WINDTECH

BASIX REPORT

2 MANDALA PARADE. CASTLE HILL

WF350-01F03(REV1)- BASIX REPORT

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Prepared for:

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DOCUMENT CONTROL

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1 INTRODUCTION

This report presents the results of a detailed BASIX assessment of the various residential dwellings within the proposed development located at 2 Mandala Parade, Castle Hill. The assessment is carried out using online BASIX and BERS Pro Thermal Performance assessment tool. This assessment is based on the architectural drawings prepared by Turner, received July 2021.

2 BASIX ASSESSMENT METHODOLOGY

A BASIX assessment is split into three sections; Water, Thermal Comfort and Energy. Each section measures the efficiency of the development in these areas. For the Water and Energy sections, the development is given a score based on the efficiency. BASIX sets a minimum score in these areas that the development must satisfy. The Thermal Performance section of the BASIX assessment requires a BERS Pro simulation to be undertaken. BASIX sets requirements on the maximum heating and cooling loads for each residential apartment of the development. The results of this are rated in BASIX as either a pass or fail.

2.1 Water Usage

The water usage of the development is measured based on the area of gardens/lawn and the number and efficiency of permanent fixtures within the development (such as showerheads, taps and toilets). The development is given a rating, with BASIX requiring a minimum rating of 40% to pass this section.

2.2 Thermal Comfort

The thermal comfort of the development is measured using the BERS Pro Thermal Performance assessment tool. This gives an expected level of energy consumption (expressed in Mega Joules used per square metre per annum) for the heating and cooling loads.

The thermal comfort of the development can be improved by using higher performance building materials (such as performance glazing) and/or insulation materials. BASIX sets a maximum heating and cooling load that the development is to achieve. This is given as a weighted average heating and cooling load for the entire development, and for each individual dwelling to achieve.

2.3 Energy Usage

The energy section of the BASIX assessment measures the energy efficiency of the development based on the efficiency of the fixed appliances to be used. This includes the hot water system, air-conditioning system, exhaust fans, lighting and the cook top/oven. If a pool is to be included in the proposal then the efficiency measure of the pool heater and the pool pump is also required. The development is given a rating, with BASIX requiring a minimum rating of 25% to pass this section.

3 RESULTS OF THE BASIX ASSESSMENT

3.1 Water

The minimum target score in BASIX to achieve water usage compliance is 40%. The minimum score is achieved through the inclusion of the following;

3.1.1 Central Systems & Common Areas

- A rainwater tank with a volume capacity of least 10,000L capacity is to be included. Water is to be provided from at least 500m2 of the non-trafficable roof area. Water from the tank is to be used for all public landscaping (total area of 3,700m^2) within the development site.
- At least 1,000m^2 of the public landscaping is to be of an indigenous or low water use species.
- The common area showerheads are to have a water efficiency rating of at least 4.0 Stars (>6.0 but <=7.5L/min).
- The common area toilets are to have a water efficiency rating of at least 4.0 Stars.
- The common area taps are to have a water efficiency rating of at least 4.0 Stars.

3.1.2 Dwellings

- All showerheads within each residential dwelling is to have a water efficiency rating of at least 4.0 Stars (>6.0 but <=7.5L/min).
- All toilets within each residential dwelling is to have a water efficiency rating of at least 4.0 Stars.
- All kitchen taps within each residential dwelling is to have a water efficiency rating of at least 5.0 Stars.
- All bathroom taps within each residential dwelling is to have a water efficiency rating of at least 5.0 Stars.
- Dishwasher units are to be installed within each residential dwelling. The dishwasher units are to have a water efficiency rating of at least 5.0 stars.
- Clothes washer units are to be installed within each residential dwelling. The Clothes washer units are to have a water efficiency rating of at least 6.0 stars.

3.2 Thermal Comfort

The BERS Pro assessments take into account the following fundamental aspects of energy efficient design:

- The orientation and size of the walls.
- The location, proportion and type of windows and doors, and any internal or external coverings to them.
- The materials and colours of the exterior of the building.
- Internal floor, wall and ceiling materials.
- Cross ventilation.
- Provision of any insulation in walls, roof or ceiling.
- Overshadowing to walls and windows from eaves, other parts of the development and neighbours.
- The topography and climate of the area around the proposed development.

In BASIX, the required weighted averaged maximum heating and cooling loads of the entire proposed development are 39.9 MJ/m2/year for heating and 25.9 MJ/m2/year for cooling and for each individual dwelling a maximum heating and cooling load of 45.4 MJ/m2/year for heating and 29.5 MJ/m2/year for cooling. The required heating and cooling loads for the individual residential dwelling are indicated in Table 3. Note that the overall weighted average heating and cooling loads are significantly harder to achieve than the individual unit requirements.

3.2.1 Dwelling Construction Materials and Initial Results

The following construction materials were initially selected for the assessment. Note that the materials described are not prescriptive. The construction materials used on the subject development should be selected to have similar performance characteristics as the ones detailed below so as not to affect the overall thermal performance rating of each apartment. The U-value and Solar Heat Gain Coefficient (SHGC) for the glazed systems is also indicated.

The wall construction of each residential dwelling is indicated in Table 1a below:

Table 1a Wall Systems for each Residential Dwelling

Dwelling Envelope Wall	Wall Construction
External (the wall between outdoor environment and the dwelling)	Brick Veneer System
Party (the wall between dwelling and the dwelling)	Hebel Panel System
Enclosed Lobby (the wall between enclosed lobby and the dwelling)	Hebel Panel System
Outdoor Lobby (the wall between outdoor lobby and the dwelling)	Hebel Panel System

Dwelling Envelope Wall	Wall Construction
Staircore/Lift/Shafts (the wall between staircore/lift/shafts and the dwelling)	Concrete System
Carpark (between carpark and the dwelling)	Concrete System
To unconditioned spaces such as plant, garbage, service rooms etc. (the wall between the unconditioned space and the dwelling)	Concrete System
Internal (the wall internal walls within the dwelling)	Plasterboard on Stud

- The floor coverings will be following:
    - Parquetry to the living areas
    - Carpets to the bedrooms
    - Tiles to the kitchen
    - Tiles to the wet areas
    - Parquetry to the hallways
    - Carpet to the study rooms
- The floors will be concrete slabs.
- The ceilings will be plasterboard (or concrete above plasterboard etc.).
- The roof will be concrete (or waterproof membrane).
- Draught seals are to be installed to the windows and doors.
- Sealed exhaust fans are assumed in the kitchen and wet areas.
- No ceiling penetration due to recessed luminaries has been assumed as the lighting/ceiling plan is yet to be determined and is not indicated on the drawing set. A reassessment should be undertaken at a later stage once the lighting/ceiling plan is finalised.
- The glazing systems within the residential dwellings are split into two groups; Group A and Group B based on the system type indicated in Table 1b below.
    - Note that for glazed systems that have a combination of Group A and Group B system types, the group system type that accounts for the majority of the glazed system area will be selected. If they are equal in area then the Group A system type will be selected.

Table 1b Glazed System Grouping

Group A	Group B
Awning Window	Double Hung Window
Bifold Door	Fixed Window
Bifold Window	Louvre Window
Entry Door	Sliding Window
Casement Window	Sliding door
French Door	Stacker door
Tilt'n'Turn Window	
Hinged Door	

The climate zone selected for analysis was Climate Zone 56. The result of the analysis, indicated in Tables 3, indicate that several of the residential dwellings within the proposed development will not satisfy the individual thermal requirements of BASIX. Hence treatment is required to some of the residential dwellings of the development.

3.2.2 Results with Treatments

Further analysis of the proposed development resulted in some required treatments to achieve the BASIX requirements for thermal performance. The required treatments are listed in Tables 2 below:

Table 2a Required Treatments – Building A

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
A0201	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
A0202	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A0203	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	1.5
A0204	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	1.5
A0205	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0206	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0207	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	1.5
A0208	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	2.5	-
A0209	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	1.5
A0301	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
A0302	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0303	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0304	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0305	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0306	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
A0307	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0308	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	1
A0309	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	1.5
A0310	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A0401	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0402	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0403	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0404	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0405	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0406	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A0407	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0408	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0409	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0410	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A0501	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0502	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0503	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0504	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
A0505	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0506	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0507	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0508	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0509	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0510	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A0601	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0602	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0603	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0604	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0605	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0606	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0607	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0608	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0609	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0610	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A0701	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A0702	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A0703	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0704	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0705	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
A0706	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A0707	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
A0708	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A0709	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
A0710	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	2.5	-
A0801	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	2.5	-
A0802	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A0803	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A0804	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0805	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
A0806	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0807	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0901	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0902	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A0903	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0904	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A0905	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A0906	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1001	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A1002	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A1003	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1004	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1005	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1006	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1101	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
A1102	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A1103	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1104	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1105	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1106	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1201	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1202	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1203	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1204	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1205	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1206	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1301	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A1302	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A1303	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1304	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1305	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1306	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1401	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1402	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A1403	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1404	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1405	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1406	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
A1501	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
A1502	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	2.5	-
A1503	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1504	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1505	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
A1506	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1601	Group A: U-value = 3.10, SHGC = 0.27 Group B: U-value = 3.10, SHGC = 0.27	2	-	-
A1602	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1603	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1604	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1605	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1701	Group A: U-value = 3.10, SHGC = 0.27 Group B: U-value = 3.10, SHGC = 0.27	2	-	-
A1702	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1703	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1704	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1705	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1801	Group A: U-value = 3.10, SHGC = 0.27 Group B: U-value = 3.10, SHGC = 0.27	2	-	-
A1802	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1803	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1804	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
A1805	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
A1901	Group A: U-value = 3.10, SHGC = 0.27 Group B: U-value = 3.10, SHGC = 0.27	2	2.5	-
A1902	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
A1903	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
A1904	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
A1905	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-

Table 2b Required Treatments – Building B

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
B0201	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0202	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0203	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
B0204	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
B0205	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	2.5	-
B0206	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0301	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0302	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0303	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
B0304	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0305	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0306	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0307	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0401	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0402	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
B0403	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
B0404	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0405	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0406	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0407	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0501	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0502	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0503	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
B0504	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0505	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0506	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0507	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0601	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0602	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0603	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
B0604	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0605	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0606	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0607	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0701	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0702	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
B0703	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
B0704	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
B0705	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0706	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0707	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0801	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0802	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0803	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0804	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0805	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0806	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0901	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0902	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0903	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0904	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0905	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B0906	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1001	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1002	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
B1003	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
B1004	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1005	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1006	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1101	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1102	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
B1103	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1104	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1105	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1201	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1202	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1203	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1204	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1205	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1301	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1302	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1303	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1304	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1305	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1401	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1402	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1403	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1404	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1405	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1501	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1502	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1503	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1504	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1505	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
B1601	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1602	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1603	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1604	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1605	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1701	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1702	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1703	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1704	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1705	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
B1801	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
B1802	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
B1803	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
B1804	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
B1805	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-

Table 2c Required Treatments – Building C

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
C0301	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0302	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	1.5
C0303	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	1.5
C0304	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C0305	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	1
C0306	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	1
C0307	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	1.5
C0308	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	2
C0309	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	2
C0310	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	2
C0311	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	2.5	1.5
C0401	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0402	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
C0403	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
C0404	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C0405	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	2.5	-
C0406	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	2.5	-
C0501	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	1
C0502	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0503	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	0.5
C0504	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C0505	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
C0506	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C0601	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0602	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0603	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0604	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C0605	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C0606	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C0701	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0702	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0703	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0704	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C0705	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C0706	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C0801	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0802	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0803	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0804	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C0805	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C0806	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C0901	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0902	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0903	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C0904	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
C0905	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C0906	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1001	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1002	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1003	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1004	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C1005	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1006	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1101	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1102	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1103	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1104	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C1105	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1106	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1201	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1202	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1203	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1204	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C1205	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1206	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1301	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1302	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1303	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
C1304	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C1305	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1306	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1401	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1402	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1403	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1404	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C1405	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1406	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1501	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
C1502	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	2.5	-
C1503	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
C1504	Group A: U-value = 5.40, SHGC = 0.49 Group B: U-value = 5.40, SHGC = 0.58	2	-	-
C1505	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1506	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1601	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	0.5
C1602	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	1.5
C1603	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1604	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1605	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1701	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1702	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1703	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
C1704	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1705	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1801	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1802	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1803	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1804	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1805	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1901	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1902	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1903	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
C1904	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C1905	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
C2001	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
C2002	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
C2003	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
C2004	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	2.5	-
C2005	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	2.5	-

Table 2d Required Treatments – Building D

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
D0301	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D0302	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0303	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0304	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	1.5
D0305	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0401	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0402	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D0403	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0404	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0405	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0501	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D0502	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D0503	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0504	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0505	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0506	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	1
D0601	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D0602	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D0603	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0604	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0605	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0606	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
D0701	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D0702	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D0703	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0704	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0705	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0706	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0801	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D0802	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D0803	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0804	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0805	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0806	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0901	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D0902	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D0903	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0904	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0905	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D0906	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1001	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D1002	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1003	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1004	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1005	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
D1006	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1101	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D1102	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1103	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1104	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1105	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1106	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1201	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D1202	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1203	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1204	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1205	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1206	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1301	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D1302	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1303	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1304	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1305	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1306	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1401	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D1402	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1403	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1404	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
D1405	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1406	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1501	Group A: U-value = 4.90, SHGC = 0.33 Group B: U-value = 4.90, SHGC = 0.33	2	-	-
D1502	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1503	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1504	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
D1505	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	2.5	-
D1506	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1601	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1602	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1603	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1604	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1605	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1701	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1702	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1703	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1704	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1705	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1801	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1802	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	-	-
D1803	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1804	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-
D1805	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	-	-

Unit Number	Glazing Thermal Specification (See Table 1b for group information)	Additional Wall Insulation in the dwelling envelope wall (to outdoor air, lobby, stair/ liftcore, enclosed unconditioned spaces (plant, shafts etc.). (R-value)	Additional Ceiling Insulation to areas with outdoor air or enclosed unconditioned spaces above. (R-value)	Additional Floor Insulation to areas above outdoor air/ carpark/ or enclosed unconditioned spaces. (R-value)
D1901	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
D1902	Group A: U-value = 2.90, SHGC = 0.44 Group B: U-value = 2.90, SHGC = 0.51	2	2.5	-
D1903	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
D1904	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-
D1905	Group A: U-value = 4.30, SHGC = 0.47 Group B: U-value = 4.30, SHGC = 0.53	2	2.5	-

A number of glazed system selections were used in the analysis due to certain residential dwellings requiring better thermal performing glazed systems due to the design, orientation, shading and glaze to wall façade ratios. The glazed system selections are summarised as follows:

Glazed System Selection No. 1

- Group A: U-value = 5.4, SHGC = 0.49 (please refer to Table 1b above)
- Group B: U-value = 5.4, SHGC = 0.58 (please refer to Table 1b above)

Glazed System Selection No. 2

- Group A: U-value = 4.3, SHGC = 0.47 (please refer to Table 1b above)
- Group B: U-value = 4.3, SHGC = 0.53 (please refer to Table 1b above)

Glazed System Selection No. 3

- Group A: U-value = 4.9, SHGC = 0.33 (please refer to Table 1b above)
- Group B: U-value = 4.9, SHGC = 0.33 (please refer to Table 1b above)

Glazed System Selection No. 4

- Group A: U-value = 3.1, SHGC = 0.39 (please refer to Table 1b above)
- Group B: U-value = 3.1, SHGC = 0.49 (please refer to Table 1b above)

Glazed System Selection No. 5

- Group A: U-value = 2.9, SHGC = 0.44 (please refer to Table 1b above)
- Group B: U-value = 2.9, SHGC = 0.51 (please refer to Table 1b above)

With these treatments in place the weighted average maximum heating and cooling loads are 30.9 MJ/m2/year for heating and 19.5 MJ/m2/year for cooling.

The BASIX requirements for the weighted averaged maximum heating and cooling loads of the entire proposed development are 39.9 MJ/m2/year for heating and 25.9 MJ/m2/year for cooling. Hence, with the required treatments listed above, the proposed development will satisfy the thermal performance requirements of BASIX.

Note the required additional insulation requirements in Tables 2 above are valid for the current design as indicated in the architectural drawings and the envelope wall construction types of the residential dwellings as indicated in Table 1a (i.e. dwelling wall to outdoor air, lobby, unconditioned spaces such as stair/liftcore, neighbour etc.).

If there are changes to the dwelling envelope wall construction; e.g. the wall type is changed to another material or a wall is comprised of more than one wall types, then the required additional wall insulation requirement in Tables 2 above may also vary. This is due to different wall construction types having different inherent R-values. The thermal modelling software combines the inherent R-value of the wall construction type for each wall (as indicated in Table 1a) and the associated wall insulation (as indicated in Tables 2) to form an overall "Envelope Wall Total R-value" for each wall. Thus, if a different wall construction type that has a lower inherent R-value is used in lieu of those in Table 1a, then the wall insulation requirement would be increased to achieve a similar "Envelope Wall Total R-value". Note the opposite is also true for wall constructions with "higher" inherent wall construction R-values can result in a decrease in the wall insulation requirement.

The potential wall insulation requirement can be calculated by the "Envelope Wall Total R-value" subtracting the inherent wall construction type R-value and verified through a thermal reassessment of the affected residential dwelling.

The glazing types selected for the windows of the proposed development should at least satisfy the required performance data listed in this report. Reducing the amount of glazing in each unit is expected to significantly increase the thermal performance of each unit. Higher performing glass types than those listed in this report are also acceptable. That is, alternative glazing systems or specifications may be used if their U value is equivalent or lower, and the SHGC value is less than +/-10% than the U and SHGC values of the product specified in the table above.

Table 3a BERS Thermal Performance Results – Building A

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
A0201	45.4	29.5	35.6	22.9
A0202	45.4	29.5	33.9	23.5
A0203	45.4	29.5	29.6	23.1
A0204	45.4	29.5	33.9	10.3
A0205	45.4	29.5	29.0	10.3
A0206	45.4	29.5	31.8	9.1
A0207	45.4	29.5	42.7	13.2
A0208	45.4	29.5	21.3	12.7
A0209	45.4	29.5	36.3	23.5
A0301	45.4	29.5	35.4	19.1
A0302	45.4	29.5	13.1	16.5
A0303	45.4	29.5	25.5	24.7
A0304	45.4	29.5	25.0	11.3
A0305	45.4	29.5	24.9	9.7
A0306	45.4	29.5	32.7	9.0
A0307	45.4	29.5	38.6	18.4
A0308	45.4	29.5	44.8	10.3
A0309	45.4	29.5	39.1	10.8
A0310	45.4	29.5	30.0	25.4
A0401	45.4	29.5	29.4	18.4
A0402	45.4	29.5	16.3	27.9
A0403	45.4	29.5	26.0	25.1
A0404	45.4	29.5	25.4	11.2
A0405	45.4	29.5	25.4	9.6
A0406	45.4	29.5	24.4	10.3
A0407	45.4	29.5	39.1	18.1
A0408	45.4	29.5	37.6	10.5
A0409	45.4	29.5	34.3	10.6
A0410	45.4	29.5	30.5	24.8
A0501	45.4	29.5	29.9	18.5
A0502	45.4	29.5	16.7	27.0
A0503	45.4	29.5	26.5	24.6

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
A0504	45.4	29.5	26.0	11.5
A0505	45.4	29.5	25.8	9.6
A0506	45.4	29.5	45.3	14.6
A0507	45.4	29.5	39.6	18.1
A0508	45.4	29.5	38.0	10.3
A0509	45.4	29.5	34.7	11.0
A0510	45.4	29.5	31.0	24.3
A0601	45.4	29.5	30.4	18.2
A0602	45.4	29.5	17.2	26.8
A0603	45.4	29.5	27.0	23.9
A0604	45.4	29.5	26.4	11.3
A0605	45.4	29.5	26.2	9.2
A0606	45.4	29.5	38.0	16.6
A0607	45.4	29.5	40.1	17.9
A0608	45.4	29.5	38.6	10.0
A0609	45.4	29.5	35.1	11.1
A0610	45.4	29.5	31.5	23.6
A0701	45.4	29.5	35.8	24.8
A0702	45.4	29.5	19.0	27.3
A0703	45.4	29.5	27.3	24.1
A0704	45.4	29.5	26.8	10.8
A0705	45.4	29.5	25.4	17.2
A0706	45.4	29.5	43.6	16.0
A0707	45.4	29.5	43.8	16.4
A0708	45.4	29.5	37.3	11.2
A0709	45.4	29.5	32.7	18.3
A0710	45.4	29.5	37.2	22.7
A0801	45.4	29.5	29.9	28.6
A0802	45.4	29.5	39.1	23.8
A0803	45.4	29.5	29.8	21.2
A0804	45.4	29.5	27.0	11.0
A0805	45.4	29.5	36.4	19.8
A0806	45.4	29.5	42.3	8.4

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
A0807	45.4	29.5	38.8	15.7
A0901	45.4	29.5	35.3	29.2
A0902	45.4	29.5	22.7	19.8
A0903	45.4	29.5	39.1	13.9
A0904	45.4	29.5	26.7	20.8
A0905	45.4	29.5	36.4	8.4
A0906	45.4	29.5	39.1	15.2
A1001	45.4	29.5	41.6	25.2
A1002	45.4	29.5	21.9	20.3
A1003	45.4	29.5	33.9	14.2
A1004	45.4	29.5	23.9	21.2
A1005	45.4	29.5	36.6	8.4
A1006	45.4	29.5	39.3	14.9
A1101	45.4	29.5	26.2	28.9
A1102	45.4	29.5	21.7	19.8
A1103	45.4	29.5	33.7	14.1
A1104	45.4	29.5	23.6	20.7
A1105	45.4	29.5	39.5	15.1
A1106	45.4	29.5	36.3	15.1
A1201	45.4	29.5	26.3	29.0
A1202	45.4	29.5	21.8	19.5
A1203	45.4	29.5	33.8	14.0
A1204	45.4	29.5	23.7	20.6
A1205	45.4	29.5	36.8	8.7
A1206	45.4	29.5	39.6	14.8
A1301	45.4	29.5	41.6	24.1
A1302	45.4	29.5	22.0	19.3
A1303	45.4	29.5	34.1	14.2
A1304	45.4	29.5	23.9	20.4
A1305	45.4	29.5	35.6	8.5
A1306	45.4	29.5	38.3	14.7
A1401	45.4	29.5	26.7	27.3
A1402	45.4	29.5	22.1	19.3

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
A1403	45.4	29.5	34.3	14.3
A1404	45.4	29.5	23.9	20.7
A1405	45.4	29.5	36.7	9.0
A1406	45.4	29.5	39.7	14.8
A1501	45.4	29.5	43.3	24.1
A1502	45.4	29.5	26.9	27.7
A1503	45.4	29.5	35.0	14.7
A1504	45.4	29.5	24.6	21.3
A1505	45.4	29.5	36.4	9.7
A1506	45.4	29.5	39.6	15.0
A1601	45.4	29.5	35.4	25.0
A1602	45.4	29.5	29.9	11.4
A1603	45.4	29.5	32.3	19.1
A1604	45.4	29.5	42.6	17.3
A1605	45.4	29.5	41.4	12.1
A1701	45.4	29.5	29.8	25.1
A1702	45.4	29.5	27.7	11.3
A1703	45.4	29.5	29.0	19.2
A1704	45.4	29.5	41.8	19.7
A1705	45.4	29.5	36.7	12.0
A1801	45.4	29.5	30.3	24.8
A1802	45.4	29.5	28.1	11.6
A1803	45.4	29.5	29.4	20.3
A1804	45.4	29.5	41.7	20.9
A1805	45.4	29.5	36.0	12.3
A1901	45.4	29.5	38.5	23.5
A1902	45.4	29.5	31.8	11.0
A1903	45.4	29.5	32.4	18.3
A1904	45.4	29.5	38.9	19.0
A1905	45.4	29.5	45.0	10.6

Table 3b BERS Thermal Performance Results – Building B

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
B0201	45.4	29.5	25.2	21.6
B0202	45.4	29.5	28.0	28.2
B0203	45.4	29.5	41.0	16.3
B0204	45.4	29.5	34.4	9.7
B0205	45.4	29.5	42.6	23.1
B0206	45.4	29.5	34.3	24.9
B0301	45.4	29.5	24.5	21.4
B0302	45.4	29.5	27.8	28.7
B0303	45.4	29.5	39.8	17.6
B0304	45.4	29.5	34.1	12.4
B0305	45.4	29.5	31.4	11.5
B0306	45.4	29.5	37.8	14.2
B0307	45.4	29.5	26.6	24.8
B0401	45.4	29.5	25.0	21.0
B0402	45.4	29.5	28.2	28.3
B0403	45.4	29.5	40.3	17.3
B0404	45.4	29.5	34.6	12.3
B0405	45.4	29.5	30.7	11.8
B0406	45.4	29.5	36.0	14.4
B0407	45.4	29.5	26.9	24.4
B0501	45.4	29.5	25.4	20.2
B0502	45.4	29.5	28.6	27.6
B0503	45.4	29.5	40.7	17.7
B0504	45.4	29.5	35.0	12.2
B0505	45.4	29.5	31.1	11.5
B0506	45.4	29.5	36.5	14.4
B0507	45.4	29.5	27.3	23.5
B0601	45.4	29.5	25.9	19.5
B0602	45.4	29.5	29.1	27.4
B0603	45.4	29.5	41.2	17.5
B0604	45.4	29.5	35.4	12.0
B0605	45.4	29.5	31.4	11.7

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
B0606	45.4	29.5	36.9	14.3
B0607	45.4	29.5	27.6	23.1
B0701	45.4	29.5	27.0	19.5
B0702	45.4	29.5	34.4	24.9
B0703	45.4	29.5	43.4	20.1
B0704	45.4	29.5	36.7	15.0
B0705	45.4	29.5	32.3	12.2
B0706	45.4	29.5	36.4	14.5
B0707	45.4	29.5	28.4	22.5
B0801	45.4	29.5	24.9	18.9
B0802	45.4	29.5	42.1	17.8
B0803	45.4	29.5	44.9	11.4
B0804	45.4	29.5	32.4	12.6
B0805	45.4	29.5	36.6	14.5
B0806	45.4	29.5	28.7	23.3
B0901	45.4	29.5	24.3	19.5
B0902	45.4	29.5	22.9	18.6
B0903	45.4	29.5	37.3	11.8
B0904	45.4	29.5	31.7	13.0
B0905	45.4	29.5	37.3	14.7
B0906	45.4	29.5	28.4	22.2
B1001	45.4	29.5	25.9	24.9
B1002	45.4	29.5	27.8	23.1
B1003	45.4	29.5	41.2	15.6
B1004	45.4	29.5	32.3	13.6
B1005	45.4	29.5	36.7	15.1
B1006	45.4	29.5	29.1	22.0
B1101	45.4	29.5	28.9	25.6
B1102	45.4	29.5	35.3	25.8
B1103	45.4	29.5	29.8	13.2
B1104	45.4	29.5	37.3	15.3
B1105	45.4	29.5	28.9	22.2
B1201	45.4	29.5	26.1	25.4

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
B1202	45.4	29.5	30.4	26.0
B1203	45.4	29.5	28.7	13.3
B1204	45.4	29.5	36.6	15.6
B1205	45.4	29.5	29.0	21.0
B1301	45.4	29.5	26.4	24.8
B1302	45.4	29.5	29.9	26.4
B1303	45.4	29.5	26.7	13.5
B1304	45.4	29.5	35.6	16.1
B1305	45.4	29.5	29.2	21.3
B1401	45.4	29.5	26.5	24.9
B1402	45.4	29.5	29.2	26.5
B1403	45.4	29.5	25.1	14.7
B1404	45.4	29.5	35.3	17.3
B1405	45.4	29.5	29.3	21.4
B1501	45.4	29.5	26.7	24.3
B1502	45.4	29.5	28.0	26.4
B1503	45.4	29.5	24.5	16.1
B1504	45.4	29.5	34.9	17.7
B1505	45.4	29.5	29.4	20.7
B1601	45.4	29.5	26.7	24.5
B1602	45.4	29.5	26.4	26.3
B1603	45.4	29.5	22.5	17.7
B1604	45.4	29.5	32.7	19.2
B1605	45.4	29.5	29.5	21.5
B1701	45.4	29.5	26.7	24.4
B1702	45.4	29.5	24.7	26.3
B1703	45.4	29.5	19.7	18.9
B1704	45.4	29.5	31.1	19.3
B1705	45.4	29.5	29.5	21.3
B1801	45.4	29.5	35.7	22.5
B1802	45.4	29.5	29.7	24.5
B1803	45.4	29.5	27.3	18.1
B1804	45.4	29.5	38.8	18.6

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
B1805	45.4	29.5	37.1	19.4

Table 3c BERS Thermal Performance Results – Building C

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
C0301	45.4	29.5	34.1	20.9
C0302	45.4	29.5	38.8	9.1
C0303	45.4	29.5	45.3	15.3
C0304	45.4	29.5	27.0	21.8
C0305	45.4	29.5	19.7	26.0
C0306	45.4	29.5	37.3	12.8
C0307	45.4	29.5	43.7	23.9
C0308	45.4	29.5	43.4	18.2
C0309	45.4	29.5	45.0	18.4
C0310	45.4	29.5	45.1	18.3
C0311	45.4	29.5	43.1	16.8
C0401	45.4	29.5	30.0	22.7
C0402	45.4	29.5	38.1	9.1
C0403	45.4	29.5	37.0	19.9
C0404	45.4	29.5	15.5	21.3
C0405	45.4	29.5	4.3	29.5
C0406	45.4	29.5	21.3	19.3
C0501	45.4	29.5	30.7	19.0
C0502	45.4	29.5	30.1	22.8
C0503	45.4	29.5	41.8	8.8
C0504	45.4	29.5	33.5	13.9
C0505	45.4	29.5	31.1	27.7
C0506	45.4	29.5	22.6	20.7
C0601	45.4	29.5	20.8	19.5
C0602	45.4	29.5	30.3	22.6
C0603	45.4	29.5	38.3	8.6

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
C0604	45.4	29.5	33.8	13.7
C0605	45.4	29.5	21.9	27.7
C0606	45.4	29.5	22.0	20.6
C0701	45.4	29.5	21.0	19.3
C0702	45.4	29.5	30.5	22.4
C0703	45.4	29.5	38.5	8.6
C0704	45.4	29.5	34.0	13.6
C0705	45.4	29.5	20.3	29.5
C0706	45.4	29.5	22.4	20.6
C0801	45.4	29.5	21.3	19.1
C0802	45.4	29.5	30.7	22.6
C0803	45.4	29.5	38.6	8.7
C0804	45.4	29.5	34.3	13.7
C0805	45.4	29.5	20.6	29.3
C0806	45.4	29.5	22.7	20.4
C0901	45.4	29.5	21.5	19.0
C0902	45.4	29.5	30.8	22.6
C0903	45.4	29.5	38.8	8.9
C0904	45.4	29.5	34.5	13.8
C0905	45.4	29.5	20.9	29.3
C0906	45.4	29.5	23.0	20.2
C1001	45.4	29.5	21.7	18.9
C1002	45.4	29.5	30.9	22.8
C1003	45.4	29.5	38.9	9.3
C1004	45.4	29.5	34.8	13.8
C1005	45.4	29.5	21.2	29.0
C1006	45.4	29.5	23.4	19.9
C1101	45.4	29.5	21.9	19.1
C1102	45.4	29.5	30.8	23.2
C1103	45.4	29.5	38.9	9.3
C1104	45.4	29.5	34.9	13.7
C1105	45.4	29.5	21.3	29.1
C1106	45.4	29.5	23.7	20.0

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
C1201	45.4	29.5	22.0	18.7
C1202	45.4	29.5	30.7	23.6
C1203	45.4	29.5	38.6	9.4
C1204	45.4	29.5	34.5	13.7
C1205	45.4	29.5	21.6	29.1
C1206	45.4	29.5	23.8	20.0
C1301	45.4	29.5	22.2	18.5
C1302	45.4	29.5	30.6	23.6
C1303	45.4	29.5	38.5	10.0
C1304	45.4	29.5	34.4	13.4
C1305	45.4	29.5	21.7	28.7
C1306	45.4	29.5	24.1	19.8
C1401	45.4	29.5	22.3	18.2
C1402	45.4	29.5	30.2	24.7
C1403	45.4	29.5	38.2	9.9
C1404	45.4	29.5	34.3	13.1
C1405	45.4	29.5	22.0	29.1
C1406	45.4	29.5	24.2	19.6
C1501	45.4	29.5	28.7	29.3
C1502	45.4	29.5	38.1	24.5
C1503	45.4	29.5	38.2	10.8
C1504	45.4	29.5	34.7	13.7
C1505	45.4	29.5	22.3	28.3
C1506	45.4	29.5	24.4	19.5
C1601	45.4	29.5	37.4	14.8
C1602	45.4	29.5	41.9	16.3
C1603	45.4	29.5	27.9	12.3
C1604	45.4	29.5	22.3	27.9
C1605	45.4	29.5	24.1	19.4
C1701	45.4	29.5	30.5	14.8
C1702	45.4	29.5	33.5	19.6
C1703	45.4	29.5	22.6	14.0
C1704	45.4	29.5	22.4	28.3

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
C1705	45.4	29.5	23.7	19.5
C1801	45.4	29.5	29.8	14.5
C1802	45.4	29.5	29.2	23.9
C1803	45.4	29.5	21.1	15.8
C1804	45.4	29.5	22.5	28.1
C1805	45.4	29.5	23.4	19.5
C1901	45.4	29.5	29.5	14.7
C1902	45.4	29.5	26.5	26.7
C1903	45.4	29.5	20.1	16.5
C1904	45.4	29.5	22.7	27.8
C1905	45.4	29.5	24.1	19.5
C2001	45.4	29.5	38.8	13.9
C2002	45.4	29.5	31.8	25.7
C2003	45.4	29.5	28.3	15.9
C2004	45.4	29.5	28.2	25.7
C2005	45.4	29.5	33.1	17.9

Table 3d BERS Thermal Performance Results – Building D

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
D0301	45.4	29.5	12.7	26.0
D0302	45.4	29.5	42.7	21.0
D0303	45.4	29.5	37.8	21.0
D0304	45.4	29.5	35.2	18.2
D0305	45.4	29.5	32.5	25.3
D0401	45.4	29.5	24.0	23.3
D0402	45.4	29.5	28.0	17.8
D0403	45.4	29.5	37.3	13.5
D0404	45.4	29.5	43.5	20.4
D0405	45.4	29.5	30.9	26.4
D0501	45.4	29.5	38.5	23.2
D0502	45.4	29.5	27.8	17.7
D0503	45.4	29.5	37.8	13.2
D0504	45.4	29.5	43.1	20.2
D0505	45.4	29.5	30.2	26.6
D0506	45.4	29.5	36.7	25.0
D0601	45.4	29.5	38.2	23.0
D0602	45.4	29.5	28.0	17.9
D0603	45.4	29.5	38.1	13.0
D0604	45.4	29.5	43.3	20.4
D0605	45.4	29.5	30.4	26.7
D0606	45.4	29.5	18.0	26.8
D0701	45.4	29.5	38.6	22.9
D0702	45.4	29.5	28.2	17.6
D0703	45.4	29.5	38.3	13.4
D0704	45.4	29.5	43.6	20.6
D0705	45.4	29.5	30.6	26.5
D0706	45.4	29.5	18.2	26.5
D0801	45.4	29.5	38.9	22.6
D0802	45.4	29.5	28.3	17.9
D0803	45.4	29.5	38.6	13.8
D0804	45.4	29.5	43.8	20.8

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
D0805	45.4	29.5	30.8	27.1
D0806	45.4	29.5	18.5	26.7
D0901	45.4	29.5	39.3	22.5
D0902	45.4	29.5	28.5	18.0
D0903	45.4	29.5	38.7	14.3
D0904	45.4	29.5	43.8	22.3
D0905	45.4	29.5	30.9	27.4
D0906	45.4	29.5	18.7	26.7
D1001	45.4	29.5	39.7	22.1
D1002	45.4	29.5	28.6	18.1
D1003	45.4	29.5	38.8	15.3
D1004	45.4	29.5	44.0	22.5
D1005	45.4	29.5	31.0	26.9
D1006	45.4	29.5	18.9	26.2
D1101	45.4	29.5	40.1	22.0
D1102	45.4	29.5	28.4	18.4
D1103	45.4	29.5	38.7	15.3
D1104	45.4	29.5	43.9	22.7
D1105	45.4	29.5	30.9	27.4
D1106	45.4	29.5	19.2	25.8
D1201	45.4	29.5	40.3	21.7
D1202	45.4	29.5	27.4	18.9
D1203	45.4	29.5	38.2	16.5
D1204	45.4	29.5	43.4	23.9
D1205	45.4	29.5	30.5	28.2
D1206	45.4	29.5	19.2	25.7
D1301	45.4	29.5	40.6	21.7
D1302	45.4	29.5	26.9	20.3
D1303	45.4	29.5	37.0	16.8
D1304	45.4	29.5	42.7	25.5
D1305	45.4	29.5	30.4	28.7
D1306	45.4	29.5	19.4	26.0
D1401	45.4	29.5	40.8	21.6

Unit Number	BASIX Requirements (MJ/m2/year)		Final Results (MJ/m2/year) (with treatments)	
	Heating	Cooling	Heating	Cooling
D1402	45.4	29.5	26.2	21.0
D1403	45.4	29.5	35.4	17.1
D1404	45.4	29.5	41.4	26.2
D1405	45.4	29.5	30.4	29.3
D1406	45.4	29.5	19.4	25.7
D1501	45.4	29.5	41.2	21.5
D1502	45.4	29.5	25.4	21.0
D1503	45.4	29.5	33.3	18.2
D1504	45.4	29.5	41.4	29.3
D1505	45.4	29.5	39.1	26.5
D1506	45.4	29.5	19.5	25.6
D1601	45.4	29.5	25.6	25.7
D1602	45.4	29.5	25.0	21.6
D1603	45.4	29.5	35.2	18.2
D1604	45.4	29.5	37.0	22.6
D1605	45.4	29.5	19.4	25.4
D1701	45.4	29.5	25.7	25.8
D1702	45.4	29.5	23.8	21.5
D1703	45.4	29.5	23.6	19.5
D1704	45.4	29.5	20.0	23.4
D1705	45.4	29.5	19.2	25.2
D1801	45.4	29.5	25.8	25.9
D1802	45.4	29.5	23.5	21.7
D1803	45.4	29.5	22.8	19.9
D1804	45.4	29.5	17.4	24.2
D1805	45.4	29.5	18.8	25.1
D1901	45.4	29.5	34.5	23.3
D1902	45.4	29.5	29.5	18.5
D1903	45.4	29.5	28.1	19.0
D1904	45.4	29.5	22.8	22.7
D1905	45.4	29.5	27.1	23.4

3.3 Energy

The minimum target score in BASIX to achieve energy usage compliance is 25%. The minimum score is achieved through the inclusion of the following;

3.3.1 Central Systems

- The central hot water system is to be a gas-fired boiler system. All piping (internal and external to ringmain and supply riser) for the hot water systems are to include R1.0 (~38mm) insulation.
- The lift system in the development is to be gearless traction with VVVF motor.
- A photovoltaic system with a peak kW rated electrical output of 180kW is to be installed.

3.3.2 Common Areas

The BASIX requirements for the ventilation and lighting systems within the various common areas are listed in Tables 4 and 5 below:

Table 4 Ventilation Systems

Common Area	Ventilation System Type	Efficiency Measure
Basement Carparks	Ventilation (supply + exhaust)	Carbon monoxide monitor + VSD fan
Loading Dock	Ventilation (supply + exhaust)	Carbon monoxide monitor + VSD fan
B2 Main Comms	Ventilation supply only	None i.e. continuous
B1 Switch Rooms	Ventilation supply only	None i.e. continuous
B1 Comms Room 2	Ventilation supply only	None i.e. continuous
B5 Garbage Rooms	Ventilation exhaust only	-
B4 Garbage Rooms	Ventilation exhaust only	-
L1 Bulky Goods	Ventilation exhaust only	-
L1 Residential Waste	Ventilation exhaust only	-
L2 Community Space	Air-conditioning system	Time Clocks or BMS controlled
L1 Community Space	Air-conditioning system	Time Clocks or BMS controlled
UL Master Gas Meter	No mechanical ventilation	-
UL Mech Supply Plant	Ventilation supply only	None i.e. continuous
UL Remote Water Master Meters	No mechanical ventilation	-
UL FCR	Ventilation supply only	None i.e. continuous
UL Master Gas Meter Room	No mechanical ventilation	-
L1 Substation	No mechanical ventilation	-
L1 SP Fan Room	Ventilation supply only	None i.e. continuous
L1 Hot Water Plant	Ventilation supply only	None i.e. continuous
L1 Cold Water	No mechanical ventilation	-

Common Area	Ventilation System Type	Efficiency Measure
GL Combined Fire Hyd & Sprinkler Pump	Ventilation supply only	None i.e. continuous
GL Mech Supply Plant	Ventilation supply only	None i.e. continuous
GL SP Plant	Ventilation supply only	None i.e. continuous
GL BOH	No mechanical ventilation	-
B3-B1 Grease Trap Rooms	Ventilation exhaust only	None i.e. continuous
B3 Art Work Plant Room	No mechanical ventilation	-
B6 to B1 Mech Intake Plant Rooms	Ventilation supply only	None i.e. continuous
B2 Art Work Tank Plantroom	No mechanical ventilation	-
B6 to B1 Mech Exhaust Plant Rooms	Ventilation exhaust only	None i.e. continuous
B1 SP Plant	Ventilation supply only	None i.e. continuous
L1 Deck Manager	Air-conditioning system	Time Clocks or BMS controlled
L2 Strata Manager Office	Air-conditioning system	Time Clocks or BMS controlled
L2 Community WC	Ventilation exhaust only	Time Clocks or BMS controlled
L1 Amenity Toilets	Ventilation exhaust only	Time Clocks or BMS controlled
B1 EOT Facilities inc. ACC	Ventilation exhaust only	Time Clocks or BMS controlled
B3 Storage Room	No mechanical ventilation	-
B3 Carwash Station Kiosk	Air-conditioning system	Time Clocks or BMS controlled
UL Residential Lobby A	No mechanical ventilation	-
GL Residential Lobby B	No mechanical ventilation	-
UL Residential Lobby C	No mechanical ventilation	-
GL Residential Lobby D	No mechanical ventilation	-
L2 - L19 Residential Lobby A	No mechanical ventilation	-
L2 - L18 Residential Lobby B	No mechanical ventilation	-
L2 - L20 Residential Lobby C	No mechanical ventilation	-
L2 - L19 Residential Lobby D	No mechanical ventilation	-

Table 5 Lighting Systems

Common Area	Ventilation System Type	Efficiency Measure
Lift Cars	L.E.D.	Connected to lift call button
Basement Carparks	L.E.D.	Time Clocks & Motion Sensors
Loading Dock	L.E.D.	Time Clocks & Motion Sensors
B2 Main Comms	L.E.D.	Manual switch on/off
B1 Switch Rooms	L.E.D.	Manual switch on/off
B1 Comms Room 2	L.E.D.	Manual switch on/off
B5 Garbage Rooms	L.E.D.	Manual switch on/off
B4 Garbage Rooms	L.E.D.	Manual switch on/off
L1 Bulky Goods	L.E.D.	Manual switch on/off
L1 Residential Waste	L.E.D.	Manual switch on/off
L2 Community Space	L.E.D.	Manual switch on/off
L1 Community Space	L.E.D.	Manual switch on/off
UL Master Gas Meter	L.E.D.	Manual switch on/off
UL Mech Supply Plant	L.E.D.	Manual switch on/off
UL Remote Water Master Meters	L.E.D.	Manual switch on/off
UL FCR	L.E.D.	Manual switch on/off
UL Master Gas Meter Room	L.E.D.	Manual switch on/off
L1 Substation	L.E.D.	Manual switch on/off
L1 SP Fan Room	L.E.D.	Manual switch on/off
L1 Hot Water Plant	L.E.D.	Manual switch on/off
L1 Cold Water	L.E.D.	Manual switch on/off
GL Combined Fire Hyd & Sprinkler Pump	L.E.D.	Manual switch on/off
GL Mech Supply Plant	L.E.D.	Manual switch on/off
GL SP Plant	L.E.D.	Manual switch on/off
GL BOH	L.E.D.	Manual switch on/off
B3-B1 Grease Trap Rooms	L.E.D.	Manual switch on/off
B3 Art Work Plant Room	L.E.D.	Manual switch on/off
B6 to B1 Mech Intake Plant Rooms	L.E.D.	Manual switch on/off
B2 Art Work Tank Plantroom	L.E.D.	Manual switch on/off
B6 to B1 Mech Exhaust Plant Rooms	L.E.D.	Manual switch on/off
B1 SP Plant	L.E.D.	Manual switch on/off
L1 Deck Manager	L.E.D.	Manual switch on/off
L2 Strata Manager Office	L.E.D.	Manual switch on/off

Common Area	Ventilation System Type	Efficiency Measure
L2 Community WC	L.E.D.	Manual switch on/off
L1 Amenity Toilets	L.E.D.	Manual switch on/off
B1 EOT Facilities inc. ACC	L.E.D.	Manual switch on/off
B3 Storage Room	L.E.D.	Manual switch on/off
B3 Carwash Station Kiosk	L.E.D.	Manual switch on/off
UL Residential Lobby A	L.E.D.	Time Clocks & Motion Sensors
GL Residential Lobby B	L.E.D.	Time Clocks & Motion Sensors
UL Residential Lobby C	L.E.D.	Time Clocks & Motion Sensors
GL Residential Lobby D	L.E.D.	Time Clocks & Motion Sensors
L2 - L19 Residential Lobby A	L.E.D.	Time Clocks & Motion Sensors
L2 - L18 Residential Lobby B	L.E.D.	Time Clocks & Motion Sensors
L2 - L20 Residential Lobby C	L.E.D.	Time Clocks & Motion Sensors
L2 - L19 Residential Lobby D	L.E.D.	Time Clocks & Motion Sensors

3.3.3 Dwellings

- The bathroom exhaust fans within each residential dwelling are individual fans, ducted to façade/roof and controlled by manual on/off switches.
- The kitchen exhaust fans within each residential dwelling are individual fans, ducted to façade/roof and controlled by manual on/off switches.
- The laundry exhaust fans within each residential dwelling are individual fans, ducted to façade/roof and controlled by manual on/off switches.
- Three-phase air conditioning systems are to be installed within each residential dwelling in the living and bedroom areas. The system is to have an EER rating of between 3.5 and 4.0 for cooling and heating.
- The bedrooms, living room, kitchen, bathroom, laundry and hallways within each residential dwelling of the proposed development will be primarily lit by fluorescent or LED lamps (i.e. at least 80% of the light fittings in the room). Dedicated fluorescent or LED fittings are to be installed.
- A gas cooktop and electric oven to be installed within each residential dwelling.
- Dishwasher units to be installed within each residential dwelling. The dishwasher units are to have an energy efficiency rating of at least 4.0 stars.
- Clothes washer units to be installed within each residential dwelling. The clothes dryer units are to have an energy efficiency rating of at least 4.0 stars.

Note that if any of the above systems are to be substituted by less efficient systems, an update to the BASIX certificate would also be required.

4 CONCLUSION

A BASIX assessment of the proposed development located at 2 Mandala Parade, Castle Hill has been carried out. The results of the assessment indicate that the development will satisfy the requirements of BASIX if all of the items outlined in this report are incorporated into the design of the development. If there are changes to the building design and construction a reassessment would be required.

The Multi-dwellings certificate is attached in the following appendix of this report. Due to BASIX security protocols, the BASIX certificate will be provided as a separate document.

APPENDIX A MULTI-DWELLINGS CERTIFICATE

Nationwide House Energy Rating Scheme — Class 2 summary
NatHERS Certificate No. 0006236190

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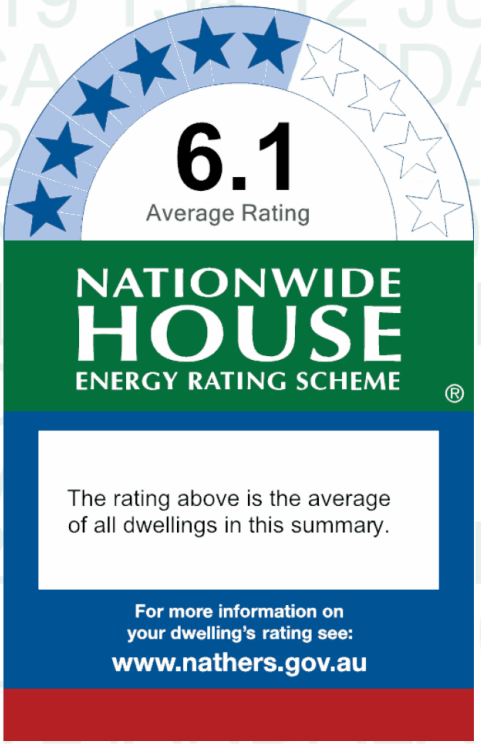

Property

Address 2 Mandala Parade , Castle Hill , NSW , 2154

Lot/DP 1253217

NatHERS climate zone 56

Accredited assessor

Trong Huynh

Windtech Consultants PTY LTD

Thien@windtechglobal.com

(02) 9503 0307

Accreditation No. 20887

Assessor Accrediting Organisation ABSA

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=ClkHpgdDr . When using either link, ensure you are visiting hstar.com.au

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m^2/p.a.)	Cooling load (MJ/m^2/p.a.)	Total load (MJ/m^2/p.a.)	Star rating
0006231864	A0201	35.6	22.9	58.5	5.4
0006231872	A0202	33.9	23.5	57.4	5.6
0006231880	A0203	29.6	23.1	52.6	5.9
0006231898	A0204	33.9	10.3	44.2	6.6
0006231906	A0205	29	10.3	39.2	6.9

Continued Over

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated buildings are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

Summary of all dwellings (continued)

Certificate number and link	Unit Number	Heating load (MJ/m^2/p.a.)	Cooling load (MJ/m^2/p.a.)	Total load (MJ/m^2/p.a.)	Star rating
0006231914	A0206	31.8	9.1	40.9	6.9
0006231922	A0207	42.7	13.2	55.9	5.7
0006231930	A0208	21.3	12.7	34	7.4
0006231948	A0209	36.3	23.5	59.8	5.4
0006231955	A0301	35.4	19.1	54.5	5.8
0006231963	A0302	13.1	16.5	29.6	7.7
0006231971	A0303	25.5	24.7	50.2	6.1
0006231989	A0304	25	11.3	36.3	7.2
0006231997	A0305	24.9	9.7	34.6	7.4
0006232003	A0306	32.7	9	41.7	6.8
0006232011	A0307	38.6	18.4	57	5.6
0006232029	A0308	44.8	10.3	55	5.8
0006232037	A0309	39.1	10.8	49.9	6.1
0006232045	A0310	30	25.4	55.4	5.7
0006232052	A0401	29.4	18.4	47.8	6.3
0006232060	A0402	16.3	27.9	44.2	6.6
0006232078	A0403	26	25.1	51.1	5.9
0006232086	A0404	25.4	11.2	36.7	7.2
0006232094	A0405	25.4	9.6	34.9	7.3
0006232102	A0406	24.4	10.3	34.7	7.4
0006232110	A0407	39.1	18.1	57.2	5.6
0006232128	A0408	37.6	10.5	48	6.3
0006232136	A0409	34.3	10.6	44.9	6.5
0006232144	A0410	30.5	24.8	55.3	5.7
0006232151	A0501	29.9	18.5	48.4	6.3
0006232169	A0502	16.7	27	43.7	6.7
0006232177	A0503	26.5	24.6	51.1	5.9
0006232185	A0504	26	11.5	37.5	7.2
0006232193	A0505	25.8	9.6	35.3	7.3
0006232201	A0506	45.3	14.6	59.9	5.4
0006232219	A0507	39.6	18.1	57.7	5.5
0006232227	A0508	38	10.3	48.3	6.3
0006232235	A0509	34.7	11	45.8	6.4
0006232243	A0510	31	24.3	55.4	5.7
0006232250	A0601	30.4	18.2	48.7	6.2
0006232268	A0602	17.2	26.8	43.9	6.6
0006232276	A0603	27	23.9	50.9	6
0006232284	A0604	26.4	11.3	37.7	7.1
0006232292	A0605	26.2	9.2	35.4	7.3
0006232300	A0606	38	16.6	54.6	5.8

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006232318	A0607	40.1	17.9	58	5.4
0006232326	A0608	38.6	10	48.5	6.3
0006232334	A0609	35.1	11.1	46.2	6.4
0006232342	A0610	31.5	23.6	55	5.8
0006232359	A0701	35.8	24.8	60.6	5.4
0006232367	A0702	19	27.3	46.3	6.4
0006232375	A0703	27.3	24.1	51.4	5.9
0006232383	A0704	26.8	10.8	37.6	7.1
0006232391	A0705	25.4	17.2	42.7	6.7
0006232409	A0706	43.6	16	59.7	5.4
0006232417	A0707	43.8	16.4	60.2	5.4
0006232425	A0708	37.3	11.2	48.5	6.3
0006232433	A0709	32.7	18.3	51	6
0006232441	A0710	37.2	22.7	59.9	5.4
0006232458	A0801	29.9	28.6	58.5	5.4
0006232466	A0802	39.1	23.8	62.9	5.2
0006232474	A0803	29.8	21.2	51	6
0006232482	A0804	27	11	38.1	7.1
0006232490	A0805	36.4	19.8	56.2	5.7
0006232508	A0806	42.3	8.4	50.7	6.1
0006232516	A0807	38.8	15.7	54.5	5.8
0006232524	A0901	35.3	29.2	64.5	5.1
0006232532	A0902	22.7	19.8	42.5	6.8
0006232540	A0903	39.1	13.9	53.1	5.9
0006232557	A0904	26.7	20.8	47.5	6.3
0006232565	A0905	36.4	8.4	44.8	6.5
0006232573	A0906	39.1	15.2	54.2	5.8
0006232581	A1001	41.6	25.2	66.8	4.9
0006232599	A1002	21.9	20.3	42.1	6.8
0006232607	A1003	33.9	14.2	48.1	6.3
0006232615	A1004	23.9	21.2	45.1	6.4
0006232623	A1005	36.6	8.4	45	6.4
0006232631	A1006	39.3	14.9	54.2	5.8
0006232649	A1101	26.2	28.9	55.1	5.8
0006232656	A1102	21.7	19.8	41.5	6.8
0006232664	A1103	33.7	14.1	47.8	6.3
0006232672	A1104	23.6	20.7	44.3	6.6
0006232680	A1105	36.8	8.6	45.3	6.4
0006232698	A1106	39.5	15.1	54.6	5.8
0006232706	A1201	26.3	29	55.3	5.7
0006232714	A1202	21.8	19.5	41.3	6.9
0006232722	A1203	33.8	14	47.9	6.3

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006232730	A1204	23.7	20.6	44.3	6.6
0006232748	A1205	36.8	8.7	45.4	6.4
0006232755	A1206	39.6	14.8	54.4	5.8
0006232763	A1301	41.6	24.1	65.8	5
0006232771	A1302	22	19.3	41.3	6.9
0006232789	A1303	34.1	14.2	48.3	6.3
0006232797	A1304	23.9	20.4	44.3	6.6
0006232805	A1305	35.6	8.5	44.1	6.6
0006232813	A1306	38.3	14.7	53	5.9
0006232821	A1401	26.7	27.3	54	5.8
0006232839	A1402	22.1	19.3	41.4	6.8
0006232847	A1403	34.3	14.3	48.6	6.3
0006232854	A1404	23.9	20.7	44.6	6.6
0006232862	A1405	36.7	9	45.7	6.4
0006232870	A1406	39.7	14.8	54.5	5.8
0006232888	A1501	43.3	24.1	67.4	4.9
0006232896	A1502	26.8	27.7	54.5	5.8
0006232904	A1503	35	14.7	49.7	6.2
0006232912	A1504	24.6	21.3	45.9	6.4
0006232920	A1505	36.4	9.7	46.1	6.4
0006232938	A1506	39.6	15	54.6	5.8
0006232946	A1601	35.4	25	60.4	5.4
0006232953	A1602	29.9	11.4	41.3	6.9
0006232961	A1603	32.3	19.1	51.5	5.9
0006232979	A1604	42.6	17.3	59.9	5.4
0006232987	A1605	41.4	12.1	53.5	5.9
0006232995	A1701	29.8	25.1	54.9	5.8
0006233001	A1702	27.7	11.3	39	7
0006233019	A1703	29	19.2	48.2	6.3
0006233027	A1704	41.8	19.7	61.5	5.3
0006233035	A1705	36.7	12	48.8	6.2
0006233043	A1801	30.3	24.8	55.1	5.8
0006233050	A1802	28.1	11.6	39.6	6.9
0006233068	A1803	29.4	20.3	49.7	6.2
0006233076	A1804	41.7	20.9	62.6	5.3
0006233084	A1805	36	12.3	48.3	6.3
0006233092	A1901	38.5	23.5	62	5.3
0006233100	A1902	31.8	11	42.8	6.7
0006233118	A1903	32.4	18.3	50.7	6.1
0006233126	A1904	38.9	19	57.9	5.5
0006233134	A1905	45	10.6	55.6	5.7
0006233142	B0201	25.2	21.6	46.9	6.4

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006233159	B0202	28	28.2	56.3	5.7
0006233167	B0203	41	16.3	57.3	5.6
0006233175	B0204	34.4	9.7	44.1	6.6
0006233183	B0205	42.6	23.1	65.7	5
0006233191	B0206	34.3	24.9	59.2	5.4
0006233209	B0301	24.5	21.4	45.8	6.4
0006233217	B0302	27.8	28.7	56.4	5.7
0006233225	B0303	39.8	17.6	57.4	5.6
0006233233	B0304	34.1	12.4	46.5	6.4
0006233241	B0305	31.4	11.5	42.9	6.7
0006233258	B0306	37.8	14.2	52	5.9
0006233266	B0307	26.6	24.8	51.4	5.9
0006233274	B0401	25	21	45.9	6.4
0006233282	B0402	28.2	28.3	56.5	5.7
0006233290	B0403	40.3	17.3	57.6	5.6
0006233308	B0404	34.6	12.3	46.9	6.4
0006233316	B0405	30.7	11.8	42.5	6.8
0006233324	B0406	36	14.4	50.4	6.1
0006233332	B0407	26.9	24.4	51.3	5.9
0006233340	B0501	25.4	20.2	45.6	6.4
0006233357	B0502	28.6	27.6	56.3	5.7
0006233365	B0503	40.7	17.7	58.4	5.4
0006233373	B0504	35	12.2	47.1	6.4
0006233381	B0505	31.1	11.5	42.6	6.7
0006233399	B0506	36.5	14.4	50.8	6
0006233407	B0507	27.3	23.5	50.8	6
0006233415	B0601	25.9	19.5	45.4	6.4
0006233423	B0602	29.1	27.4	56.5	5.7
0006233431	B0603	41.2	17.5	58.7	5.4
0006233449	B0604	35.4	12	47.3	6.4
0006233456	B0605	31.4	11.7	43.1	6.7
0006233464	B0606	36.9	14.3	51.2	5.9
0006233472	B0607	27.6	23.1	50.7	6
0006233480	B0701	27	19.5	46.5	6.4
0006233498	B0702	34.4	24.9	59.4	5.4
0006233506	B0703	43.4	20.1	63.5	5.2
0006233514	B0704	36.7	15	51.7	5.9
0006233522	B0705	32.3	12.2	44.5	6.6
0006233530	B0706	36.4	14.5	50.9	6
0006233548	B0707	28.4	22.5	50.8	6
0006233555	B0801	24.9	18.9	43.9	6.6
0006233563	B0802	42.1	17.8	60	5.4

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006233571	B0803	44.9	11.4	56.3	5.7
0006233589	B0804	32.4	12.6	45	6.5
0006233597	B0805	36.6	14.5	51.1	5.9
0006233605	B0806	28.7	23.3	52	5.9
0006233613	B0901	24.3	19.5	43.8	6.6
0006233621	B0902	22.9	18.6	41.4	6.8
0006233639	B0903	37.3	11.8	49.1	6.2
0006233647	B0904	31.7	13	44.8	6.5
0006233654	B0905	37.3	14.7	52.1	5.9
0006233662	B0906	28.4	22.2	50.6	6.1
0006233670	B1001	25.9	24.9	50.8	6
0006233688	B1002	27.8	23.1	50.9	6
0006233696	B1003	41.2	15.6	56.8	5.6
0006233704	B1004	32.3	13.6	45.9	6.4
0006233712	B1005	36.7	15.1	51.9	5.9
0006233720	B1006	29.1	22	51.1	5.9
0006233738	B1101	28.9	25.6	54.4	5.8
0006233746	B1102	35.3	25.8	61.1	5.4
0006233753	B1103	29.8	13.2	43	6.7
0006233761	B1104	37.3	15.3	52.6	5.9
0006233779	B1105	28.9	22.2	51.1	5.9
0006233787	B1201	26.1	25.4	51.5	5.9
0006233795	B1202	30.4	26	56.4	5.7
0006233803	B1203	28.7	13.3	42	6.8
0006233811	B1204	36.6	15.6	52.2	5.9
0006233829	B1205	29	21	50	6.1
0006233837	B1301	26.4	24.8	51.2	5.9
0006233845	B1302	29.9	26.4	56.3	5.7
0006233852	B1303	26.7	13.5	40.2	6.9
0006233860	B1304	35.6	16.1	51.7	5.9
0006233878	B1305	29.2	21.3	50.5	6.1
0006233886	B1401	26.5	24.9	51.4	5.9
0006233894	B1402	29.2	26.5	55.7	5.7
0006233902	B1403	25.1	14.7	39.8	6.9
0006233910	B1404	35.3	17.3	52.6	5.9
0006233928	B1405	29.3	21.4	50.6	6.1
0006233936	B1501	26.7	24.3	51.1	5.9
0006233944	B1502	28	26.4	54.4	5.8
0006233951	B1503	24.5	16.1	40.5	6.9
0006233969	B1504	34.9	17.7	52.6	5.9
0006233977	B1505	29.4	20.7	50.2	6.1
0006233985	B1601	26.7	24.5	51.2	5.9

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006233993	B1602	26.4	26.3	52.6	5.9
0006234009	B1603	22.5	17.7	40.2	6.9
0006234017	B1604	32.7	19.2	51.9	5.9
0006234025	B1605	29.5	21.5	51	5.9
0006234033	B1701	26.7	24.4	51.2	5.9
0006234041	B1702	24.7	26.3	51	5.9
0006234058	B1703	19.7	18.9	38.6	7.1
0006234066	B1704	31.1	19.3	50.3	6.1
0006234074	B1705	29.5	21.3	50.8	6
0006234082	B1801	35.7	22.5	58.1	5.4
0006234090	B1802	29.7	24.5	54.2	5.8
0006234108	B1803	27.3	18.1	45.4	6.4
0006234116	B1804	38.8	18.6	57.4	5.6
0006234124	B1805	37.1	19.4	56.5	5.7
0006234132	C0301	34.1	20.9	55	5.8
0006234140	C0302	38.8	9.1	47.9	6.3
0006234157	C0303	45.3	15.3	60.6	5.3
0006234165	C0304	27	21.8	48.8	6.2
0006234173	C0305	19.7	26	45.7	6.4
0006234181	C0306	37.3	12.8	50.1	6.1
0006234199	C0307	43.7	23.9	67.5	4.9
0006234207	C0308	43.4	18.2	61.6	5.3
0006234215	C0309	45	18.4	63.4	5.2
0006234223	C0310	45.1	18.3	63.3	5.2
0006234231	C0311	43.1	16.8	59.9	5.4
0006234249	C0401	30	22.7	52.7	5.9
0006234256	C0402	38.1	9.1	47.2	6.3
0006234264	C0403	37	19.9	56.9	5.6
0006234272	C0404	15.5	21.3	36.8	7.2
0006234280	C0405	4.3	29.5	33.8	7.4
0006234298	C0406	21.3	19.3	40.6	6.9
0006234306	C0501	30.7	19	49.7	6.1
0006234314	C0502	30.1	22.8	52.9	5.9
0006234322	C0503	41.8	8.8	50.6	6.1
0006234330	C0504	33.5	13.9	47.4	6.3
0006234348	C0505	31.1	27.7	58.9	5.4
0006234355	C0506	22.6	20.7	43.3	6.6
0006234363	C0601	20.8	19.5	40.3	6.9
0006234371	C0602	30.3	22.6	52.9	5.9
0006234389	C0603	38.3	8.6	47	6.4
0006234397	C0604	33.8	13.7	47.5	6.3
0006234405	C0605	21.9	27.7	49.7	6.2

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006234413	C0606	22	20.6	42.6	6.7
0006234421	C0701	21	19.3	40.3	6.9
0006234439	C0702	30.5	22.4	53	5.9
0006234447	C0703	38.5	8.6	47.1	6.4
0006234454	C0704	34	13.6	47.6	6.3
0006234462	C0705	20.3	29.5	49.8	6.2
0006234470	C0706	22.4	20.6	42.9	6.7
0006234488	C0801	21.3	19.1	40.4	6.9
0006234496	C0802	30.7	22.7	53.4	5.8
0006234504	C0803	38.6	8.7	47.3	6.4
0006234512	C0804	34.3	13.7	48	6.3
0006234520	C0805	20.6	29.3	49.9	6.1
0006234538	C0806	22.7	20.4	43.1	6.7
0006234546	C0901	21.5	19	40.5	6.9
0006234553	C0902	30.8	22.6	53.4	5.8
0006234561	C0903	38.8	8.9	47.7	6.3
0006234579	C0904	34.5	13.8	48.4	6.3
0006234587	C0905	20.9	29.3	50.3	6.1
0006234595	C0906	23	20.2	43.2	6.7
0006234603	C1001	21.7	18.9	40.6	6.9
0006234611	C1002	30.9	22.8	53.7	5.8
0006234629	C1003	38.9	9.3	48.2	6.3
0006234637	C1004	34.8	13.8	48.6	6.3
0006234645	C1005	21.2	29	50.2	6.1
0006234652	C1006	23.4	19.9	43.3	6.6
0006234660	C1101	21.9	19.1	41.1	6.8
0006234678	C1102	30.8	23.2	54	5.8
0006234686	C1103	38.9	9.3	48.2	6.3
0006234694	C1104	34.9	13.7	48.6	6.2
0006234702	C1105	21.3	29.1	50.4	6.1
0006234710	C1106	23.7	20	43.7	6.6
0006234728	C1201	22	18.7	40.8	6.9
0006234736	C1202	30.7	23.6	54.2	5.8
0006234744	C1203	38.6	9.4	48.1	6.3
0006234751	C1204	34.5	13.7	48.2	6.3
0006234769	C1205	21.6	29.1	50.7	6
0006234777	C1206	23.8	20	43.8	6.6
0006234785	C1301	22.2	18.5	40.7	6.9
0006234793	C1302	30.6	23.6	54.2	5.8
0006234801	C1303	38.5	10	48.5	6.3
0006234819	C1304	34.4	13.4	47.8	6.3
0006234827	C1305	21.7	28.7	50.5	6.1

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006234835	C1306	24.1	19.8	43.8	6.6
0006234843	C1401	22.3	18.2	40.5	6.9
0006234850	C1402	30.2	24.7	54.9	5.7
0006234868	C1403	38.2	9.9	48.1	6.3
0006234876	C1404	34.3	13.1	47.4	6.4
0006234884	C1405	22	29.1	51	5.9
0006234892	C1406	24.2	19.6	43.8	6.6
0006234900	C1501	28.7	29.3	58.1	5.4
0006234918	C1502	38.1	24.5	62.6	5.3
0006234926	C1503	38.2	10.8	49	6.2
0006234934	C1504	34.7	13.7	48.4	6.3
0006234942	C1505	22.3	28.3	50.5	6.1
0006234959	C1506	24.4	19.5	43.9	6.6
0006234967	C1601	37.4	14.8	52.3	5.9
0006234975	C1602	41.9	16.3	58.1	5.4
0006234983	C1603	27.9	12.3	40.2	6.9
0006234991	C1604	22.3	27.9	50.3	6.1
0006235006	C1605	24.1	19.4	43.5	6.6
0006235014	C1701	30.5	14.8	45.4	6.4
0006235022	C1702	33.5	19.6	53.2	5.9
0006235030	C1703	22.6	14	36.6	7.2
0006235048	C1704	22.4	28.3	50.7	6.1
0006235055	C1705	23.7	19.5	43.3	6.6
0006235063	C1801	29.8	14.5	44.2	6.6
0006235071	C1802	29.2	23.9	53.1	5.9
0006235089	C1803	21.1	15.8	36.9	7.2
0006235097	C1804	22.5	28.1	50.5	6.1
0006235105	C1805	23.4	19.5	42.9	6.7
0006235113	C1901	29.5	14.7	44.3	6.6
0006235121	C1902	26.5	26.7	53.2	5.9
0006235139	C1903	20.1	16.5	36.6	7.2
0006235147	C1904	22.7	27.8	50.5	6.1
0006235154	C1905	24.1	19.5	43.5	6.6
0006235162	C2001	38.8	13.9	52.7	5.9
0006235170	C2002	31.8	25.7	57.5	5.6
0006235188	C2003	28.3	15.9	44.2	6.6
0006235196	C2004	28.2	25.7	53.9	5.8
0006235204	C2005	33.1	17.9	51	6
0006235212	D0301	12.7	26	38.7	7
0006235220	D0302	42.7	21	63.7	5.1
0006235238	D0303	37.8	21	58.8	5.4
0006235246	D0304	35.2	18.2	53.5	5.9

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006235253	D0305	32.5	25.3	57.8	5.5
0006235261	D0401	24	23.3	47.3	6.3
0006235279	D0402	28	17.8	45.8	6.4
0006235287	D0403	37.3	13.5	50.9	6
0006235295	D0404	43.5	20.4	63.9	5.1
0006235303	D0405	30.9	26.4	57.3	5.6
0006235311	D0501	38.5	23.2	61.7	5.3
0006235329	D0502	27.8	17.7	45.5	6.4
0006235337	D0503	37.8	13.2	51	6
0006235345	D0504	43.1	20.2	63.3	5.2
0006235352	D0505	30.2	26.6	56.8	5.6
0006235360	D0506	36.7	25	61.7	5.3
0006235378	D0601	38.2	23	61.2	5.3
0006235386	D0602	28	17.9	46	6.4
0006235394	D0603	38.1	13	51.1	5.9
0006235402	D0604	43.3	20.4	63.8	5.1
0006235410	D0605	30.4	26.7	57.2	5.6
0006235428	D0606	18	26.8	44.7	6.5
0006235436	D0701	38.6	22.9	61.5	5.3
0006235444	D0702	28.2	17.6	45.8	6.4
0006235451	D0703	38.3	13.4	51.7	5.9
0006235469	D0704	43.6	20.6	64.2	5.1
0006235477	D0705	30.6	26.5	57.1	5.6
0006235485	D0706	18.2	26.5	44.7	6.5
0006235493	D0801	38.9	22.6	61.5	5.3
0006235501	D0802	28.3	17.9	46.2	6.4
0006235519	D0803	38.6	13.8	52.4	5.9
0006235527	D0804	43.8	20.8	64.6	5.1
0006235535	D0805	30.8	27.1	57.9	5.5
0006235543	D0806	18.5	26.7	45.1	6.4
0006235550	D0901	39.3	22.5	61.9	5.3
0006235568	D0902	28.5	18	46.4	6.4
0006235576	D0903	38.7	14.3	53.1	5.9
0006235584	D0904	43.8	22.3	66.2	4.9
0006235592	D0905	30.9	27.4	58.3	5.4
0006235600	D0906	18.7	26.7	45.4	6.4
0006235618	D1001	39.7	22.1	61.8	5.3
0006235626	D1002	28.6	18.1	46.7	6.4
0006235634	D1003	38.8	15.3	54.1	5.8
0006235642	D1004	44	22.5	66.4	4.9
0006235659	D1005	31	26.9	57.9	5.5
0006235667	D1006	18.9	26.2	45.1	6.4

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006235675	D1101	40.1	22	62.1	5.2
0006235683	D1102	28.4	18.4	46.8	6.4
0006235691	D1103	38.7	15.3	54.1	5.8
0006235709	D1104	43.9	22.7	66.6	4.9
0006235717	D1105	30.9	27.4	58.3	5.4
0006235725	D1106	19.2	25.8	44.9	6.5
0006235733	D1201	40.3	21.7	62	5.3
0006235741	D1202	27.4	18.9	46.3	6.4
0006235758	D1203	38.2	16.5	54.7	5.7
0006235766	D1204	43.4	23.9	67.3	4.9
0006235774	D1205	30.5	28.2	58.7	5.4
0006235782	D1206	19.2	25.7	44.9	6.5
0006235790	D1301	40.6	21.7	62.3	5.2
0006235808	D1302	26.9	20.3	47.1	6.3
0006235816	D1303	37	16.8	53.8	5.8
0006235824	D1304	42.7	25.5	68.2	4.9
0006235832	D1305	30.4	28.7	59	5.4
0006235840	D1306	19.4	26	45.4	6.4
0006235857	D1401	40.8	21.6	62.4	5.2
0006235865	D1402	26.2	21	47.2	6.3
0006235873	D1403	35.4	17.1	52.6	5.9
0006235881	D1404	41.4	26.2	67.6	4.9
0006235899	D1405	30.4	29.3	59.7	5.4
0006235907	D1406	19.4	25.7	45.1	6.4
0006235915	D1501	41.2	21.5	62.6	5.2
0006235923	D1502	25.4	21	46.4	6.4
0006235931	D1503	33.3	18.2	51.5	5.9
0006235949	D1504	41.4	29.3	70.7	4.8
0006235956	D1505	39.1	26.5	65.6	5.1
0006235964	D1506	19.5	25.6	45.1	6.4
0006235972	D1601	25.6	25.7	51.3	5.9
0006235980	D1602	25	21.6	46.5	6.4
0006235998	D1603	35.2	18.2	53.4	5.8
0006236004	D1604	37	22.6	59.6	5.4
0006236012	D1605	19.4	25.4	44.8	6.5
0006236020	D1701	25.7	25.8	51.5	5.9
0006236038	D1702	23.8	21.5	45.3	6.4
0006236046	D1703	23.6	19.5	43.1	6.7
0006236053	D1704	20	23.4	43.4	6.6
0006236061	D1705	19.2	25.2	44.4	6.6
0006236079	D1801	25.8	25.9	51.7	5.9
0006236087	D1802	23.5	21.7	45.1	6.4

Certificate number and link	Unit Number	Heating load (MJ/m /p.a.)	Cooling load (MJ/m /p.a.)	Total load (MJ/m /p.a.)	Star rating
0006236095	D1803	22.8	19.9	42.7	6.7
0006236103	D1804	17.4	24.2	41.6	6.8
0006236111	D1805	18.8	25.1	43.9	6.6
0006236129	D1901	34.5	23.3	57.9	5.5
0006236137	D1902	29.5	18.5	48	6.3
0006236145	D1903	28.1	19	47.1	6.3
0006236152	D1904	22.8	22.7	45.5	6.4
0006236160	D1905	27.1	23.4	50.5	6
Average		31.18	19.35	50.52	6.09

Explanatory Notes

About this report

This summary rating is the average rating of all NCC Class 2 dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances, or energy production of solar panels. For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO). AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content, input and creation of the NatHERS Certificate is by the assessor. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.