Sustainability Report - Planning Stage

On behalf of
Ironborn Real Estate Limited
for
Proposed Apartment Development
at
Sector 3, Aiken's Village, Stepaside, Co. Dublin
(Dun Laoghaire-Rathdown County Council)

Project Reference: 19143
Document Reference: 19143-SR – rev5

Date:	**Revision:**	**Prepared By**		**Checked By:**	
13/01/2021	1	Shane Mullins	RF	Simon Killeen	SK
09/03/2021	2	Shane Mullins	RF	Simon Killeen	SK
22/07/2022	3	Shane Mullins	RF	Simon Killeen	SK
02/08/2022	4	Shane Mullins	RF	Simon Killeen	SK
22/08/2022	5	Shane Mullins	RF	Simon Killeen	SK

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1. Executive Summary for Stepaside Apartments

Sustainability and Energy Efficiency Considerations:

From the outset of the design process, an integrated approach has been adopted involving all members of the design team with focus and a holistic approach to sustainable design. Our goal has been to deliver a building that is designed in an environmentally sensitive manner while meeting the required comfort conditions of the occupiers. It is the intention of the team that this approach will be continued through the detailed design process to ensure the targets identified in this report are achieved.

To this end we have modelled a selection of 'worst case' apartment types for this development in SEAI's DEAP version 3 software and the results have confirmed that these apartments will achieve a BER rating of A2 and meet the Carbon Performance Coefficient (CPC) and Energy Performance Coefficient EPC requirements the Building Regulations Part L 2021. Part L compliance reports for these sample apartment types are included in the appendices of this report

Our aim is to provide an NZEB development in full compliance with Building Regulations Part L 2021 by utilising the following:

1. Superior U values to be achieved for glazing and facades for enhanced insulating and solar performance.
2. Superior U values to be achieved on all building fabric aspects.
3. Air tightness of construction will be in compliance with CIBSE TM23 to achieve the required standard or better.
4. Use of renewable resources will be utilised.
5. Electric heating will be utilised throughout the development.
6. Exhaust air heat pumps will be used for domestic water heating in apartments
7. Mechanical Heat recovery Ventilation will be used in Apartments.
8. Energy will be controlled, metered and monitored by use of intelligent controls
9. Low energy lighting with presence detection will be utilized in Landlord areas.
10. Motors will include variable speed drive arrangements.
11. A BEMS system will be provided to control landlord plant
12. 20% Electric Vehicle spaces will be provided for the development with provision for future expansion.

The building's will include the latest technology that relates to sustainability, including both active and passive system aspects and will use a series of these systems as outlined later in this report.

With the introduction of the Building Energy Rating system for evaluating the energy performance of all buildings has led to an increased focus on the energy usage of developments currently being constructed. The following document outlines the sustainability strategy for the Stepaside development.

The Building Regulations Part L Conservation of Fuel and Energy is the regulatory framework through which the minimum performance standards for energy consumption and carbon emissions are set for new buildings. The requirements are laid down in terms of envelope performance, plant efficiencies and control strategies.

2. Introduction:

The proposed development for a Strategic Housing Development at 2no. contiguous sites (c. 3.39 Ha), at 'Sector 3', Aikens Village in the Townlands of Woodside and Kilgobbin, Stepaside, Co. Dublin.

The site for proposed residential development is generally bounded by Thornberry Road to the north, by Atkinson Drive and the adjoining open space lands to the west, Sandyford Hall residential development adjacent Ferncarraig Avenue to the east and by Village Road and Griannan Fidh residential development to the south (Townland of Woodside). The site for proposed below ground wastewater storage tank is on open space lands generally bounded Griannan Fidh residential development to the north, Sandyford Hall residential development to the east and open space lands (including detention basin) to the south and west (Townland of Kilgobbin)

The development will consist of: -

438no. 'Build-to-Rent' apartment units (154no. 1 bedroom units and 284no. 2 bedroom units) arranged in 9no. blocks ranging in height from 2 – 8 storeys over 2no. independent single level basements. Private patios / terraces and balconies are provided for some apartment units (not all units have a patio, terrace or balcony). Upper level balconies are proposed on elevations of all multi-aspect apartment buildings.

- Blocks A – D are located above Basement 1 (c. 6,002 sq. m gross floor area) and Blocks F – J are above Basement 2 (c. 5,058 sq. m gross floor area).
- Provision 1no. childcare facility (c. 514.9 sq. m gross floor area) in Block D.
- Provision of resident amenity space / communal areas (c. 1,455.7 sq. m gross floor area) in Block C and Block G.

And all associated and ancillary site development, infrastructural, landscaping and boundary treatment works including: -

- New vehicular access to / from Basement 1 from Atkinson Drive and new vehicular access to / from Basement 2 from Thornberry Road.
- Provision of c. 9,799 sq. m public open space, including a public plaza onto Village Road and improvement works to existing open space area to the north of existing Griannan Fidh residential development.
- Provision of 350no. car parking spaces including basement parking, set down spaces for proposed childcare facility and repositioning of set down area on Atkinson Drive.
- Provision of 669no. bicycle parking spaces.
- Provision of 14no. motorcycle parking spaces.
- Communal bin storage and plant provided at basement level and additional plant provided at roof level.
- Provision of below ground wastewater storage tank (c. 500m^3) and associated connection to the wastewater networks including ancillary above ground kiosk and appropriate landscaping on open space lands to the south of Griannan Fidh residential development.

2.1 Building Regulations Part L 2021 (Nearly Zero Energy Buildings)

The Building Regulations Part L 2021, Conservation of Fuel & Energy for buildings – Dwellings, will set out the parameters for residential building design and related energy performance and will be applied or improved upon for the Stepaside Development.

The 2021 Part L Regulations set energy performance requirements to achieve Nearly Zero Energy Buildings (NZEB) performance as required by Article 4 (1) of the Directive for new buildings, as follows:

All Apartments are to achieve an A2 BER result.

"A building shall be designed and constructed so as to ensure that the energy performance of the building is such as to limit the amount of energy required for the operation of the building and the amount of Carbon Dioxide (CO2) emissions associated with this energy use insofar as is reasonably practicable".

The primary requirements of Part L 2021 are stated as follows:

- Application of a methodology for the calculation of the energy performance of buildings on the basis of a general framework set out in Annex I to the EPBD (recast).
- Setting of minimum energy performance requirements for buildings and the application of these requirements to new buildings to achieve Nearly Zero Energy Buildings;
- Ensuring where buildings undergo major renovation that the renovated systems- and components meet minimum thermal performance requirements in so far as this is technically, functionally and economically feasible.
- Ensuring that when a building element that forms part of the building envelope and has a significant impact on the energy performance of the building envelope, is retrofitted or replaced the energy performance of the building element meets minimum energy performance requirements in so far as this is technically, functionally and economically feasible.

In order to comply with Part L 2021, the development must meet the following requirements (Regulation 8).

For new dwellings, the nearly zero energy performance requirements of this regulation shall be met by the following requirements and this sustainability report is a summary of how compliance will be achieved.

(a) providing that the energy performance of the building is such as to limit the calculated primary energy consumption and related Carbon Dioxide (CO2) emissions to a Nearly Zero Energy Building level insofar as is reasonably practicable, when both energy consumption and Carbon Dioxide emissions are calculated using the Domestic Energy Assessment Procedure (DEAP) published by Sustainable Energy Authority of Ireland;

(b) providing that, the nearly zero or very low amount of energy required is covered to a very significant extent by energy from renewable sources produced on-site or nearby;

(c) *limiting the heat loss and, where appropriate, availing of the heat gains through the fabric of the building;*

(d) *providing and commissioning energy efficient* and water heating systems with efficient heat sources and effective controls

(e) providing that all oil and gas fired boilers shall meet a minimum seasonal efficiency of 90 %;

(f) providing to the dwelling owner sufficient information about the building, the fixed building services, controls and their maintenance requirements so that the building can be operated in such a manner as to use no more fuel and energy than is reasonable.

Items (a), (b), and (c) above relate to the performance of the building form and fabric while items (d), (e) and (f), relate to the services provided within the building and their efficient operation.

This report sets out sustainable technologies which are proposed to be incorporated into the building specification of a proposed development comprising 438 1, 2 and 3 bed Apartments, with a view to reducing energy consumption and lowering carbon emissions, in keeping with the Dun-Laoghaire Rathdown County Development Plan 2016-2022 and zoning for the site and to comply with the new Part L 2021 regulations.

The Dwelling Energy Assessment Procedure (DEAP) published by Sustainable Energy Authority of Ireland will be used to demonstrate compliance with the requirements in relation to primary energy consumption and CO^2 emissions. This is found on the SEAI website and describes the DEAP methodology. The calculation is based on the energy balance taking into account a range of factors that contribute to annual energy usage and associated CO^2 emissions for the provision of space heating, water heating, ventilation and lighting of dwellings.

The DEAP framework takes account of: Whole dwelling performance.

2.2 Application of the Regulations

General

The aim of Part L of the Second Schedule to the Building Regulations is to limit the use of fossil fuel energy and related carbon dioxide (CO^2) emissions arising from the operation of buildings, while ensuring that occupants can achieve adequate levels of lighting and thermal comfort. Buildings should be designed and constructed to achieve this aim as far as is practicable.

The guidance in this document applies to works to dwellings only. Guidance for buildings other than dwellings can be found in a separate Technical Guidance Document L - Buildings other than dwellings

New dwellings

For new dwellings, the key issues to be addressed in order to ensure compliance are: -

Whole dwelling performance

(a) Primary energy consumption and related CO^2 emissions: providing that the calculated primary energy consumption associated with the operation of the dwelling and the related CO^2 emissions when calculated using the Dwelling Energy Assessment Procedure (DEAP) published by the Sustainable Energy Authority of Ireland, as described in Section 1.1, do not exceed a target value specified in this document;

Individual minimum performance levels

The performance levels specified for items (b) to (i) below are in the nature of backstop minimum performance levels so as to ensure reasonable levels of performance for all factors affecting energy use, irrespective of the measures incorporated to achieve compliance with Regulation 8 (a).

Meeting the performance levels specified for items (b) to (j) will not necessarily mean that the level specified for primary energy consumption and related CO^2 emissions [item (a)] will be met. One or more of the performance levels specified, for items (b) to (i), will need to be exceeded to achieve this.

(b) Use of renewable energy sources: providing that the contribution of low or zero carbon energy sources to the calculated primary energy requirement meets the target for such contribution as set down in Section 1.2;
(c) Fabric insulation: providing for fabric insulation, including the limitation of thermal bridging, which satisfies the guidance in this regard as set out in Section 1.3 (sub-sections 1.3.2 to 1.3.3);
(d) Air tightness: limiting air infiltration as set out in sub-section 1.3.4;
(e) Heat generator: providing an efficient heat generator as set out in sub-section 1.4.2;
(f) Building Services Controls: controlling, as appropriate, the demand for, and output of, space heating and hot water services provided, as set out in sub-section 1.4.3;
(g) Insulation of pipes, ducts and vessels: limiting the heat loss from pipes, ducts and vessels used for the transport or storage of heated water or air, as set out in sub-section 1.4.4;
(h) Mechanical Ventilation Systems: providing that, where a mechanical ventilation system is installed, the system meets reasonable performance levels, as set out in sub-section 1.4.5;

(i) Performance of completed dwelling: ensure design and construction process are such that the completed building satisfies compliance targets and design intent. Guidance is given in Section 1.5;
(j) Performance of completed dwelling: ensuring that the design and construction processes are such that the completed building satisfies compliance targets and design intent. Guidance is given in Section 1.5.

Renewable Energy Ratio:

Renewable Energy Ratio (RER) is the ratio of the primary energy from renewable energy technologies to total primary energy as defined and calculated in DEAP.
For the purposes of this Section, “renewable energy technologies” means technology, products or equipment that supply energy derived from renewable energy sources, e.g. solar thermal systems, solar photovoltaic systems, biomass systems, systems using biofuels, heat pumps, aerogenerators and other small scale renewable systems.

To demonstrate that an acceptable primary energy consumption rate has been achieved, the calculated Energy Performance Coefficient (EPC) of the dwelling being assessed should be no greater than the Maximum Permitted Energy Performance Coefficient (MPEPC). **The MPEPC is 0.3.**

To demonstrate that an acceptable CO^2 emission rate has been achieved, the calculated Carbon Performance Coefficient (CPC) of the dwelling being assessed should be no greater than the Maximum Permitted Carbon Performance Coefficient (MPCPC).
The MPCPC is 0.35.
For the purposes of this Section, “renewable energy technologies” means technology, products or equipment that supply energy derived from renewable energy sources, e.g. solar thermal systems, solar photovoltaic systems, biomass systems, systems using biofuels, heat pumps, aerogenerators and other small scale renewable systems

Where the MPEPC of 0.3 and MPCPC of 0.35 are achieved, a RER of 0.20 represents a very significant level of energy provision from renewable energy technologies.
A RER of 0.2 represents 20 % of the primary energy from renewable energy technologies to total primary energy as defined and calculated in DEAP.

Building Operation and Design Criteria:

- Building location: CIBSE Dublin weather file

We have had a selection of ‘worst case’ apartment types for this development modelled in SEAI’s DEAP version 3 software and the results have confirmed that these apartments will achieve a BER rating of A2 / A3 and will meet the CPC and EPC requirements the Building Regulations Part L 2021.

Sample apartment sheets

Fabric Design

Thermal Bridging:

All construction details to be in compliance with Acceptable Construction Details as set out in "Limiting Thermal Bridging & Air Infiltration - Acceptable Construction Details" – Non standard details shall be thermally modelled by an approved SEAI modeller. A default value of 0.08 will be assumed for all Provisional BERs.

All non ACD's will be thermally modelled by an accredited SEAI approved thermal modeller.

Target U- value Thermal Properties

External wall	0.16 W/m^2k
Roof	0.14 W/m^2k
Ground	0.12 W/m^2k
Windows	0.82 W/m^2k (1.4 for roof lights)

G Values

General glazing	0.53
Solar Trans G Value	0.40
Light Transmittance	0.76

Air tightness test according to CIBSE TM 23 best practice standards to achieve **3m^3/m^2/hr at 50 Pa** or better

Active Design:

Heating

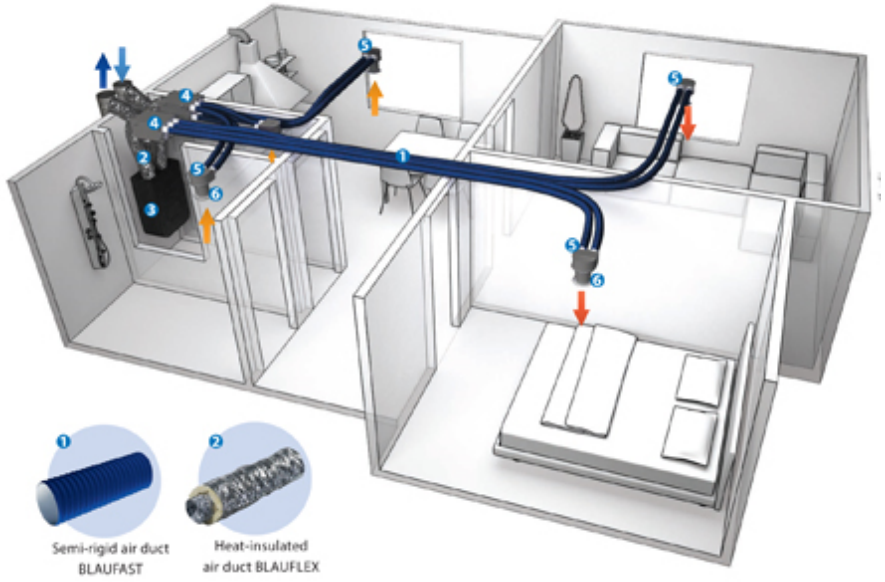
- Electric storage / panel heaters

Hot water

- Dimplex model Exhaust air hot water heat pump

Ventilation

- Xpelair whole house heat recovery ventilation unit
- Heat Recovery System (70% efficiency).
- Not exceeding Fan power 1.5 Kw



Typical Apartment MVHR Ventilation system

Lighting

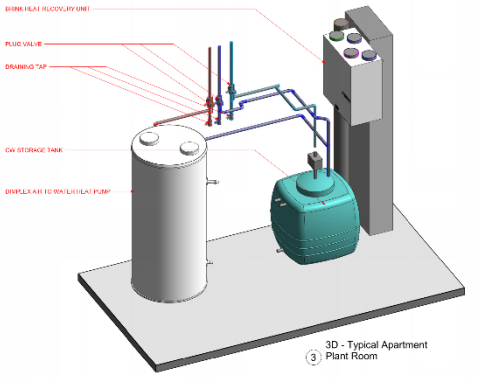
- High efficiency LED light fittings.
- PIR Sensors (Circulation areas and basement car park)

Controls

- Central time control
- Optimum start/stop control
- Space Heating to incorporate zone, timing and temperature controls, each functional area is maintained at the required temperature only during the period when it is occupied

Please note that this report relates to Building Services only, and does not deal with architectural items, such as insulation and glazing specifications.

A preliminary Building Energy Rating report has been carried out on all apartment types in the development and confirms that the design is NZEB compliant and each apartment type will achieve a BER rating of A2.



Typical Apartment Plant room containing Exhaust air Heat Pump and MVHR Unit

2.3 Building Use

Elemental U- Values

The U-Value of a building element is a measure of the amount of heat energy that will pass through the constituent element of the building envelope. Increasing the insulation levels in each element will reduce the heat lost during the heating season and this in turn will reduce the consumption of fuel and the associated carbon emissions and operating costs.

It is the intention of the design team to exceed the requirements of the current building regulations. Target U-Values are identified below. These target U-Values have been modelled and checked to ensure they can be met.

Element	New Buildings [W/m^{2}k] – Part L 2021	Proposed for Aikens Village Development [W/m^{2}k]	Percentage Improvement
Walls	0.18	0.16	11%
Floors	0.18	0.12	33%
Windows	1.2	0.82	32%
Roofs	0.16	0.14	12.5%
Flat Roofs	0.20	0.14	30%

General

The proposed Apartment development is located at Sector 3 Aiken's Village, Stepaside, Dublin 18. The scheme includes the provision of 438 new residential Apartments. The development ranges from 4 - 8 storey buildings, over basement car park.

Two separate car parks (456 spaces) occupy the western and eastern sides of the site, spanning from a lower ground floor level as under croft at the southern ends to a basement level at the northern ends.

The geographic location and usage profile define a specific usage pattern for the building which does not lend itself to a number of specific renewable energy sources, particularly items that are physically large (Geothermal / Wind turbines, etc) or rather noisy systems (CHP systems).

2.4 Electrical Installation

Lighting Installation

Lamp Specification:

LED Lamps

All light fittings in the development shall be specified as LED lights

Lighting Controls:

Occupancy Linked Control Systems – Presence Detection

It is intended to use occupancy linked controls in the landlord areas of the development. These systems use presence detection to control the lighting system. These will switch on the lighting once presence is detected and switch it off when no presence has been detected for a set period of time. These controls are best suited to spaces where people are generally only present for a short period of time, such as the basement car park, stairwells, lobbies, corridors and bin stores.

Daylight Linked Controls

It is intended to use daylight linked controls for the external areas of the development. This comprises daylight-linked photo-electric switching or dimming for lighting adjacent to windows or other sources of natural light;

Any external lighting around the building shall have photocell and timeclock control. Lighting at the rear of the building shall be directional lighting to mitigate light spill.

Electric Motors

Description

Motors and Variable Speed Drives (VSD's) used in this development will be specified as high efficiency type. Pumps for the distribution of water and for use in heating circuits, as well as fans for the distribution of air, can use a significant amount of energy. Therefore, specifying a suitably sized, high efficiency motors and VSD's can result in significant cost savings.

Motor Specification

High Efficiency Motors: These motors use more copper, iron, and steel in their construction to reduce inherent losses of energy and save 3% – 4% on energy usage compared to standard motors

Variable Speed Drives: These allow pumps or fans to ramp up and down by varying the motor speed to meet the momentary requirement. This is the most efficient control system available.

2.5 Public Lighting

Public lighting will be provided to the perimeter of the development, to the footpaths edging, the public open space outside the site including the crossing points and the basement car park.

The design of the lighting shall be in accordance with the following standards and guidelines:

- I.S. EN 13201-2:2015 Road Lighting – Part 2: Performance requirements
- BS 5498-1:2013 Code of Practice for the Design of Road Lighting
- S.I. No. 291 of 2013 Safety, Health and Welfare at Work (Construction) Regulations 2013
- Dun Laoghaire & Rathdown County Council guidelines for public lighting.
- ET: 101: 2008 Fourth Edition - National Rules for Electrical Installations

Lighting at the rear of the building shall be directional lighting to mitigate light spill. This will be achieved by the following:

- Use directional lighting through use of cowled fittings throughout the Proposed Development site, where luminaires are mounted with no upward tilt, and with an upward light ratio of 0% with good optical control

- Use of specialist downward directional luminaires having regard for research indicating light-sensitive bat species are equally active in such light, as in darkness

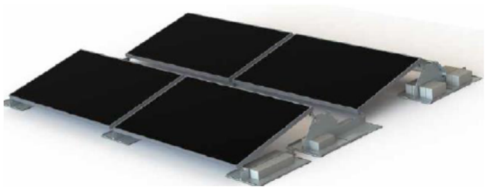
- Install luminaires with warm white spectrum LEDs (ideally<2700 Kelvin), featuring peak wavelengths higher than 550 mm to avoid the component of light most disturbing to bats

Please refer to the site lighting drawing and calculation sheets which accompany this report

2.6 Photovoltaic Installation (PV Panels)

It is proposed to use Photovoltaic (PV) panels in this development to contribute to the Renewable Energy Ration (RER) requirements. PV Panels are capable of generating direct current electricity from the suns energy, which can then be converted to alternating current and used within the building. They are generally a “maintenance free” technology as there are no moving parts. They also typically have a 20 year manufacturer’s guarantee on electrical output and can be expected to operate effectively for 30 years or more.

PV panels shall be 360 watt per panel 72 cell monocrystalline panels with black frame measuring approximately 2m x 1m. They shall be mounted on the roof using a roof ballast system as indicated in the picture and the exact quantity shall be determined by the Building DEAP calculation.



The inverters shall be micro inverters located behind each panel. The micro-Inverter converts the generated energy and should be pre set out of the box to meet the requirements of ESB Networks Conditions Governing the Connection and Operation of Micro-generation, deviations for Ireland according to EN50438:2007. The micro inverter is directly connected to a PV-module.

The results of the Preliminary BER calculations indicate that PV panels will be required for the Apartments. An allowance will be allowed for each apartment core area as final design of these areas is completed.

2.7 Electric Vehicle (EV) Car Charging

The development comprises of 438 Apartments above a basement car park. Allowing for 20% provision of electric vehicle charging points in the development, 88 number Electric Vehicle charging points will be provided initially for the development. All charging points will be located in the basement car park and are intended for use by Residents only.

The system will include a smart charging to ensure correct active load management of the charging of electric vehicles.

The system will be expandable and provision will be made for future additional charging points to be added.

It is not intended to provide on-street electric charge points at this development.

2.8 Controls

Building Energy Management Systems (BEMS)

Introduction

A Building Energy Management Systems (BEMS) is a computer-based system which automatically monitors and controls a range of building services, including water boosting, community space services, ventilation, and lighting. Other facilities that can be integrated into the system are security, CCTV, fire alarms, maintenance schedules, and energy monitoring and recording.

BEMS Functions

The BEMS in this site will provide the following functions:

Automatic switching of plant on and off: This will control systems on the basis of time, environmental conditions, etc.

Optimisation of plant operation and services:
This controls aspects of the running of items of plant in order to improve their efficiency e.g. controlling fuel to air ratios on boilers, selecting the appropriate speed on a two-speed motor.

Monitoring of plant status and environmental conditions:
This alerts a building manager to alarm conditions in time to take remedial action, and thereby increases the standards of operation and maintenance.

Provision of energy management information:
Data on energy flows, consumption, trends, and overall building performance are easily accessible, allowing managers to assess energy performance and identify areas where improvements can be made.

Planned preventative maintenance:
The BEMS will incorporate software that allows the management of the routine maintenance of plant items.

Summary of Energy Savings Using BEMS

The BEMS will save energy and costs for the building owners and tenants in the following ways:

- Optimising the efficiency of plant
- Minimising energy use
- Improving maintenance
- Improving ease of plant operations
- Increased energy awareness by the buildings users / managers
- Data logging for monitoring, targeting, and identification of potential energy saving measures

3. Appendices

3.1 Provisional BER report – Typical Apartments

- Part L Compliance Report – Typical 1 Bed over Basement
- Part L Compliance Report – Typical 1 Bed mid floor
- Part L Compliance Report – Typical 1 Bed top floor

- Part L Compliance Report – Typical 2 Bed (Corner balcony) over Basement
- Part L Compliance Report – Typical 2 Bed (Corner balcony) mid floor
- Part L Compliance Report – Typical 2 Bed (Corner balcony) top floor

- Part L Compliance Report – Typical 2 Bed (Corner) over Basement
- Part L Compliance Report – Typical 2 Bed (Corner) mid floor
- Part L Compliance Report – Typical 2 Bed (Corner) top floor

- Part L Compliance Report – Typical 2 Bed over Basement
- Part L Compliance Report – Typical 2 Bed mid floor
- Part L Compliance Report – Typical 2 Bed top floor

- Part L Compliance Report – Typical 3 Bed over Basement
- Part L Compliance Report – Typical 3 Bed mid floor
- Part L Compliance Report – Typical 3 Bed top floor

Part L Specification

Property Details

Dwelling Type	Ground-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 1 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	54.55	2.50	136.38
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	54.55		136.38
Living Area [m²]	28.32	**Living area percentage [%]**	51.92
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	3

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.680
Heat exchanger efficiency [%]	86.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

Type	Description	U-Value [W/m²K]	Area [m²]	Underfloor heating
Ground Floor - Solid		0.180	54.550	No

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	21.120

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.560

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200

Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**			No

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	44.79
CO2 emissions [kg/m²/yr]	8.81	Total compliance with Part L in DEAP?	Pass
EPC	0.260	EPC Pass/Fail	Pass
CPC	0.252	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.18	Pass
Floors with no underfloor heat	0.18	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	19.4	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	254.59	4.67
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
1 No. PV Panels 300W (30S)	257.76	4.73
Additional From HP	380.42	6.97
	0.00	0.00
Total thermal	254.59	4.67
Total electrical	638.18	11.70
Total thermal equivalent	1850.04	33.91
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Mid-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 1 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	54.55	2.50	136.38
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	54.55		136.38
Living Area [m²]	28.32	**Living area percentage [%]**	51.92
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	3

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.680
Heat exchanger efficiency [%]	86.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	21.120

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.560

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00

Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**			No

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	40.26
CO2 emissions [kg/m²/yr]	7.92	Total compliance with Part L in DEAP?	Pass
EPC	0.282	EPC Pass/Fail	Pass
CPC	0.277	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	19.4	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	254.59	4.67
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
	0.00	0.00
Additional From HP	380.42	6.97
	0.00	0.00
Total thermal	254.59	4.67
Total electrical	380.42	6.97
Total thermal equivalent	1205.64	22.10
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Top-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 1 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	54.55	2.50	136.38
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	54.55		136.38
Living Area [m²]	28.32	**Living area percentage [%]**	51.92
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	3

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.680
Heat exchanger efficiency [%]	86.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

Type	Description	U-Value [W/m²K]	Area [m²]
Flat Roof		0.140	54.550

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	21.120

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.560

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200

Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**			No

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	41.56
CO2 emissions [kg/m²/yr]	8.17	Total compliance with Part L in DEAP?	Pass
EPC	0.252	EPC Pass/Fail	Pass
CPC	0.245	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.14	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.14	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	19.4	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	254.59	4.67
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
1 No. PV Panels 300W (30S)	257.76	4.73
Additional From HP	380.42	6.97
	0.00	0.00
Total thermal	254.59	4.67
Total electrical	638.18	11.70
Total thermal equivalent	1850.04	33.91
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Ground-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed Corner (Insert Balcony)		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	86.03	2.50	215.08
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	86.03		215.08
Living Area [m²]	39.97	**Living area percentage [%]**	46.46
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

Type	Description	U-Value [W/m²K]	Area [m²]	Underfloor heating
Ground Floor - Solid		0.180	86.030	No

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	31.240

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.670
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	8.140

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No

Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**	No		

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	42.77
CO2 emissions [kg/m²/yr]	8.41	Total compliance with Part L in DEAP?	Pass
EPC	0.283	EPC Pass/Fail	Pass
CPC	0.272	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.18	Pass
Floors with no underfloor heat	0.18	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	21.9	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	320.32	3.72
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
2 No. PV Panels 300W (30S)	515.52	5.99
Additional From HP	478.60	5.56
	0.00	0.00
Total thermal	320.32	3.72
Total electrical	994.12	11.56
Total thermal equivalent	2805.62	32.61
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Mid-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed Corner (Insert Balcony)		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	86.03	2.50	215.08
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	86.03		215.08
Living Area [m²]	39.97	**Living area percentage [%]**	46.46
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	31.240

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.670
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	8.140

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610

Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**	No		

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	30.83
CO2 emissions [kg/m²/yr]	6.06	Total compliance with Part L in DEAP?	Pass
EPC	0.252	EPC Pass/Fail	Pass
CPC	0.247	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	21.9	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	320.32	3.72
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
1 No. PV Panels 300W (30S)	257.76	3.00
Additional From HP	478.60	5.56
	0.00	0.00
Total thermal	320.32	3.72
Total electrical	736.36	8.56
Total thermal equivalent	2161.22	25.12
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Top-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed Corner (Insert Balcony)		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	86.03	2.50	215.08
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	86.03		215.08
Living Area [m²]	39.97	**Living area percentage [%]**	46.46
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

Type	Description	U-Value [W/m²K]	Area [m²]
Flat Roof		0.140	86.030

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	31.240

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.670
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	8.140

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No

Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**	No		

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	39.14
CO2 emissions [kg/m²/yr]	7.70	Total compliance with Part L in DEAP?	Pass
EPC	0.272	EPC Pass/Fail	Pass
CPC	0.263	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.14	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.14	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	21.9	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	320.32	3.72
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
2 No. PV Panels 300W (30S)	515.52	5.99
Additional From HP	478.60	5.56
	0.00	0.00
Total thermal	320.32	3.72
Total electrical	994.12	11.56
Total thermal equivalent	2805.62	32.61
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Ground-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed Corner		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	86.57	2.50	216.43
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	86.57		216.43
Living Area [m²]	40.01	**Living area percentage [%]**	46.22
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

Type	Description	U-Value [W/m²K]	Area [m²]	Underfloor heating
Ground Floor - Solid		0.180	86.570	No

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	32.060

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.670
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	4.070

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No

Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**	No		

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	40.88
CO2 emissions [kg/m²/yr]	8.04	Total compliance with Part L in DEAP?	Pass
EPC	0.273	EPC Pass/Fail	Pass
CPC	0.263	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.18	Pass
Floors with no underfloor heat	0.18	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.0	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	321.40	3.71
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
2 No. PV Panels 300W (30S)	515.52	5.95
Additional From HP	480.21	5.55
	0.00	0.00
Total thermal	321.40	3.71
Total electrical	995.73	11.50
Total thermal equivalent	2810.73	32.47
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Mid-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed Corner		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	86.57	2.50	216.43
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	86.57		216.43
Living Area [m²]	40.01	**Living area percentage [%]**	46.22
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	32.060

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.670
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	4.070

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610

Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**			No

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	30.26
CO2 emissions [kg/m²/yr]	5.95	Total compliance with Part L in DEAP?	Pass
EPC	0.251	EPC Pass/Fail	Pass
CPC	0.246	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.0	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	321.40	3.71
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
1 No. PV Panels 300W (30S)	257.76	2.98
Additional From HP	480.21	5.55
	0.00	0.00
Total thermal	321.40	3.71
Total electrical	737.97	8.52
Total thermal equivalent	2166.33	25.02
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Top-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed Corner		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	86.57	2.50	216.43
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	86.57		216.43
Living Area [m²]	40.01	**Living area percentage [%]**	46.22
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

Type	Description	U-Value [W/m²K]	Area [m²]
Flat Roof		0.140	86.570

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	32.060

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	10.670
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	4.070

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No

Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**	No		

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	37.29
CO2 emissions [kg/m²/yr]	7.33	Total compliance with Part L in DEAP?	Pass
EPC	0.262	EPC Pass/Fail	Pass
CPC	0.253	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.14	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.14	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.0	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	321.40	3.71
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
2 No. PV Panels 300W (30S)	515.52	5.95
Additional From HP	480.21	5.55
	0.00	0.00
Total thermal	321.40	3.71
Total electrical	995.73	11.50
Total thermal equivalent	2810.73	32.47
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Ground-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	83.68	2.50	209.20
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	83.68		209.20
Living Area [m²]	37.27	**Living area percentage [%]**	44.54
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	3

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

Type	Description	U-Value [W/m²K]	Area [m²]	Underfloor heating
Ground Floor - Solid		0.180	83.680	No

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	10.260

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	14.740

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200

Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**			No

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	39.86
CO2 emissions [kg/m²/yr]	7.84	Total compliance with Part L in DEAP?	Pass
EPC	0.279	EPC Pass/Fail	Pass
CPC	0.270	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.18	Pass
Floors with no underfloor heat	0.18	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.6	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	315.60	3.77
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
1 No. PV Panels 300W (30S)	257.76	3.08
Additional From HP	471.54	5.64
	0.00	0.00
Total thermal	315.60	3.77
Total electrical	729.30	8.72
Total thermal equivalent	2138.85	25.56
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Mid-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	83.68	2.50	209.20
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	83.68		209.20
Living Area [m²]	37.27	**Living area percentage [%]**	44.54
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	3

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	10.260

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	14.740

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00

Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)					
Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**			No

HEATING SYSTEM – Energy Requirements (Individual)					
Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	29.40
CO2 emissions [kg/m²/yr]	5.78	Total compliance with Part L in DEAP?	Pass
EPC	0.257	EPC Pass/Fail	Pass
CPC	0.253	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.6	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	315.60	3.77
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
1 No 300W PV Panel (30S)	257.76	3.08
Additional From HP	471.54	5.64
	0.00	0.00
Total thermal	315.60	3.77
Total electrical	729.30	8.72
Total thermal equivalent	2138.85	25.56
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Top-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 2 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	83.68	2.50	209.20
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	83.68		209.20
Living Area [m²]	37.27	**Living area percentage [%]**	44.54
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	3

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

Type	Description	U-Value [W/m²K]	Area [m²]
Flat Roof		0.140	83.680

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	10.260

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	14.740

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200

Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**			No

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	36.98
CO2 emissions [kg/m²/yr]	7.27	Total compliance with Part L in DEAP?	Pass
EPC	0.273	EPC Pass/Fail	Pass
CPC	0.265	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.14	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.14	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.6	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	315.60	3.77
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
1 No. PV Panels 300W (30S)	257.76	3.08
Additional From HP	471.54	5.64
	0.00	0.00
Total thermal	315.60	3.77
Total electrical	729.30	8.72
Total thermal equivalent	2138.85	25.56
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Ground-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 3 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	105.35	2.50	263.38
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	105.35		263.38
Living Area [m²]	42.14	**Living area percentage [%]**	40.00
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

Type	Description	U-Value [W/m²K]	Area [m²]	Underfloor heating
Ground Floor - Solid		0.180	105.350	No

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	33.290

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	16.790
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	2.050

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No

Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**	No		

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	39.66
CO2 emissions [kg/m²/yr]	7.80	Total compliance with Part L in DEAP?	Pass
EPC	0.279	EPC Pass/Fail	Pass
CPC	0.268	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.18	Pass
Floors with no underfloor heat	0.18	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.9	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	358.02	3.40
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
2 No. PV Panels 300W (30S)	515.52	4.89
Additional From HP	534.84	5.08
	0.00	0.00
Total thermal	358.02	3.40
Total electrical	1050.36	9.97
Total thermal equivalent	2983.92	28.32
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Mid-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 3 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	105.35	2.50	263.38
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	105.35		263.38
Living Area [m²]	42.14	**Living area percentage [%]**	40.00
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	33.290

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	16.790
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	2.050

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No
Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610

Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**			No

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	29.33
CO2 emissions [kg/m²/yr]	5.77	Total compliance with Part L in DEAP?	Pass
EPC	0.258	EPC Pass/Fail	Pass
CPC	0.252	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.00	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.00	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.9	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	358.02	3.40
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
1 No. PV Panels 300W (30S)	257.76	2.45
Additional From HP	534.84	5.08
	0.00	0.00
Total thermal	358.02	3.40
Total electrical	792.60	7.52
Total thermal equivalent	2339.52	22.21
Does total thermal equivalent meet part L requirement?	Pass	

Part L Specification

Property Details

Dwelling Type	Top-floor apartment	**Type Of BER Rating**	New Dwelling - Provisional
Address line 1	Aikens Village	**Year of Construction**	2019
Address line 2		**Date of Assessment**	02/09/2019
Address line 3	Stepaside	**Date of Plans**	02/09/2019
County	Co. Dublin	**Planning Reference**	
Post Code		**Building Regulations**	2011 TGD L
Has a rating been previously submitted?	No	**Is MPRN shared with another dwelling?**	No
BER Number		**MPRN No.**	
Purpose of rating	Sale		
Comment	Typical 3 Bed		
Client Name	Seha Technical Services Ltd.	**Client Phone**	
Address line 1	Unit 1A Broomfiled Bus. Pk.	**Client Email**	
Address line 2	Malahide	**Assessor Name**	Lisa Martin
Address line 3		**Assessor Reg No.**	107147
County	Co. Dublin	**Developer Name**	
Post Code		**Development Name**	

DIMENSION DETAILS

	Area [m²]	Height [m]	Volume [m³]
Ground Floor	105.35	2.50	263.38
First Floor	0.00	0.00	0.00
Second Floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in roof	0.00	0.00	0.00
Total Floor Area	105.35		263.38
Living Area [m²]	42.14	**Living area percentage [%]**	40.00
No of Storeys	1		

Part L Specification

VENTILATION DETAILS

	Number		
Chimneys	0	**Has a permeability test been carried out?**	Yes
Open Flues	0	**Result of air permeability test in ac/h**	0.100
Fans & Vents	1	**Is there a suspended wooden ground floor?**	
Number of flueless combustion room heaters	0	**Percentage windows/doors draughtstripped [%]**	
Is there a draught lobby on main entrance?	Yes	**Number of sides sheltered**	2

Ventilation method	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(L/s)]	0.830
Heat exchanger efficiency [%]	84.000
Mechanical Ventilation Manufacturer	Xpelair
Mechanical Ventilation Model Name	Natural Air 180
How many wetrooms (incl. kitchen)? Is the vent. ducting flexible/rigid/both?	Rigid K+2

BUILDING ELEMENTS - Floor Details

BUILDING ELEMENTS - Roof Details

Type	Description	U-Value [W/m²K]	Area [m²]
Flat Roof		0.140	105.350

BUILDING ELEMENTS - Wall Details

Type	Description	U-Value [W/m²K]	Area [m²]
300mm Cavity		0.180	33.290

BUILDING ELEMENTS - Door Details

BUILDING ELEMENTS - Window Details

Glazing type	User defined u-value	U-Value [W/m²K]	Area [m²]
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	16.790
Triple-glazed, argon filled (low-E, en = 0.05, soft coat)	Yes	0.820	2.050

OTHER DETAILS

Thermal bridging factor [W/m²k]	0.0800	**Thermal mass category of dwelling**	Medium-high
Low Energy Lighting [%]			100

HEATING SYSTEM - Solar Water Heating

Solar Water Heating Present?	No	**Aperture area of solar collector [m²]**	n/a
Type, manufacturer, model	n/a		
Zero loss collector efficiency, η_0	n/a	**Collector heat loss coefficient, a1 [W/m²K]**	n/a
Annual Solar Radiation [kWh/m²] (Refer to Appendix H in DEAP)	n/a	**Overshading factor**	n/a
Dedicated storage volume [Litres]	n/a	**Combined Cylinder**	n/a
Solar fraction [%]	0		

HEATING SYSTEM - Hot Water System

Distribution Losses	Yes	**Combi boiler present?**	No

Supplementary electric water heating	No	**Water Storage Volume [L]**	200
Hot water storage manufacturer and model name	Dimplex Edel	**Declared loss factor [kWh/d]**	1.610
Temperature factor unadjusted (table 2 in DEAP)	0.60	**Temperature factor multiplier (table 2 in DEAP)**	1.00
Primary Circuit loss type	Electric immersion heater		
Is hot water storage indoors or in group heating system	Yes		

HEATING SYSTEM – Dist. system losses and gains (Table 4 in DEAP)

Temperature adjustment [ºC]	0.000	**Control Category**	3	**Responsiveness category**	4
Central heating pumps	0	**Oil Boiler Pump**	0	**Oil boiler pump inside dwelling**	No
Gas boiler flue fan	0	**Warm air heating or fan coil radiators present**	No		

HEATING SYSTEM – Energy Requirements (Individual)

Main space heating system efficiency [%]	100.00	**Space heating efficiency adjustment factor**	1.0000	**Main space heating fuel**	Electricity
Main water heating system efficiency [%]	289.00	**Water heating efficiency adjustment factor**	1.0000	**Main water heating fuel**	Electricity
Secondary heating system efficiency [%]	0.00	**Fraction of heating from secondary heating system**	0.00	**Secondary space heating system fuel**	None
Fraction of main space and water heat from CHP	0.00	**Electrical efficiency of CHP**	0.00	**Heat efficiency of CHP**	0.00
CHP Fuel type	None				

Part L Specification

SUMMARY FOR PART L CONFORMANCE (Applies to TGD L 2008/2011 for new dwellings only)

BER Number		Building Regulations	2011 TGD L
BER Result	A2	Energy Value kWh/m²/yr	36.29
CO2 emissions [kg/m²/yr]	7.14	Total compliance with Part L in DEAP?	Pass
EPC	0.269	EPC Pass/Fail	Pass
CPC	0.259	CPC Pass/Fail	Pass

PART L CONFORMANCE - Fabric

Conformity with Maximum avg U-value requirements	U-value [W/m²K]	Pass / Fail	Conformity with Maximum U-value requirements	U-Value [W/m²K]	Pass / Fail
Pitched roof insulated on ceiling	0.00	Pass	Roofs	0.14	Pass
Pitched roof insulated on slope	0.00	Pass	Walls	0.18	Pass
Flat Roof	0.14	Pass	Floors	0.00	Pass
Floors with no underfloor heat	0.00	Pass	External doors / windows / rooflights	0.82	Pass
Floors with underfloor heat	0.00	Pass			
Walls	0.18	Pass			
Percentage of opening areas [%]	17.9	Pass			
Average U value of openings	0.82				
Permeability test carried out and meets guidelines in TGD L					

PART L CONFORMANCE – Renewables (individual heating system)

Type of renewable	Total contribution [kWh/y]	Part L renewable contribution [kWh/m²/y]
Solar water heating system	0.00	0.00
Heat pump as main space heating system	0.00	0.00
Heat pump as secondary space heating system	0.00	0.00
Heat pump as main water heating system	358.02	3.40
Wood/Biomass heater as main space heating system	0.00	0.00
Wood/Biomass heater as secondary heating system	0.00	0.00
Wood/Biomass heater as main water heating system	0.00	0.00
Contribution from CHP	0.00	0.00
2 No. PV Panels 300W (30S)	515.52	4.89
Additional From HP	534.84	5.08
	0.00	0.00
Total thermal	358.02	3.40
Total electrical	1050.36	9.97
Total thermal equivalent	2983.92	28.32
Does total thermal equivalent meet part L requirement?	Pass	