                    | New Cinema (existing building façade retained) |                                               | 625        | 2020                                 |
| Material Store                                                                                                                                                                                                                    | Dwellings (with some commercial)               | 11,150                                        | 825        | Occupied                             |
| Machine Store                                                                                                                                                                                                                     | Dwellings (with some commercial)               | 4,100                                         | 2,350      | 2020                                 |
| Boiler House                                                                                                                                                                                                                      | Dwellings                                      | 3,044                                         |            | Occupied                             |
| Powerhouse                                                                                                                                                                                                                        | Existing commercial (to be refurbished)        |                                               | 574        | 2020                                 |
| University Technical College                                                                                                                                                                                                      | New commercial/education                       |                                               | 4,483      | Occupied                             |
| Veneer Building                                                                                                                                                                                                                   | Dwellings (with some commercial)               | 6,200                                         |            | 2022                                 |
| Cabinet Building                                                                                                                                                                                                                  | Existing commercial (to be refurbished)        |                                               | 20,300     | 2023                                 |
| Assembly Buildings                                                                                                                                                                                                                | Dwellings (with some commercial)               | 10,719                                        |            | 2022                                 |
| The Record Store                                                                                                                                                                                                                  | Existing commercial (to be refurbished)        |                                               | 8,700      | Occupied                             |
| The Veneer Store Carpark                                                                                                                                                                                                          | New car park with new commercial               |                                               | 314        | 2023                                 |
| The Music Box Carpark                                                                                                                                                                                                             | New car park (with new commercial)             |                                               | 150        | Complete (comm. 2019)                |
| <p>N.B. the floor area stated is the 'treated floor area' not the gross area based on the masterplan, i.e. the area of the building that is provided with space heating and is subject to Part L of the Building Regulations.</p> |                                                |                                               |            |                                      |

## PHASING

### APPROVED PHASING PLAN



The Gatefold Building, Shipping Building, Cabinet Building and Record Store are existing buildings and do not form part of the permitted development. However, for the purposes of the assessment of the site wide energy scheme it is assumed that, with the exception of the Cabinet Building, these buildings will be connected to the site wide system when feasible. As such, it has been possible to provide connection to the Record Store. Approval for the Veneer Store car park has also been granted by the council on the basis that the Veneer Store will not connect to the energy centre.

The Shipping Building is currently occupied and fully serviced by existing plant and equipment.

**STRUCTURE OF ENERGY REPORTING**

The structure of this report is based on the approved Outline Sustainable Energy Assessment. The energy consumption and carbon emissions from the buildings on the site are based on the latest energy calculations or consumption data where possible, otherwise the same benchmark data as used in the Outline Sustainable Energy Assessment is maintained.

Preliminary modelling to provide energy calculations for the designed/constructed residential units has been undertaken using SAP compliant software for a representative sample of units. Modelling for the non-residential spaces has been undertaken using the NCM compliant software package Tas, with an assumed 'worst case' fit out.

The report includes the following sections:

- Baseline energy consumption.
- Be Lean carbon emissions, including the carbon savings through passive design and energy efficiency measures.
- Be Clean assessment for the site, including the impact of phasing.
- Be Green assessment for the site.



## 2.0 BASELINE ENERGY CONSUMPTION AND CARBON EMISSIONS

The baseline energy consumption and carbon emissions from the completed thermal modelling to date is combined amongst the performance of designed buildings on the site, based on their latest energy calculations or consumption data where possible; otherwise, the same benchmark data as used in the Outline Sustainable Energy Assessment is maintained.

The baseline case against which carbon savings are assessed is the proposed dwellings designed to conform to Part L1A of the Building Regulations and proposed non-residential spaces designed to meet Part L1B of the Building Regulations. This baseline case is derived from the Target Emissions Rate (TER) and represents a building with the same form, function and geometry, but with standard 'notional' parameters for building fabric performance and building services configurations/efficiencies.

The following 'regulated' energy uses are considered in the baseline energy analysis:

- Space Heating/Cooling (where relevant)
- Water Heating
- Ventilation
- Fans, Pumps and Controls
- Lighting (internal)

The Outline Energy Strategy confirmed that benchmarks stated within in the London Renewables Toolkit are out of date, therefore the more up to date values stated in CIBSE Guide F were used. The CIBSE benchmarks do not differentiate between regulated and non-regulated energy use.

The design and construction for some of the buildings on the site has progressed such that it is possible to use updated figures which provide a more robust indication of the site-wide energy performance. This includes Boiler House, Power House, Material Store, UTC, Music Box and Machine Store & Pressing Plant. The Veneer Building is yet to be designed, so benchmark figures are used; the Shipping Building, Cabinet Building and Record Store do not form part of this assessment.

The carbon emissions from the existing commercial buildings that are not part of the Masterplan are not included in the calculation of the regulated emissions. However, the following table shows the baseline carbon emissions for the entire development including the non-regulated emissions of the new build elements and the existing buildings.



## REGULATED EMISSIONS

### Summary of Baseline Regulated Carbon Emissions (New Build Only)

| Building Use       | Area m <sup>2</sup> | Regulated Baseline Carbon Emission Rate kgCO <sub>2</sub> /m <sup>2</sup> | Baseline Regulated Carbon Emissions kgCO <sub>2</sub> |
|--------------------|---------------------|---------------------------------------------------------------------------|-------------------------------------------------------|
| Boiler House       | 3,044               | 17.9                                                                      | 54,488                                                |
| Material Store     | 12,038              | 16                                                                        | 192,608                                               |
| Music Box          | 150                 | 19                                                                        | 2,850                                                 |
| Machine Store      | 1,727               | 16                                                                        | 27,632                                                |
| Assembly Buildings | 10,719              | 16                                                                        | 171,504                                               |
| Veneer Store       | 6,200               | 16                                                                        | 99,200                                                |
| Power House        | 574                 | 157                                                                       | 90,378                                                |
| Pressing Plant     | 2,690               | 80                                                                        | 215,179                                               |
| Restaurants        | 1,793               | 120                                                                       | 215,179                                               |
| New Commercial     | 6,171               | 25                                                                        | 154,275                                               |
| Veneer Car Park    | 314                 | 19                                                                        | 5,966                                                 |
| <b>Total</b>       | <b>62,923</b>       |                                                                           | <b>1,509,300</b>                                      |

N.B. the floor area stated is the 'treated floor area', i.e. the area of the building that is provided with space heating and is subject to Part L of the Building Regulations.

Depending on the level of design/information available, the energy consumption for the various buildings on the site is taken from the latest energy model, performance data or Table 20.1 of CIBSE Guide F, 3rd Edition, May 2012.

## SUMMARY OF CARBON EMISSIONS - BASELINE

### OLD VINYL FACTORY SITE

The majority of the carbon emissions result from the non-regulated emissions associated with the new build elements and from all sources in the existing occupied and refurbished commercial buildings.

### GLA Table 1: Carbon Dioxide Emissions after each stage of the Energy Hierarchy

| TOVF Development | Carbon dioxide emissions (tonnes CO <sub>2</sub> per annum) |             |
|------------------|-------------------------------------------------------------|-------------|
|                  | Regulated                                                   | Unregulated |
| Part L Compliant | 1,509                                                       | 2,436       |



### 3.0 BE LEAN – REDUCE ENERGY DEMAND

The first step in pursuing an energy efficient and low-carbon design under the Energy Hierarchy is to minimise the development's energy demand. This is achieved both by passive measures and the introduction of more energy efficient plant and services. Any measures achieved at this stage will reduce the extent of measures or size of plant needed to address the subsequent 'Be Clean' and 'Be Green' stages. In establishing the proposed energy strategy and services strategy for the development, the requirement to minimise energy consumption through available building fabric and building services measures has been considered a priority.

The following is a summary of the measures implemented at the 'Be Lean' stage is given for dwellings and other commercial spaces.

#### DWELLINGS

The dwellings will be constructed to be energy efficient and achieve compliance with Building Regulations Part L without the need for low or zero carbon technologies. The detailed energy and sustainability approach for all buildings, except the Veneer Building which is yet to be progressed, has been approved by the council. As a summary, this level of performance has been/will be achieved through the use of energy efficient design, including:

- Better U-values, exceeding the requirements of Part L
- Air permeability of  $<5\text{m}^3/\text{h}/\text{m}^2$
- Best practice system efficiencies for heating
- Best practice system efficiencies for ventilation system(s), including mechanical ventilation with heat recovery where appropriate
- Highly efficient light fittings, including LED and efficient control technology where appropriate
- Enhanced control of services and lighting
- The mechanical ventilation units, where provided, will incorporate the following design features:
  - Heat recovery of at least 91% for the residential units.
  - Specific Fan Powers of no greater than 0.42 W/l/s.
  - Summer bypass to assist with summertime cooling
  - Variable speed controls with summertime cooling function

#### NON-RESIDENTIAL

New commercial buildings have been/will be constructed to exceed the limiting requirements of the Building Regulations. Ventilation systems will incorporate heat recovery devices with an efficiency of 75% or greater. Cooling, where provided, will use high efficiency chillers or packaged refrigeration systems.



The latest in lighting technology will be used with the best practice luminaires, lamps, and controls. Daylight linked controls will be provided where appropriate.

The existing commercial buildings will be refurbished to a standard that meets or exceeds the limiting requirements of the building regulations as and when it is commercially viable to do so.

The Shipping Building is currently occupied, and has recently undergone some refurbishment, so any further work will be planned around tenancy agreements.

For the purpose of the outline energy strategy, benchmark energy consumption figures from CIBSE Guide F were used for any existing or shell spaces, such as the Cabinet Building. This is because the nature of the businesses that will occupy the buildings are unknown, therefore this is considered an appropriate approach.

#### **CARBON EMISSIONS REDUCTIONS - BE LEAN**

This section of the Energy Statement encompasses the first stage of the Energy Hierarchy, identifying measures to reduce the 'baseline' energy demand for the development by passive and active means.

In establishing the proposed energy strategy and servicing strategy for the development, opportunities to minimise energy consumption through available building fabric and building services measures has been considered a priority. Any measures implemented at this stage will reduce the extent of measures or size of plant needed to address the subsequent 'be clean' and 'be green' stages.

**GLA Table 1: Carbon Dioxide Emissions after each stage of the Energy Hierarchy**

| TOVF Development                      | Carbon Dioxide Emissions (Tonnes CO <sub>2</sub> per annum) |             |
|---------------------------------------|-------------------------------------------------------------|-------------|
|                                       | Regulated                                                   | Unregulated |
| Building Regulations Part L Compliant | 1,509                                                       | 2,436       |
| After energy demand reduction 'Lean'  | 1,452                                                       | 2,436       |

**GLA Table 2: Carbon Dioxide Emissions savings from each stage of the Energy Hierarchy**

| TOVF Development                       | Regulated Carbon Dioxide Savings   |      |
|----------------------------------------|------------------------------------|------|
|                                        | (Tonnes CO <sub>2</sub> per annum) | (%)  |
| Energy demand reduction savings 'Lean' | 57                                 | 3.8% |

**4.0 BE CLEAN – SUPPLY ENERGY EFFICIENTLY**

The Outline Sustainable Energy Assessment included a review of the feasibility of connection into district energy schemes and the provision of a communal heating system to serve the Old Vinyl Factory site. These assessments are repeated in this report, with updates as necessary to reflect the detail of the design of progressed buildings and any other changes, including those external to the site, which may have an impact on the strategy.

**EXISTING DISTRICT ENERGY SCHEMES**

A review of the London Heat Map has shown that there is a future planned district heating network adjacent to the site in Blyth Road. The Hillingdon-Hayes network is proposed to run from the junction of Blyth Road and Trevor Road to Hayes Swimming Pool at the northern end of the town via Station Road and Hayes Town centre. The proposed route passes to the north of the Power House.

In addition to this, the area to the south of the railway line has been identified as being an 'opportunity' for the provision of a district heating scheme.

**Future Connections**

Should an opportunity for connection into a future Hillingdon-Hayes network arise, the feasibility of such connections will need to be explored in full. In the event of connection to the system being viable, either the site (via the Powerhouse) will become a supplier (exporter) of energy to the network, or if it is importing energy, some of the existing plant could be removed to create space for the district energy system interface plant. The current provider of the energy centre within the Power House is aware of the previous discussions relating to the wider heat network and would be receptive to other opportunities.

The incoming pipework to the site boundary would need to be of sufficient capacity to allow the new network to connect directly into this system, if that is the preferred method at the time of connection.

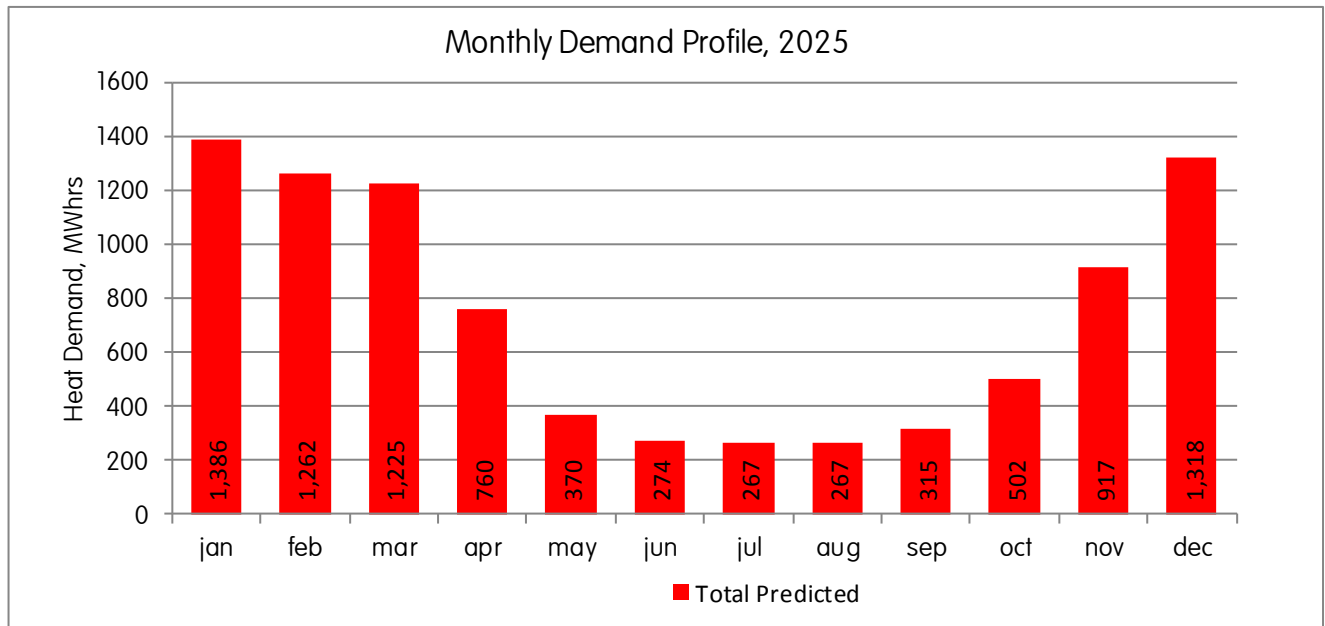
**COMMUNAL HEATING****ENERGY DEMAND PROFILE**

The domestic hot water demand for the proposed residential buildings will provide a year-round background demand for heat. This is supplemented during the winter by the space heating demand from the proposed dwellings and the various new and existing commercial buildings.

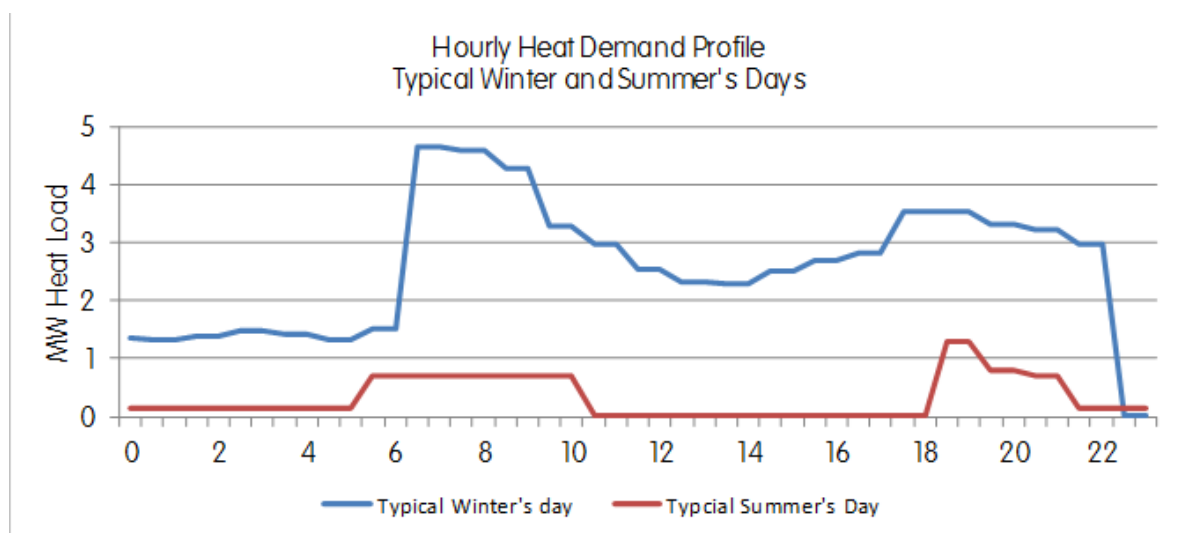
Due to the relative size of the commercial buildings, and the fact that existing buildings such as the Shipping Building, are not constructed to modern standards the space heating demand is approximately treble the domestic hot water demand. Whilst the summer to winter load variation is greater than would be preferred for a communal heating system with a CHP lead, the differing daily heat use profile for the dwellings and commercial areas helps to mitigate the annual imbalance.

## S106 SCHEDULE 13 – ENERGY CENTRE DELIVERY

The predicted energy demand profile does not include the Shipping Building and has been amended to include for the omission of the Veneer Store and the Cabinet Building, in line with the approach previously agreed with the council.



Typical monthly heat demand profile, when complete.



Typical daily heat demand profiles for whole site when complete.

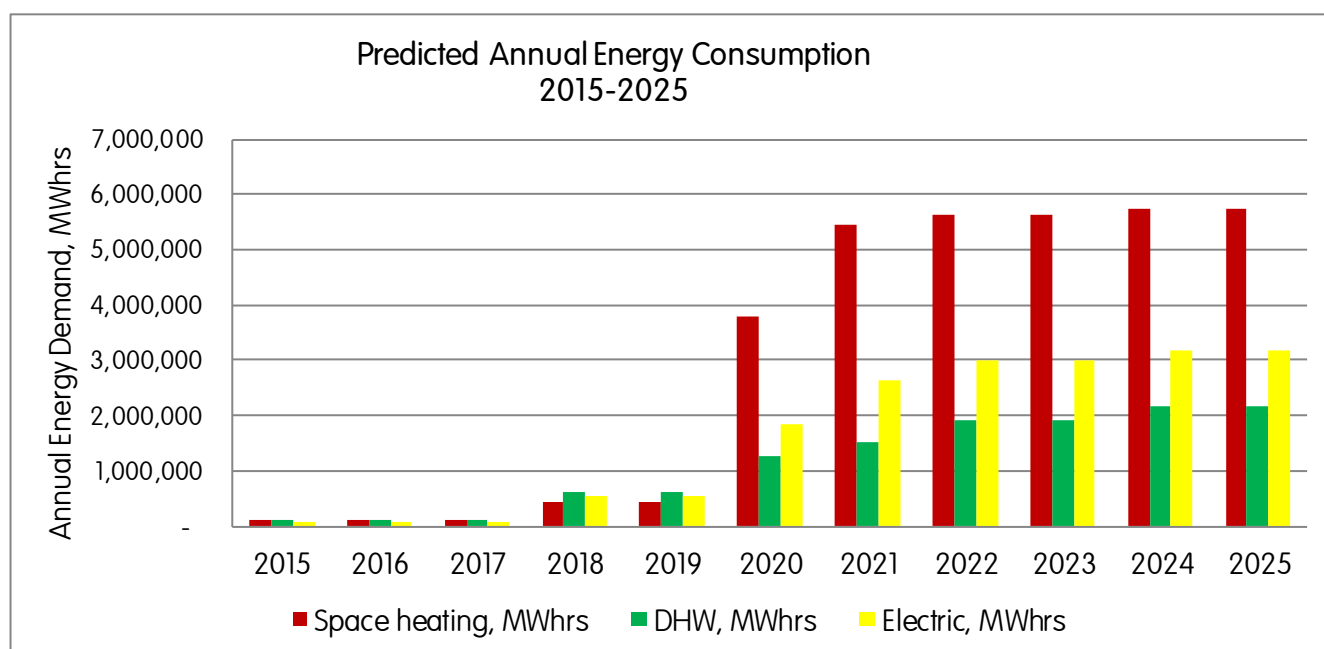


## PROPOSED PLANT DESCRIPTION

Please refer to Vital Energi's information, summary included in Appendix A.

## PHASING

The phased addition of the buildings and their energy demands results in a stepped growth of energy demand during the construction period.



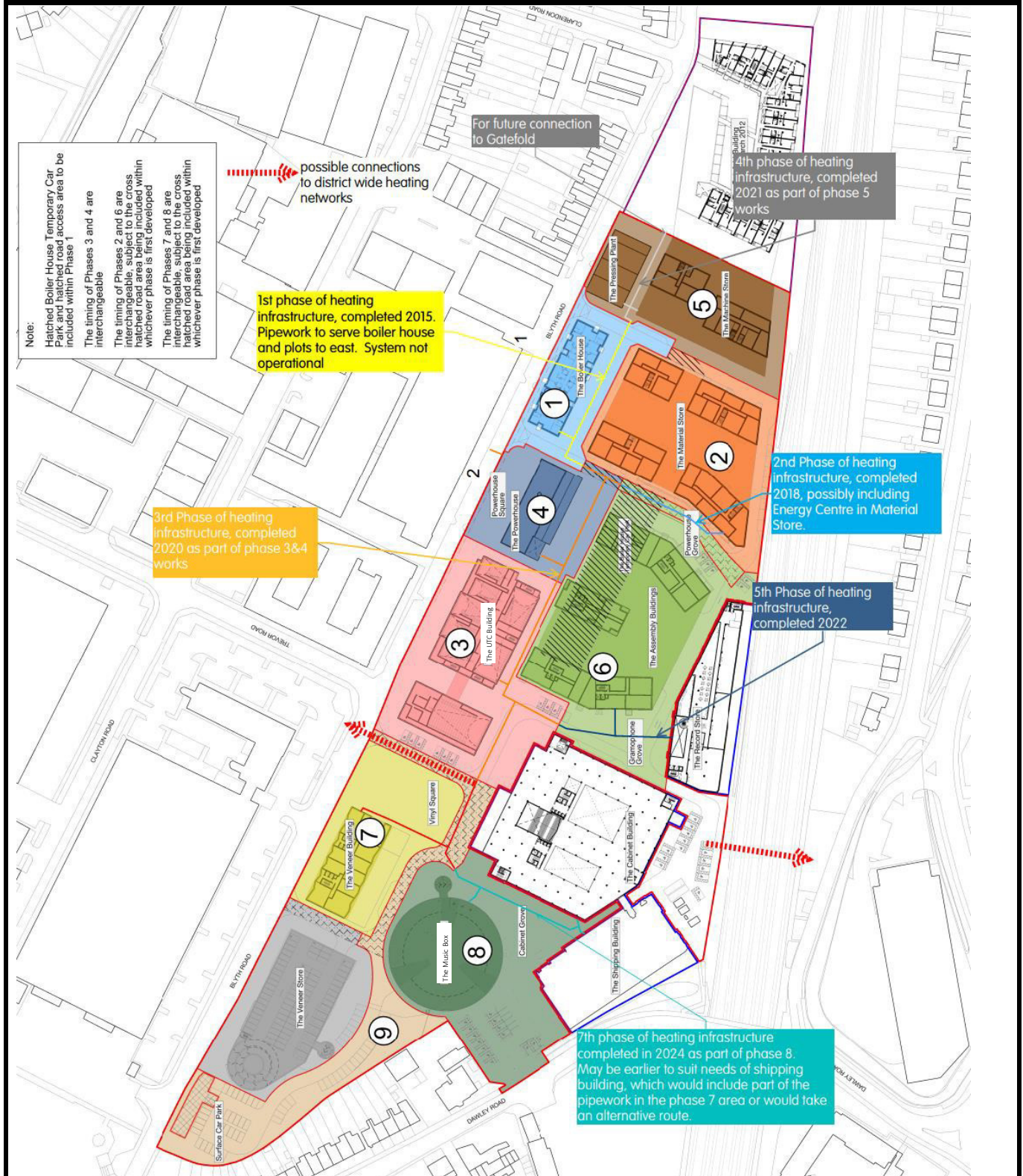
### Predicted annual delivered energy demand to 2025

The heat demand of the development is predicted to be introduced gradually over a period of 7 years; the initial demand is predicted to increase by a factor of 38 by the time that the final phase is connected to the site wide system. Of key importance to the viability of the CHP is the domestic hot water demand, which increases by a factor of 11 from installation beyond 2020.

The phasing plan shows that initially the connected demand could be approximately 109MWhrs of domestic hot water and approaching 95MWhrs of heat demand. After 2020 the connected demand is predicted to increase beyond approximately 1,257MWhrs of domestic hot water and 3,726MWhrs of space heating.

The central energy centre will provide the heat demand now that the plant is up and running and the district heating mains will be progressively installed to allow connection to the buildings as they are completed or occupied.

## PROPOSED NETWORK AND PHASING



**CARBON EMISSIONS REDUCTIONS - BE CLEAN**

Vital Energi's information has been used to provide an indication of plant and equipment capacities and the associated carbon savings. For a site wide system serving all buildings, the CHP was predicted by Vital Energi to provide a total carbon saving (regulated and non-regulated emissions) of at least 630 tonnes CO<sub>2</sub> a year in comparison to a traditional gas fired boiler solution. This assumes that the CHP unit is capable of meeting at least 30% of the annual heat demand.

This carbon saving is attributable to each building in different quantities, for this assessment it has been assumed that the carbon savings are proportional to the total energy demand of each element of the development. However, a more detailed analysis of energy use available for much of the site shows that the proportion of heat consumed by the proposed dwellings is greater than calculated using the simplistic assessment as most of the CHP heat output during the summer is delivered to the dwellings only for the domestic hot water generation. This is a predicted operational figure and does not align entirely with the results of this, which is based on a more theoretical design appraisal using standardised software. However, it is within a similar range.

The residential buildings will connect to the site-wide energy system, with the space heating and hot water demands of all residential units provided from the central energy centre in the Power House. A plate heat exchanger, with associated pumps and controls will be provided to ensure a physical separation exists between the district heating system and the relevant buildings.

The shell only retail units will be provided with capped connections to the site-wide energy system, as well as other utilities.

The tables below indicate the site wide Carbon emissions reductions at the 'Be Clean' stage for TOVF Masterplan. The results in these tables include updated modelling results for those phases which have achieved reserved matters consent, whilst the assumptions made within the original outline consent have been maintained for phases which have not.

**GLA Table 1: Carbon Dioxide Emissions after each stage of the Energy Hierarchy**

| TOVF Development                      | Carbon dioxide emissions (Tonnes CO <sub>2</sub> per annum) |             |
|---------------------------------------|-------------------------------------------------------------|-------------|
|                                       | Regulated                                                   | Unregulated |
| Building Regulations Part L Compliant | 1,509                                                       | 2,436       |
| After energy demand reduction 'Lean'  | 1,452                                                       | 2,436       |
| After CHP 'Clean'                     | 1,014                                                       | 2,073       |

**GLA Table 2: Carbon Dioxide Emissions savings from each stage of the Energy Hierarchy**

| TOVF Development                       | Regulated Carbon Dioxide Savings   |       |
|----------------------------------------|------------------------------------|-------|
|                                        | (Tonnes CO <sub>2</sub> per annum) | (%)   |
| Energy demand reduction savings 'Lean' | 57                                 | 3.8%  |
| Savings from CHP 'Clean'               | 438                                | 30.1% |

**5.0 BE GREEN – RENEWABLE ENERGY FROM PHOTOVOLTAIC PANELS**

The outline Energy Strategy concluded that photovoltaic (PV) panels would be a suitable technology for the site. PV is compatible with a CHP and communal energy system.

Consideration has been given to installing PV panels on each building. The Outline Sustainable Energy Assessment stated that an assumed area equivalent to 20% of the available roof area would be usable for PV. This accounts for overshadowing, access and obstructions.

Some of the phases that have gone through the reserved matters planning process and have been granted full planning consent have done so without the need for PV. This is because it has been possible to meet or exceed the relevant energy performance and CO<sub>2</sub> emissions targets already, by implementing the Energy Hierarchy up to the Be Clean stage. The approach for all buildings has been approved by the council for all buildings, except for the Veneer Building which has yet to be progressed.

The requirement within Schedule 13 of the S106 for the site to achieve a CO<sub>2</sub> reduction of 394 tonnes has been exceeded at the Be Clean stage of the Energy Hierarchy, by implementing passive and active demand-reducing measures (Be Lean) and with the CHP-led energy centre. The results in the tables below reflect this whilst including an allowance for the PV proposed in the Outline Sustainable Energy Assessment.

**THE OLD VINYL FACTORY SITE****GLA Table 1: Carbon Dioxide Emissions after each stage of the Energy Hierarchy**

| TOVF Development                      | Carbon Dioxide Emissions (Tonnes CO <sub>2</sub> per annum) |             |
|---------------------------------------|-------------------------------------------------------------|-------------|
|                                       | Regulated                                                   | Unregulated |
| Building Regulations Part L Compliant | 1,509                                                       | 2,436       |
| After energy demand reduction 'Lean'  | 1,452                                                       | 2,436       |
| After CHP 'Clean'                     | 1,014                                                       | 2,073       |
| After Renewable Energy 'Green'        | 982                                                         | 2,073       |

**GLA Table 2: Carbon Dioxide Emissions savings from each stage of the Energy Hierarchy**

| TOVF Development                       | Regulated Carbon Dioxide Savings   |       |
|----------------------------------------|------------------------------------|-------|
|                                        | (Tonnes CO <sub>2</sub> per annum) | (%)   |
| Energy demand reduction savings 'Lean' | 57                                 | 3.8%  |
| Savings from CHP 'Clean'               | 438                                | 30.1% |
| Renewable energy savings 'Green'       | 33                                 | 3.2%  |
| Total cumulative savings               | 527                                | 34.9% |

The above tables indicate that with further detail applied to the proposals, the originally consented scheme target values for improvement in annual Carbon emissions is being exceeded.



## 6.0 CONCLUSION

The updated CO<sub>2</sub> emissions reduction calculations and the results presented in this report demonstrate that Schedule 13 of the Section 106 Agreement has been met.

This has been achieved by following the London Plan Energy Hierarchy. Firstly, the Be Lean measures achieve a reduction of 57 tCO<sub>2</sub> per annum. The energy efficiency measures include: improved fabric insulation; improved air tightness; improved glazing performance; high efficiency mechanical ventilation with heat recovery; energy efficient lighting and controls.

Connecting the relevant buildings to the site wide CHP-led energy centre, including all residential units and capped connections for the majority of non-residential spaces, has resulted in a reduction of 438 tCO<sub>2</sub> per annum.

As shown on page 6 of this document, there are 5 parts to Schedule 13. Parts 1, 3 and 4 each require the development to achieve a CO<sub>2</sub> emissions reduction of 394 tonnes per annum. As shown in this document, the scheme achieves a CO<sub>2</sub> emissions reduction of 495 tonnes per annum from Be Lean and Be Clean measures alone (57 tCO<sub>2</sub> + 438 tCO<sub>2</sub>). Furthermore, when the reductions from PV are included, the total saving increases to 527 tCO<sub>2</sub> per annum.

Part 2 of Schedule 13 requires the Energy Strategy to enable all phases of the development to meet the relevant ratings within BREEAM and the Code for Sustainable Homes. As confirmed in the reserved matters applications for each phase, the required BREEAM and Code for Sustainable Homes ratings have been targeted, with the relevant Credits for Energy Performance and low and zero carbon technologies sought.

Part 5 of Schedule 13 includes the requirement for a carbon offset payment to be made in the event of the carbon saving of 394 tCO<sub>2</sub> per annum not being met. As confirmed in this document, the carbon saving will be exceeded over the lifetime of the development, therefore, the requirement has been achieved and a carbon offset payment is not required.

It is noted that the carbon savings have been significantly exceeded regardless of whether or not the retail unit within the Music Box car park building is connected to the district heating system. The potential saving from connecting to the district system is estimated to be less than 1 tonne CO<sub>2</sub> per annum and, as such, it is considered that the benefit of connection will be minimal. The practical and cost implications are therefore being explored by the developer and once fully considered, this connection will be discussed separately with the Council.

## UK locations:

---

Newcastle upon Tyne

**London**

Glasgow

Huddersfield

Birmingham

Guildford

## International locations:

---

Dubai

Sydney



**Telephone** +44 (0) 208 538 9555

**Email** [london@patrickparsons.co.uk](mailto:london@patrickparsons.co.uk)

**Online** [patrickparsons.co.uk](http://patrickparsons.co.uk)